



ALUFIX

THE ORIGINAL - SINCE 1987

ALUFIX
CLASSIC

ALUFIX
ECO

FixBase®

**Modular
Flxturing Systems**

Main catalogue 2015/16

Issue E07



Hightech in Aluminium

Witte was founded in 1969 and initially manufactured complex, high-precision parts for the aerospace industry. Today Witte has developed into a leading manufacturer of fixturing systems and gauges for all kinds of applications. Almost all leading companies from automotive and aircraft industries now rely on Witte technology in order to maintain high quality in their production process.





Certification

Witte Gerätebau KG is certified according to

- DIN EN ISO 9001 • DIN EN ISO 9100
- QSF-A (Aerospace suppliers)



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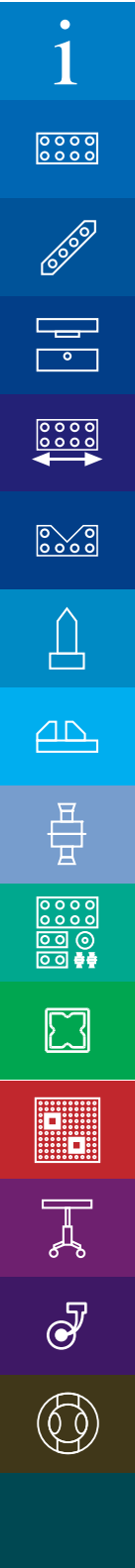
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Performance portfolio and set up

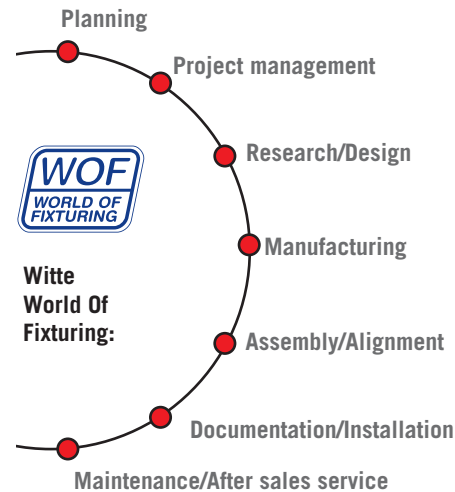
Why should you choose Witte ?

To decide on Witte system solutions and products is a decision for the future and reduces investment for measuring equipment and fixture cost for every following project.

The system components from product lines ALUFIX Classic and ALUFIX ECO can be 100% reused for new tasks, multiple retooling for a lifetime. Reusability presupposes durability!

Witte uses high-grade material quality without compromise. High manufacturing accuracy of the components themselves and in assembly with each other as well as hard-wearing surface protection guarantee "Systematic Quality".

All Witte system elements follow a consistent idea, are downwards compatible and at the same time build a basis for future additional items. Witte modular systems are an optimal match to today's requirements as well as being wisely combinable with each other. No matter what demand and individual application you have, Witte offers you the correct technical and cost-effective solution.



- As everything is done under one roof, time consuming interfaces and inevitable cost arising from overlapping are dispensed with.
- International sales and service network through own subsidiaries and regional solution partners.
- Experienced project teams with sound knowledge in almost all standards of the automotive industry and their related partners.

www - Witte worldwide

We meet the challenges of our customers wherever they occur.

Our sales and service network guarantees support worldwide. Witte companies and subsidiaries in Singapore, Mexico and USA as well as long term partners in all major industrial nations ensure the same high service level all over the World.



www - Witte worldwide:

www.horst-witte.de
www.alufix.de
www.witteasia.com
www.witteamerica.com

Product spectrum Modular Fixturing Systems

Alufix Classic is the worldwide renowned and proven modular clamping and fixturing system for almost all applications in dimensional measuring technology.

Due to the high accuracy and quantity of intelligent elements Alufix sets are also in use as assembly and positioning systems. Right across all business areas ranging from automotive industry through aerospace to biomedical sciences people trust and use Witte Alufix Classic. If you have different materials, your parts vary in size, mass or stability, or you are measuring with tactile or optical equipment, Alufix Classic is the answer!

Due to the variety of components and of course the long experience of Witte Alufix Classic offers a solution for almost every task. Alufix Classic is not only an investment for current requirements but especially for the future, as all elements, according to the real idea of a modular system, are reusable and compatible with other Witte systems and elements.

Different demands call for diverse solutions!

All Witte - profiles are unique in their design but nevertheless universal. Depending on requirements with regard to targeted application and duration, material or product specification of a part to be fixed, Witte offers purposeful, economical solutions.

Independent of general specifications of individual parts or groups, holding or measuring fixtures, a crucial point is the degree of desired flexibility during use.

ALUFIX CLASSIC offers the highest flexibility.

Fixtures are assembled with standard, catalogue components without any additional complex machining. At any time additions and/or modifications are just as easily possible as complete disassembly of the individual parts in order to build a new fixture for your next part. Witte profiles ALUFIX CLASSIC or ALUFIX ECO due to their system integration possibilities have extensive patented rights. This ensures that all profiles, connecting and positioning elements are compatible and complementary.



ALUFIX - Systematic flexibility...

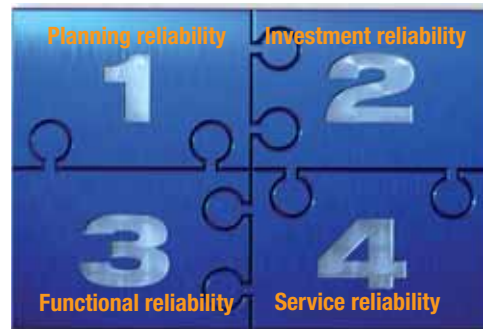
Reliability from market leader in fixture building
with 30 years of experience and more than 10.000 systems sold worldwide

Why and when do you need this system?

- You want a fast solution with short reaction times and high flexibility?
- Immediate availability is a must for you because planning time is getting shorter and shorter ?
- You want to remain independent and prefer “do it yourself”?

ALUFIX supports you fourfold to master these demands successfully

What does
this mean?



Planning reliability

ALUFIX shortens your planning time and gives you
a high degree of freedom with

100% compatibility

- ▶ Complete system is upwards or downwards compatible
- ▶ All system sizes can be combined
- ▶ No weight or size limits

100% continuity

- ▶ Can be used with other systems and clamps
- ▶ ALUFIX has been on the market for 25 years
- ▶ Basic design has always remained the same
- ▶ Original components still valid today

100% Verfügbarkeit

- ▶ Majority of components on stock
- ▶ Own manufacturing facilities with modern workshop



Investment reliability

ALUFIX offers you 4 tangible commercial advantages

100% quality

ALUFIX quality standard

- ▶ High quality aluminium raw material
- ▶ Comprehensive machining for highest precision
- ▶ Patented wear-resistant connection technology

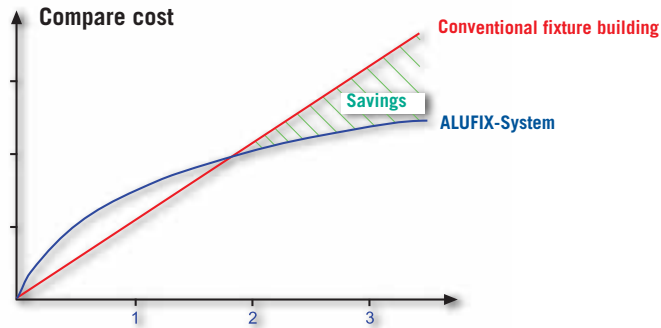
100% cost effective

- ▶ Fast return on investment
- ▶ Productivity advantage by minimizing your standing times
- ▶ Multiple application possibilities with few components

100% cost effective


Compared to dedicated fixtures Alufix gives you a financial advantage already from second application onwards.

- ▶ Fast return on investment
- ▶ Productivity advantage by minimizing your standing times
- ▶ Multiple application possibilities with few components
- ▶ Multiple retooling concept enables multiple use of most of the standard components built in to fixtures


Functional reliability

ALUFIX saves you time and money, because all tasks are solved quickly and accurately:

100% intelligence
High versatility due to patented system
100% easy handling

- ▶ The Alufix principle: Outer dimensions are always a multiple of the grid, grids are maintained even over several joined elements, through bores in three directions
- ▶ Low weight and high dimensional accuracy
- ▶ No large storage space required when fixtures are disassembled
- ▶ Few special assembly tools necessary
- ▶ ALUFIX-EXPERT software for short term feasibility studies, for planning or simple partlists and pre design drawings
- ▶ Parts library ALUFIX FIXMES for common CAD applications

100% speed

100% Service
Service reliability

Services around ALUFIX leave nothing to be desired:

- ▶ Service stations worldwide
- ▶ Advice, Demos, training and support directly on customer's site or at Witte
- ▶ Worldwide network
- ▶ Teams of assembly engineers for installation and startup on site

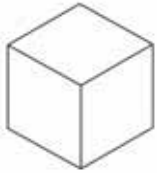
... a pleasure to work with!



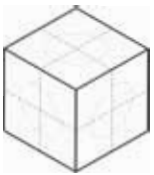
The ALUFIX-

Basic design

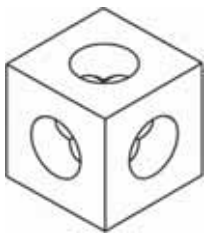
Origin of element geometry



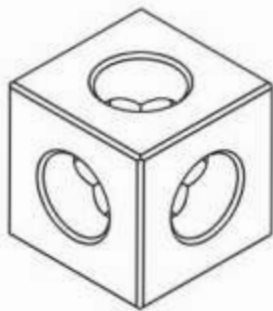
Initial shape: Cube



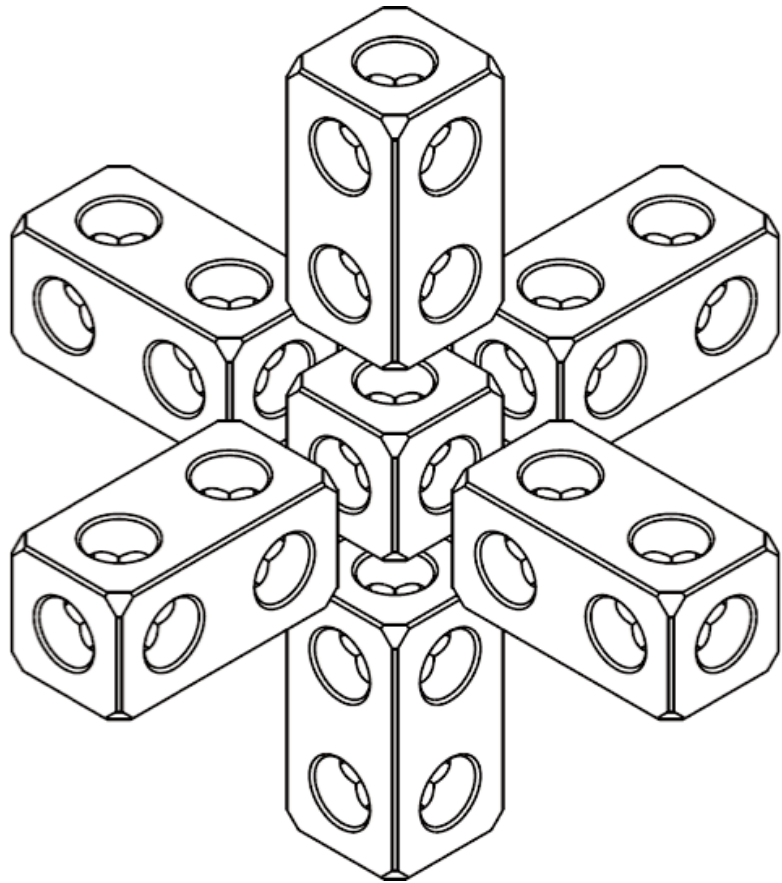
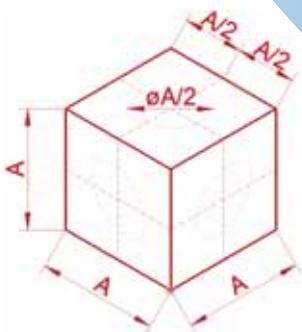
Marking for holes on all surfaces



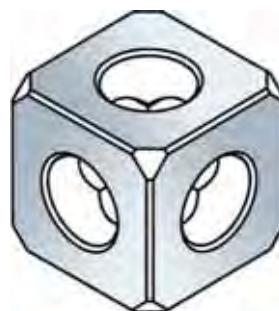
Through holes on all surfaces



Chamfers on all edges



All further dimensions arise by multiplying the initial cube. Through holes on all surfaces, thereby connecting possibilities on all six sides.

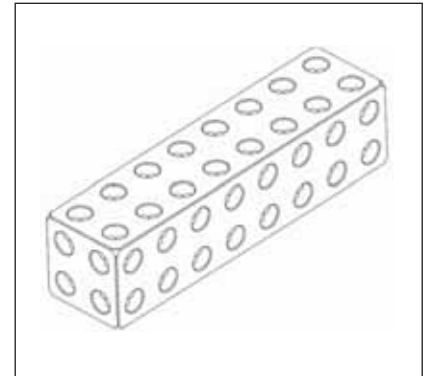
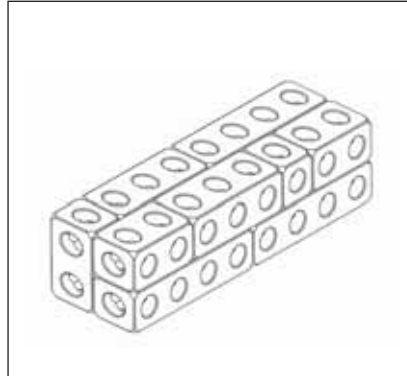
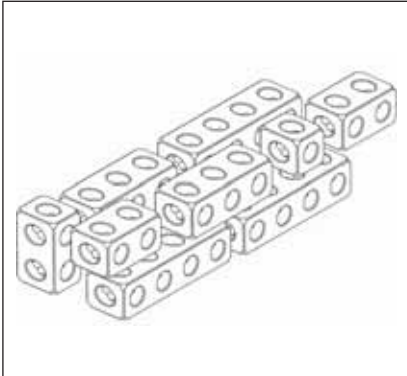


Angles on corners



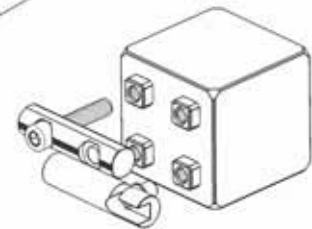
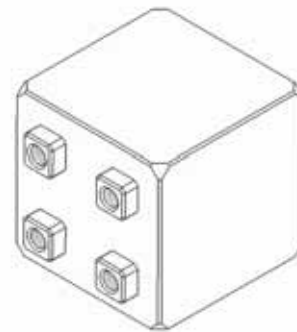
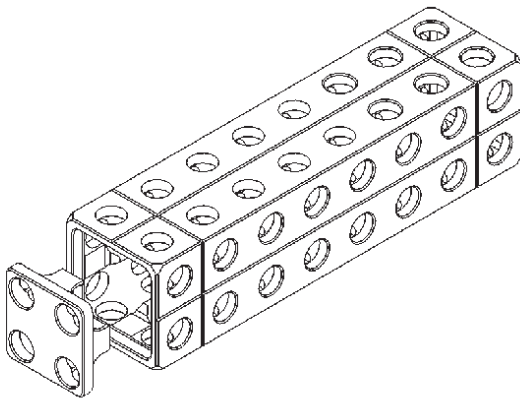
Sectional view

principle



Alufix element geometry guarantees that the grid in all directions across any number of joins will remain unchanged.

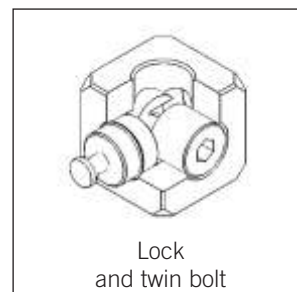
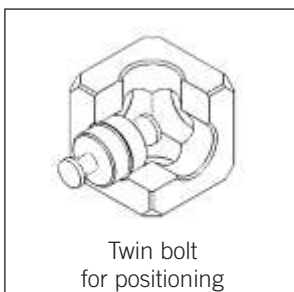
Hollow profiles (Light bars) are a logical extension for larger cross sections and lengths. Couplings mounted at both ends create 6 sided connection option.



Nubs are space saving connection solution for slides, quick couplings and contour blocks.

Connection technology

Each hole is not only for positioning but also for fixation



1 System for multiple applications

Simple part supports

- simple, direct and without design, built according to the Alufix principle.

Here a modular fixturing system with a large range of components comes into its own.



Fixtures

- According to design and requirements of workpiece data, concept for repeatable use
- From checking of purchase parts to series measuring



Sophisticated part supports

- With measuring, checking and adjusting elements, i.e. dial gauges, retractable plug gauges, moving slides



Gap and flush gauges

- with folding/removable contour stripe models and or measuring equipment





Meisterbocks

- Outer and inner for front, decklid, floor or complete body-in-white



Fuegemeisterbocks (Match metal fixtures)

- For front, rear, floor, sidepanels and a complete chassis



Cubings

- For supporting reference models and single parts in changeover



Frames for design models

- For supporting Uriol and clay models

Alufix fixtures can also be used for

assembly and alignment, glueing and welding, milling and laser machining

2 Versions

ALUFIX CLASSIC

High tensile aluminium for highest demands on load, stability, long lasting, accuracy



ALUFIX ECO

Medium tensile aluminium as economical alternative for normal applications and moderate building intervals



3 Basic Components

Base plates/grid base plates
(small to medium size fixtures)

Bars full/light

Sandwich plates and grid plates
(large fixtures, mobile)



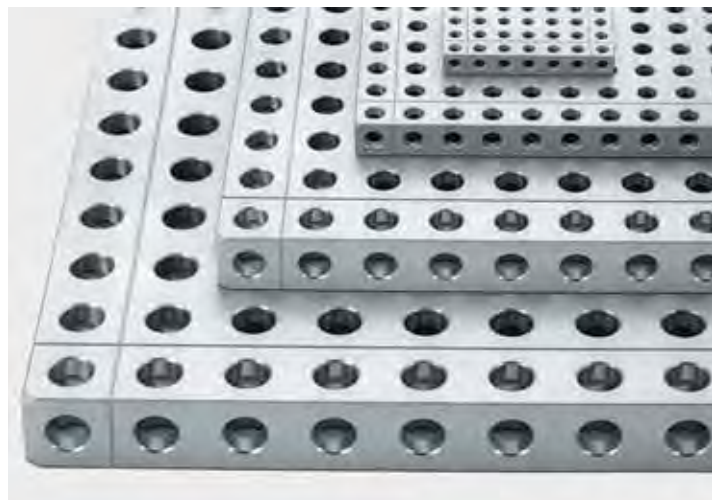
4 System sizes

Alufix 16
for optical measuring,
Mounting small parts

Alufix 25
for small to medium single part fixtures

Alufix 40
for medium to large assembly part
fixtures, meisterbocks etc.

Alufix 50
for mounting large, heavy parts



5 Element groups



Basic elements

Plates, bars, struts, angle brackets



Adjustable elements

Slides, rockers, jacks, rotary plates etc.



Contact elements

Centers, ball points, v-pieces, contour blocks etc.



Clamping elements

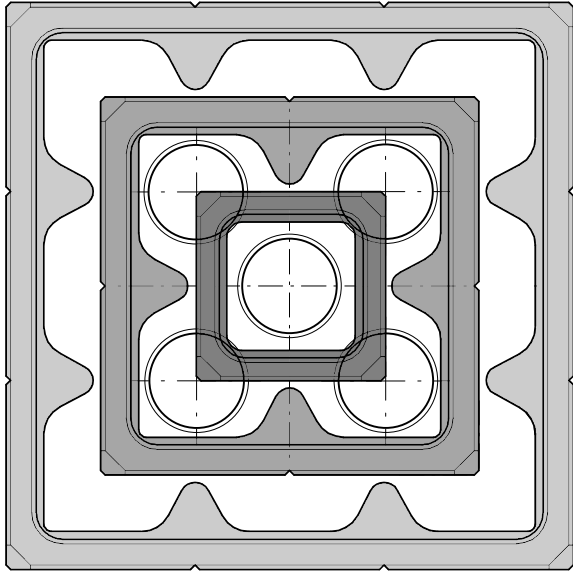
Hold-down springs, toggle clamps, clamps, jaw chucks, vises, magnets, vacuum suckers etc.



Connection elements

Couplings, quick and screw connectors

AF 25 Light, 25x25, 50x50, 75x75, grid hole \varnothing 12,5

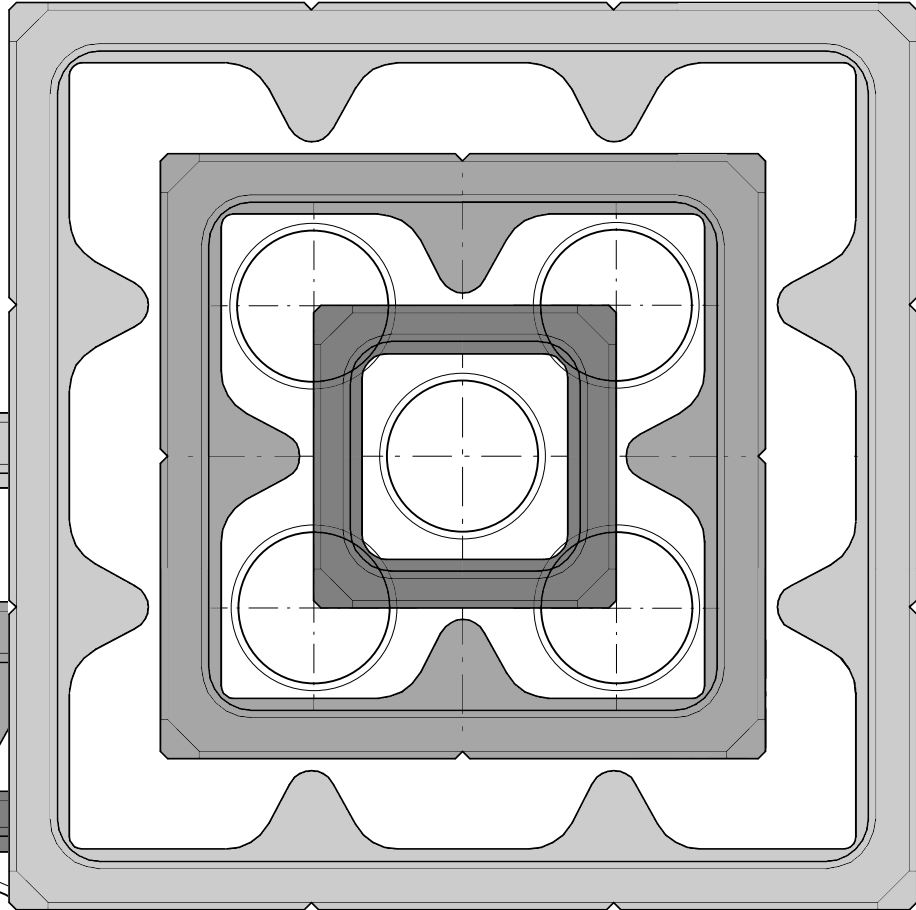


Profiles in original size

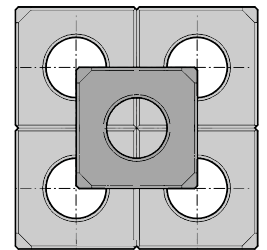
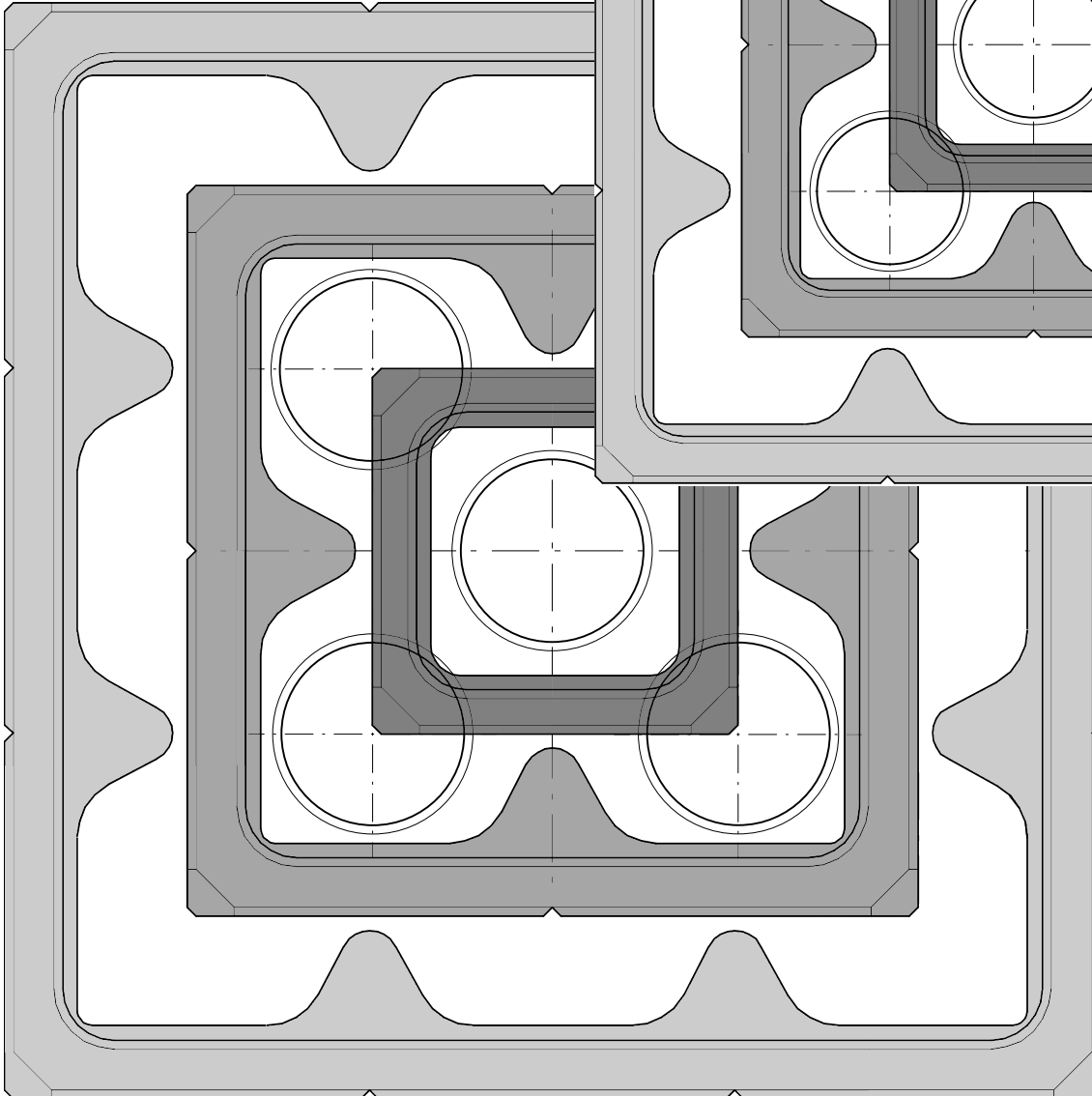
ALUFIX

Material: EN AW 7075 (high tensile aluminium)
 Tensile strength: Min. 480 N/mm²
 Hardness: Min. 130 HB
 Yield strength: Min. 390 N/mm²
 E Module: 72.000 N/m²

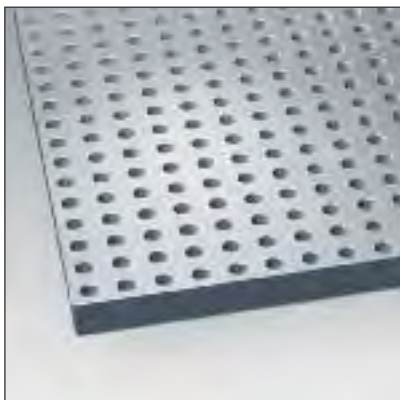
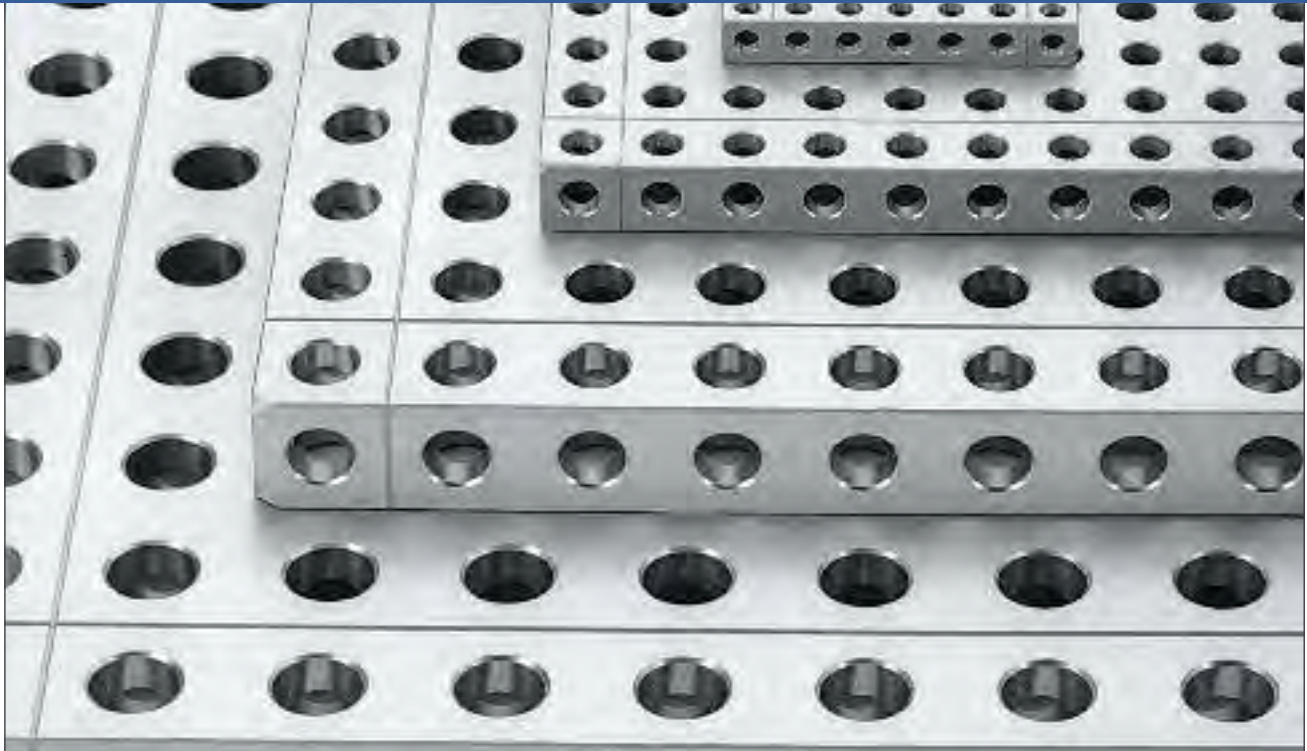
AF 40 Light, 40x40, 80x80, 120x120, grid hole \varnothing 20



AF 50 Light, 50x50, 100x100, 150x150, grid hole \varnothing 25



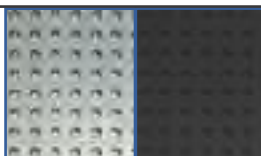
**AF 16 full,
 16x16,
 32x32,
 grid hole \varnothing 8**



ALUFIX CLASSIC Base Plates



Witte FixBase – Base plates, sandwich plates and cubes are shown on pages 242-268




i **ALUFIX CLASSIC** base plates can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request



ALUFIX Base Plates

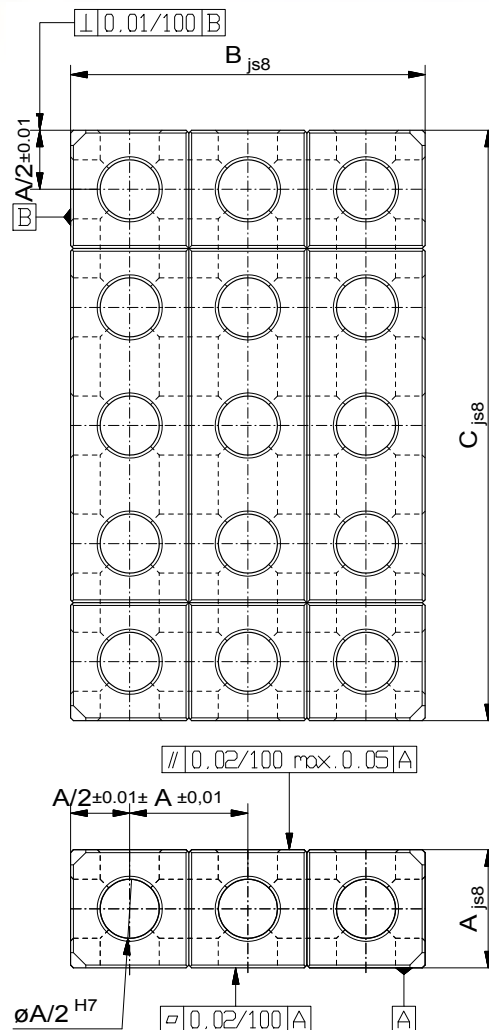
AF16 CLASSIC,
Grid (A) 16, hole diameter 8mm

Nr.	A	B	C	
22093	16	32	32	27
22094	16	32	48	40
22095	16	32	64	53
22096	16	32	80	100
22932	16	32	96	80
22931	16	32	112	93
20652	16	32	160	131
20653	16	32	320	300

22930	16	64	96	160
21566	16	64	112	187
22929	16	64	128	214
21567	16	80	112	234
22928	16	80	128	267
21568	16	80	144	305
22926	16	80	160	335
21569	16	96	96	242
21570	16	96	112	282
21571	16	96	128	325
21572	16	96	144	375
21573	16	96	160	240
22924	16	96	176	447
22907	16	96	192	482

21574	16	112	240	703
21575	16	128	128	431
21576	16	128	144	475
21577	16	128	256	862
21579	16	160	192	804
21578	16	160	320	1.400
21580	16	192	256	1.298
21581	16	192	320	1.611
20112	16	240	240	1.510
22097	16	320	320	1.350
28076	16	384	384	3.812

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AF25 CLASSIC,
 Grid (A) 25, hole diameter 12,5mm

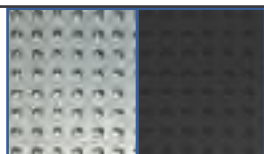
Nr.	A	B	C	g
21703	25	50	50	100
21704	25	50	75	150
21705	25	50	100	200
21706	25	50	125	250
22957	25	50	150	302
22959	25	50	200	403
22885	25	50	250	503
21707	25	50	500	1.009
21488	25	100	125	506
28032	25	100	150	600
21347	25	100	175	708
21496	25	125	125	630
21348	25	125	175	888
21349	25	125	225	1.135
21350	25	150	150	908
21351	25	150	175	1.048
21352	25	150	200	1.211
21353	25	150	225	1.348
21354	25	150	250	1.523
21355	25	175	375	2.606
21356	25	200	200	1.617
21357	25	200	225	1.826
28033	25	200	300	2.590
21358	25	200	400	3.246
21360	25	250	300	3.035
21359	25	250	500	5.061
21361	25	300	400	4.860
21362	25	300	500	6.068
22911	25	400	500	8.200
22915	25	400	600	9.900
22913	25	500	500	10.250
22919	25	600	600	14.900
22921	25	600	800	19.900
20280	25	600	1000	24.700

AF40 CLASSIC,
 Grid (A) 40, hole diameter 20mm

Nr.	A	B	C	g
21698	40	80	80	410
21699	40	80	120	619
21700	40	80	160	825
21701	40	80	200	1.031
22909	40	80	240	1.239
22910	40	80	280	1.440
22906	40	80	320	1.647
21702	40	80	800	4.125
22862	40	160	200	2.027
22861	40	160	240	2.486
21257	40	160	280	2.900
22860	40	200	200	2.568
22842	40	200	240	3.092
21258	40	200	280	3.600
22843	40	200	320	4.123
21259	40	200	360	4.638
22851	40	200	400	5.153
21260	40	240	240	3.670
21261	40	240	280	4.291
21262	40	240	320	4.904
21263	40	240	360	5.517
21264	40	240	400	6.133
22839	40	280	320	5.800
22900	40	280	360	6.500
21265	40	280	600	10.900
21266	40	320	320	6.539
21267	40	320	360	7.356
21268	40	320	640	13.078
21269	40	400	480	12.500
21303	40	400	800	21.000
21270	40	480	640	20.200
21271	40	480	800	24.800
28079	40	800	800	41.000
28080	40	960	960	59.000
28081	40	960	1280	78.000
28082	40	960	1600	98.000

AF50 CLASSIC,
 Grid (A) 50, hole diameter 25mm

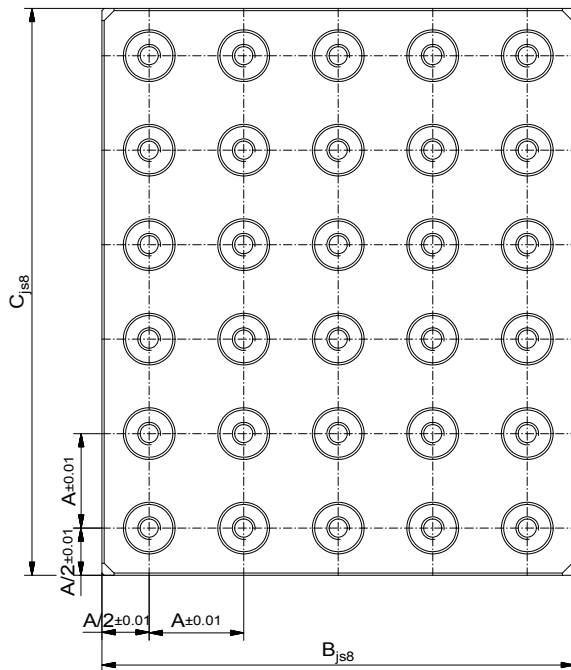
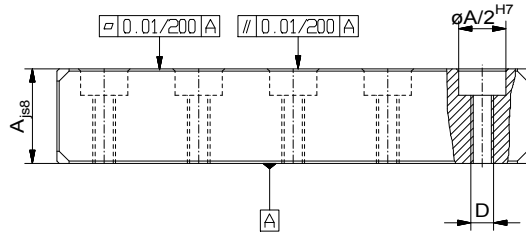
Nr.	A	B	C	g
28093	50	100	100	800
27858	50	100	150	1.200
28094	50	100	200	1.600
28095	50	100	250	2.000
28096	50	100	300	2.400
28097	50	100	400	3.200
28098	50	100	500	4.000
28099	50	100	1000	8.100
28100	50	200	250	4.000
27857	50	200	300	5.000
28101	50	200	350	5.600
28102	50	250	250	5.000
28103	50	250	350	7.000
28104	50	250	500	10.000
28105	50	300	300	7.200
28106	50	300	350	8.400
28107	50	300	400	10.000
28108	50	300	450	11.000
28109	50	300	500	12.000
28110	50	350	750	22.000
28111	50	400	400	13.000
28112	50	400	450	14.500
28113	50	400	600	24.000
28114	50	400	800	25.000
28115	50	500	600	30.000
28116	50	500	1000	41.000
28117	50	600	800	44.000
28118	50	600	1000	48.000
28119	50	800	1000	72.000
28120	50	800	1200	80.000
28121	50	1000	1000	80.000



ALUFIX CLASSIC base plates can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request

i Other dimensions on request

ALUFIX Grid Base Plates

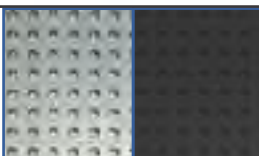


ALUFIX 16, Grid (A) 16, hole diameter 8mm

Nr.	A	B	C	D	g
20640	16	128	256	M4	1.416
20641	16	160	320	M4	2.221
20642	16	192	256	M4	2.123
20643	16	192	384	M4	3.185
20644	16	256	320	M4	3.539
20645	16	256	384	M4	4.247
20646	16	320	320	M4	4.424
20647	16	320	640	M4	8.847
20648	16	384	384	M4	6.370
20649	16	384	512	M4	8.493

ALUFIX 25, Grid (A) 25, hole diameter 12,5mm

Nr.	A	B	C	D	g
20387	25	200	400	M6	5.400
20388	25	250	500	M6	8.438
20403	25	300	400	M6	8.100
20386	25	300	600	M6	11.250
22923	25	400	500	M6	13.500
22925	25	400	600	M6	16.200
20439	25	500	500	M6	16.875
20381	25	500	1000	M6	33.750
20382	25	600	600	M6	24.300
20384	25	600	800	M6	32.400

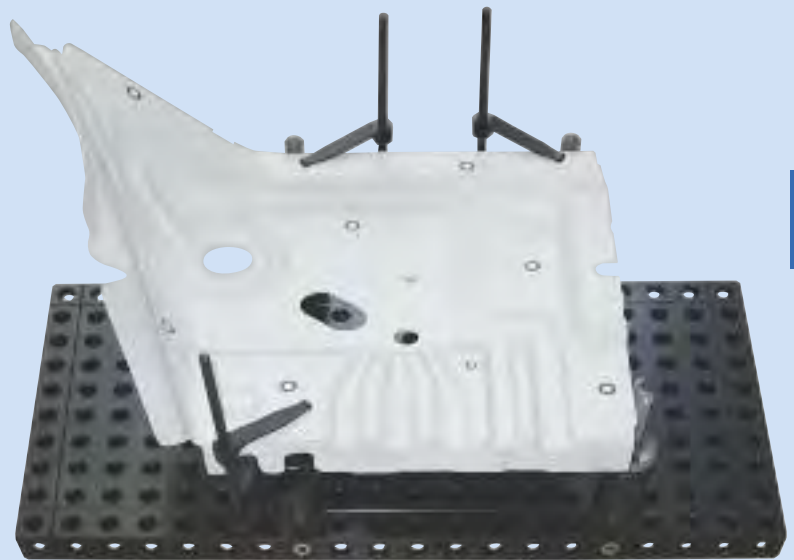


ALUFIX CLASSIC base plates can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request

Other dimensions on request

ALUFIX 40,
 Grid (A)40, hole diameter 20mm

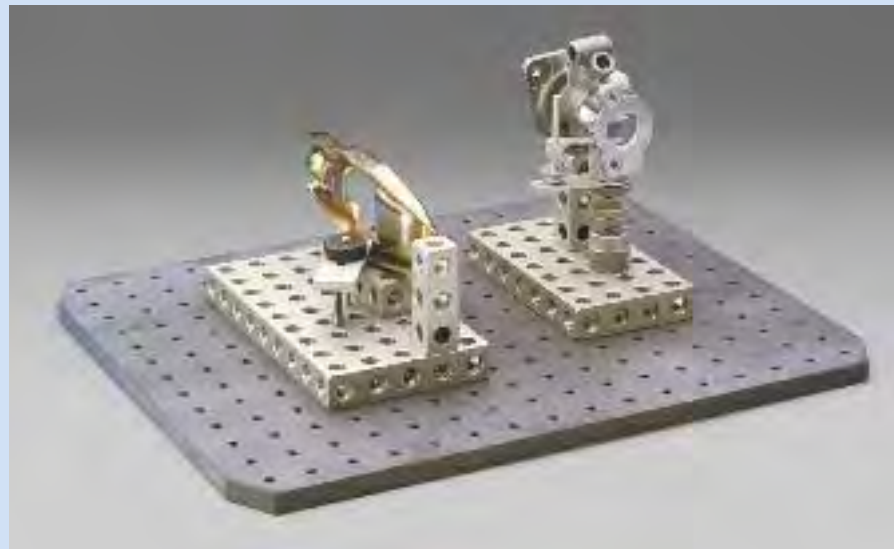
Nr.	A	B	C	D	g
20650	40	320	640	M10	22.118
20651	40	400	800	M10	34.560
20710	40	480	640	M10	33.177
20711	40	480	960	M10	49.766
20713	40	640	800	M10	55.296
20714	40	640	960	M10	66.355
20715	40	800	800	M10	69.120
20808	40	800	1600	M10	138.240
20809	40	960	960	M10	99.533
20810	40	960	1280	M10	132.710



Application examples of Alufix base plates and grid base plates

ALUFIX 50,
 Grid (A)50, hole diameter 25mm

Nr.	A	B	C	D	g
28083	50	400	400	M12	21.600
28084	50	500	1000	M12	67.500
28085	50	600	800	M12	64.800
28086	50	600	1200	M12	97.200
28087	50	800	1000	M12	108.000
28088	50	800	1200	M12	129.600
28089	50	1000	1000	M12	135.000
28090	50	1000	2000	M12	270.000
28091	50	1200	1200	M12	194.400
28092	50	1200	1600	M12	259.200



ALUFIX CLASSIC Full Bars



Alufix full bars are suitable for building small to medium size fixtures as a link between base and workpiece contact point. They can be connected on all 6 sides using quick or screw connection technology and are extremely flexible for all kinds of applications. The sizes listed are standard, other dimensions on request.

AF16 CLASSIC

One row bar 16x16

Grid (A) 16, hole diameter 8mm

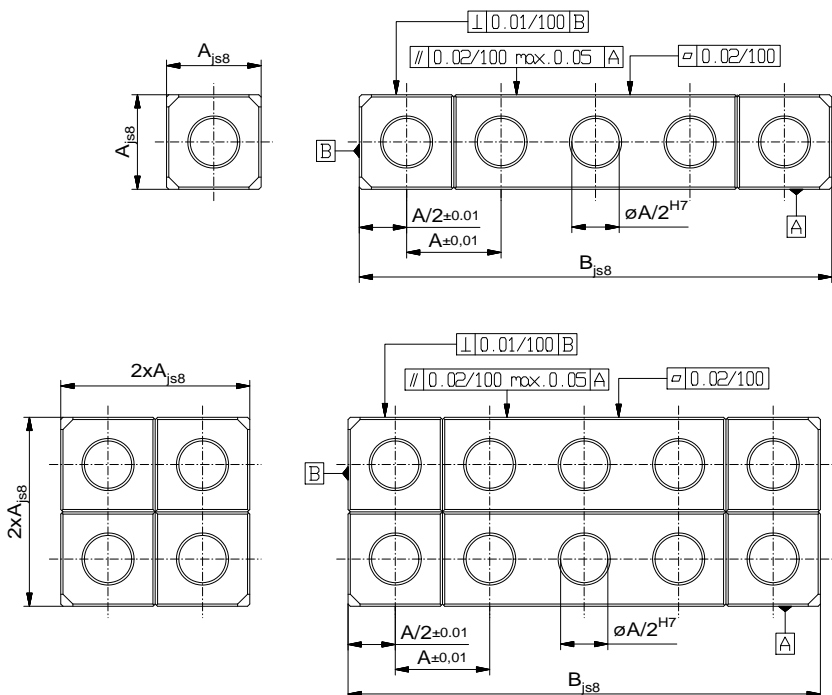
Nr.	B	\bar{g}
21582	16	7
21583	32	14
21584	48	21
21585	64	27
21586	80	33
20654	96	39
20801	128	53
20799	160	66
21587	320	140

AF16 CLASSIC

Two row bar 32x32

Grid (A) 16, hole diameter 8mm

Nr.	B	\bar{g}
21588	32	53
21589	48	79
21590	64	108
21591	80	131
23892	96	160
20812	112	200
20848	128	230
20849	160	268
21592	320	537



AF25 CLASSIC

One row bar 25x25

Grid (A) 25, hole diameter 12,5mm

Nr.	B	g
21372	25	25
21373	50	51
21374	75	76
21375	100	102
21376	125	127
22961	150	152
22963	200	204
22882	250	255
21377	500	510

AF40 CLASSIC

One row bar 40x40

Grid (A) 40, hole diameter 20mm

Nr.	B	g
21273	40	104
21274	80	208
21279	120	404
21275	160	419
21276	200	523
20813	240	628
20815	320	1.098
20814	400	1.046
21304	800	2.947

AF50 CLASSIC

One row bar 50x50

Grid (A) 50, hole diameter 25mm

Nr.	B	g
28177	50	335
28178	100	408
28179	150	613
28180	200	900
28181	250	1.023
28182	300	960
28183	400	1.280
28184	500	2.047
28185	1000	3.200


AF25 CLASSIC

Two row bar 50x50

Grid (A) 25, hole diameter 12,5mm

Nr.	B	g
21378	50	204
21379	75	308
21380	100	410
21381	125	510
22965	150	610
22967	200	819
22883	250	1.025
21382	500	2.020
22634	1000	4.030

AF40 CLASSIC

Two row bar 80x80

Grid (A) 40, hole diameter 20mm

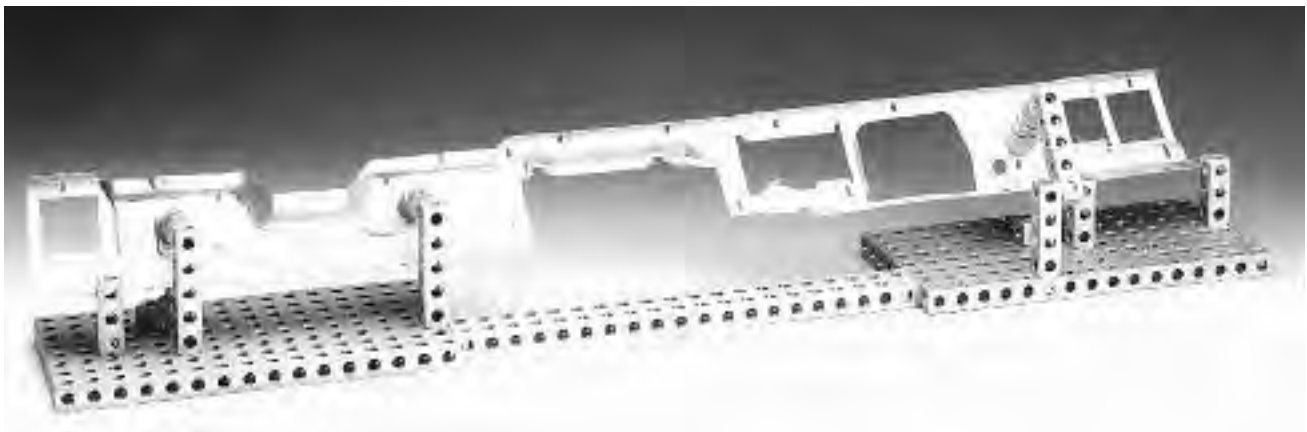
Nr.	B	g
21298	80	840
21299	120	1.257
21300	160	1.682
21301	200	2.080
20817	240	2.511
20818	280	2.900
20434	320	3.357
20435	400	4.150
21302	800	8.411

AF50 CLASSIC

Two row bar 100x100

Grid (A) 50, hole diameter 25mm

Nr.	B	g
28186	100	1.637
28187	150	2.490
28188	200	6.460
28189	250	4.095
28190	300	4.915
28191	400	6.555
28192	500	4.960
28193	1000	9.750

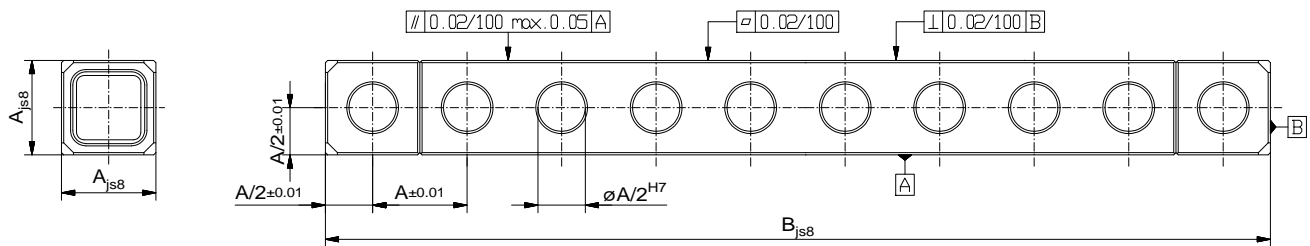


ALUFIX CLASSIC bars can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request

Other dimensions on request

ALUFIX CLASSIC

Light Bar one row



AF25 Light CLASSIC

One row bar 25x25

Grid (A) 25, hole diameter 12,5mm

Nr.	B	g
24340	50	34
25013	100	69
25374	150	103
24336	200	138
22946	250	172
24337	300	206
25012	350	241
23283	400	275
25890	450	310
22947	500	344
25894	550	378
21333	600	413
24338	650	447
24339	700	482
21709	750	516
24189	800	550
27470	850	585
25895	900	619
27473	950	654
22948	1000	688
27605	1050	722
24190	1100	757
33282	1150	791
24191	1200	826
21749	1250	860
24188	1300	895
33283	1350	929
24187	1400	963
31855	1450	998
21189	1500	1.032
33284	1600	1.101
33285	1700	1.170
24395	1800	1.238
33286	1900	1.307
23334	2000	1.376

AF40 Light CLASSIC

One row bar 40x40

Grid (A) 40, hole diameter 20mm

Nr.	B	g
25039	120	221
25377	160	294
26505	200	368
25378	240	441
27342	280	514
25379	320	588
27183	360	661
23549	400	735
24945	440	809
25945	480	882
25951	520	956
26611	560	1.029
27444	600	1.103
33296	640	1.176
26612	680	1.250
28465	720	1.323
32702	760	1.397
23550	800	1.470
26610	840	1.544
26613	880	1.617
26685	920	1.691
27445	960	1.764
24495	1000	1.838
26686	1080	1.985
27559	1160	2.132
23551	1200	2.206
24453	1400	2.570
23552	1600	2.941
25033	1800	3.308
31855	1450	3.381
23553	2000	3.676
23554	2400	4.411
23555	2800	5.146
23556	3200	5.882
23557	3600	6.617
23558	4000	7.352
28035	4400	8.087
28036	4800	8.822

AF50 Light CLASSIC

One row bar 50x50

Grid (A) 50, hole diameter 25mm

Nr.	B	g
28149	50	165
28150	100	330
28151	150	495
28152	200	660
28153	250	825
28154	300	990
28156	350	1.155
28155	400	1.320
28157	450	1.485
26933	500	1.650
28615	600	1.990
28495	700	2.310
33297	800	2.240
32654	900	2.985
26935	1000	3.328
28939	1100	3.630
33298	1200	3.960
27693	1300	4.290
33299	1400	4.648
26937	1500	4.950
28618	1600	5.335
33300	1700	5.638
30012	1800	5.940
33301	1900	6.313
26939	2000	6.600
26941	2500	8.100
26943	3000	9.800
26945	3500	11.400
26947	4000	13.000
26949	4500	14.700
26951	5000	16.300
26953	5500	17.900
26955	6000	19.500

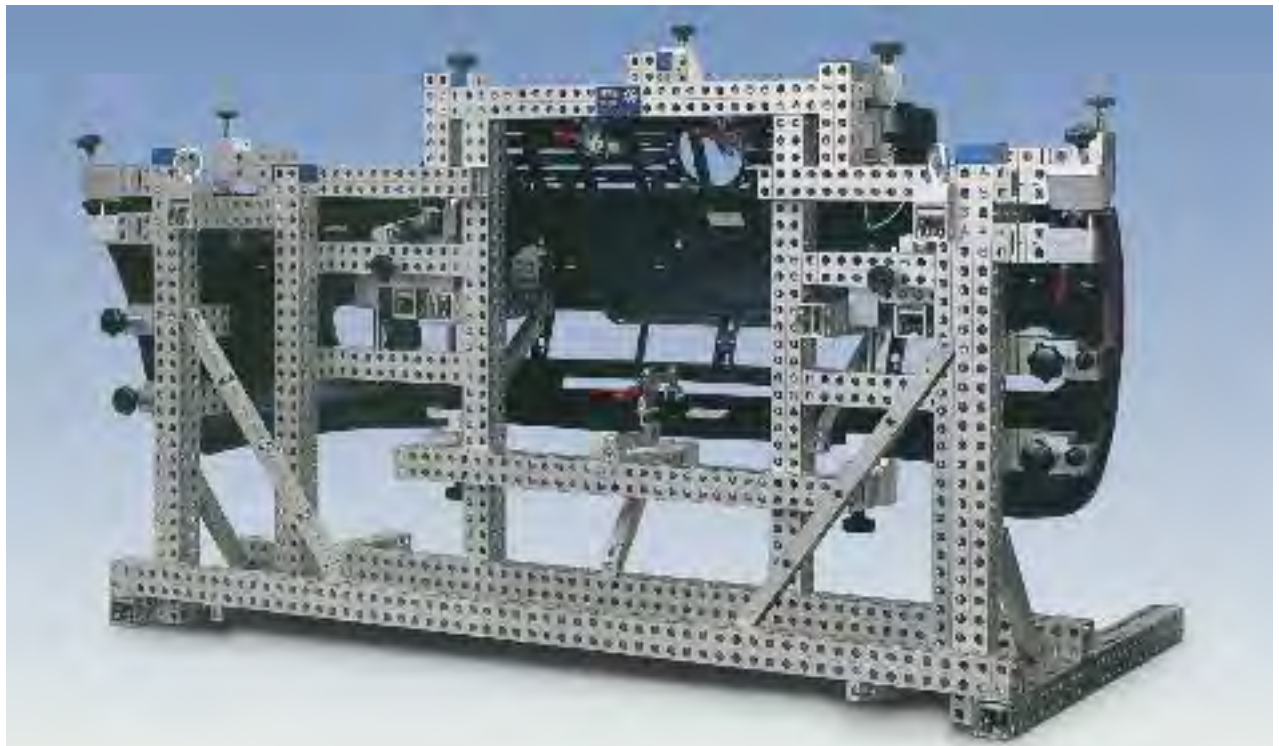
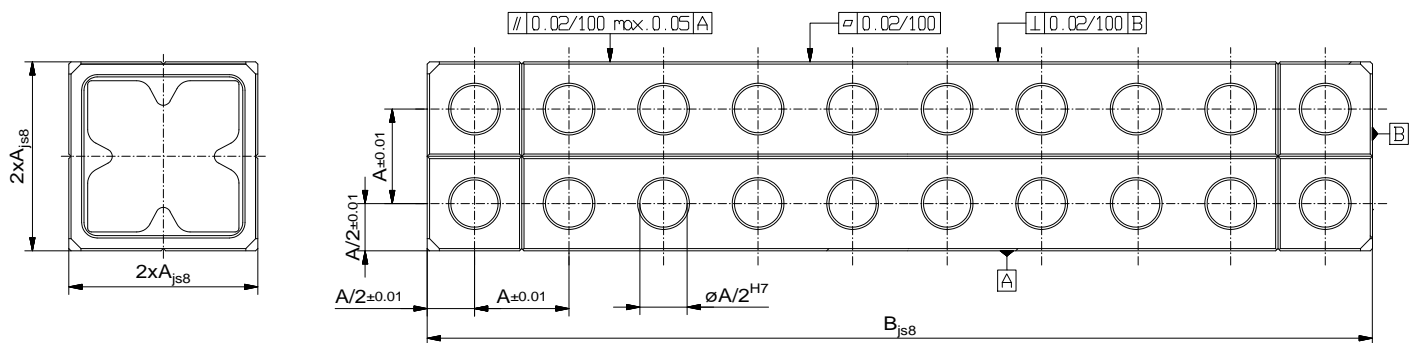


ALUFIX CLASSIC bars can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request

Other dimensions on request

ALUFIX CLASSIC

Light Bar two row



AF25 Light CLASSIC

Two row bar 50x50

Grid (A) 25, hole diameter 12,5mm

Nr.	B	g
26617	50	108
25375	100	215
20426	150	323
20427	200	430
22949	250	538
20254	300	645
24246	350	753
20256	400	860
24248	450	968
22950	500	1.075
24249	550	1.183
24250	600	1.290
24247	650	1.398
24251	700	1.505
21824	750	1.613
28353	800	1.720
26842	850	1.828
24319	900	1.935
26841	950	2.043
22951	1000	2.150
27632	1050	2.258
27633	1100	2.365
26849	1150	2.473
25025	1200	2.580
21825	1250	2.688
27914	1300	2.795
28354	1350	2.903
27915	1400	3.010
24813	1450	3.118
22952	1500	3.225
27891	1600	3.440
33287	1700	3.655
33288	1800	3.870
33289	1900	4.085
21226	2000	4.300

AF40 Light CLASSIC

Two row bar 80x80

Grid (A) 40, hole diameter 20mm

Nr.	B	g
24393	80	407
24940	120	610
23937	160	813
23938	200	1.017
24392	240	1.220
24825	280	1.423
24641	320	1.627
24809	360	1.830
23559	400	2.033
25922	440	2.237
24390	480	2.440
24808	520	2.643
24389	560	2.846
24451	600	3.050
24391	640	3.253
24454	680	3.456
24388	720	3.660
24826	760	3.863
23560	800	4.066
24629	840	4.270
26609	880	4.473
25095	920	4.676
25877	960	4.880
24624	1000	5.083
24807	1080	5.490
24943	1120	5.693
23561	1200	6.100
25317	1240	6.303
24806	1280	6.506
26003	1320	6.710
25094	1400	7.116
24630	1520	7.726
23562	1600	8.133
27202	1680	8.539
25629	1760	8.946
23562	1840	9.353
27202	1920	9.759
25629	2000	10.166

AF50 Light CLASSIC

Two row bar 100x100

Grid (A) 50, hole diameter 25mm

Nr.	B	g
27569	100	839
28122	150	1.258
26735	200	1.678
27504	250	2.097
26821	300	2.516
27607	350	2.936
26786	400	3.355
26820	450	3.775
26787	500	4.194
26788	600	5.033
26818	700	5.872
27505	800	6.710
26789	900	7.549
26957	1000	8.388
27610	1100	9.227
27920	1200	10.066
27611	1300	10.904
27919	1400	11.743
26959	1500	12.582
27923	1600	13.421
30752	1700	14.260
27460	1800	15.098
30959	1900	15.937
26961	2000	16.767
26963	2500	20.970
26965	3000	25.164
26967	3500	29.358
26969	4000	33.552
26971	4500	37.746
26973	5000	41.940
26975	5500	46.134
26977	6000	50.328

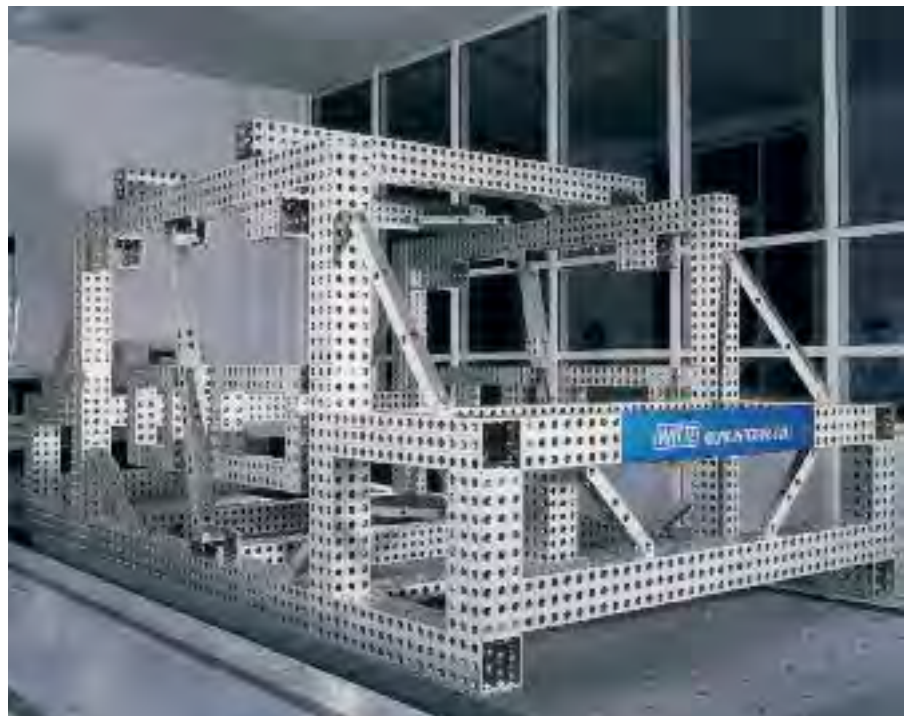
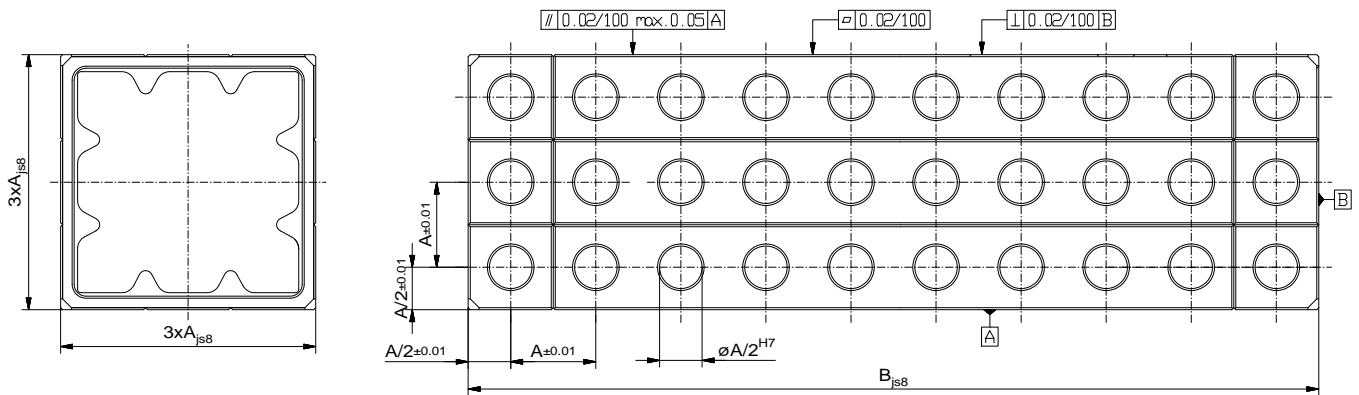


i **ALUFIX CLASSIC** bars can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request

i Other dimensions on request

ALUFIX CLASSIC

Light Bar three row



AF25 Light CLASSIC

Three row bar 75x75

Grid (A) 25, hole diameter 12,5mm

Nr.	B	g
24882	100	343
25075	150	514
25376	200	686
22617	250	857
25076	300	1.029
26002	350	1.200
27412	400	1.372
25078	450	1.543
22618	500	1.715
33091	550	1.886
33090	600	2.057
32352	650	2.229
33041	700	2.400
22619	750	2.572
31538	800	2.743
32350	850	2.915
27223	900	3.086
26894	950	3.258
22621	1000	3.429
33551	1050	3.600
25080	1100	3.772
29685	1150	3.943
30751	1200	4.115
22623	1250	4.286
27855	1300	4.458
33050	1350	4.629
33060	1400	4.801
33552	1450	4.972
22624	1500	5.144
33290	1600	5.486
33089	1700	5.829
33291	1800	6.172
33292	1900	6.515
22771	2000	6.858

AF40 Light CLASSIC

Three row bar 120x120

Grid (A) 40, hole diameter 20mm

Nr.	B	g
24950	160	1.404
25123	200	1.755
24951	240	2.106
24827	280	2.457
24952	320	2.808
25122	360	3.159
23574	400	3.510
25735	440	3.861
24931	480	4.212
26008	520	4.563
25121	560	4.914
25124	600	5.265
25736	640	5.616
27458	680	5.967
24930	720	6.318
24828	760	6.669
23575	800	7.020
25029	840	7.371
25843	880	7.722
27597	920	8.073
24929	960	8.424
27435	1000	8.775
25028	1080	9.477
27169	1160	10.179
23576	1200	10.530
27601	1280	11.232
26892	1360	11.934
24953	1400	12.285
24829	1480	12.987
25310	1560	13.689
23577	1600	14.040
25950	1680	14.742
29918	1760	15.444
25737	1800	15.795
27538	1880	16.497
23578	2000	17.550
27602	2200	19.305

AF50 Light CLASSIC

Three row bar 150x150

Grid (A) 50, hole diameter 25mm

Nr.	B	g
28123	100	1.389
28124	150	2.083
28125	200	2.777
27521	250	3.472
26817	300	4.166
28126	350	4.860
28127	400	5.554
27854	450	6.249
26978	500	6.943
33302	600	8.332
27522	700	9.720
29366	800	11.109
27853	900	12.497
26979	1000	13.886
33303	1100	15.275
33304	1200	16.663
29805	1300	18.052
29699	1400	19.440
26981	1500	20.829
33305	1600	22.218
28557	1700	23.606
27606	1800	24.995
33306	1900	26.383
26983	2000	27.772
26985	2500	34.715
26987	3000	41.658
26989	3500	48.601
26991	4000	55.544
26993	4500	62.487
26995	5000	69.430
26997	5500	76.373
26999	6000	83.316

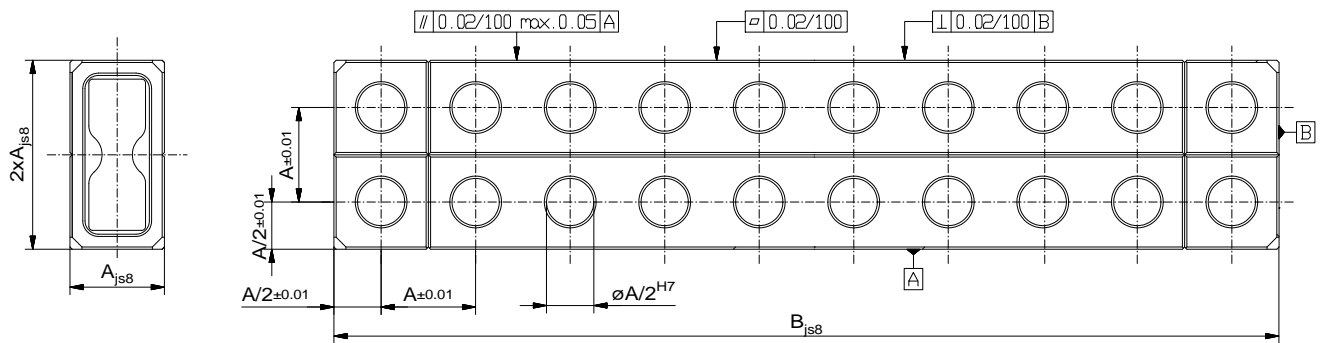


i **ALUFIX CLASSIC** bars can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request

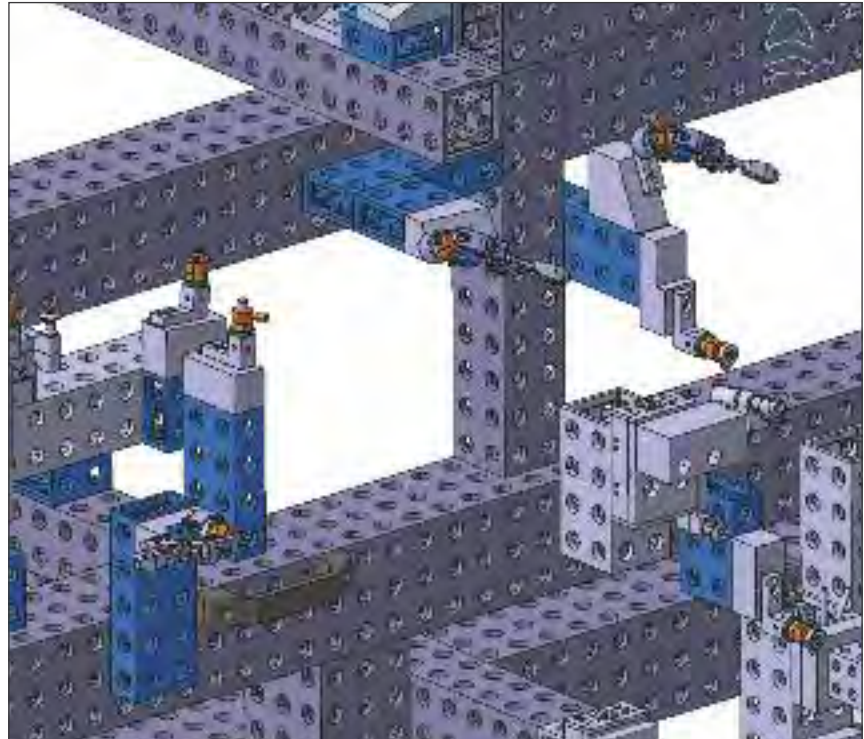
i Other dimensions on request

ALUFIX CLASSIC

Light Bar rectangular



Fixture with
rectangular Light Bars



AF25 Light CLASSIC

Rectangular bar 25x50

Grid (A) 25, hole diameter 12,5mm

Nr.	B	g
55090	50	68
55091	100	136
55092	150	204
55093	200	272
55094	250	340
55095	300	408
55096	350	476
55097	400	544
55098	450	612
55099	500	680
55100	550	748
55101	600	816
55102	650	884
55103	700	952
55104	750	1.020
55105	800	1.088
55106	850	1.156
55107	900	1.224
55108	950	1.292
55109	1000	1.360
55110	1050	1.428
55111	1100	1.496
55112	1150	1.564
55113	1200	1.632
55114	1250	1.700
55115	1300	1.768
55116	1350	1.836
55117	1400	1.904
55118	1450	1.972
55119	1500	2.040
55120	1550	2.108
55121	1600	2.176
55122	1650	2.244
55123	1700	2.312
55124	1750	2.380
55125	1800	2.448
55126	1850	2.516
55127	1900	2.584
55129	2000	2.720

AF40 Light CLASSIC

Rectangular bar 40x80

Grid (A) 40, hole diameter 20mm

Nr.	B	g
57400	80	286
57401	120	428
57402	160	571
57403	200	714
57404	240	857
57405	280	1.000
57406	320	1.142
57407	360	1.285
57408	400	1.428
57409	440	1.571
57410	480	1.714
57411	520	1.856
57412	560	1.999
57413	600	2.142
57414	640	2.285
57415	680	2.428
57416	720	2.570
57417	760	2.713
57418	800	2.856
57419	840	2.999
57420	880	3.142
57421	920	3.284
57422	960	3.427
57423	1000	3.570
57424	1040	3.713
57425	1080	3.856
57426	1120	3.998
57427	1160	4.141
57428	1200	4.284
57429	1240	4.427
57430	1280	4.570
57431	1320	4.712
57432	1360	4.855
57433	1400	4.998
57434	1440	5.141
57435	1480	5.284
57436	1520	5.426
57437	1560	5.569
57438	1600	5.712

AF40 Light CLASSIC

Rectangular bar 40x80

Grid (A) 40, hole diameter 20mm

Nr.	B	g
57439	1640	5.855
57440	1680	5.998
57441	1720	6.140
57442	1760	6.283
57443	1800	6.426
57444	1840	6.569
57445	1880	6.712
57446	1920	6.854
57447	1960	6.997
57448	2000	7.140
57449	2040	7.283
57450	2080	7.426
57451	2120	7.568
57452	2160	7.711
57453	2200	7.854
57454	2240	7.997
57455	2280	8.140
57456	2320	8.282
57457	2360	8.425
57458	2400	8.568
57459	2440	8.711
57460	2480	8.854
57461	2520	8.996
57462	2560	9.139
57463	2600	9.282
57464	2640	9.425
57465	2680	9.568
57466	2720	9.710
57467	2760	9.853
57468	2800	9.996
57469	2840	10.139
57470	2880	10.282
7471	2920	10.424
57472	2960	10.567
57473	3000	10.710



i **ALUFIX CLASSIC** bars can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request

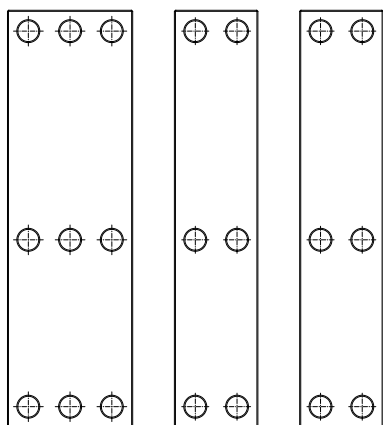
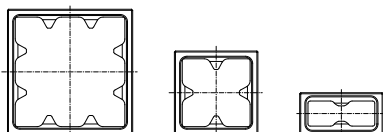
i Other dimensions on request



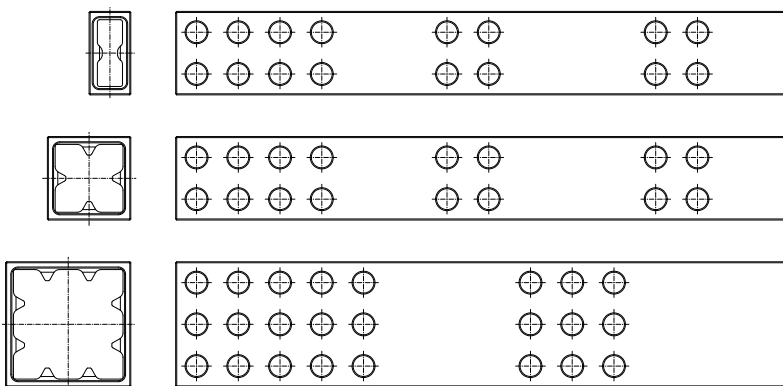
ALUFIX CLASSIC Light Bar CX/SX

Alufix Light bars CS/SX with reduced number of drilled holes are an economical alternative to normal Light bars.

Alufix Light bars CX/SX are available on request in the same dimensions as normal Light bars, pages 20-27.



Light bars CX: For column type design with one row of holes at each end. With further rows of one hole to mount struts depending on the length



Light bar SX: Version with dedicated areas of holes



i ALUFIX CLASSIC bars can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request

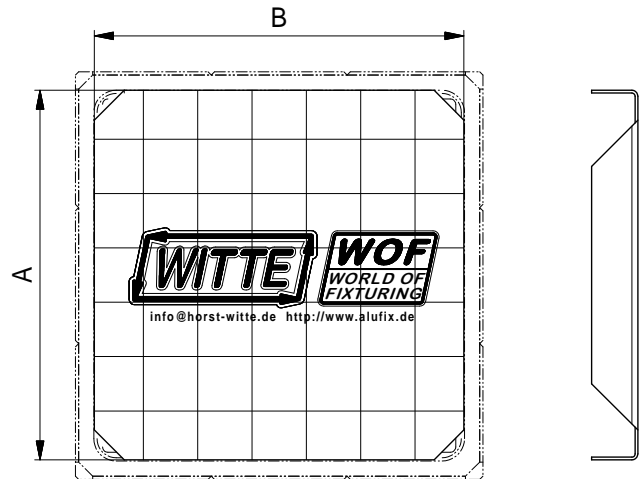
i Light bars CX/SX are also available in ECO version, see page 195. Other dimensions on request

ALUFIX CLASSIC

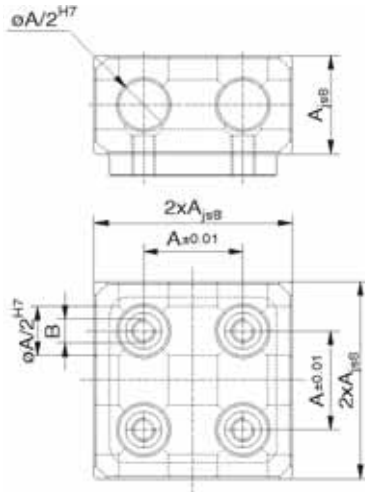
Blind covers

metallic blind covers for Light Bars

Nr.	System	A	B	g
56494	AF 25	25	25	1
56495	AF 25	25	50	1
51041	AF 25	50	50	4
51042	AF 25	75	75	1
52315	AF 40	40	40	3
54598	AF 40	40	80	6
51043	AF 40	80	80	13
122401	AF 40	80	120	20
51044	AF 40	120	120	50
54599	AF 50	50	50	9
51045	AF 50	100	100	20
51046	AF 50	150	150	77



ALUFIX CLASSIC blind covers can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request

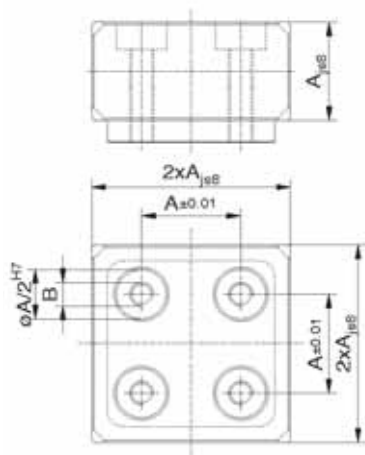


Coupling plate, universal

For Light bars

Nr.	AF	A	B	g
332856	25	25	M6	134
332857	40	40	M10	550
332858	50	50	M12	940

Recommended for face end connections of quick change couplings and guiding, roller slides



Coupling plate

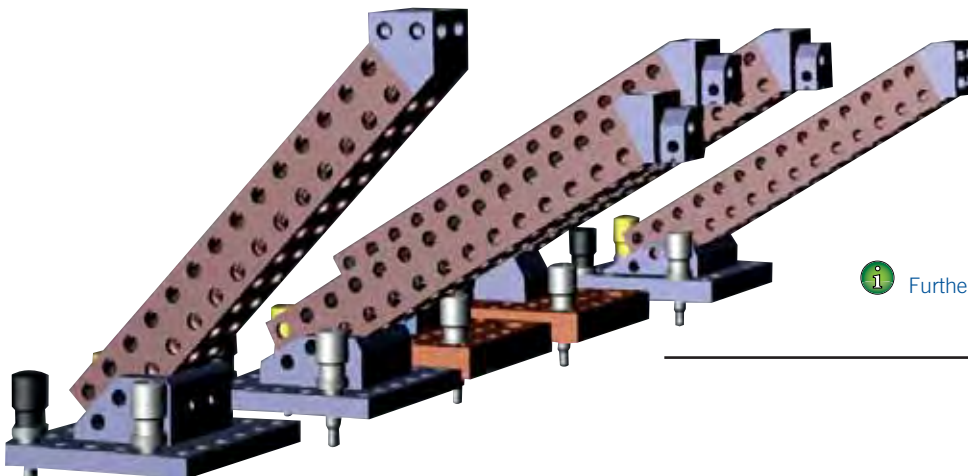
For Light bars

Nr.	AF	A	B	g
333626	25	25	M6	141
333627	40	40	M10	578
333628	50	50	M12	987



Foot plates and end blocks

For setting up diagonal columns

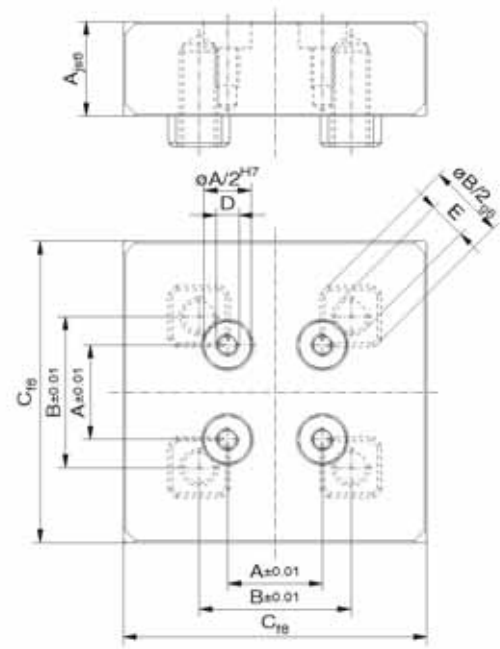


Further information on request

Reducer plate

from 2 hole to 1 hole bar

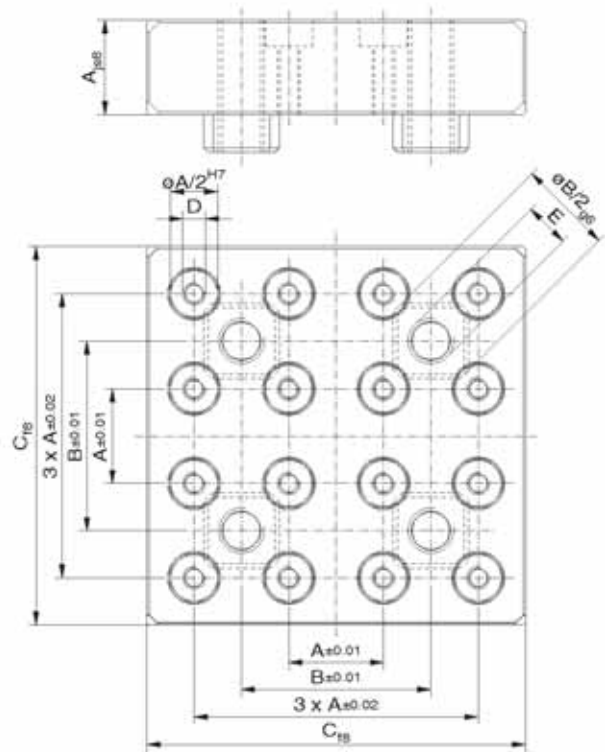
Nr.	A	B	C	D	E	
395733	25	40	80	M6	M10	420
51381A	25	50	100	M6	M12	440



Reducer plate

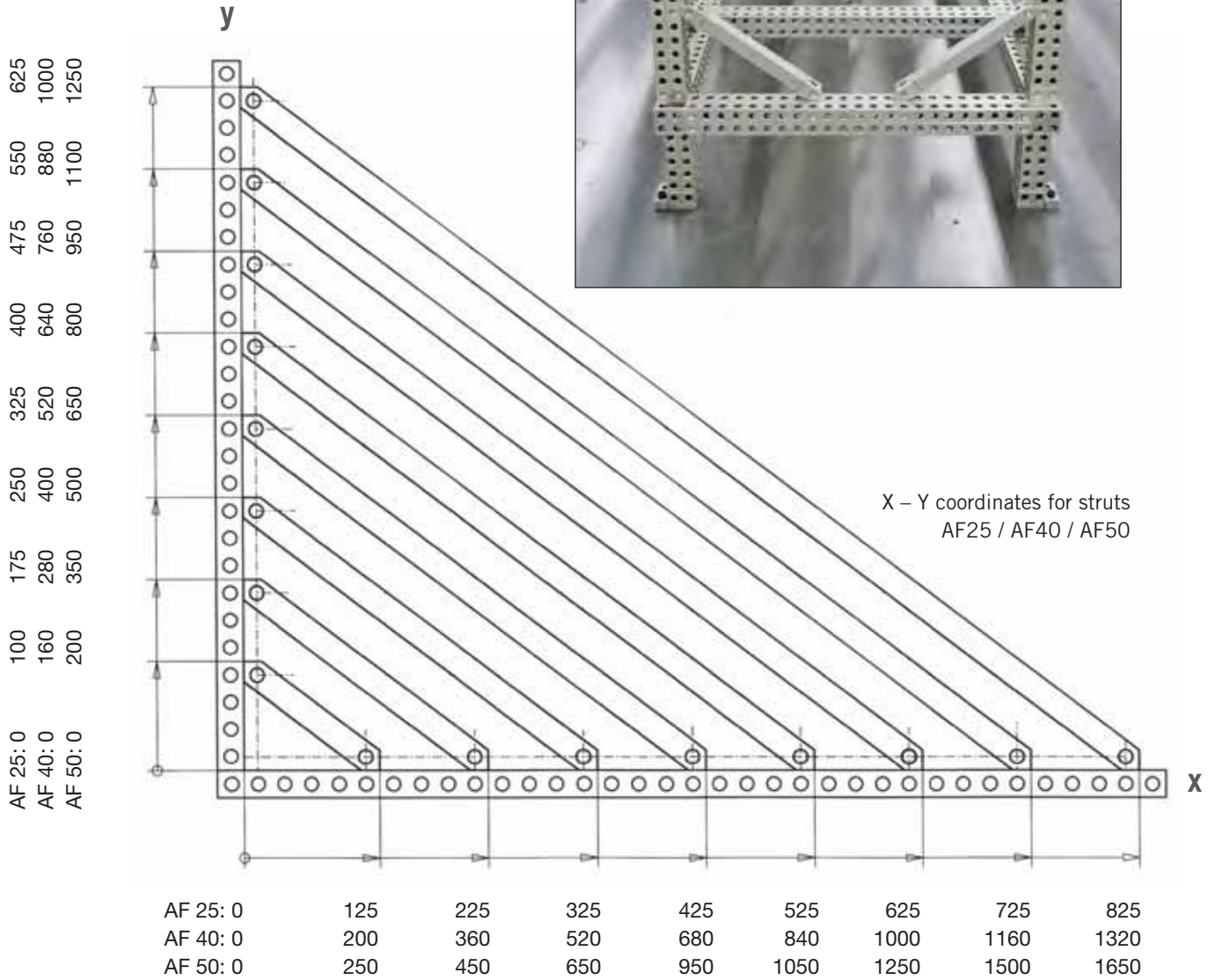
from Alufix 50 to Alufix 25

Nr.	A	B	C	D	E	
51381	25	50	100	M6	M12	650





ALUFIX CLASSIC Struts



AF25 CLASSIC

Strut, 25x25

Grid 25, hole diameter 12,5mm

Nr.	A	B	g
81443	125	25	168
81444	250	25	285
81445	375	25	402
81327	500	25	518
81328	625	25	641
81329	750	25	752
81330	875	25	872
81331	1000	25	979

AF40 CLASSIC

Strut, 40x40

Grid 40, hole diameter 20mm

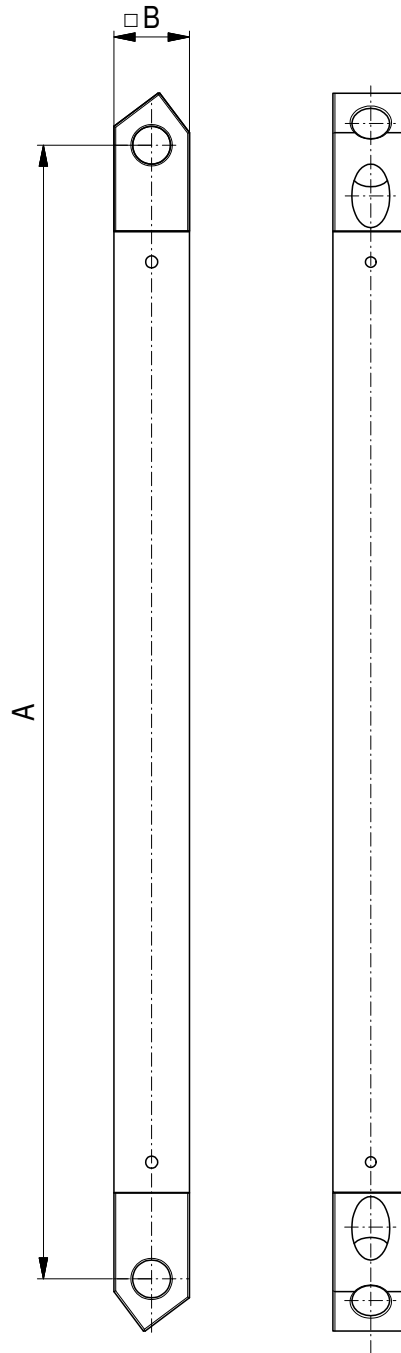
Nr.	A	B	g
81446	200	40	700
81447	400	40	1.226
81448	600	40	1.400
81407	800	40	2.258
81408	1000	40	2.240
81409	1200	40	3.161
81410	1400	40	3.470
81411	1600	40	4.170

AF50 CLASSIC

Strut, 50x50

Grid 50, hole diameter 25mm

Nr.	A	B	g
82403	250	50	1.424
82404	500	50	2.534
82405	750	50	3.637
82406	1000	50	5.696
82407	1250	50	7.120
82408	1500	50	8.544
82409	1750	50	9.968
82410	2000	50	11.392

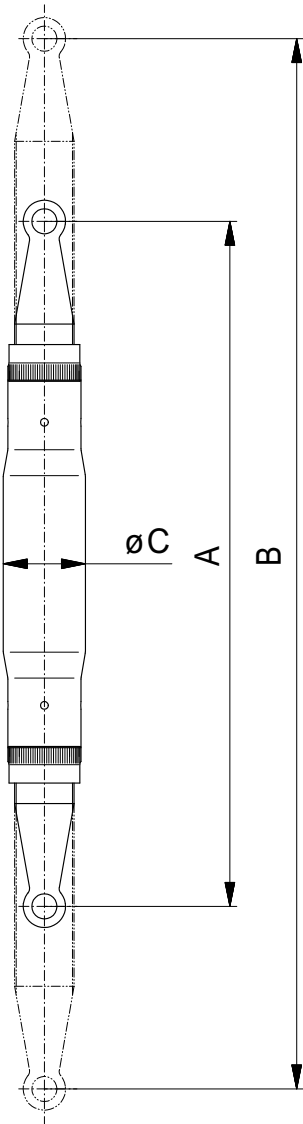


ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Universal Struts

Witte universal struts comprising of strut tips and tubes are easy and quick to assemble because of angle and strut lengths which are both variable.

The strut tips can also be used in any grid point of systems (Alufix Classic 25 / 40 / 50).



Universal struts

System Alufix 25

Nr.	System	C	A - B	g
84937	AF 25	36	460 - 600	256
84938	AF 25	36	620 - 840	1.320
84939	AF 25	36	870 - 1090	1.433
84940	AF 25	36	1120 - 1340	1.745
84941	AF 25	50	1378 - 1570	2.012
84942	AF 25	50	1628 - 1820	3.672
84943	AF 25	50	1878 - 2070	4.172
84944	AF 25	50	2128 - 2320	4.672
84945	AF 25	50	2378 - 2570	5.172
84946	AF 25	50	2628 - 2820	5.672

Universal struts

System Alufix 40

Nr.	System	C	A - B	g
84947	AF 40	36	460 - 600	1.042
84897	AF 40	36	620 - 840	1.123
84948	AF 40	36	870 - 1090	1.361
84949	AF 40	36	1120 - 1340	1.673
84804	AF 40	50	1378 - 1570	1.940
84806	AF 40	50	1628 - 1820	3.600
84807	AF 40	50	1878 - 2070	4.100
84893	AF 40	50	2128 - 2320	4.600
84894	AF 40	50	2378 - 2570	5.200
84895	AF 40	50	2628 - 2820	5.800

Universal struts

System Alufix 50

Nr.	System	C	A - B	g
84950	AF 50	36	460 - 600	1.036
84951	AF 50	36	620 - 840	1.117
84952	AF 50	36	870 - 1090	1.355
84953	AF 50	36	1120 - 1340	1.667
84954	AF 50	50	1378 - 1570	1.934
84955	AF 50	50	1628 - 1820	3.594
84956	AF 50	50	1878 - 2070	4.094
84957	AF 50	50	2128 - 2320	4.594
84958	AF 50	50	2378 - 2570	5.194
84959	AF 50	50	2628 - 2820	5.794



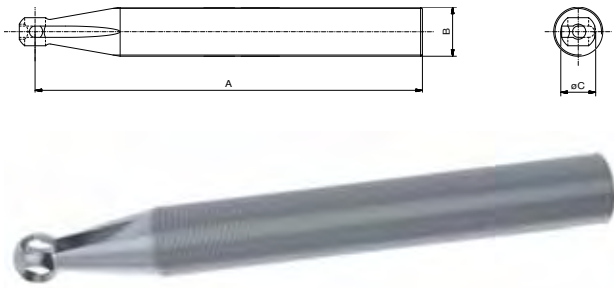
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other versions on request

Strut tip

for universal strut, LH/RH

Nr.	System	A	B	g
31412	AF 25	205	M26x1 LH	326
31413	AF 25	205	M26x1 RH	326
31414	AF 40	205	M26x1 LH	290
31415	AF 40	205	M26x1 RH	290
31416	AF 50	205	M26x1 LH	287
31417	AF 50	205	M26x1 RH	287

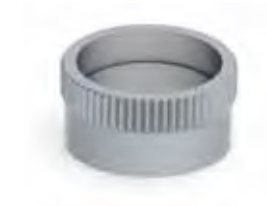
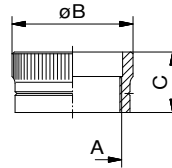


Assembling a universal strut with crosspiece, screw and check nut

Check nut

for universal strut

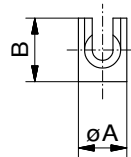
Nr.	System	A	B	C	g
30537	AF 25, 40, 50	M26x1 LH	32	16	10
30538	AF 25, 40, 50	M26x1 RH	32	16	10



Crosspiece

for universal strut

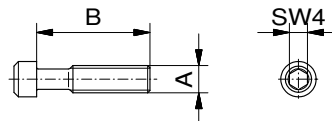
Nr.	System	A	B	g
31418	AF 25	107	14	5
31419	AF 40	17,7	22	19
31420	AF 50	21,7	28	37

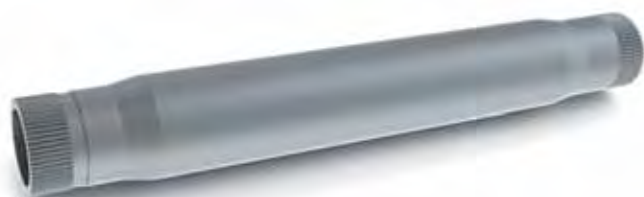


Screw

for universal strut

Nr.	System	A	B	g
31421	AF 25	M6	25	5
31422	AF 40	M10	35	25
31423	AF 50	M12	46	40





Strut tube

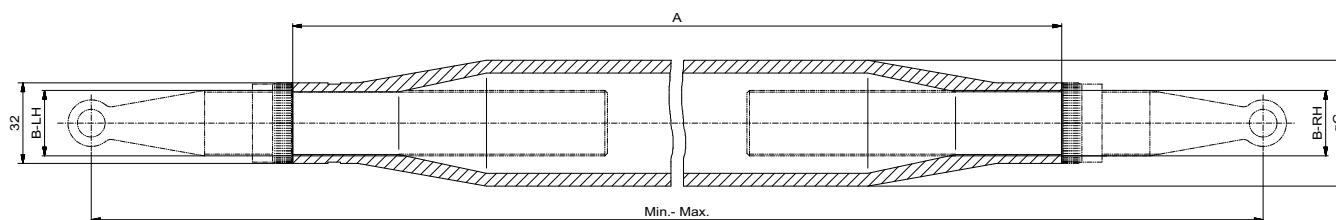
for strut lengths from 400mm to 1620mm

Nr.	A	B	D	f. Min - Max	
30555	250	M26x1	36	400 - 620	249
30532	500	M26x1	36	620 - 870	523
30533	750	M26x1	36	870 - 1120	761
30534	1000	M26x1	36	1120 - 1370	1.073
30556	1250	M26x1	36	1370 - 1620	1.340

Strut tube

for strut lengths from 1370mm to 2840mm

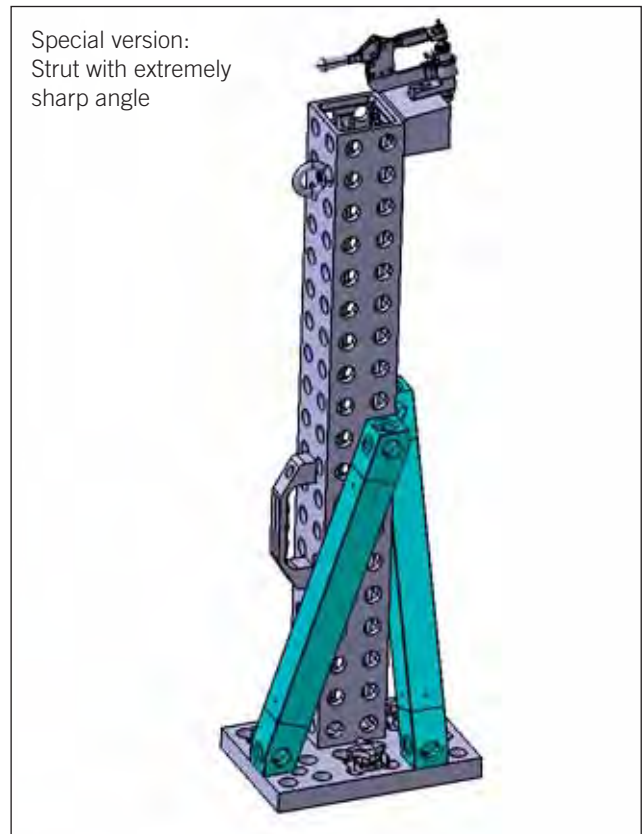
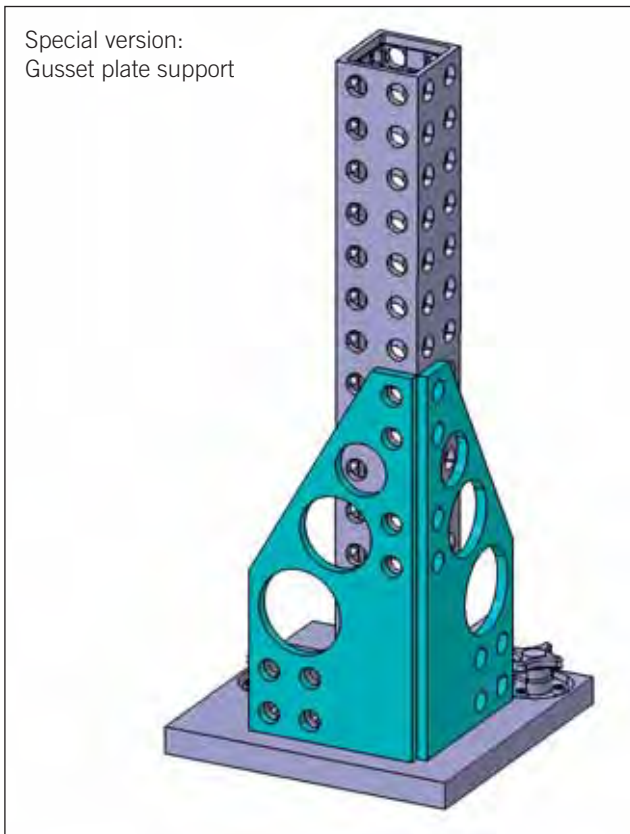
Nr.	A	B	D	f. Min - Max	
31409	1250	M26x1	50	1370 - 1620	2.500
31410	1500	M26x1	50	1620 - 1870	3.000
31411	1750	M26x1	50	1870 - 2120	3.500
31630	2000	M26x1	50	2120 - 2370	4.000
31631	2250	M26x1	50	2370 - 2620	4.500
31632	2500	M26x1	50	2620 - 2840	5.000

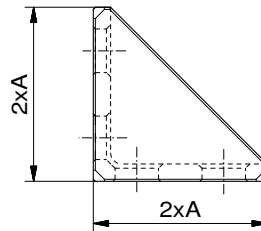
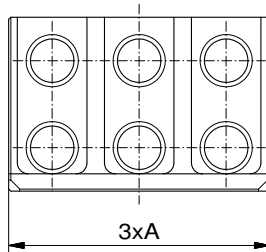
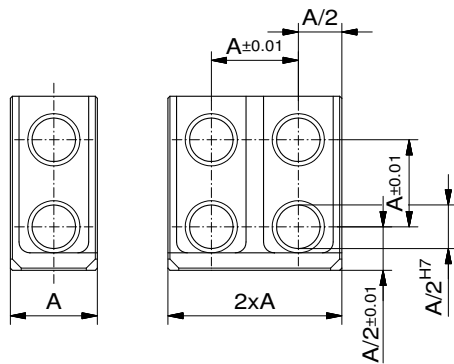


ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



Application example: Universal struts used crosswise





Angle brackets AF 16

Alufix Classic, A=16

Nr.	A	g
25101	1x	10
25102	2x	20
25103	3x	32

Angle brackets AF 25

Alufix Classic, A=25

Nr.	A	g
25104	1x	165
25035	2x	81
25036	3x	122

Angle brackets AF 40

Alufix Classic, A=40

Nr.	A	g
25105	1x	730
25106	2x	338
25107	3x	500

Angle brackets AF 50

Alufix Classic, A=50

Nr.	A	g
26927	1x	324
26736	2x	655
26928	3x	990

Mounting angle bracket
using quick connector:

Bolt #25165

Angle bracket #25104



Lock # 23240

Mounting angle bracket
using screw connector:

Screw #10002

Positioning sleeve #25038

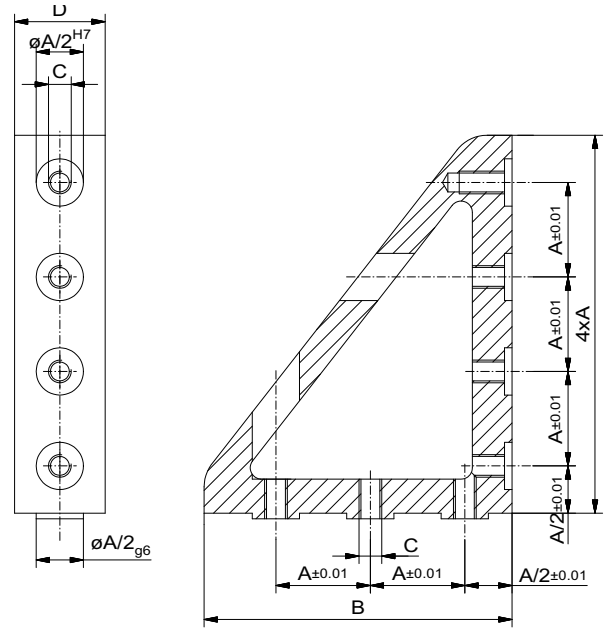
Angle bracket #25104



Nut # 80531

Profile angle brackets

Nr.	A (AF)	B	C	D	\bar{g}
120511	25	81,5	6	24	194
120514	25	121,5	6	24	319
120512	40	81,5	10	39	315
120515	40	121,5	10	39	518
120513	50	81,5	12	49	396
120516	50	122,5	12	49	651



i Profile angle brackets are also available in special lengths of up to 3000mm



i **ALUFIX CLASSIC** elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

- More angle brackets: AF ECO, page 196
- Special connection elements are required to assemble angle brackets, they are shown on page 155

ALUFIX CLASSIC

Quick Change Couplings

Quick change couplings comprise of a top and bottom section, which are aligned accurately together via ball seats. Locking is done with a short turn on a quick fastener. The total height is exactly in Alufix grid. Hinges connect top and bottom sections if required and provide a fold function. The modular design enables following combination possibilities:

Quick change coupling,
Top and bottom sections separately, standard version



Quick change coupling for folding back, hinge is mouted at the rear



Quick change coupling to fold sideways to the left, hinge is mounted on the left



Quick change coupling to fold sideways to the right, hinge is mounted on the right



Quick change coupling with two folding options
One hinge on the left and one at the rear.
Not shown, one hinge on the right, one hinge at the rear

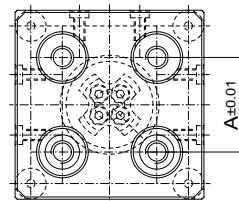
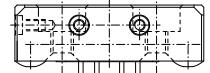
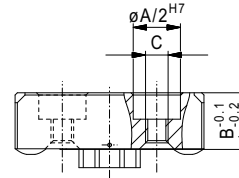
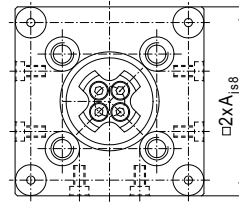


Quick change coupling with three folding options
One hinge on the left, one on the right and one at the rear.

Quick change coupling top section

with hinge bores, complete

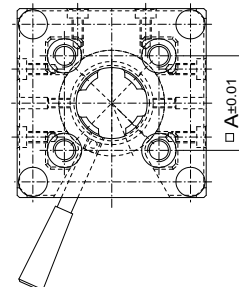
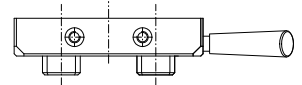
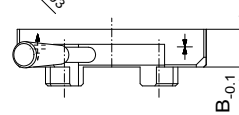
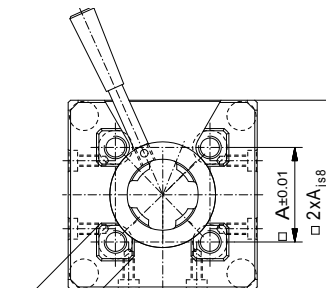
Nr.	A (AF)	B	C	
282471	25	15	M6	101
282472	40	24	M10	415
282473	50	30	M12	810
283320	40/25	24	M6	415
283330	50/25	30	M6	810



Quick change coupling bottom section

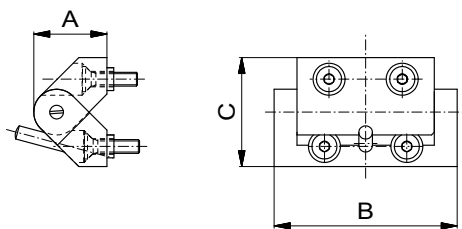
with hinge bores, complete

Nr.	A (AF)	B	
282474	25	10	75
282475	40	16	305
282476	50	20	550



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

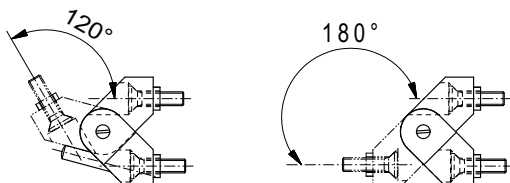
Other versions on request



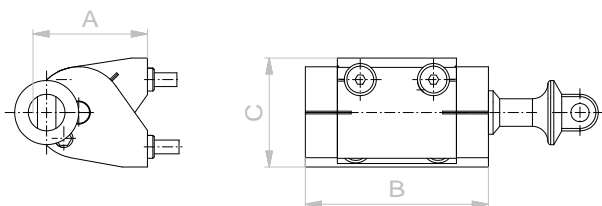
Hinge

for quick change coupling, complete

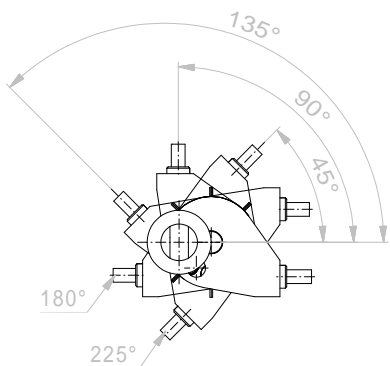
Nr.	AF	A	B	C	
282386	25	16	40	23,8	18
282387	40	25,6	64	38	91
282388	50	32	80	47,6	140



Cylindrical pin limits opening angle to 120°

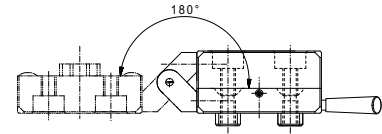
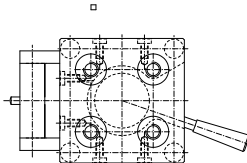
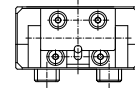
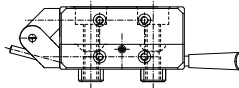
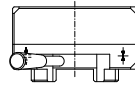
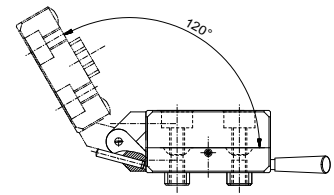
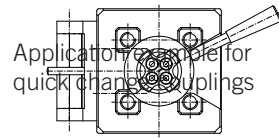


Nr.	AF	A	B	C	
286856	25	25	40	23,8	-
286857	40	36,6	64	38	-
286858	50	43	80	47,6	-



Quick change coupling

Assembly



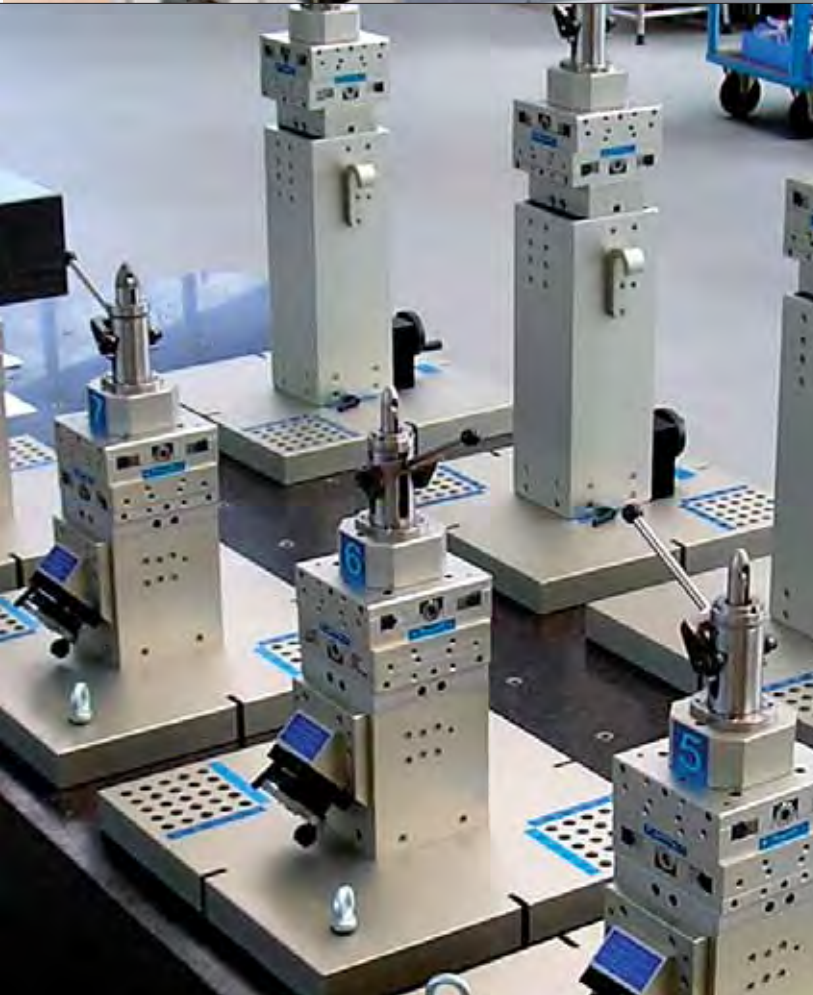
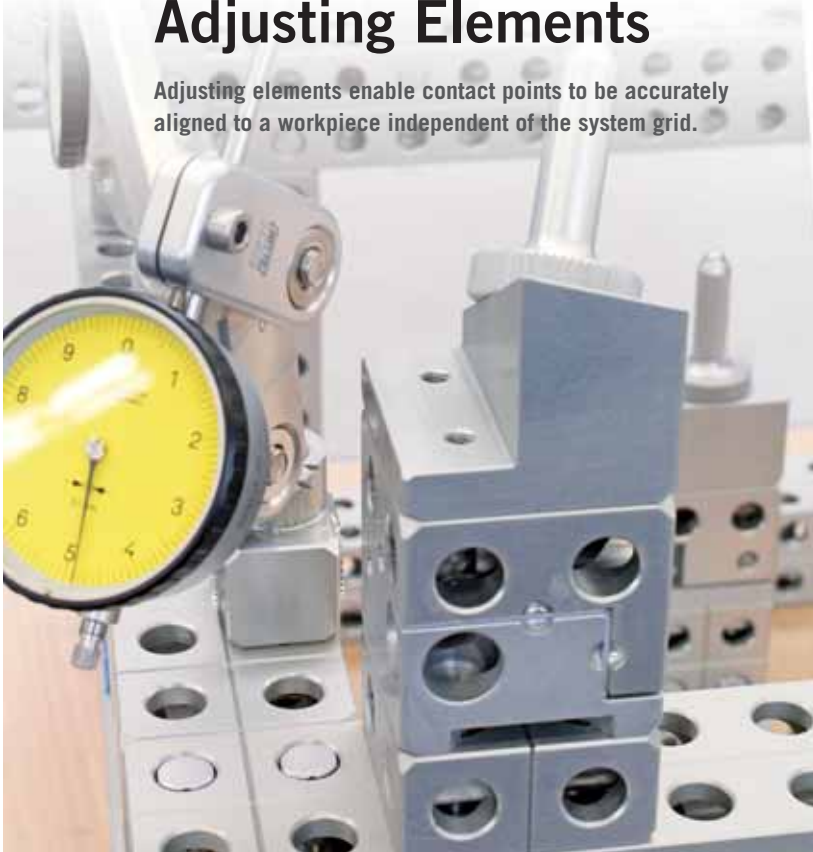
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

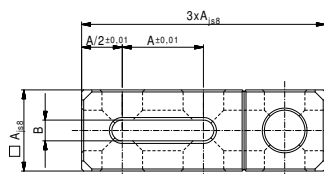
Other versions on request



ALUFIX CLASSIC Adjusting Elements

Adjusting elements enable contact points to be accurately aligned to a workpiece independent of the system grid.

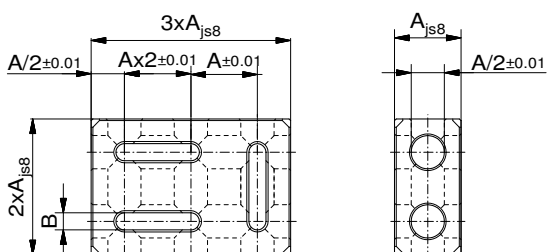




Bar 1D

for positioning in 1 axis independent of grid

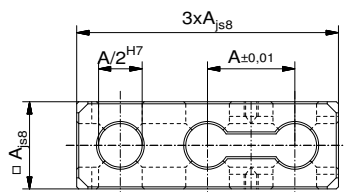
Nr.	A (AF)	B	g
20114	16	4,1	20
23233	25	6,8	80
23279	40	10,8	320
28040	50	13,7	625



Base plate 2D

for positioning in 2 axes independent of grid

Nr.	A (AF)	B	g
20397	16	4,1	40
23232	25	6,8	160
23280	40	10,8	1.090
28342	50	13,7	1.266



Bar with 1 offset unit

fine adjustment with a screw connection in 1 axis

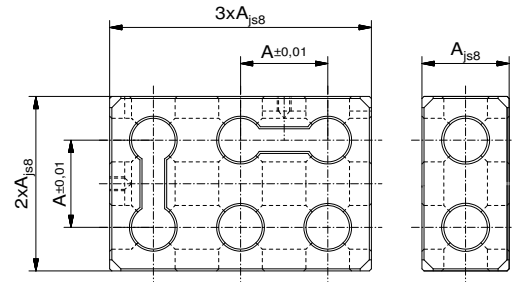
Nr.	A (AF)	g
81021	25	81
81022	40	347
82764	50	800



Base plate with 2 offset units

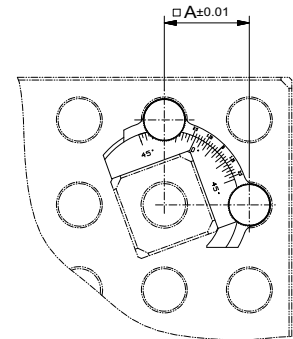
fine adjustment with a screw connection in 2 axes

Nr.	A (AF)	
81023	25	162
81024	40	707
82765	50	1.400



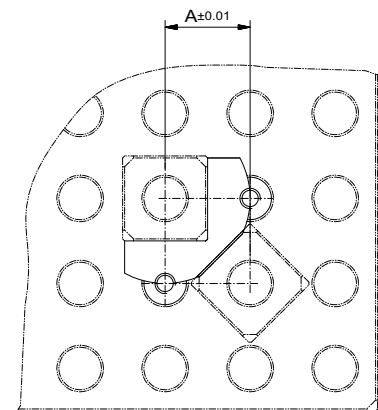
Heel block 45° - 90°

Nr.	A (AF)	
81607	16	4
81390	25	13
81577	40	53
82768	50	69



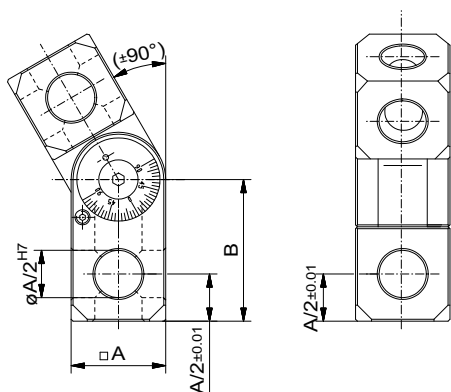
Heel block 45°/ 90°

Nr.	A (AF)	
23667	16	3
21426	25	10
21190	40	42
28042	50	54



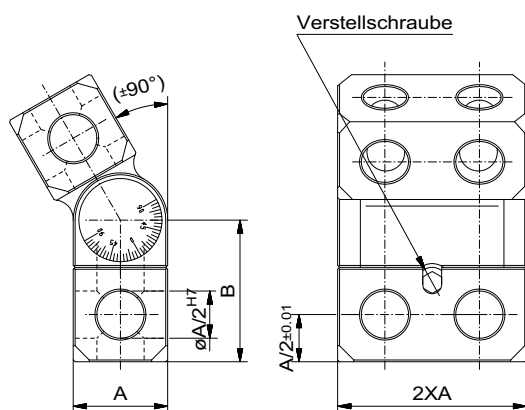
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Connection elements for the bars and base plates are shown on pages 148, 149. Other versions on request



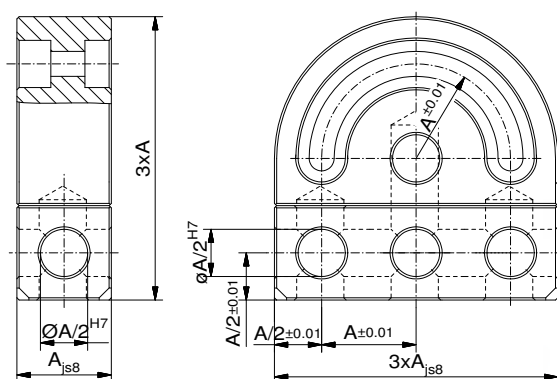
Knuckle

Nr.	A (AF)	B	g
81668	16	45	28
81326	25	37,5	108
81462	40	75	446
82767	50	75	860



Double knuckle

Nr.	A (AF)	B	g
81811	16	45	65
81028	25	37,5	242
81812	40	75	1.004
82621	50	75	2.442



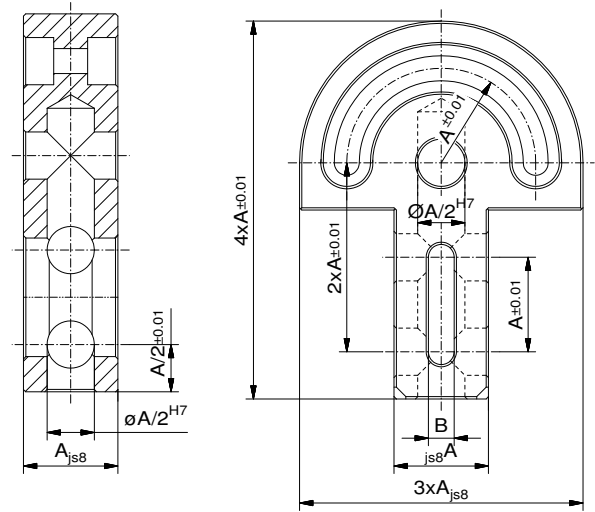
Swivel

Nr.	A (AF)	g
24578	16	56
24318	25	216
24579	40	891
28041	50	1.700



Swivel-T

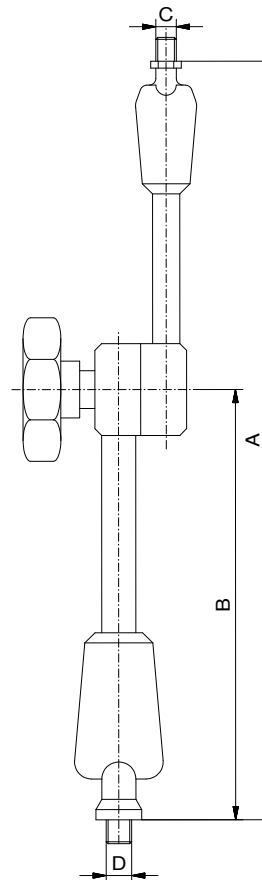
Nr.	A (AF)	B	
30667	25	6,8	195



Swivel arm AF 25

with joint

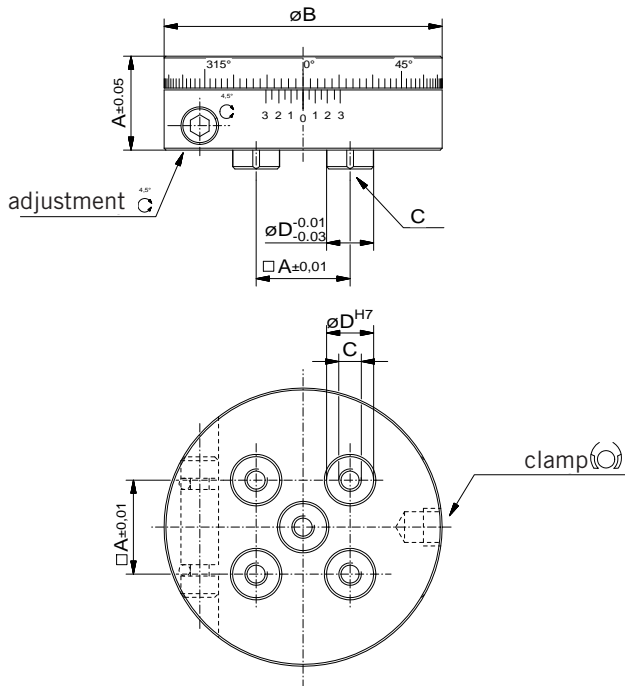
Nr.	A	B	C	D	max. load	
85411	130	70	M6	M6	30 N	135
82121	205	115	M6	M8	40 N	282
82122	285	175	M6	M8	70 N	687



Special connection elements for swivel arms on page 154



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



Rotary plate AF 25

with infinitely variable clamp

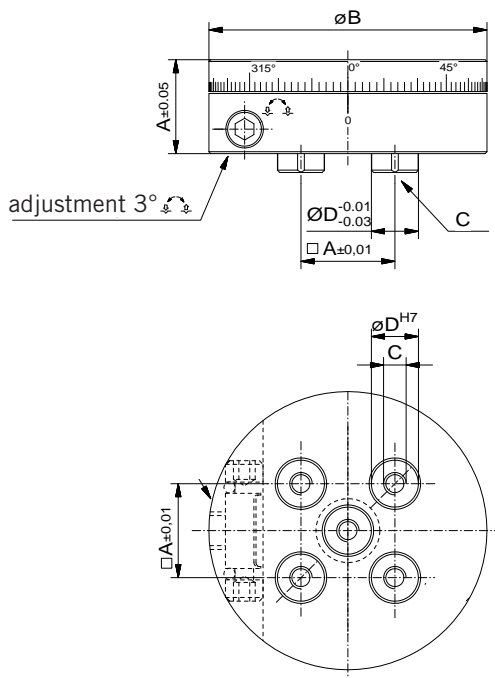
Nr.	A	B	C	D	
96741	25	74	M6	12,5	340



Rotary plate AF 25

with 3° settings and lock pin

Nr.	A	B	C	D	
96742	25	74	M6	12,5	340



Adapter plate

for keyless chuck D50

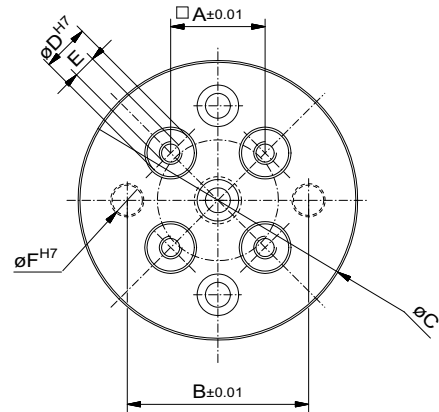
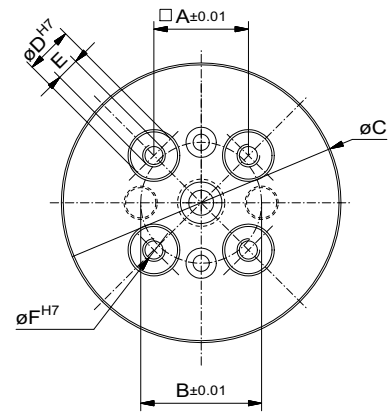
Nr.	A	B	C	D	E	F	
56162	25	32	74	12,5	M6	8	123



for keyless chuck D80

Nr.	A	B	C	D	E	F	
56161	25	48	74	12,5	M6	8	123

Adapter plates also available including suitable connection elements
 D50 – **97893**
 D80 – **97892**



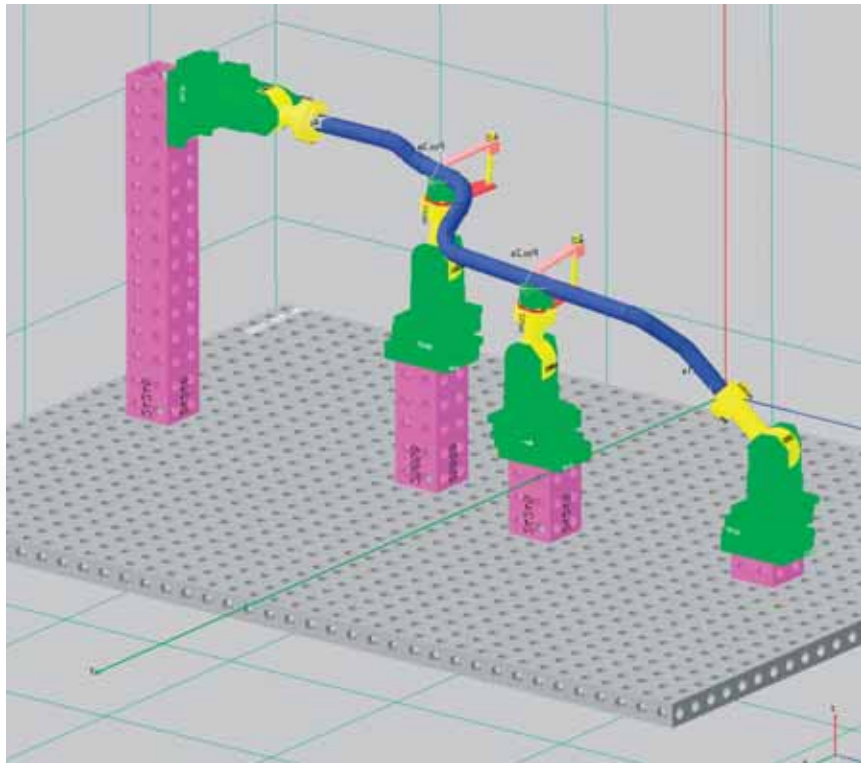
Application example:
 Keyless chuck mounted on a rotary plate and Alufix Classic bar



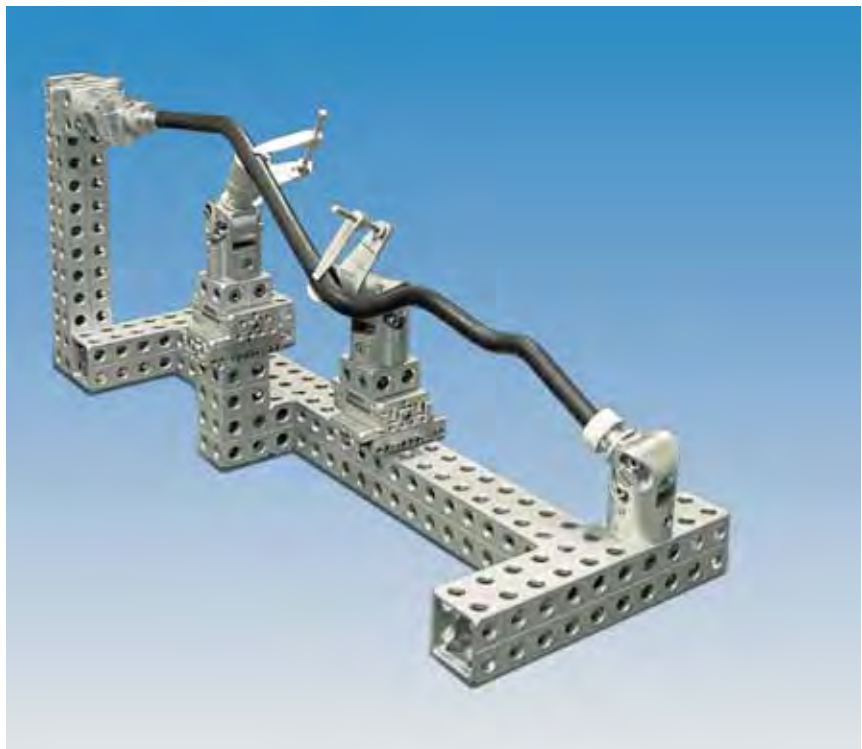
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Rotary swing unit

Applications



Measuring fixture for hose.
The positions and angles required are easily calculated with the help of Alufix Expert software (page 238). Fixtures like this are implemented very quickly.



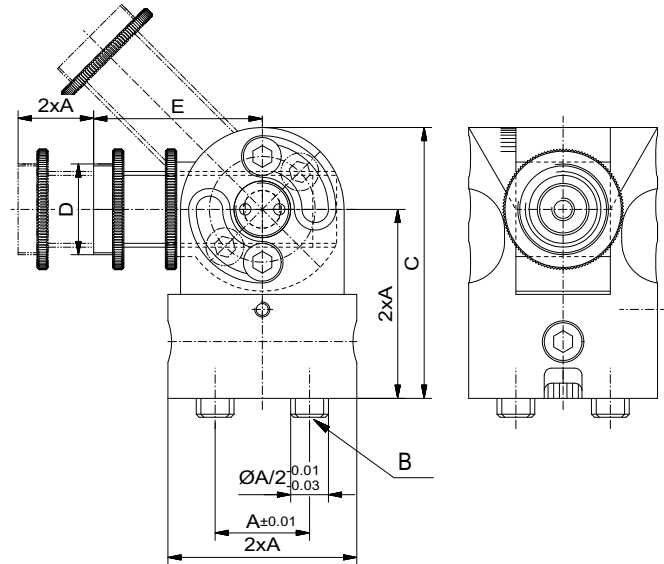
Rotary swing unit

with thread

Nr.	A (AF)	B	C	D	E	
93063	25	M6	72	24x1	44,6	342
99794	40	M10	115	32x1	69	750



Rotary swing unit 99794 for Alufix 40 with worm gear for fine adjustment in both rotating axes



Rotary swing unit

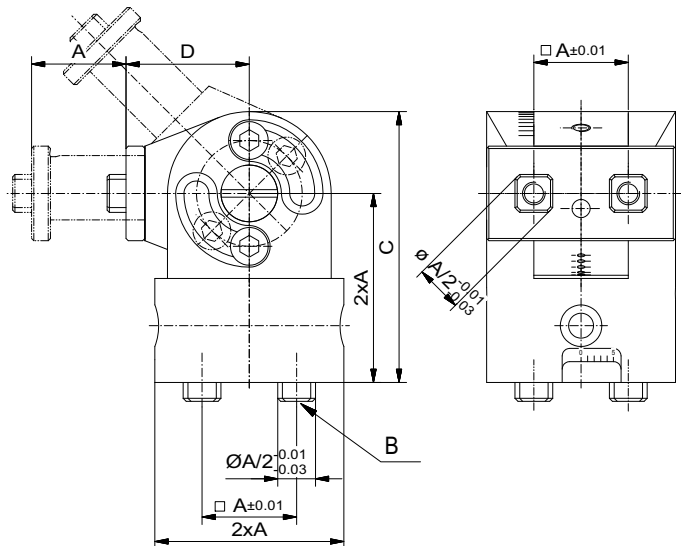
with nubs

Nr.	A (AF)	B	C	D	
93660	25	M6	72	32,6	370
99807	40	M10	115	50	750



Rotary swing unit 99807 for Alufix 40 with worm gear for fine adjustment in both rotating axes

Rotary swing unit 93660 and 99794 for Alufix 40 with fine adjustment



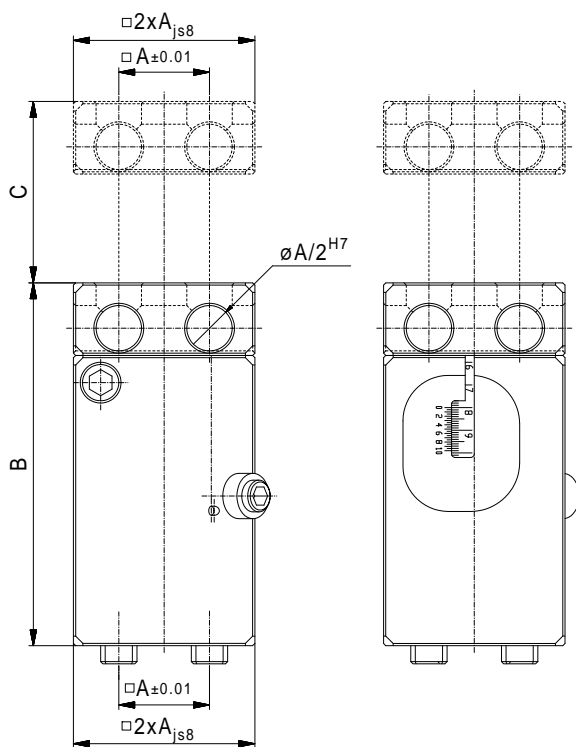
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



ALUFIX Jacks


Alufix jacks are used to position and level different sized parts for measuring.

These operator-friendly jacks are configured according to application and customer requirements.



Rack gear jack

with height adjustment using a gear jack, vernier 0,05mm

Nr.	A (AF)	B	C	max. load	
82060	25	100	20	30 kg	570
81871	25	150	75	30 kg	800
82829	40	280	140	45 kg	2.314
90539	50	300	150	60 kg	1.715

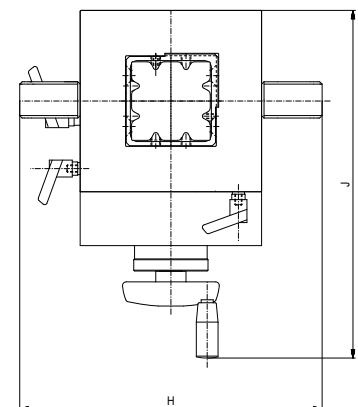
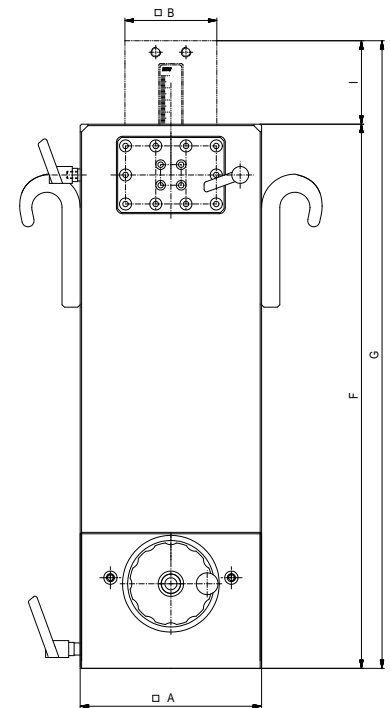
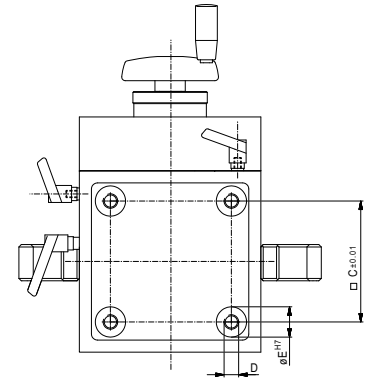


Jack 2000, Heavy Duty

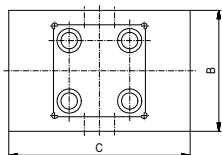
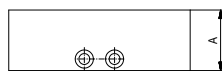
with height adjustment via crank handle, load capacity: 2000kg

Nr.	A	B	C	D	E	F	G	H	I	J	
98230	150	76	100	M12	25	450	700	250	250	288	21.000

Top blocks are not included in jack supply, they must be ordered separately.



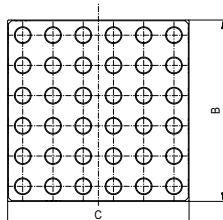
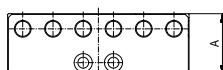
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



Top block AF50 for jack

with AF50 holes and connectors

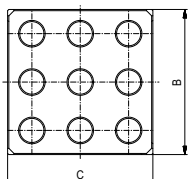
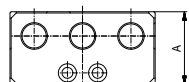
Nr.	A	B	C	
98217	50	100	150	1.924



Top block AF25 for jack

with AF25 grid and connectors

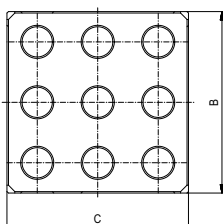
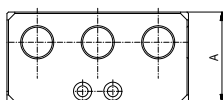
Nr.	A	B	C	
98218	50	150	150	1.823



Top block AF40 for jack

with AF40 grid and connectors

Nr.	A	B	C	
98219	60	120	120	2.150



Top block AF50 for jack

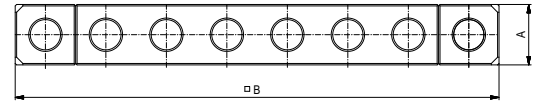
with AF50 grid and connectors

Nr.	A	B	C	
98220	75	150	150	4.100

Base plate for jack

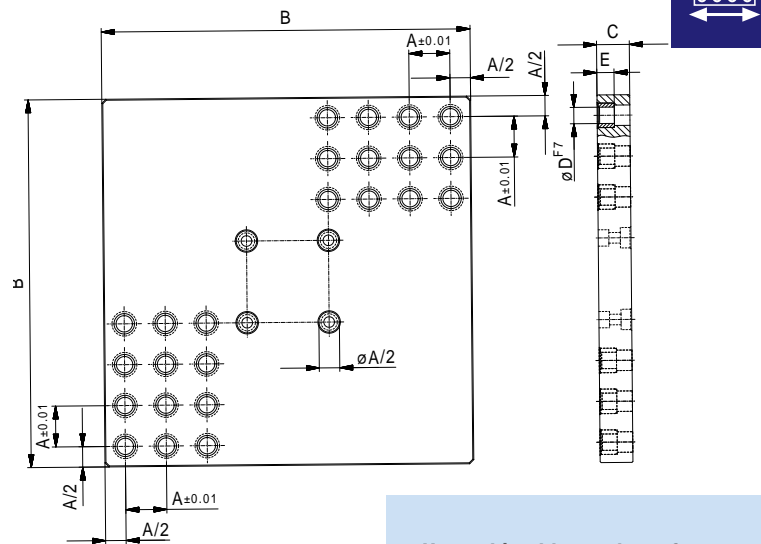
grid AF25, including connectors

Nr.	A	B	
98221	50	400	13.050

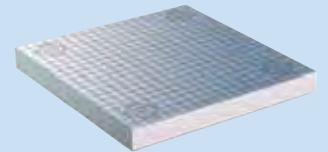


Base plate for jack

Nr.	A	B	C	D	E	
337271-A	50	450	40	ø20F7	21	21.500



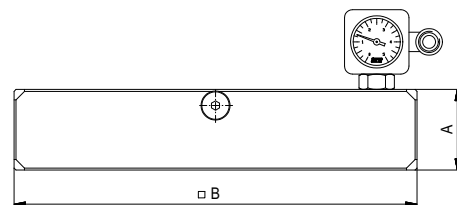
Unmachined base plates for jacks
or individually manufactured
base plates on request



Base plate for jack

with hovercraft and magnetic function, including connectors

Nr.	A	B	
281196	67	300	18.000



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

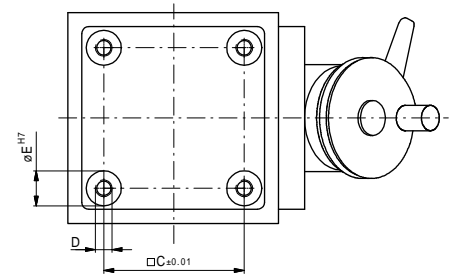
Other dimensions on request



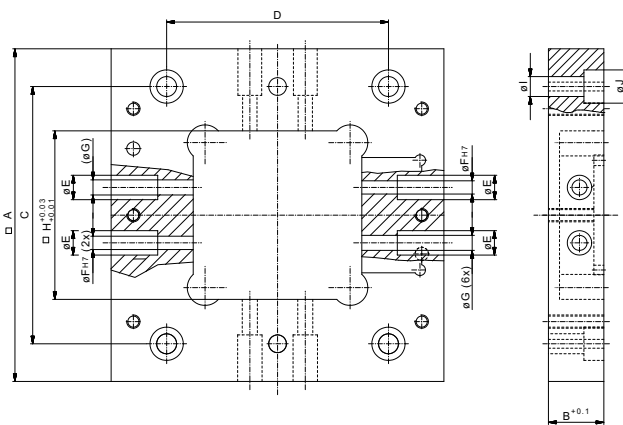
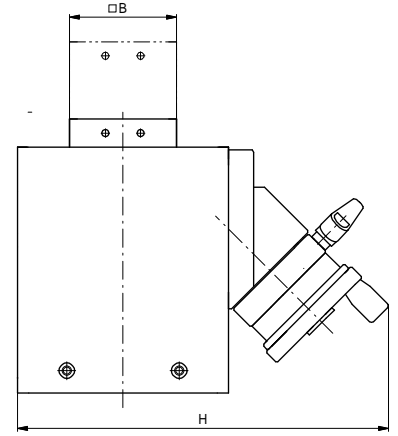
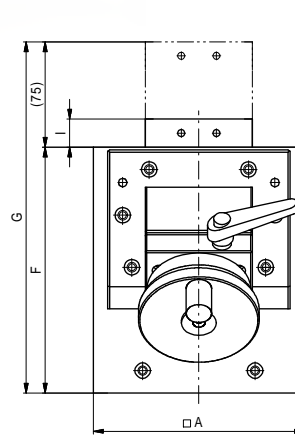
Jack 1000

with height adjustment via crank handle,
load capacity: 1000kg

Nr.	A	B	C	D	E	F	G	H	I	
92949	150	76	100	M12	25	175	250	265	20	10.115



Top blocks are not included in jack supply, they must be ordered separately.



Top block

for jack 92949

Nr.	A	B	C	D	E	F	G	H	I	J	
50219	150	25	116	100	11	6	6,8	76	9	15	1.200



Top blocks are not drilled but can be supplied with customized grid on request



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

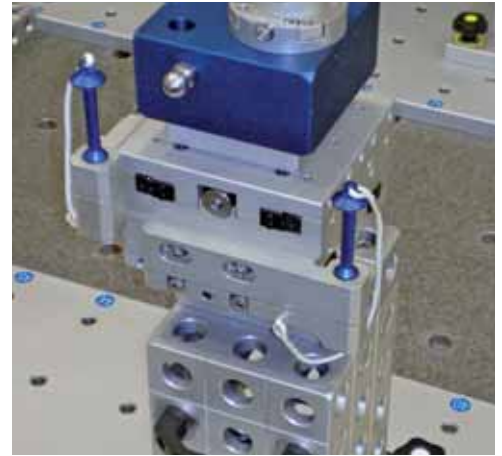


Right picture shows
jack 98230
with top block 98218
and base plate 98222



ALUFIX

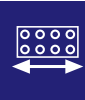
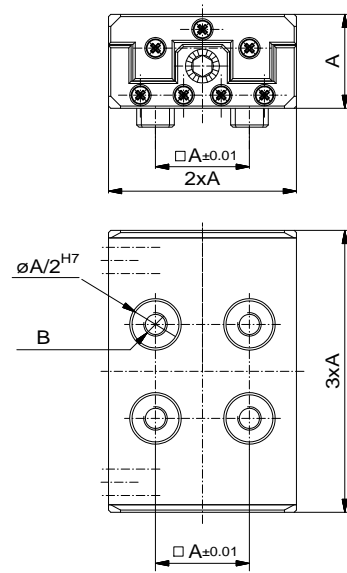
roller and
guiding slides



Roller slide

adjustment using a screw spindle

Nr.	A (AF)	B	max. load	shift	
82453	16	M4	20 kg	±9	89
82172	25	M6	50 kg	±13,5	242
82173	40	M10	150 kg	±22	970
82398	50	M12	250 kg	±27	1.910



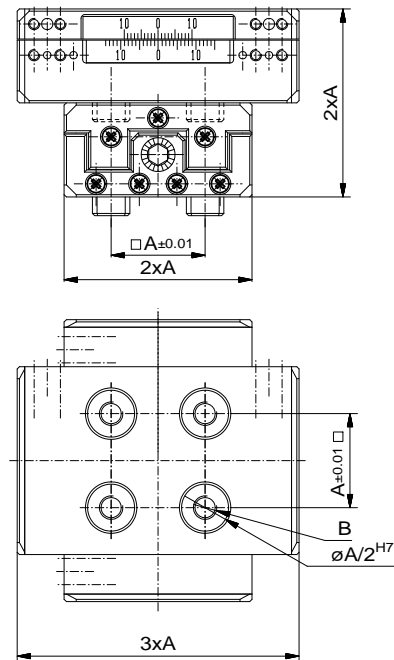
Cross roller slide

adjustment using a screw spindle

Nr.	A (AF)	B	max. load	shift	
82461	16	M4	20 kg	±9	178
82462	25	M6	50 kg	±13,5	484
82463	40	M10	150 kg	±22	1.940
82399	50	M12	250 kg	±27	3.820

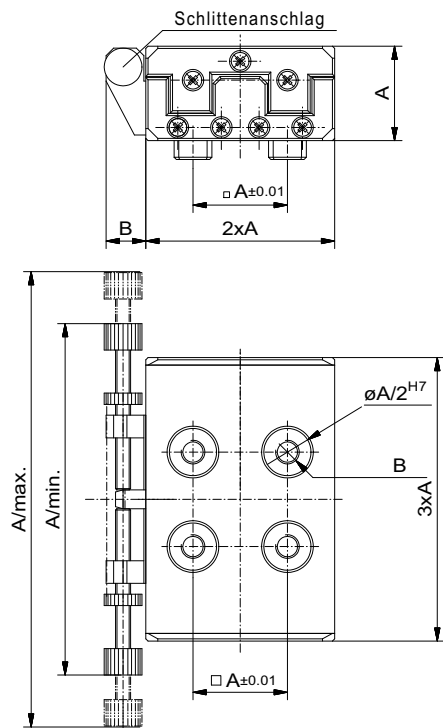


Roller slides and cross roller slides can be optionally equipped with rotating knob/s



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

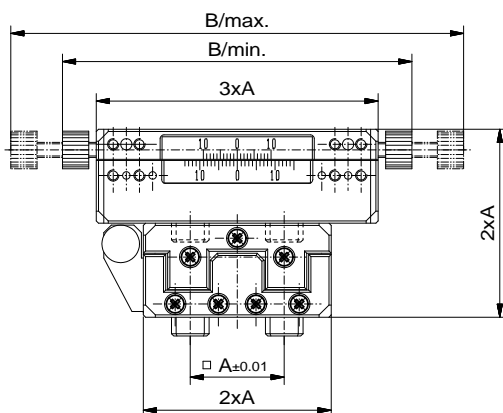
Other dimensions on request



Guiding slide with slide stop

movement assisted by free floating rollers

Nr.	A (AF)	B	shift	A/min	A/max	max. load	
82015	16	7	$\pm 8,5$	59	77	20 kg	70
82002	25	10,5	$\pm 13,5$	93	120,5	50 kg	250
82016	40	16,8	± 22	146,8	192	150 kg	1.024
82441	50	21	$\pm 27,5$	186	242	250 kg	6.000



Cross guiding slide with slide stop

movement assisted by free floating rollers

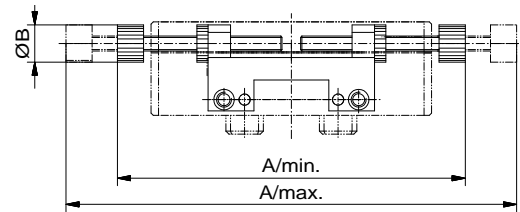
Nr.	A (AF)	B/min	B/max	max. load	shift	
82436	16	59	77	20 kg	$\pm 8,5$	150
82437	25	93	120,5	50 kg	$\pm 13,5$	520
82438	40	146,8	192	150 kg	± 22	2.100
82439	50	186	242	250 kg	$\pm 27,5$	12.500



Slide stop

for guiding or roller slides

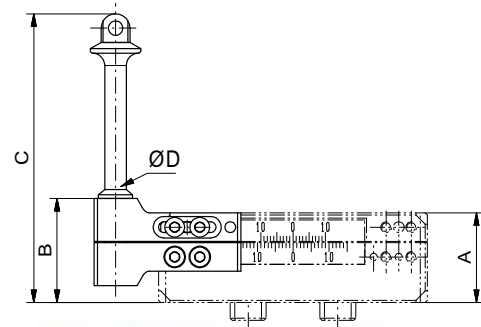
Nr.	AF	A/min	A/max	B	
82411	25	59	77	6,4	98
82412	40	93	120,5	10	115
82413	50	146,8	192	16	131
82414	50	186	242	19	140



Positioning guide and pin

to fix guiding slides in "0" position

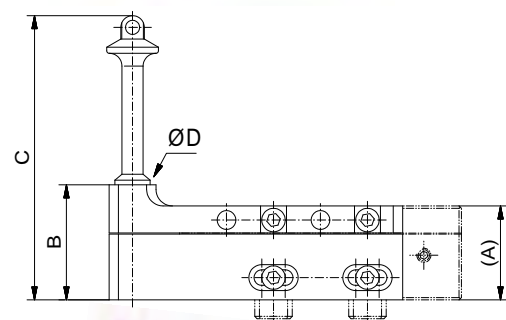
Nr.	A (AF)	B	C	D	Type	
82711	25	20	80,5	6	left	50
84321	25	20	80,5	6	right	50
82833	40	47	110	8	left	180
84320	40	47	110	8	right	180
83083	50	58	135	12	left	294
84322	50	58	135	12	right	294



Positioning guide and pin

to fix heavy duty (HD) guiding slides in "0" position

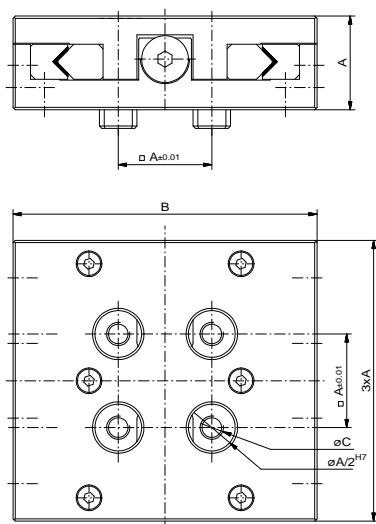
Nr.	A (AF)	B	C	D	Type	
92642	25	30,5	82	6	left	240
92643	25	30,5	82	6	right	240
92644	40	49	121	8	left	372
92645	40	49	121	8	right	372
92646	50	61	138	12	left	586
92647	50	61	138	12	right	586



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other dimensions on request

Witte heavy duty slides are available with slide bearing or roller bearing. Slides with roller bearing can cope with a higher load capacity lauf with free floating operation



Guiding slide, heavy duty

guided with slide bearings

Nr.	A (AF)	B	C	max. load	shift	
92364	25	79	M6	75 kg	+/- 12,5	450
92423	40	130	M10	225 kg	+/- 20	2.000
92424	50	158	M12	375 kg	+/- 25	3.500

guided with roller bearings

Nr.	A (AF)	B	C	max. load	shift	
280495	25	79	M6	150 kg	+/- 13	450
280496	40	130	M10	450 kg	+/- 21	2.000
280497	50	158	M12	750 kg	+/- 26	3.500



Version with slide bearings



Application example:
Anodized black with positioning pin and guide mounted

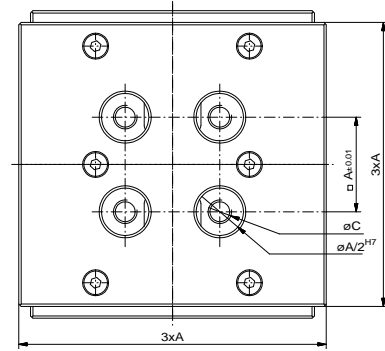
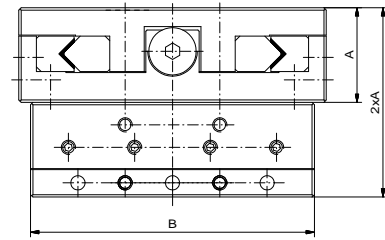
Cross guiding slide, heavy duty

guided with slide bearings

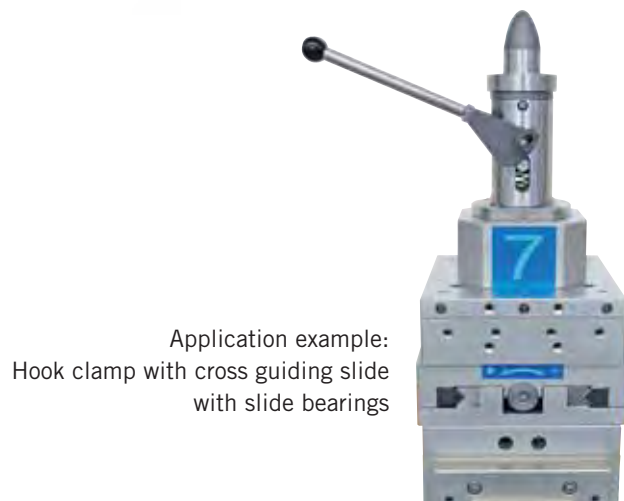
Nr.	A (AF)	B	C	max. load	shift	
92031	25	79	M6	75 kg	+/- 12,5	900
92425	40	130	M10	225 kg	+/- 20	4.000
92426	50	158	M12	375 kg	+/- 25	7.000

guided with roller bearings

Nr.	A (AF)	B	C	max. load	shift	
280498	25	79	M6	150 kg	+/- 13	900
280499	40	130	M10	450 kg	+/- 21	4.000
280500	50	158	M12	750 kg	+/- 26	7.000



Version with roller bearings



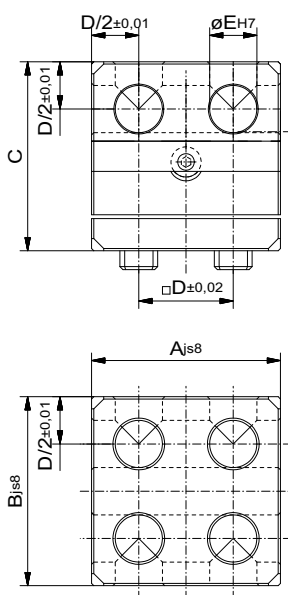
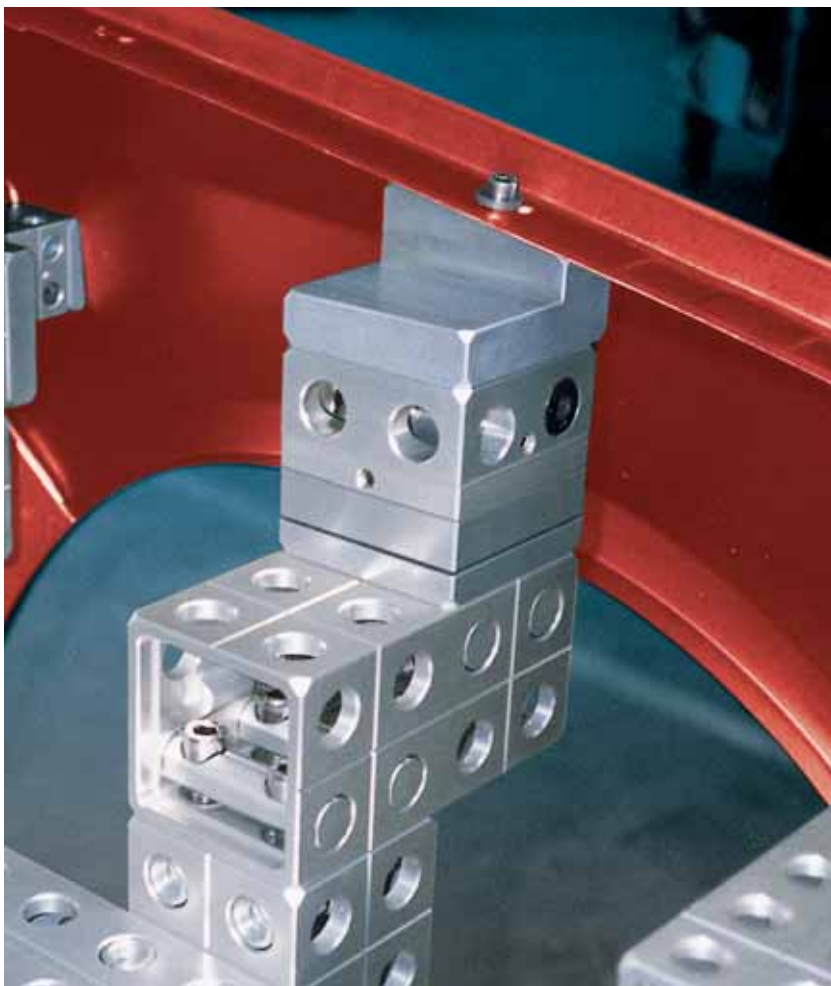
Application example:
Hook clamp with cross guiding slide
with slide bearings



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.


ALUFIX

Adjustment blocks



3D Adjustment block

for fine adjustment in three axes, centric clamping

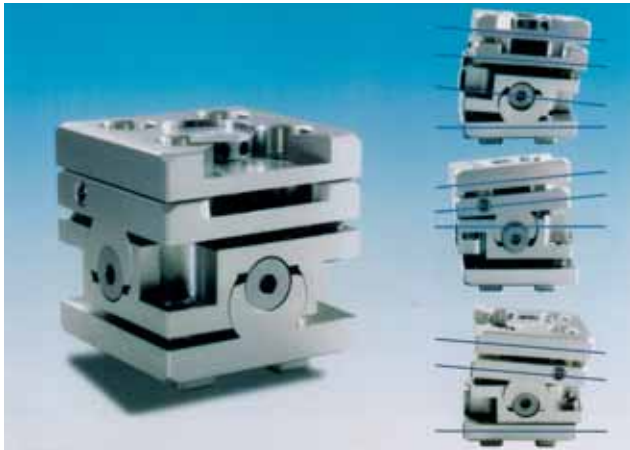
Nr.	$\phi E/D=AF$	A x B x C	shift	
82244	12,5/25	50x50x50	x,y: +/- 1,5; z: +/- 0,7	294
82339	20/40	80x80x80	x,y: +/- 2,0; z: +/- 1,0	1.240
82766	25/50	100x100x100	x,y: +/- 3,0; z: +/- 1,5	2.381



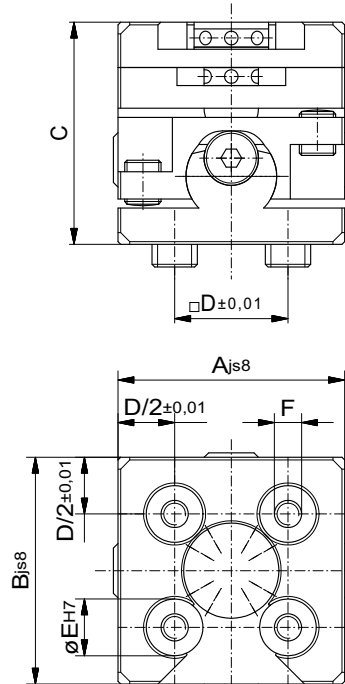
6D Adjustment block

for fine adjustment in six axes, centric clamping

Nr.	D (AF)	AxBxC	ϕE / F	linear x/y	linear z	rotation x/y	rotation z	
85340	25	50x50x50	12,5 / M6	+/- 2,0	+/- 1,5	+/- 12°	+/- 5°	318
85341	40	80x80x80	20 / M10	+/- 2,5	+/- 2,0	+/- 12°	+/- 5°	1.150
85390	50	100x100x100	25 / M12	+/- 3,0	+/- 2,5	+/- 12°	+/- 5°	2.482



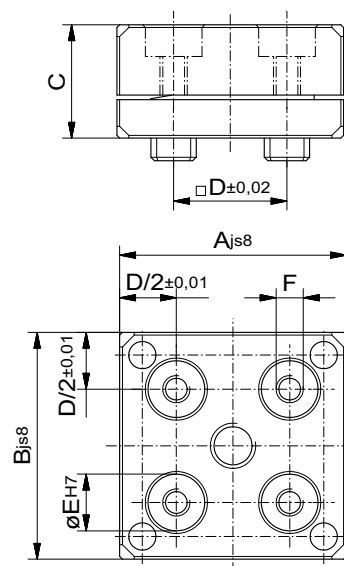
The 6D-adjustment block allows not only linear movement but also angled or rotated movement. Machining, assembly or workpiece tolerances can be easily evened out. Cylindrical guiding elements, which allow translatory and also rotary adjustment were incorporated into the design.



Levelling plate

for fine adjustment in one axis, screw clamping

Nr.	D(AF)	AxBxC	ϕE / F	shift	
91670	25	50x50x25	12,5 / M6	+/- 1,0	165
91671	40	80x80x40	20 / M10	+/- 1,3	680
91084	50	100x100x50	25 / M12	+/- 1,6	1.400



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



Guiding slide with cross roller guides

Maximum load when evenly spread over whole surface: 20kN.

Maximum load when spread unevenly or at single points: 2,8kN

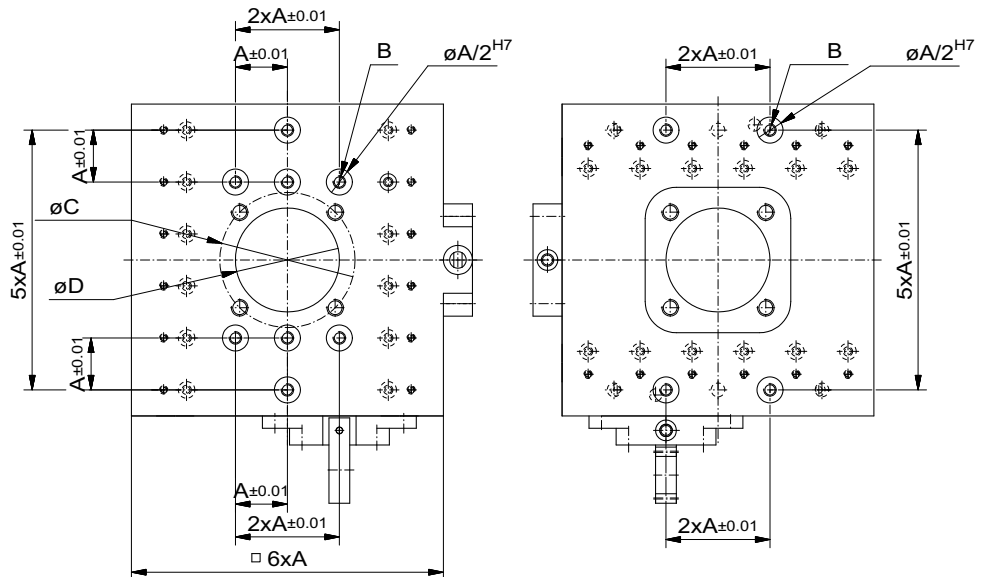
If foot for hook clamp is mounted, slide can carry 6kN.

Maximum sideways force against hook clamp tip: 4kN

Guiding slide with cross roller guides

AF25, with mounting hole for i.e. hook clamp

Nr.	A(AF)	B	C	D	
92736	25	M6	65	50	3.000



Characteristics:

Material: High tensile aluminium

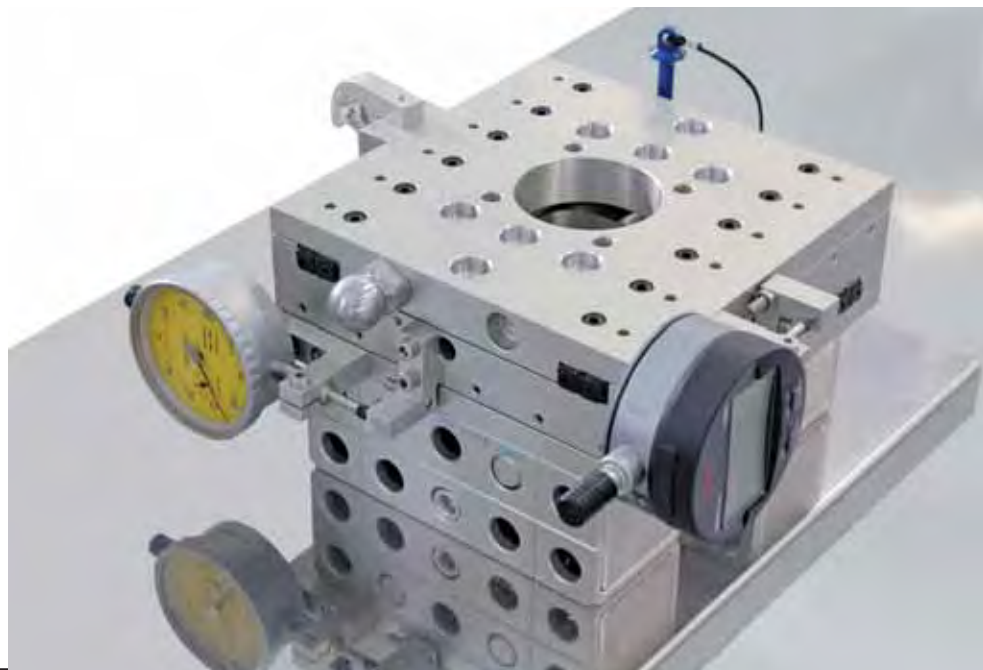
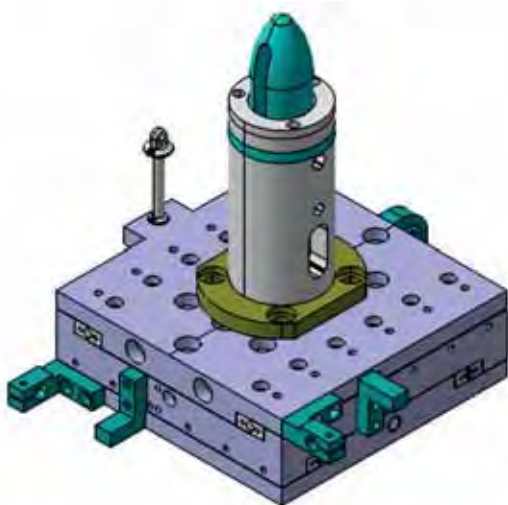
Dimensions: 150x150x50 (lxwxh)

Shift: +/- 25mm in both directions

Integrated zero pitch

Optional dial gauge holder can be mounted on top or bottom

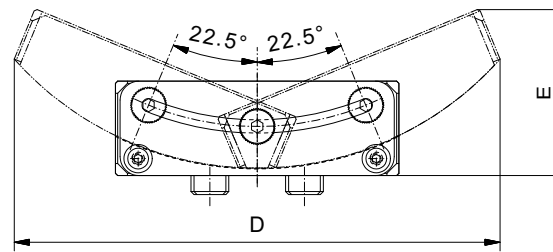
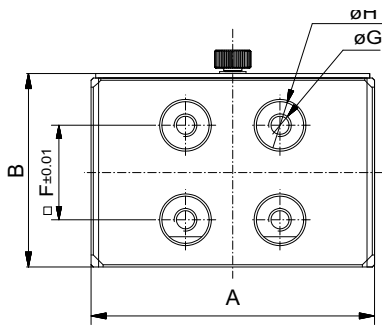
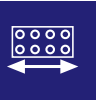
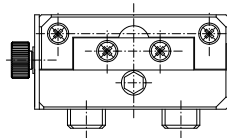
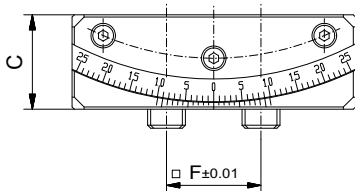
Anodized natural, black or other colour on request



Rocker AF25

for positioning, with screw clamping

Nr.	A	B	C	D	E	F (AF)	G	H	g
82972	75	51	25	128,5	44	25	M6	12,5	242
283778	120	82	40	206	70	40	M8	20	900



Tilt and turntable

#84918

with Alufix 25 grid in top surface

Dimensions:

L450 x W350 x H100 mm

Comprising of 4 levels, connected with a scissor mechanism, allowing a maximum tilt angle of 10° in X and Y axis.

The top level can be rotated horizontally +/- 10° in Z axis.

Adjustment of the tilt and turntable is effected with fine threaded spindles.



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

i Other dimensions on request

Simple slide

with circular guides and regulating screw



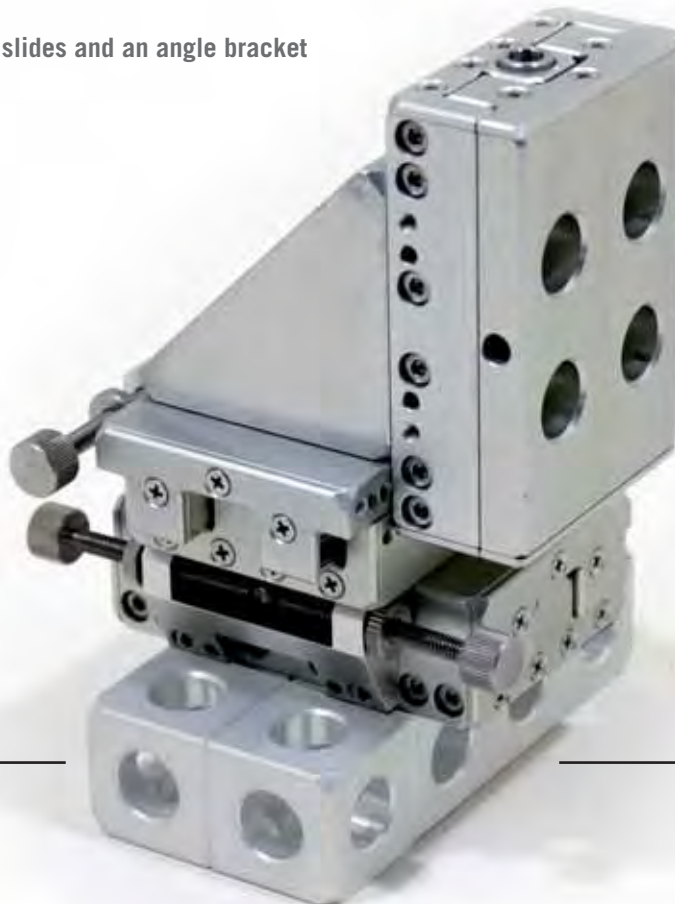
Short shift guiding slide

with lock



XYZ slide

using three roller slides and an angle bracket



Motorized slide
with step motor



Motorized jack
with step motor



Control unit
for motorized adjusting elements with
selection of direction and step size



Power Unit
for up to 4 motorized adjusting elements

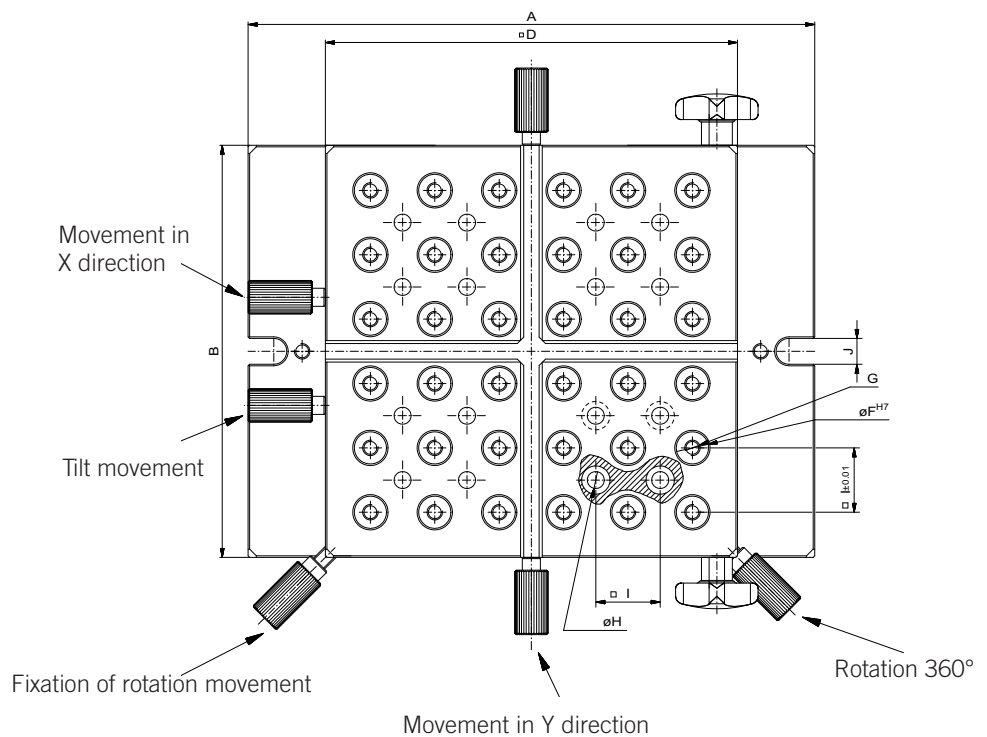
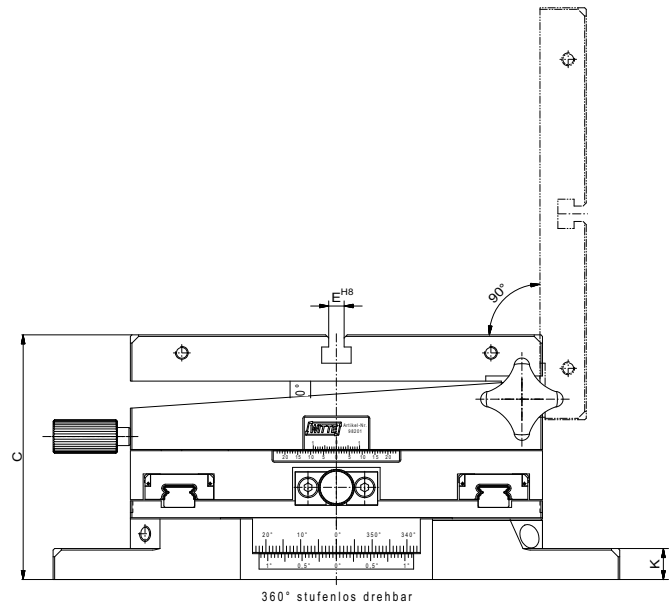




Tilt and turntable for measuring instruments

for positioning and clamping in 4 axes

Nr.	A	B	C	D	E	F	G	H	I	J	K	g
98201	220	160	95	160	6	12,5	M6	6,6	25	10	12	9.500



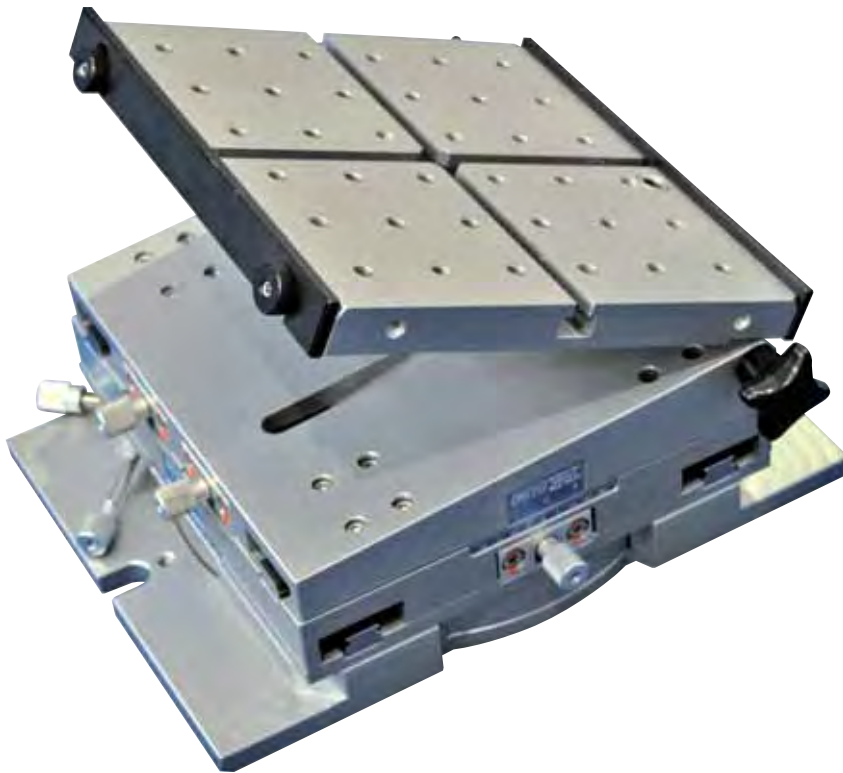
Tilt/Turntable for individual workpiece location and clamping.

For linear measurement on surface, roughness and/or roundness measuring equipment it is necessary to align surfaces/outlines to be measured parallel to the measuring axis or to move the part into the corresponding axis.

Because this is often a problem especially with uneven, convex or concave parts, so-called swivel tables are used.

This novel Witte turntable concept offers advantages of our renowned system technology - lightweight design with high stability, and together with modular fixturing elements is ideal for integrating into existing environments.

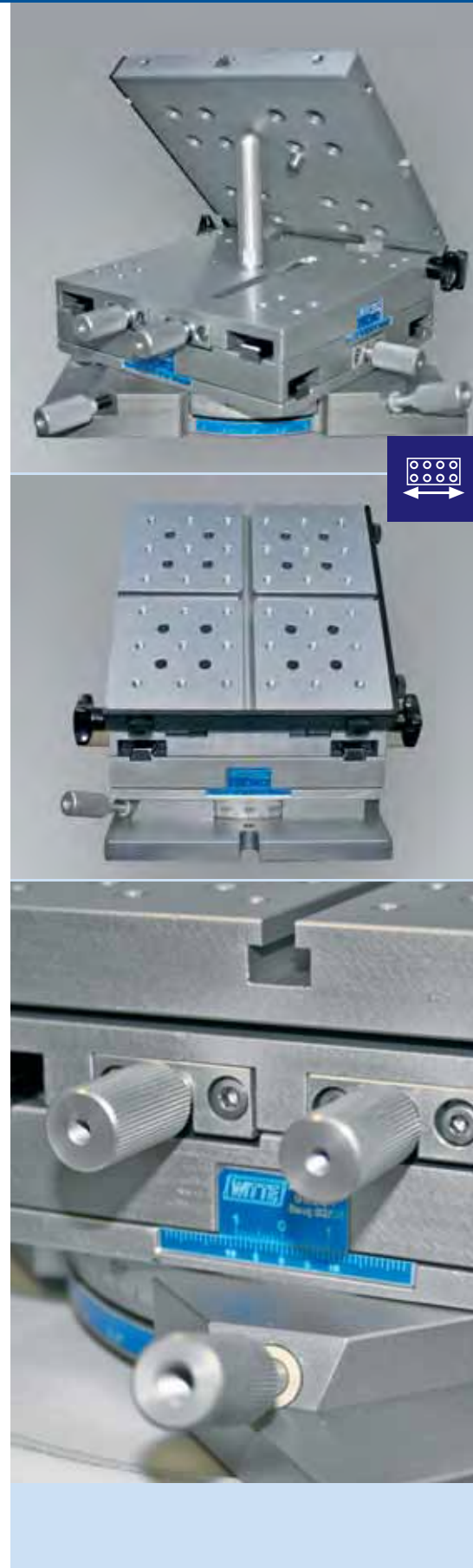
The Witte tilt/turntable is an excellent stand alone solution to combine with 3D coordinate measuring machines


Technical data

Dimensions L x W x H:.....220 mm x 160 mm x 95 mm (folded)
 Positioning:Rotation 360°
 Setting:.....X- und Y-Axis with linear guide ±12,5mm
 Angled table surface:±3°
 (all above settings are infinite, lockable in any position)
 Table angle:.....up to 90°; optional lock possibilities at 45° and 90°

Further technical information:

- T-slots in table centre (90° offset)
- 36 M5 threaded holes, 16 holes for fixing pins Dia. 6
- Moveable stops for outer edges
- Finely ground table under surface for accurate base connection
- Face end threads and slots for fixation
- Capacity max 100N



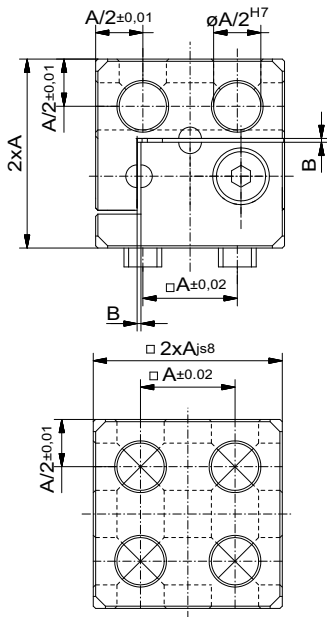
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



ALUFIX shim blocks

Adjustment in X,Y,Z takes place by inserting or removing shim foils or shims. After adjustment settings are fixed using pins.

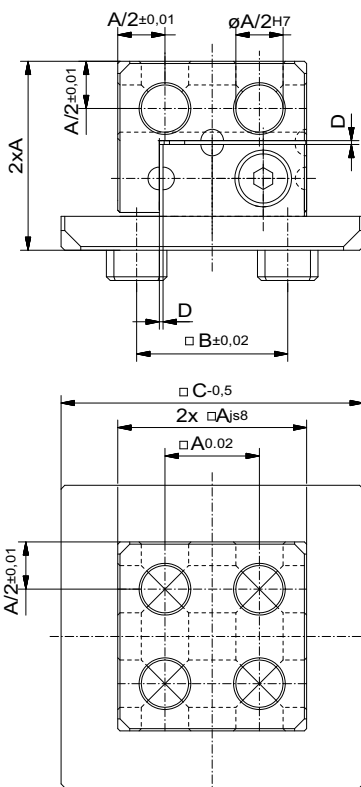
Values shown in the chart for range of adjustment are maximal values for one axis. Values in brackets show adjustment range when using more than one axis simultaneously.



3D Shim block AF

for fine adjustment in 3 axes X,Y,Z, using shim foils (page 78).

Nr.	øE/D (AF)	A x B x C	shift	
89177	12,5/25	50x50x50	x,y,z: +/- 1,0 (0,7)	294
89178	20/40	80x80x80	x,y,z: +/- 1,6 (1,1)	1.100
89179	25/50	100x100x100	x,y,z: +/- 2,0 (1,4)	2.326



3D Shim block, reducer

for fine adjustment in 3 axes X,Y,Z, using shim foils (page 78).

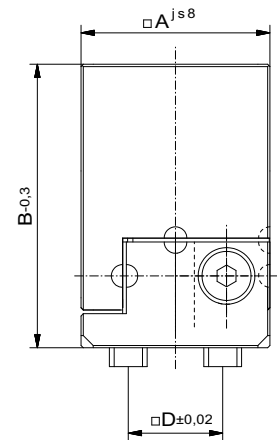
Nr.	E (AF)	A x B x C x D	F	shift	Typ	
91837	40/25	50x50x50x80	12,5	x,y,z: +/- 1,0 (0,7)	left	537
280764	40/25	50x50x50x80	12,5	x,y,z: +/- 1,0 (0,7)	right	537
91838	50/25	50x50x50x100	12,5	x,y,z: +/- 1,0 (0,7)		632



3D Shim block with integrated contour block

for fine adjustment in 3 axes X,Y,Z, using shim foils (page 78).

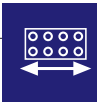
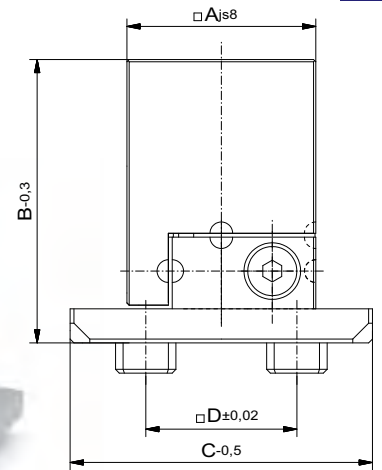
Nr.	D (AF)	AxAxB	shift	
91834	25	50x50x70	x,y,z: +/- 1,0 (0,7)	473
91835	40	80x80x120	x,y,z: +/- 1,6 (1,1)	2.074
91836	50	100x100x150	x,y,z: +/- 2,0 (1,4)	4.275



3D Shim block, reducer with contour block

for fine adjustment in 3 axes X,Y,Z, using shim foils (page 78).

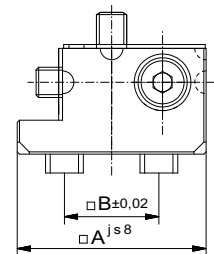
Nr.	D (AF)	AxAxBxC	shift	
91839	40/25	50x50x75x80	x,y,z: +/- 1,0 (0,7)	645
91840	50/40	50x50x75x100	x,y,z: +/- 1,6 (1,1)	743



3D Shim block base, side mounting

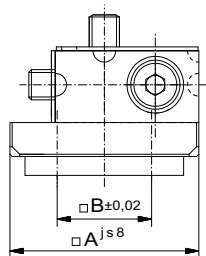
complete with shims and screws

Nr.	B (AF)	AxA	
92165	25	50x50	203
92166	40	80x80	778
92167	50	100x100	1.485



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

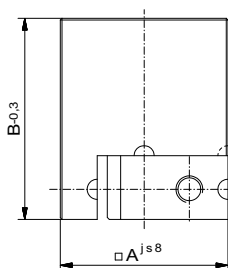
Other versions on request



3D Shim block base, face mounting

including coupling, complete with shims and screws

Nr.	B (AF)	A x A	g
92226	25	50x50	203
92227	40	80x80	778
92228	50	100x100	1.485
92229	25	75 x 75	456
92230	40	120 x 120	1.750
92231	50	150 x 150	3.341

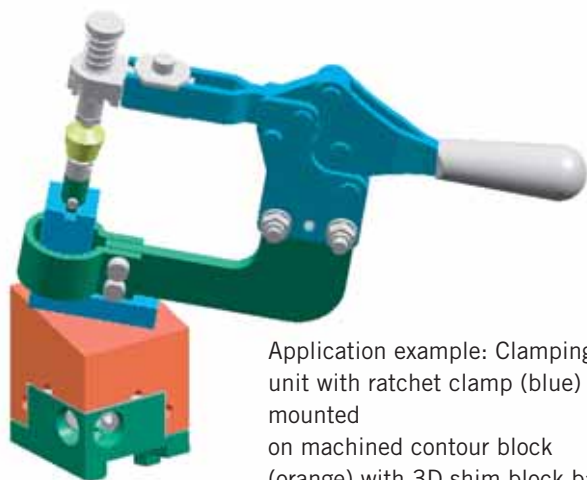


Contour block

for 3D Shim block

Nr.	B (AF)	A x A x B	g
34768	25	50x50x65	356
34769	25	50x50x90	536
34770	25	75x75x65	866
34771	40	80x80x104	1.879
34772	40	80x80x144	2.227
34773	40	120x120x104	4.871
34774	50	100x100x130	2.926
34775	50	100x100x180	5.833
34776	50	150x150x130	6.900

Other dimensions on request




Application example: Clamping unit with ratchet clamp (blue) mounted on machined contour block (orange) with 3D shim block base



Shim block premium

with two shim packages for each direction of adjustment



-  Shim package I:
For setting zero position, held magnetically
- Shim package II:
To even out workpiece tolerances




Application example: Premium shim block with centering pin



Application example: Premium shim block with clamping unit with ratchet clamp mounted on machined contour block



 **ALUFIX CLASSIC** elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

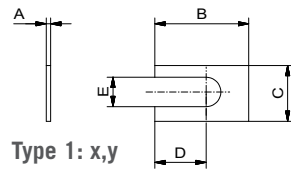
 Detailed information on request



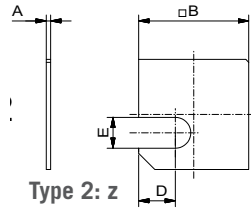
Peelable shim foil
for gaps between elements,
in various thicknesses.
Comprises of 0,05mm
thick laminated alu-foils.
The easy process of peeling
with a knife can be carried
out on the spot when spa-
cers are required.

The advantages:

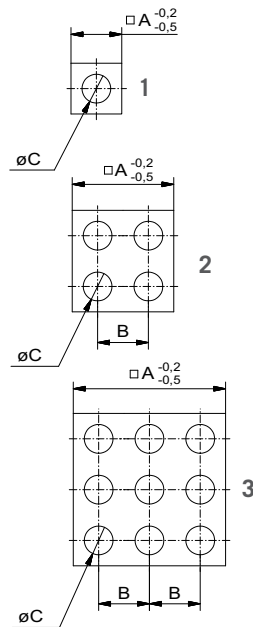
- Tolerances are evened out making remachining jobs such as milling, grinding etc. unnecessary
- Reduces setting up times
- Reduces amount of machining required



Type 1: x,y



Type 2: z



Shimfoil type 1 or 2

peelable, in 0,05mm layers, for setting of shim blocks

Nr.	System	Type	A	B	C	D	E	
33013	AF 25	2	1,0	37,5	-	12,5	10	1,5
33014	AF 25	1	1,0	32	19	20,5	10	2,5
33261	AF 40	2	1,6	60,5	-	20,5	20	6
33260	AF 40	1	1,6	50	30	30	14	9
33632	AF 50	2	2,0	75	-	25	25	12
33633	AF 50	1	2,0	60	38	35	18	19

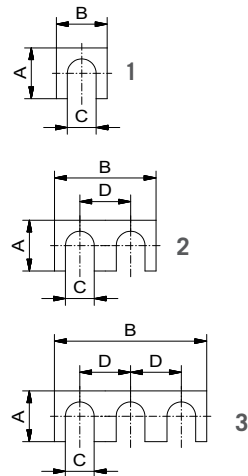
Shimfoil closed

peelable, 2mm thick, in 0,05mm layers

Nr.	System	Type	A	B	C	
27716	AF 16	1	15	16	8,5	1
27717	AF 16	2	31	16	8,5	4
27718	AF 16	3	47	16	8,5	1
27719	AF 25	1	24	25	13	5
27720	AF 25	2	49	25	13	10
27721	AF 25	3	74	25	13	20
27722	AF 40	1	39	40	20,5	6
27723	AF 40	2	79	40	20,5	26
27724	AF 40	3	119	40	20,5	60
29315	AF 50	1	49	50	25,2	10
29316	AF 50	2	99	50	25,5	41
29317	AF 50	3	149	50	25,5	95

Shimfoil open

peelable, 2mm thick, in 0,05mm layers



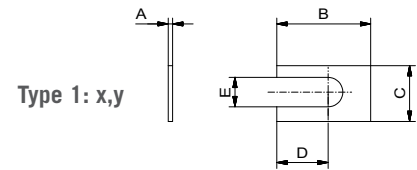
Nr.	System	Type	A	B	C	D	
25526	AF 16	1	15	15	8,5	-	1
25527	AF 16	2	15	31	8,5	16	1
25528	AF 16	3	15	47	8,5	16	2
25529	AF 25	1	24	24	13	-	2
25530	AF 25	2	24	49	13	25	4
25531	AF 25	3	24	74	13	25	10
25535	AF 25	2	49	49	13	25	8
25532	AF 40	1	39	39	20,5	-	8
25533	AF 40	2	39	79	20,5	40	10
25534	AF 40	3	39	119	20,5	40	16
27963	AF 50	1	49	49	25,5	-	8
27964	AF 50	2	49	99	25,5	50	16
27965	AF 50	3	49	149	25,5	50	25

Shim (with fixed thickness)

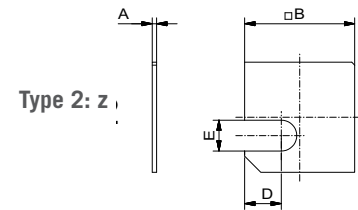
for setting of shim blocks

Nr.	System	Type	A	B	C	D	E
122 010 - 122 200	AF25	1	0,1 - 2,0	32	19	20,5	10
123 010 - 123 200	AF25	2	0,1 - 2,0	37,5	37,5	12,5	10
124 010 - 124 320	AF40	1	0,1 - 3,2	50	30	30	14
125 010 - 125 320	AF40	2	0,1 - 3,2	60,5	60,5	20,5	20
126 010 - 126 400	AF50	1	0,1 - 4,0	60	38	35	18
127 010 - 127 400	AF50	2	0,1 - 4,0	75	75	25	25

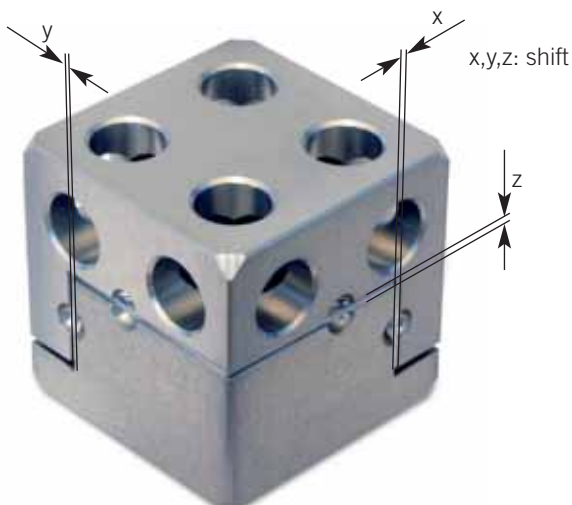
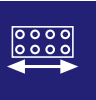
i Last three digits of order number correspond to shim thickness in 1/100mm.
 Example:
 Shim AF25 type 2: **No. 123XXX**,
 Desired thickness: 1,65 mm
 Order number is **123165**



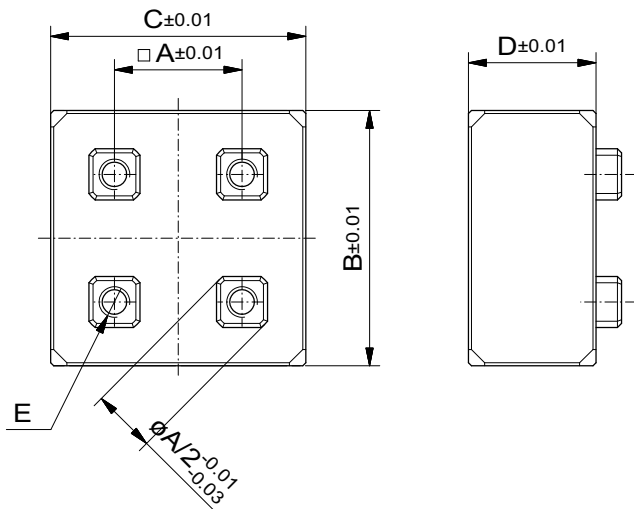
Type 1: x,y



Type 2: z



Adjustment takes place by adding or taking away shims and/or shim foils.
 After adjustment settings can be fixed using pins.



Contour blocks

ALUFIX 25 / 40 / 50

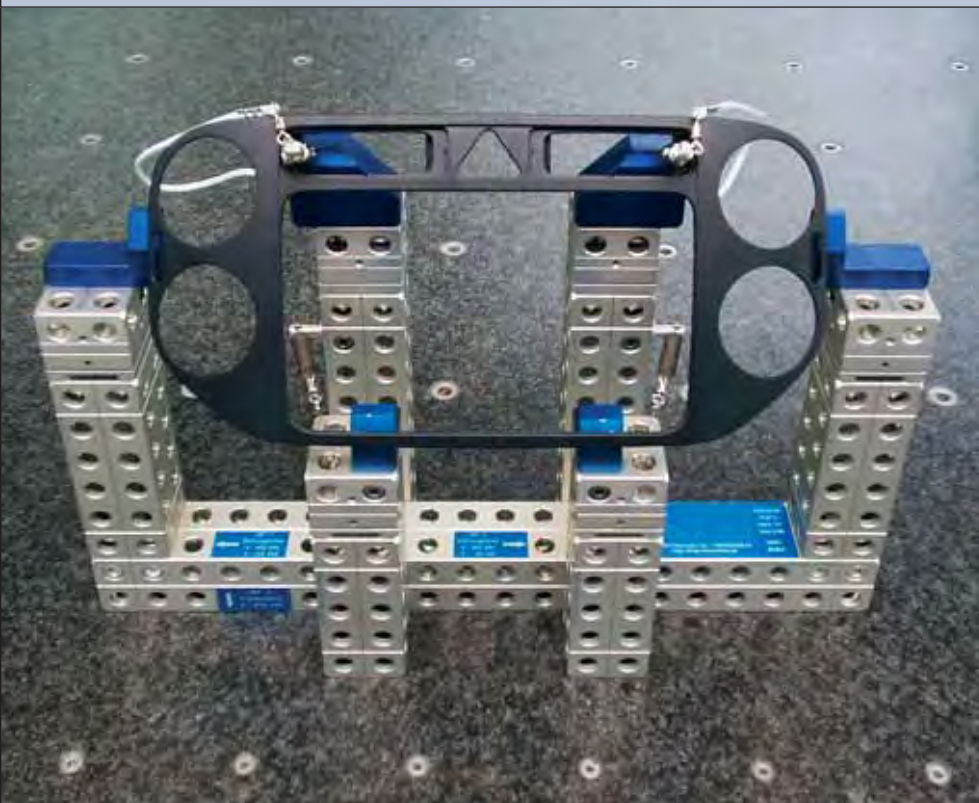
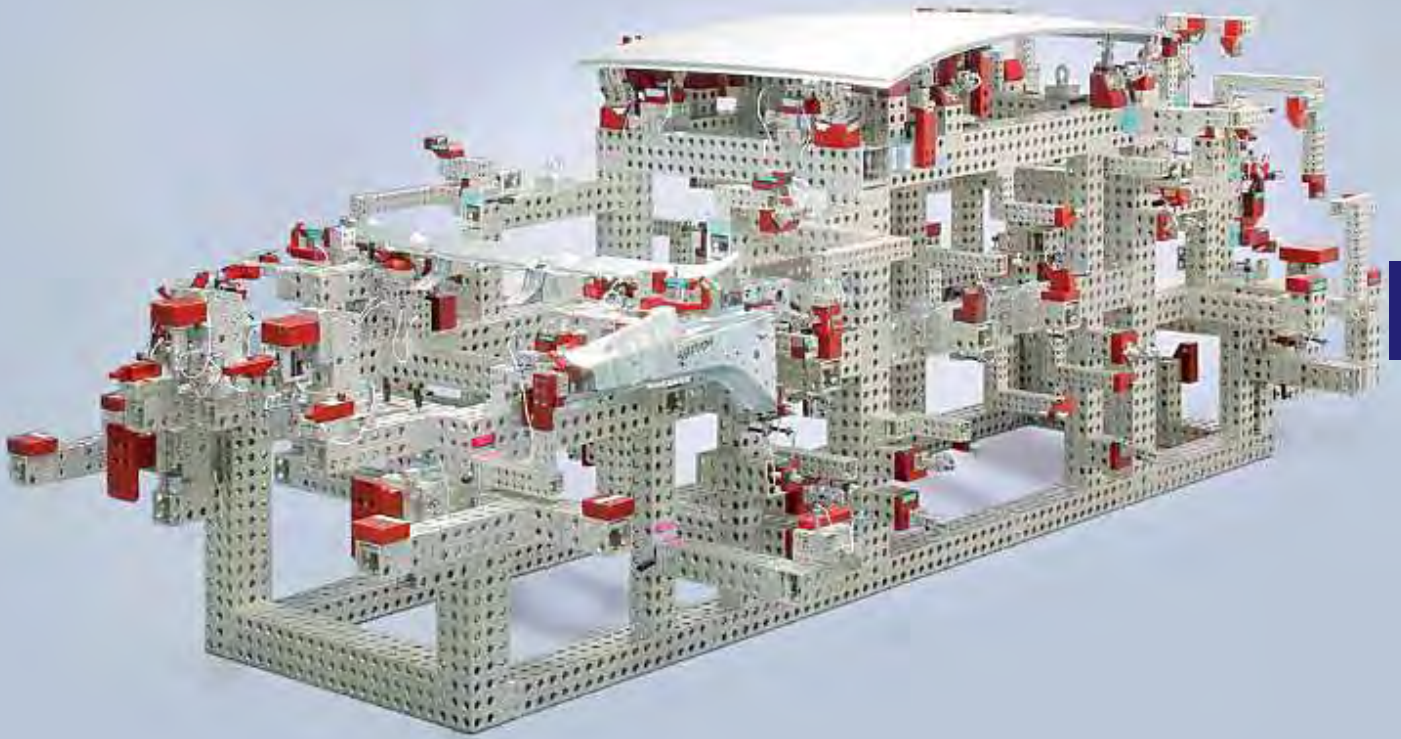
Nr.	A(AF)	B	C	D	E	g
23366	25	25	25	25	M6	45
23367	25	25	50	25	M6	89
23368	25	50	50	25	M6	179
23617	25	50	75	25	M6	268
25312	25	25	50	50	M6	179
23369	25	50	50	50	M6	358
25314	25	50	75	50	M6	536
23618	25	100	100	50	M6	1.430
23630	40	40	40	40	M10	183
23631	40	40	80	40	M10	366
23632	40	80	80	40	M10	732
23633	40	80	120	40	M10	1.098
25313	40	40	80	80	M10	732
23634	40	80	80	80	M10	1.464
25315	40	80	120	80	M10	2.196
23635	40	160	160	80	M10	5.857
28049	50	50	50	50	M12	358
28050	50	50	100	50	M12	715
28051	50	100	100	50	M12	1.430
28052	50	100	150	50	M12	2.145
27537	50	50	100	100	M12	1.430
28053	50	100	100	100	M12	2.860
27367	50	100	150	100	M12	4.290
28054	50	200	200	100	M12	11.440



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other dimensions on request

Meisterbock for automobile
All contour blocks are anodized red
according to customer's request



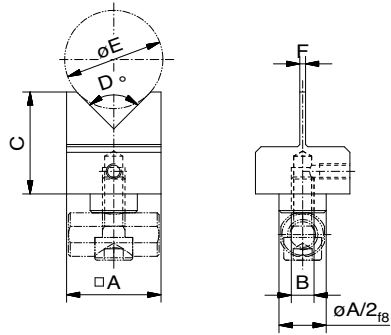
ALUFIX CLASSIC V Pieces and Delta Blocks



V piece 90°

single

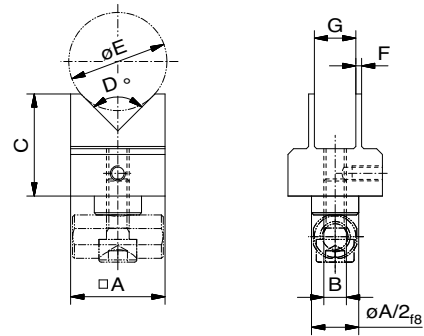
Nr.	A(AF)	B	C	D	E	F	
80923	16	M4	17,5	90°	max.∅ 17	1	9
82230	25	M6	27	90°	max.∅ 26	1,5	32



V piece 90°

double, V narrow

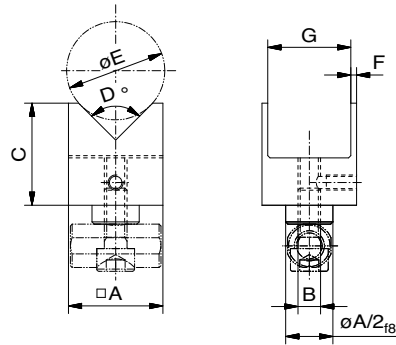
Nr.	A(AF)	B	C	D	E	F	G	
80921	16	M4	17,5	90°	max.∅ 17	1	7	10
82232	25	M6	27	90°	max.∅ 26	1,5	11	35



V piece 90°

double, V wide

Nr.	A(AF)	B	C	D	E	F	G	
80922	16	M4	17,5	90°	max.∅ 17	1	14	10
82231	25	M6	27	90°	max.∅ 26	1,5	22	35



Application using optional stop, see page 100



ALUFIX CLASSIC Alufix Classic elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



V block 90°

standard version

Nr.	A(AF)	max. ϕ	\bar{g}
21991	16	45	51
21992	25	70	185
21272	40	113	189
28173	50	142	1.362



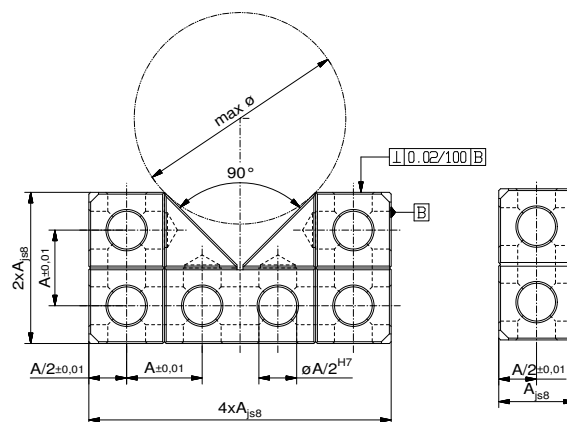
with hard metal surface

Nr.	A(AF)	max. ϕ	\bar{g}
80975	25	70	251
81511	40	113	1.115
82785	50	142	1.326



with magnetic surface

Nr.	A(AF)	max. ϕ	\bar{g}
81508	25	70	203
81513	40	113	1.115
82784	50	142	1.326



Surface of V blocks also available with polymer insert (POM, black) on request

V block 120°

standard version

Nr.	A(AF)	max. \varnothing	
21988	16	110	78
21987	25	170	299
21277	40	275	1.218
28175	50	345	2.395



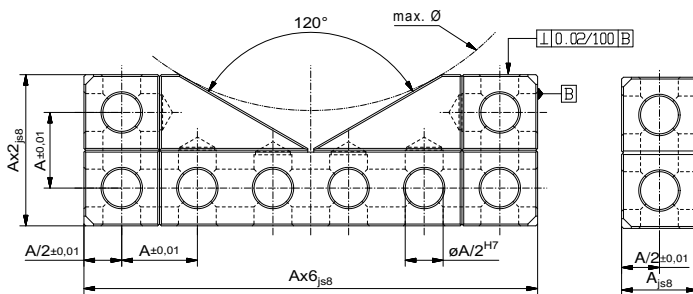
with hard metal surface

Nr.	A(AF)	max. \varnothing	
80976	25	170	382
81512	40	275	1.577
82786	50	345	2.350



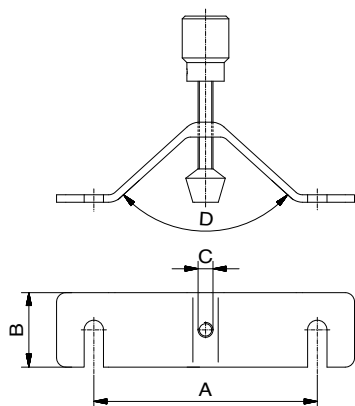
with magnetic surface

Nr.	A(AF)	max. \varnothing	
81509	25	170	316
81514	40	275	1.577
82787	50	345	2350



ALUFIX CLASSIC Alufix Classic elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

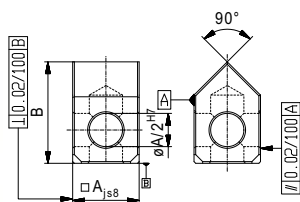
Surface of V blocks also available with polymer insert (POM, black) on request



Clamp bracket

for V-block

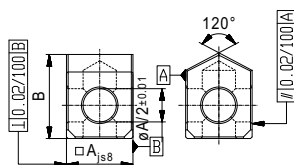
Nr.	System	A	B	C	D	g
285344	AF 25	75	25	M6	90°	80
285345	AF 25	100	25	M6	120°	100
285346	AF 40	120	40	M8	90°	210
285347	AF 40	160	40	M8	120°	270



Delta block 90°

Form 1

Nr.	A(AF)	B	g
22234	16	24	10
22235	25	37,5	35
22236	40	60	145
28043	50	75	173



Delta block 120°

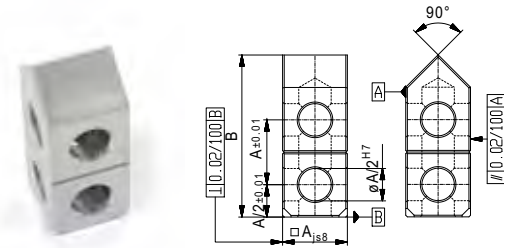
Form 1

Nr.	A(AF)	B	g
22240	16	20	8
22241	25	31,25	31
22242	40	50	126
28046	50	62,5	173

Delta block 90°

Form 2

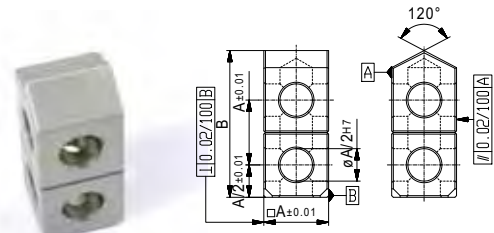
Nr.	A(AF)	B	
22176	16	40	16
22177	25	62,5	61
22178	40	100	253
28044	50	125	750



Delta block 120°

Form 2

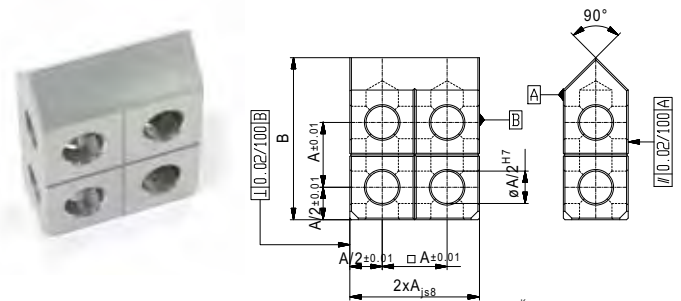
Nr.	A(AF)	B	
22252	16	36	15
22253	25	56,25	57
22254	40	90	234
28047	50	112,5	453



Delta block 90°

Form 3

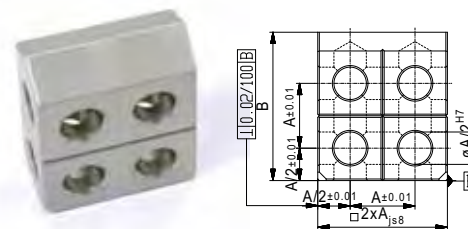
Nr.	A(AF)	B	
22173	16	40	18
22174	25	62,5	123
22175	40	100	506
28045	50	125	981



Delta block 120°

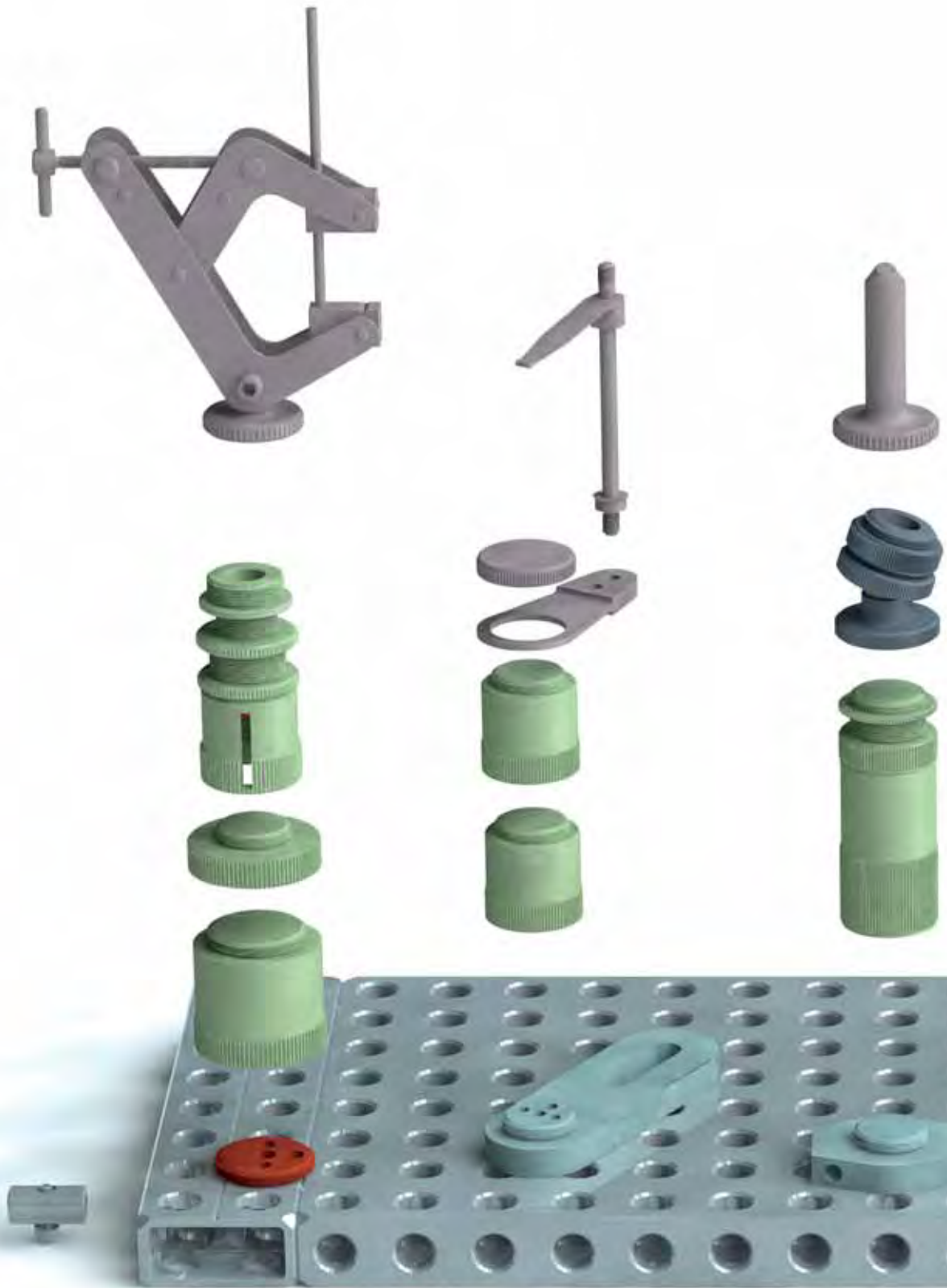
Form 3

Nr.	A(AF)	B	
22255	16	36	30
22256	25	56,25	114
22257	40	90	468
28048	50	112,5	1.173



ALUFIX CLASSIC Alufix Classic elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

i Delta blocks available in polymer (POM, black) on request



ALUFIX CLASSIC

Screw-Jacks and Top Sections

Screw-jacks and top sections provide the contact between workpiece and Alufix fixture. Reliable in grid or off-grid positioning is possible with ball joints, screw-jacks and extensions available in many variations.



Top sections



Joints



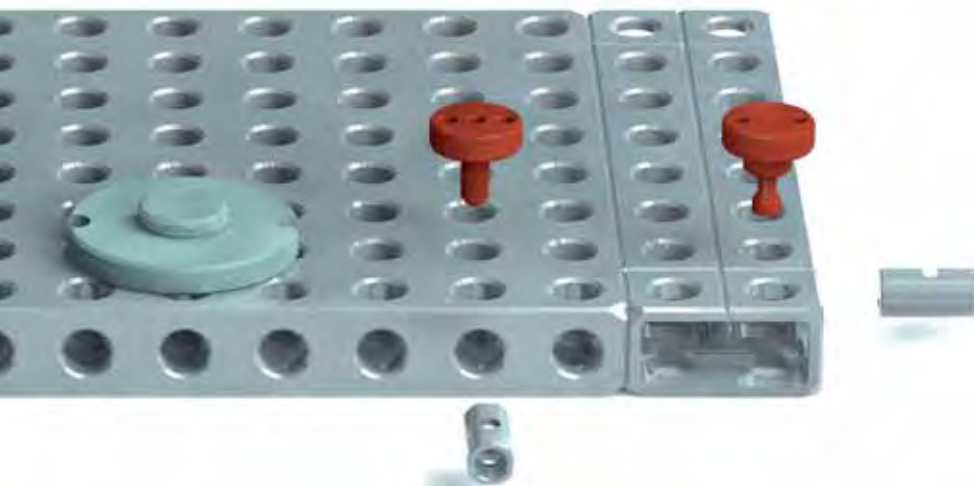
Spacers (screw-jacks, extensions)



Foot plates, connection elements

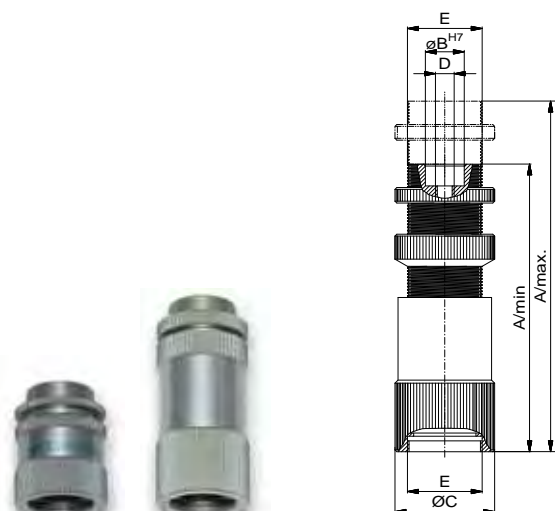


Fixing disks (see pages 153, 154)



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

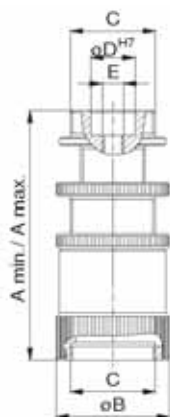




Screw-jack

with precision thread and check nut

Nr.	A/min	A/max	B	C	D	E	
90614	38	50	8	32	M4	24x1	65
82139	38	50	12,5	32	M6	24x1	65
82033	70	105	12,5	32	M6	24x1	120
82085	110	170	20	42	M10	32x1	330

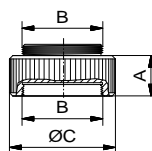
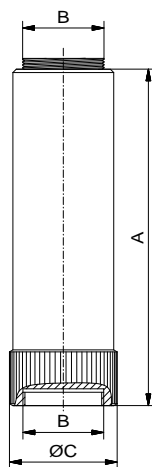


Screw-jack with anti-turn lock

D32 and D42

Nr.	A min.	A max.	B	C	D	E	
285201	50	70	32	M24x1	12,5	M6	78
285202	70	105	32	M24x1	12,5	M6	120
285203	105	170	42	M32x1	20	M10	310

Screw-jack extension

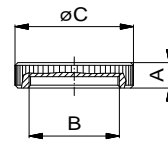


Nr.	A	B	C	
20628	6	M24x1	32	12
23286	12	M24x1	32	25
22856	100	M24x1	32	210
21658	100	M32x1	42	225

Cap for screw-jack

aluminium or plastic

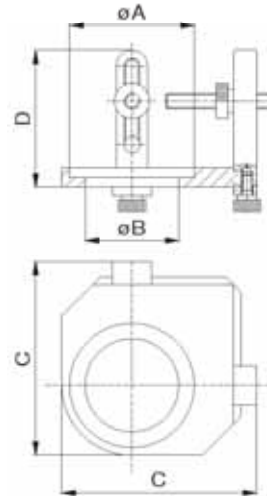
Nr.	Material	A	B	C	
21667	Alu	6,5	M24x1	32	10
21669	Alu	8,5	M32x1	42	18
21666	POM	6,5	M24x1	32	4
21668	POM	8,5	M32x1	42	9



XY-Stop

for screw-jack

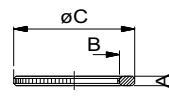
Nr.	A	B	C	D	E	
285204	32	24	50	35	M4	32
285205	42	32	65	46	M5	68



Ring for screw jack

for use with top sections

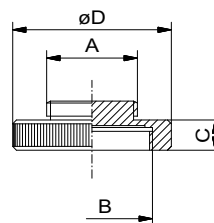
Nr.	A	B	C	
25683	2,5	M24x1	32	2



Cross over

male/female

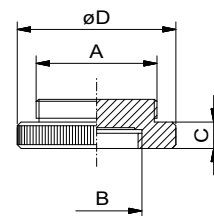
Nr.	A	B	C	D	
21659	M24x1	M32x1	8	42	21



Cross over

male/female

Nr.	A	B	C	D	
21227	M32x1	M24x1	7	42	32



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other dimensions on request



Material and surface characteristics for top sections

Fixed and spring loaded centres, true line studs, rotating top sections:
High tensile aluminium
Hard slide coated

Centres with ball:
Base in high tensile aluminium,
balls hardened and polished

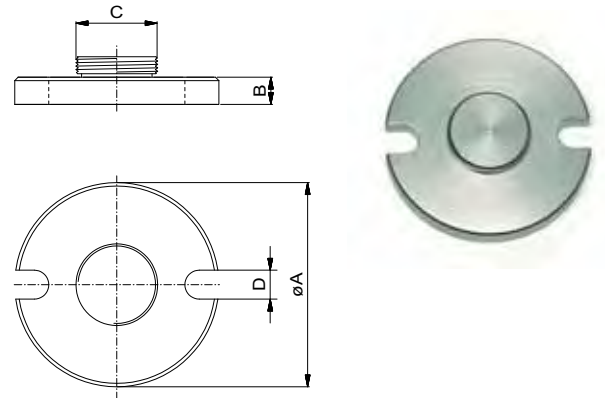
Remaining top sections:
High tensile aluminium, anodized



Universal plate

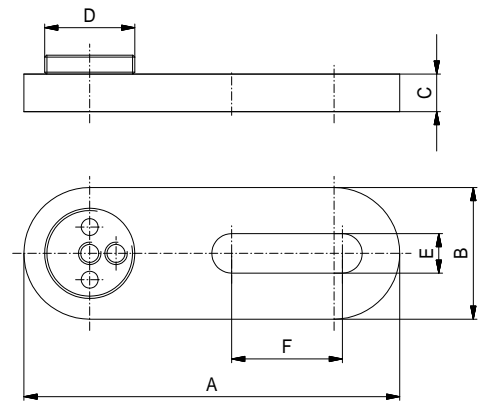
for connection independant of grid

Nr.	A	B	C	D	
21670	60	8	M24x1	8,5	65
21671	75	8	M32x1	8,5	106



Clamping plate

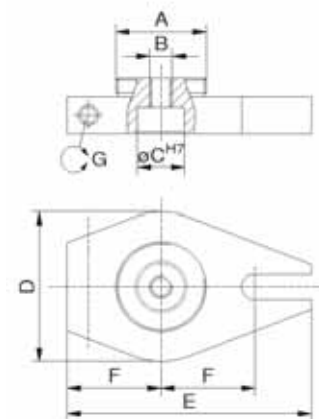
Nr.	A	B	C	D	E	F	
85232	100	35	10	M24x1	10,5	29,5	85



Footplate

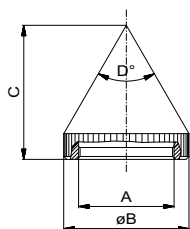
with pivot pin

Nr.	A	B	C	D	E	F	G	
285208	24x1	M6	12,5	40	65	25	6°	50
285209	32x1	M10	20	65	105	40	4°	131



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

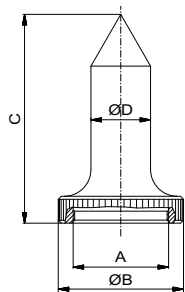
Other dimensions on request



Center

short

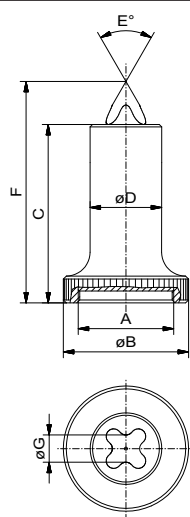
Nr.	A	B	C	D	g
21644	M24x1	32	35	60	30
21645	M32x1	42	45	60	66



Center

long

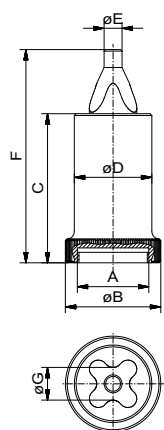
Nr.	A	B	C	D	g
23638	M12x0,5	16	27,5	8	4
21646	M24x1	32	50	12,5	25
21648	M24x1	32	75	12,5	33
21647	M32x1	42	70	20	67
21649	M32x1	42	120	20	106



Autocenter

spring loaded, star shaped

Nr.	A	B	C	D	E	F	G	min.ø	max.ø	g
95532	24x1	32	50	18	60	61	2	1	10	40



Autocenter

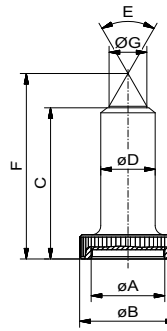
spring loaded, star shaped,
with check pin

Nr.	A	B	C	D	E	F	G	min.ø	max.ø	g
94543	24x1	32	50	26	6	71,5	11	7	19	120
95531	32x1	42	50	36	16	71,5	16,5	17	29	130

Autocenter

spring loaded

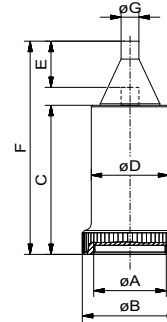
Nr.	A	B	C	D	E	F	G	min.∅	max.∅	
81212	24x1	32	50	18	60	61	12,5	1	10	40



Autocenter

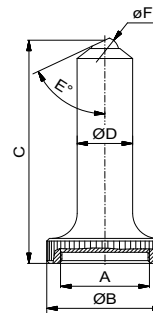
spring loaded, with check pin

Nr.	A	B	C	D	E	F	G	min.∅	max.∅	
82252	24x1	32	50	18	15,5	71,5	6	7	19	60



True line stud

Nr.	A	B	C	D	E	F	
80590	M24x1	32	32,6	15	65	10	30
80661	M24x1	32	77,6	15	65	10	45
80591	M32x1	42	37,6	20	65	10	36
80666	M32x1	42	122,6	20	65	10	83

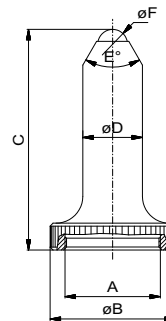


True line studs are also available in polymer (POM, black) on request

Center

with ball

Nr.	A	B	C	D	E	F	
90545	M24x1	32	34	15	60	10	27
80584	M24x1	32	52	12,5	60	6	21
80585	M24x1	32	53	12,5	60	8	22
80586	M32x1	42	72	20	60	6	60
80587	M32x1	42	73	20	60	8	57
80588	M32x1	42	74	20	60	10	63
80589	M32x1	42	75	20	60	12	60

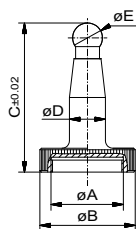


Centers with ball are also available in polymer (POM, black) on request



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

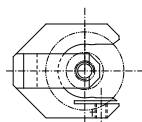
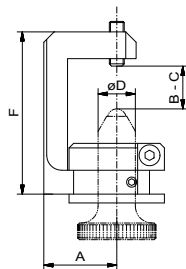
Other dimensions on request



Centering element

with reference ball

Nr.	A	B	C	D	E	
82142	M24x1	32	50	12	10	27



C clamp

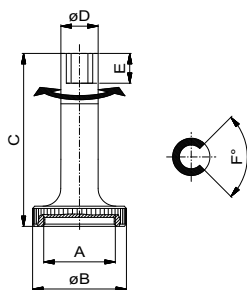
adjustable, without center with ball

Nr.	A	B	C	D	F	
81111	28	0	15	12,5	52	123



Stop and support 90°

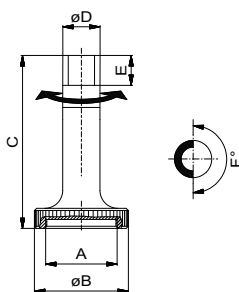
swivel top, fixing screw



Nr.	A	B	C	D	E	F	
81113	M24x1	32	58	12,5	10	90	26

Stop and support 180°

swivel top, fixing screw

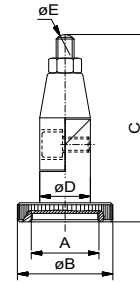


Nr.	A	B	C	D	E	F	
81112	M24x1	32	58	12,5	10	180	27

Center

with ball and joint

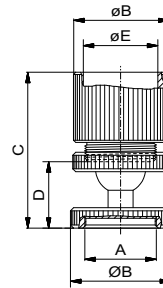
Nr.	A	B	C	D	E	
82174	M24x1	32	57-67	17	6	37



Magnetic holder

with ball joint

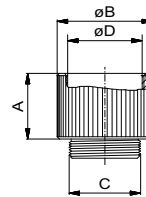
Nr.	A	B	C	D	E	
80941	M24x1	32	52,3	22,2	25	85



Magnetic holder

without ball joint

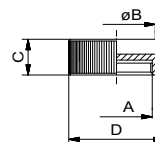
Nr.	A	B	C	D	
80948	22	32	M24x1	25	60



Moulding cap

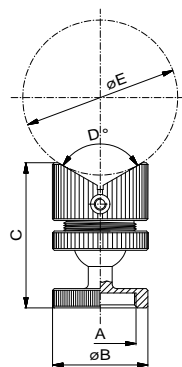
for use with compound resin

Nr.	A	B	C	D	
22005	M24x1	26	12	32	11



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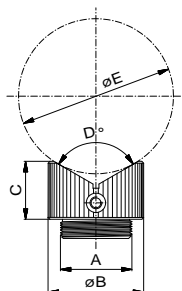
Other dimensions on request



V block 120°

with ball joint

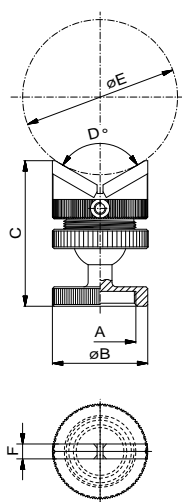
Nr.	A	B	C	D	E	
80733	M24x1	32	49	120	max. 52	58



V block 120°

without ball joint

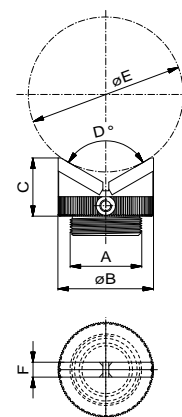
Nr.	A	B	C	D	E	
22286	M24x1	32	19,4	120	max. 52	34



Knife 120°

with ball joint

Nr.	A	B	C	D	E	F	
80927	M24x1	32	49	120	max. 56	5	42



Knife 120°

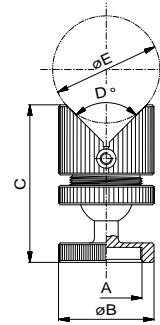
without ball joint

Nr.	A	B	C	D	E	F	
22631	M24x1	32	19,5	120	max. 56	5	19

V block 90°

with ball joint

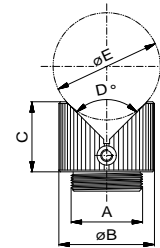
Nr.	A	B	C	D	E	
80725	M24x1	32	53	90	max. 36	61



V block 90°

without ball joint

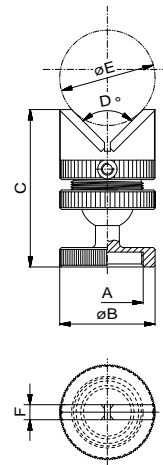
Nr.	A	B	C	D	E	
22285	M24x1	32	23,5	90	max.36	30



Knife 90°

with ball joint

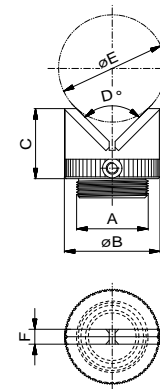
Nr.	A	B	C	D	E	F	
80926	M24x1	32	53	90	max. 32	5	42



Knife 90°

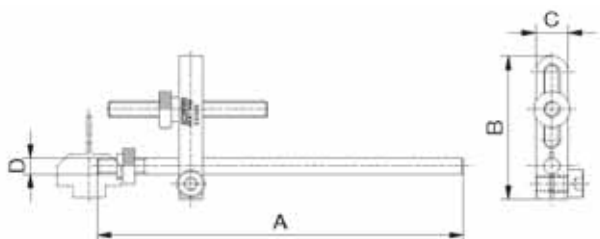
without ball joint

Nr.	A	B	C	D	E	F	
22555	M24x1	32	23,5	90	max. 32	5	19



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

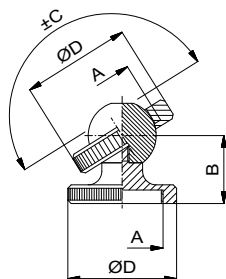
V Blocks are also available in polymer (POM, black) on request



Stop M4

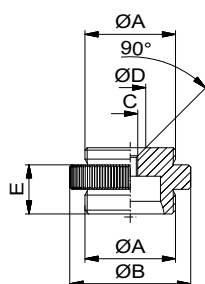
for V-piece

Nr.	A	B	C	D	g
285200	92	36	8	M4	12



Ball joint

Nr.	A	B	C	D	g
80947	M24x1	22	55°	32	24
81588	M12x0,5	10	55°	16	6



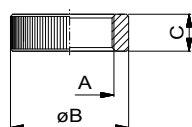
Crossover

male/male, for ball joint

Nr.	A	B	C	D	E	g
22647	M24x1	32	M4	8,2	13	21
24241	M12x0,5	16	-	-	5	12



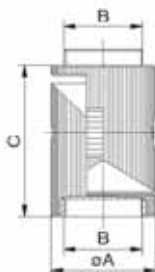
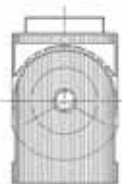
M4 thread can be connected with studs from FX range as location pin



Spacer

M24x1

Nr.	A	B	C	g
22644	M24x1	ø32	10	10



Joint for Screw-jacks

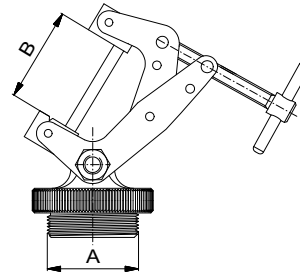
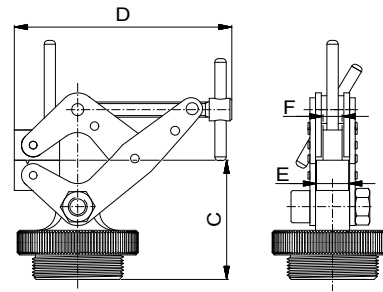
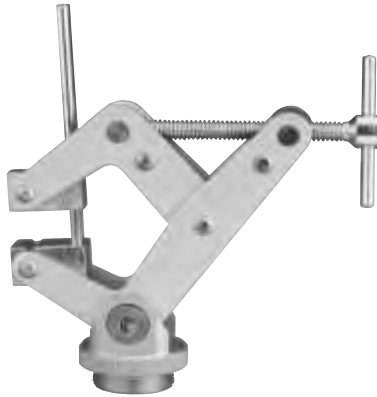
with knurled serrations grid 6° or 4°

Nr.	A	B	C	Grid	g
285206	32	24x1	40	4°	94
285207	42	32x1	60	6°	232

Screw clamp

with joint, connection thread M24x1

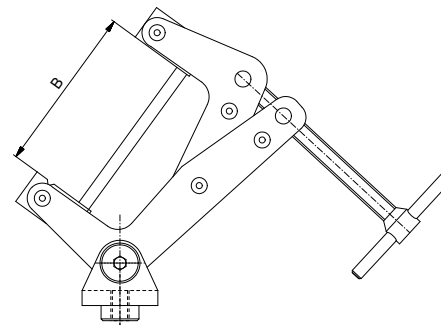
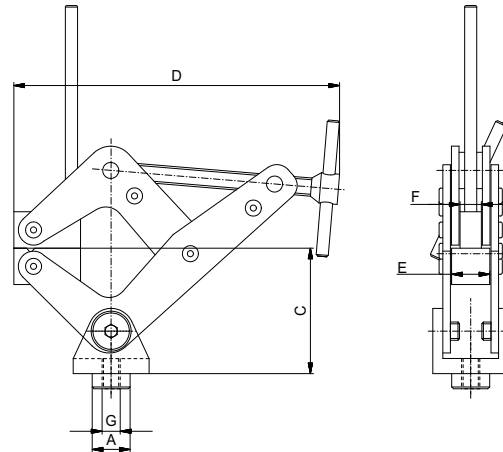
Nr.	A	B	C	D	E	F	
80949	24x1	25	32	57,5	8,5	5	51
81270	24x1	55	47,5	105	12,6	7	152



Screw clamp

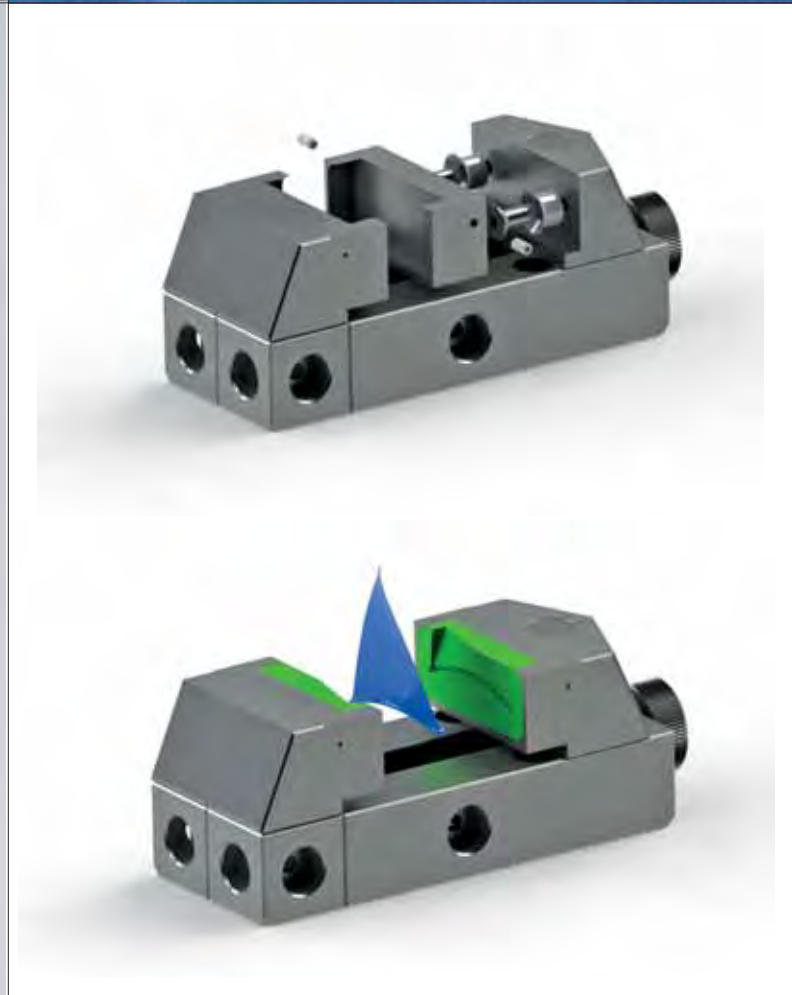
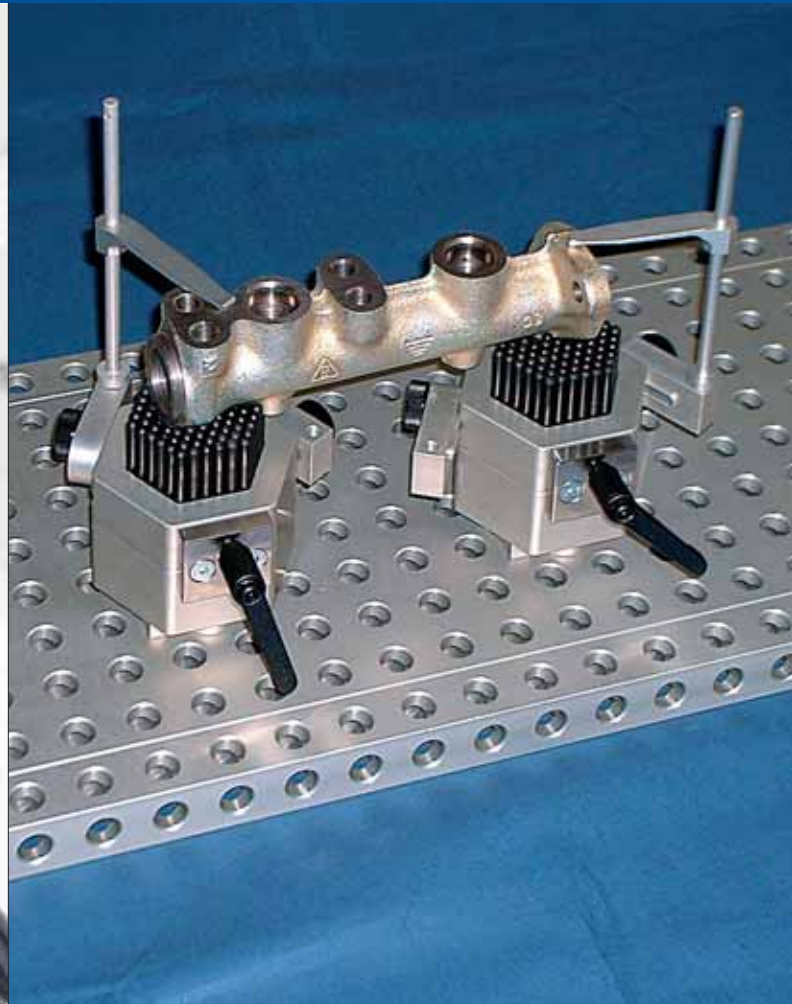
with joint, ALUFIX 25

Nr.	A	B	C	D	E	F	G	
80924	12,5	55	41,3	105	12,6	7	M6	147



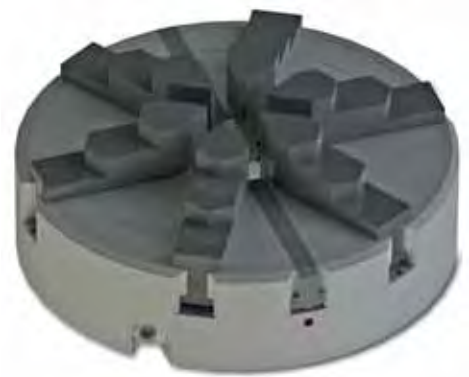
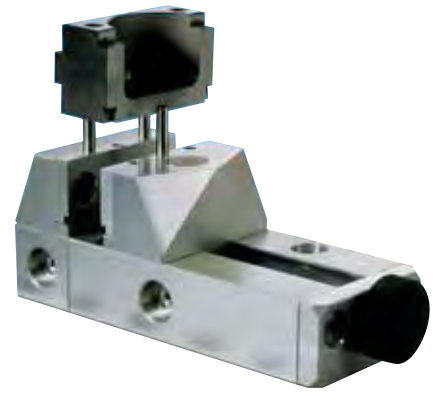
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

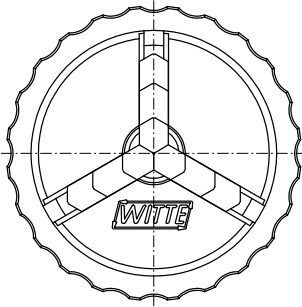
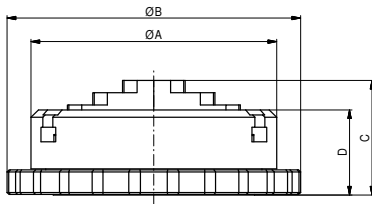
Other dimensions on request



ALUFIX CLASSIC Clamping Elements

Alufix clamping elements fix workpieces to fixtures and ensure contact with support surfaces





3 Jaw Keyless Chuck

for measuring applications

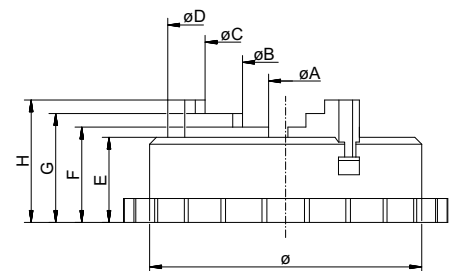
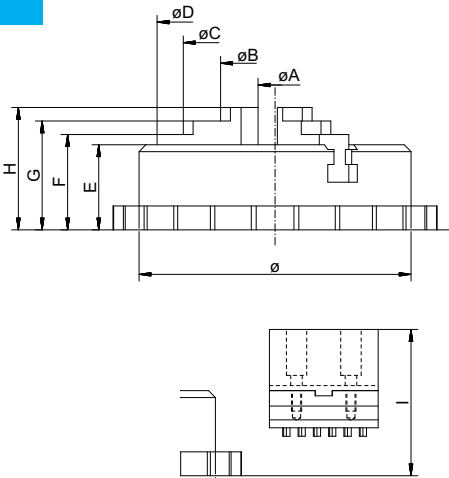
Nr.	A	B	C	D	
82220	50	60	23,4	17,3	95
82080	80	96	35	25	368
82125	125	146	53,1	38,4	1.330
82200	200	236	79,1	55,3	4.940



Further dimensions

3 jaw keyless chuck

∅	A	B	C	D	E	F	G	H	I
50	1-32	15-46	29-60	41-72	17,3	18,4	21	23,4	30,3
80	1-45	23-66	45-88	65-108	25,3	27	31	35	44,8
125	1,5-68	36-100	70-134	106-170	38,4	41,3	47,1	53,1	69
200	2-110	56-164	110-218	166-274	55,3	63,1	71,1	79,1	103,3



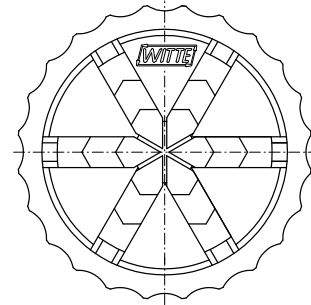
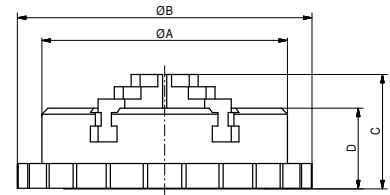
3 jaw keyless chuck with reversed jaws

∅	A	B	C	D	E	F	G	H	I
50	1-34	13-46	27-60	41-74	17,3	18,4	21	23,4	30,3
80	1-46	21-66	43-88	65-108	25,3	27	31	35	44,8
125	1,5-72	38-108	72-142	106-176	38,4	41,1	47,1	53,1	69
200	2-116	58-172	112-226	166-280	55,3	63,1	71,1	79,1	103,3

6 Jaw Keyless Chuck

for measuring applications

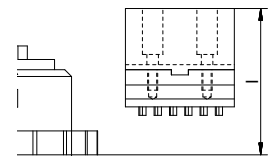
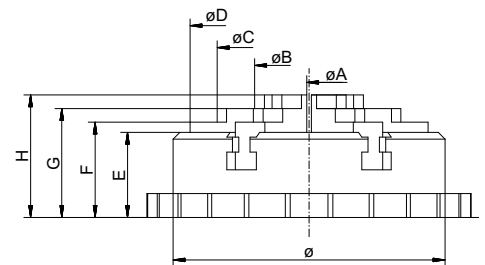
Nr.	A	B	C	D	
82340	50	60	23,4	17,3	97
82090	80	96	35	25,3	380
82135	125	146	53,1	38,4	1.385
82210	200	236	79,1	55,3	5.120



Further dimensions

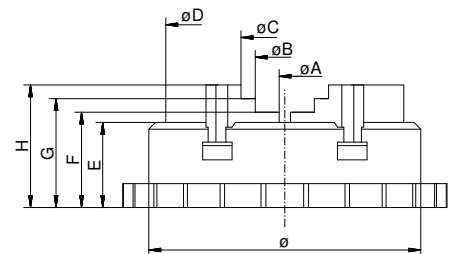
6 jaw keyless chuck

ø	A	B	C	D	E	F	G	H	I
50	1,5-29	18-45	30-57	42-69	17,3	18,4	21	23,4	30,3
80	2-44	27-69	47-89	66-108	25,3	27	31	35	44,8
125	3-71	44-112	76-144	108-176	38,4	41,1	47,1	53,1	69
200	5-113	59-167	113-221	169-277	55,3	63,1	71,1	79,1	103,3



6 jaw keyless chuck with reversed jaws

ø	A	B	C	D	E	F	G	H	I
50	10-30	22-42	34-54	50-70	17,3	18,4	21	23,4	30,3
80	18-43	36-61	56-81	81-106	25,3	27	31	35	44,8
125	27-68	59-100	91-132	131-172	38,4	41,1	47,1	53,1	69
200	43-110	99-166	153-220	207-274	55,3	63,1	71,1	79,1	103,3



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

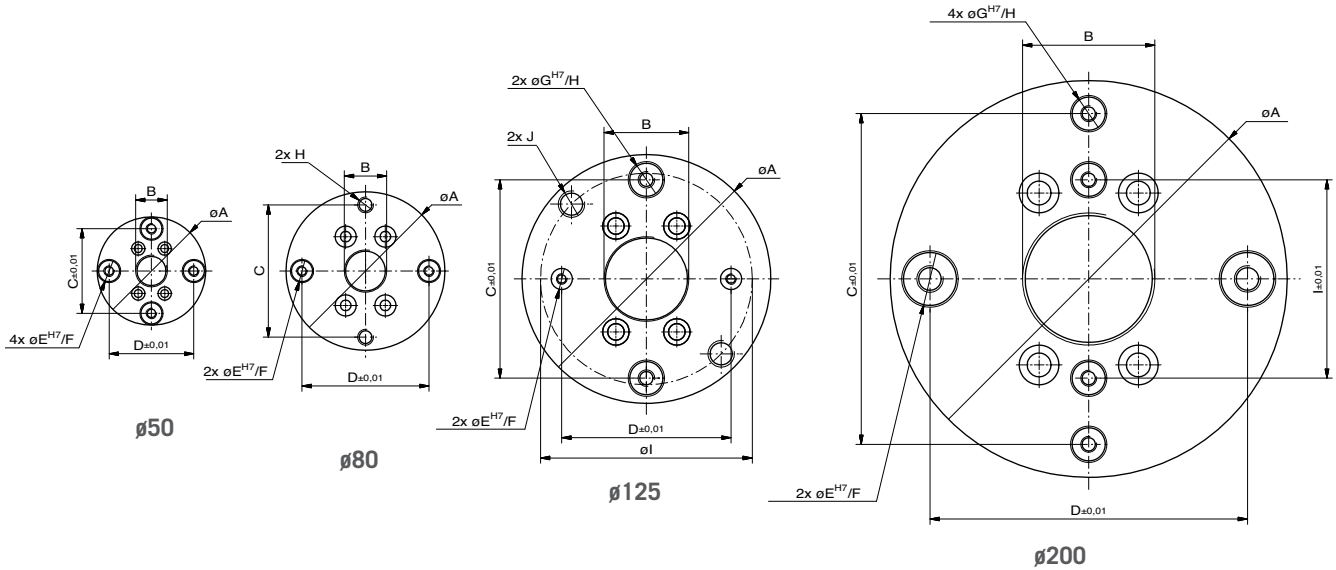
Fixing disks for mounting keyless chucks are shown on page 155. Other versions on request.

Further dimensions

3 and 6 jaw keyless chucks, view from underneath

Fixing disks for mounting keyless chucks are shown on page 157.

∅	A	B	C	D	E	F	G	H	I	J	AF
50	41	M12x0,5	32	32	8	M4	-	-	-	-	16
80	60	M 16x1	50	48	8	M4	-	M6	-	-	16/25
125	94	M32x1	75	64	8	M4	12,5	M6	80	M10	16/25/4
200	150	M50x1,5	125	120	20	M10	12,5	M6	75	-	25/40



Basic Set 3 jaw Keyless chuck

19-pcs., 1 x chuck with reversible jaws,
1 x Base jaw set, 9 x Top jaws, 6 x Screws

Nr.	∅	comprising of:	g
82373	50	1x82220, 1x82351, 9x26288, 6x11434	138
82376	80	1x82080, 1x82356, 9x26289, 6x11435	523
82378	125	1x82125, 1x82360, 9x26290, 6x11437	1.946
82380	200	1x82200, 1x82364, 9x26291, 6x10631	7.300



Basic Set 6 jaw Keyless chuck

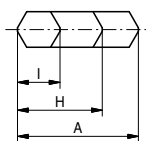
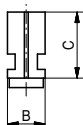
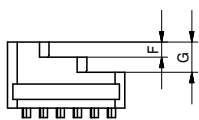
37-pcs., 1 x chuck with reversible jaws,
1 x Base jaw set, 18 x Top jaws, 12 x Screws

Nr.	∅	comprising of:	g
82374	50	1x82340, 1x82354, 18x26288, 12x11434	173
82377	80	1x82090, 1x82358, 18x26289, 12x11435	690
82379	125	1x82135, 1x82362, 18x26290, 12x11437	2.595
82381	200	1x82210, 1x82366, 18x26291, 12x10631	9.830



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Material: High tensile aluminium, surface base unit: Anodized CO, Surface jaws and clamp ring: Hard coated.
Keyless chucks are operated by hand without tools



Reversible jaws set

for 3 jaw chuck

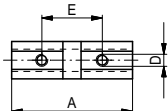
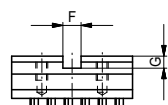
Nr	A	B	C	D	E	F	G	
82350	20	5,9	10,7	-	-	2,5	5	10
82355	32	9,9	17,5	-	-	4,0	8	30
82359	52	15,9	27,1	-	-	6,0	12	120
82363	82	24,9	44,1	-	-	8,0	16	370

Also fit in 6 jaw chucks

Base jaws set

for 3 jaw chuck

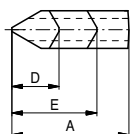
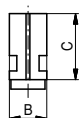
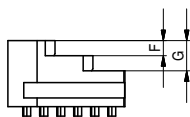
Nr	A	B	C	D	E	F	G	
82351	20	5,9	6,6	M2	10	3	2	10
82356	32	9,9	10,9	M3	16	5	3	20
82360	52	15,9	17,5	M5	24	8	5	160
82364	82	24,9	28,5	M8	40	12	8	380



Reversible jaws set

for 6 jaw chuck

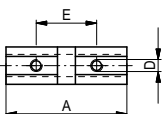
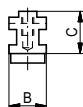
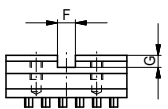
Nr	A	B	C	D	E	F	G	
82353	20	5,9	10,7	8	14	2,5	5	20
82357	32	9,9	17,5	12,5	22,5	4	8	60
82361	52	15,9	27,1	20	36	6	12	240
82365	82	24,9	44	27	54	8	16	1.000



Base jaws set

for 6 jaw chuck

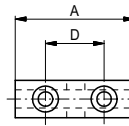
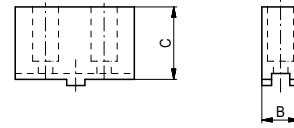
Nr	A	B	C	D	E	F	G	
82354	20	5,9	6,6	M2	10	3	2	18
82358	32	9,9	10,9	M3	16	5	3	50
82362	52	15,9	17,5	M5	24	8	5	190
82366	82	24,9	27,5	M8	40	12	8	750



Top jaws single

for 3 and 6 jaw keyless chucks

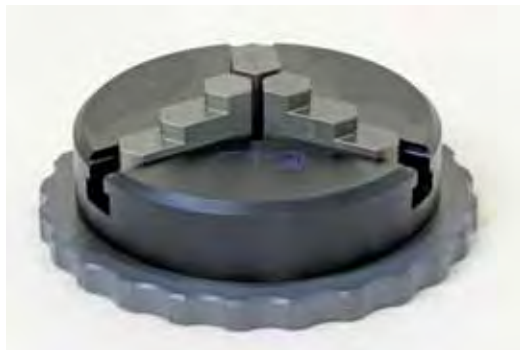
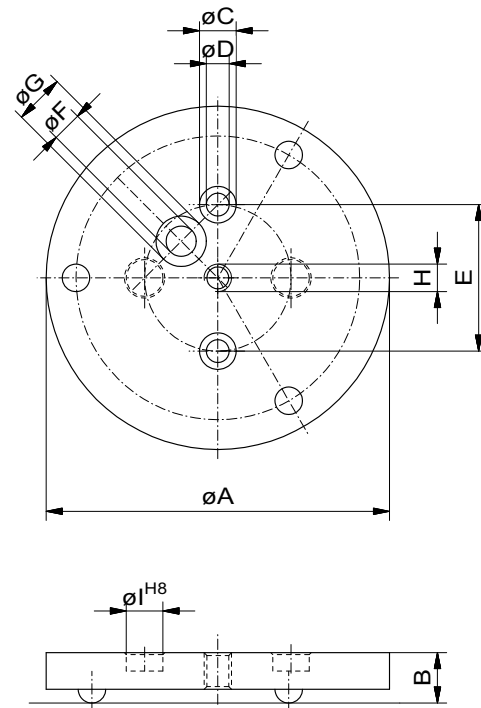
Nr	A	B	C	D	Material	
26288	20	5,9	12	10	EN AW-7075	3
26288-10	20	5,9	12	10	POM	2
26289	32	9,9	18	16	EN AW-7075	13
26289-10	32	9,9	18	16	POM	10
26290	52	15,9	28	24	EN AW-7075	50
26290-10	52	15,9	28	24	POM	43
26291	82	24,9	44	40	EN AW-7075	150
26291-10	82	24,9	44	40	POM	139



Center plate

for 3 and 6 jaw keyless chucks

Nr	A	B	C	D	E	F	G	H	I	
82371	75	11	8	5	32	6,6	11	M6	8	100
82159	120	13	11	6,6	50	-	-	-	8	317
82344	187	18	11	6,6	75	-	-	-	8	493
82345	300	28	18	11	120	-	-	-	12,5	528

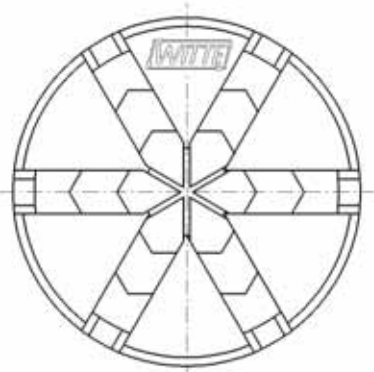
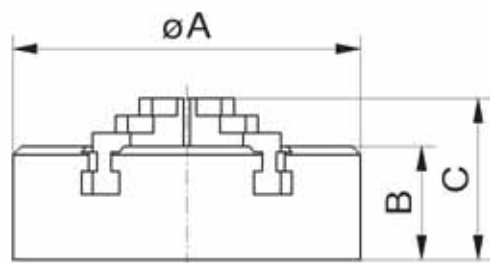


Special version hardslide coated
3 jaw keyless chuck




ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other dimensions on request




Keyless chuck

for 2,3,4,6 jaws $\varnothing 125$ anodized natural

Nr.	A	B	C	
285291	125	33	50	1300

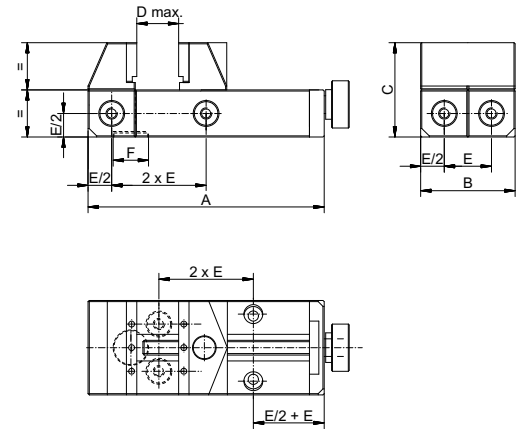


 6 stepped standard jaws are included in supply. Base and special jaws are available on request.
Base same as chuck $\varnothing 125$: 82125, 82135. Compatible with centering plate 82344

Parallel-vise

without pins

Nr	E (AF)	A	B	C	D	E	F	H	
81784	16	80	32	32	40	16	M12x0,5	14	135
81785	25	125	50	50	65	25	M24x1	14	750
81786	25	150	75	50	90	25	M24x1	15	905
81787	25	175	100	50	115	25	M24x1	15	1.410
81788	40	320	120	80	225	40	M32x1	17	4.620
81789	40	360	160	80	265	40	M32x1	17	6.150



Vise set

10-pcs., comprising of

Nr.	System	Vise	Flat jaw	Pins	V-jaw	V-jaw
		1x	Alu 2x	3x	small 2x	big 2x
81790	AF 16	81784	24580	24604	24586	24598
81791	AF 25	81785	24581	24605	24587	24599
81792	AF 25	81786	24582	24605	24588	24600
81793	AF 25	81787	24583	24605	24589	24601
81794	AF 40	81788	24584	24606	24590	24602
81795	AF 40	81789	24585	24606	24591	24603

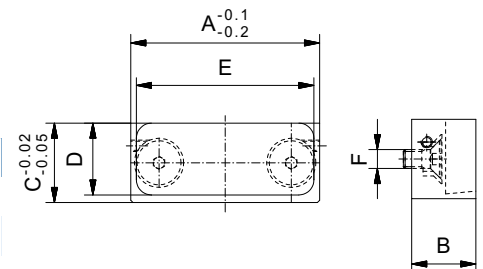


Jaws also available per piece
Flat and V jaws are also available in polymer (POM black)

Forming jaw

with bushes, for compound resin

Nr	System	A	B	C	D	E	F	
81831	AF 16	32	10	13,5	12	29	M3	10
81832	AF 25	50	17	21	19	47	M5	30
81833	AF 25	75	17	21	18,5	71	M5	40
81834	AF 25	100	17	21	18,5	96	M5	60
81835	AF 40	120	34	33,5	30	112	M8	170
81836	AF 40	160	34	33,5	30	152	M8	226



Supply includes:
1 forming jaw,
2 bushes,
2 Threaded pins,
2 countersunk screws



Compound resin

Nr.	contents g	
80692	100	120
80685	400	460



Technical details:

Tensile strength 300kg/cm²
 Compression strength: 800kg/cm²
 Heat resistance upto +200°C

Plasticine compound resin

Knead blue and yellow components in ratio 1:1, blend well until colour throughout is green.
 Apply within 15 minutes.
 The resin hardens to full strength within 3 hours.



Application example for compound resin in standard moulding cap

Attaching the forming jaws with plasticine compound:

Positioning of workpiece:

The forming jaws with the compound resin are pressed together.

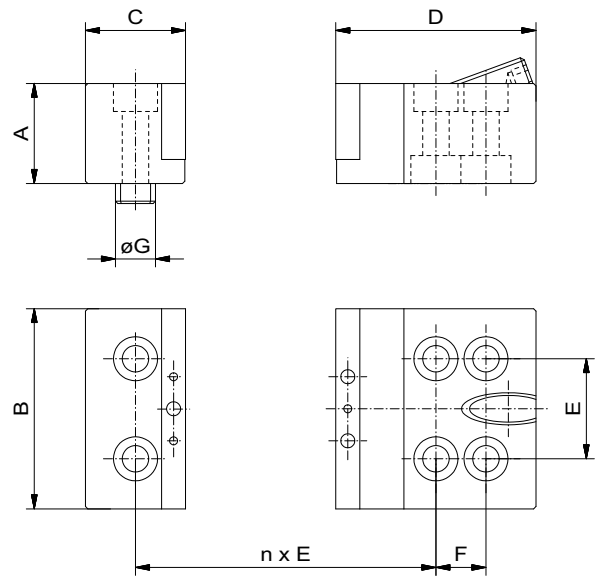
The compound resin adjusts to the contours of the workpiece



Universal Vice

2 pcs., without basic unit for mounting on base plates or grid base plates, Shift ±12,5 mm

Nr.	System	A	B	C	D	E	F	G	
93498	AF25	25	50	25	40	25	12,5	10	296

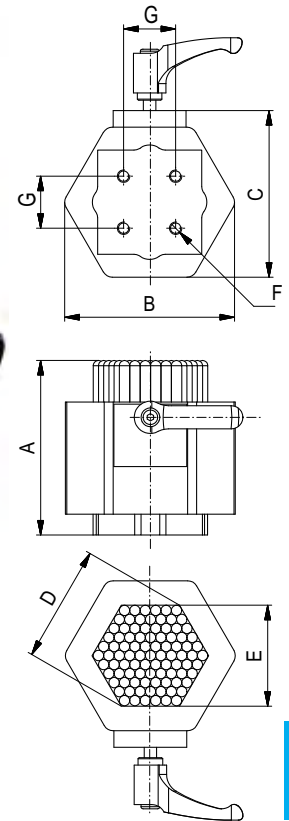


ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Pin cushion

with rubberized pins

Nr	A	B	C	D	E	F	G	
91940	84	81,5	80	55	48,5	6	25	1.400
98101	84	52	55	35	31	6	25	1.100

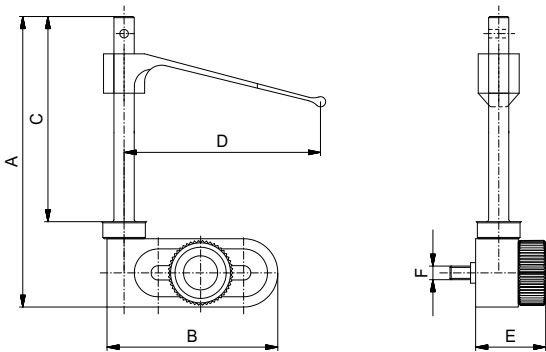


Hold-down column clamp

for pin cushion, in set (2 pieces)

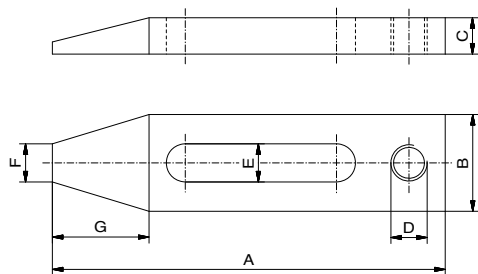
with hold down columns and springs

Nr	A	B	C	D	E	F	
91941	85	50	60	57,5	20,5	M4	80



Easy to move pins adjust to shape of workpiece. Then by using a locking device the resulting imprint is secured into place. This enables repeatable clamping of workpieces, that can be secured with hold down springs and studs.

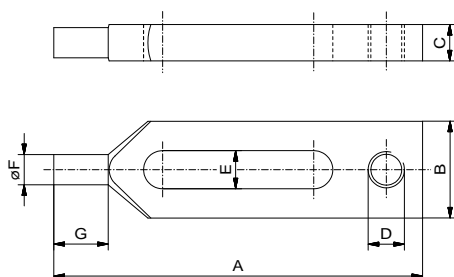




Clamp

tapered

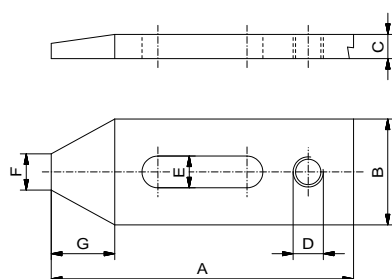
Nr	A	B	C	D	E	F	G	
22788	36	13	5	M5	5,3	5,3	13	5
22789	52	13	5	M5	5,3	5,3	13	7
22790	68	13	5	M5	5,3	5,3	13	8
22791	52	13	5	M5	5,3	1,5	20	6
22783	45	16	6	M6	6,3	6,3	16	12
22784	65	16	6	M6	6,3	6,3	16	18
22785	85	16	6	M6	6,3	6,3	16	23
22786	65	16	6	M6	5,3	2,0	24	11



Clamp

round nosed

Nr	A	B	C	D	E	F	G	
22792	52	13	5	M5	5,3	4	7	6
22787	65	16	6	M6	6,3	5	9	11



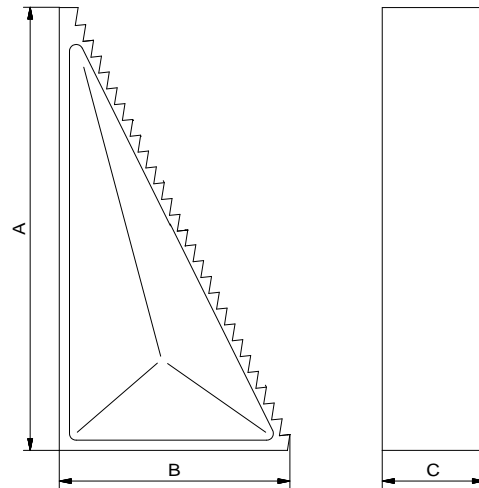
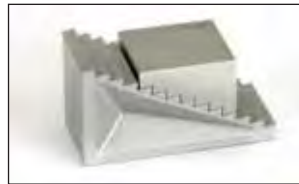
Clamp

stepped

Nr	A	B	C	D	E	
21731	100	30	8	M6	6,5	54
21732	150	30	12	M6	6,5	118
21733	200	30	15	M6	6,5	198
21734	100	30	8	M8	8,5	52
21735	150	30	12	M8	8,5	112
21736	200	30	15	M8	8,5	188
21787	100	35	8	M10	10,5	60
21788	150	35	12	M10	10,5	134
21789	200	35	15	M10	10,5	222
21790	100	35	8	M12	12,5	58
21791	150	35	12	M12	12,5	128
21792	200	35	15	M12	12,5	212

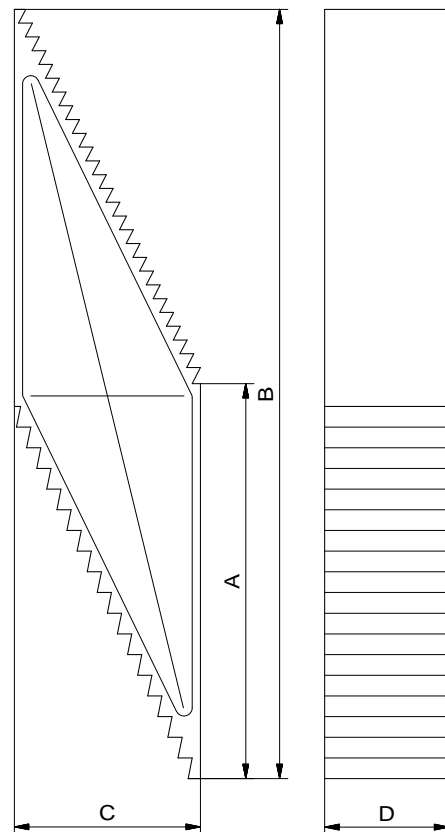
Step support

Nr.	A	B	C	Zusatz	g
20138	32,5	20	30	Treppe 32	70
20139	65	36	30	Treppe 66	180
20140	130,5	68	30	Treppe 131	580



Extension for step support

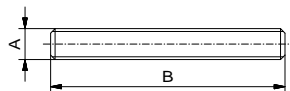
Nr.	A	B	C	D	g
21774	95,5	186	45	30	300



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

i Other dimensions on request





Threaded rod

M5, M6, M8, M10, M12

Nr.	A	B	g
22777	M5	20	1
22778	M5	40	2
22779	M5	60	3
22780	M5	80	4
22781	M5	100	4
22782	M5	120	5

Nr.	A	B	g
21719	M6	25	2
21720	M6	50	3
21721	M6	75	5
21722	M6	100	6
21723	M6	125	8
21724	M6	150	9

Nr.	A	B	g
21725	M8	25	2
21726	M8	50	6
21727	M8	75	8
21728	M8	100	10
21729	M8	125	14
21730	M8	150	16

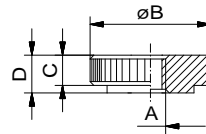
Nr.	A	B	g
21775	M10	25	4
21776	M10	50	8
21777	M10	75	12
21778	M10	100	18
21779	M10	125	22
21780	M10	150	26

Nr.	A	B	g
21781	M12	25	6
21782	M12	50	12
21783	M12	75	18
21784	M12	100	24
21785	M12	125	32
21786	M12	150	38



Knurled nut

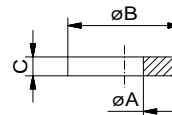
Nr.	A	B	C	g
22775	M5	13	6	2
22774	M6	16	6	4
21841	M6	32	8	18
21842	M8	32	8	18
21843	M10	42	10	38
21844	M12	42	10	38



Washer

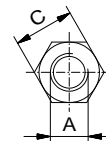
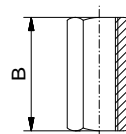
hard anodized

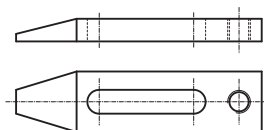
Nr.	A	B	C	g
22773	5,3	12	2,3	3
22772	6,3	15	2,7	3
21286	6,4	17	3	2
21287	8,4	23	4	4
21288	10,5	28	4	6
21289	13,0	35	5	12



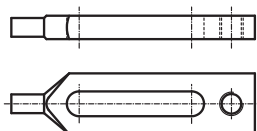
Coupling nut

Nr.	A	B	C	g
22776	M5	15	SW8	2
21747	M6	18	SW10	4
21748	M8	24	SW13	6
21793	M10	30	SW17	14
21794	M12	36	SW19	21






1 2 3 4

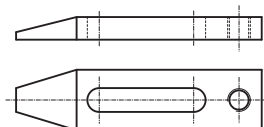


5

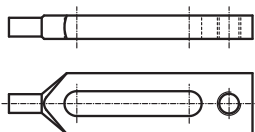
#81030 Clamp Set

M5, (69-pcs), 200 x 180 x 30 mm, 515 g

Nr.	St.	Name	Dim.	
22788	4	1 Clamp	M5, 36 x 15 x 5	5
22789	4	2 Clamp	M5, 52 x 13 x 5	7
22790	4	3 Clamp	M5, 68 x 13 x 5	8
22791	4	4 Clamp, pointed	M5, 52 x 13 x 5	6
22792	4	5 Clamp, round	M5, 52 x 13 x 5	6
22777	4	Threaded rod	M5 x 20	1
22778	4	Threaded rod	M5 x 40	2
22779	4	Threaded rod	M5 x 60	3
22780	4	Threaded rod	M5 x 80	4
22781	4	Threaded rod	M5 x 100	4
22782	4	Threaded rod	M5 x 120	5
22773	10	Washer	ø 5,2	3
22776	4	Coupling nut	M5 x 15	2
22775	10	Knured nut	ø 13 x M5	2
22793	1	Tray	200 x 180 x 30	250




1 2 3 4



5

#81020 Clamp Set

M6, (69-pcs), 200 x 180 x 30 mm, 685 g

Nr.	St.	Name	Dim.	
22783	4	1 Clamp	M6S, 45 x 16 x 6	12
22784	4	2 Clamp	M6S, 65 x 16 x 6	18
22785	4	3 Clamp	M6S, 85 x 16 x 6	23
22786	4	4 Clamp, pointed	M6S, 65 x 16 x 6	11
22787	4	5 Clamp, round	M6S, 65 x 16 x 6	11
21719	4	Threaded rod	M6 x 25	2
21720	4	Threaded rod	M6 x 50	3
21721	4	Threaded rod	M6 x 75	5
21722	4	Threaded rod	M6 x 100	6
21723	4	Threaded rod	M6 x 125	8
21724	4	Threaded rod	M6 x 150	9
22772	10	Washer	ø 6,4	3
21747	4	Coupling nut	M6 x 18	4
22774	10	Knurled nut	ø 16,7 x M6S	4
22793	1	Tray	200 x 180 x 30	250



Clamp Sets

75-pcs

Clamp Set		10	11	12	13		
Size		M6	M8	M10	M12		
#		80634	80635	80636	80637		
Name	St.	Nr.	Nr.	Nr.	Nr.	Dim	
① Setting up blocks, pair	2	80036	80036	80036	80036	22-51	
② Setting up blocks, pair	2	80037	80037	80037	80037	39-107	
③ Setting up blocks, pair	1	80038	80038	80038	80038	72-208	
④ Extension	4	21774	21774	21774	21774	100	
⑤ Step heel clamp	4	21731	21734	21787	21790	100	
Step heel clamp	4	21732	21735	21788	21791	150	
Step heel clamp	4	21733	21736	21789	21792	200	
Knurled nut	4	21841				M6 ø 32x8	
				21842			M8 ø 32x8
					21843		M10 ø 42x10
						21844	M12 ø 42x10
Coupling nut	10	21747				M6 18	
				21748			M8 24
					21793		M10 30
					21794	M12 36	
Washer	10	21286	21287	21288	21289	M6/M8/M10/M12	
Threaded rod	4	21719	21725	21775	21781	25	
Threaded rod	4	21720	21726	21776	21782	50	
Threaded rod	4	21721	21727	21777	21783	75	
Threaded rod	4	21722	21728	21778	21784	100	
Threaded rod	4	21723	21729	21779	21785	125	
Threaded rod	4	21724	21730	21780	21786	150	
Tray	1	21797	21797	21797	21797	80x360x450	
Weight in g		2.500	2.675	2.950	5.650		



①



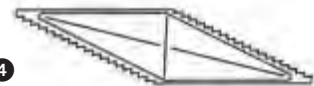
②



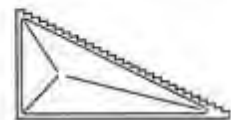
⑤



④



③

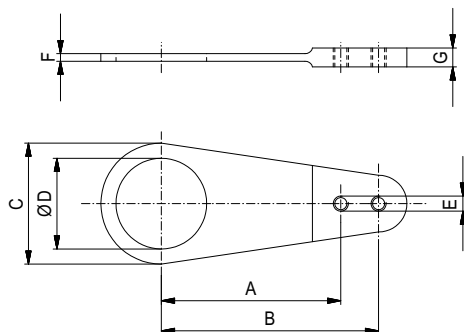


ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other dimensions on request
 Clamps are also available in polymer (POM, black)

Traverse holder with heel

for hold-down stud

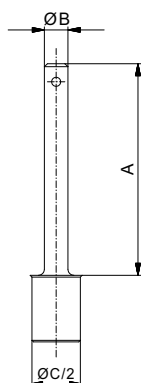


Nr.	A	B	C	D	E	F	G	g
22267	47,5	57,5	32	24	M4	2	5	11
22268	47,5	57,5	32	24	M6	2	5	11



Hold down stud

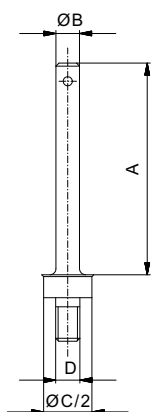
self locking



Nr.	A	B	C	g
20338	35	3,9	16	3
22259	55	5,9	16	5
22260	60	5,9	25	9

Hold down stud

with thread

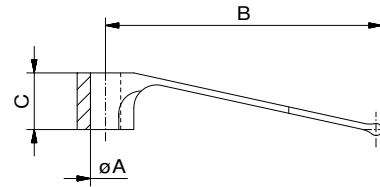


Nr.	A	B	C	D	g
20339	35	3,9	16	M4	3
22262	55	5,9	16	M4	5
22263	60	5,9	25	M6	8
24885	125	5,9	25	M6	15
20100	130	9,8	40	M10	38
30126	120	11,9	50	M12	56

Hold down spring

self locking on hold down stud

Nr.	System	A	B	C	
20244	AF 16	4	36	7,5	1
20290	AF 25/16	6	36	7,5	1
22258	AF 25/16	6	59	11,5	6
24499	AF 25	6	105	11,5	30
22355	AF 40	10	94	19,2	60
28058	AF 50	12	118	23	50



Hold down spring, plastic

Nr.	System	∅	l	
53976	AF 25/16	6	63,5	4
53977	AF 25/16	6	109,5	6

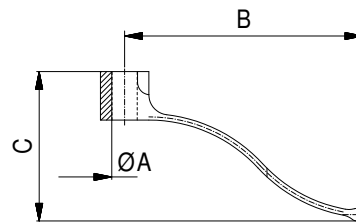
Further versions in NewXS catalogue



Hold down spring

for low clamping

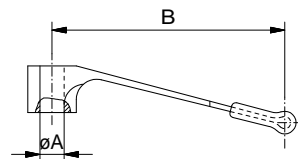
Nr.	System	A	B	C	
34634	AF 16	4	36,5	23,5	2
34764	AF 16	6	36,5	23,5	1
34765	AF 25	6	59	37	3
34766	AF 40	10	94,5	59,5	27
34767	AF 50	12	118	74	50



Hold down spring with plastic cap

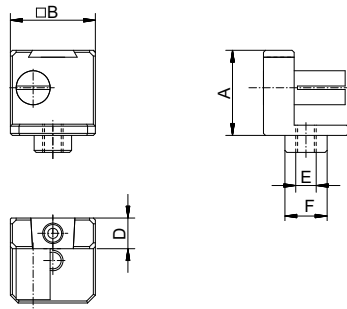
silicone free for sensitive surfaces

Nr.	System	A	B	
93442	AF 25/16	6	103,5	9
93443	AF 25/16	6	57,5	6



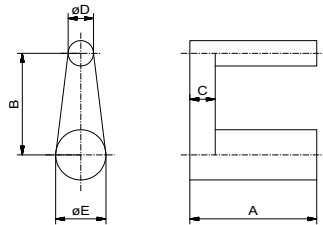
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other versions on request



Winder

Nr.	System	A	B	AF	D	E	F	
80742	AF 16	16	16	16	6	M4	8	11
80743	AF 25	25	25	25	9	M6	12,5	34
80744	AF 40	40	40	40	14	M8	20	169



Deflector

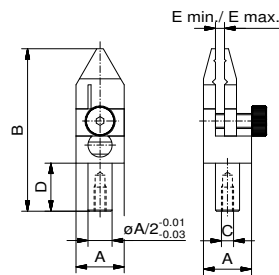
Nr.	System	A	B	C	D	E	
22274	AF 16	19	16	3	4	7,9	4
22275	AF 25	31	25	6	6	12,4	16
22276	AF 40	50	40	10	10	19,8	66



Winder tape

in plastic, 12mm wide

Nr.	System	length (m)
00041	AF 16/25/40	5

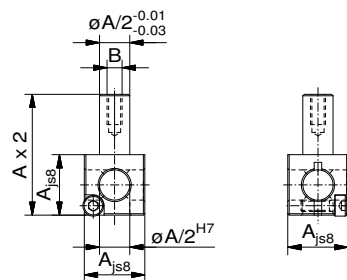


Parallel clamp

with exchangeable jaws

Nr.	A	B	C	D	E min.	E max.	
284476	16	54	M4	16	0	8	20
284134	25	65	M6	5	0	12,5	-

Other versions of exchangeable jaws available on request



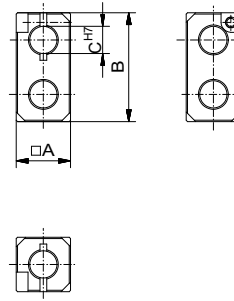
Clampholder

with studs

Nr.	A	B	
285043	16	M4	8
	25	M6	-

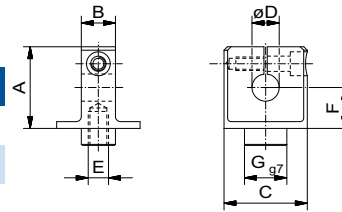
Dial indicator holder

Nr.	System	A	B	C	
80128	AF 16	16	32	8	14



Dial indicator holder

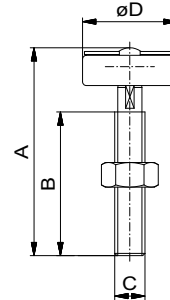
Nr.	System	A	B	C	D	E	F	G	
80755	AF 25	24	10	24,5	8	6	12	12,5	10
80756	AF 40	24	11,9	39,5	8	8	12	20	77



Ball point

without/with ring magnet

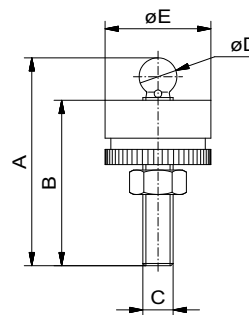
Nr.	A	B	C	D	
93518	55	38	M8x1	-	20
92999	55	38	M8x1	25	101



Ball point support

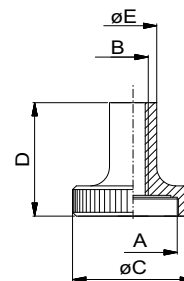
with adjustable magnetic force

Nr.	A	B	C	D	E	
97844	55	44	M8x1	10	28	150



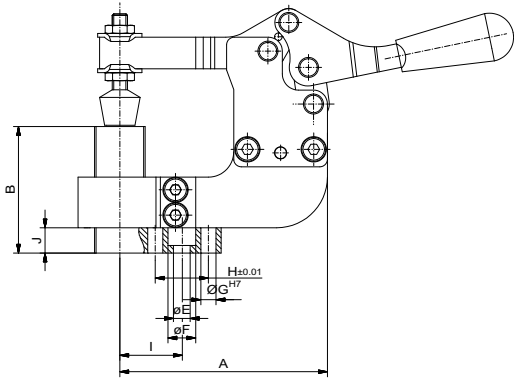
Support for ball point

Nr.	A	B	C	D	E	
55032	M24x1	M8x1	32	30	12,5	76



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

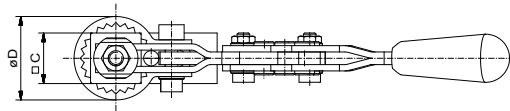
Other versions on request



Clamp unit with ratchet grip

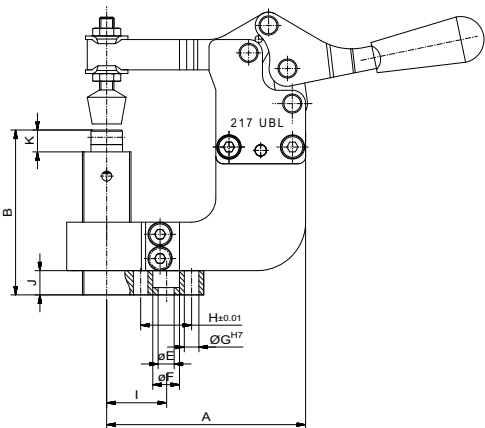
spacing 15°, for toggle clamp, with surface contact

Nr.	A	B	C	D	E	F	G	H	I	J	pressure fork #		Q
282000	87	50	20	33	6,6	11	6	21	24,7	10	./.		200
282001	87	50	20	33	6,6	11	6	21	24,7	10	./.		200
282003	112	70	20	33	6,6	11	6	21	24,7	10	./.		220
282004	87	70	20	33	6,6	11	6	21	24,7	10	./.		220
282005	112	70	20	33	6,6	11	6	21	24,7	10	357582		240
282006	112	50	20	33	6,6	11	6	21	24,7	10	357582		240
282007	112	70	20	33	6,6	11	6	21	24,7	10	357578		250
282008	112	50	20	33	6,6	11	6	21	24,7	10	357578		250



spacing 15°, for toggle clamp 227 UBL, with surface contact $\nabla 25$

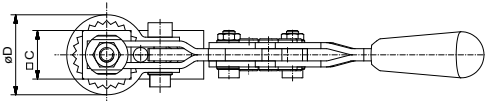
284832	70	60	25	41	9	15	8	26	30,5	15	./.		350
284834	70	100	25	41	9	15	8	26	30,5	15	./.		360
284833	130	60	25	41	9	15	8	26	30,5	15	./.		400
284835	130	100	25	41	9	15	8	26	30,5	15	./.		420
284829	100	80	25	41	9	15	8	26	30,5	15	357407		420
284831	100	100	25	41	9	15	8	26	30,5	15	357407		440
284828	100	80	25	41	9	15	8	26	30,5	15	321687		480
284830	100	100	25	41	9	15	8	26	30,5	15	321687		500



Clamp unit with ratchet grip

spacing 15°, for toggle clamp, with datum point

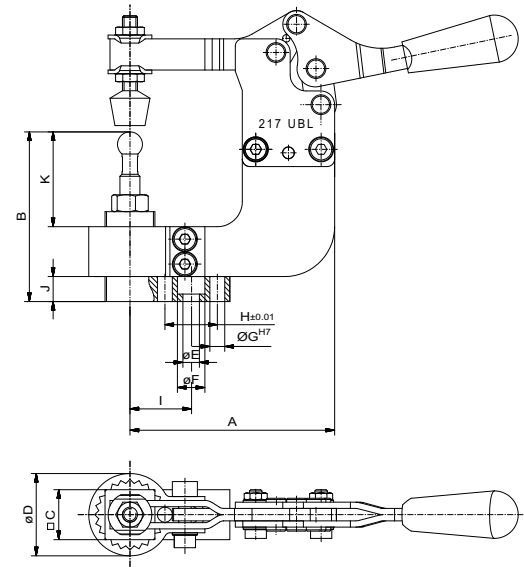
Nr.	A	B	C	D	E	F	G	H	I	J	K	pressure fork #		Q
282013	82	59	20	33	6,6	11	6	21	24,7	10	9	./.		200
282014	82	79	20	33	6,6	11	6	21	24,7	10	9	./.		200
282015	112	79	20	33	6,6	11	6	21	24,7	10	9	./.		220
282016	82	79	20	33	6,6	11	6	21	24,7	10	9	./.		220
282009	112	68	20	33	6,6	11	6	21	24,7	10	9	357582		240
282010	112	88	20	33	6,6	11	6	21	24,7	10	9	357582		240
282011	122	88	20	33	6,6	11	6	21	24,7	10	9	357578		250
282012	112	68	20	33	6,6	11	6	21	24,7	10	9	357578		250



Clamp unit with ratchet grip

 spacing 15°, for toggle clamp, with ball, height adjustable, ball $\varnothing 10/M8 \times 1$

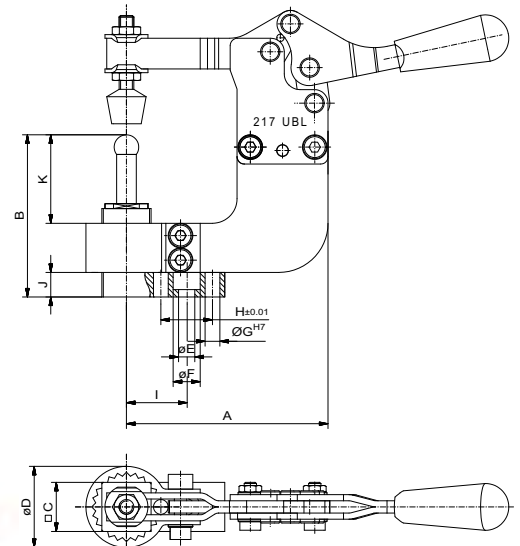
Nr.	A	B	C	D	E	F	G	H	I	J	K	pressure fork	g
282017	82	68	20	33	6,6	11	6	21	24,7	10	38	./.	200
282018	82	68	20	33	6,6	11	6	21	24,7	10	38	./.	200
282019	82	88	20	33	6,6	11	6	21	24,7	10	38	./.	220
282020	112	88	20	33	6,6	11	6	21	24,7	10	38	./.	220
282021	112	36	20	33	6,6	11	6	21	24,7	10	32	357582	240
282022	112	56	20	33	6,6	11	6	21	24,7	10	32	357582	240
282023	112	36	20	33	6,6	11	6	21	24,7	10	32	357578	250
282024	112	56	20	33	6,6	11	6	21	24,7	10	32	357578	250



Clamp unit with ratchet grip

 spacing 15°, for toggle clamp, with ball $\varnothing 10$, bore AF25

Nr.	A	B	C	D	E	F	G	H	I	J	K	pressure fork	g
282025	82	66	20	33	6,6	11	6	21	24,7	10	36	./.	200
282026	82	66	20	33	6,6	11	6	21	24,7	10	36	./.	200
282027	82	86	20	33	6,6	11	6	21	24,7	10	36	./.	220
282028	112	86	20	33	6,6	11	6	21	24,7	10	36	./.	220
282029	112	38	20	33	6,6	11	6	21	24,7	10	30	357582	240
282030	112	58	20	33	6,6	11	6	21	24,7	10	30	357582	240
282031	112	38	20	33	6,6	11	6	21	24,7	10	30	357578	250
282032	112	58	20	33	6,6	11	6	21	24,7	10	30	357578	250



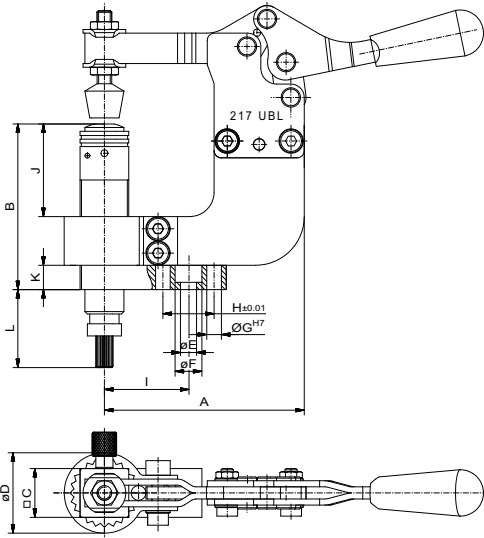
i ALUFIX ratchet clamps can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

i Toggle clamps included in supply are available in silver or black.



Clamp unit with ratchet grip

spacing 15°, for toggle clamp, with meisterbock screw



Nr.	A	B	C	D	E	F	G	H	I	J	K	L	pressure fork #	🔗	
282033	82	68	20	33	6,6	11	6	21	34,7	10	38	32	./.	↓	200
282034	112	68	20	33	6,6	11	6	21	34,7	10	38	32	./.	↓	200
282035	112	68	20	33	6,6	11	6	21	34,7	10	38	32	357582	↙	220
282036	112	68	20	33	6,6	11	6	21	34,7	10	38	32	357578	↘	230



Application example ratchet clamp with machined surface contact, black



Application example ratchet clamp with 165° angle setting

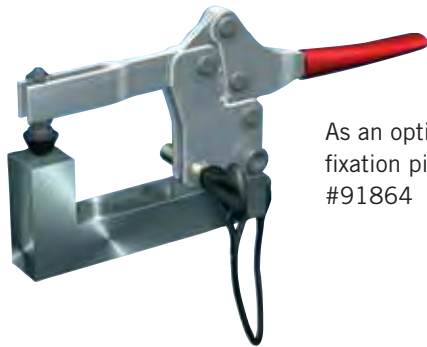


Application example ratchet clamp with 0° angle setting

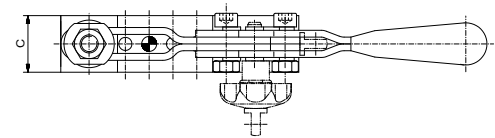
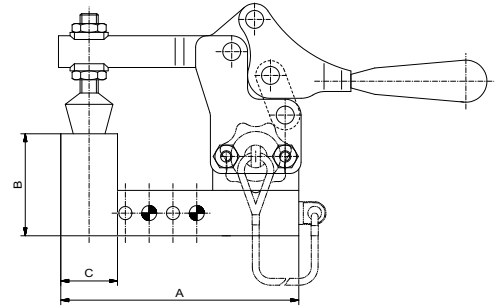
Horizontal Clamp Unit

with surface 25x25

Nr.	A	B	C	g
91654	105	45	25	170
91867	105	95	363	
91868	194	45	25	323
91871	194	95	25	410



As an option
fixation pin
#91864



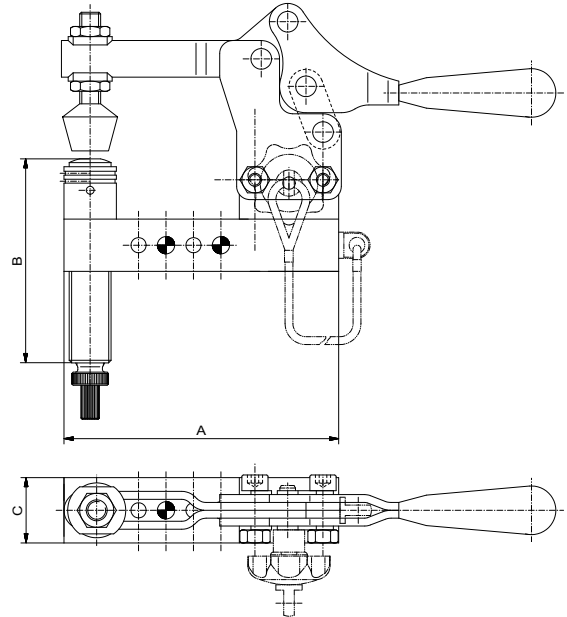
Horizontal Clamp Unit

with Meisterbock Screw, convex R18

Nr.	A	B	C	g
91653	105	78	25	158
91870	194	78	25	473



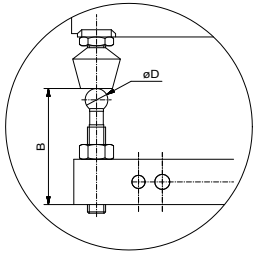
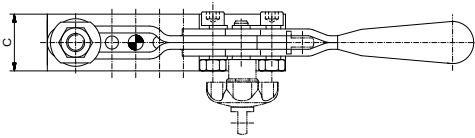
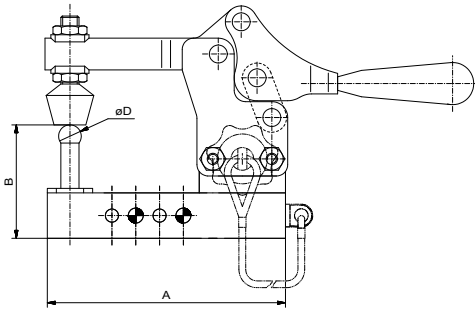
As an option
fixation pin #91864



i ALUFIX ratchet clamps can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

i Toggle clamps included in supply are available in silver or black.





Detail:
adjustable
ball point

Horizontal Clamp Unit

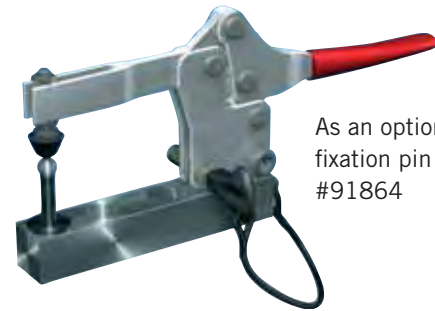
with ball point $\varnothing 10$

Nr.	A	B	C	D	
91655	105	50	25	10	156
91869	194	50	25	10	327

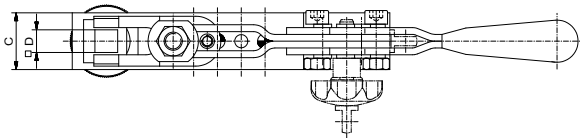
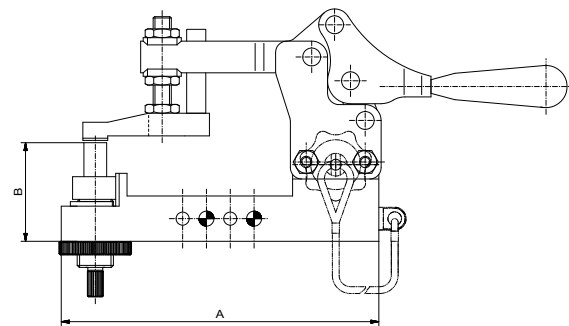
Horizontal Clamp Unit

with adjustable ball point $\varnothing 10$

Nr.	A	B	C	D	
93520	105	50	25	10	143
93521	194	50	25	10	762



As an option
fixation pin
#91864



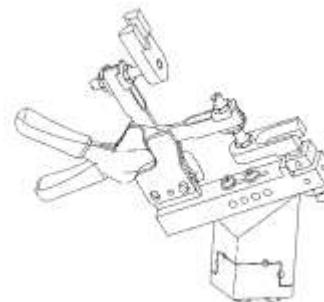
As an option
fixation pin
#91864

Horizontal Clamp Unit

height adjustable

Nr.	A	B	C	D	
93519	140	43,5	25	10	156

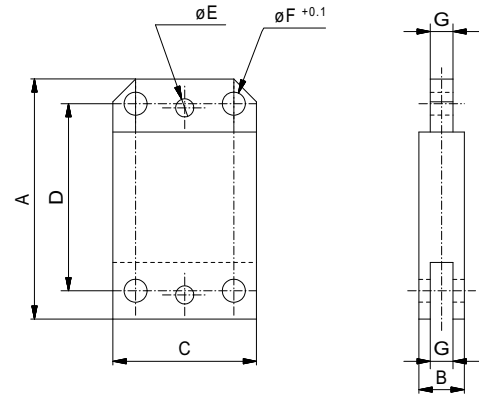
- Support surface 10x10mm secured against rotation and exchangeable
- With pressure fork
- 6mm shift
- Can support Meisterbock screws



Extension

for clamp

Nr.	A	B	C	D	E	F	G	
34408	64	12	38	50	4.8	6.1	6	60



Clamp units, vertical

Clamp units shown on previous pages are also available with vertical toggle clamps on request



Application example:
Clamp units with adjustable ball points and horizontal clamps

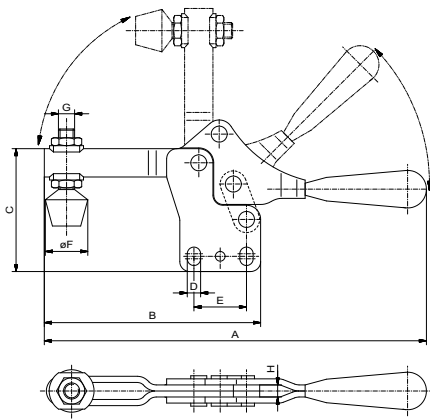


Application example:
Clamp unit with meisterbock screw and horizontal clamp with fork clamp



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

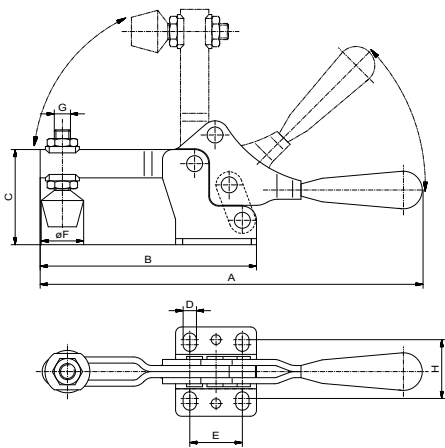
Other dimensions on request
Toggle clamps included in supply are available in silver or black.



Toggle clamp

horizontal, without foot

Nr.	A	B	C	D	E	F	G	H	
82419	190	107	60	6,6	26	21	M8	6	326
82487	104	60,9	32,6	4,4	13,5	10	M5	3,8	76



Toggle clamp

horizontal, with foot

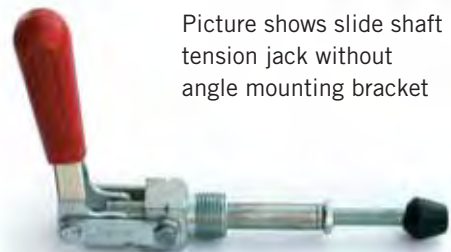
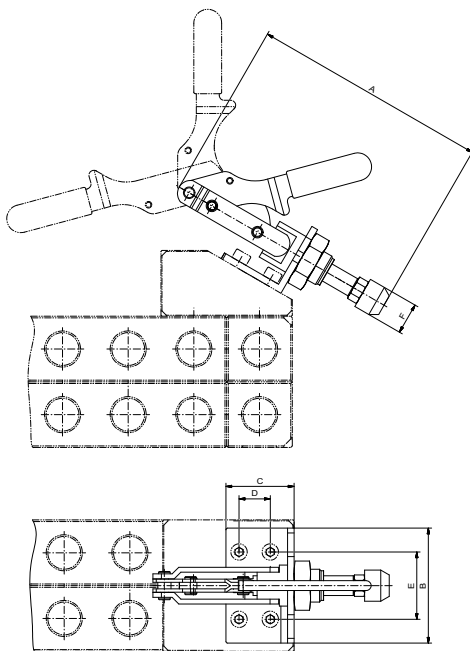
Nr.	A	B	C	D	E	F	G	H	
82417	188	107	48	6,6	26	21	M8	28	326
90835	104	60,9	28	4,4	13,5	10	M5	17,6	68



Slide shaft tension jack

with angle

Nr.	A	B	C	D	E	F	
97309	147	70	42	19	41	19	110
97310	143	60	41	-	40	16	110

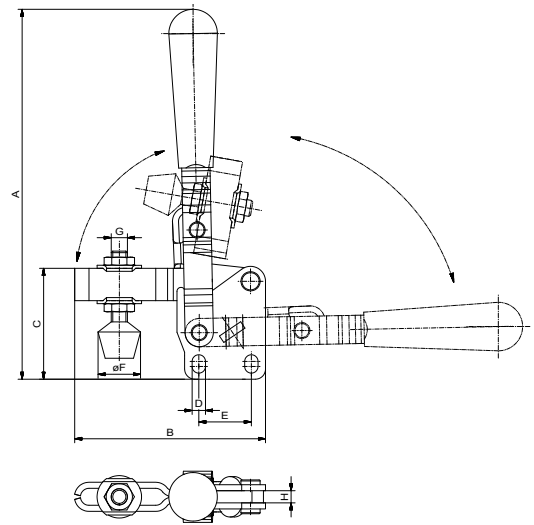


Picture shows slide shaft tension jack without angle mounting bracket

Toggle clamp

vertical, without foot

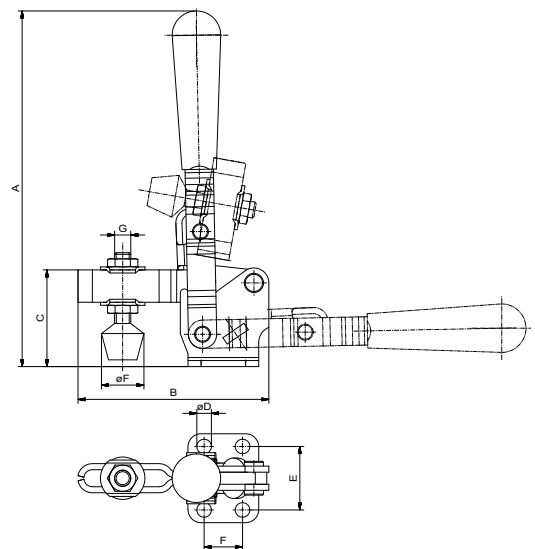
Nr.	A	B	C	D	E	F	G	H	
82420	183	95	55	6,6	26	21	M8	6	372



Toggle clamp

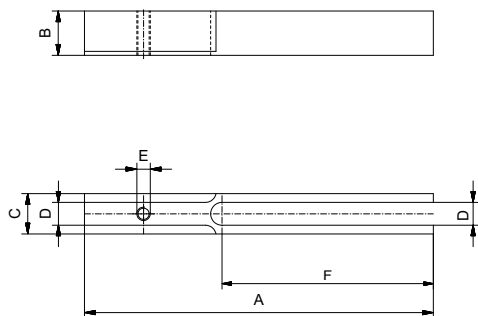
vertical, with foot

Nr.	A	B	C	D	E	F	G	
82418	175	95	48	7,2	31,4	19	M8	354



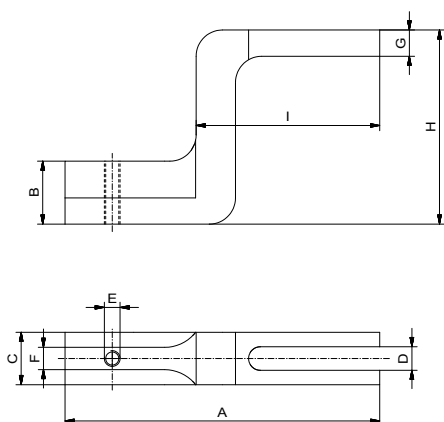
Standard colour for toggle clamps is silver, they are available in black on request (-1)

Other dimensions on request



Extension for toggle clamp

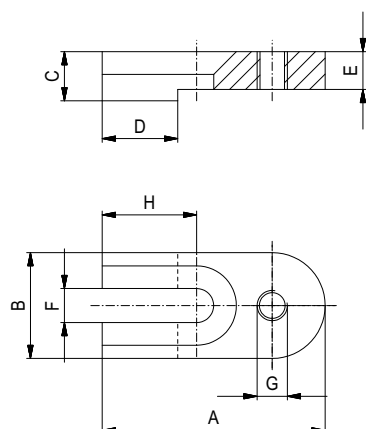
Nr.	A	B	C	D	E	F	
26677	130	12,5	11	6	M4	88	25
26678	130	15,5	15	8,5	M5	79	43
26679	165	20	18	10	M8	80	86



Extension for toggle clamp

goose neck

Nr.	A	B	C	D	E	F	G	H	I	
37942	120	24	20	9	M6	8,5	10	74	70	120
37941	120	24	20	9	M6	8,5	10	114	70	334



Pressure fork

straight, plastic

Nr.	A	B	C	D	E	F	G	H	
26563	59	28	13	20	10	9	8	25	17
32900	72,5	35	13	20	10	16	8	35	26

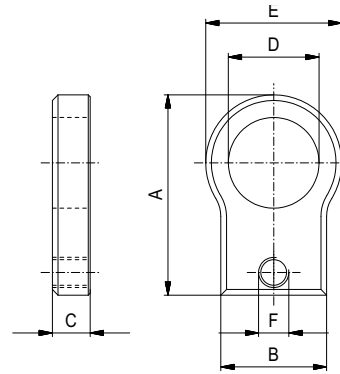


ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Pressure ring

plastic

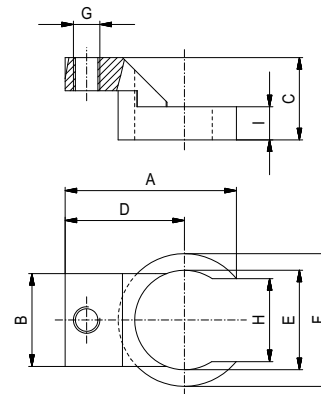
Nr.	A	B	C	D	E	F	
29095	43	28	10	24	36	8	15



Pressure fork

goose neck, plastic

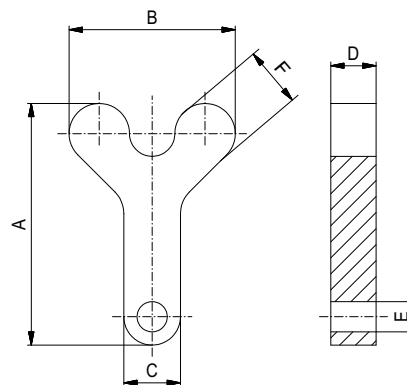
Nr.	A	B	C	D	E	F	G	H	I	
37212	51	28	24,8	36	30	40	8	25	25	10



Pressure fork

long, plastic

Nr.	A	B	C	D	E	F	
28367	64	44	15	12	8	16	20

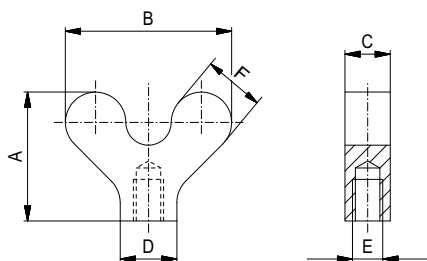


In order to protect workpieces these pressure forks are made out of a polymer which contains no substances which could be dangerous to part during painting job at a later stage.

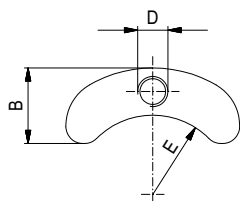
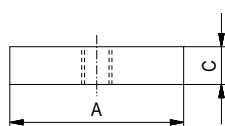
Other versions on request

Pressure fork M8

short, plastic



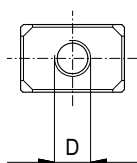
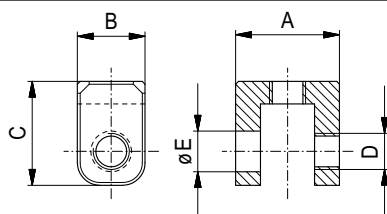
Nr.	A	B	C	D	E	F	
28368	34	44	12	15	M8	16	20
28369	40	60	12	15	M8	20	30



Pressure segment

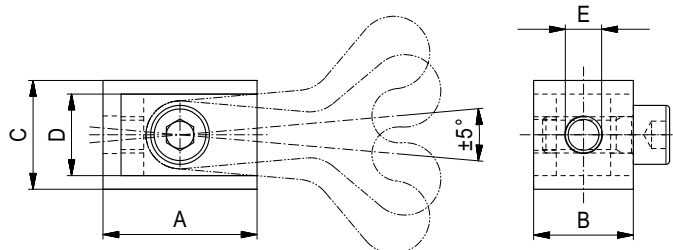
plastic

Nr.	A	B	C	D	E	
32613	46	20	10	M8	21	10



Foot for pressure fork

Nr.	A	B	C	D	E	
87590	23	15	23	M8	9	25



Foot for pressure fork

limited angle

Nr.	A	B	C	D	E	
89931	34	22	24	18	M8	50

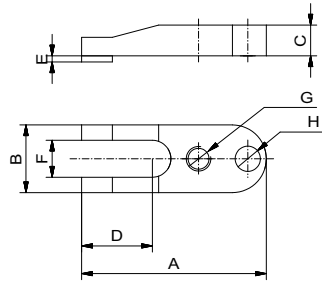


In order to protect workpieces these pressure forks are made out of a polymer which contains no substances which could be dangerous to part during painting job at a later stage.

Fork clamp

flat, with rubber tips

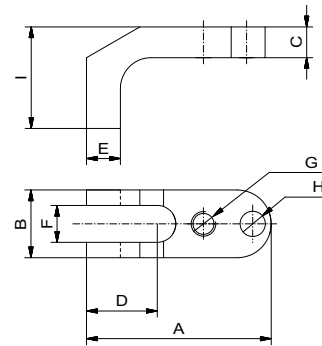
Nr.	A	B	C	D	E	F	G	H	
357407	60	22	10	23	2	12	ø8	ø8,2	--



Fork clamp

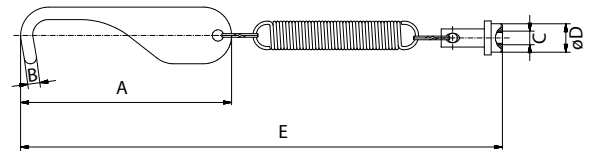
angled, with rubber tips

Nr.	A	B	C	D	E	F	G	H	I	
357578	60	22	10	23	11	12	M6	ø6,2	33	--



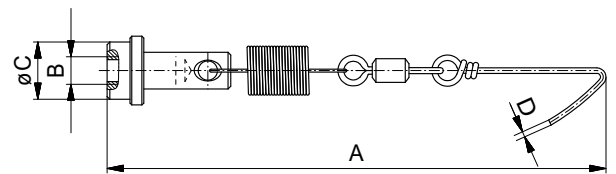
Spring with hook

Nr.	System	A	B	C	D	E	mat. hook	
84195	AF25	152	5,5	M 6	ø12,5	265	Alu	72
84192	AF25	93	5,5	M 6	ø12,5	210	Alu	47
84196	AF40	152	5,5	M10	ø12,5	275	Alu	92
90557	AF40	152	5,5	M10	ø12,5	275	Alu	70
84194	AF40	93	5,5	M10	ø12,5	215	POM	67



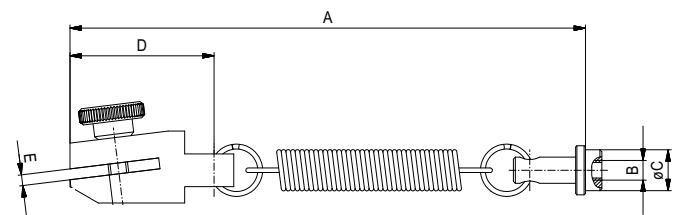
Spring with wire hook

Nr.	System	A	B	C	D	
93496	AF 25	109	M6	ø12,5	ø1,2	32



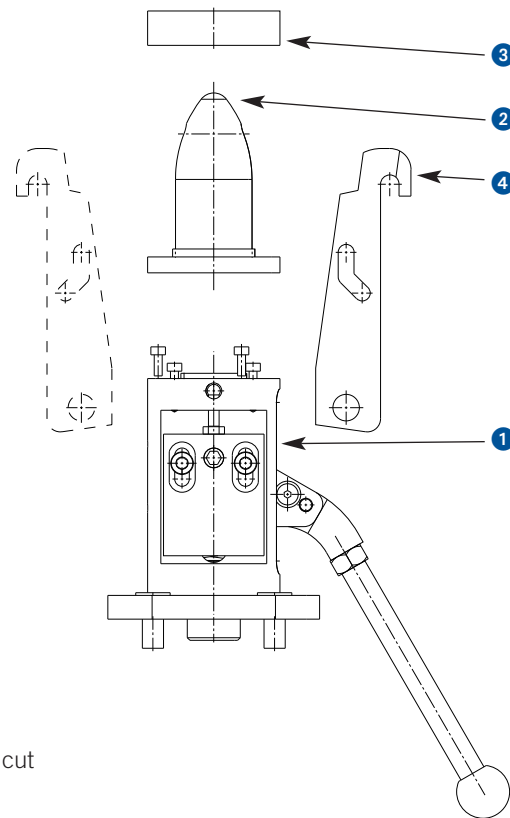
Polymer clamp with spring

Nr.	System	A	B	C	D	E	
93497	AF 25	157	12	ø12,5	44	3,3	41



ALUFIX Hook Clamps

Hook clamps are used when workpieces with a hole (especially on the inside of a workpiece, where it is difficult to clamp conventionally) have to be positioned and clamped simultaneously. They are usually connected by means of a contour block but they can be mounted directly to Alufix.



How to order:

Hook clamps are individually manufactured for every hole or press cut and comprise of four parts:

- ① Basic unit
- ② Top pin
- ③ Support ring
- ④ Hook (optional two hooks)

When ordering a hook clamp please attach a 1:1 section drawing of the support with details of the center pin diameter and the shape of the bore (round or oval). Further we need details of clearance behind the hole, metal thickness, collar height and direction in which part has been stamped

When ordering basic unit please also state required hook size
See also our download inquiry form under www.alufix.de/downloads

Hook Clamp compact

Example dia 30

A	B	C	D	E	F	G	H	I	g
30	50	110	9	159	80	112	20	M8	1156

1 Hook Clamp Basic Unit

Compact

Nr.	for pin dia	g
281408	Ø15-Ø39	669
281411	Ø40-Ø60	700

2 Top pin

Compact / Compact mini

Nr.	pin dia	g
34389	Ø15,0-0,02mm	108
51512	Ø20,0-0,02mm	145
391436	Ø25,0-0,02mm	201
34388	Ø30,0-0,02mm	254
54120	Ø40,0-0,02mm	456

3 Support ring

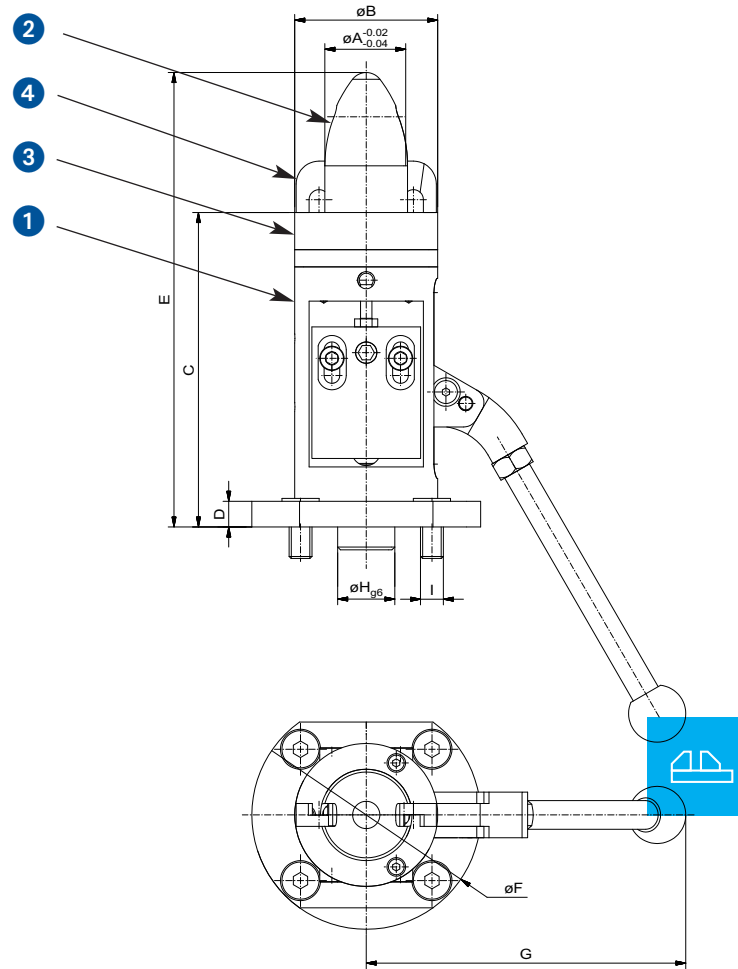
Compact / Compact mini

Nr.	surface dia	g
53384	Ø30mm	106
56036	Ø35mm	112
26589	Ø40mm	128
390548	Ø45mm	106
26592	Ø50mm	110
33020	Ø55mm	152
397265	Ø60mm	182

4 Hook

Compact

Nr.	clamping width	g
30759	30mm	80
394903	35mm	88
28399	40mm	94
30760	45mm	100
28400	50mm	122
33350	55mm	125
28401	60mm	128

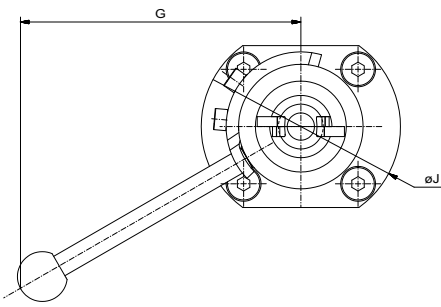
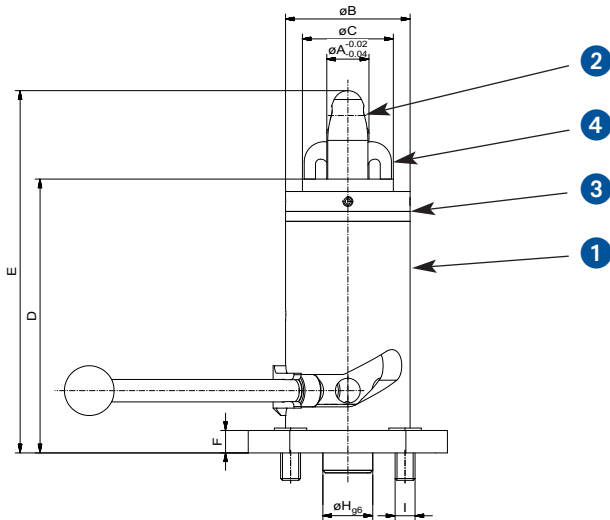


i Internal excenter lever, top pin and support ring are 100% compatible (outer dimensions same as existing hook clamps). Sideways activation possible via hex key



i **ALUFIX CLASSIC** elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

i Other dimensions on request



Hook Clamp Compact Flexible

Example dia 30

A	B	C	D	E	F	G	H	I	J	g
18	50	36,5	110	145,5	9	112	20	M8	80	991

1 Hook Clamp Basic Unit

Compact flexible

Nr.	Base height	g
281886	110mm (low-standard)	700
281887	160mm (high)	1047

2 Top pin

Compact flexible

Nr.	pin dia	g
306051	Ø18-0,02mm	159
306052	Ø20-0,02mm	169
309929	Ø25-0,02mm	199
306053	Ø30-0,02mm	245
304272	Ø40-0,02mm	410

3 Support ring

Compact / Compact mini

Nr.	surface dia	g
311718	Ø30mm	88
311720	Ø35mm	98
306056	Ø40mm	104
311722	Ø45mm	101
306057	Ø50mm	116
311739	Ø55mm	100
304273	Ø60mm	145

4 Hook

Compact flexible

Nr.	clamping width	g
311717	30mm	26
306058	35mm	36
306059	40mm	38
306060	45mm	40
306061	50mm	46
311738	55mm	48
304274	60mm	50



Picture shows high base unit version #281887. Special lengths on request

- i** Tolerances in workpiece thickness of up to +/- 0,3mm are evened out. Fast adjustment according to workpiece thickness possible. More space between operating lever and clamping surface = more freedom of movement and less part collision due to horizontal lever movement. Hook alignment independent of lever orientation, infinite rotary movement 360°. Support ring infinite rotary movement 360°

Hook Clamp Compact mini

Example dia 30

A	B	C	D	E	F	G	H	
30	50	80	9	129	80	20	9	955

1 Hook clamp basic unit

Compact mini

Nr.	for pin dia	
282726	80mm (Standard)	547

2 Top pin

Compact / Compact mini

Nr.	pin dia	
34389	Ø15,0-0,02mm	108
51512	Ø20,0-0,02mm	145
391436	Ø25,0-0,02mm	201
34388	Ø30,0-0,02mm	254
54120	Ø40,0-0,02mm	456

3 Support ring

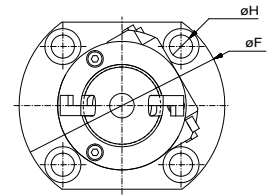
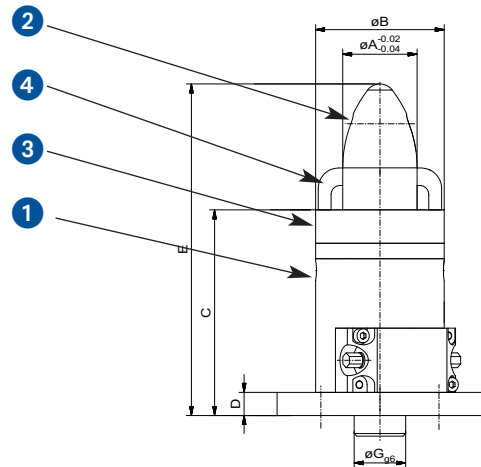
Compact / Compact mini

Nr.	surface dia	
53384	Ø30mm	106
56036	Ø35mm	115
26589	Ø40mm	128
390548	Ø45mm	106
26592	Ø50mm	110
33020	Ø55mm	152
397265	Ø60mm	182

4 Hook

Compact mini

Nr.	clamping width	
311712	30mm	34
311713	35mm	36
311714	40mm	38
311715	45mm	44
311716	50mm	44

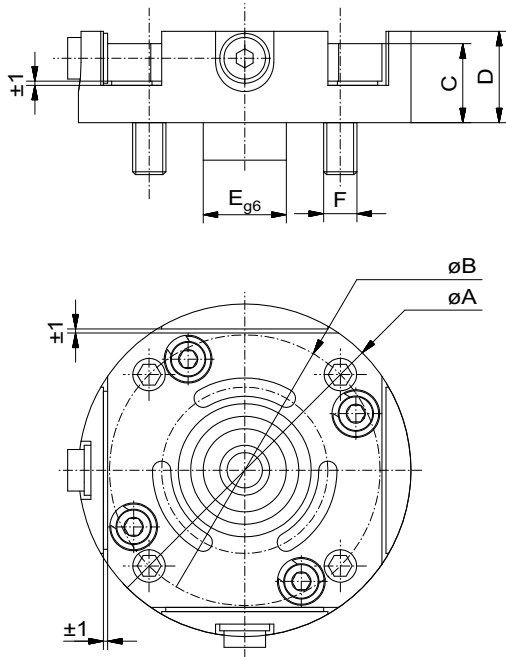


Drive via hex key (access from two sides) and worm gear. Self adjusting to sheet metal thickness. Tool with pre set torque required (0,5Nm). Top pin and support ring are 100% compatible to existing hook clamps.



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other dimensions on request



Foot for hook clamps

X,Y,Z shimmable including shim foils

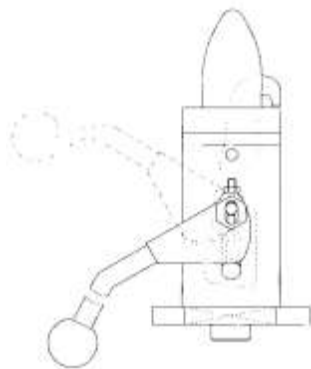
Nr.	A	B	C	D	E	F	G
281407	80	65	19	22	20	M8	286



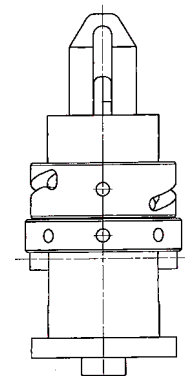
Hook clamp, previous version

Existing hook clamps

Previously supplied hook clamps are still available. Details and availability on request.



Existing version with outside lever



Hook clamp with excenter movement and adjustment for workpiece thickness



X,Y,Z hook clamp, self centering

Other dimensions on request



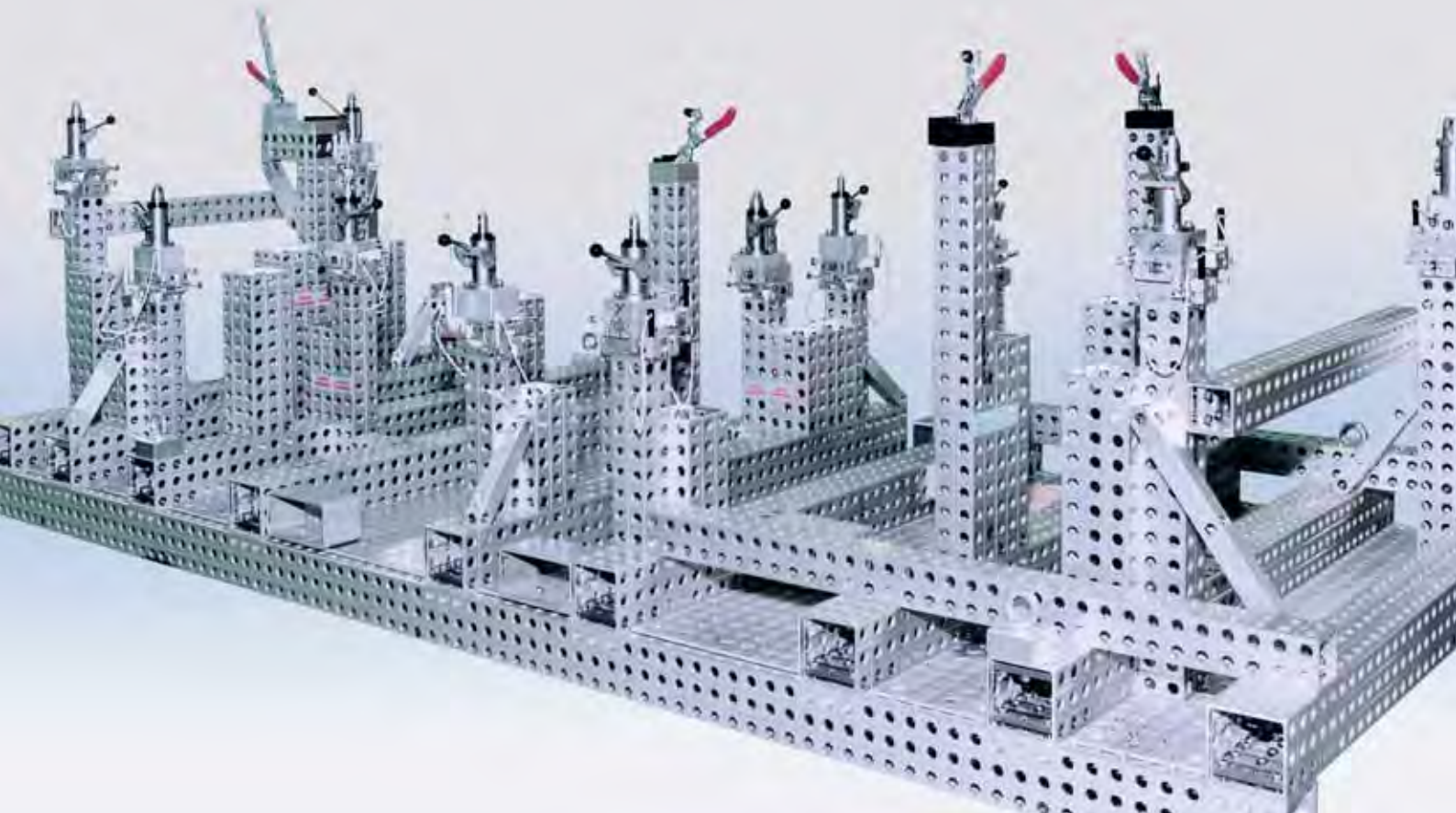
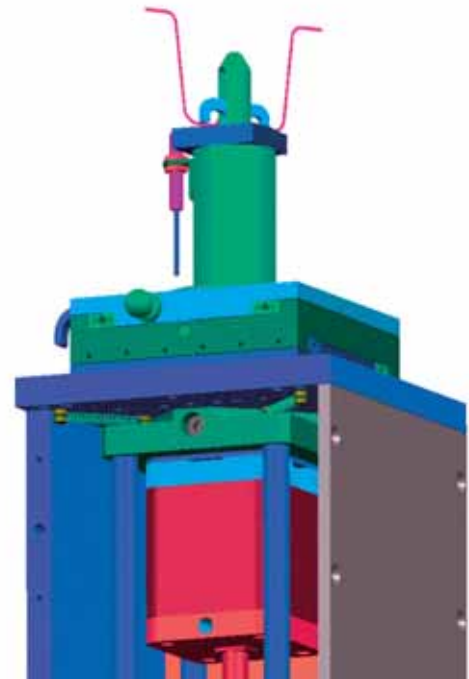
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Pneumatic hook clamps

customized versions

Characteristics

- Independent centering via springs
- Operation with compressed air
- Programme controlled
- Optimal part recognition via sensor
- Final position query at pneumatic cylinder via proximity switch
- Operating pressure 6 bar





Meisterbock screw

with fixation pin to zero, lift +/- 3mm

without cap

Nr.	A	g
91777	84	98
282330	65	89

convex R18 with magnet

Nr.	A	g
90694	84	110
98031	65	100

convex R8

Nr.	A	g
91604	84	100
98033	65	90

convex R18

Nr.	A	g
90693	84	96
98034	65	86

flat with magnet

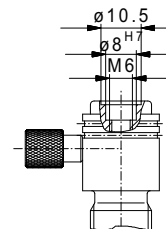
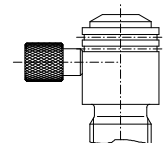
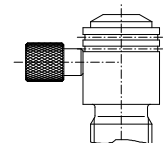
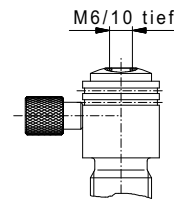
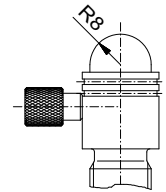
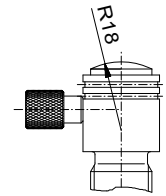
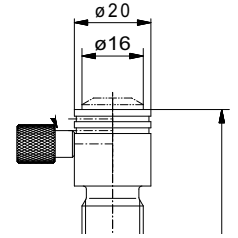
Nr.	A	g
93318	84	105
98032	65	95

flat

Nr.	A	g
93319	84	98
98035	65	90

with thread

Nr.	A	g
91912	84	90
98036	65	82

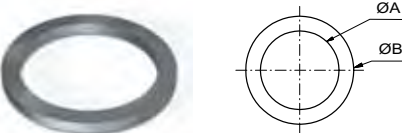


Special meisterbock screws i.e. with micrometer fine adjustment available on request.

Shim

0,5/0,05, for meisterbock screw

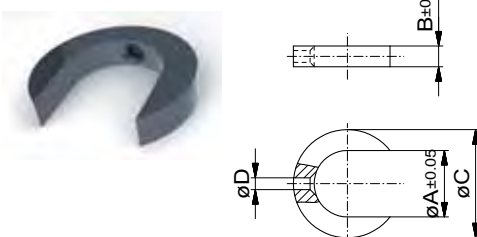
Nr.	A	B
13374	16	22



Spacer

for meisterbock screw

Nr.	A	B	C	D
53978	16	5	26	2,8

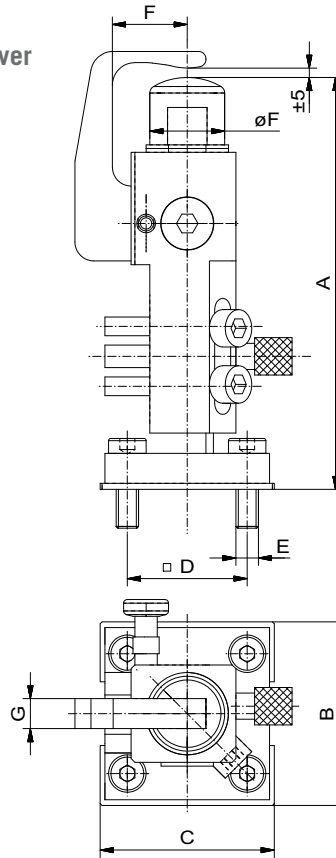


Flangeholder

contact point adjustable, with excenter clamping lever

Nr.	A	B	C	D	E	F	G	
96993	110	49	46,5	32	M6	20	8	400

The work piece is clamped by means of the "clamp arm".
 Even during adjustment of the contact point reseating of the clamp is not needed.
 Total adjustability is +/- 5mm.

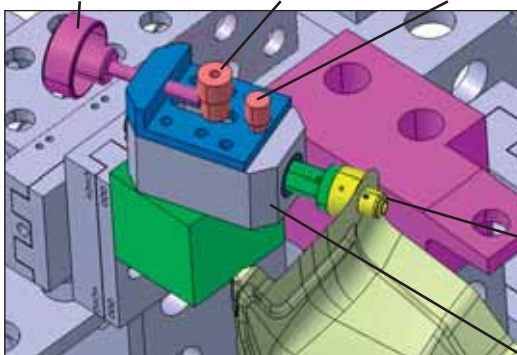


Standard main locator

can be lowered and adjusted, lift +/-5mm

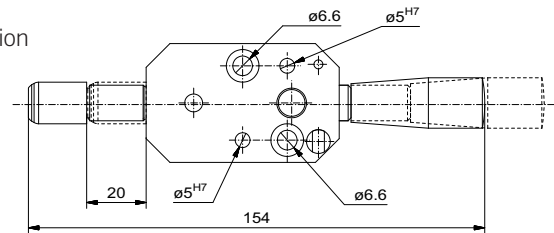
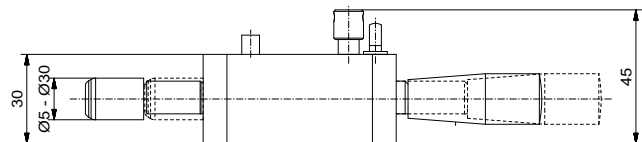
Nr.	
98718	260

Adjustment knob Fixation knob Locking pin for nominal position



Individual locator according to customer specification (Example shows main locator holding X,Y,Z)

Standard unit, mounted on machined contour block, bolted 2x and located 2x



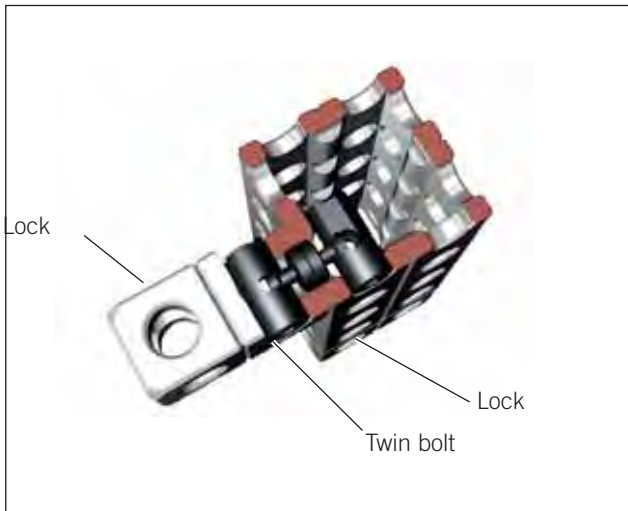
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other versions on request

ALUFIX CLASSIC

Connection Elements

A variety of elements allows combination of Alufix components whenever two opposite holes, or a hole and a nub are to be connected. This works also between different system sizes using reducer sleeves.



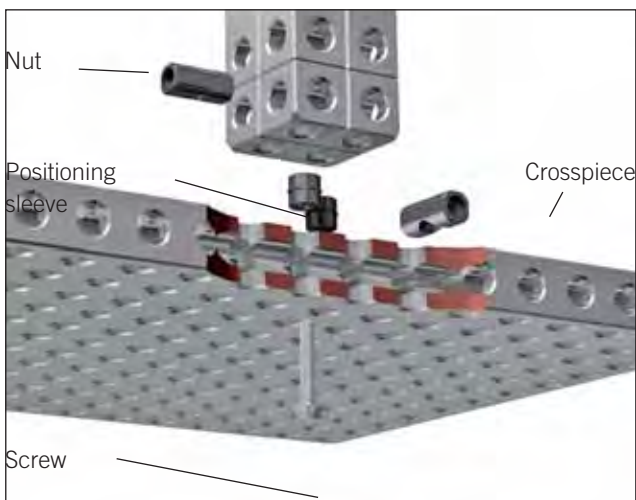
Quick connection

For fast, constantly changing fixtures we recommend using quick connection elements.

A twin bolt is positioned between Alufix elements to be connected. An excentric slot on the lock slides round and grips the head of a twin bolt resulting in a tight connection.

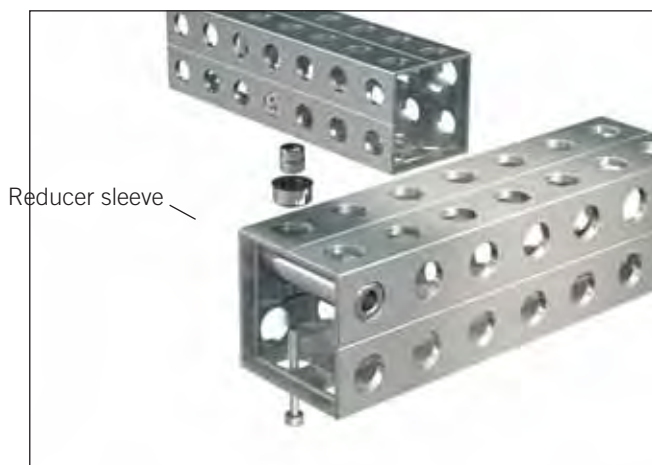


Recommended torque must be adhered to otherwise head of twin bolt may be damaged.



Screw connection

For lasting tight connections the screw connection has proved to be the best.



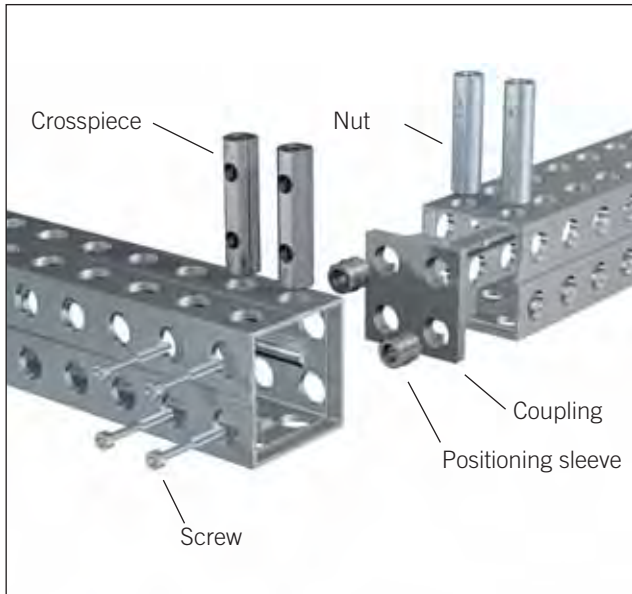
Connecting different system sizes

Alufix elements in different system sizes are connected using

- Reducer sleeves
- Reducer bolts

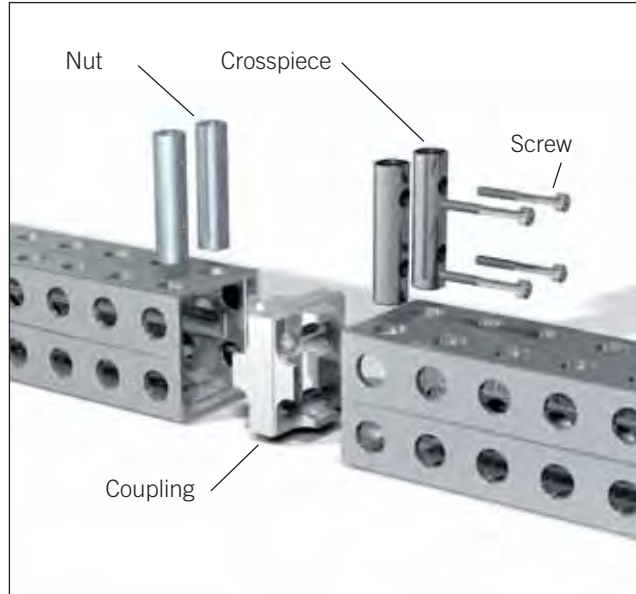


Connecting with couplings



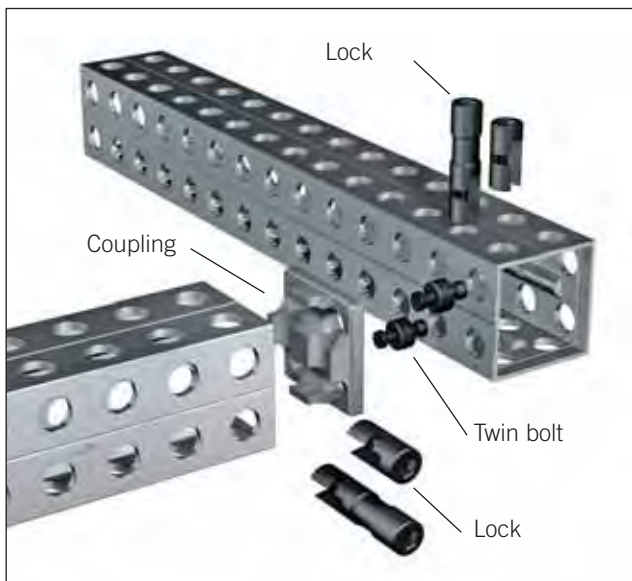
Single coupling with screw connection

is used in face ends of Light bars for accurate positioning of further elements. Picture shows assembly using screw connectors



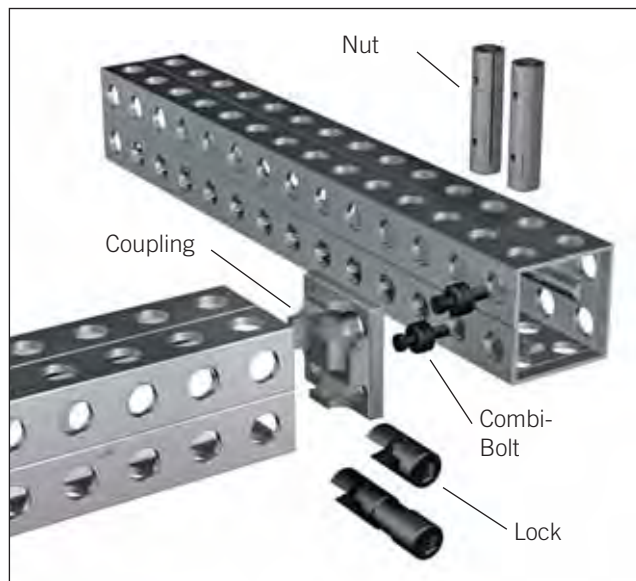
Double coupling with screw connection

is used for centering two Light bars end to end. Picture shows assembly using screw connectors, quick connectors are also possible.



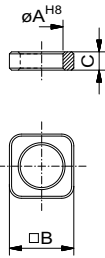
Single coupling with quick connection

is used in face ends of Light bars for accurate positioning of further elements. Picture shows assembly using quick connectors



Single coupling with screw/quick connection (combi bolt)

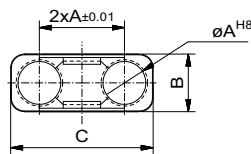
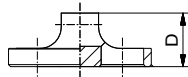
is used for centering two Light bars end to end. Picture shows assembly using screw and quick connectors.



Coupling, single

for 1 row bar

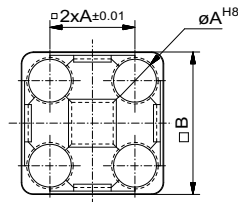
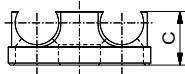
Nr.	System	A	B	C	
23315	AF 25	12,5	19	5,4	4
20794	AF 40	20	32	8,4	16
26930	AF 50	25	32	10,9	29



Coupling, single

for rectangular bar

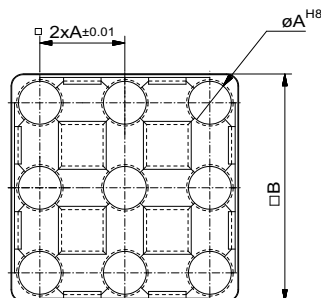
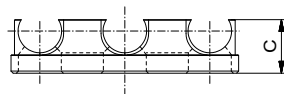
Nr.	System	A	B	C	D	
55134	AF 25	12,5	17	42	16	10
57211	AF 40	20	32	68	25	50



Coupling, single

for 2 row bar

Nr.	System	A	B	C	
23325	AF 25	12,5	42	16	26
20792	AF 40	20	68	25	120
26727	AF 50	25	84	32	228



Coupling, single

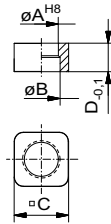
for 3 row bar

Nr.	System	A	B	C	
23612	AF 25	12,5	67	16	79
23613	AF 40	20	108	25	333
26853	AF 50	25	134	32	670

Coupling, double

for 1 row bar

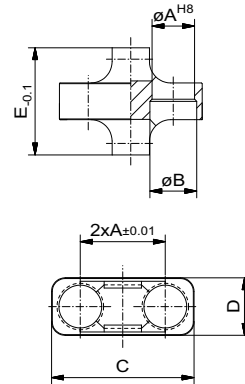
Nr.	System	A	B	C	D	
23320	AF 25	12,5	13,8	19	10,8	8
20793	AF 40	20	22	32	16,8	31
26931	AF 50	25	27,4	32	21,8	38



Coupling, double

for rectangular bar

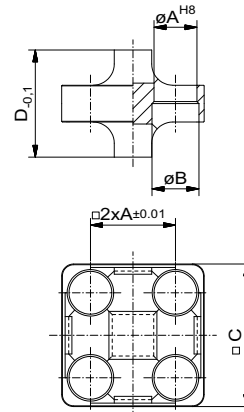
Nr.	System	A	B	C	D	E	
55316	AF 25	12,5	13,8	42	17	31,5	40
57212	AF 40	20	22	68	32	50	110



Coupling, double

for 2 row bar

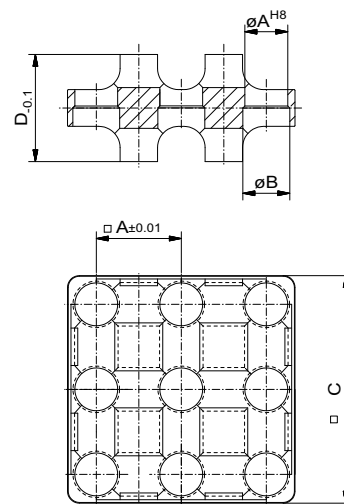
Nr.	System	A	B	C	D	
23330	AF 25	12,5	13,8	42	31,5	53
20791	AF 40	20	22	68	50,4	240
26850	AF 50	25	27,4	84	64	465



Coupling, double

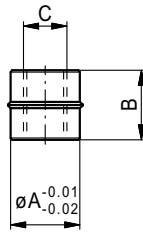
for 3 row bar

Nr.	System	A	B	C	D	
23615	AF 25	12,5	13,8	67	31,5	155
23616	AF 40	20	22	108	50,4	682
26851	AF 50	25	27,4	134	64	1.394



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

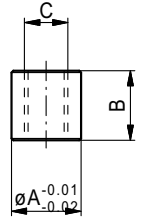
Other versions on request



Positioning sleeve

with collar

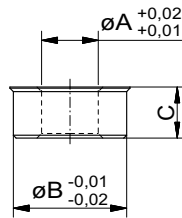
Nr.	System	A	B	C	g
21600	AF 16	8	8	M5	1
21385	AF 25	12,5	12	M8	4
21235	AF 40	20	18	M14x1,5	9
26732	AF 50	25	23	M18x1,5	16



Positioning sleeve

plain

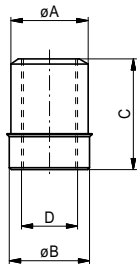
Nr.	System	A	B	C	g
21599	AF 16	8	8	M5	1
21386	AF 25	12,5	12	M8	2
21278	AF 40	20	18	M14x1,5	9
26733	AF 50	25	23	M18x1,5	16



Reducer sleeve

with collar

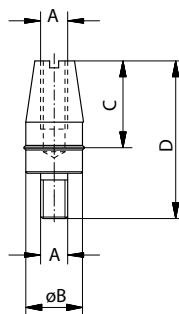
Nr.	System	A	B	C	g
21990	25/16	8	12,5	6	1
22129	40/16	8	20	9	3
21236	40/25	12,5	20	9	5
26925	50/25	12,5	25	11	10



Reducer sleeve

with collar

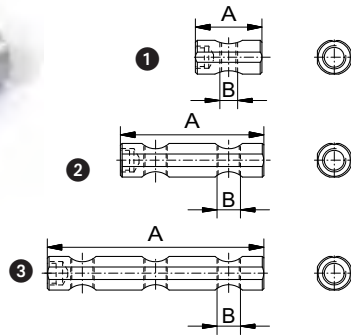
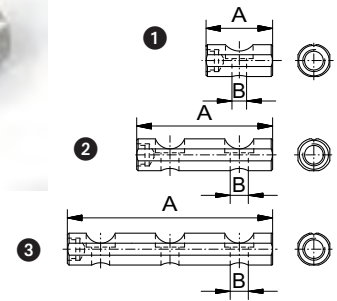
Nr.	System	A	B	C	D	g
20684	AF 25	12	12,5	18	M8	4
28260	AF 25	12,5	16	18	M8	9
22934	AF 25	12,5	22	22	M6	24
55904	AF 25	12,5	14	22	M8	42



Locating pin

Nr.	System	A	B	C	D	g
25914	AF 25	M6	12,5	19,5	35,5	10
22865	AF 25	M6	12,5	19,5	30	10

22865: Version without collar

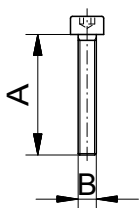

Crosspiece nut
for screw connection

Crosspiece
for screw connection

ECO		Classic				
Nr.	#	Nr.	System	B	A	
AF16						
52868	1	80620	16	M3	16	2
52869	1	80621	16	M4	16	2
52870	1	81277	16	M5	16	2
AF25						
52871	1	80533	25	M4	25	5
52872	1	80532	25	M5	25	5
52276	1	80531	25	M6	25	5
52873	1	82815	25	M8	25	5
52874	2	81602	25	M4	50	10
52875	2	81162	25	M5	50	10
52071	2	81168	25	M6	50	10
52876	3	82010	25	M4	75	15
52072	3	81917	25	M6	75	15
AF40						
52877	1	80448	40	M6	40	25
52878	1	80449	40	M8	40	25
31550	1	80450	40	M10	40	25
52879	1	80451	40	M12	40	25
52880	2	81603	40	M6	80	50
52881	2	82806	40	M8	80	50
31552	2	81363	40	M10	80	50
52882	2	82807	40	M12	80	50
52883	3	82011	40	M6	120	75
52884	3	81921	40	M8	120	75
31554	3	81873	40	M10	120	75
52885	3	82808	40	M12	120	75
AF50						
52886	1	82814	50	M6	50	50
52887	1	82813	50	M12	50	50
52888	2	82811	50	M6	100	100
31991	2	82472	50	M12	100	100
52889	3	82812	50	M6	150	150
52075	3	82471	50	M12	150	150

ECO		Classic				
Nr.	#	Nr.	System	B	A	
AF16						
52890	1	21596	16	3,3	16	2
52891	1	21597	16	4,3	16	2
AF25						
52892	1	21395	25	4,3	25	5
52893	1	21394	25	5,3	25	5
52277	1	21393	25	6,4	25	5
52894	2	23785	25	4,3	50	10
52895	2	22954	25	5,3	50	10
52073	2	22997	25	6,4	50	10
52896	3	25470	25	4,3	75	15
52897	3	28212	25	5,3	75	15
52074	3	25100	25	6,4	75	15
AF40						
52898	1	21229	40	6,4	40	25
52899	1	21230	40	8,5	40	25
31549	1	21231	40	10,5	40	25
52900	1	21232	40	13	40	25
52901	2	23786	40	6,4	80	50
52902	2	25119	40	8,5	80	50
31551	2	20796	40	10,5	80	50
AF50						
52903	3	25471	40	6,4	120	75
52904	3	28215	40	8,5	120	75
31553	3	24891	40	10,5	120	75
AF50						
52905	1	27115	50	6,4	50	50
52906	1	26730	50	13	50	50
52907	2	28217	50	6,4	100	100
52908	2	26731	50	13	100	100
52909	3	28218	50	6,4	150	150
52076	3	26827	50	13	150	150

Classic version: Ideal for modular fixturing for fast easy handling
ECO version: Ideal for dedicated fixtures, without wear-reducing helicoil inserts and without threaded hole for positioning rod

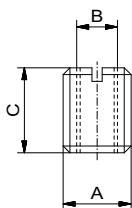




Hex socket head screw

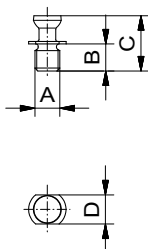
DIN 912 V2A

Nr.	System	A	B	
10706	AF 16	20	M3	1
10707	AF 16	20	M4	2
10526	AF 25	30	M4	3
10525	AF 25	30	M5	3
10524	AF 25	30	M6	8
10475	AF 40	50	M6	12
10476	AF 40	50	M8	24
10477	AF 40	50	M10	38
10478	AF 40	50	M12	53
10867	AF 50	70	M12	68



Reducer bush

Nr.	A	B	C	
26721	M4	M2	5	1
21859	3/8"	M6	13	1
26045	M6	M4	9	1
21514	M8	M4	10	3
23905	M8	M5	10	2
21865	M8	M6	10	2
21477	M10	M4	12,5	5
23906	M10	M5	12,5	4
21866	M10	M6	12,5	7
21867	M10	M8	12,5	10
20584	M12	M4	15	9
22283	M12	M5	15	8
21868	M12	M6	15	7
21869	M12	M8	15	6
21870	M12	M10	15	4
23600	M16	M12	24	13



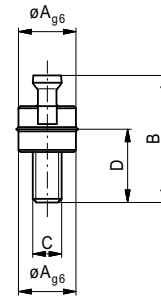
Combi bolt

shortened, for elements with nubs

Nr.	System	A	B	C	D	
20341	AF 16	M4	4,5	8,9	SW5	1
21500	AF 25	M6	6,5	13,3	SW7	2
20347	AF 40	M10	10,5	20,8	SW11	10
26855	AF 50	M12	12	25,9	SW14	16

Combi bolt

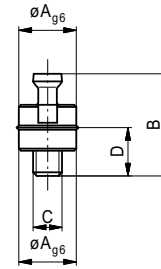
Nr.	System	A	B	C	D	
23249	AF 16	8	17,7	M4	10,2	3
23225	AF 25	12,5	28	M6	16	12
23259	AF 40	20	44	M10	25,5	64
27543	AF 50	25	55,1	M12	32	98



Combi bolt

shortened

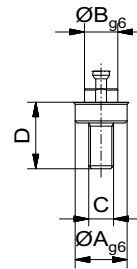
Nr.	System	A	B	C	D	
25742	AF 16	8	14,2	M4	6,7	1
25743	AF 25	12,5	22,4	M6	10,5	10
25744	AF 40	20	23,5	M10	17	61
28176	AF 50	25	44	M12	21	94



Combi reducer bolt

for connecting different system sizes

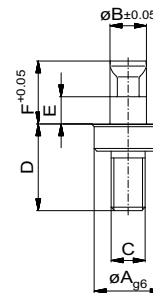
Nr.	System	A	B	C	D	
23620	AF 25/AF 16	12,5	8	M6	16	10
23621	AF 40/AF 25	20	12,5	M10	25,5	33
54400	AF 50/AF 25	25	12,5	M12	32	60
28056	AF 50/AF 40	25	20	M12	32	120



Combi bolt

AF40, for 1D bar and 2D base plate

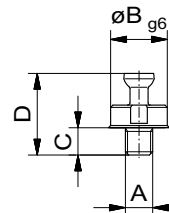
Nr.	System	A	B	C	D	E	F	
25948	AF 25	12,5	6,7	M6	16	5	11,8	24
120510	AF 40	20	10,7	M10	25,5	8	18,5	38



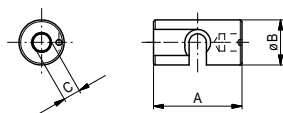
Combi bolt

for grid plate without fitted bore and keyless chuck

Nr.	System	A	B	C	D	
25746	AF16	M4	8	3,5	11	2
25654	AF25	M6	12,5	6	18	10
54587	AF25	1/4"-20	12,5	12	24	10
54589	AF25	3/8"-16	12,5	12	24	12
51843	AF25	M8	12,5	6	18	12
54588	AF25	M8	12,5	12	24	15
25747	AF40	M10	20	808	27,3	40
27821	AF50	M12	25	11	34,1	80
34763	AF50	M12	25	20	43,1	90



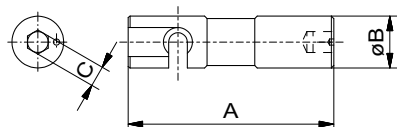
Other versions on request



Lock Alufix

standard lock for quick connection

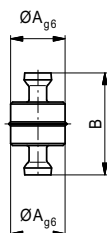
Nr.	System	A	B	C	g
23250	AF 16	16	8	SW3	4
23240	AF 25	25	12,5	SW5	13
23260	AF 40	40	20	SW8	58
26856	AF 50	50	25	SW10	116



Lock Alufix Light

for quick connection of Alufix Light bars

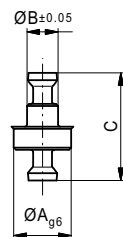
Nr.	System	A	B	C	g
23246	AF 25	50	12,5	SW3	36
20385	AF 40	80	20	SW5	130
26801	AF 50	100	25	SW10	300
27930	AF 50	150	25	SW10	489



Twin bolt

for quick connection

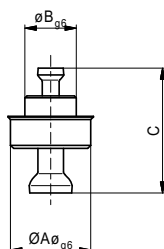
Nr.	System	A	B	g
23247	AF 16	8	15	3
23223	AF 25	12,5	24	12
23257	AF 40	20	37	48
26854	AF 50	25	47	94



Twin bolt

for bar 1D and base plate 2

Nr.	System	A	B	C	g
23248	AF 16	8	4	15	2
23228	AF 25	12,5	6,7	24	8
23258	AF 40	20	10,7	37	34
28208	AF 50	25	13,7	47	70



Reducer bolt

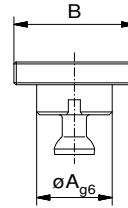
for quick connection

Nr.	System	A	B	C	g
20328	AF 25/AF 16	12,5	8	19,5	8
23452	AF 40/AF 25	20	12,5	30,5	30
28209	AF 50/AF 40	25	20	41,6	38
30580	AF 50/AF 25	25	12,5	35	33

Bolt disk with stud

for quick connection of screw jacks or top sections onto base plates or bars

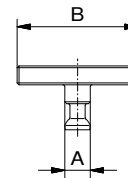
Nr.	System	A	B	g
23646	AF 16	8	12x0,5	5
23252	AF 16	8	24x1	16
23239	AF 25	12,5	24x1	22
23238	AF 25	12,5	32x1	39
23262	AF 40	20	24x1	38
23264	AF 40	20	32x1	58
26926	AF 50	25	32x1	60



Bolt disk 1D/2D

for quick connection of screw jacks or top sections to base plates 2D or bars 1D with long slots

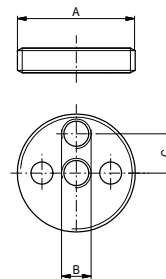
Nr.	System	A	B	g
23647	AF 16	4,3	12x0,5	5
23253	AF 16	4,3	24x1	15
23241	AF 25	6,7	24x1	17
23244	AF 25	6,7	32x1	36
23263	AF 40	10,7	24x1	24
23265	AF 40	10,7	32x1	43

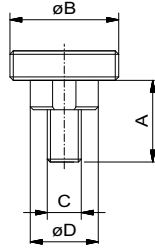


Disk

for set up independent of grid

Nr.	A	B	C	g
21679	M24x1	M6	7	5
21711	M32x1	M6	9	11





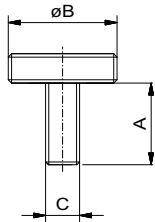
Fixing disk

with stud shoulder

Nr.	System	A	B	C	D	
81587	AF 16	7	12x0,5	M4	8	5
80748	AF 16	10	24x1	M4	8	7
80600	AF 25	15	24x1	M6	12,5	10
80601	AF 25	19	32x1	M6	12,5	17
82822	AF 40	19	24x1	M10	20	28
80602	AF 40	24	24x1	M12	20	30
92900	AF 40	24	32x1	M10	20	32
80603	AF 40	25	32x1	M12	20	34
82827	AF 50	30	32x1	M12	25	45

Fixing disk

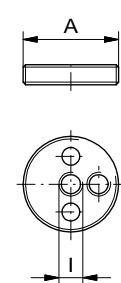
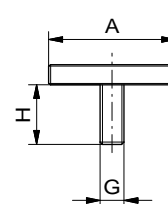
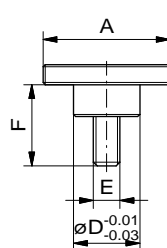
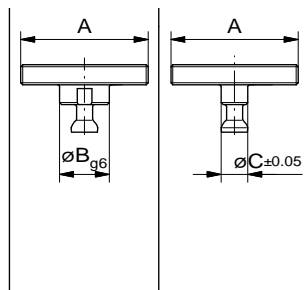
for set up independant of grid



Nr.	System	A	B	C	
81589	AF 16	7,3	12x0,5	M4	5
81489	AF 16	10,2	24x1	M4	10
80597	AF 25	15,3	24x1	M6	8
95905	AF 25	7,7	24x1	1/4"-20	10
95906	AF 25	15	24x1	M8	12
95907	AF 25	7,7	24x1	3/8"-16	11
80598	AF 25	19,6	32x1	M6	15
82770	AF 40	26,2	24x1	M10	10
82771	AF 40	25,7	32x1	M10	20
82772	AF 50	30	24x1	M12	15
82773	AF 50	32	32x1	M12	25

Overview connecting disks for keyless chucks

\varnothing	A	System	#	B	#	C	#	D	E	F	#	G	H	#	I
50	M12x0,5	AF 16	23646	8	23647	4,3	81587	8	M4	7	81589	M4	7,3	52111	M4
50	M12x0,5	AF 25	29580	12,5											
80	M16x1,0	AF 16	52102	8	52106	4,3	93434	8	M4	7	93438	M4	7	52112	M4
80	M16x1,0	AF 25	52103	12,5	52107	6,7	93435	12,5	M6	15	93439	M6	15	21711	M6
125	M32x1,0	AF 25	23238	12,5	23244	6,7	80601	12,5	M6	19	80598	M6	19,6	21711	M6
125	M32x1,0	AF 40	23264	20	23265	10,7	92900	20	M10	24	82771	M10	25,7	52114	M10
125	M32x1,0	AF 50	26926	25	52108	13,6	80603	25	M12	25	82773	M12	32	52115	M12
200	M50x1,5	AF 40	52104	20	52109	10,7	93436	20	M10	24	93440	M10	22	52116	M10
200	M50x1,5	AF 50	52105	25	52110	13,6	93437	25	M12	25	93441	M12	30	52117	M12



Connection elements for angle brackets:

Assembly of angle bracket using quick connectors:

Bolt #25165

Angle bracket #25104



Lock # 23240

...using screw connectors:

Screw #10002

Positioning sleeve #25038

Angle bracket #25104

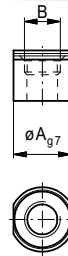


Nut # 80531

Positioning sleeve

for angle bracket, one sided

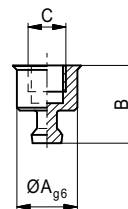
Nr.	System	A	B	
25108	AF 16	8	M5	1
25038	AF 25	12,5	M8	2
25109	AF 40	20	M14	8
26737	AF 50	25	M18	20



Bolt

for angle bracket

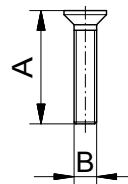
Nr.	System	A	B	C	
25165	AF 16	8	10,3	M5	2
25166	AF 25	12,5	16,5	M8	16
25167	AF 40	20	26,5	M14x1,5	50
26929	AF 50	25	34,5	M18x1,5	60



Countersunk screw

for angle bracket

Nr.	System	A	B	
11210	AF 16	20	M4	2
10002	AF 25	25	M6	2
11193	AF 40	30	M10	8
11500	AF 50	50	M12	14



Connection elements for swivel arm with joint:

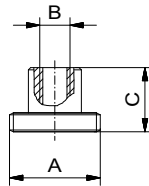
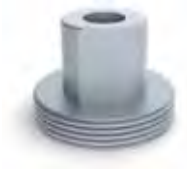
Fixing disk #25342

Reducer bush #21865

Nut M6

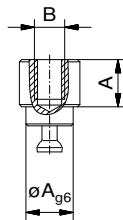
Nut M8

Bolt #25343



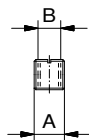
Fixing disk for swivel arm

Nr.	A	B	C	
25342	M24 x 1	M8	17	10



Bolt for swivel arm

Nr.	System	A	B	
25343	AF 25	12,5	M8	21



Reducer bush for swivel arm

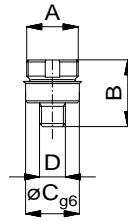
Nr.	A	B	
21865	M8	M6	1

Connection elements for keyless chucks and rotary plates

Fixing disk

for keyless chuck / screw-jack

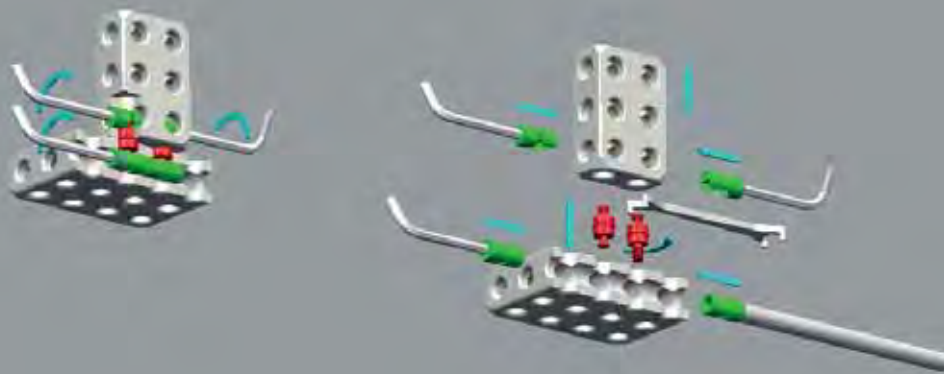
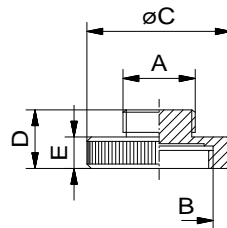
Nr.	A	B	C	D	
56118	M12x0,5	15,5	12,5	M6	19
56163	M16x1	15,5	12,5	M6	30

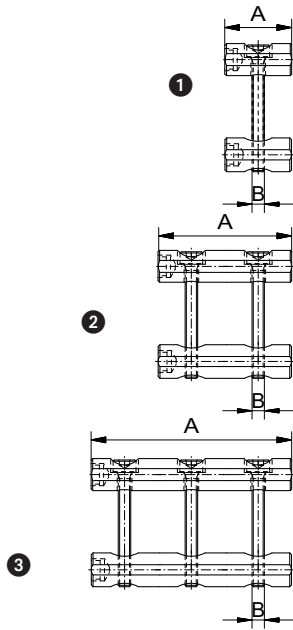


Fixing disk

for keyless chuck / screw-jack

Nr.	für HSF	A	B	C	D	E	
30084	∅ 50	M12x0,5	M24x1	32	13	7	12
30085	∅ 80	M16x1	M24x1	32	13	7	15





Connecting set for screw connection

ECO Classic

Nr.	#	Nr.	System	B	A	g
AF16						
94051	①	80697	16	M3	16	4
94052	①	80698	16	M4	16	14
AF25						
94053	①	80699	25	M4	25	14
94054	①	80700	25	M5	25	15
94055	①	80701	25	M6	25	20
94056	②	81598	25	M4	50	28
94057	②	82233	25	M6	50	30
94058	③	82008	25	M4	75	40
94059	③	81918	25	M6	75	50
AF40						
94060	①	80702	40	M6	40	60
94061	①	80703	40	M8	40	66
94062	①	80704	40	M10	40	85
94063	①	80705	40	M12	40	93
94064	②	81599	40	M6	80	120
94065	②	81520	40	M10	80	176
94066	③	82009	40	M6	120	180
94067	③	81896	40	M10	120	358
AF50						
94068	①	82488	50	M6	50	75
94069	①	82518	50	M12	50	120
94070	②	82489	50	M6	100	150
94071	②	82469	50	M12	100	230
94072	③	82490	50	M6	150	230
94073	③	82470	50	M12	150	350



Picture shows a screw connector with positioning sleeves which fit into Alufix bores



Classic version: Ideal for modular fixturing for fast easy handling
ECO version: Ideal for dedicated fixtures, without wear reducing helicoil inserts and without threaded hole for positioning rod



Standard thread sizes are printed in **bold** print



Quick connection set, AF 16, small

82672, (36-pcs.), 160g
comprising of:

Nr.	Pcs	Name
23250	20	Lock, short
23247	10	Twin bolt
23249	3	Combi bolt
23252	3	Bolt disk

Quick connection set, AF 25, small

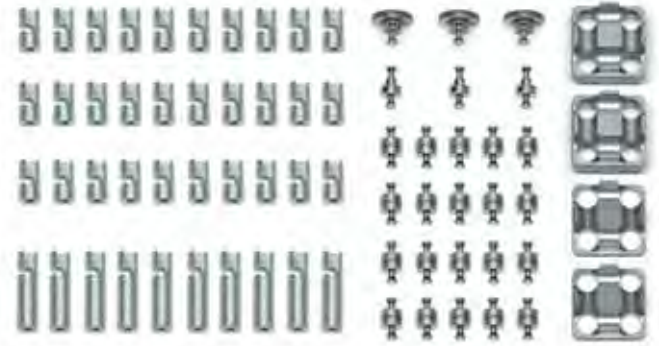
82673, (36-pcs.), 1000g
comprising of:

Nr.	Pcs	Name
23240	20	Lock, short
23223	10	Twin bolt
23225	3	Combi bolt
23239	3	Bolt disk

Quick connection set, AF 40, small

82674, (36-pcs.), 2500g
comprising of:

Nr.	Pcs	Name
23260	20	Lock, short
23257	10	Twin bolt
23259	3	Combi bolt
23264	3	Bolt disk



Quick connection set, AF 25, large

81285, (70-pcs.), 1274g
comprising of:

Nr.	Pcs	Name
23240	30	Lock, short
23246	10	Lock, long
23223	20	Twin bolt
23228	3	Bolt for bar 1D
23239	3	Bolt disk
23330	2	Coupling, double
23325	2	Coupling, single

Quick connection set, AF 40, large

81516, (70-pcs.), 5020g
comprising of:

Nr.	Pcs	Name
23260	30	Lock, short
20385	10	Lock, long
23257	20	Twin bolt
23258	3	Bolt for bar 1D
23262	3	Bolt disk
20791	2	Coupling, double
20792	2	Coupling, single

Quick connection set, AF 50, large

82801, (70-tlg.), 9600g
comprising of:

Nr.	Pcs	Name
26856	30	Lock, short
26801	10	Lock, long
26854	20	Twin bolt
28208	3	Bolt for bar 1D
26926	3	Bolt disk
26850	2	Coupling, double
26727	2	Coupling, single



ALUFIX

Tools

Alufix tool sets comprise of high quality components and are ideal for using with Alufix connecting elements.



#81492 Tools

Alufix 16 (5-pcs), comprising of:

Nr.	St.	Name
80622	1	Positioning rod
81175	1	Extended hex key WAF 3
54902	1	Pin spanner 14/17
81118	2	Key for knurled profiles 32/42

#81493 Tools

Alufix 25 (10-pcs), comprising of:

Nr.	St.	Name
80534	1	Positioning rod
80520	1	Handle 112,5
80521	2	Extension 150
10523	1	Hex insert bit WAF 3
10522	1	Hex insert bit WAF 4
10521	1	Hex insert bit WAF 5
21820	1	Pin spanner 14/17
81118	2	Key for knurled profiles 32/42



#81494 Tools

Alufix 40 (10-pcs), comprising of:

Nr.	St.	Name
80535	1	Positioning rod
80439	1	Handle 112,5
80435	1	Extension 200
80437	1	Extension 300
10484	1	Hex insert bit WAF 6
10485	1	Hex insert bit WAF 8
10486	1	Hex insert bit WAF 10
21820	1	Pin spanner 14/17
81118	2	Key for knurled profiles 32/42



#82263 Tools

Alufix 50 (10-pcs), comprising of:

Nr.	St.	Name
82551	1	Positioning rod
80439	1	Handle 112,5
80435	1	Extension 200
80437	1	Extension 300
10484	1	Hex insert bit WAF 6
10485	1	Hex insert bit WAF 8
10486	1	Hex insert bit WAF 10
27931	1	Pin spanner 17/23
81118	2	Key for knurled profiles 32/42



Torque wrench

with adjustable torque incl. hex key
and 3, 4 and 5 mm bits

Nr.	System	maximum torque
82840	AF 16	3N/m
98022	AF 25	5N/m



! In order to guarantee function of the quick connectors, recommended torque should not be exceeded.

Adjust torque
with hex key



Torque wrench

with pre-set torque

Nr.	System	maximum torque
82099	AF 40	25N/m
82789	AF 50	30N/m

! In order to guarantee function of the quick connectors, recommended torque should not be exceeded.



i Tools also available separately

ALUFIX CLASSIC Starter Kits

Fast clamping with ALUFIX

STARTER KIT

A



#83131

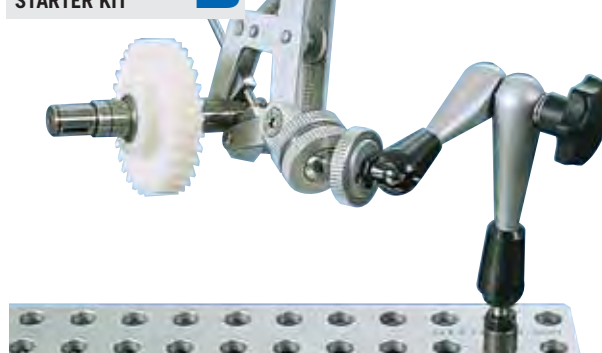
Screw clamp

with ball joint and foot plate

- max clamping width 25 mm
- extension 100 mm

STARTER KIT

B



#83132

Screw clamp

with ball joint, swivel arm and screw clamp

- max clamping width 50 mm
- arm length 280 mm (2x140)
- hydraulic central clamping
- workpiece can be fixed in any position

STARTER KIT

C



#81020

Clamping element set

M6, 69 Pcs

Comprising:

- 20 clamps in different shapes and lengths from 45 to 85mm
- 24 threaded rods M6 in 6 lengths from 25 to 150mm
- 4 coupling nuts, 10 knurled nuts and 10 washers

STARTER KIT

D



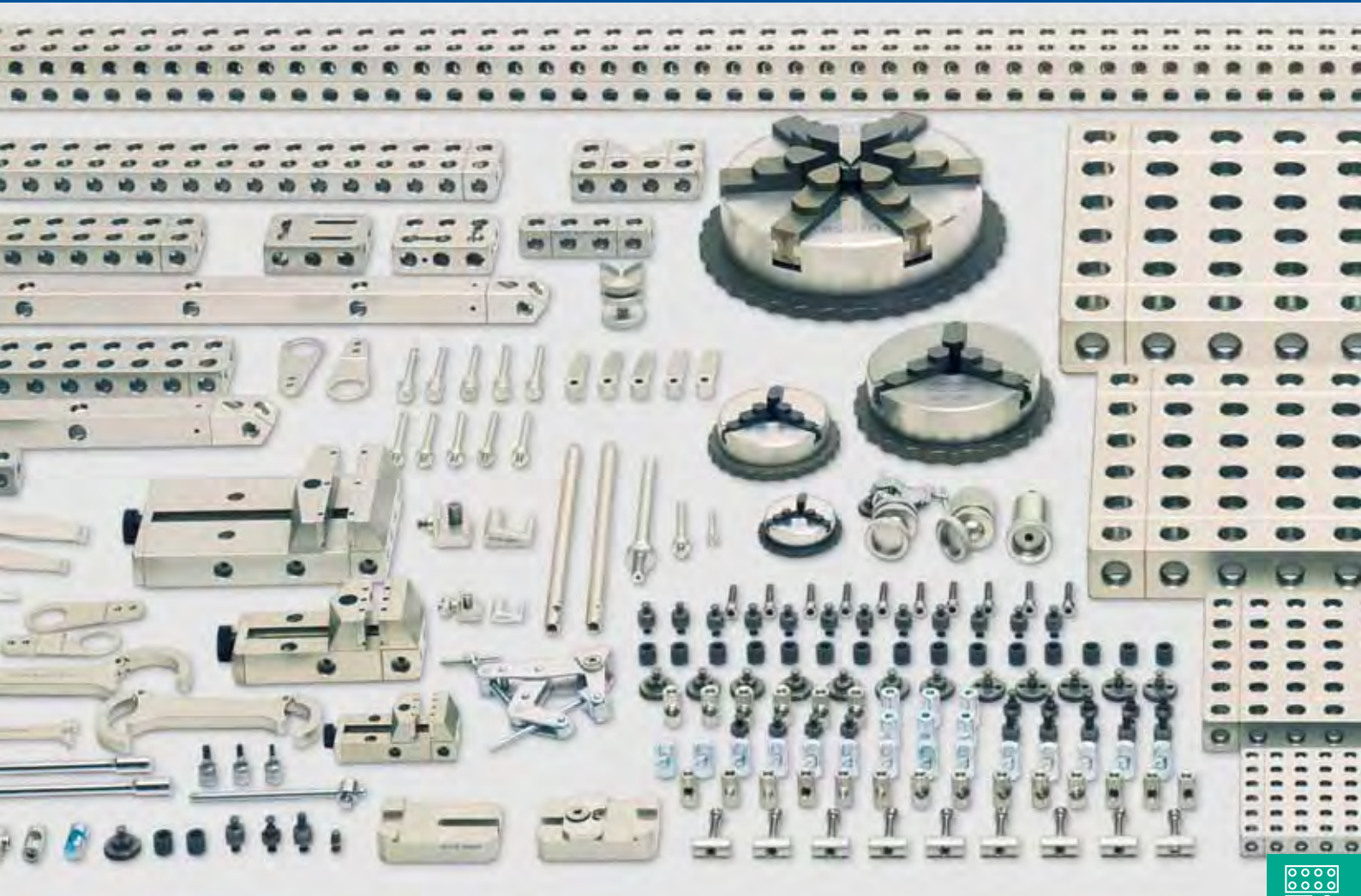
#83134

Hold down spring

and hold down stud with M6 thread

Comprising:

- Hold down spring L=60mm
- Hold down stud L=60mm (other length on request)
- One reducer sleeve each with thread M8, M10 und M12


STARTER KIT E

#83135
Vise
with pins, jaw width 50 mm

- high tensile aluminium
- exchangeable jaws
- clamping width 65 mm
- optional accessories
- jaw width available from 32 up to 160 mm

STARTER KIT F

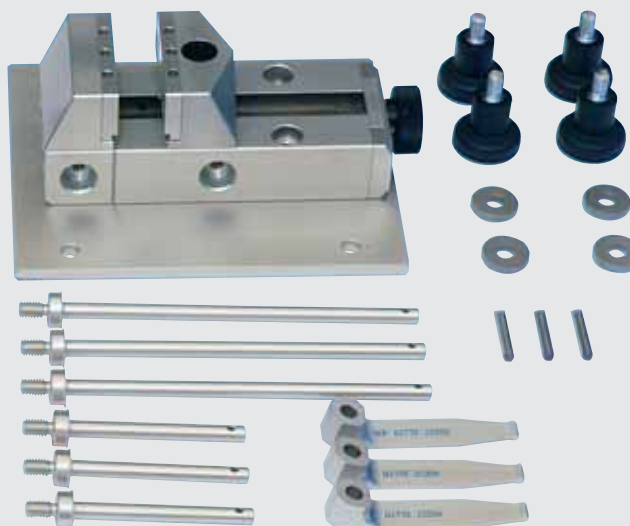
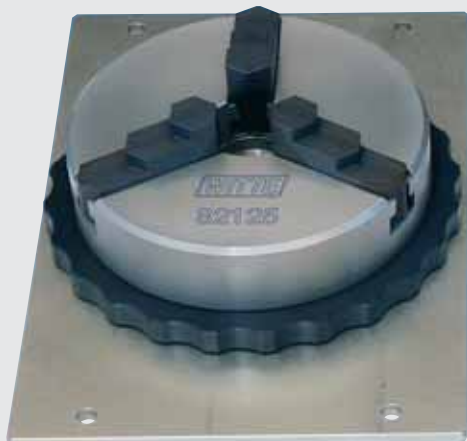
#82080
Keyless chuck
with reversible jaws, D80

- high tensile aluminium
- centric clamping
- 3- or 6-jaw version
- optional accessories
- 6 models with diameters from 50 to 200mm



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.





STARTER KIT



#96092 Basic Set

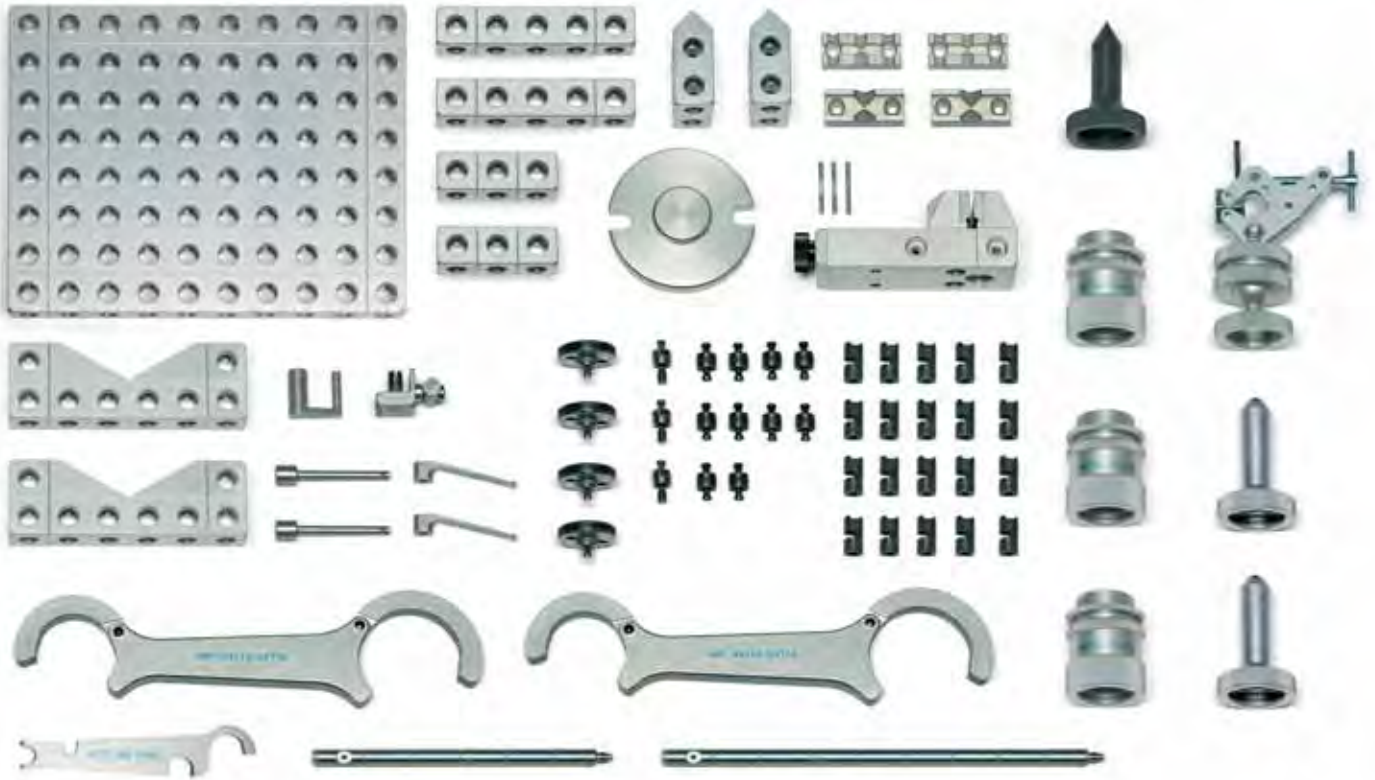
Clamp accessory kit for measuring machines
(23-pcs), 9,8 kg

Nr.	Qty.	Name
96106	1	Keyless chuck $\varnothing 125$, 3 jaws
96107	1	Vise 50 AF25
24605	3	Pin for vise AF25
22258	3	Hod down spring
54766	3	Hold down stud AF25
54767	3	Hold down stud AF25
13086	4	Screw with knurled grip
21286	4	Washer $\varnothing 6,4$
96315	1	Storage box with inlay



Keyless chuck and vise mounted on aluminium plate





#90271 Basic Set

Alufix 16, medium (75-pcs), 2,3 kg

Nr.	Qty.	Name
21573	1	Base plate 16x96x160
21586	2	Bar 16x16x80
21584	2	Bar 16x16x48
22173	2	V Block 90°
82672	1	Quick connector set (36-pcs)
81492	1	Tools (4-pcs)
82139	3	Screw-jack h38-50
23252	1	Bolt disk with stud
21670	1	Universal plate

Nr.	Qty.	Name
21646	1	Center, long
80584	2	Center with ball
21988	2	V piece 120°
80925	1	Screw clamp w ball joint
80742	1	Winder
22274	1	Deflector
20244	2	Hold down spring
20338	2	Hold down stud
81790	1	Vise set with flat and V jaws (11-pcs)



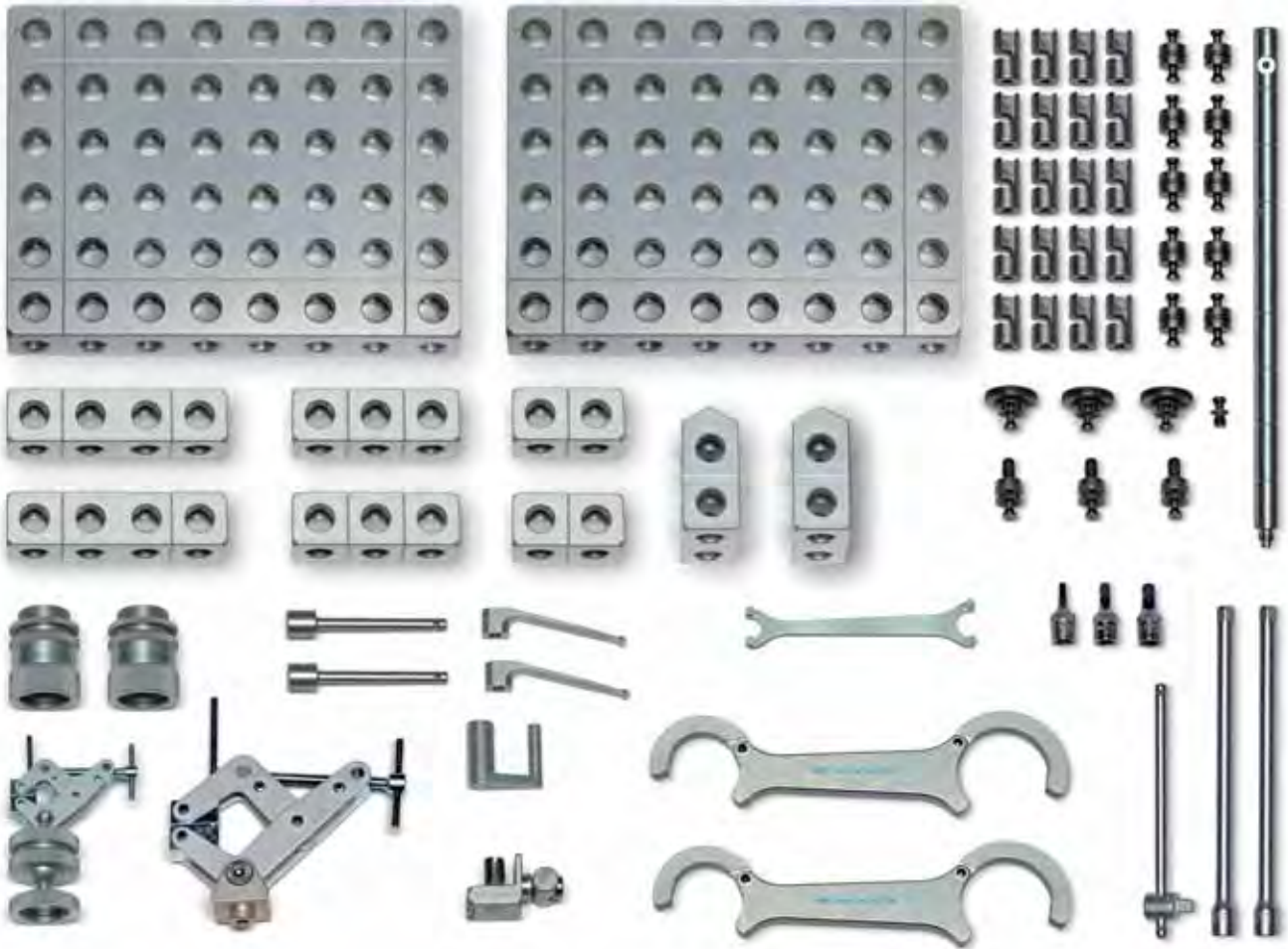
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



ALUFIXCOLOR

All Alufix basic sets are also available anodized black for use with tactile measuring systems. Simply add -1 to the set number.

Exceptions are hard-anodized items like centres or connection elements in steel. These components retain their original colour unless specifically required and requested.



#90274 Basic Set 1

Alufix 25 (67-pcs), 4,5 kg

Nr.	Qty.	Name
21352	2	Base plate 25x150x200
21373	2	Bar 25x25x50
21374	2	Bar 25x25x75
21375	2	Bar 25x25x100
22256	2	Delta block 120° Form 3
82673	1	Quick connector set (36 pcs)
21500	1	Bolt, shortened for thread
81493	1	Tools (10 pcs)

Nr.	Qty.	Name
82139	2	Screw-jack h38-50
80925	1	Screw clamp with ball joint
80924	1	Screw clamp with joint
22258	2	Hold down spring
22260	2	Hold down stud
80743	1	Winder
22275	1	Deflector

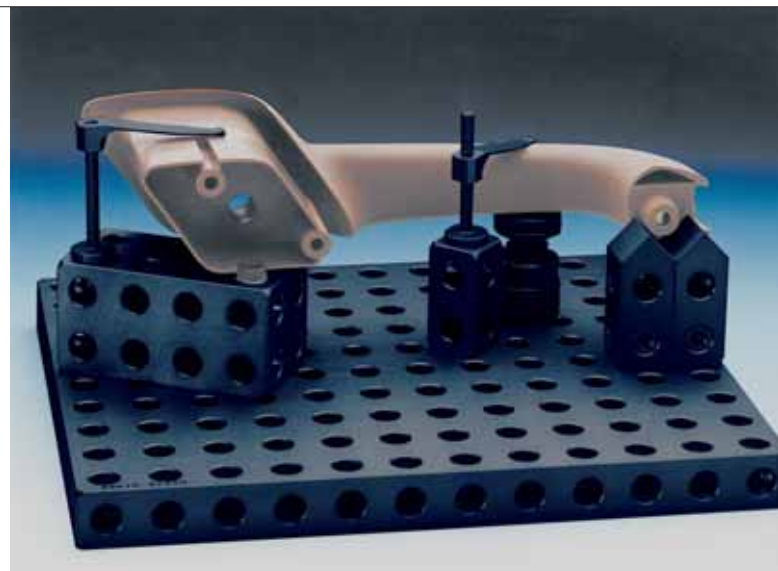


ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

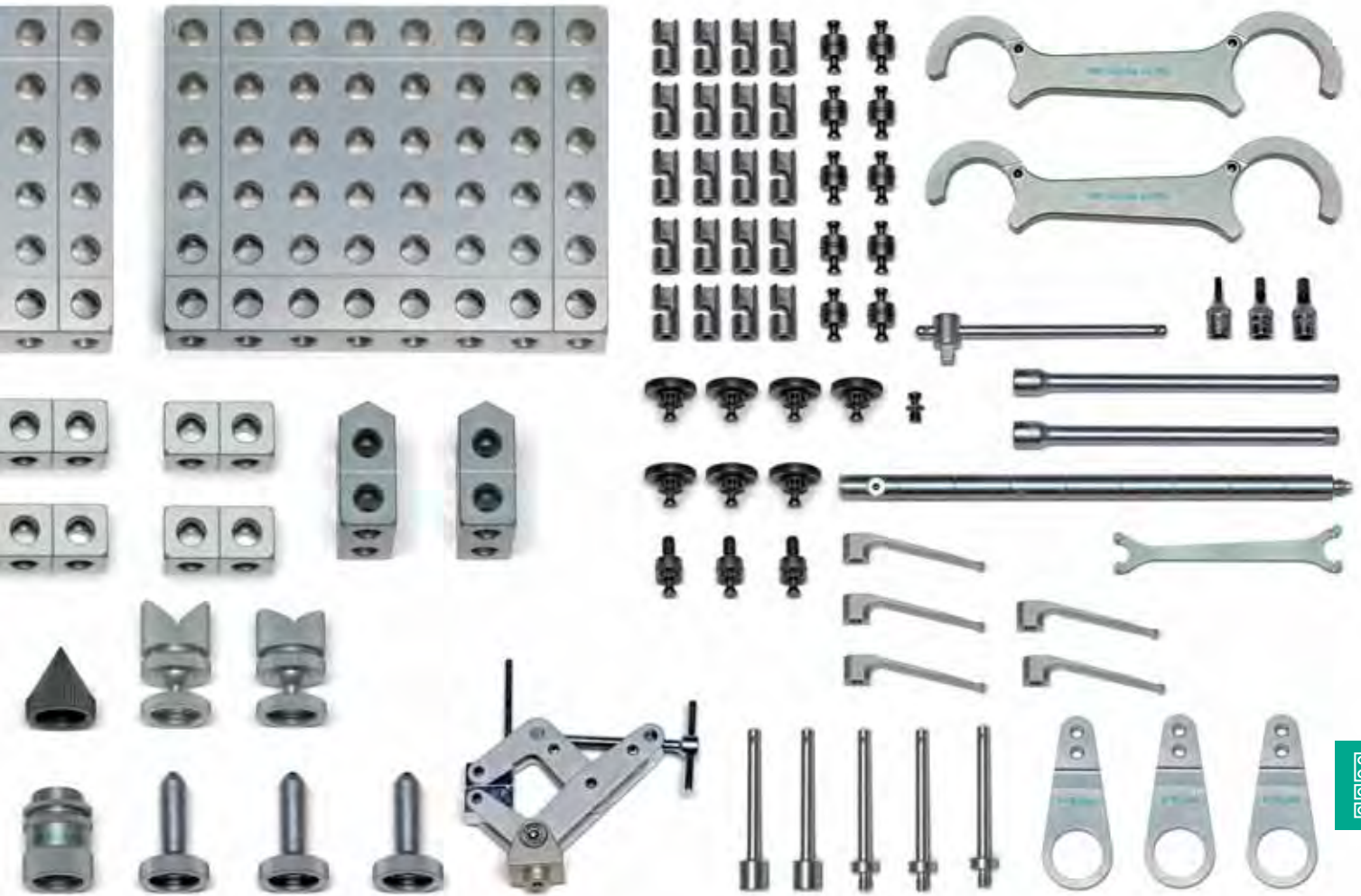
#90275 Basic Set 2

Alufix 25 (104-pcs), 5,9kg

Nr.	Qty.	Name
21352	2	Base plate 25x150x200
21373	2	Bar 25x25x50
21374	2	Bar 25x25x75
21375	2	Bar 25x25x100
21376	2	Bar 25x25x125
22256	2	Delta block 120° Form 3
82673	1	Quick connector set (36 pcs)
21500	1	Bolt, shortened for thread
81493	1	Tools (10 pcs)
82139	4	Screw-jack h38-50
23239	4	Bolt disk with stud
80924	1	Screw clamp with joint
21644	2	Center
21646	2	Center
80584	3	Center with ball
80733	1	V piece 120° with ball joint
80725	1	V piece 90° with ball joint
80925	1	Screw clamp with ball joint
81791	1	Vise Set 50mm (11 pcs)
22258	5	Hold down spring
22260	2	Hold down stud
22263	3	Hold down stud
22268	3	Traverse holder with heel
80743	1	Winder
22275	1	Deflector



Handle set up using standard Alufix Classic elements, anodized black



Workpiece set up on screw-jacks and secured with hold down springs

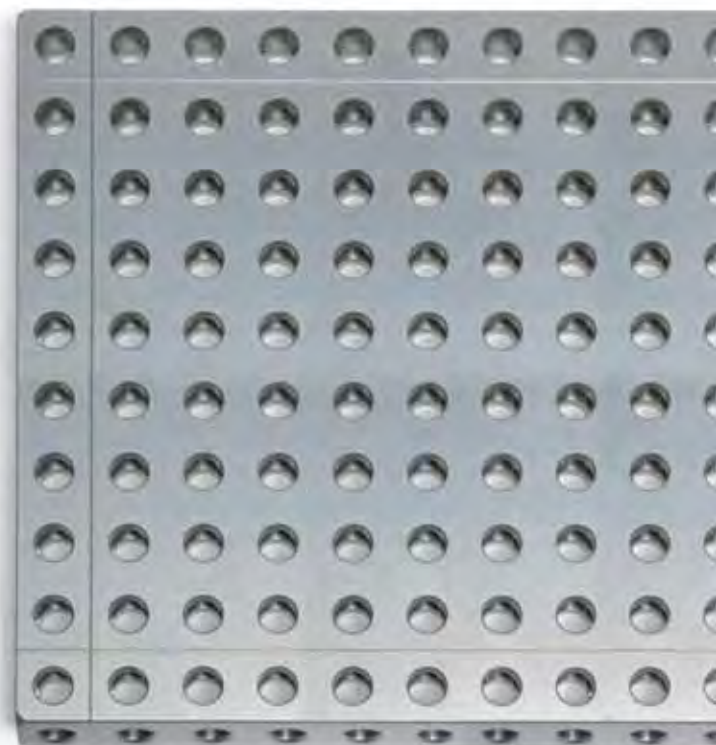



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

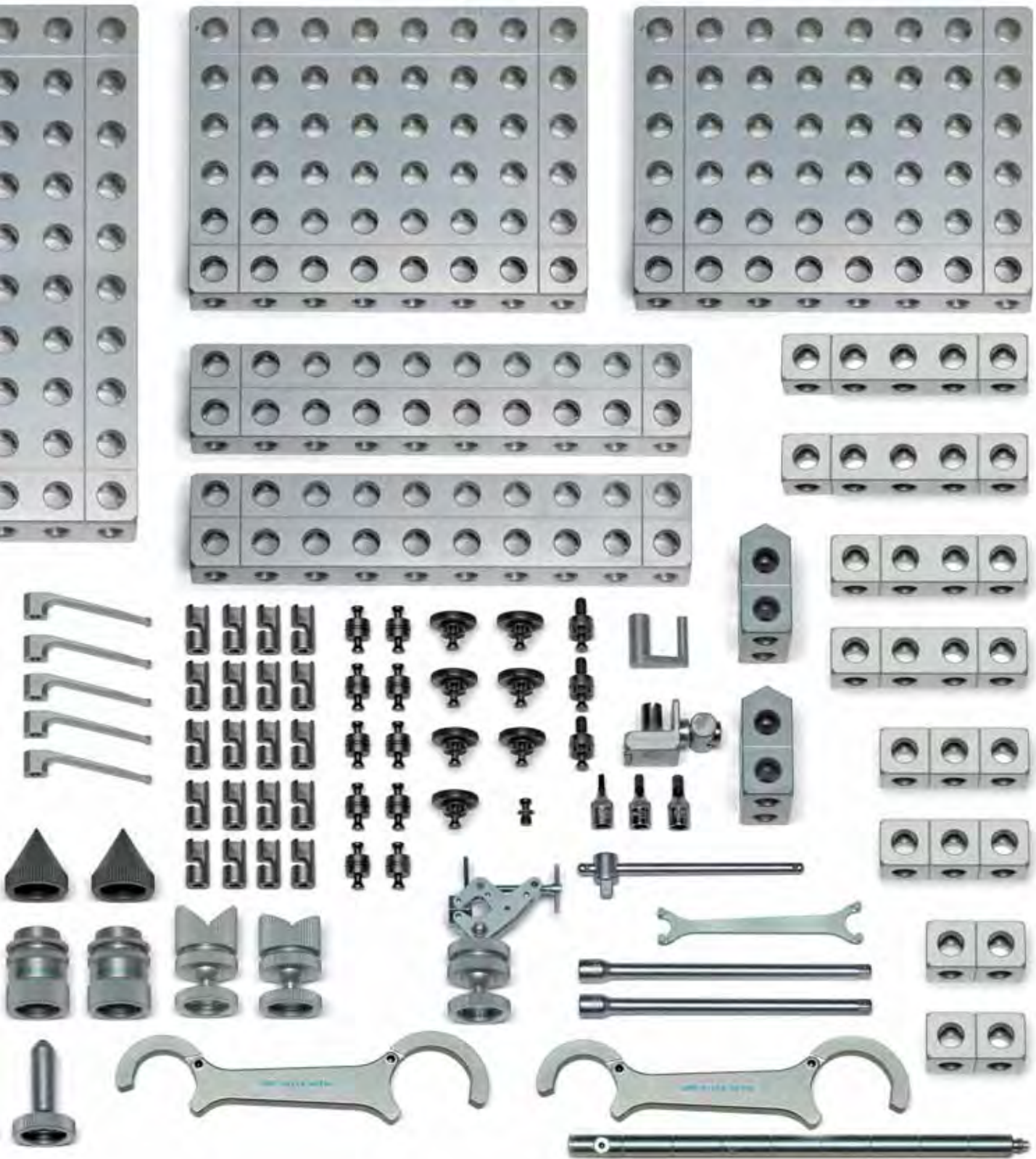
#90276 Basic Set 3

Alufix 25 (106-pcs), 12,6 kg

Nr.	Qty.	Name
21360	1	Base plate 25x250x300
22885	2	Base plate 25x50x250
21352	2	Base plate 25x150x200
21373	2	Bar 25x25x50
21374	2	Bar 25x25x75
21375	2	Bar 25x25x100
21376	2	Bar 25x25x125
22256	2	Delta block 120° Form 3
82673	1	Quick connector set (36 pcs)
21500	1	Bolt, shortened for thread
81493	1	Tools (10 pcs)
82139	4	Screw-jack h38-50
23239	1	Bolt disk
80925	2	Screw clamp with ball joint
21644	2	Center, short
21646	2	Center, long
80733	1	V piece 120° with ball joint
80725	1	V piece 90° with ball joint
81791	1	Vise Set 50mm (11 pcs)
22258	5	Hold down spring
22260	2	Hold down stud
22263	3	Hold down stud
22268	3	Traverse holder with heel
80743	1	Winder
22275	1	Deflector
80924	1	Screw clamp with joint
80584	3	Center with Ball D6/M24
12584	1	Storage case



 Aluminium case #12584, without inlays, version may be different to case shown, included in supply free of charge



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

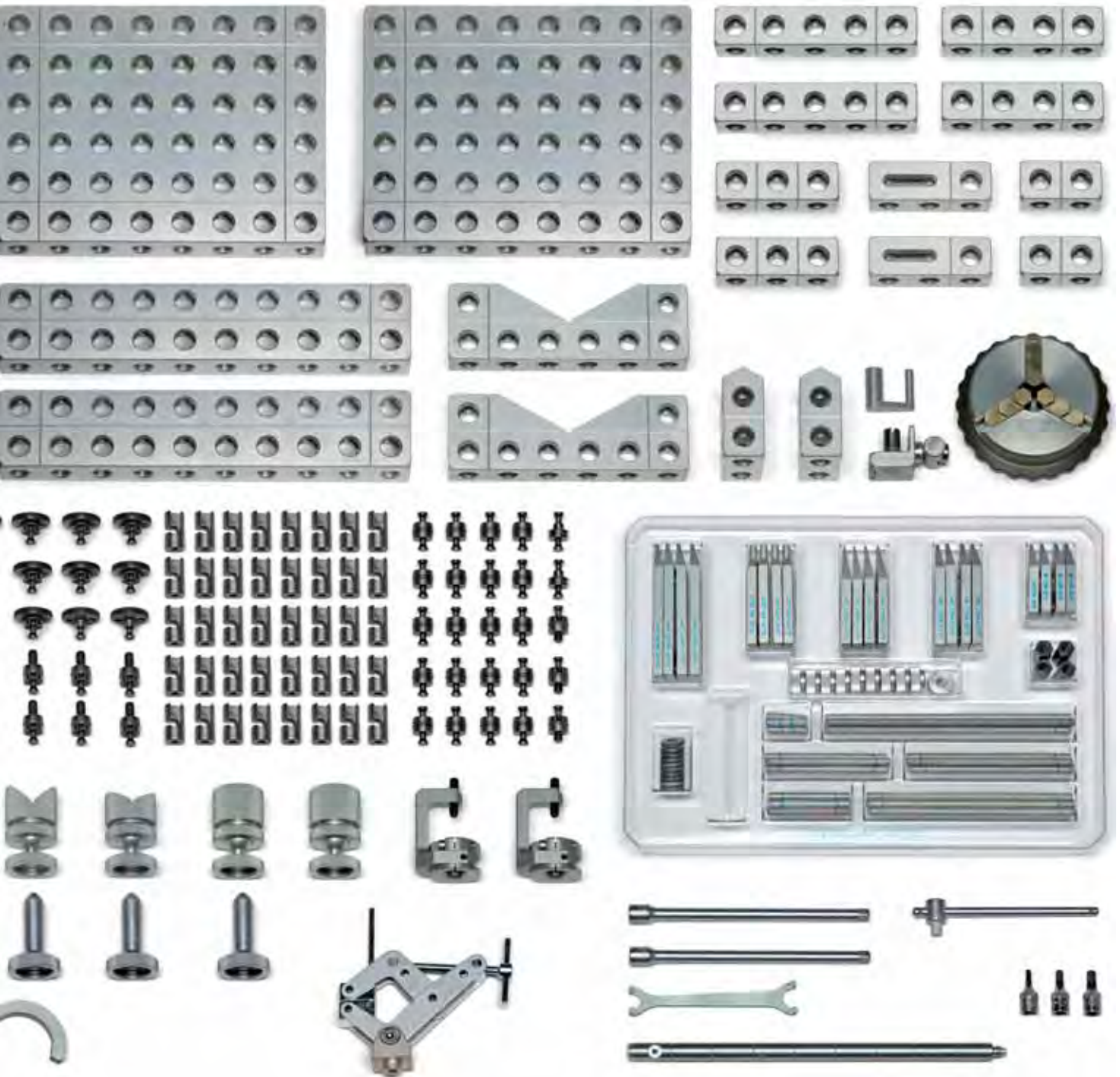
#90277 Basic Set 4

Alufix 25 (229-pcs), 15,5kg

Nr.	Qty.	Name
21360	1	Base plate 25x250x300
21352	2	Base plate 25x150x200
22885	2	Base plate 25x50x250
21376	2	Bar 25x25x125
21375	2	Bar 25x25x100
21374	2	Bar 25x25x75
21373	2	Bar 25x25x50
23233	2	Bar 1D
21987	2	V block 120°
22256	2	Delta block 120° Form 3
82673	2	Quick connector set (36-pcs)
21500	1	Bolt, shortened for thread
25654	3	Bolt f. grid plate + keyless chuck
23228	2	Twin bolt for bar 1D/2D
23241	2	Bolt disk
80531	3	Crosspiece nut
81493	1	Tools (10-pcs)
82139	4	Screw-jack h38-50
23239	1	Bolt disk
21644	2	Center, short
21646	2	Center, long
80584	3	Center with ball
80941	2	Magnetic holder with ball joint
80733	1	V piece 120° with ball joint
80725	1	V piece 90° with ball joint
81111	2	C clamp adjustable
80925	1	Screw clamp with ball joint
81791	1	Vise Set 50mm (11-pcs)
82080	1	3 jaw keyless chuck compl. ø80
22258	5	Hold down spring
22260	2	Hold down stud
22263	3	Hold down stud
22268	3	Traverse holder with heel
80743	1	Winder
22275	1	Deflector
80924	1	Screw clamp with joint
81020	1	Clamp Set 9 M6S (69-pcs)
12584	1	Storage case



Aluminium case #12584, without inlays, version may be different to case shown, included in supply free of charge

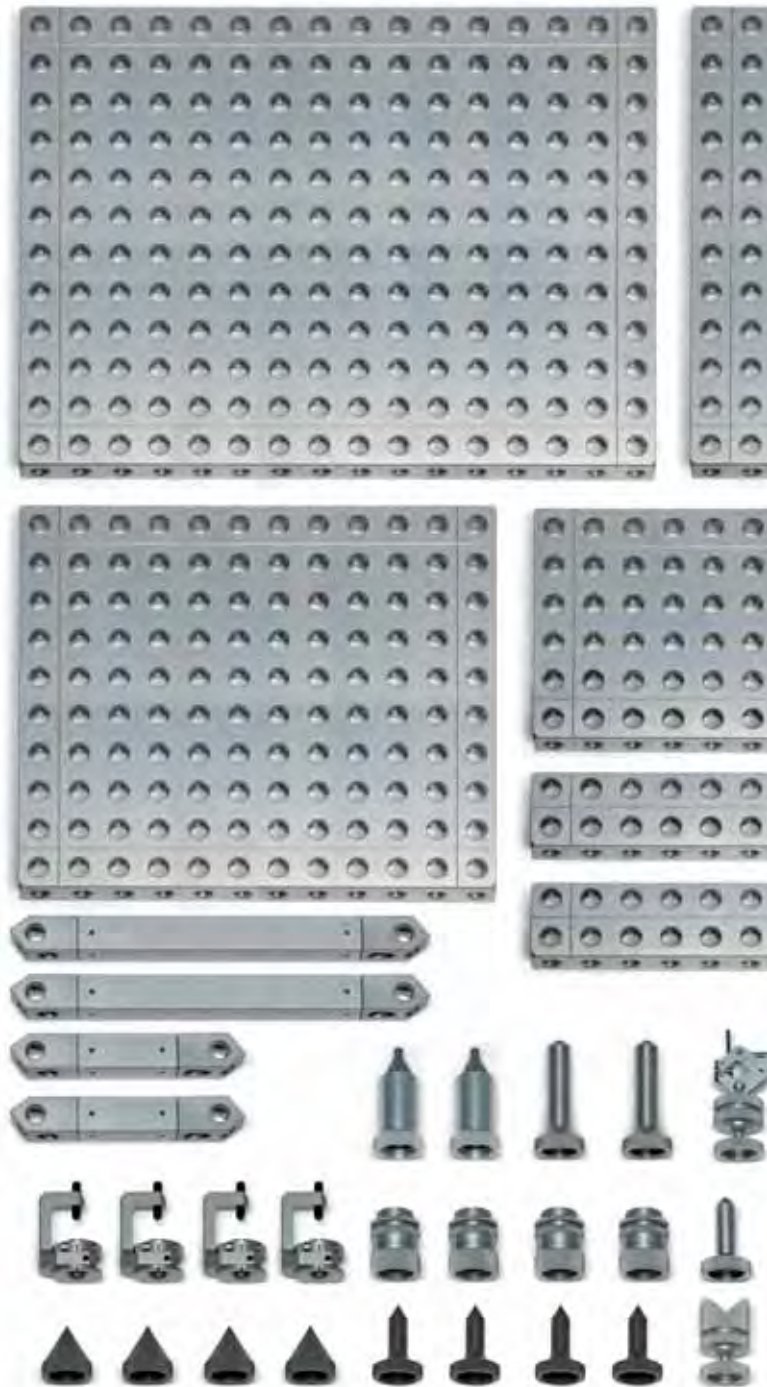


ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

#90278 Basic Set 5

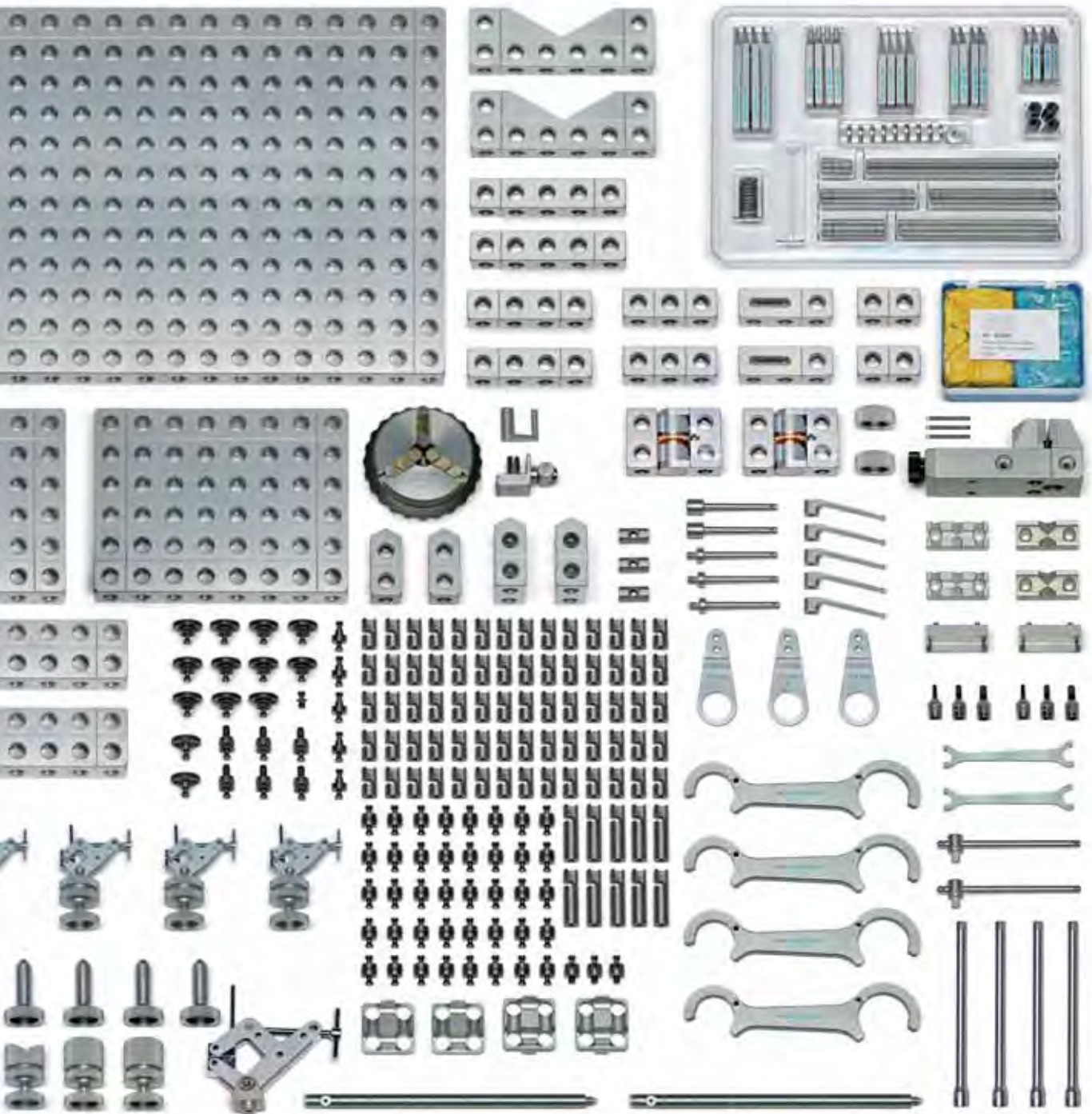
Alufix 25 (345-pcs), 49,8 kg

Nr.	Qty.	Name
21361	2	Base plate 25x250x400
21360	1	Base plate 25x250x300
21352	2	Base plate 25x150x200
22885	2	Base plate 25x50x250
21376	2	Bar 25x25x125
21375	2	Bar 25x25x100
21374	2	Bar 25x25x75
21373	2	Bar 25x25x50
81443	2	Strut 25x25x125
81444	2	Strut 25x25x250
23233	2	Bar 1D
81028	2	Double knuckle
21987	2	V block 120°
22256	2	Delta block 120° Form 3
22253	2	Delta block 120° Form 2
81285	1	Quick connector set (70-pcs)
82673	2	Quick connector set (36-pcs)
80531	3	Crosspiece nut
23228	2	Bolt for bar 1D/2D
25654	3	Bolt f. grid plate + keyless chuck
21500	1	Bolt, shortened for thread
81493	2	Tools (10-pcs)
82139	4	Screw-jack h38-50
23239	1	Bolt disk
23241	2	Bolt disk
21644	4	Center, short
21646	4	Center, long
80584	5	Center with ball
80733	1	V piece 120° with ball joint
80725	1	V piece 90° with ball joint
80661	2	True line stud
80941	2	Magnetic holder with ball joint
81212	2	Autocenter
81111	4	C clamp adjustable
80925	4	Screw clamp with ball joint
22005	2	Moulding cap
81791	1	Vise Set 50mm (11 pcs)
80685	1	Compound resin 400g
81832	2	Forming jaw with bushes (3 pcs)
82080	1	3 jaw keyless chuck compl. ø80
22258	5	Hold down spring
22260	2	Hold down stud



Nr.	Qty.	Name
22263	3	Hold down stud
22268	3	Traverse holder for stud
80743	1	Winder
22275	1	Deflector





Nr.	Qty.	Name
80924	1	Screw clamp with joint
80604	2	Base for screw clamp
81020	1	Clamp Set 9 M6S (69 pcs)
12584	1	Storage case



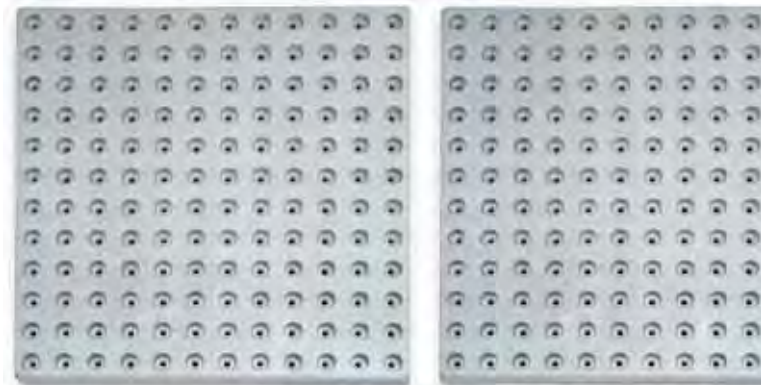
ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Aluminium case #12584, without inlays, version may be different to case shown, included in supply free of charge

#98156 Basic Set 6

Alufix 25 (332-pcs), 49,8 kg

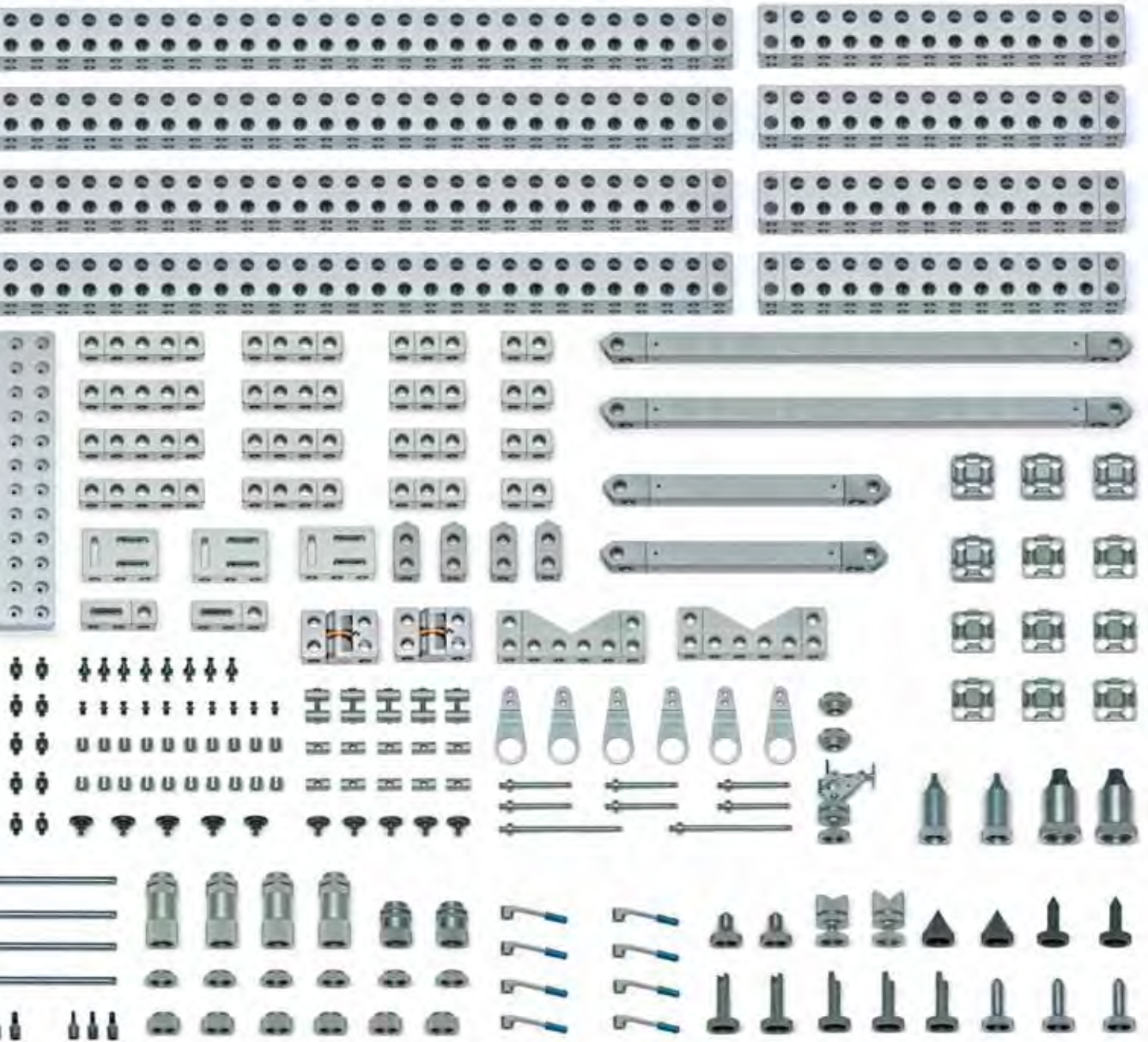
Nr.	Qty.	Name
33502	1	Base plate 25x300x500 AF25
56492	2	Base plate 25x300x300 AF25
21373	4	Bar 25x25x50 AF25
21374	4	Bar 25x25x75 AF25
21375	4	Bar 25x25x100 AF25
21376	4	Bar 25x25x125 AF25
21824	4	Bar 50x50x750 Light AF25
24246	4	Bar 50x50x350 Light AF25
23325	8	Coupling 50x50 single AF25
23330	4	Coupling 50x50 double AF25
23233	2	Bar 25x25x75 1D AF25
23232	3	Base plate 2D 25x50x75 AF25
81028	2	Double knuckle AF25
82437	3	Cross guiding slide, AF25 with stop
81444	2	Strut 250 AF25
81327	2	Strut 500 AF25
21987	2	V-Block 120° 25x50x150 AF25
22253	4	Deltablock 120° Form2 AF25
23240	60	Lock SW5 AF25
23223	30	Twin bolt AF25
25743	30	Combi bolt shortened AF25
21500	10	Bolt shortened AF25
23228	8	Twin bolt AF25 for Bar 1D/2D
21386	10	Positioning sleeve \varnothing 12,5
81493	2	Tool AF25 (10pcs)
21385	10	Positioning sleeve \varnothing 12,5 AF25
23241	5	Bolt disk \varnothing 6,7/M24 AF25
80701	10	Connector Set M6/25 AF25
82139	2	Screw-jack h=38/50 M24X1
82033	4	Screw-jack h=70/105 M24X1
20628	6	Screw-jack extension 6/M24x1
23286	6	Screw-jack extension 12/M24x1
23239	5	Bolt Disk with stud \varnothing 12,5/M24
21644	2	Center \varnothing 32/M24
21646	2	Center, \varnothing 12,5/M24 50 long
94543	2	Autocenter, star shaped, M24x1
95532	2	Autocenter, star shaped, M32x1
81112	3	Stop and support 180° AF25
81113	2	Stop and support 90° AF25
80531	10	Nut M6/25 AF25
80585	3	Center w. ball \varnothing 8/M24



Nr.	Qty.	Name
80733	2	V Block 120° with ball joint
80590	2	True line stud \varnothing 15/M24/32,6
22647	2	Crossover male/male M24x1
93443	8	Hold down spring f.sens. surfaces
22263	6	Hold down stud M6 AF25



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



Nr.	Qty.	Name
24885	2	Hold down stud M6 AF25 I125
22268	6	Traverse holder with heel 6/60
80743	1	Winder AF25
22275	1	Deflector AF25
80924	1	Screw clamp with ball joint

Supply includes
3 cross guiding slides with slide stop #82437 (not shown)



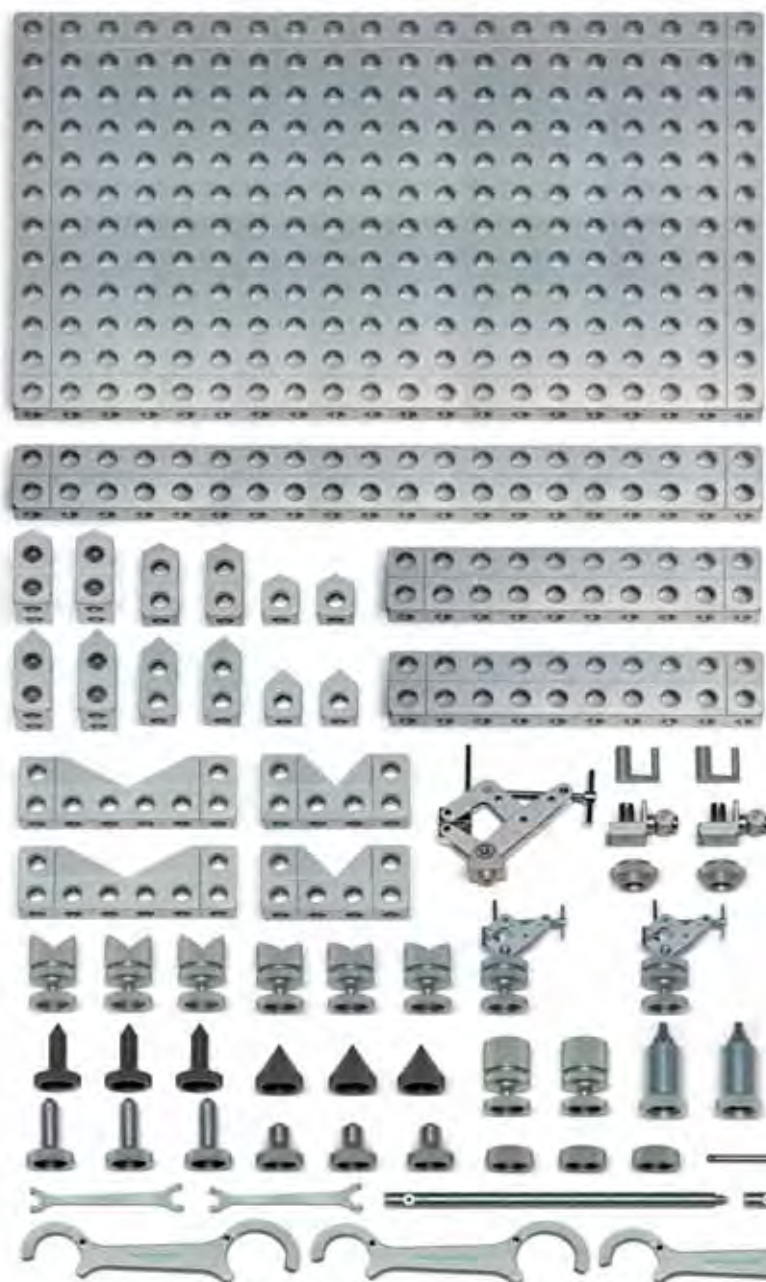
Recommendation:
For storage of elements workstation #282562 is available, page 183



#82689 Basic Set 7

Alufix 25 (419-pcs), 54 kg

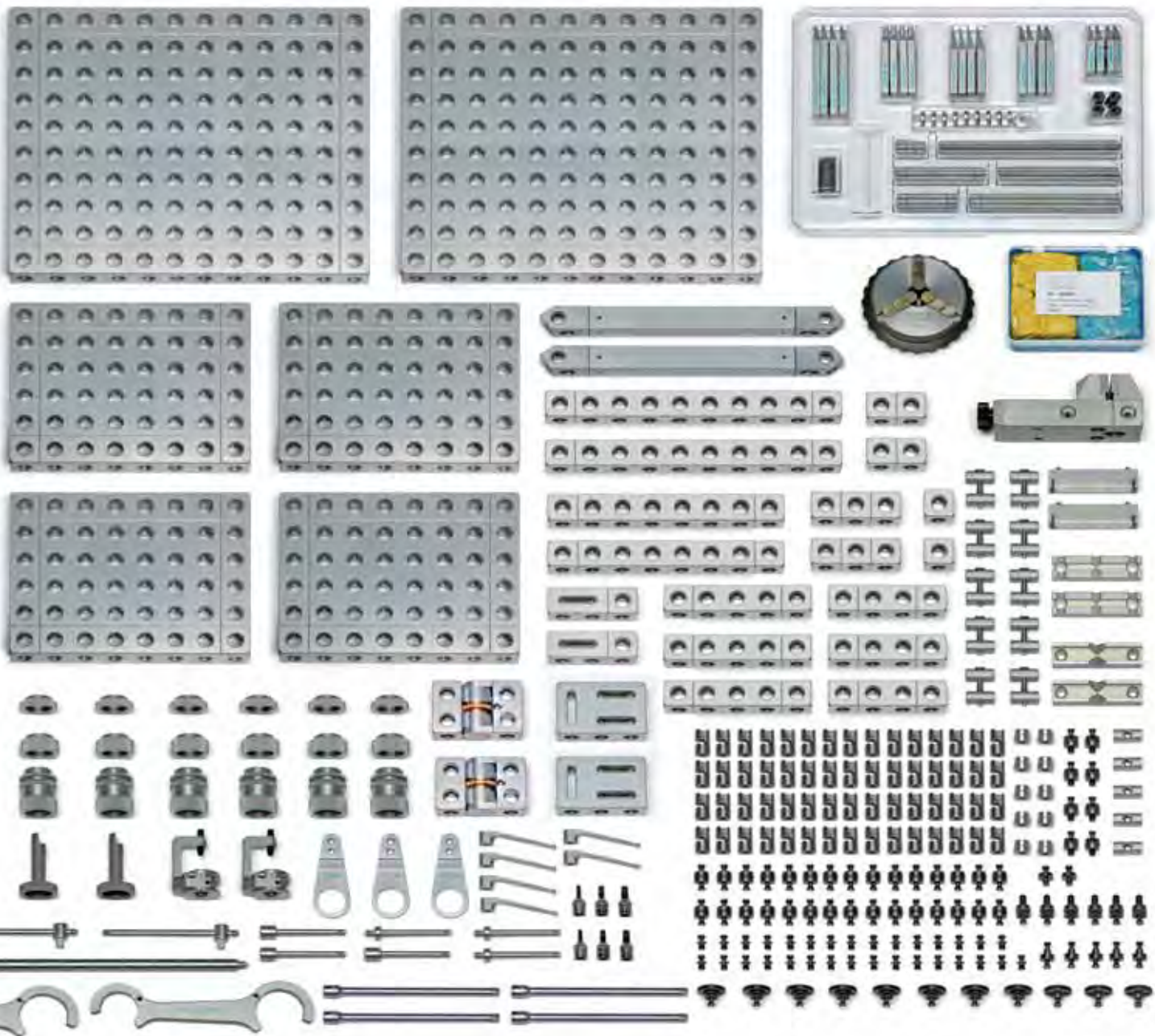
Nr.	Qty.	Name
22885	2	Base plate 25x50x250
21707	1	Base plate 25x50x500
21360	2	Base plate 25x250x300
21352	4	Base plate 25x150x200
21362	1	Base plate 25x300x500
21372	2	Bar 25x25x25
21373	2	Bar 25x25x50
21374	2	Bar 25x25x75
21375	3	Bar 25x25x100
21376	3	Bar 25x25x125
22963	2	Bar 25x25x200
22882	2	Bar 25x25x250
23233	2	Bar 1D
23232	2	Base plate 2D
81028	2	Double knuckle
82172	2	Roller slide
82462	2	Cross roller slide
81444	2	Strut 25x25x250
21992	2	V block 90°
21987	2	V block 120°
22235	2	Delta block 90° Form 1
22177	2	Delta block 90° Form 2
22174	2	Delta block 90° Form 3
22241	2	Delta block 120° Form 1
22253	2	Delta block 120° Form 2
22256	2	Delta block 120° Form 3
23240	60	Lock
23223	30	Twin bolt
21500	31	Bolt, shortened for thread
25654	2	Twin bolt for grid base plate
23225	6	Combi bolt
23228	5	Twin bolt for bar 1D
25743	8	Combi bolt shortened
81493	2	Tools (10 pcs)
21385	10	Positioning sleeves
21869	6	Reducer bush
21714	5	Crosspiece nut
80701	10	Connecting set
82139	6	Screw-jack h38-50
20628	6	Screw-jack extension 6mm
23286	6	Screw-jack extension 12mm
23239	8	Bolt disk



Nr.	Qty.	Name
23241	3	Bolt disk
21644	3	Center, short
21646	3	Center, long
80584	3	Center with ball
80733	3	V piece 120° with ball joint
80725	3	V block 90° with ball joint
80590	3	True line stud
80941	2	Magnetic holder with ball joint
81212	2	Autocenter
81112	2	Stop and support 180°



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



Nr.	Qty.	Name
81111	2	C clamp adjustable
22644	3	Spacer
80925	2	Screw clamp with ball joint
22647	2	Cross over male/male
81792	1	Vise Set 75mm (11 pcs)
81833	2	Forming jaw with bushes (3 pcs)
80685	1	Compound resin 400g
82080	1	3 jaw keyless chuck compl. ø80
22258	6	Hold down spring
22260	3	Hold down stud

Nr.	Qty.	Name
22263	3	Hold down stud
81020	1	Clamp set 9 M6S (69 Pcs.)
80924	1	Screw clamp 50 with joint
22268	3	Traverse holder with M6 heel
80743	2	Winder AF25
22275	2	Deflector AF25

Supply includes:
 2 cross roller slides #82462
 2 roller slides #82172
 (not shown)



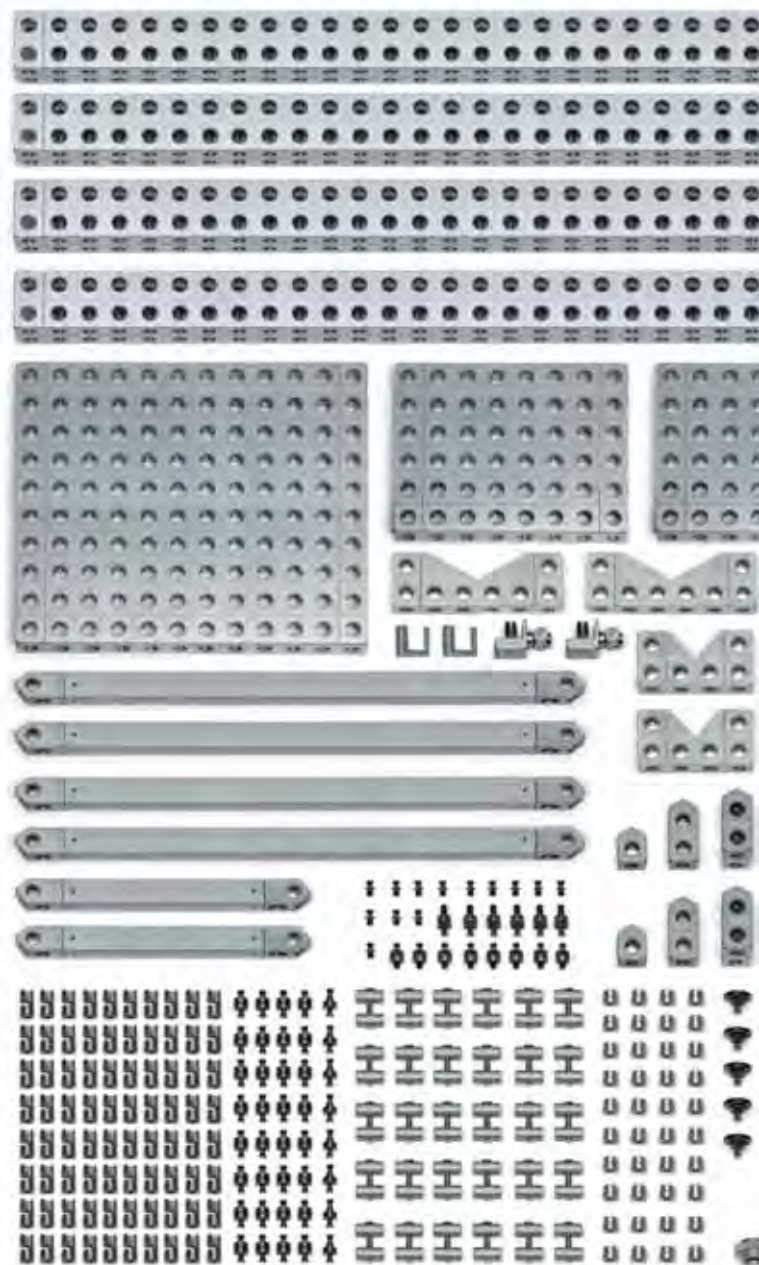
Recommendation:
 For storage of elements workstation
 #282562 is available, page 183



#90281 Basic Set 9

Alufix 25 (434-pcs), 51kg

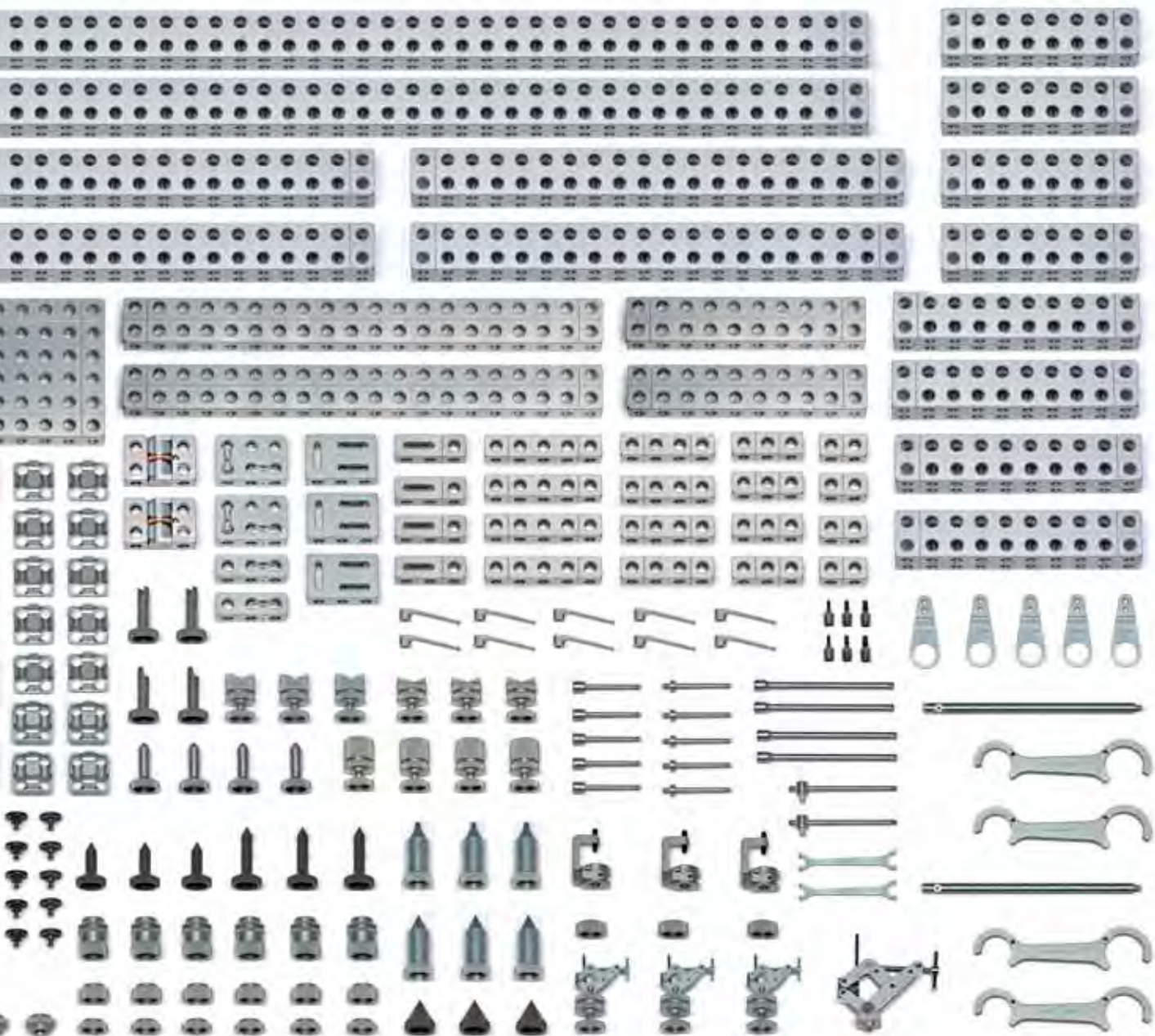
Nr.	Qty.	Name
21360	1	Base plate 25x250x300
21352	2	Base plate 25x150x200
22885	2	Base plate 25x50x250
21707	2	Base plate 25x50x500
21373	4	Bar 25x25x50
21374	4	Bar 25x25x75
21375	4	Bar 25x25x100
21376	4	Bar 25x25x125
22949	4	Bar Light 50x50x250
22950	4	Bar Light 50x50x500
22951	2	Bar Light 50x50x1000
22952	2	Bar Light 50x50x1500
23325	10	Coupling, single
23330	4	Coupling, double
23233	4	Bar 1D
81021	2	Bar with 1 offset unit
23232	3	Base plate 2D
81023	2	Base plate with 2 offset units
81028	2	Double knuckle
82172	2	Roller slide
82462	2	Cross roller slide
81444	2	Strut 25x25x250
81327	4	Strut 25x25x500
21992	2	V Block 90°
21987	2	Block 120°
22241	2	Delta block 120° Form 1
22253	2	Delta block 120° Form 2
22256	2	Delta block 120° Form 3
23240	80	Lock
23225	6	Kombi bolt M6
23228	10	Twin bolt for bar 1D
23223	40	Twin bolt
21500	10	Bolt, shortened for thread
25743	8	Combi bolt shortened
81493	2	Tools (10-pcs)
21385	40	Positioning sleeves
80701	30	Connection element M6
82139	6	Screw-jack h38-50
20628	6	Screw-jack extension 6mm
23286	6	Screw-jack extension 12mm
23239	10	Bolt disk
23241	5	Bolt disk



Nr.	Qty.	Name
21644	3	Center, short
21646	3	Center, long 50
21648	2	Center, long 70
80584	4	Center with ball
80733	3	V Block 120° with ball joint
80927	3	Knife V 120° with ball joint
80941	4	Magnetic holder with ball joint
81212	3	Autocenter
82252	3	Autocenter
81112	2	Stop and support 180°



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



Nr.	Qty.	Name
81113	2	Stop and support 90°
81111	3	C clamp adjustable
80925	3	Screw clamp with ball joint
22644	3	Spacer
22647	2	Cross over male/male
22258	10	Hold down spring
22260	5	Hold down stud
22263	5	Hold down stud
22268	5	Traverse holder for stud
80743	2	Winder

Nr.	Qty.	Name
22275	2	Deflector
80924	1	Screw clamp with joint
80604	2	Base for toggle clamp

Supply includes:
 2 cross roller slides #82462
 2 roller slides #82172
 (not shown)



Recommendation:
 For storage of elements workstation #282727 is available, page 183

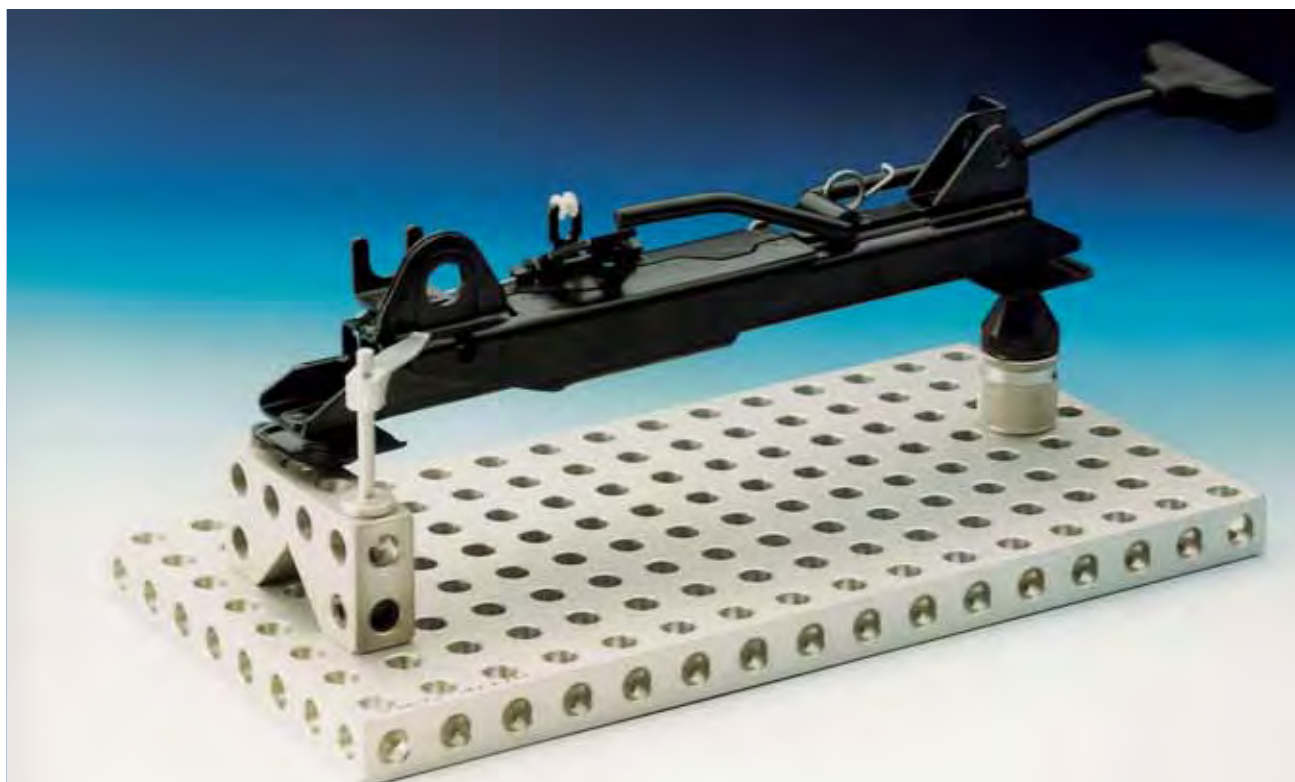




#90283 Extension Set 1

Alufix 25 Light (97-pcs), 17 kg

Nr.	Qty.	Name
20426	2	Bar Light 50x50x150
22949	2	Bar Light 50x50x250
22950	2	Bar Light 50x50x500
22951	2	Bar Light 50x50x1000
22952	2	Bar Light 50x50x1500
23330	4	Coupling, double
23325	8	Coupling, single
23240	50	Lock
23223	25	Twin bolt





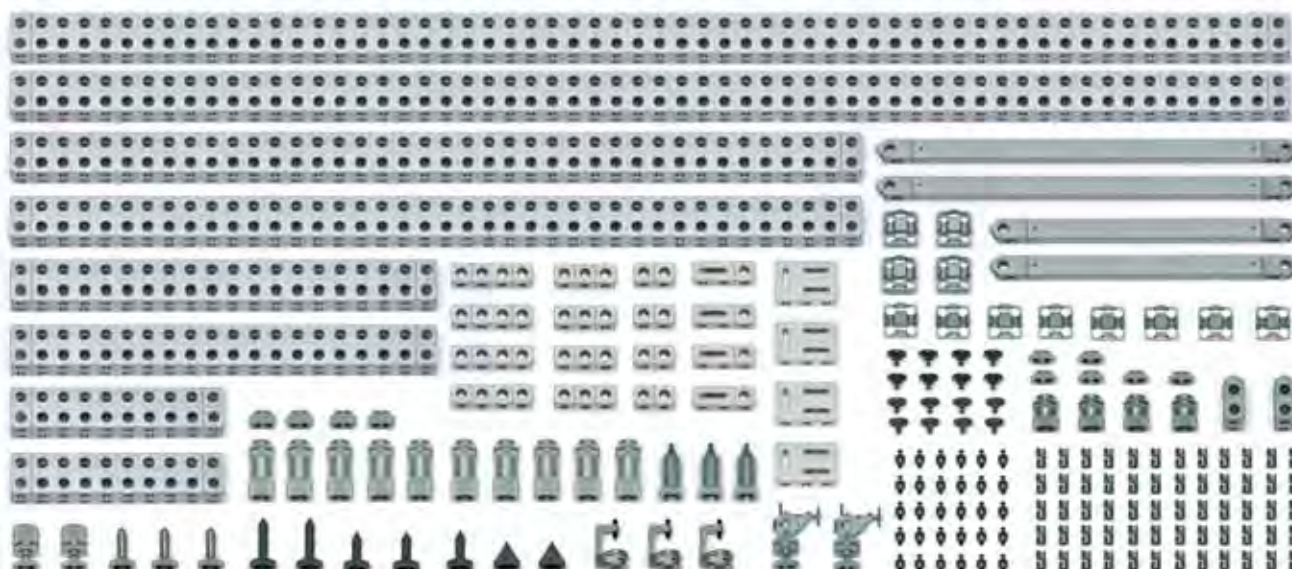
#90284 Extension Set 2

Alufix 25 Light (143-pcs), 21 kg

Nr.	Qty.	Name
21373	4	Bar 25x25x50
21374	4	Bar 25x25x75
21375	4	Bar 25x25x100
22949	2	Bar Light 50x50x250
22950	2	Bar Light 50x50x500
22951	2	Bar Light 50x50x1000
22952	2	Bar Light 50x50x1500
23330	4	Coupling, double
23325	8	Coupling, single
81444	2	Strut 25x25x250
81327	2	Strut 25x25x500
22256	2	Delta block 120° Form 3
23240	50	Lock
23223	25	Twin bolt
82139	4	Screw-jack h38-50
82033	6	Screw-jack h70-105
23286	4	Screw-jack extension 12mm
23239	8	Bolt disk
21646	3	Center
80584	3	Center with ball
80925	2	Screw clamp with ball joint



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



#90285 Extension Set 3

Alufix 25 Light (209-pcs), 24,5 kg

Nr.	Qty.	Name
21373	4	Bar 25x25x50
21374	4	Bar 25x25x75
21375	4	Bar 25x25x100
22949	2	Bar Light 50x50x250
22950	2	Bar Light 50x50x500
22951	2	Bar Light 50x50x1000
22952	2	Bar Light 50x50x1500
23330	4	Coupling, double
23325	8	Coupling, single
23233	4	Bar 1D
23232	4	Base plate 2D
81028	2	Double knuckle
81445	2	Strut 25x25x375
81329	2	Strut 25x25x750
22256	2	Delta block 120° Form 3
23240	60	Lock
23223	30	Twin bolt
23228	10	Twin bolt for bar 1D
82139	4	Screw-jack h38-50
82033	10	Screw-jack h70-105
20628	6	Screw-jack extension 6mm
23286	4	Screw-jack extension 12mm
23239	8	Bolt disk
23241	8	Bolt disk

Nr.	Qty.	Name
21644	2	Center, short
21646	3	Center, long 50
21648	2	Center, long 70
80584	3	Center with ball
80941	4	Magnetic holder with ball joint
82252	2	Autocenter
81111	3	C clamp adjustable
80925	2	Screw clamp with ball joint



Workstation, metal, lockable

#282562, suitable for Basic Sets 6 and 7

H x W x D: 780 x 570 x 960
Weight unloaded approx. 85kg

Storage of Alufix components in 6 clearly laid out, spacious and fully extendable drawers, also suitable for Alufix 40 Bars 80x80.

Two top drawers are equipped with inlays for small components. Lower drawers equipped with non-slip mats.

Load capacity per drawer 75 kg



Mobile measuring units see page 234

Workstation, metal, lockable

#282727, suitable for Basic Sets 9 and extension sets

H x W x D: 780 x 570 x 1030
Weight unloaded approx. 88kg

Storage of Alufix components in 6 clearly laid out, spacious and fully extendable drawers, also suitable for Alufix 40 Bars 80x80.

Additional storage compartment mounted at rear for safe storage of long bars and profiles 50x50.

Two top drawers are equipped with inlays for small components. Lower drawers equipped with non-slip mats.

Load capacity per drawer 75 kg



Storage compartment

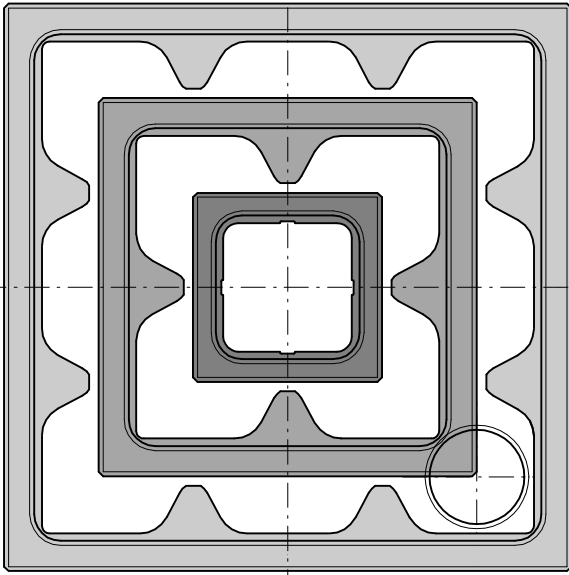
#51753 for storage of long bars 50x50

H x W x D: 660 x 480 x 68 mm

Storage of long bars in 6 pockets.

Assembly on rear of workstation with M8 screws included in supply.





▲ AF ECO 25 Light,
25x25, 50x50, 75x75, grid hole Dia 12,5

Profile in original size **ALUFIX ECO**

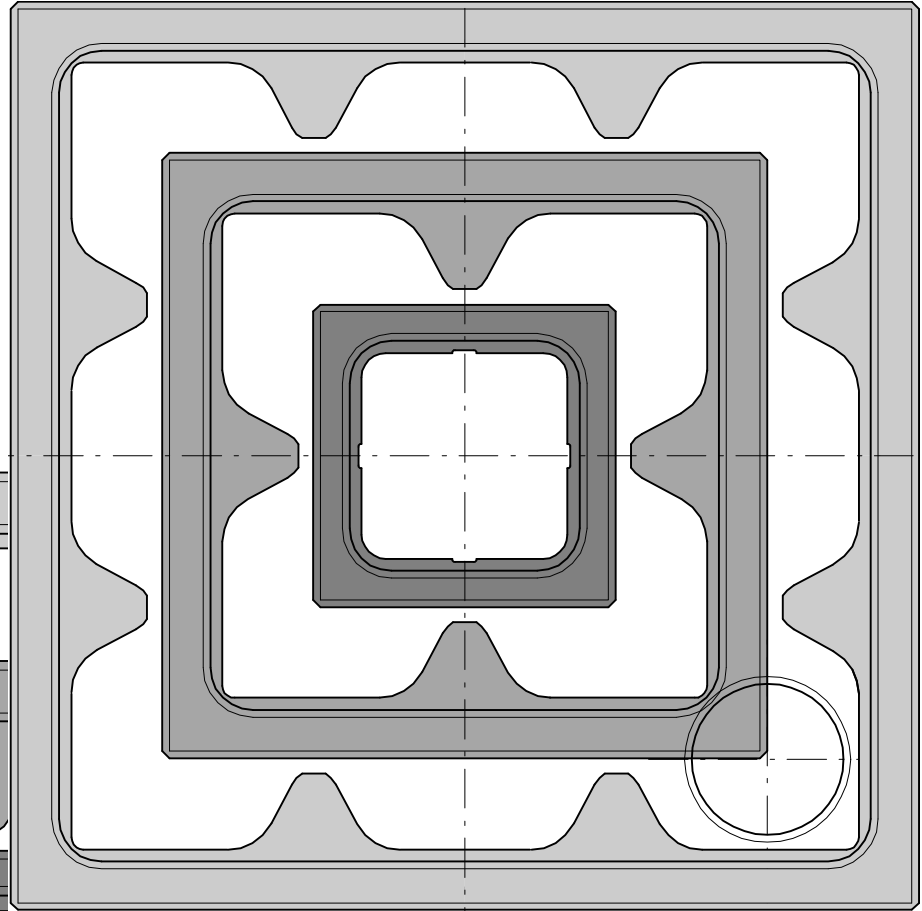
Material: Medium tensile aluminium alloy

Tensile strength: Min. 280 N/mm²

Hardness: Min. 82 HB

Yield strength: Min. 200 N/mm²

E-Module: 70.000 N/mm²




▲ AF ECO 40 Light,
40x40, 80x80,
120x120, grid hole Dia 20

AF ECO 50 Light,
50x50, 100x100,
150x150,
grid hole Dia 25

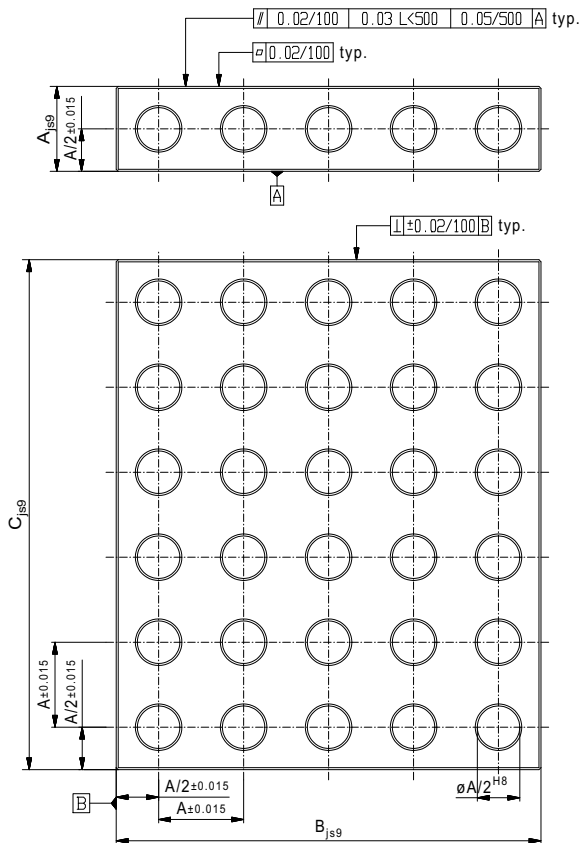


ALUFIX ECO

ALUFIX ECO is a product for use where highest accuracy is not required but where all other economics aspects - ECO - play a bigger role. ALUFIX ECO is fully compatible with all other Witte systems on the market, it makes full use of the spectrum of technological functions and properties. ALUFIX ECO is available in standard lengths from stock

 Connection elements for ECO are shown on page 158





Base plates ALUFIX ECO



Base plates

AF25 ECO, A=25

Nr.	A x B x C	
21488-E	25 x 100 x 125	500
28032-E	25 x 100 x 150	600
21350-E	25 x 150 x 150	900
21352-E	25 x 150 x 200	1.200
21354-E	25 x 150 x 250	1.500
21356-E	25 x 200 x 200	1.600
28033-E	25 x 200 x 300	2.600

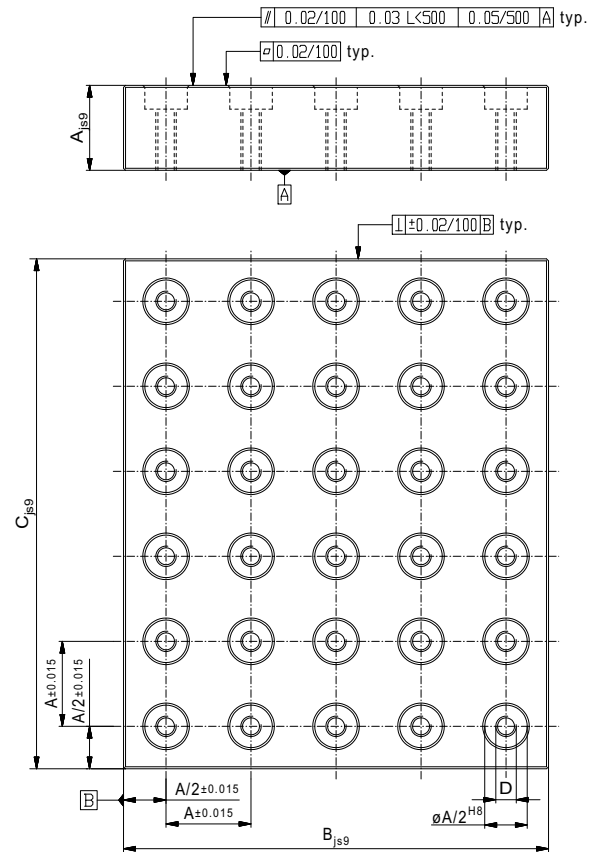
AF40 ECO, A=40,

Nr.	A x B x C	
22862-E	40 x 160 x 200	2.000
22861-E	40 x 160 x 240	2.500
22860-E	40 x 200 x 200	2.600
22842-E	40 x 200 x 240	3.100
22843-E	40 x 200 x 320	4.100
21259-E	40 x 200 x 360	4.600
22851-E	40 x 200 x 400	5.200
21266-E	40 x 320 x 320	6.500

AF50 ECO, A=50

Nr.	A x B x C	
28100-E	50 x 200 x 250	4.000
27857-E	50 x 200 x 300	5.000
28102-E	50 x 250 x 250	5.000
28104-E	50 x 250 x 500	10.000
28105-E	50 x 300 x 300	7.200
28107-E	50 x 300 x 400	10.000
28109-E	50 x 300 x 500	12.000
28111-E	50 x 400 x 400	13.000
28113-E	50 x 400 x 600	24,000

Grid base plates ALUFIX ECO



Grid base plates

AF25 ECO,
A=25, D=M6

Nr.	A x B x C	\bar{g}
20387-E	25 x 200 x 400	5.500
20388-E	25 x 250 x 500	8.600
20403-E	25 x 300 x 400	8.400
20386-E	25 x 300 x 600	12.400
22923-E	25 x 400 x 500	13.300
22925-E	25 x 400 x 600	16.800
20439-E	25 x 500 x 500	17.500
20381-E	25 x 500 x 1000	34.400
20382-E	25 x 600 x 600	24.800
20384-E	25 x 600 x 800	33.000

AF40 ECO,
A=40, D=M10

Nr.	A x B x C	\bar{g}
20650-E	40 x 320 x 640	22.600
20651-E	40 x 400 x 800	35.300
20710-E	40 x 480 x 640	33.900
20711-E	40 x 480 x 960	50.800
20713-E	40 x 640 x 800	56.400
20714-E	40 x 640 x 960	67.600
20715-E	40 x 800 x 800	70.400
20808-E	40 x 800 x 1600	140.000
20809-E	40 x 960 x 960	101.200
20810-E	40 x 960 x 1280	135.000

AF50 ECO,
A=50, D=M12

Nr.	A x B x C	\bar{g}
28083-E	50 x 400 x 400	22.000
28084-E	50 x 500 x 1000	69.000
28085-E	50 x 600 x 800	66.000
28086-E	50 x 600 x 1200	100.000
28087-E	50 x 800 x 1000	110.000
28088-E	50 x 800 x 1200	138.000
28089-E	50 x 1000 x 1000	133.000
28090-E	50 x 1000 x 2000	276.000
28091-E	50 x 1200 x 1200	198.000
28092-E	50 x 1200 x 1600	248.000



ALUFIX ECO elements can be anodized in different colours. The colour natural (-E) is standard, blue (-E2) is available as an alternative. Black (-E1) and other colours on request

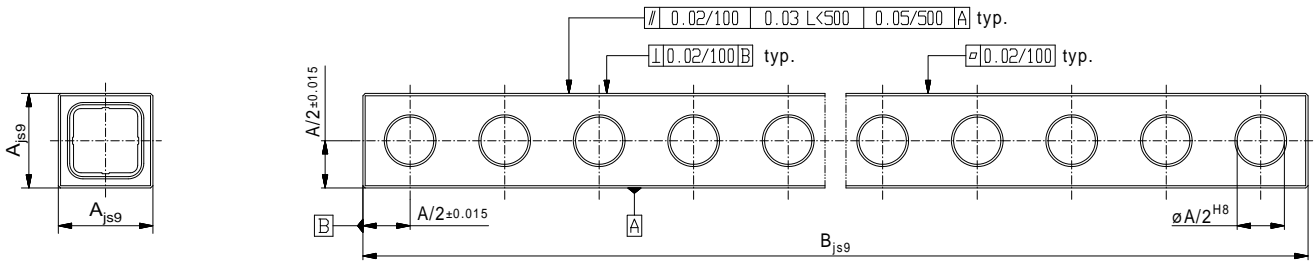
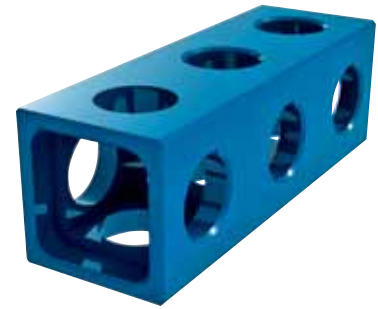


Light bars one row

ALUFIX ECO Light bars are suitable for medium to large fixtures as basic frame material and also for connections direct to the workpiece.

They can be connected using the bores on all 4 sides with quick

or screw connectors, ECO couplings (page 196/197) are used for the face ends.



AF25 ECO

A=25, 25 x 25

Nr.	B	g
24340-E	50	40
25013-E	100	70
25374-E	150	110
24336-E	200	140
22946-E	250	170
24337-E	300	200
25012-E	350	240
23283-E	400	270
25890-E	450	300
22947-E	500	360
21333-E	600	430
24339-E	700	500
24189-E	800	570
25895-E	900	640
22948-E	1000	710

AF40 ECO

A=40, 40 x 40

Nr.	B	g
25039-E	120	150
25377-E	160	180
26505-E	200	200
25378-E	240	270
27342-E	280	300
25379-E	320	360
27183-E	360	400
23549-E	400	450
25945-E	480	540
27444-E	600	650
23550-E	800	900
24495-E	1000	1.100
23551-E	1200	1.350

AF50 ECO

A=50, 50 x 50

Nr.	L	g
28149-E	50	160
28150-E	100	320
28151-E	150	490
28152-E	200	640
28153-E	250	800
28154-E	300	960
28155-E	400	1.280
26933-E	500	1.600
28615-E	600	1.900
33297-E	800	2.600
26935-E	1000	3.200
33298-E	1200	3.800
26937-E	1500	4.900
26939-E	2000	6.400
26943-E	3000	9.800
26947-E	4000	13.000

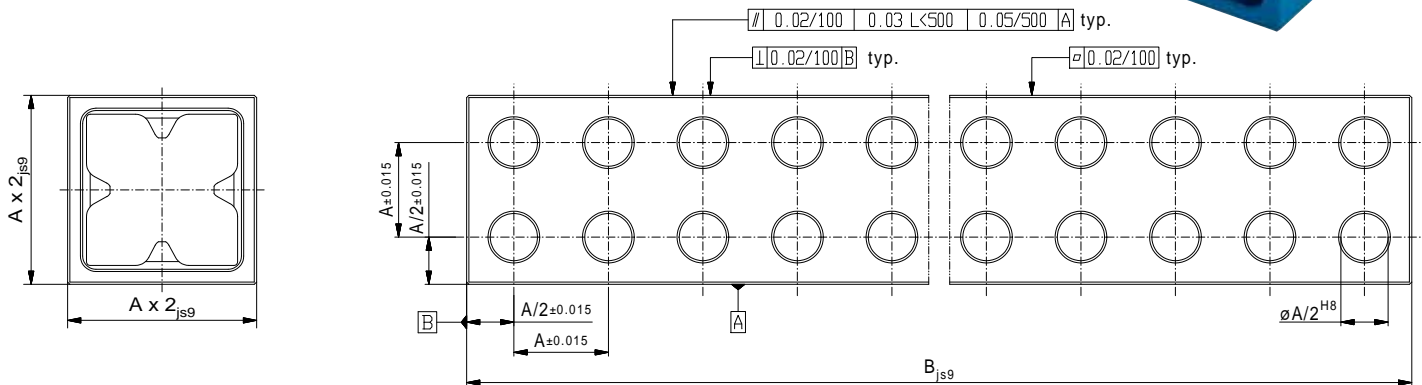
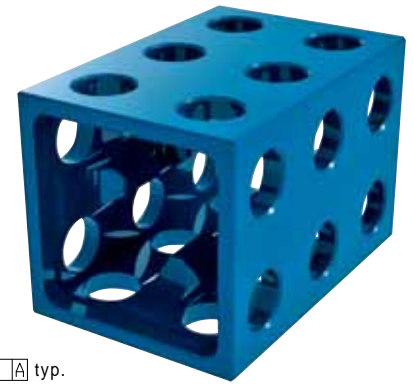


Light bars two row

ALUFIX ECO Light bars are suitable for medium to large fixtures as basic frame material and also for connections direct to the workpiece.

They can be connected using the bores on all 4 sides with quick

or screw connectors, ECO couplings (page 196/197) are used for the face ends.



AF25 ECO

A=25, 50 x 50

AF40 ECO

A=40, 80 x 80

AF50 ECO

A=50, 100 x 100

Nr.	B	g
26617-E	50	0.12
25375-E	100	0.24
20426-E	150	0.373
20427-E	200	0.48
22949-E	250	0.60
20254-E	300	0.72
24246-E	350	0.84
20256-E	400	0.96
24248-E	450	1.08
22950-E	500	1.20
24250-E	600	1.44
24251-E	700	1.68
28353-E	800	1.92
24319-E	900	2.16
22951-E	1000	2.4
25025-E	1200	2.9
27915-E	1400	3.4
22952-E	1500	3.6
21226-E	2000	4.8

Nr.	B	g
24393-E	80	480
24940-E	120	720
23937-E	160	810
23938-E	200	1.200
24392-E	240	1.500
24641-E	320	1.900
24809-E	360	2.200
23559-E	400	2.400
24390-E	480	2.900
24451-E	600	3.600
23560-E	800	4.800
24624-E	1000	6.000
23561-E	1200	7.200
23562-E	1600	9.600
23563-E	2000	12.000
23564-E	2400	14.400
25034-E	3000	18.000
23567-E	3600	21.600
23568-E	4000	24.000
23570-E	4800	28.800

Nr.	B	g
27569-E	100	900
28122-E	150	1.300
26735-E	200	1.700
27504-E	250	2.100
26821-E	300	2.600
26786-E	400	3.400
26787-E	500	4.300
26788-E	600	5.200
27505-E	800	6.900
26957-E	1000	8.600
27920-E	1200	10.300
26959-E	1500	12.900
26961-E	2000	17.200
26965-E	3000	25.800
26969-E	4000	34.400
26973-E	5000	43.000
26977-E	6000	51.600



ALUFIX ECO elements can be anodized in different colours. The colour natural (-E) is standard, blue (-E2) is available as an alternative. Black (-E1) and other colours on request

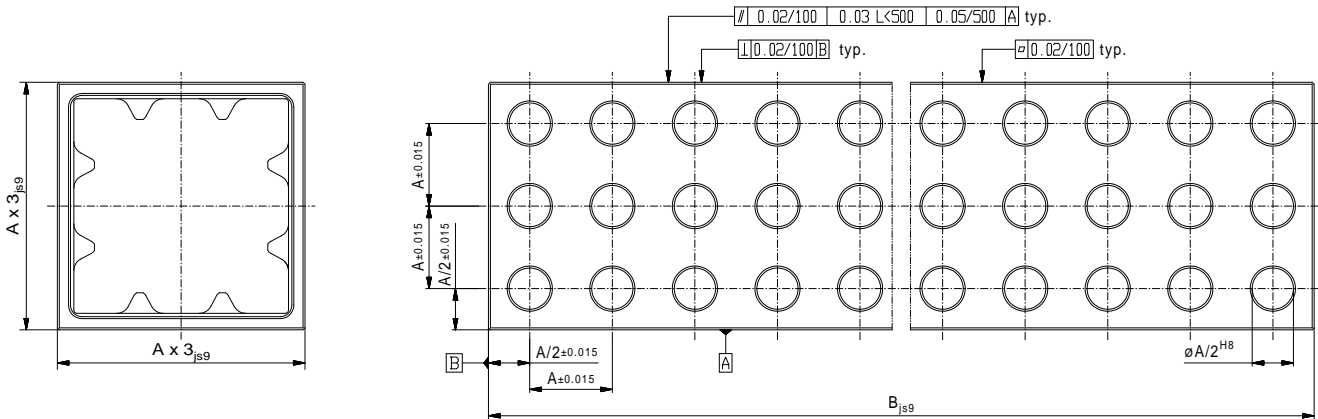
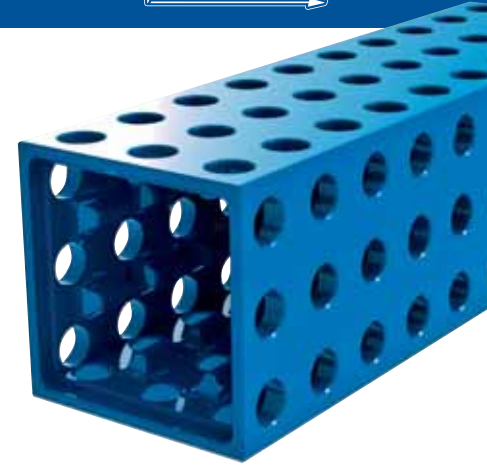
Other dimensions on request

Light bars three row

ALUFIX ECO Light bars are suitable for medium to large fixtures as basic frame material and also for connections direct to the workpiece.

They can be connected using the bores on all 4 sides with quick

or screw connectors, ECO couplings (page 196/197) are used for the face ends.



AF25 ECO

A=25, 75 x 75

Nr.	B	⊕
24882-E	100	350
25376-E	200	700
25076-E	300	1.050
27412-E	400	1.410
22618-E	500	1.770
33090-E	600	2.120
31538-E	800	2.830
22621-E	1000	3.500
30751-E	1200	4.200
22624-E	1500	5.300
22771-E	2000	7.000

AF40 ECO

A=40, 120 x 120

Nr.	B	⊕
24950-E	160	1.500
25123-E	200	1.900
24951-E	240	2.200
24952-E	320	3.000
25122-E	360	3.400
23574-E	400	3.700
25124-E	600	5.600
23575-E	800	7.400
27435-E	1000	9.300
23576-E	1200	11.200
23577-E	1600	
14.900	23578-E	2000
18.600	23579-E	2400
22.300	27453-E	3000
27.900	23582-E	3600
33.500	23583-E	4000
37.200	23585-E	4800

AF50 ECO

A=50, 150 x 150

Nr.	B	⊕
28123-E	100	1.400
28124-E	150	2.000
28125-E	200	2.700
27521-E	250	3.400
26817-E	300	4.100
28127-E	400	5.500
26978-E	500	6.800
33302-E	600	8.200
29366-E	800	10.900
26979-E	1000	13.600
33304-E	1200	16.300
26981-E	1500	20.400
26983-E	2000	27.200
26987-E	3000	40.800
26991-E	4000	54.400
26995-E	5000	68.000
26999-E	6000	81.600

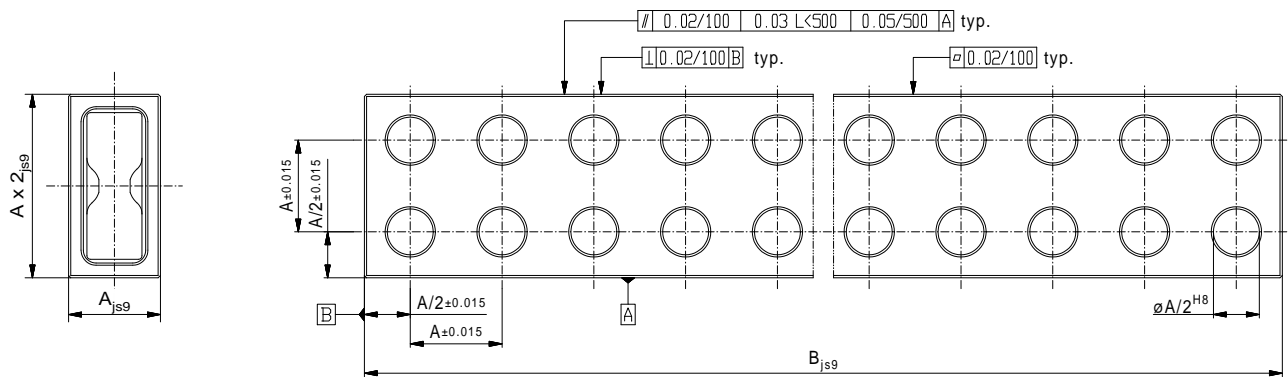


Light bars rectangular

ALUFIX ECO Light bars are suitable for medium to large fixtures as basic frame material and also for connections direct to the workpiece.

They can be connected using the bores on all 4 sides with quick

or screw connectors, ECO couplings (page 196/197) are used for the face ends.



AF25 ECO

A=25, 25 x 50

Nr.	B	g
55090-E	50	80
55091-E	100	150
55092-E	150	230
55093-E	200	300
55094-E	250	380
55095-E	300	450
55097-E	400	600
55099-E	500	750
55101-E	600	900
55103-E	700	1.050
55105-E	800	1.200
55107-E	900	1.350
55109-E	1000	1.500
55113-E	1200	1.800
55119-E	1500	2.250
55129-E	2000	3.000

AF40 ECO

A=40, 40 x 80

Nr.	B	g
57400-E	80	279
57401-E	120	418
57402-E	160	557
57403-E	200	697
57404-E	240	836
57405-E	280	975
57406-E	320	1.115
57408-E	400	1.393
57410-E	480	1.672
57413-E	600	2.090
57418-E	800	2.786
57423-E	1000	3.483
57428-E	1200	4.180
57438-E	1600	5.573
57448-E	2000	6.966
57473-E	3000	10.449



i ALUFIX ECO elements can be anodized in different colours. The colour natural (-E) is standard, blue (-E2) is available as an alternative. Black (-E1) and other colours on request

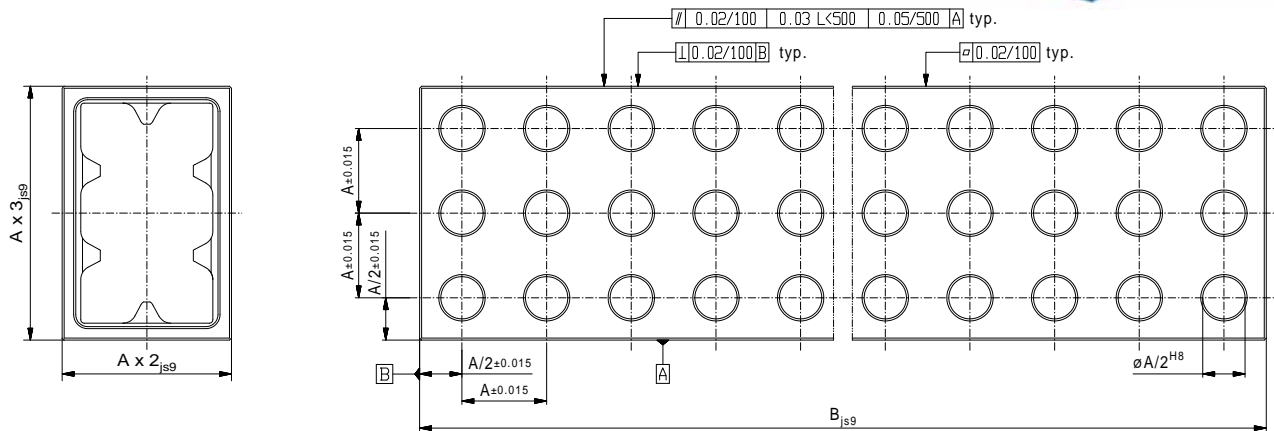
i Other dimensions on request

Light bars rectangular

ALUFIX ECO Light bars are suitable for medium to large fixtures as basic frame material and also for connections direct to the workpiece.

They can be connected using the bores on all 4 sides with quick

or screw connectors, ECO couplings (page 196/197) are used for the face ends.



AF25 ECO A=25, 25 x 50

Nr.	B	g
122567-E	100	230
122568-E	200	460
122569-E	300	690
122570-E	400	920
122571-E	500	1.150
122572-E	600	1.380
122573-E	800	1.840
122574-E	1000	2.300
122575-E	1200	2.760
122576-E	1500	3.450
122577-E	2000	7.000

AF40 ECO A=40, 40 x 80

Nr.	B	g
122285-E	160	1.000
122286-E	200	1.250
122287-E	240	1.500
122289-E	320	2.000
122290-E	360	2.250
122291-E	400	2.500
122296-E	600	3.750
122301-E	800	5.000
122306-E	1000	6.250
122311-E	1200	7.500
122321-E	1600	
10.000	122331-E	2000
12.500	122341-E	2400
15.000	122354-E	3000
18.750	122369-E	3600
22.500	122379-E	4000
25.000	122578-E	4800

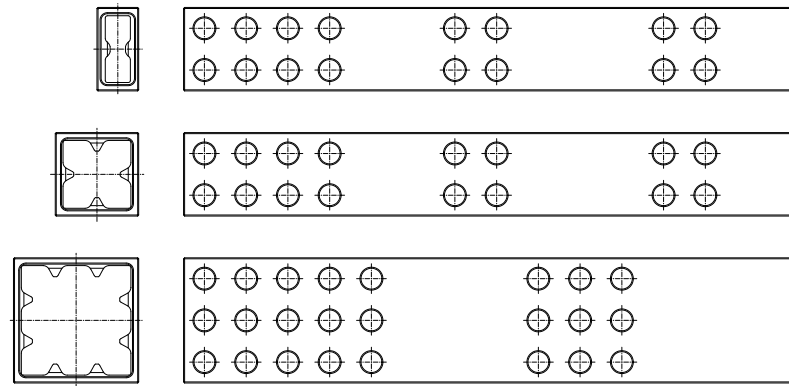
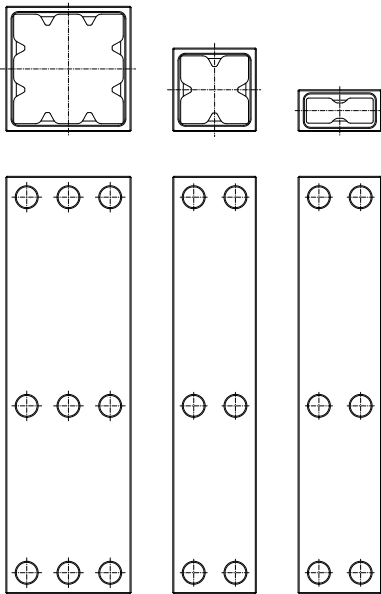
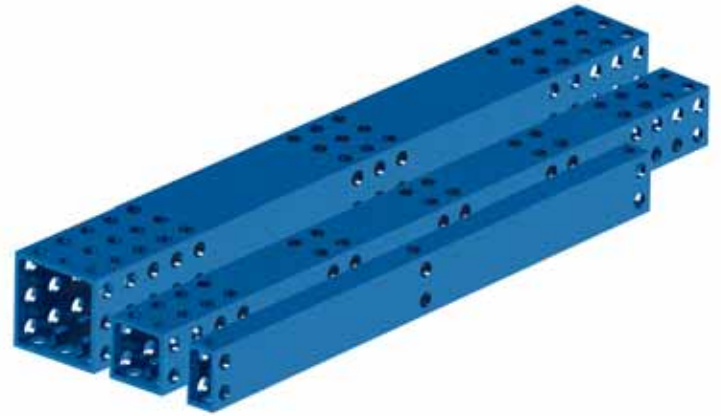


Blind Covers for ALUFIX ECO bars see page 29

Light bars CX/SX

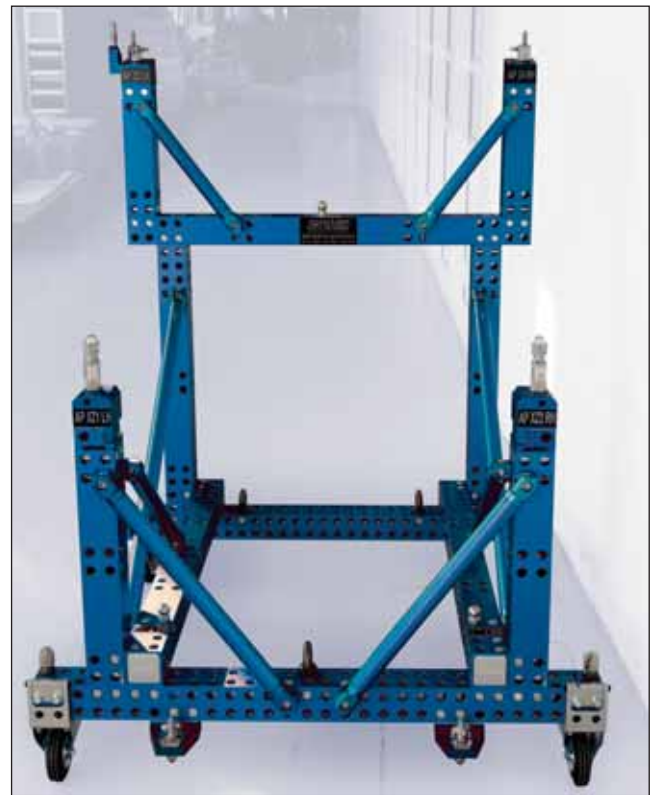
ALUFIX ECO

Alufix ECO Light bars CS/SX with reduced number of drilled holes are an economical alternative to normal ECO Light bars. Alufix ECO Light bars CX/SX are available on request in the same dimensions as normal ECO Light bars, pages 20-27.



Light bar SX: Version with dedicated areas of holes

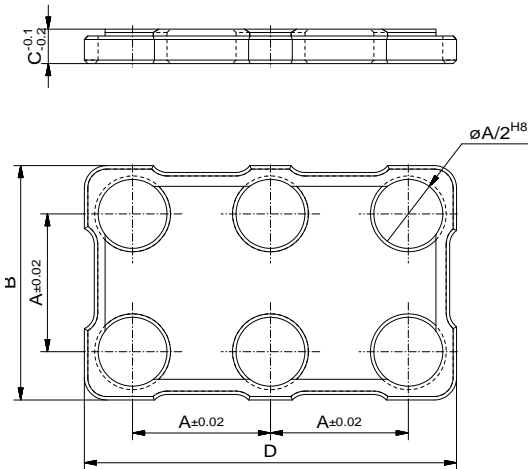
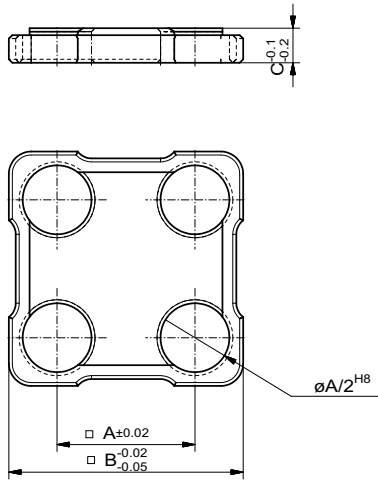
Light bars CX: For column type design with one row of holes at each end.
With further rows of one hole to mount struts depending on the length



i ALUFIX ECO elements can be anodized in different colours. The colour natural (-E) is standard, blue (-E2) is available as an alternative. Black (-E1) and other colours on request

i Light bars CX/SX are also available in Classic version, see page 29. Other dimensions on request

ALUFIX ECO Connection elements



Single couplings for face connections.

Single couplings

for Light bars one row

Nr.	System	A	B	C	
23315-E	AF 25	25	19	5	4
20794-E	AF 40	40	32	10	16
26930-E	AF 50	50	32	12,5	29

for Light bars rectangular 1x2

Nr.	System	A	B	C	
55134-E	AF 25	25	17	5	10
57211-E	AF 40	20	32	10	50

for Light bars two row

Nr.	System	A	B	C	
23325-E	AF 25	25	42	6	26
20792-E	AF 40	40	68	10	120
26727-E	AF 50	50	84	12,5	228

for Light bars three row

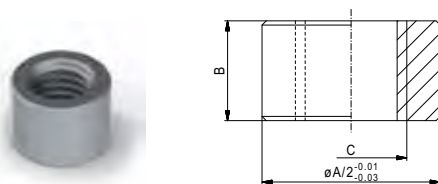
Nr.	System	A	B	C	
23612-E	AF 25	25	67	6	79
23613-E	AF 40	40	108	10	333
26853-E	AF 50	50	134	12,5	670

for Light bars three row 2x3

Nr.	System	A	B	C	D	
122400-E	AF 40	40	68	10	108	-

Plain sleeve, short

for angle brackets, page 200



Nr.	AF	A	B	C	
21386-E	25	12,5	7	M8	2
21278-E	40	20	11	M14x1,5	9
26733-E	50	25	13,05	M18x1,5	20

Double couplings

for Light bars one row

Nr.	System	A	B	C	∅A	g
23320-E	AF 25	25	19	10	6,6	8
20793-E	AF 40	40	32	20	11	31
26931-E	AF 50	50	32	25	13,5	38

for Light bars rectangular

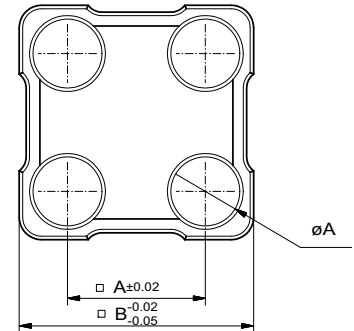
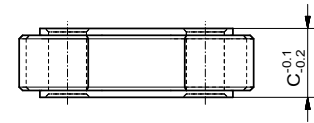
Nr.	System	A	B	C	∅A	g
55316-E	AF 25	25	19	10	6,6	40
57212-E	AF 40	40	32	20	11	110

for Light bars two row

Nr.	System	A	B	C	∅A	g
23330-E	AF 25	25	42	12,5	6,6	53
20791-E	AF 40	40	68	20	11	240
26850-E	AF 50	50	84	25	13,5	465

for Light bars three row

Nr.	System	A	B	C	∅A	g
23615-E	AF 25	25	67	12,5	6,6	155
23616-E	AF 40	40	108	20	6,6	682
26851-E	AF 50	50	134	25	13,5	1.394



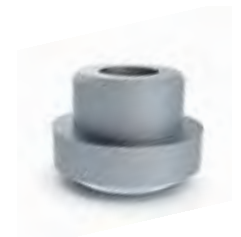
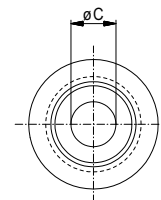
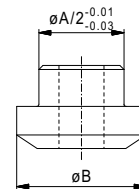
Double couplings for bar-bar connections.



Fixing sleeve

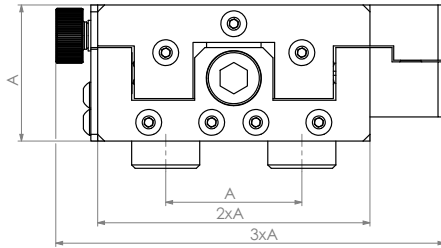
alternative to couplings

Nr.	A (AF)	B	C	for Profile	g
120527-E	25	17	6,6	50x50+25x50	8
120528-E	25	19	6,6	25x25	11
120529-E	40	28	11	80x80+40x80	33
120530-E	40	32	11	40x40	44
120531-E	50	34	13,5	100x100+50x100	63
120532-E	50	32	13,5	50x50	56




ALUFIX ECO elements can be anodized in different colours. The colour natural (-E) is standard, blue (-E2) is available as an alternative. Black (-E1) and other colours on request

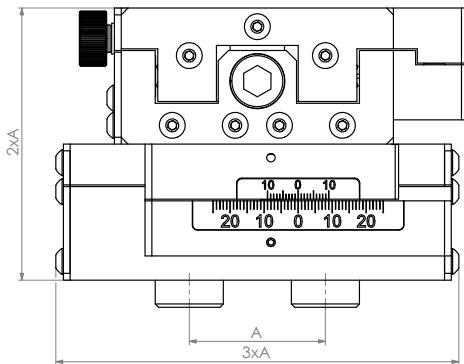
Other dimensions on request



Roller slide


with removable spindle and locking clamp

Nr.	A(AF)	shift	max. load	
82172-E	25	+/- 13,5	50kg	230
82173-E	40	+/- 22	150kg	900
82398-E	50	+/- 27	250kg	1.750



Cross roller slide

with removable spindle and locking clamp

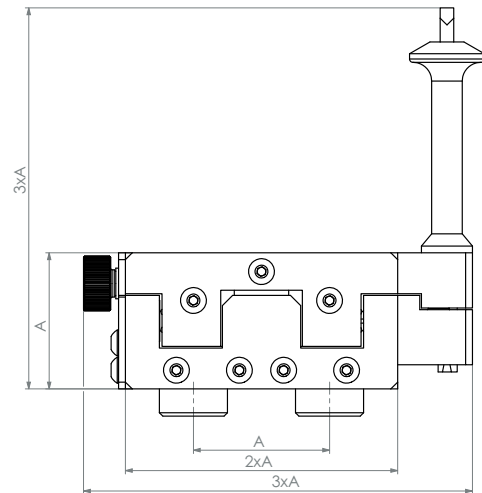
Nr.	A(AF)	shift	max. load	
82462-E	25	+/- 13,5	50kg	560
82463-E	40	+/- 22	150kg	2.000
82399-E	50	+/-27,5	250kg	4.000



Guiding slide

with slide stop, positioning guide and pin, locking clamp

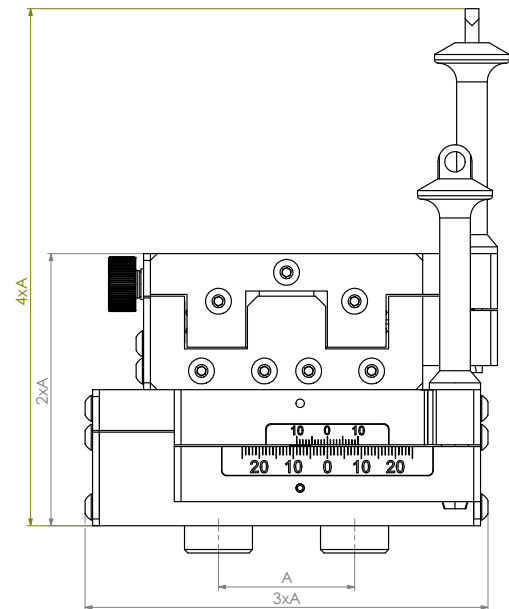
Nr.	A(AF)	shift	max. load	
82002-E	25	+/-13,5	50kg	250
82016-E	40	+/-22	150kg	1.024
82441-E	50	+/-27,5	250kg	6.000



Cross guiding slide

with slide stop, positioning guide and pin, locking clamp

Nr.	A(AF)	shift	max. load	
82437-E	25	+/- 13,5	50kg	520
82438-E	40	+/- 22	150kg	2.100
82439-E	50	+/- 27,5	250kg	12.500

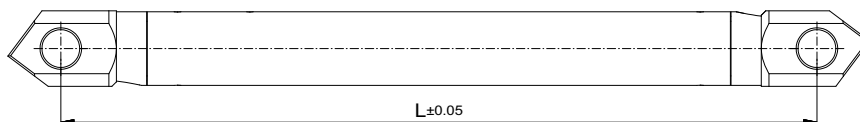


ALUFIX ECO elements can be anodized in different colours. The colour natural (-E) is standard, blue (-E2) is available as an alternative. Black (-E1) and other colours on request

Other dimensions on request

Struts

Alufix ECO



AF25 ECO

Struts, 25x25

Grid 25, grid hole dia 12,5mm

Nr.	L	g
81443-E	125	168
81444-E	250	285
81445-E	375	402
81327-E	500	518
81328-E	625	641
81329-E	750	752
81330-E	875	872
81331-E	1000	979

AF40 ECO

Struts, 40x40

Grid 40, grid hole dia 20mm

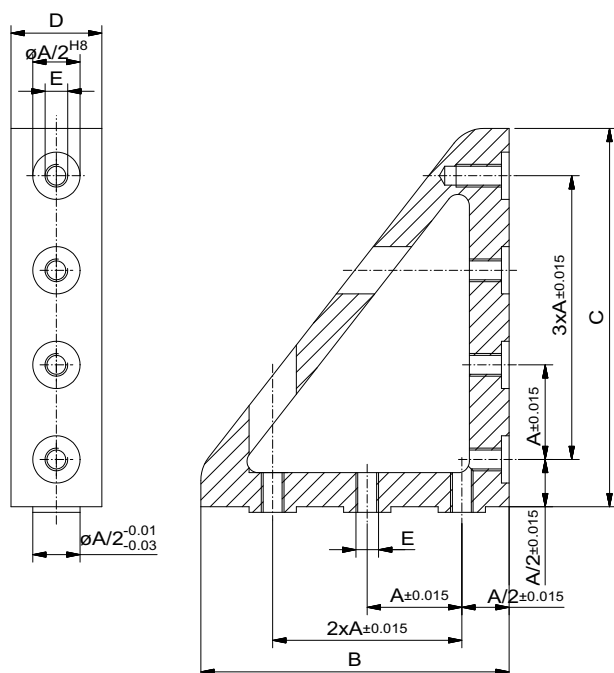
Nr.	L	g
81446-E	200	700
81447-E	400	1.226
81448-E	600	1.400
81407-E	800	2.258
81408-E	1000	2.240
81409-E	1200	3.161
81410-E	1400	3.665
81411-E	1600	4.110

AF50 ECO

Struts, 50x50

Grid 50, grid hole dia 25mm

Nr.	L	g
82403-E	250	1.424
82404-E	500	2.534
82405-E	750	3.637
82406-E	1000	5.696
82407-E	1250	7.120
82408-E	1500	8.544
82409-E	1750	9.968
82410-E	2000	11.392



Profile angle brackets

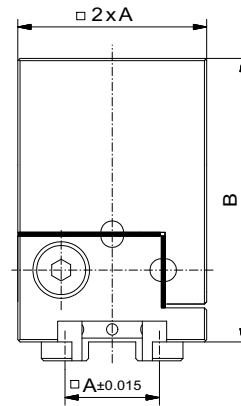
Nr.	A(AF)	E	D x B x C	g
120511-E	25	6	24x81,5x100	194
120514-E	25	6	24x121,5x150	319
120512-E	40	10	39x81,5x100	315
120515-E	40	10	39x121,5x151	518
120513-E	50	12	49x81,5x100	396
120516-E	50	12	49x122,5x150	651



i Profile angle brackets are also available in special lengths of up to 3000mm. Special connection elements are required to assemble angle brackets, they are shown on page 155

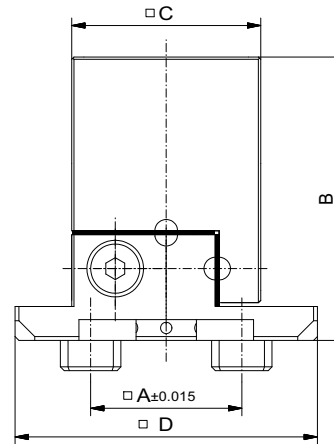
3D Shim blocks with contour block

Nr. left	Nr. right	A(AF)	B	shift	
91834-E	280766-E	25	75	x,y,z: +/-0,7mm	473
92808-E	280770-E	25	100	x,y,z: +/-0,7mm	590
91835-E	280767-E	40	120	x,y,z: +/-1,1mm	2.074
91836-E	280768-E	50	150	x,y,z: +/-1,1mm	4.275



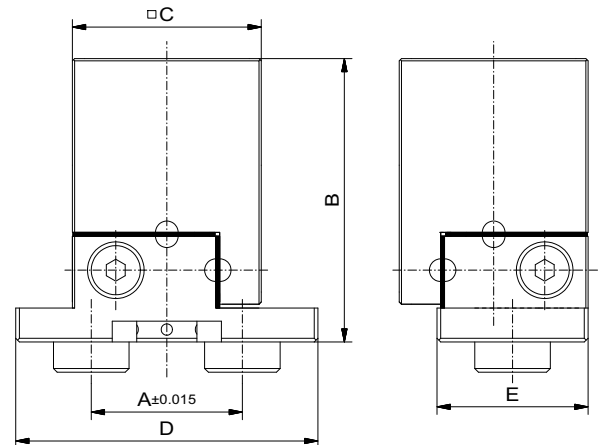
3D Shim block reducers with contour block

Nr. left	Nr. right	A(AF)	B	C	D	shift	
91839-E	280765-E	40/25	75	50	80	x,y,z: +/-0,7mm	839
91840-E	280770-E	50/25	75	50	100	x,y,z: +/-0,7mm	645



3D Shim blocks with contour block excentric

Nr. left	Nr. right	A(AF)	B	C	D	E	shift	
281460-E	281461-E	40/25	75	50	80	40	x,y,z: +/-0,7mm	450



ALUFIX ECO elements can be anodized in different colours. The colour natural (-E) is standard, blue (-E2) is available as an alternative. Black (-E1) and other colours on request



Peelable shim foil

for gaps between bars, in various thicknesses. Comprises of 0,05mm thick laminated alu-foils. The easy process of peeling with a knife can be carried out on the spot when spacers are required.

The advantages:

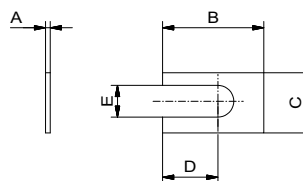
- Tolerances are evened out making remachining jobs such as milling, grinding etc. unnecessary
- Reduces setting up times
- Reduces amount of machining required

Shimfoil type 1 or 2

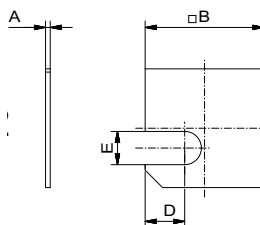
peelable, in 0,05mm layers, for setting of adjustment blocks

Nr.	System	Typ	A	B	C	D	E	$\frac{g}{g}$
33013	AF 25	2	1,0	37,5	-	12,5	10	1,5
33014	AF 25	1	1,0	32	19	20,5	10	2,5
33261	AF 40	2	1,6	60,5	-	20,5	20	6
33260	AF 40	1	1,6	50	30	30	14	9
33632	AF 50	2	2,0	75	-	25	25	12
33633	AF 50	1	2,0	60	38	35	18	19

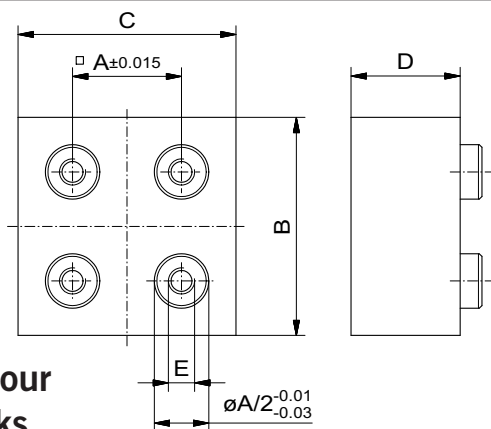
Typ 1: x,y



Typ 2: z



See also pages 82-83



Contour blocks

AF25 ECO

Nr.	A(AF)	B	C	D	E	$\frac{g}{g}$
23366-E	25	25	25	25	M6	45
23367-E	25	25	50	25	M6	89
23368-E	25	50	50	25	M6	179
23617-E	25	50	75	25	M6	268
25312-E	25	25	50	50	M6	179
23369-E	25	50	50	50	M6	358
25314-E	25	50	75	50	M6	536
23618-E	25	100	100	50	M6	1.430

AF40 ECO

Nr.	A(AF)	B	C	D	E	$\frac{g}{g}$
23630-E	40	40	40	40	M10	183
23631-E	40	40	80	40	M10	366
23632-E	40	80	80	40	M10	732
23633-E	40	80	120	40	M10	1.098
25313-E	40	40	80	80	M10	732
23634-E	40	80	80	80	M10	1.464
25315-E	40	80	120	80	M10	2.196
23635-E	40	160	160	80	M10	5.857

AF50 ECO

Nr.	A(AF)	B	C	D	E	$\frac{g}{g}$
28049-E	50	50	50	50	M12	358
28050-E	50	50	100	50	M12	715
28051-E	50	100	100	50	M12	1.430
28052-E	50	100	150	50	M12	2.145
27537-E	50	50	100	100	M12	1.430
28053-E	50	100	100	100	M12	2.860
27367-E	50	100	150	100	M12	4.290
28054-E	50	200	200	100	M12	11.440



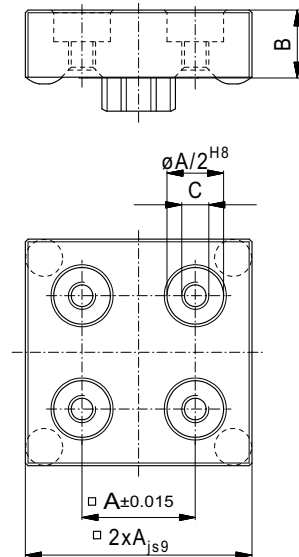
Quick change couplings (QCC)

only available as exchangeable top and bottom versions, for folding version see page 44



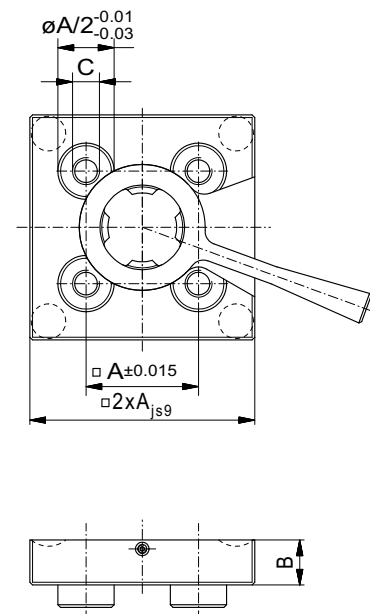
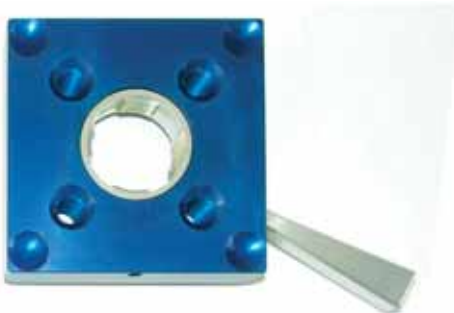
Quick change coupling top, complete

Nr.	A(AF)	B	C	
294321-E	25	15	M6	95
294322-E	40	24	M10	400
294323-E	50	30	M12	750

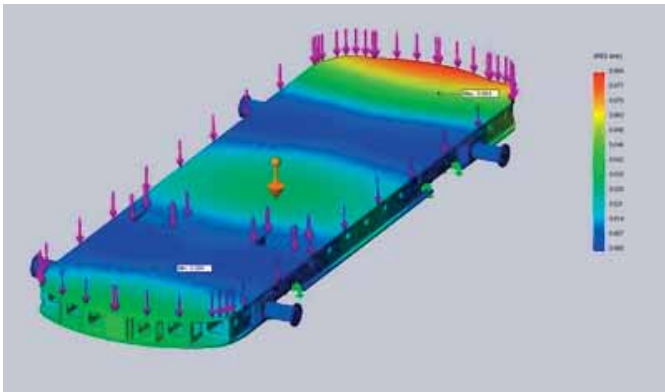


Quick change coupling base, complete

Nr.	A(AF)	B	C	
294324-E	25	15	M6	60
294325-E	40	24	M10	260
294326-E	50	30	M12	480



ALUFIX ECO elements can be anodized in different colours. The colour natural (-E) is standard, blue (-E2) is available as an alternative. Black (-E1) and other colours on request



All sandwich plates are tested and optimized for capacity and rigidity according to FEM analysis

Witte FixBase®

Base plates and positioning systems

■ Accurate and very rigid Sandwich plates are used as bases for measuring or holding fixtures, as a cantilever for CMM measuring surfaces or as transport plates. They offer highest rigidity but are comparatively lightweight

■ Sandwich plates can be used vertically or horizontally.

■ Different types available
- 2 (rib), 4 and 5 (standard)

■ According to customer request plates are available with natural or black anodized surface, hard coating is also possible.

■ Whether extremely lightweight and economical or very accurate and demanding one of our options will suit your company's needs. Almost any type of grid can be integrated into the plate surface/s.

■ Important accessories to large plates are PWS (Precision Witte System) or PPS (Precision Positioning System) quick clamp systems. These are systems integrated into the plate to allow quick, accurate and repeatable positioning of sub-plates or adapter plates onto the Sandwich plate.

■ Optional accessories i.e.

- Cable/radio remote control
- Camera
- Position sensors
- Visual and acoustic warning signals
- Laser-scanner to monitor area of movement

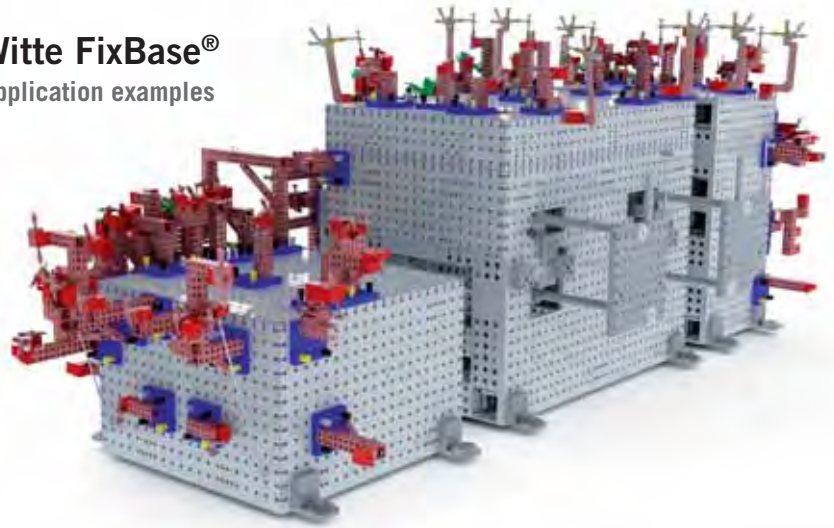
As well as special versions such as

- Contoured plates which fit to work piece, also three dimensional plates
- Contoured plates which fit to work piece, in segments or modular
- Mounted with moveable surface plates
- With integrated scissor trolleys are available on request



Vertical sandwich plate with hovercraft

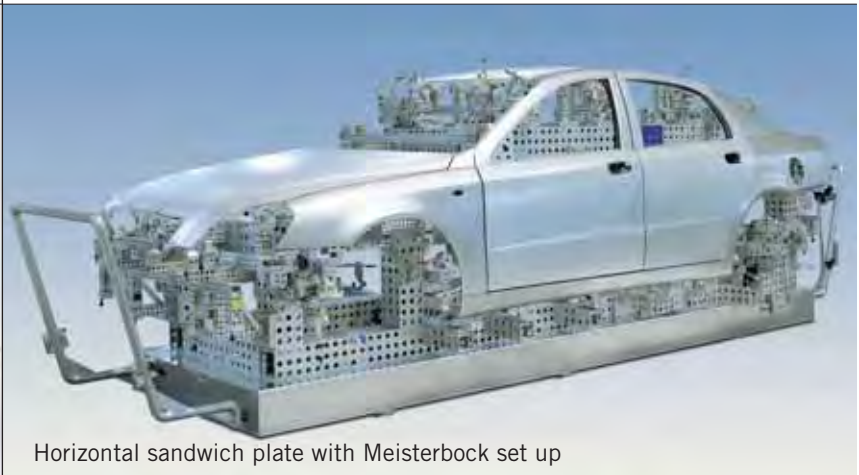
Witte FixBase®
Application examples



FixBase cube combination mounted with column type supports



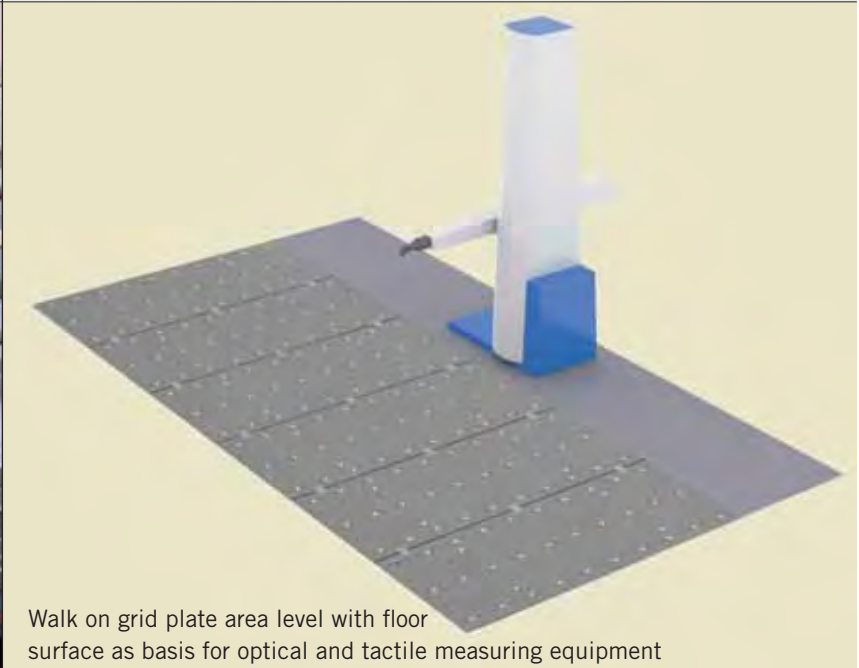
Sandwich plate in combination with jack system for complete vehicles



Horizontal sandwich plate with Meisterbock set up



Vertical sandwich plate with slide unit and exchangeable adapters for different car lengths



Walk on grid plate area level with floor surface as basis for optical and tactile measuring equipment

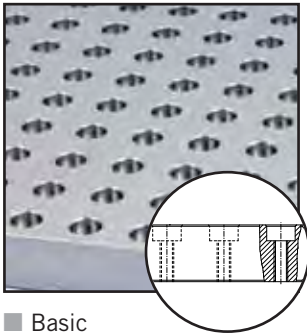


Witte FixBase® elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

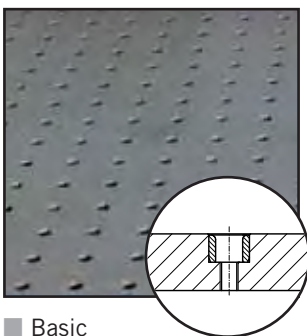


Witte FixBase®

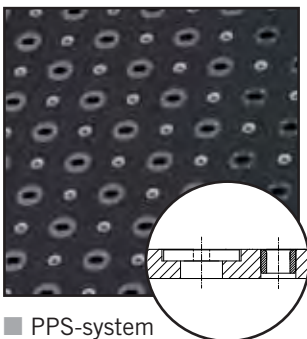
Positioning:



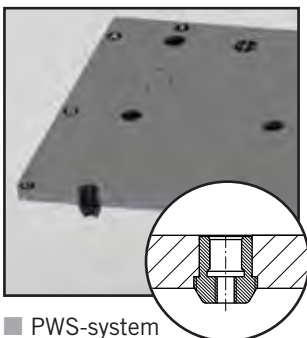
■ Basic thread w/o fitted sleeve



■ Basic thread with fitted sleeve

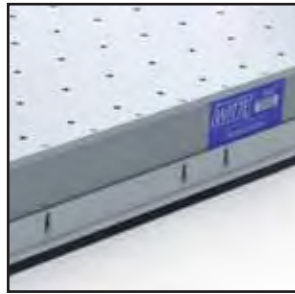


■ PPS-system



■ PWS-system

Types:



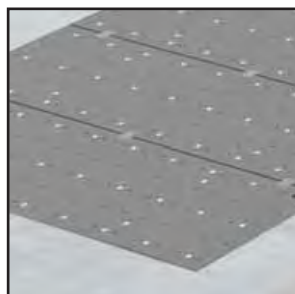
■ Single sandwich plate



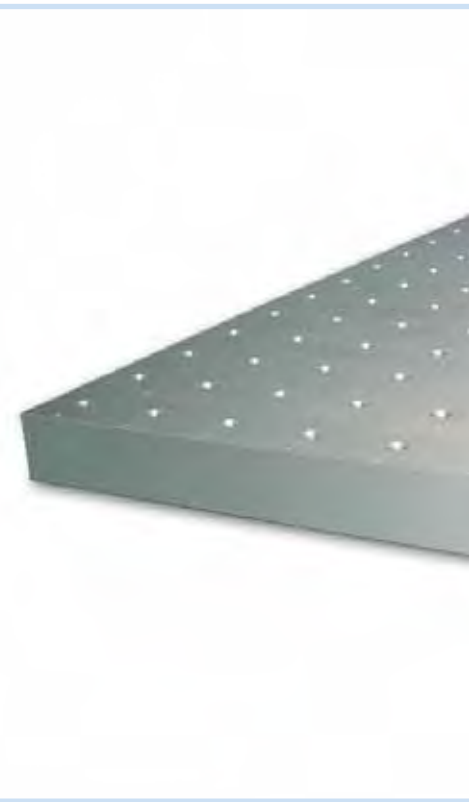
■ Segment sandwich plate



■ Single grid base plate



■ Grid plate area in segments



Basic structure:

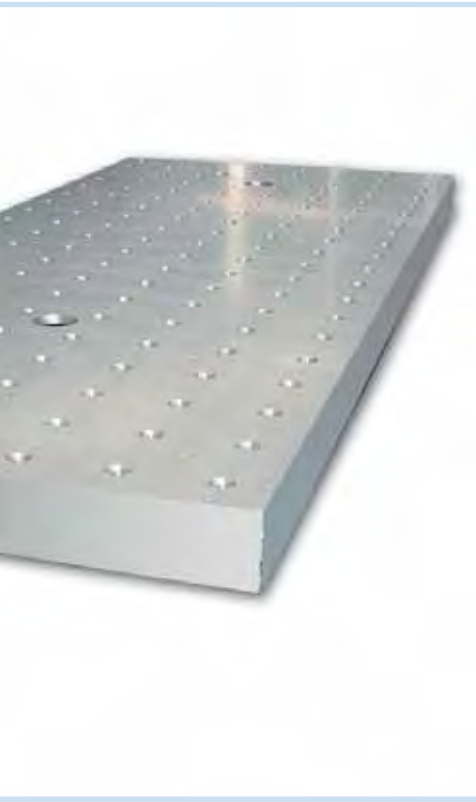


■ Standard



■ Rib type

Plate versions

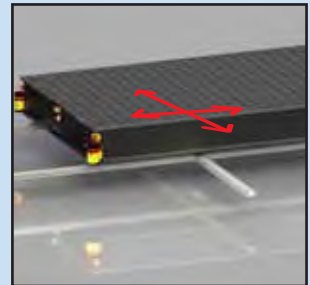


■ Horizontal



■ Vertical

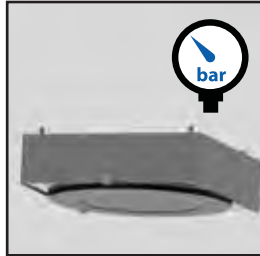
Special design: (excerpt)



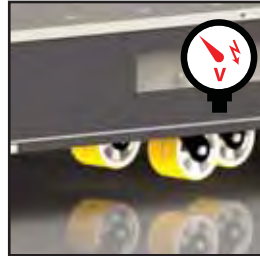
Options: (excerpt)



■ Stationary



■ Hovercraft



■ Rollers



■ Independent



■ Hose connected



■ Direct drive





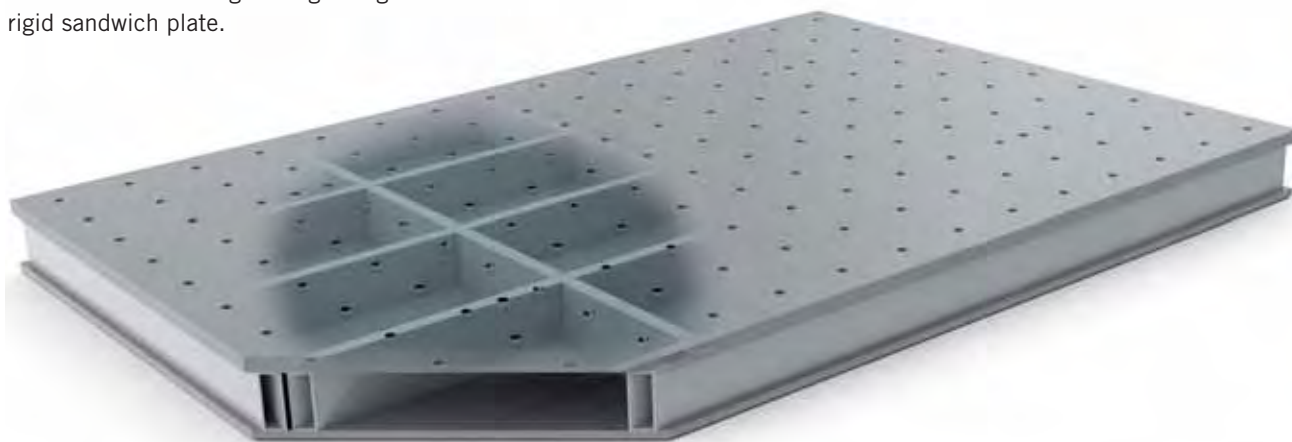
FixBase Alu Sandwich Plate

Type 2

Width	Length	Thick-ness	Thickness of sur- face plate w grid	Thickness of sur- face plate w/o grid	Grid	kg
800	1200	100	20	10	100	85
1000	2000	100	20	10	100	180
1200	1800	100	20	10	100	200
1600	2400	100	20	10	100	340

Above listed dimensions are examples, please state required dimensions and grid on your inquiry.

Top and bottom plates are connected with right angled profiles laid cross-wise inside and all round using a special adhesive resulting in a lightweight rigid sandwich plate.

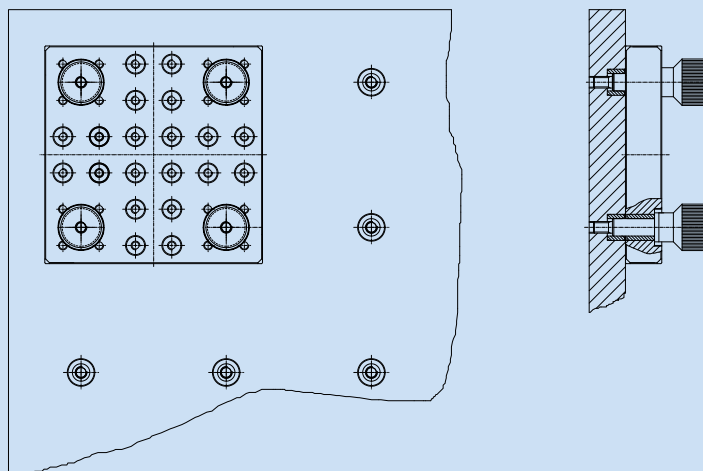


Evenness acc. to DIN 876 II Gen 3 (up to 5m x 2m, tolerances for larger dimensions on request)

Grid:

- with or without
- one or two sided
- with or without steel sleeves
- with or without threaded helicoil inserts
- PWS
- PPS

Grid tolerance JS7, total tolerance JS8
Available with higher accuracy on request



This type of sandwich plate is ideal for mounting adapter plates with locating screws

Max. Size of grid bores:
System Alufix 25, $\varnothing 12,5\text{mm}$ / M6

FixBase Alu Sandwich Plate

Types 4 and 5, horizontal applications

Width	Length	Thick-ness	Thickness of sur-face plate w grid	Thickness of sur-face plate w/o grid	Grid	kg
1600	4000	150	25	25	100	980
2000	2000	150	25	25	100	620
2000	4000	150	25	25	100	1.220

Above listed dimensions are examples, please state required dimensions and grid on your inquiry.

Between surface plates aluminium spacer tubes are glued using a special adhesive. This method is especially suitable for manufacturing plates with complex grids, which are used horizontally or vertically.

Type 4 is without surface protection. Type 5 is anodized or hard anodized on request.

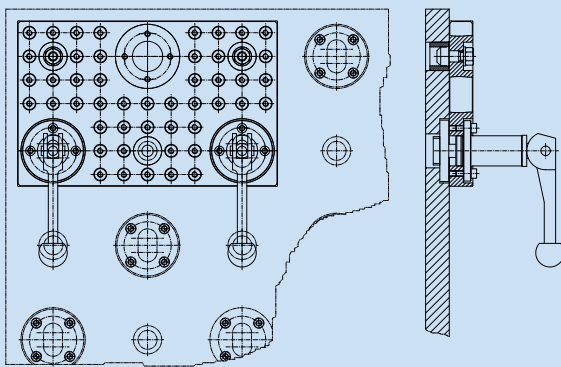


Evenness acc. to DIN 876 II Gen 3 (up to 5m x 2m, tolerances for larger dimensions on request)

Grid:

- with or without
- one sided
- with or without steel sleeves
- with or without threaded helicoil inserts
- PWS
- PPS

Grid tolerance JS7, total tolerance JS8
Available with higher accuracy on request



This type of sandwich plate is suitable for example for mounting PPS adapter plates



Witte FixBase® elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



FixBase Alu Sandwich Plate

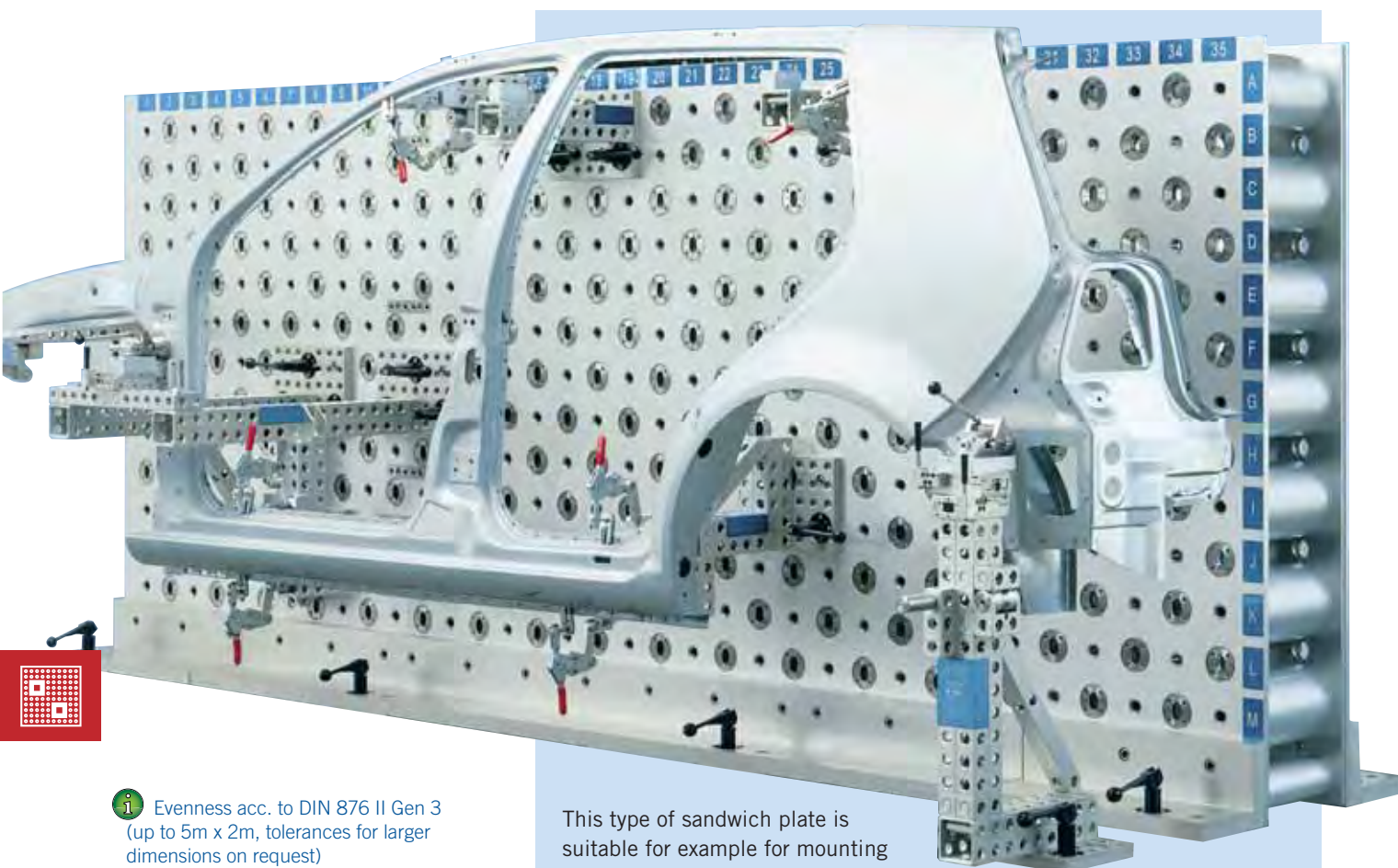
Types 4 and 5, vertical applications

Between surface plates aluminium spacer tubes are glued using a special adhesive. This method is especially suitable for manufacturing plates with complex grids, which are used horizontally or vertically.

Type 4 is without surface protection.
Type 5 is anodized or hard anodized on request.

Width	Length	Thick-ness	Thickness of sur- face plate w grid	Thickness of sur- face plate w/o grid	Grid	kg
1800	3600	300	25	25	100	1.150
2000	2000	300	25	25	100	760
2000	4000	300	25	25	100	1.450

Above listed dimensions are examples, please state required dimensions and grid on your inquiry.



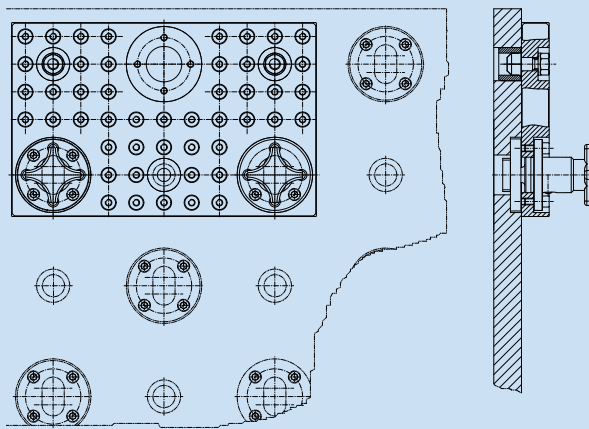
Evenness acc. to DIN 876 II Gen 3 (up to 5m x 2m, tolerances for larger dimensions on request)

Grid:

- with or without
- one or two sided
- with or without steel sleeves
- with or without threaded helicoil inserts
- PWS
- PPS

Grid tolerance JS7, total tolerance JS8
Available with higher accuracy on request

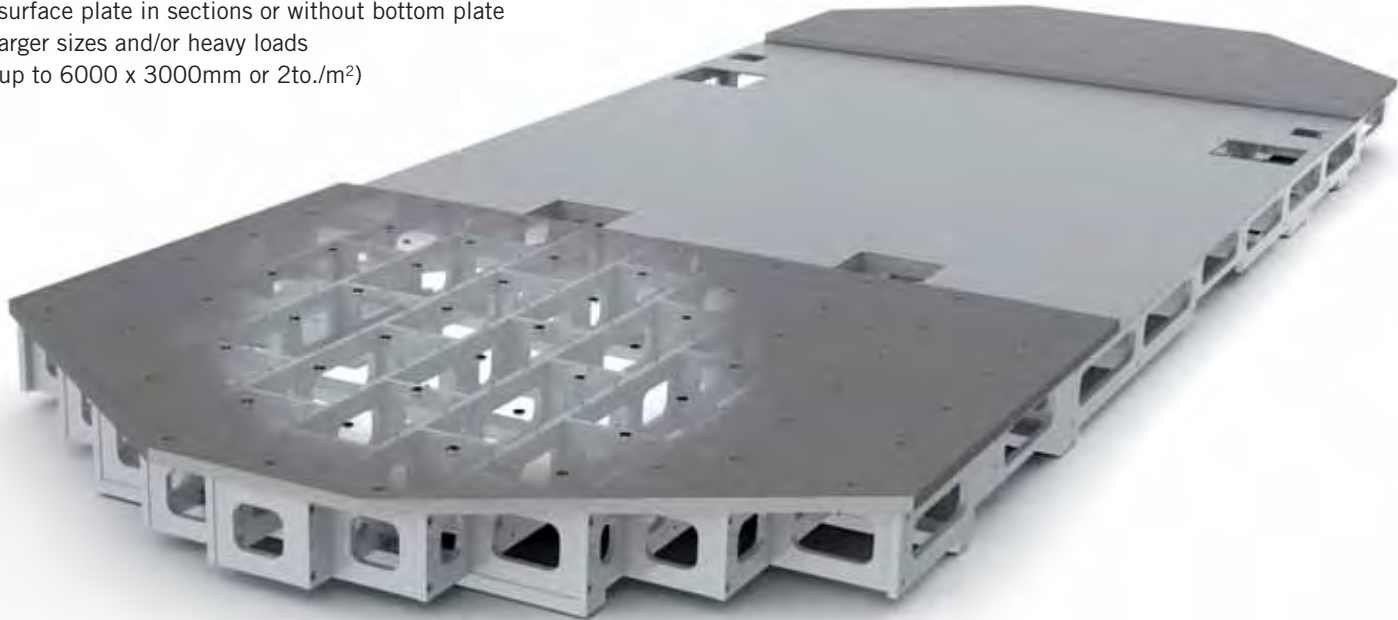
This type of sandwich plate is suitable for example for mounting PPS adapter plates



FixBase Rib Sandwich Plate

Type 2 for horizontal and vertical applications

- 30% increased rigidity with same thickness or same rigidity with less thickness
- enable more flexible design i.e. large cutouts, surface plate in sections or without bottom plate
- larger sizes and/or heavy loads (up to 6000 x 3000mm or 2to./m²)



Dimensions on request.

Evenness acc. to DIN 876 II Gen 3 (up to 5m x 2m, tolerances for larger dimensions on request)

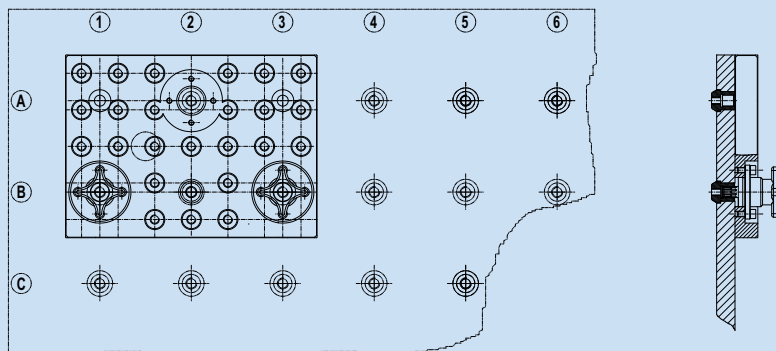
Grid:

- with or without
- one or two sided
- with or without steel sleeves
- with or without threaded helicoil inserts
- PWS
- PPS

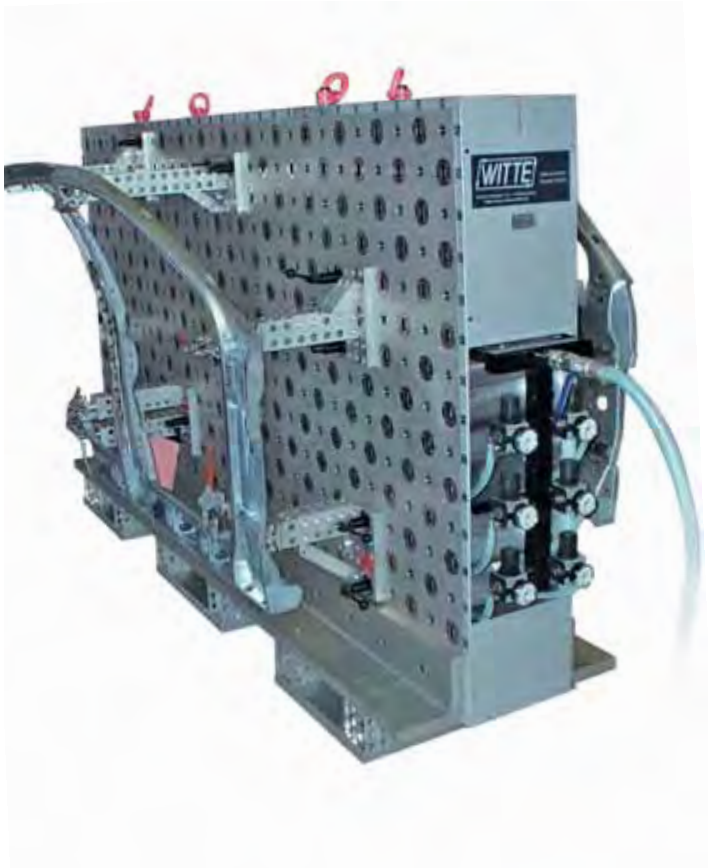
Grid tolerance JS7, total tolerance JS8
Available with higher accuracy on request



This type of sandwich plate is suitable for example for mounting PWS adapter plates



Witte FixBase® elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



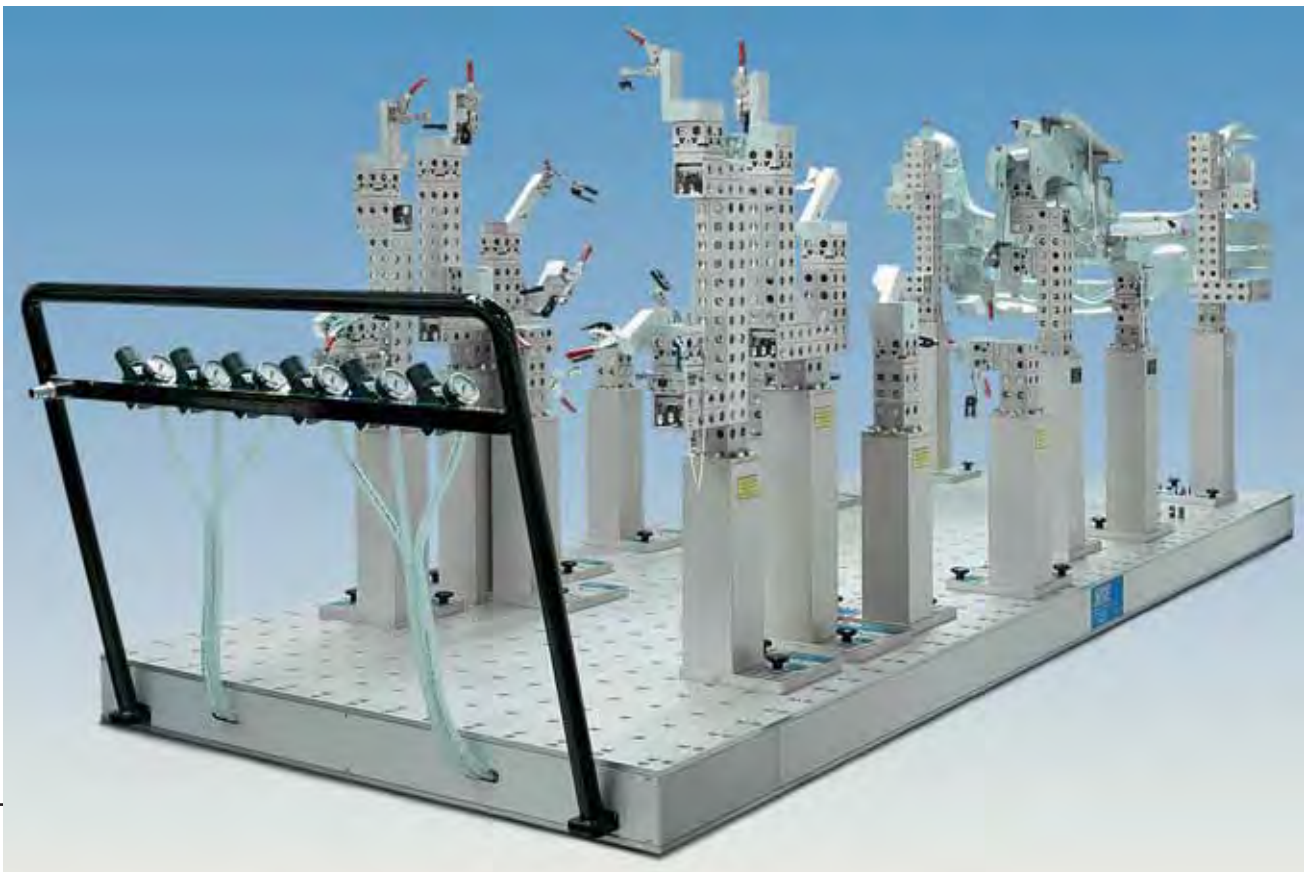
Alu Sandwich Plate with hovercraft hose connected

Sandwich plates can be Witte-equipped with a hovercraft cushion system. This enables easy and quick transport of the plate from loading area to checking area (CMM surface area). Even plates with heavy loads can easily be moved over cracks, seams or ridges in the floor. Air pressure is individually regulated to adjust to irregular weight distribution guaranteeing a smooth and even ride.

For effective and problem free performance of hovercraft systems, a smooth non porous surface i.e. plastic coated, ground cement or vinyl flooring is ideal. Please contact us for specifications to ensure proper function in your facility.



Hovercraft cushion cassette shown on underside of plate





Alu Sandwich Plate with hovercraft

Independent, operation with integrated air tanks


A special way of moving sandwich plates is by using intergrated air storage system. Internal pressure cylinders allow self sufficient plate movements meaning that no air supply hose is necessary. Besides increased mobility it also adds to flexibility.

The air reservoir system is designed for a drive mode for a minimum of 2 minutes. Filling up of the reservoir (max 12 bar) is completed after a short period of time. Depending on floor conditions drive mode of 2 minutes can often be exceeded.

This option for Witte Sandwich plates has to be integrated into initial design and purchase of a plate. The air storage system cannot be re-tooled or added to a plate at a later date.

-  Minimum plate thickness 250mm
Reloading via normal house circuit
Low working pressure (max 20 bar)
No high pressure compressor system required
-  Safe, low-maintenance and economical complete concept



 **Witte FixBase®** elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.





Alu Sandwich Plates

with friction wheel drive

Sandwich plate types 4 and 5 can additionally be equipped with electrically or pneumatically driven friction wheels

Advantages are

- Secure repeatable positioning
- Easy handling with no strong effort required
- Drive and brake function

Further optional safety accessories

- Camera
 - Position sensors
 - Visual and acoustic warning signals
 - Laser-scanner to monitor area of movement
- Hovercraft system is a pre-requisite for this type of drive.

A direct drive as well as a hovercraft system are options for newly designed plates. Both can be integrated into plates already in use.



Electro-Mover

Shunting and drive accessory for plates without any power unit

- For moving hovercraft and roller plates
- Hooked up using ball shaped scraper
- Pull and push operation possible
- Electro drive with battery charger for up to two hours continuous use

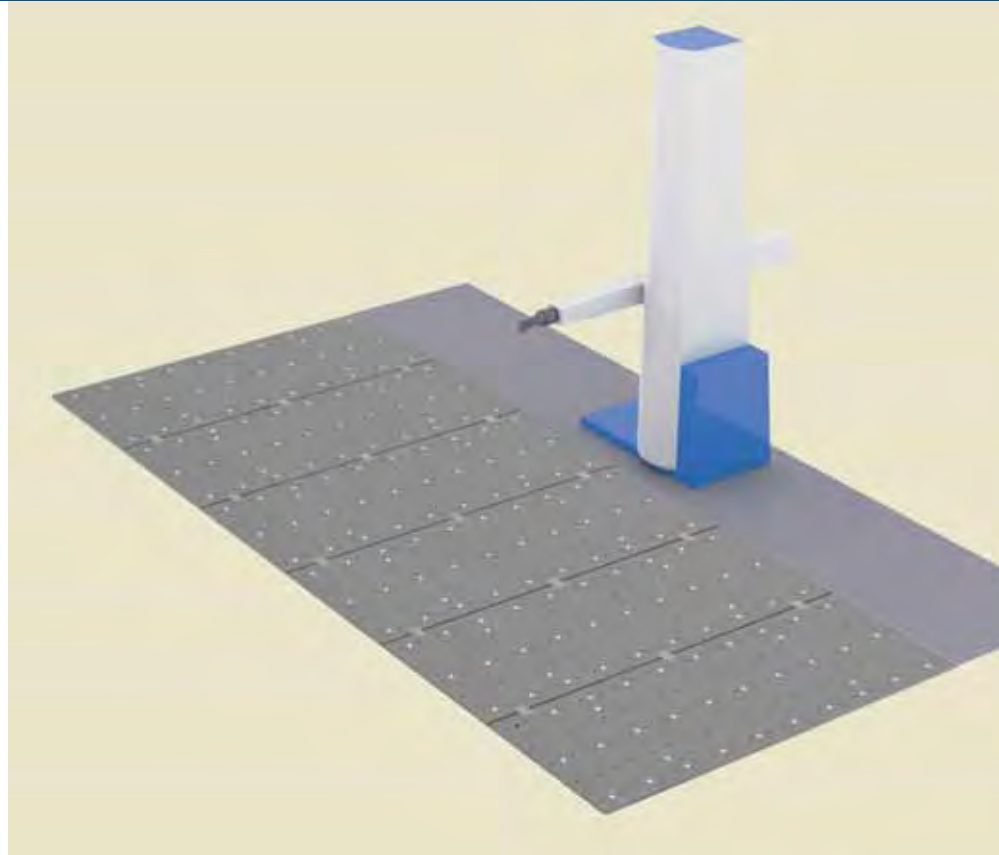


XXL – Grid plate area

Example of floor level area using grid base plates with full surface grid

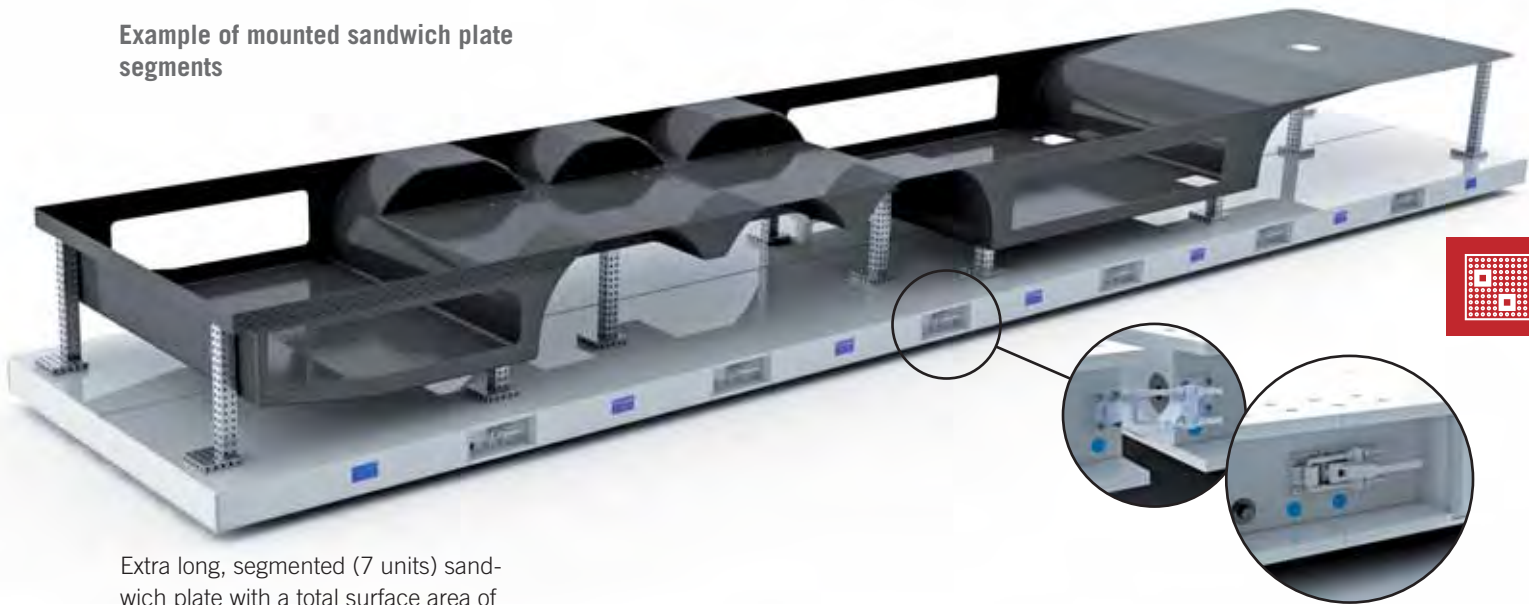
Options:

- one or more segments
- max. segment size 2000x4000 mm
- unlimited total surface area
- integrated into floor or mounted on customers CMM surface
- Single segments aligned to each other or complete surface aligned to measuring volume




XXL – Sandwich plate area

Example of mounted sandwich plate segments



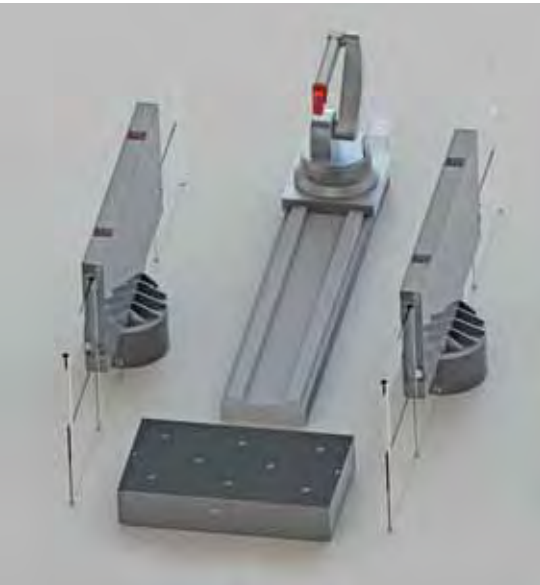
Extra long, segmented (7 units) sandwich plate with a total surface area of 2,5x14m, coupled using centering pins and shackle clamps. Serves as platform for laminating CFP semi-trailer (mono-coque). Single plates coupled using centering pins and pull clamps. Can be equipped with hovercraft, provided floor surface is suitable



 Witte FixBase® elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Alu Sandwich Plates

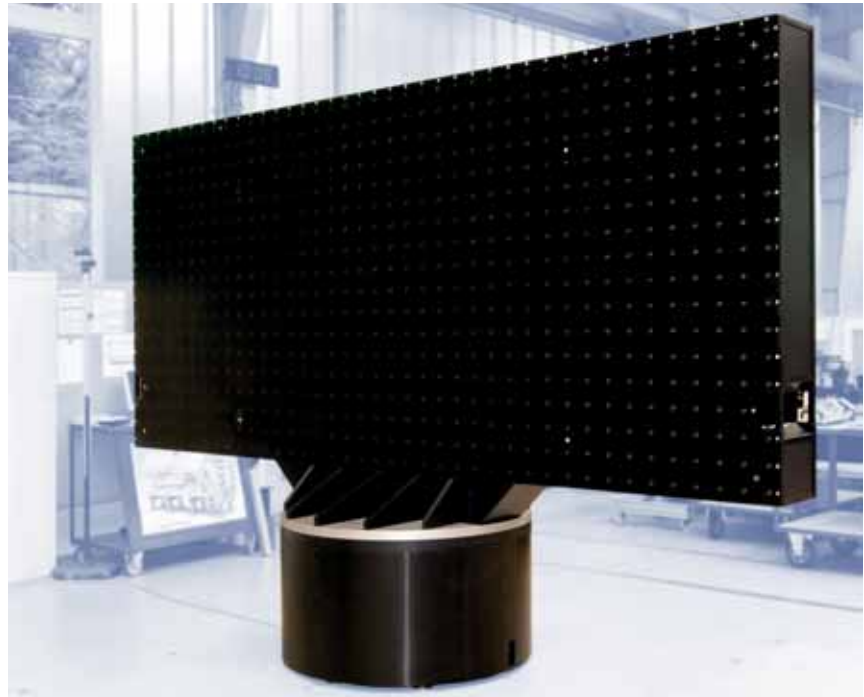
rotating



Robot measuring cell for optical measuring

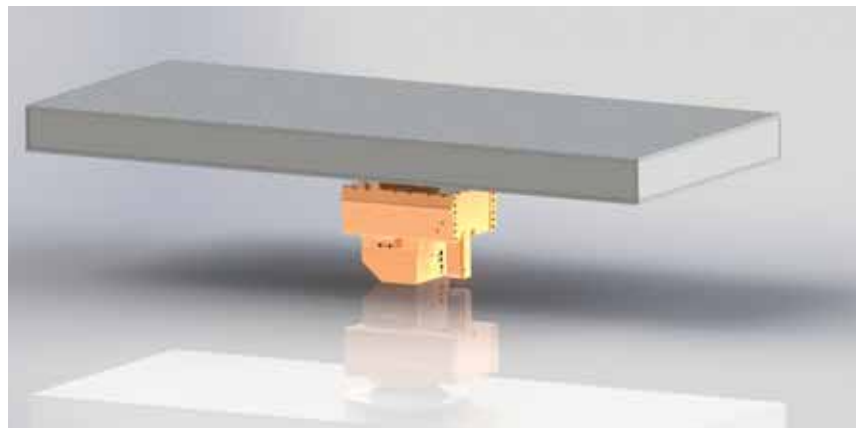
Configuration:

- 2 vertical sandwich plates mounted on rotating hovercraft supports, rotatable by 180°
- 1 stationary, horizontal sandwich plate with extended height
- On hovercraft, rotary and tact tables
- To reach both work pieces or do assembly from outside without interrupting measuring process
- Integrated safety monitoring, release switch



Vertical alu sandwich plate on hovercraft rotary table

Horizontal sandwich plate on motorized rotary table (shown without base unit). Force is directed to the rotary plate via inner plate structure



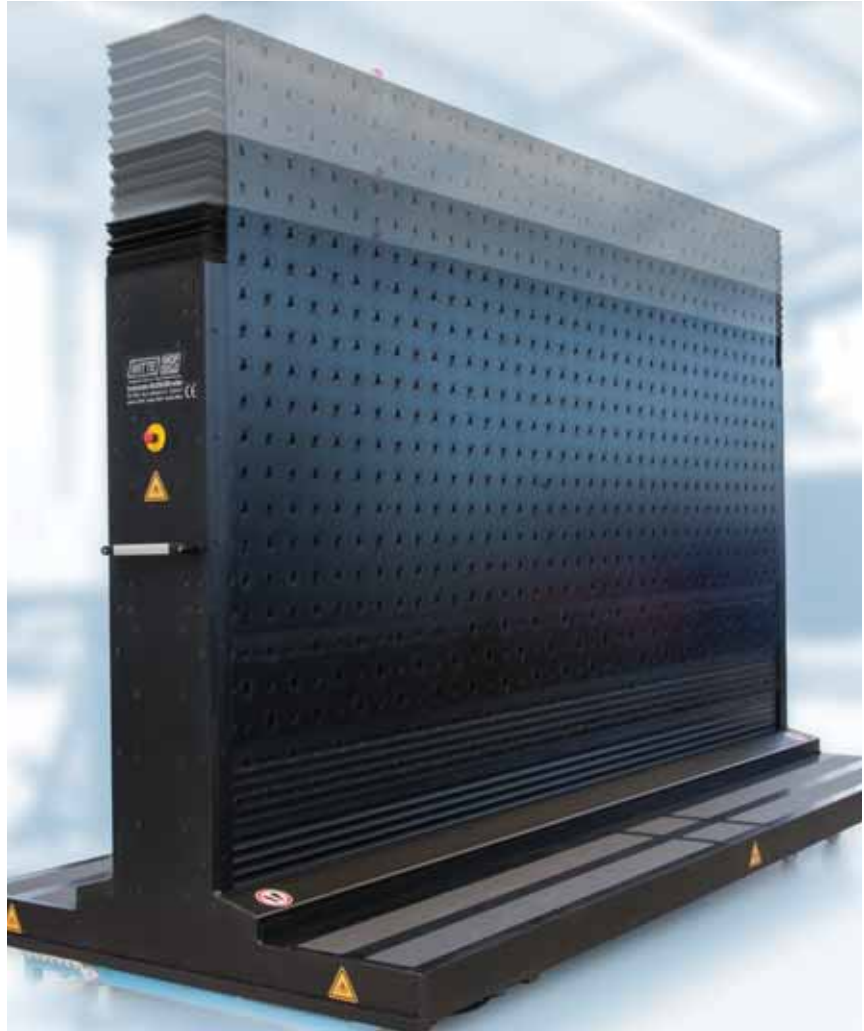
Alu Sandwich Plates

height-adjustable

Motor driven height adjustable sandwich plate for parallel use of tactile and photogrammetry measuring tasks.

Example configuration on the right:

- 750 mm lift from 2050 to 2800 mm.
- Clamping surface on both sides 3700 x 1700 mm
- Hovercraft with direct drive
- Double sided PPS grid
- Walk-on base for easy use of plate
- Grid surface anodized black
- Equipped with safety features, hook-eyes, emergency stop on both face ends and allround foot protection



Slide units

optional

Versions:

- mounted or integrated
- for vertical and horizontal sandwich plates
- mounted version possible for plates already in use
- freely selectable grid
- fixed positions using pins



Witte FixBase® Elemente können in unterschiedlichen Farben eloxiert geliefert werden. Die Farbe „Natur“ ist Standard, „Schwarz“(-1) ist alternativ lieferbar. Weitere Farben auf Anfrage

AluSandwich Roller Plate

with floating heavy duty guided rollers



View from underneath



Applications:

- For uneven, porous or joined (tiled) floors
- If no air pressure is available or current operations will be adversely affected

Characteristics:

- Automatic crawl speed when reaching final position

Equipment options:

- Direct drive or E-Mover drive
- Camera with integrated screen



Control panel with camera monitor

Positioning and parking systems

for moveable alu sandwich plates

For repeatable, accurate positioning of sandwich plates in a measuring machine area we offer a positioning system which is embedded into the floor.

It comprises of Z supports, a centering unit for X and a further locating unit for XY direction.

The units are installed in the floor, anchored and covered with metal disks. The Z supports are aligned to exactly the same height, the X and XY are spaced and aligned to the length axis of the CMM. The units are so rigid, they securely and accurately position sandwich plates over a long period of time.

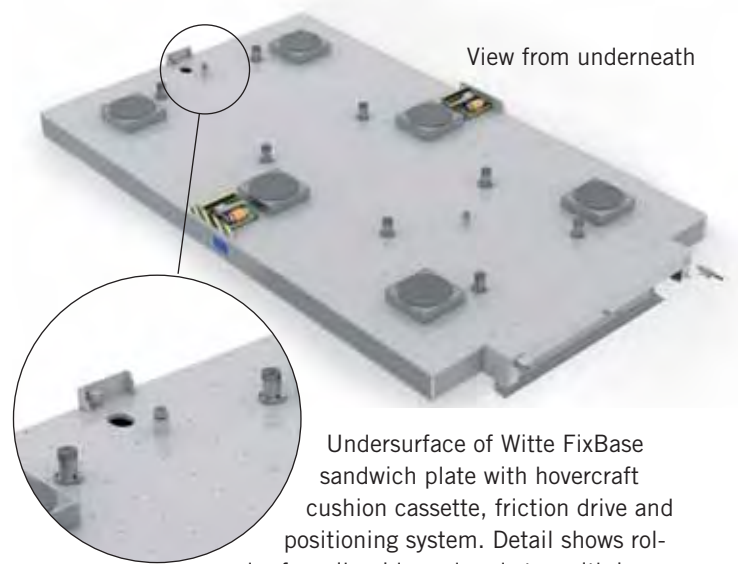
For simple and secure pre-positioning a rail guide with a centering inlet and an end stop can be installed.

For sandwich plates equipped with electric, pneumatic or hydraulic systems an energy saving automatic multi-coupling can be integrated in the end stop in plate operating position.

Monitoring of whether or where plate is located is possible using inductive gap sensors.

Parking systems with simple Z supports without covers are available for setting down plate outside of measuring area.

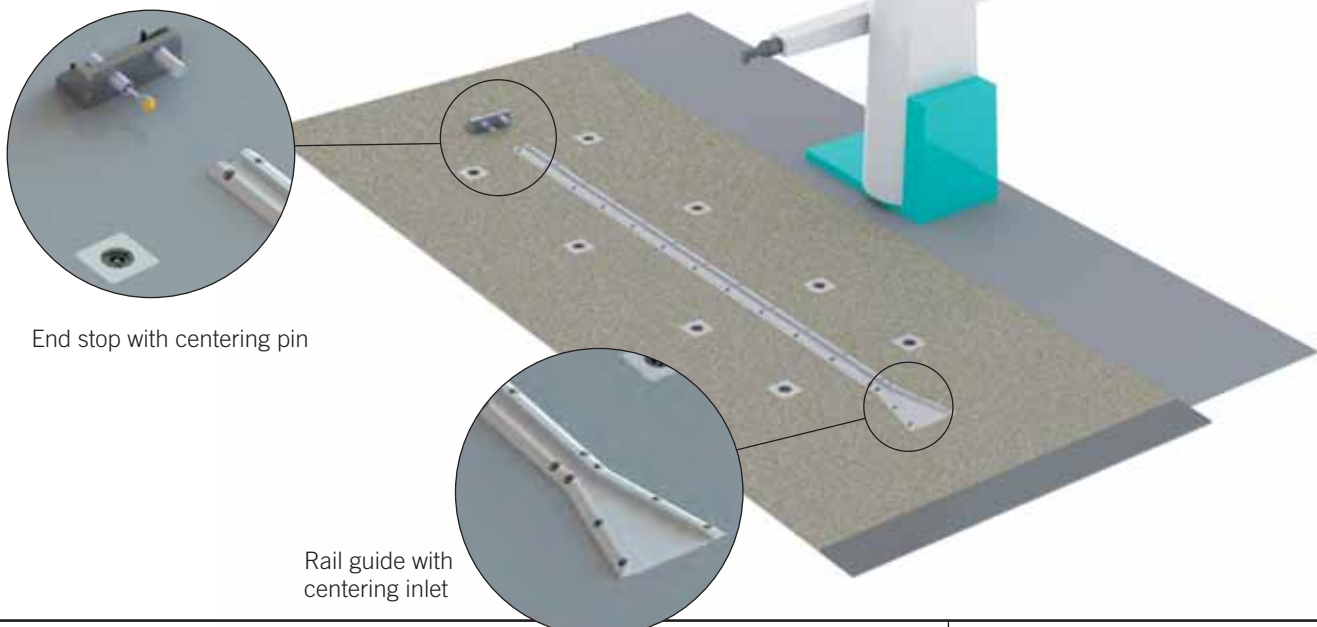
The supports are installed in the floor using compound adhesive and aligned to the same height. They are so strong that sandwich plates can be lowered and parked there for a long time if necessary without any risk of deforming the plate.



View from underneath

Undersurface of Witte FixBase sandwich plate with hovercraft cushion cassette, friction drive and positioning system. Detail shows roller for rail guide and end stop with inductive gap sensor.

Positioning system with guide rail and stop on a measuring machine



End stop with centering pin

Rail guide with centering inlet

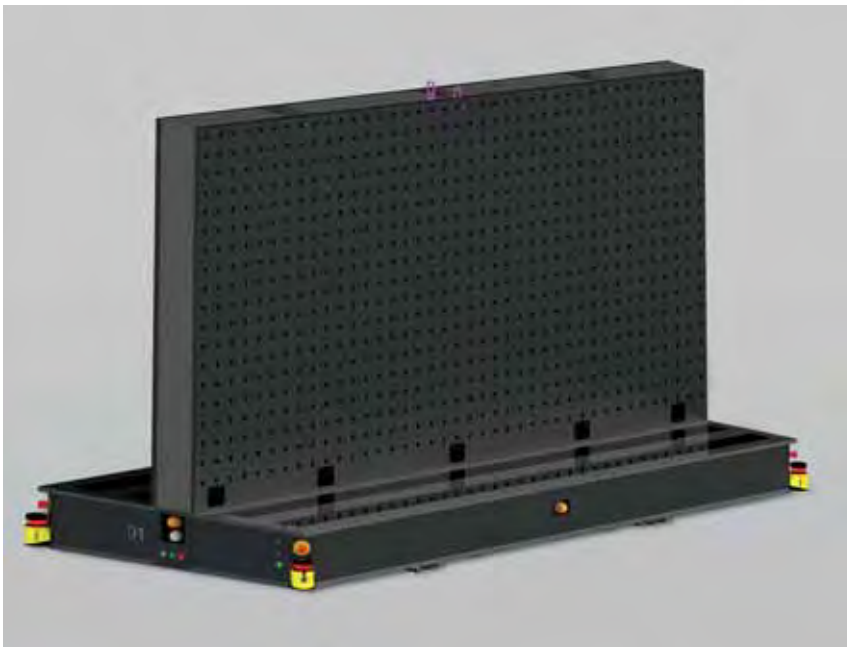


Witte FixBase® Elemente können in unterschiedlichen Farben eloxiert geliefert werden. Die Farbe „Natur“ ist Standard, „Schwarz“(-1) ist alternativ lieferbar. Weitere Farben auf Anfrage





- For fully automatic controlled loading stations
- Quiet forcibly guided run rails embedded in the floor
- No edges or grooves to stumble over
- 90° cross operation due to correspondingly arranged pivoting wheels
- Electro drive with battery operation
- Position monitoring/controlling with RFID transponders and IW-LAN radio network
- Positioning in CMM by lowering on to centering rings



Witte FixBase® Special solutions



Example of a recent project:

- 6 horizontal, 5 vertical sandwich plates
- Loading of 2 tactile double arm CMM and a duplex robot cell for blue-light photogrammetry
- Plate system and measuring equipment are remote-controlled by a master control station



Alu sandwich plates Special version

Complete vehicle unit for inspection and measuring of test cars or cars due for delivery. The vehicle is either driven or pulled onto the plate using a winch. After scissor trolleys raise the vehicle it is set down on RPS or car jack up

points. The sandwich plate is equipped with hovercraft and as an option can be driven with friction wheels. Scissor trolleys and winch are power operated.



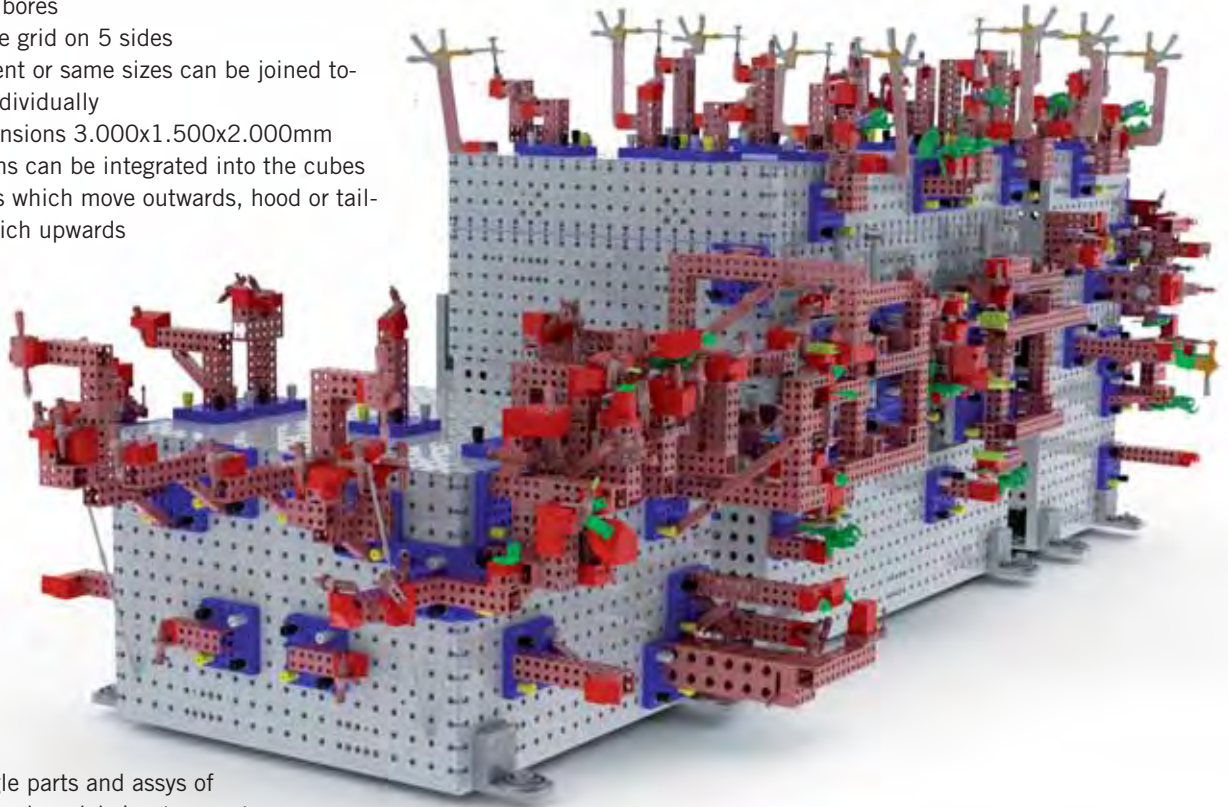
Alu sandwich plates Heavy load version

Rib type Alu sandwich plates are especially suitable for very heavy loads. The picture on the left shows a hovercraft Alu sandwich plate with dimensions 2000x4000x300mm. With its own weight of approx 1,5 to the total load capacity is 15 (fifteen!) to.

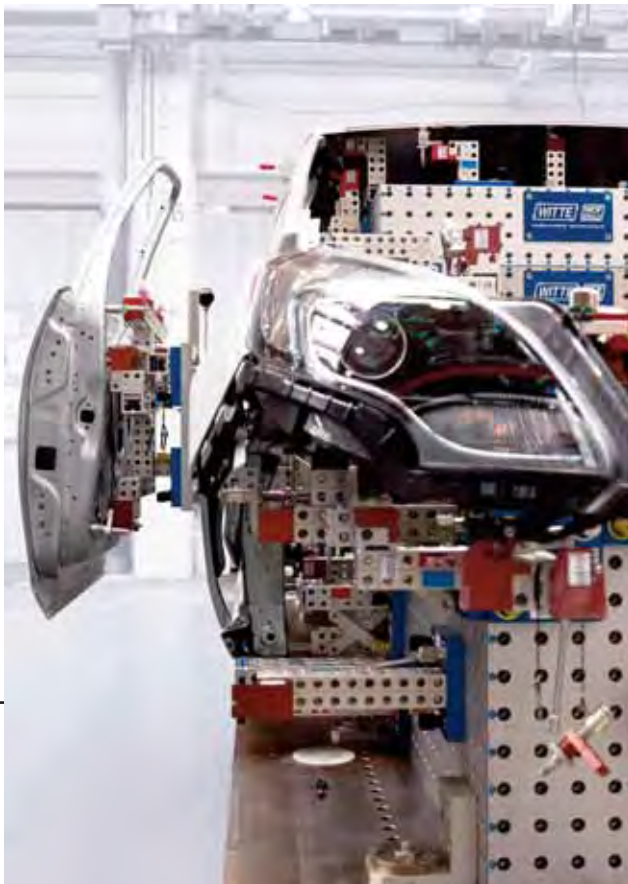
Fully loaded the plate can be moved with only two persons, with the help of the electro mover even by one person on their own.

FixBase® Cubes

- Cubes mounted with grid plates:
- Grid with fitted bores
- Flat, full surface grid on 5 sides
- Cubes in different or same sizes can be joined together or used individually
- Maximum dimensions 3.000x1.500x2.000mm
- Further functions can be integrated into the cubes i.e. door supports which move outwards, hood or tail-gate supports which upwards

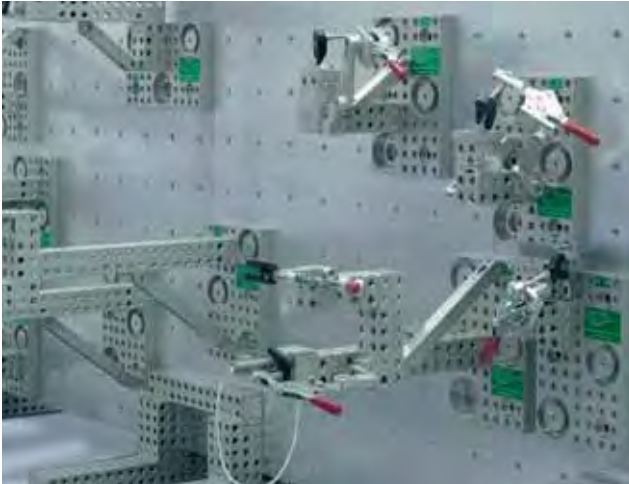


Supports for single parts and assys of various versions and models i.e. two-seater, notchback, limousine, estate, van, SUV are possible using corresponding configurations

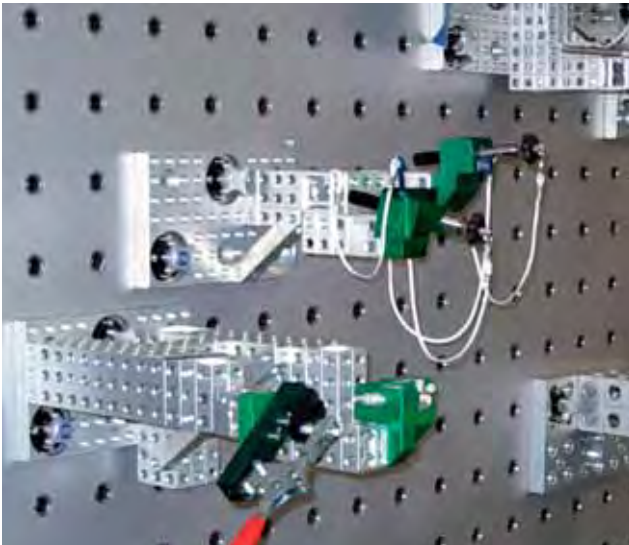


Application example for FixBase cubes

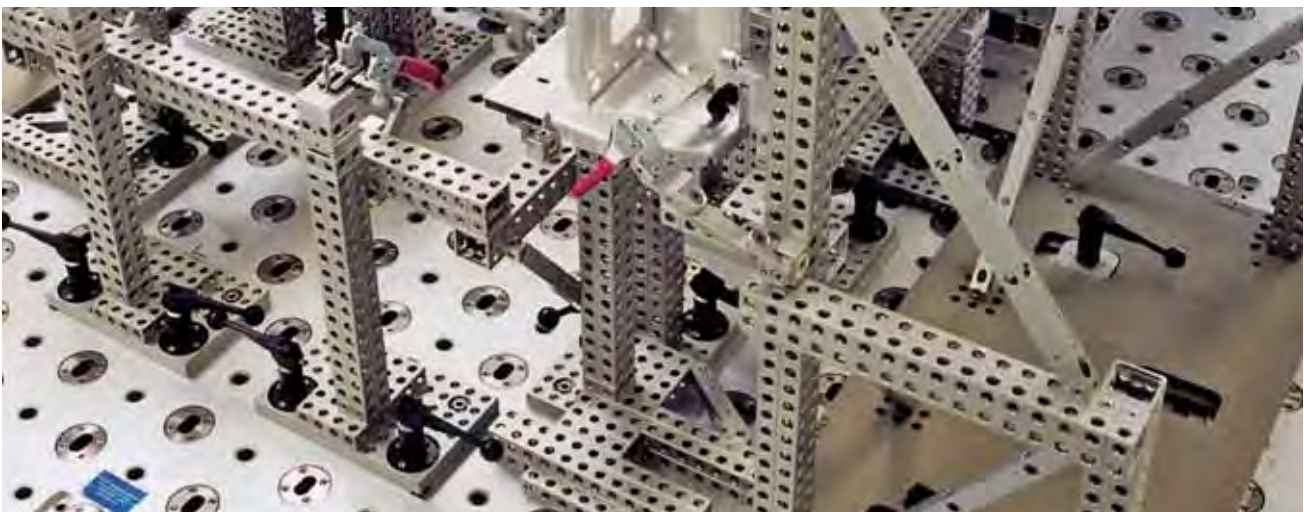
- Single cube for frontend (top)
- Combination of several cubes to mount all parts of a body-in-white



Column supports on footplates with fitted screw connection



Columns connected using PWS system



Columns connected using PPS system bayonet clamps

Column variations

for use on sandwich plates

Combining a grid plate (conventional or sandwich type) with exchangeable columns offers following advantages:

Use of one base for user-defined assembly of various workpieces, different assembly degrees of parts (single parts, welded groups, assemblies) different derivatives, match metal function.

Considerably less storage space is required in comparison with complete fixtures. Comprehensive accessories such as multi level trolleys, foldable, stationary or mobile storage stations and tables are available for storing column supports.

Multiple use of column supports is possible on different base plates or in different departments.

Pre measuring of supports on small measuring equipment is possible.

Different types of connection:

- Fitted screws,
- PPS (centering bolt and bayonet lever),
- PWS (clutch bolt with centering pin).

Optional simple footplates for Megalu columns or modular footplates for Classic or ECO bars are available.

The supports can be used for further functions or contact points by using folding or quick change couplings.

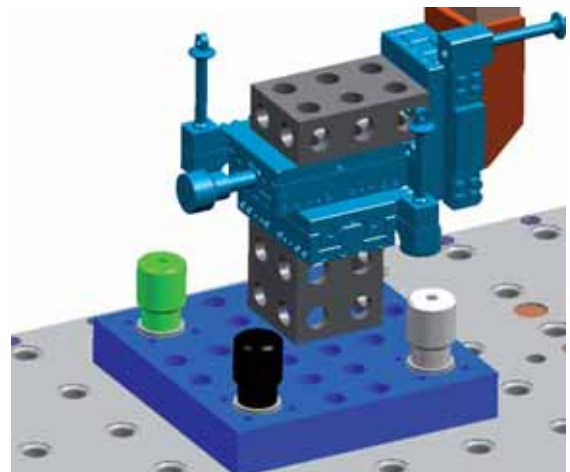
Longer bars on columns are supported by sharp angled struts or connected with one another when mounted.

Column connection

with fitting screws for basic grid holes

Simple and proven version.
Two types of locators are available:

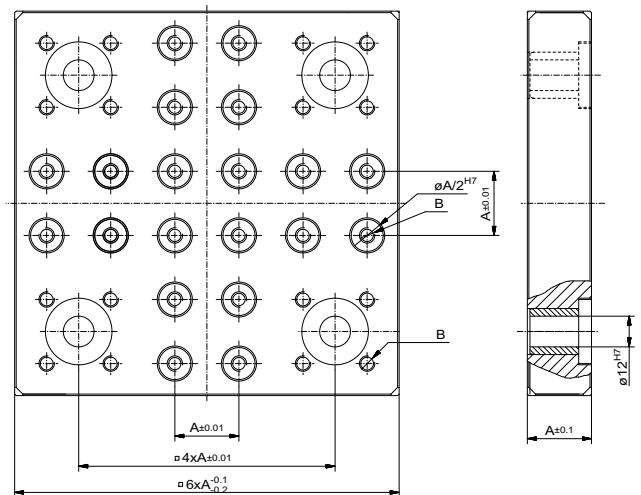
- Snug fit, floating (XY positioning)
- Without fit (only clamping)



Footplate

150 x 150, AF 25/50

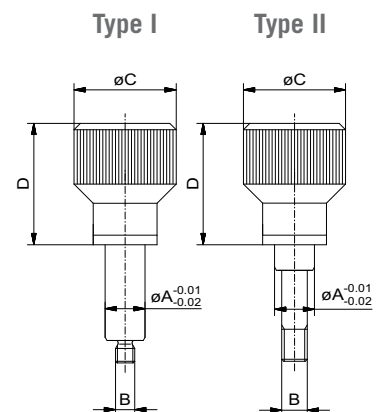
Nr.	A	B	C		
304231	25	M6	ø12H7		1.500



Fitting screw

Type I and II for footplate 304231

Nr.	A	B	C	D	Type	
94819	12	M8	32	38	I	180
94993	10,5	M8	32	38	II	175



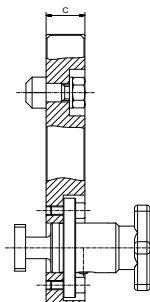
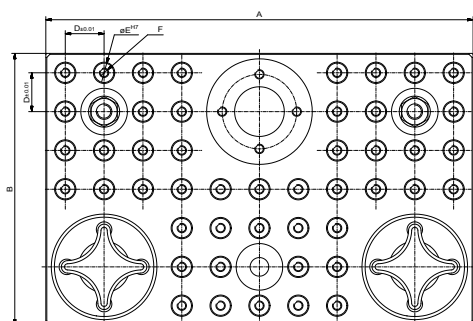
Witte FixBase® elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.



Column connection

with Witte PPS quick clamp system

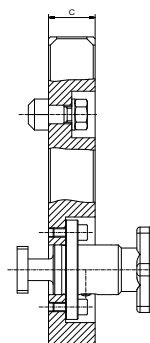
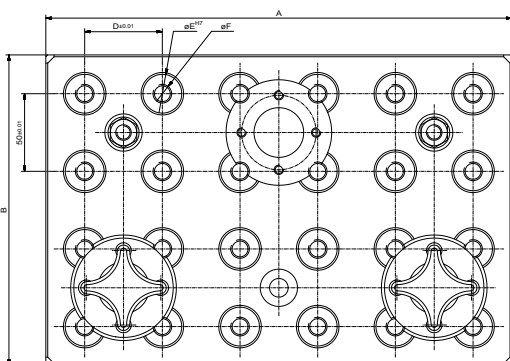
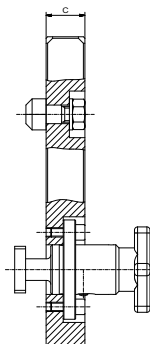
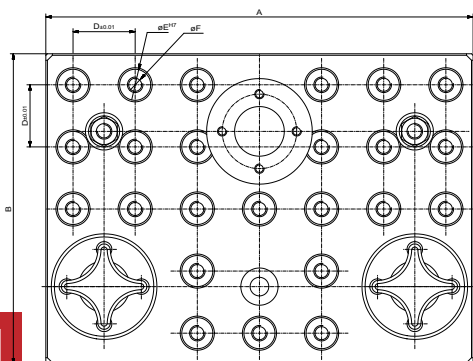
Separate positioning and fixation of footplates via centering pin and clamp units



Footplate for Witte PPS System

with star knob

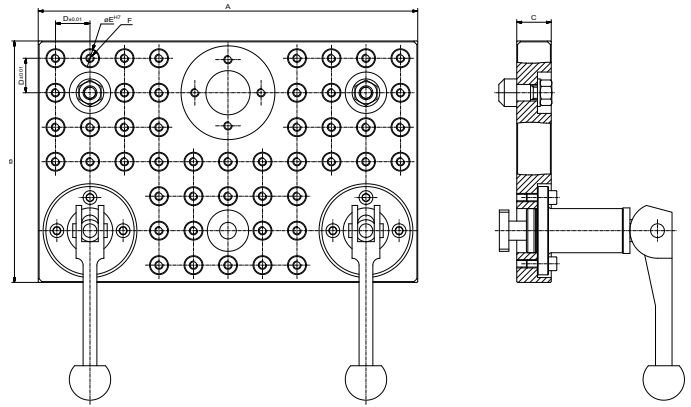
Nr.	System	A	B	C	D	E	F	g
93513	AF 25	275	175	25	25	12,5	M6	3.300
93514	AF 40	275	200	25	40	20	M10	3.740
93515	AF 50	300	200	30	50	25	M12	5.100



Footplate for Witte PPS System

with hand lever

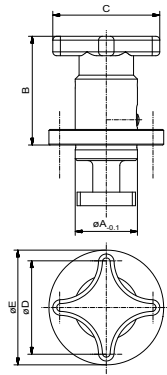
Nr.	System	A	B	C	D	E	F	
84608	AF 25	275	175	25	25	12,5	M6	3.950
84609	AF 40	275	200	25	40	20	M10	4.400
91050	AF 50	300	200	30	50	25	M12	5.560



Lock unit

with star knob

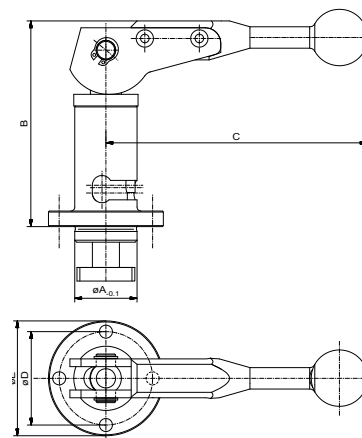
Nr.	A	B	C	D	E	
93444	32	56	55	48	59	280



Lock unit

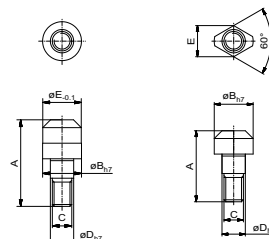
with hand lever

Nr.	A	B	C	D	E	
82714	32	106	135	48	59	1.500



Centering pin

Nr.	A	B	C	D	E	
27954	44,5	20	M10	12	19,8	60
27955	36,5	20	M10	12	16	36



#27954

#27955



Witte FixBase® elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Accessories such as wheels, hook eyes, angle plates and fitting screws see at page 264



Column connection

with Witte PWS quick clamp system

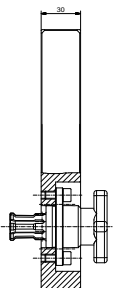
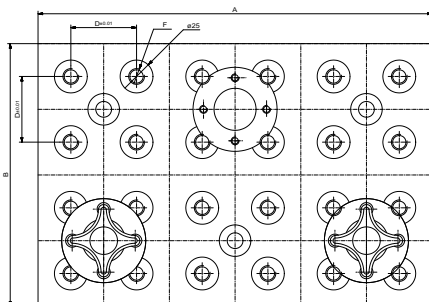
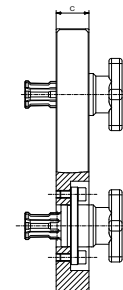
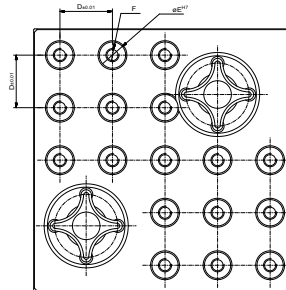
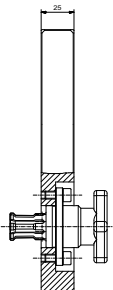
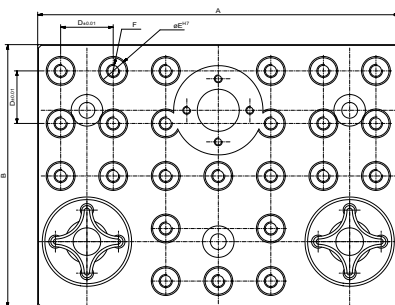
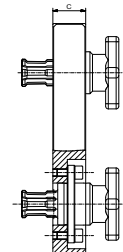
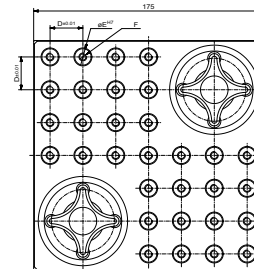
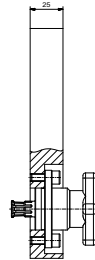
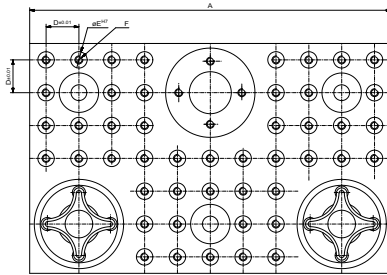
Expanding clutch bolt centers and clamps footplate on PWS grid or sandwich plate



Footplate for Witte PWS System

with expanding clutch bolt 45°

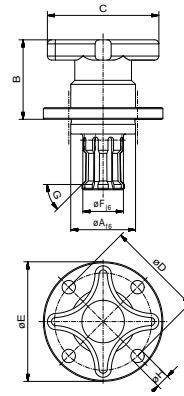
Nr.	Typ	A	B	C	D	E	F	g
93525	2	175	175	25	25	12,5	M6	2.280
93524	1	275	175	25	25	12,5	M6	3.050
92883	1	175	175	25	25	12,5	M6	2.370
92842	1	275	175	25	25	12,5	M6	3.080
92950	1	200	200	25	40	12,5	M10	3.200
92843	1	275	200	25	40	12,5	M10	3.540
92844	1	300	200	30	50	12,5	M12	4.840



Expanding clutch bolt

with star knob

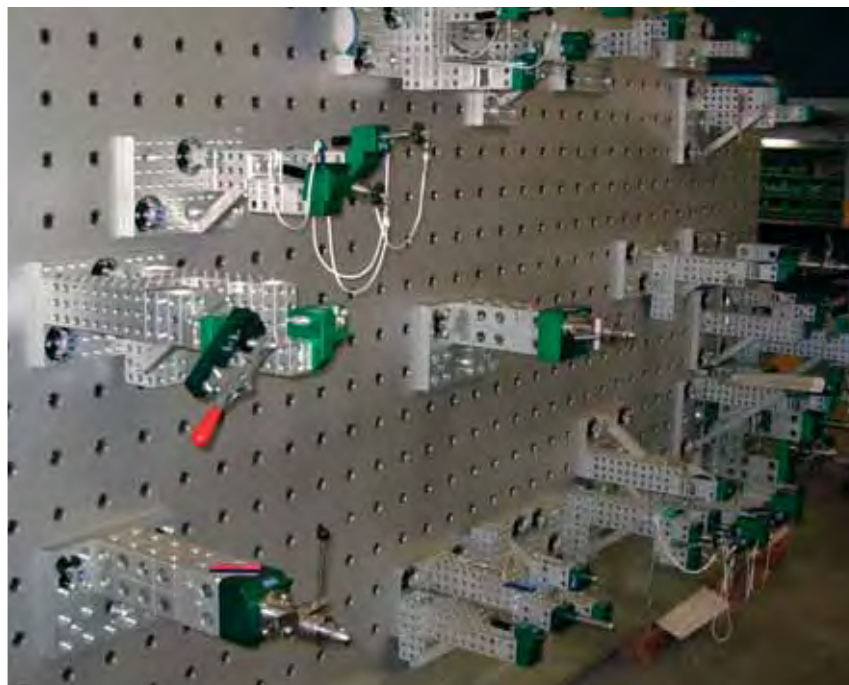
Nr.	A	B	C	D	E	F	G	H	
93523	32	39	55	48	59	12	45°	6,7	280
92755	32	39	55	48	59	20	45°	6,7	320
96109	32	39	55	48	59	20	30°	6,7	320



Footplate without bolts or locks

for Witte PWS / PPS System

Nr.	System	bolt dia.	Type	Base for nr.	
				PWS	PPS
27958	25	12 bzw. 20	1	93524/ 92842	93513
51561	25	12 bzw. 20	2	93525 / 92883	-
29375	40	20	1	92843	93514
51606	40	20	2	92950	-
33747	50	20	1	92844	93515



Sandwich plate mounted with PWS base plates using clutch bolts for grid 100mm

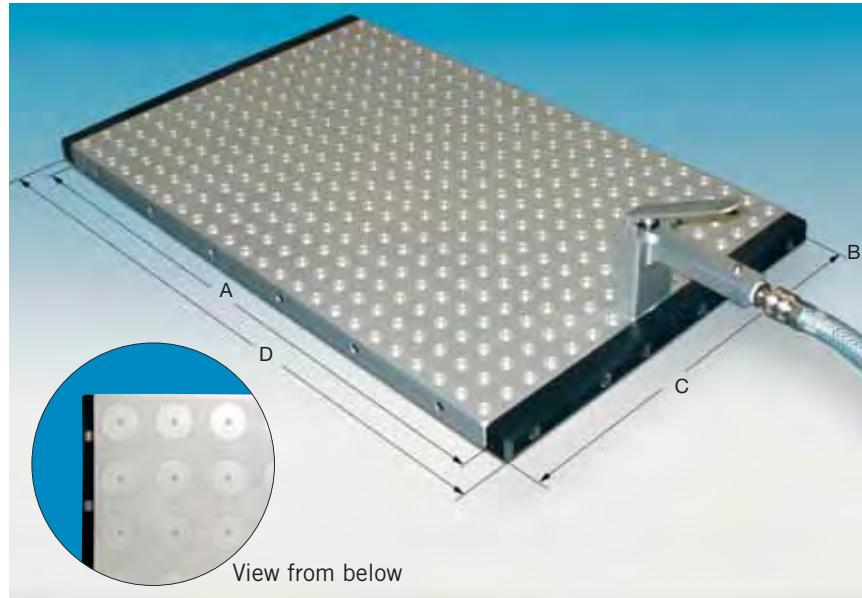


Witte FixBase® elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Accessories such as castors, eye hooks, angle plates and locating pins are shown from page 264

EUROFIX

Hovercraft plates



Material:

- High tensile aluminium min. F47

Surface protection:

- Top surface anodized

- Bottom surface PTFE coated

Grid bores:

- Fitted bores 12,5H7/M6

grids 25 to 100 mm available

Load capacity:

- Depending on surface of measuring machine but min. 200kg

Air pressure required:

>3 bar

minimal air use (volume) required

Hovercraft Plates

For moving and positioning heavy workpieces on coordinate measuring machines.

The hovercraft plates have a grid pattern on the top surface.

Underneath the plate an air layer is created in such a manner that thread sleeves, T-slots or small gaps between the measuring machine and setting up area can be bridged easily.

The air is supplied via a rapid-action coupling and a handle valve.

Hovercraft plates

with handle and integrated hand valve

Nr.	Grid	A	B	C	D	kg
81209	25	400	25	300	450	9
81050	25	600	25	400	650	16
82153	25	600	25	600	650	19
82154	100	600	25	600	650	19





Jack up trolley which can accommodate 2 base plates 600x400mm

Jack up trolley

loading systems

Nr.	Table area	Lift	kg
81945	675x675	300	75
82280	725x950	300	80

Jack up trolley with hydraulic height adjustment from 700-1000mm. Surface area is HC coated with rollers on one side for easy transfer from table to measuring area



Jack up trolley #82280

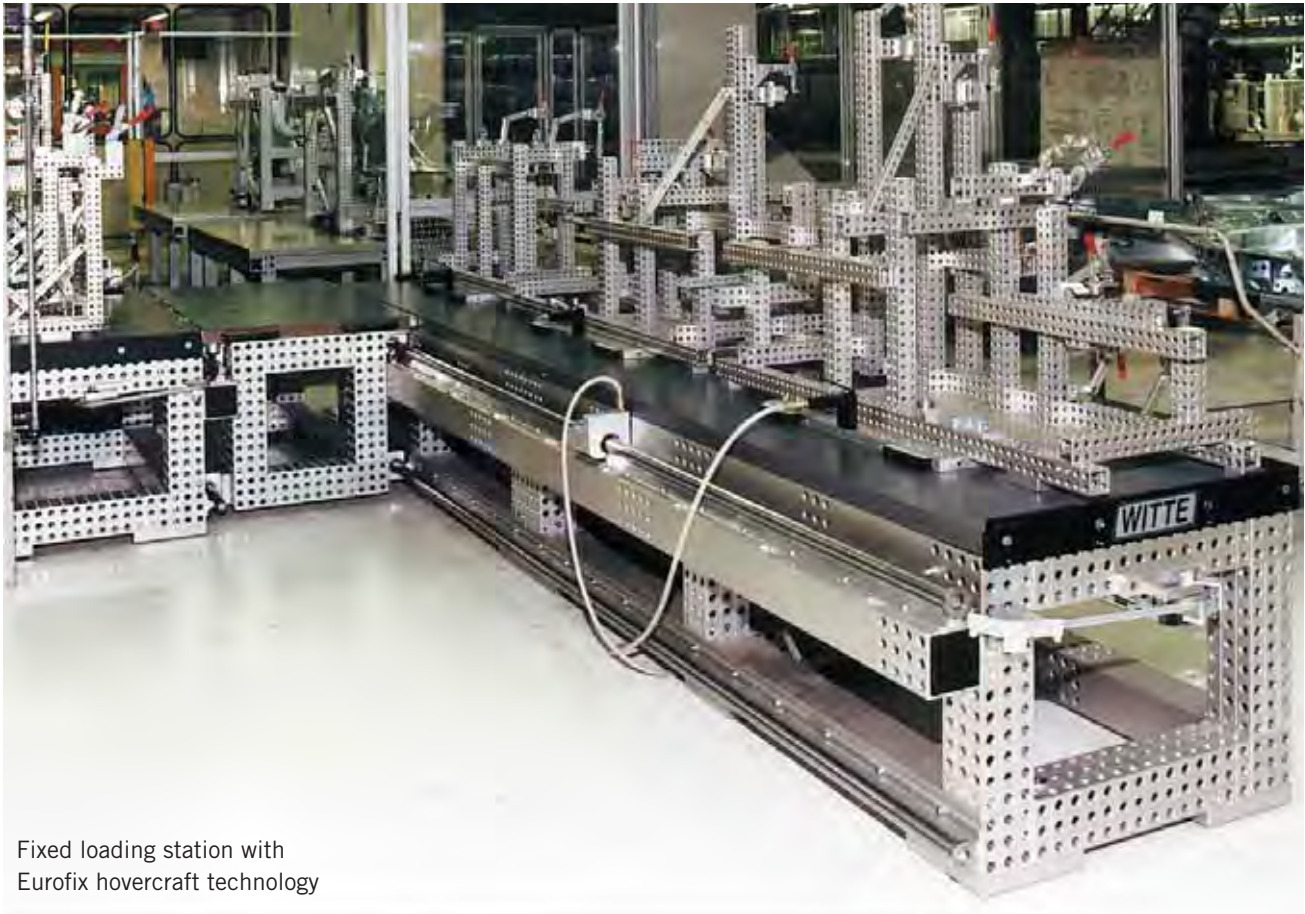


Jack up trolley #81945 used with a CMM



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Load Capacity: 250 kg, from 50kg upwards we recommend a support on the face surface of the measuring machine. Other versions and dimensions on request



Fixed loading station with Eurofix hovercraft technology



Loading station for 3 CMMs with transfer bridges for pallet exchange

i Load capacity 500kg,
evenness of table surface 0,03/1000mm².
Available with automatic pallet exchange

Pallet systems

Measuring machines are being used more and more under series production conditions.

That means setting up and standing times should be kept as short as possible.

Economically, it makes more sense to use the CMM for measuring. All time consuming loading and unloading processes can be carried out on suitable loading stations.

For this purpose Witte has developed Eurofix hovercraft pallet systems. They comprise of modular loading stations and hovercraft pallets for mounting and positioning of work pieces.

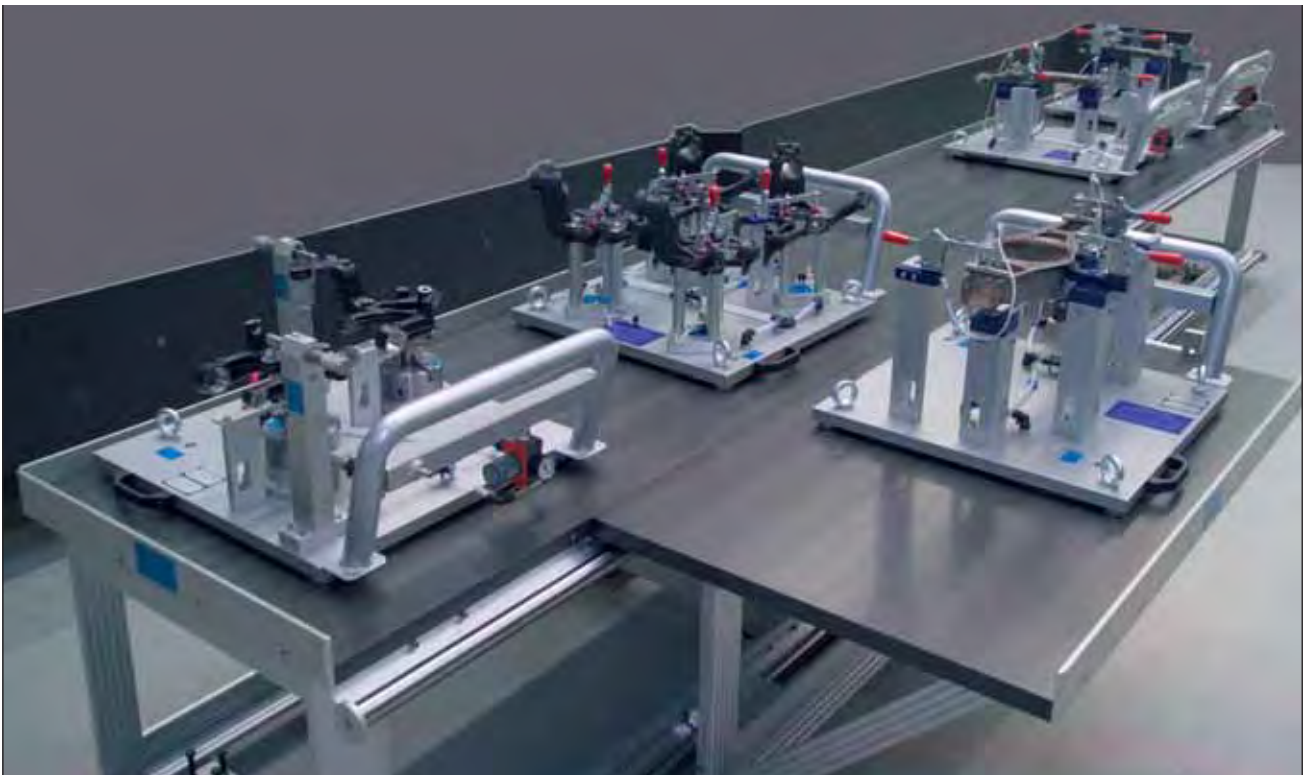
The loading station is set up directly next to the measuring machine. The understructure in accurate alu profiles enables adaptation to any surface height. Profile dimensions are selected according to size of station and weight of parts involved.

The surface is assembled using hard coated modular alu plates.

Stops all round ensure safe operation of hovercraft pallets.



Loading station with 4 places for hovercraft plates, the side of moveable transfer bridge is placed directly at the cmm table allowing transfer of hovercraft plates



Loading station with 5 hovercraft plates each mounted with a different measuring fixture



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

i Other versions on request





Mobile measuring unit

96747, with grid base plate:
800x1200, height 930mm,
grid 100 12,5/M6, Weight: 130 kg



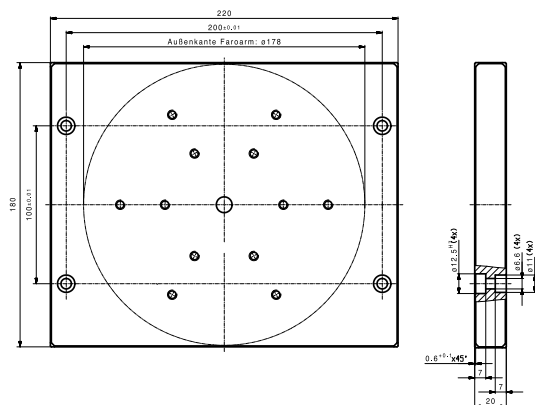
Mobile measuring unit

Nr. 284452, with height adjustable grid base plate:
800 x 1200 mm, height 930mm + lift 180mm,
grid 100, 12,5/M6
Weight : ca. 140kg



Mobile measuring unit - double

285101, with grid base plate :
1600x1200, height 930mm,
grid 100 12,5/M6, Weight: 170 kg



Accessory for above:

Adapter plate for FARO-Arm

91487

Incl. elements for connection to a.m. unit. Further adapter plates for other arms are available on request.



Vacuum Base

282446

This Vacuum Base is designed to be used in conjunction with a mobile measuring arm as a solid and reliably fixed base. An internal miniature vacuum pump achieves a maximum result for secure clamping within seconds as the clamping plate sucks to the surface. Warning lights, dial gages and a manometer guarantee safe operation during the measuring process. A variety of grids on the top surface enable mounting of all known mobile measuring arms. The Witte Vacuum Base is fully selfsufficient and needs no supply cables or wires which might hinder operating process. This gives the operator total flexibility during measuring as long as there is a non porous surface to work from. The rubber seal is designed to cater for slightly curved rough surfaces.



Dimensions: 260 x 80 mm

Weight: 3,7 Kgs

Clamping force:
maximal 4200 Newton at sea level

Battery Charger*: 100 to 240 volt

Battery pack* power: 12 volt
Light diodes indicate energy supply:
RED - Battery level low – Charge
YELLOW - Battery level half full
GREEN – Battery level fully charged

Should the battery level drop below the safe operating level then a signal will warn the operator.

End vacuum is adjusted to 200 mbar which equals 80%

(*): Parts are included in delivery



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

i Other versions on request



Milling and modelling table

For creating, positioning, working on clay models.
Modelling tables are equipped with a mirror enabling visualization of full model using scaled half models.
Milling tables enabling modelling and later machining of mounted models. Models can be positioned repeatably for machining in several steps .

Dimensions:

Length from 1.000 – 2.500 mm

Width from 800 – 1200 mm



Modelling table

For preparation and modification of clay models, i.e. inner doors. Models are worked on manually at optimal height and angle and can even be positioned in car line in an inner meisterbock. All linear movements as well as outward movement of castors are hydraulically supported. The base plate is equipped with sleeves so that repeatable exchange of different clay models is possible.

Technical data:

Length 1.000, width 800 mm

Height (max. when plate vertical) 1.680 mm

Weight including door carrier for clay models 230 kg

Max load capacity (in horizontal end position) 70 kg



Front interior model unit

Ergonomic modelling unit comprising four single components

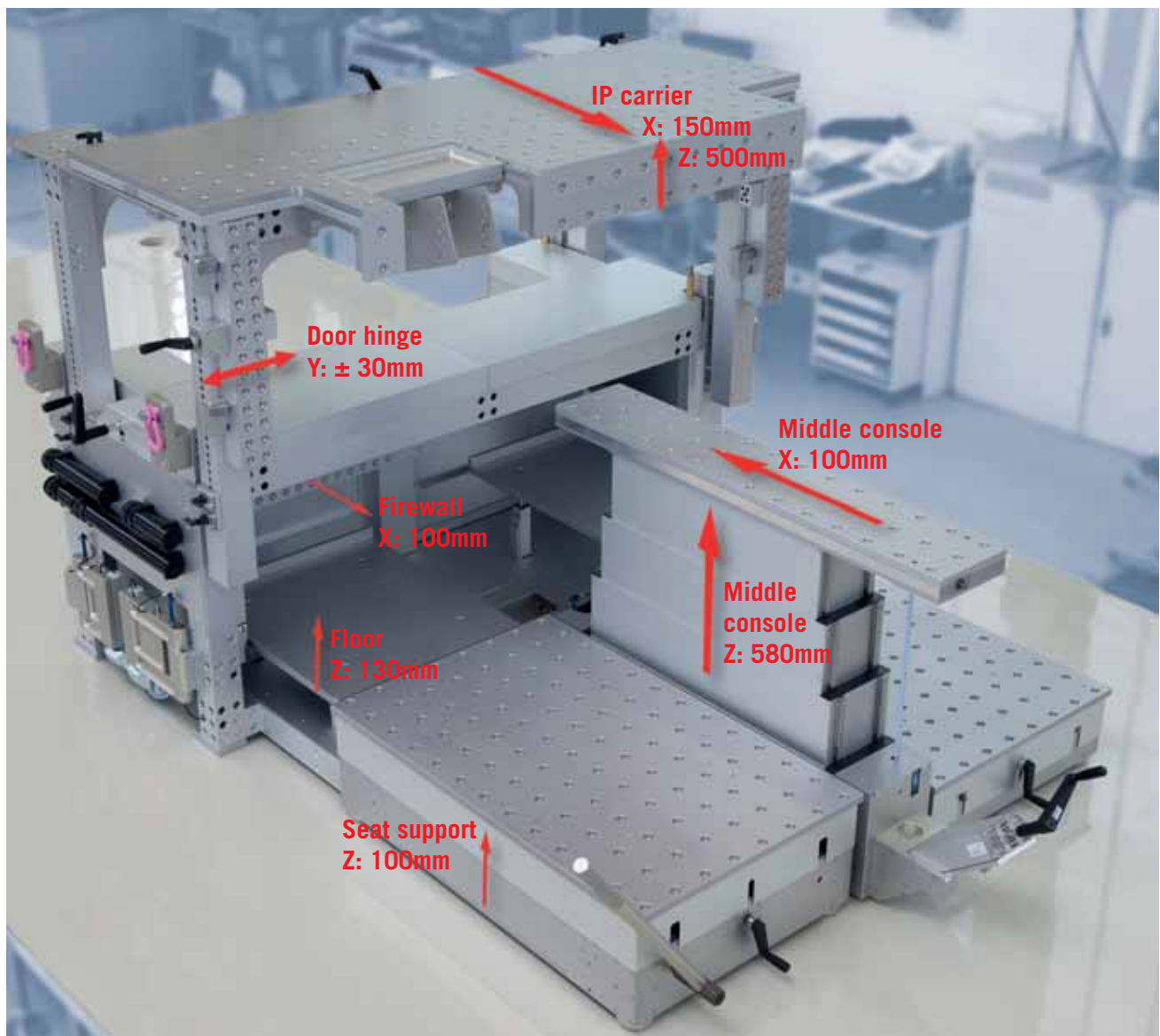
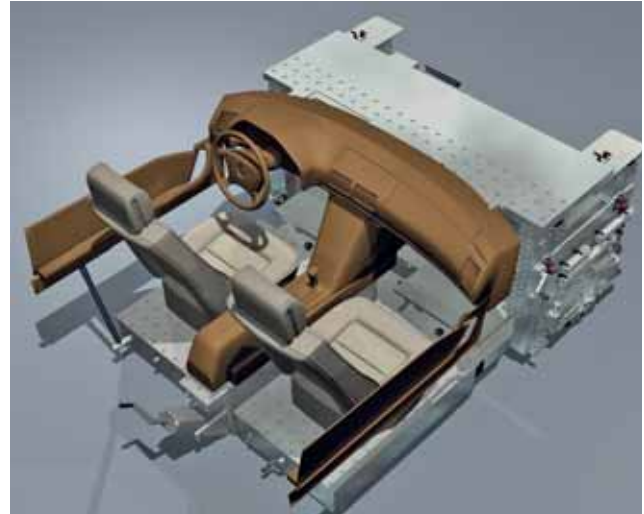
- Instrument panel with steering wheel connection and option to mount inner door models
- 2 dockable seat supports
- Dockable middle tunnel

The I-panel unit has several adjustment possibilities

- Length (X) 150mm
- Height (Z) 500mm
- Pedal supports additional 100mm in X
- Floor 130mm in Z
- Optional door supports +/-30mm in Y

Seat supports are height adjustable by 100mm in Z

The middle tunnel is adjustable in Z by 580mm and in X by 100mm

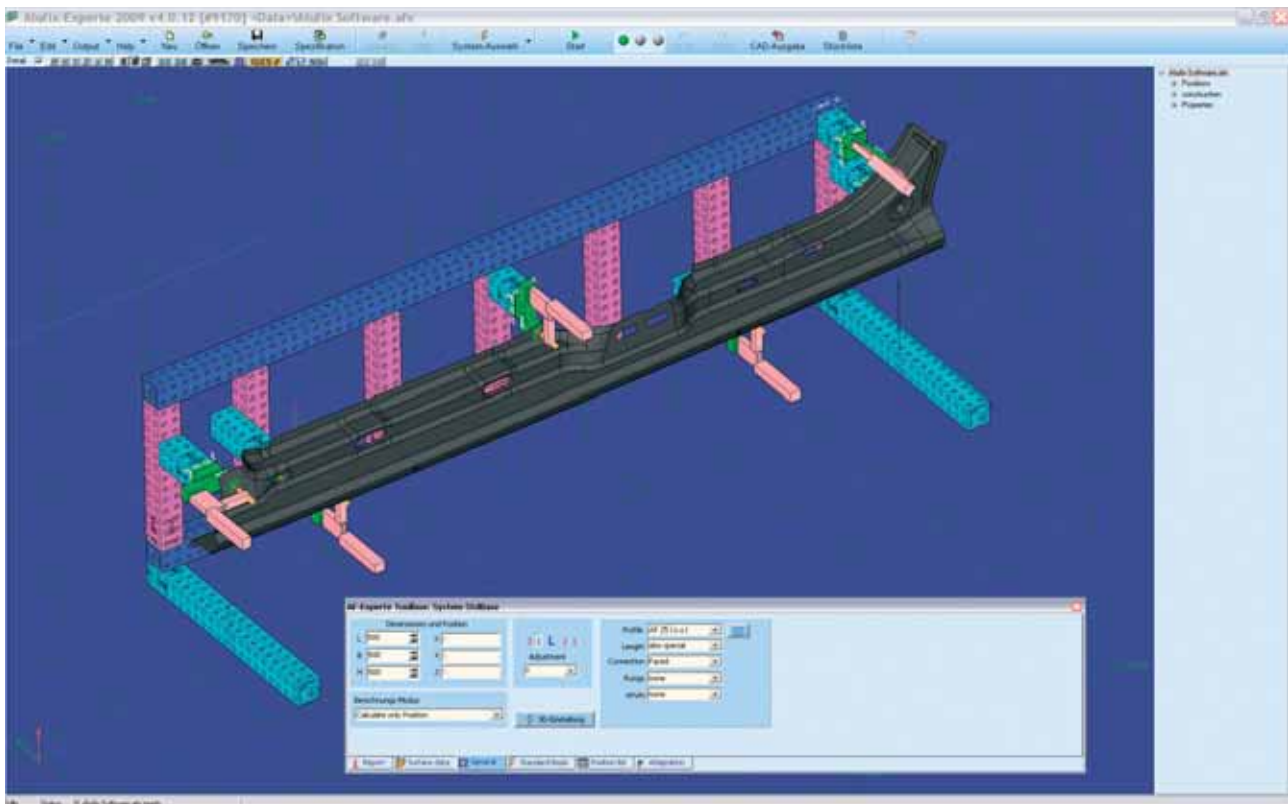


Alufix Expert 2014

3D Design Software #85344

Alufix Expert software makes automatic designs for fixtures with corresponding partlists. You choose the system and define clamping points. The software calculates on the basis of this information complete solutions and variations of a fixture. Simply select the desired Alufix system, the basic type of build (frame or plate), the grid size and the position and function of clamping points. On the basis of this input the software calculates complete solutions and variations. For checking purposes and measuring off of surface vectors additional part data in all established formats can be impor-

ted. Pictures show some variations, which have been calculated by the software. The clearly structured, self-explaining software is easy to learn. Two separate but complementing help functions (Tool tips and Operation Manual) support users at all times. The design data is exported in either IGES, STL or VRML format (i.e. for offline programming of coordinate measuring machines), or can be transferred with a macro and the corresponding parts library in Catia V4/V5, Unigraphics or Autocad.




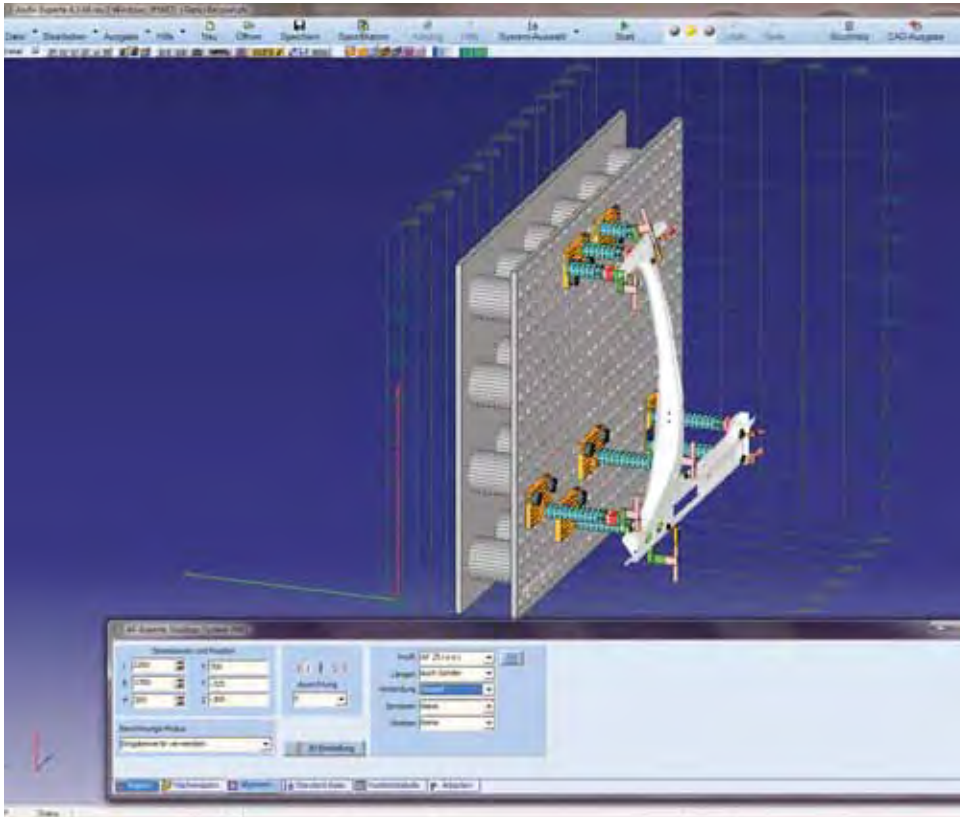
Partlist for C:\Dokumente und Einstellungen\roeber\Eigene Dateien\...

Pos.	Qty	No.	Description	AF	Dimensions	Weight
1	1	20426	Bar Light	25	50	360
2	2	22950	Bar Light	25	50	2400
3	2	24245	Bar Light	25	50	360
4	2	24811	Bar Light	25	50	7560
5	2	25375	Bar Light	25	50	480
6	2	25658	Bar Light	25	50	800
7	7	26745	Bar Light	25	50	8170
8	7	Sonder	Special	25	Special	2306
9	1	Sonder	Special	0	Special	141
10	1	Sonder	Special	0	Special	151
11	1	Sonder	Special	0	Special	153
12	1	Sonder	Special	0	Special	5

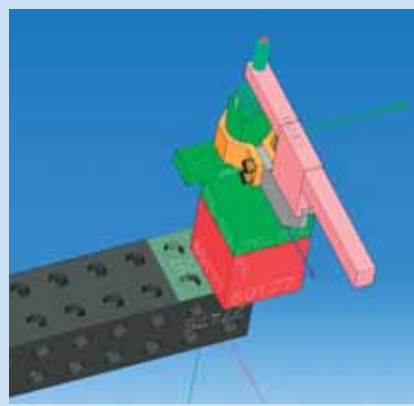
Buttons: Print, Save, Quick-connectors, No connectors, Screw connectors

The part is positioned in car line using Alufix 25. The software can export parts lists (see left), pictures (JPEG), data (IGES, STL, VRML) or CAD data (Catia, Unigraphics). For direct import of surface data a license is required for the corresponding format.

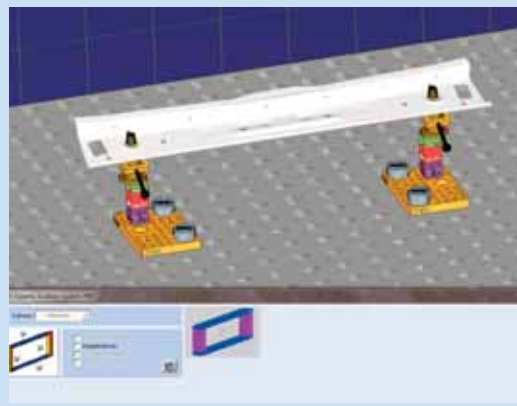
 Individual training is available in house or it can take place on customer's premises under agreement against surcharge



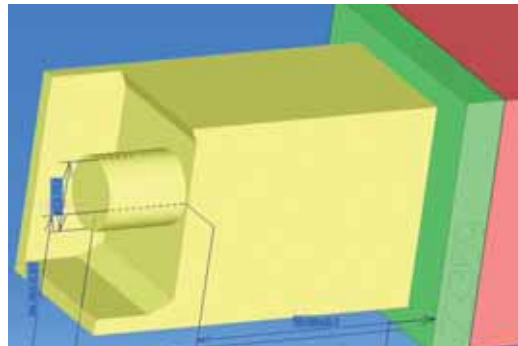
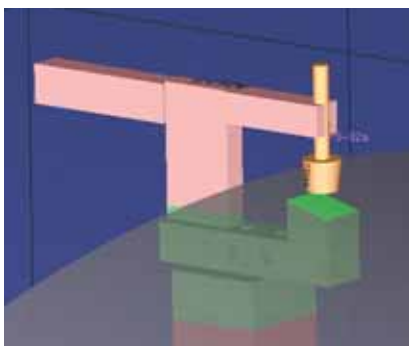
The input menu can be positioned freely on the surface and switch to show or hide in the format as required. The software accesses all common Witte Alufix systems. Even grid plates as shown left, are optionally used for clamping.



Complementary module: Surface cut for contour part



Different colouring shows the user in which modus the software currently is (definition/presentation). The parts marked orange have just been selected for editing, dark components are either already calculated or have been changed in a different programme module (inactive)



Complementary module: Adapter dimensioning



FIXMES

Alufix parts library for CAD systems

Fixmes is an Alufix parts library on a geometric basis for designing and documenting fixtures. Using Alufix standard elements fixtures can be built in a fraction of the time required previously. By designing the fixture on-screen expensive idle-times of the measuring machine are avoided.

The principle:

at the CAD workplace the user designs a desired fixture for workpiece machining or measuring using Alufix components. To do so he can use all parts available in the Fixmes library..

The selection is made according to one of the following features:

- Item No.
- Name
- Dimension

The parts of the fixture can be displayed as a wire model or solid. For a clearer image and an increase in speed individual planes or elements (holes) can be excluded. A printout of the finished fixture includes a parts list.

The advantages:

- Shorter design times
- Better prolonged use of measuring machine
- Timely preparation of fixture
- Documentation for later repeat assembly of fixture
- Short term changes can be carried out quickly
- No training necessary,
- CATIA or AutoCAD functions are utilised
- Also for off-line programming

83677 Fixmes Library für Catia V5

Elements of Alufix modular fixturing system are stored as *.catpart and *.catproduct files.

In addition a CATIA catalogue with parameterized parts is available on request. Elements can be selected according to different criteria such as item number, description or dimensions.

92562 Fixmes Library für Unigraphics NX5

Alufix elements stored with attachment *.prt

83676 Fixmes Library for AutoCAD

Alufix elements stored with attachment *.dwg

82157 Fixmes Library IGES Format

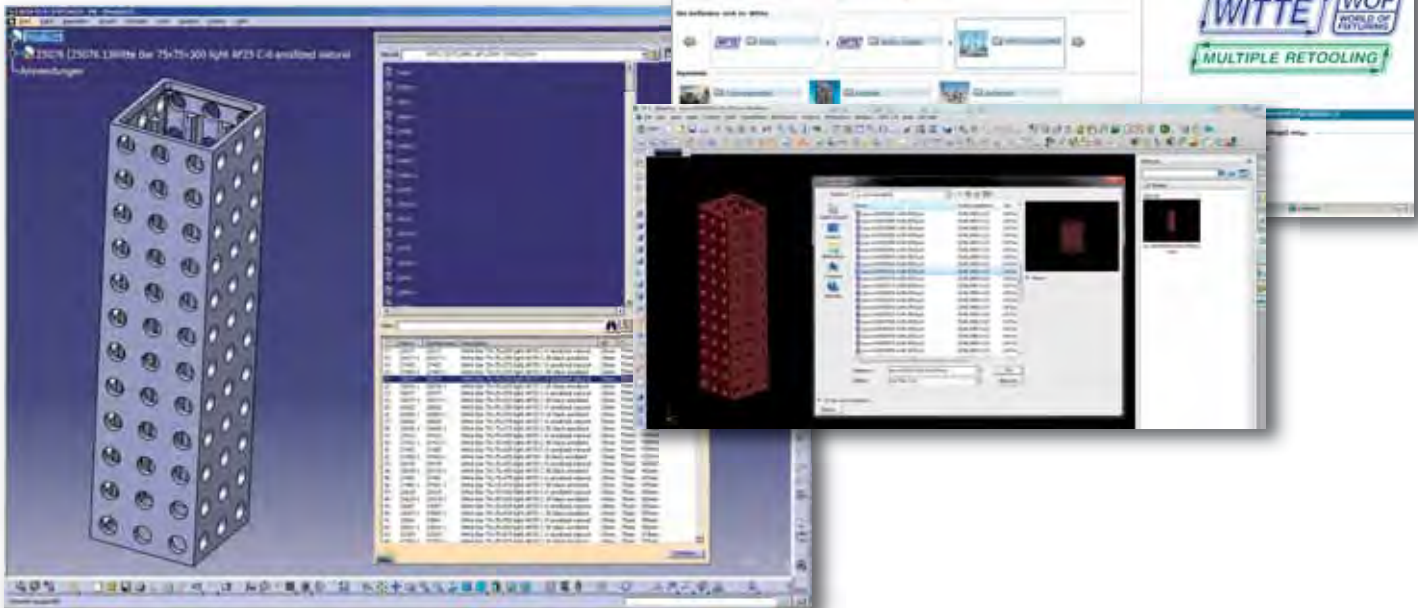
Alufix elements stored with attachment *.igs

82662 Fixmes Library STEP Format

Alufix elements stored with attachment *.stp.

In addition we also offer a download service from internet under: www.partserver.de

After registration Alufix components can be downloaded free of charge in all native or universal formats under this address.



Assembly simulation

Macro programme from CATIA V5, #98098

CATIA V5 module assembly simulator works complementary to Expert software 2011 and Fixmes parts libraries.

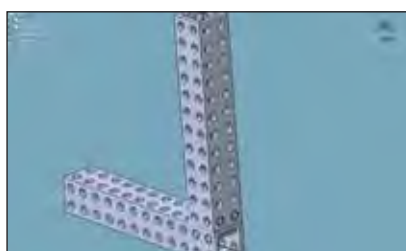
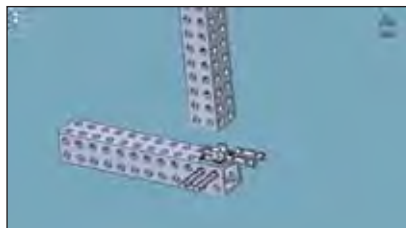
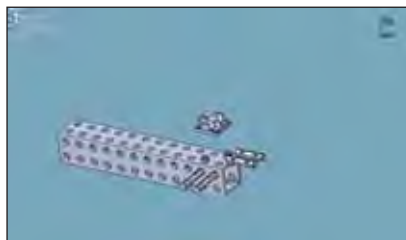
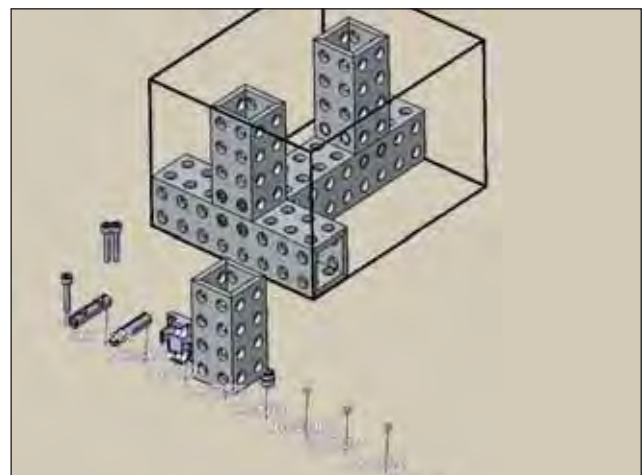
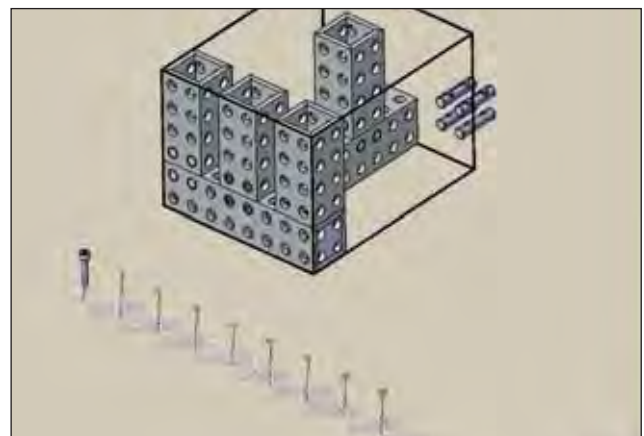
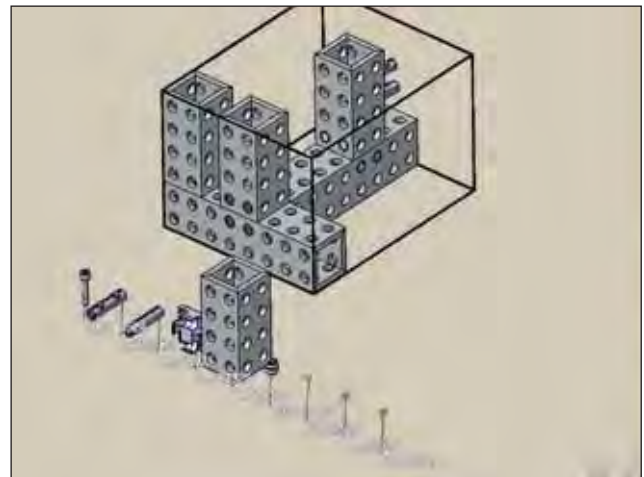
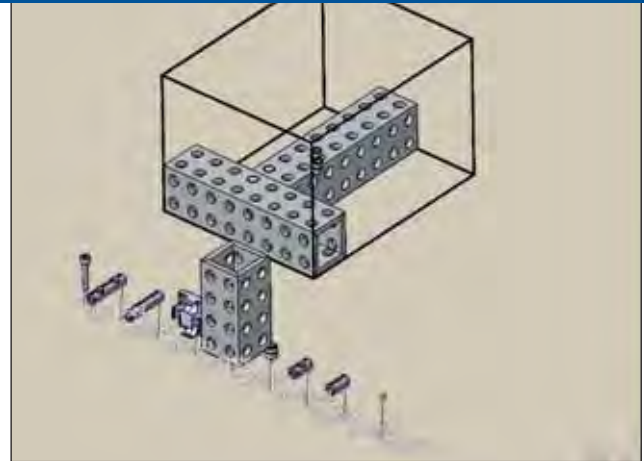
To simplify assembly this module shows the user step by step how and in which sequence single Alufix components are put together in an optimal way after registration

First of all the macro investigates all characters and positions of components, which are available for a connection.

On the basis of this information connection elements are automatically proposed. The user can change quantity and position of those elements or exchange for other elements.

Secondly the software calculates the optimal assembly sequence for the basic items including connection elements. As documentation or operation manual the complete process can be saved as a graphic simulation and shown again and again.

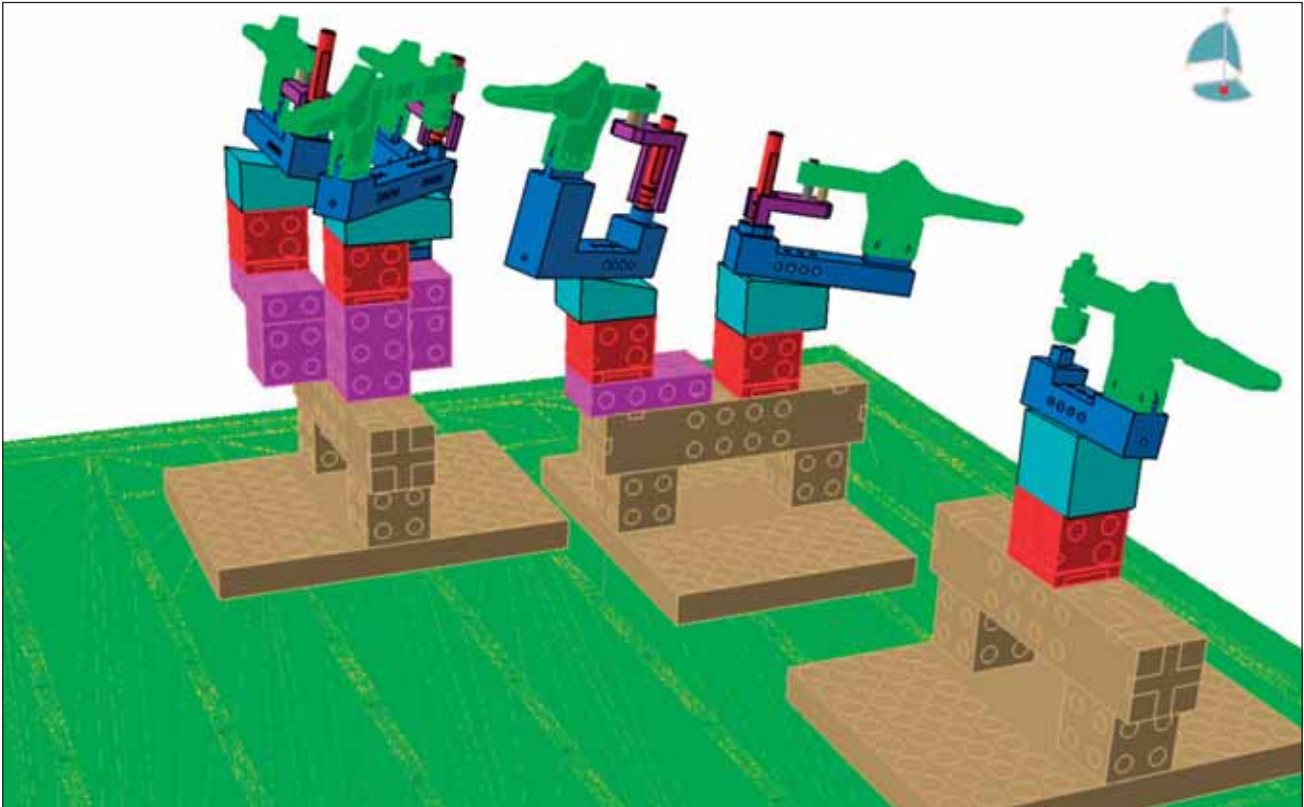
Fixture building is considerably speeded up and simplified especially with regard to various connection elements.



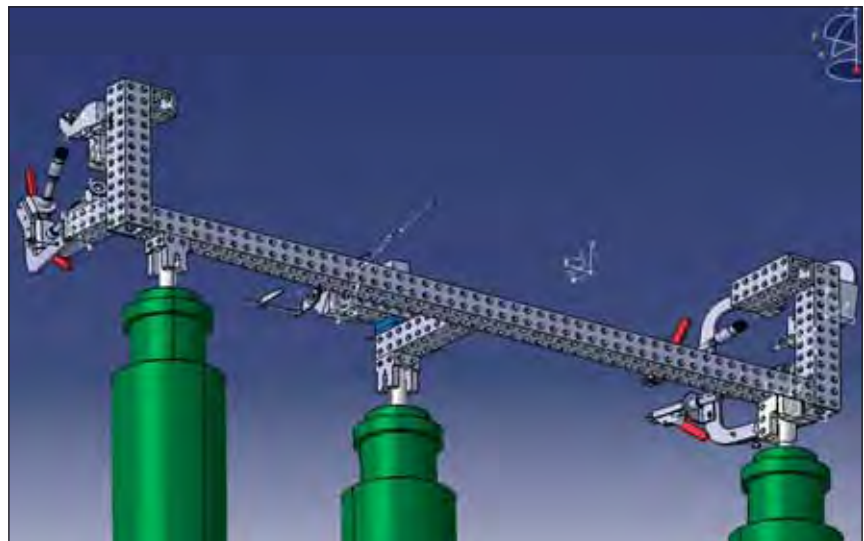
ALUFIX

Cross System Solutions

Alufix can be combined with other systems such as BMW, DEA Five etc. There are a variety of special parts and adapters available.



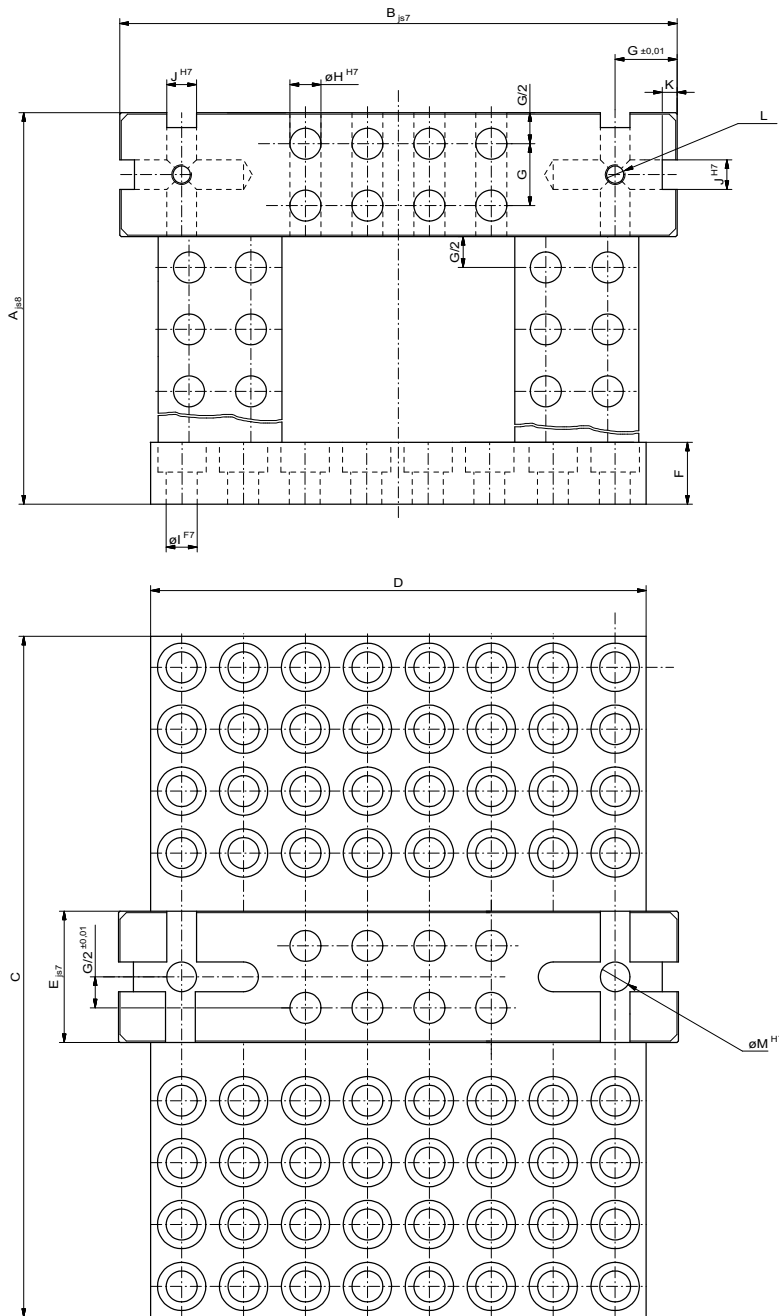
 Detailed information on request



Support

BMW / ALUFIX 25

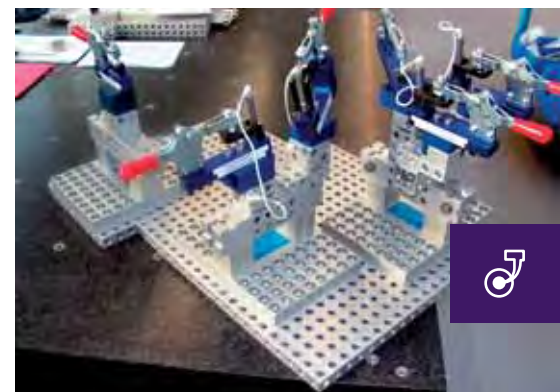
Nr	A	B	C	D	E	F	G	H	I	J	K	L	M	\bar{g}
82585	125	225	275	200	50	25	25	12,5	12	12	5	M8	12	2.800
82586	225	225	275	200	50	25	25	12,5	12	12	5	M8	12	3.100
82587	325	225	275	200	50	25	25	12,5	12	12	5	M8	12	1.570
82588	425	225	275	200	50	25	25	12,5	12	12	5	M8	12	3.500
82589	525	225	275	200	50	25	25	12,5	12	12	5	M8	12	4.320



These supports (including a base plate with grid 25) are used on grid plates with a 100 grid.

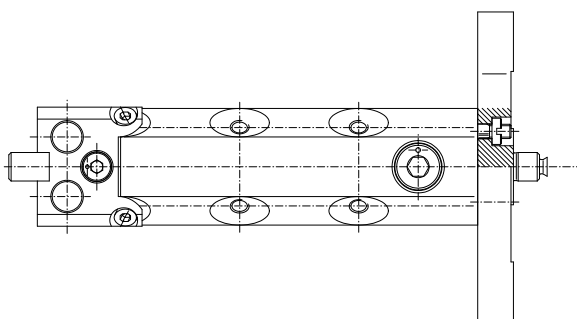
They are positioned on grid plate with the help of grid bores spaced at 25mm. Adaptation to BMW system is possible on top surface (left and right) and at face ends.

Alufix can be mounted in the middle.



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

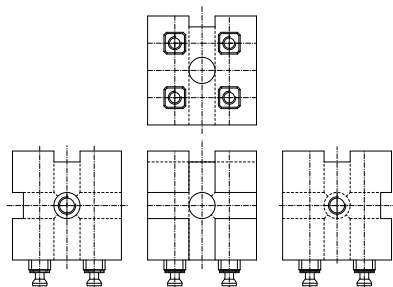
Other versions on request



Support

BMW-Alufix 25

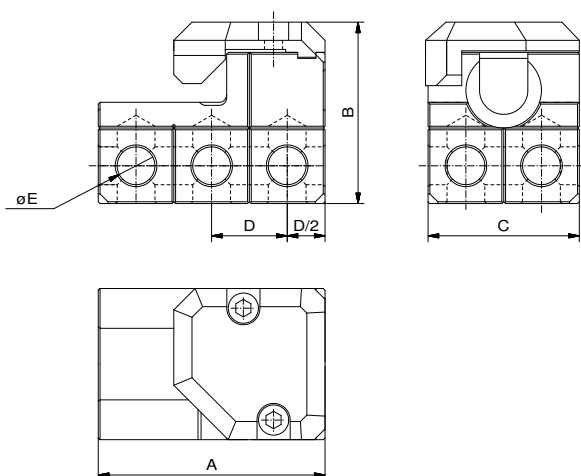
Supports #90589 to #90592 are still available on request



Adapter AF 25


BMW-Alufix 25

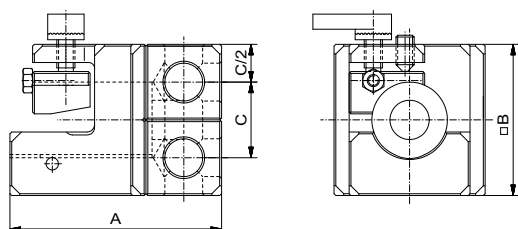
Adapter #82614 is still available on request



DEA Five Adapter


V1

Nr.	System	A	B	C	D	E	
82416	AF16	80	55	48	16	8	250
82425	AF25	75	60	50	25	12,5	320
82440	AF40	120	80	80	40	20	1.040



DEA Five Adapter

V2

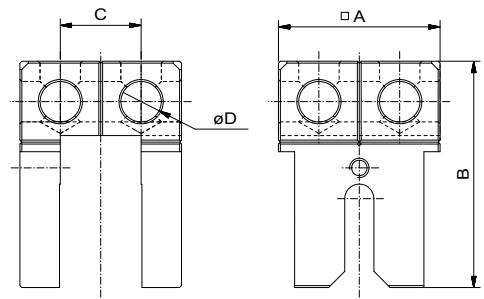
Nr.	System	A	B	C	
82454	AF25	70	50	25	260
82962	AF40	80	80	40	950



DEA Five Adapter

adjustable

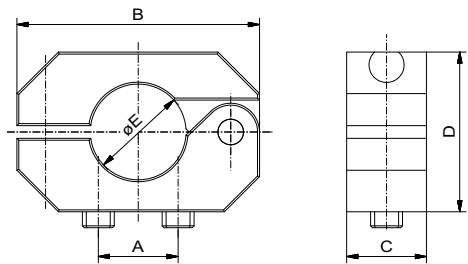
Nr.	System	A	B	C	D	
92190	AF25	50	70	25	12,5	220



DEA Five Column clamp

for Adapter V2

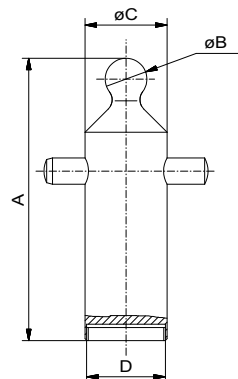
Nr.	A (AF)	B	C	D	E	
90638	25	76	25	50	30	180
90490	25	76	25	50	40	180
90492	40	76	25	65	30	190
95821	40	76	25	65	40	190



ALUFIX – DEA Five Adapter

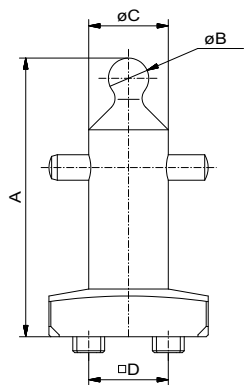
tip, with thread

Nr.	System	A	B	C	D	
82032	AF25	86	12,7	25	M24x1	145



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

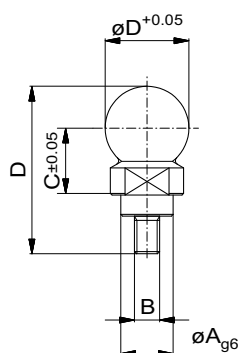
Other versions on request



ALUFIX – DEA Five Adapter

tip, with nub connection

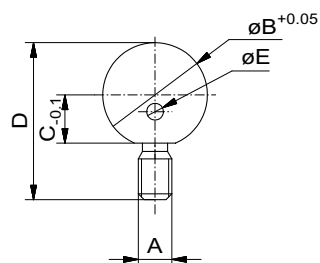
Nr.	System	A	B	C	D	
97439	AF25	87,5	12,5	25	25	210



Reference ball

for Alufix bore

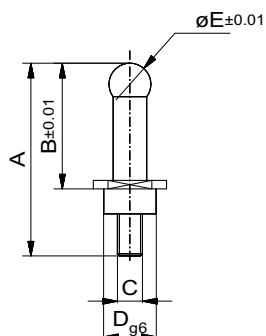
Nr.	A	B	C	D	ϕD	Material	
28403	12,5	M6	16	39	18	Aluminium	15
33035	12,5	M6	16	39	18	Steel	90
33516	20	M10	24	59,5	27	Aluminium	80
33517	20	M10	24	59,5	27	Steel	150
83117	25	M12	32	60,5	36	Aluminium	140
84344	25	M12	32	60,5	36	Steel	340



Reference ball

with thread

Nr.	A	B	C	D	E	Material	
34150	M8	25	11,5	37,5	4	Steel	64



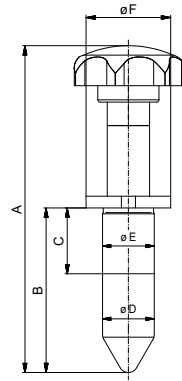
Support ball

Nr.	A	B	C	D	E	Material	
25130	46	30	M6	12,5	10	Steel	24

Positioning pin

for plate or bracket with positioning or excenter sleeves

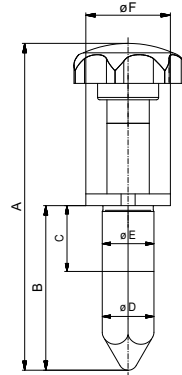
Nr.	A	B	C	D	E	F	
92213	139	70	28	22 ^{-0,1} _{-0,2}	22 _{g6}	36	135
92214	144	75	-	-	20 ^{-0,03} _{-0,05}	49	145
92215	139	70	28	22 ^{-0,1} _{-0,2}	22 _{g6}	36	180
92216	144	75	-	-	22 _{g6}	49	145



Positioning pin, sword-shaped

for plate or bracket with positioning or excenter sleeves

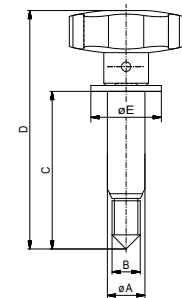
Nr.	A	B	C	D	E	F	
92217	139	70	28	22 ^{-0,1} _{-0,2}	22 _{g6}	36	135
92218	144	75	28	-	20 _{-0,01}	49	145
92219	139	70	25	22 ^{-0,1} _{-0,2}	22 _{g6}	36	180
92220	144	50	28	-	22 _{g6}	49	95
92221	144	75	28	-	22 _{g6}	49	145



Fitting screw

for plate or bracket with with positioning or excenter sleeves

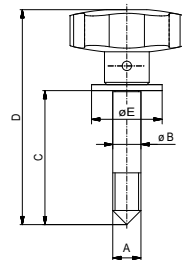
Nr.	A	B	C	D	E		
82342	ø16h6	M12	67	102	30		125
82225	ø16h6	M12	79,5	114	30		145
92488	ø15,98 _{-0,02}	M12	67	102	30		125
82489	ø15,98 _{-0,02}	M12	79,5	114	30		145



Clamp screw

for plate or bracket with positioning or excenter sleeves

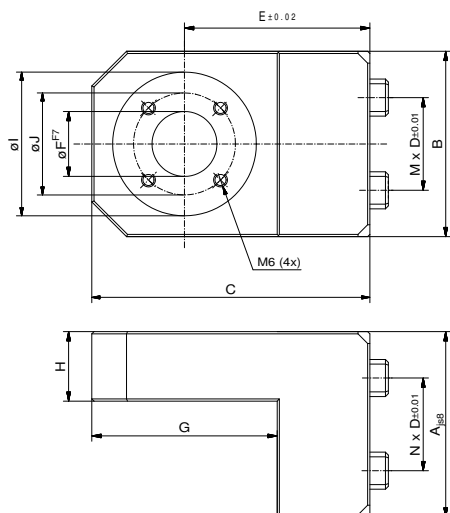
Nr.	A	B	C	D	E		
82343	M12	12	67	102	30		110
82341	M12	12	79,5	114	30		140



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other versions on request

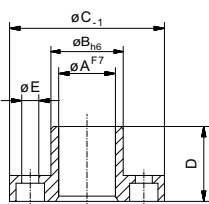




Positioning plate

for face connection

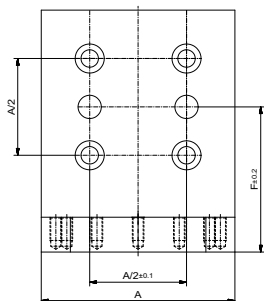
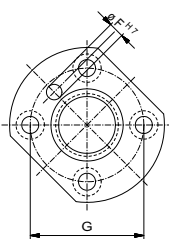
Nr.	A	B	C	D(AF)	E	F	G	H	I	J	M	N	g
27649	50	100	75	25	50	28	50	20	-	44	3	1	580
26890	80	80	120	40	80	28	80	30	62x10	44	1	1	1.120
30507	50	100	115	50	75	28	90	30	62x10	44	1	0	1.520



Sleeve

for positioning plate

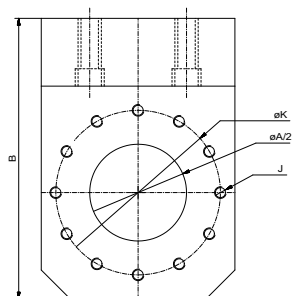
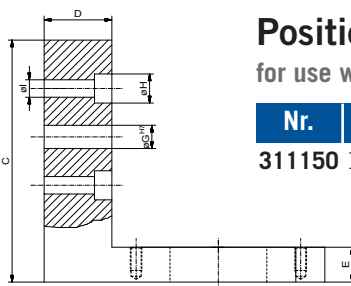
Nr.	A	B	C	D	E	F	G	g
31255	22	28	60	29	6,6	6	44	170
32631	20	28	60	29	6,6	6	44	195
26238	16	28	60	29	6,6	6	44	220



Positioning bracket

for use with excenter sleeve

Nr.	A	B	C	D	E	F	G	H	I	J	K	g
311150	100	145	125	35	18	75	12	15	9	M6	85	1.500



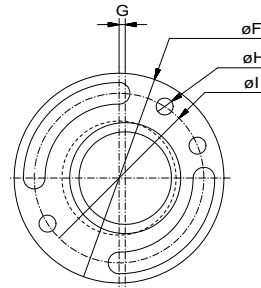
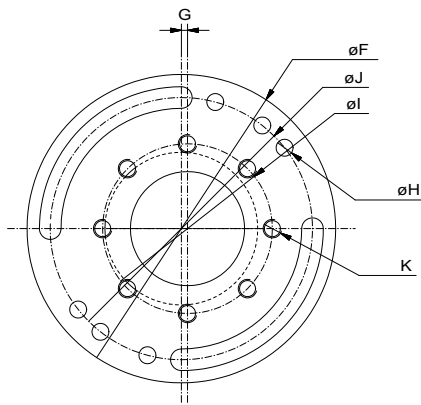
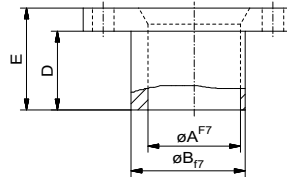
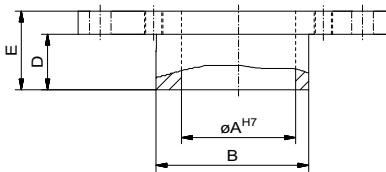
See page 242 for application example



Excenter Sleeve

for use with positioning bracket

Nr.	A	B	C	D	E	F	G	H	I	J	K	
311146	37	49,5	25	18	25,5	100	2	5,5	55	85	M6	520
311147	30	37	40	25,5	33	68	2	5,5	55	-	-	250



311146

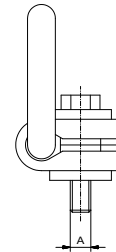
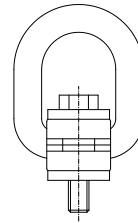


311147

Hook eye

in bright colour, including connecting screw

Nr.	A	max. load / kg	
14858	M10	500	320
14859	M12	750	330
14860	M12	1000	330
12892	M16	1500	550
14861	M20	2500	1.300
14862	M24	3000	1.500



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

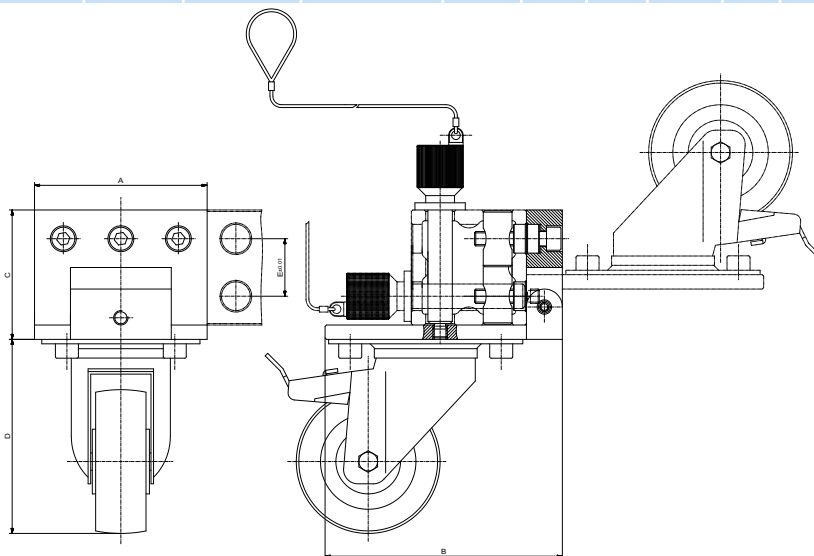
Other versions on request



Castor, fold up

single

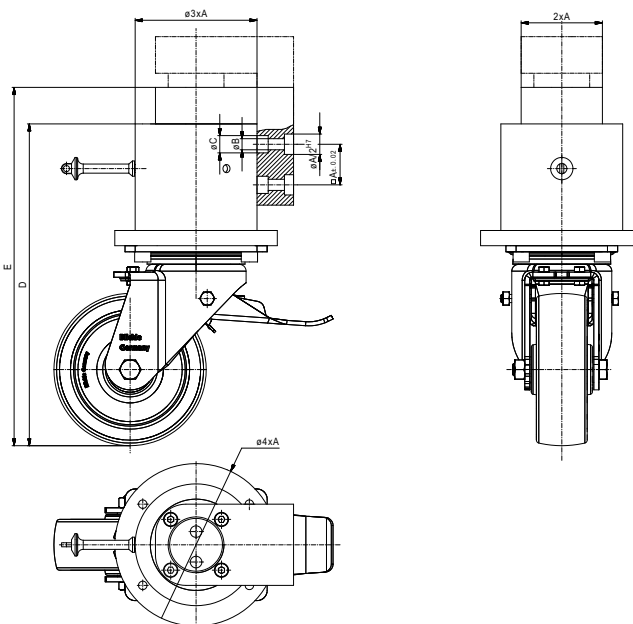
Nr.	System	Type	For bar	A	B	C	D	E	g
93315	AF 40	steerable	80x80	120	165	90	135	10	1.600
93399	AF 40	fixed	80x80	120	165	90	135	10	1.600
92627	AF 40	steerable	120x120	120	165	130	135	10	2.200
92628	AF 40	fixed	120x120	120	165	130	135	10	2.200
92593	AF 50	steerable	100x100	150	165	110	135	10	2.750
92594	AF 50	fixed	100x100	150	165	110	135	10	2.750



Castor Set

with hydraulic height adjustment.
Set of four including pump.

Nr.	A	B	C	D	E	g
281955	40	11	17	317	353	20.000



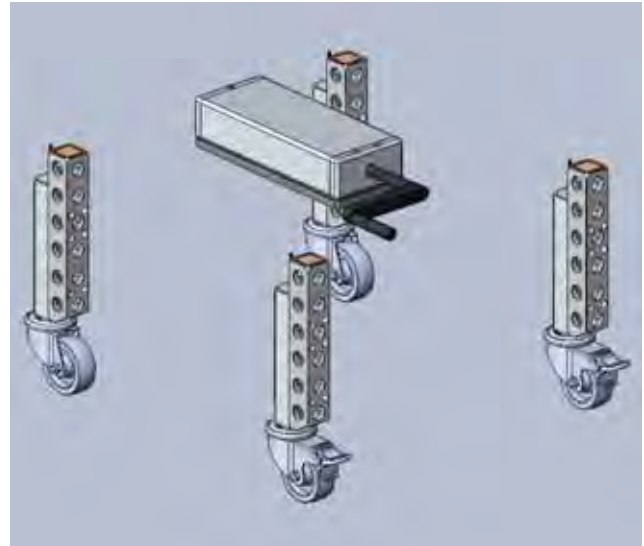
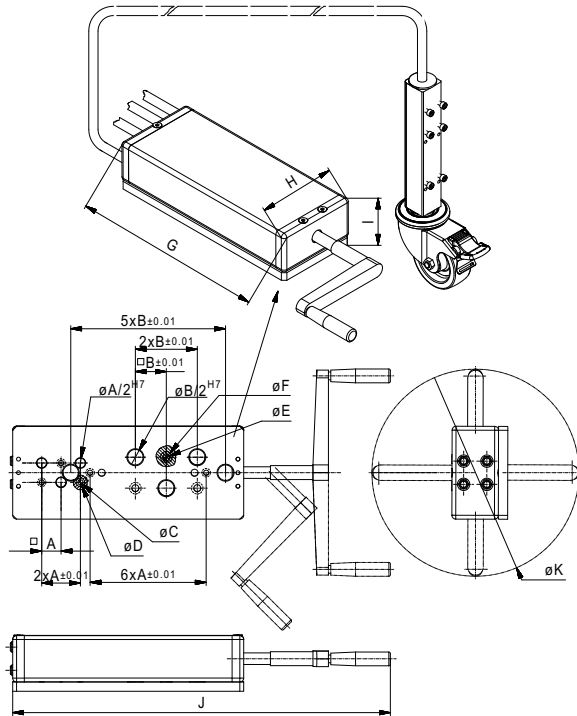
i An hydraulic foot pump #16539 is included in supply.
Connection material, which has to be configured for fixture,
is available on request



Castor Set for AF 25 and AF40

4 steerable castors with hydraulic height adjustment
Manually operated pump with crank handle

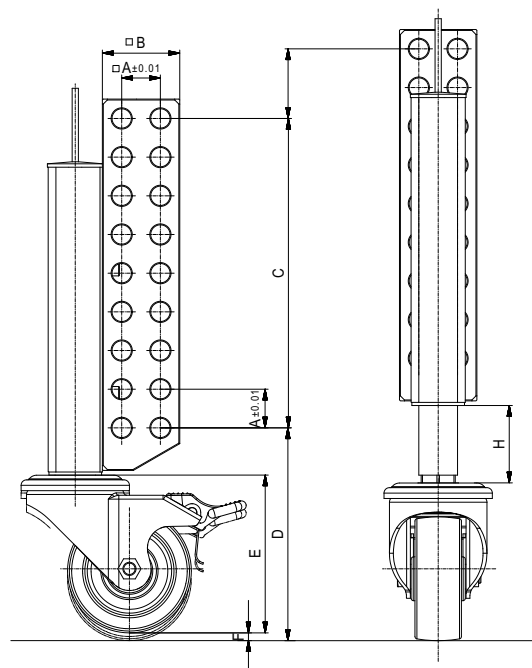
Nr.	A	B	C	D	E	F	G	H	I	J	K	kg
282479	25	40	6,6	11	9	15	299	120	73	488	270	13,8



The castor set is for fixtures up to a weight of 350kg. Lift is max 150mm. 3m of pre-configured hydraulic connection material per castor is included with supply. Profiles shown below are recommended for connection

Profiles AF for castors for hydraulic height adjustment

Nr.	A(AF)	B	C	D	E	F	G	H	kg
310548	25	50	200	137	102	5	45	50	535
310549	40	40	200	140	102	5	45	50	445





Trolley, mobile

various versions

Space saving folding function for transport



Trolley dimensions
Length 2200mm
Width 1025mm
Height 1960mm
Weight without load 170kg



Trolley,
mobile with shelves



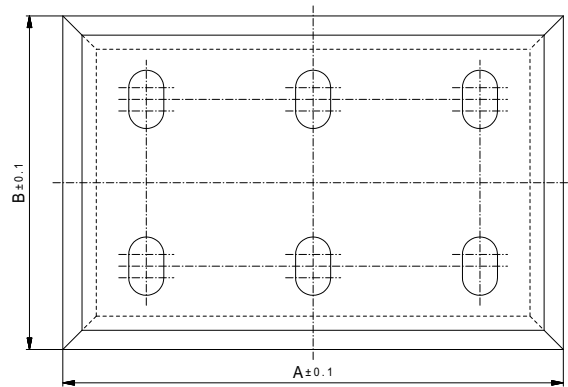
Table type
trolleys for storage
or transport



Protection frame

wooden, for Witte PPS/PWS plate

Nr.	System	A	B	C	
13010	AF 25	300	200	34,5	770
13011	AF 40	300	225	34,5	800
13012	AF 50	325	225	34,5	940



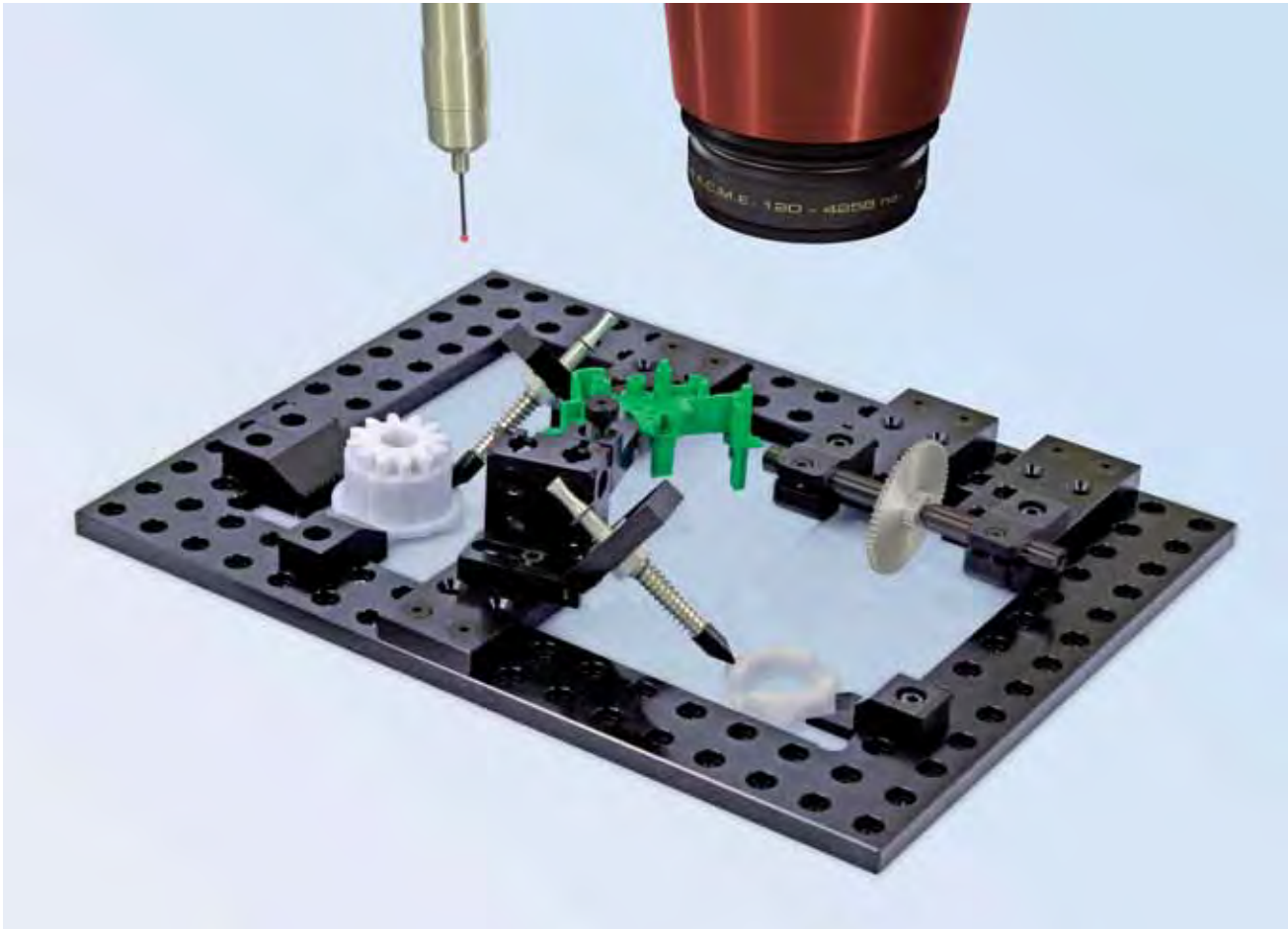
Custom made
EUROFIX hydraulic
scissor trolley
with aluminium
hovercraft plate for
heavy loads



ALUFIX CLASSIC elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

Other versions on request





ALUFIX XS

Fixturing system for small parts

For improved productivity

Measuring fixtures are prepared away from measuring equipment

Flexible and economical modular system

Quick and repeatable fixture set up with consistent precision, absolutely compatible to all other ALUFIX systems.

High precision and quality

CNC- milled elements made of high tensile aluminium or acryl ensure great accuracy and light weight.

Transparent Fixtures

Most ALUFIX XS elements are also available in a transparent acrylic material which has proven very suitable for optical measuring systems/profile projectors/vision systems.



Unlimited setting and adaptation possibilities. A multitude of top sections and adapters allow reliable, gentle fixturing of different workpieces.





FIXINSPECT

Fixinspect measuring accessories simplify and considerably speed up tactile and non-contact measuring processes. All Fixinspect accessories are mounted on workpiece features, where dimensional data is required. It is easier and faster to measure

the accessories than the features themselves. Defined contact surfaces and high-precision manufacturing of the accessories mean measuring results can be calculated back to the workpiece feature location.



FIXINSPECT

Measuring accessory for tactile measuring



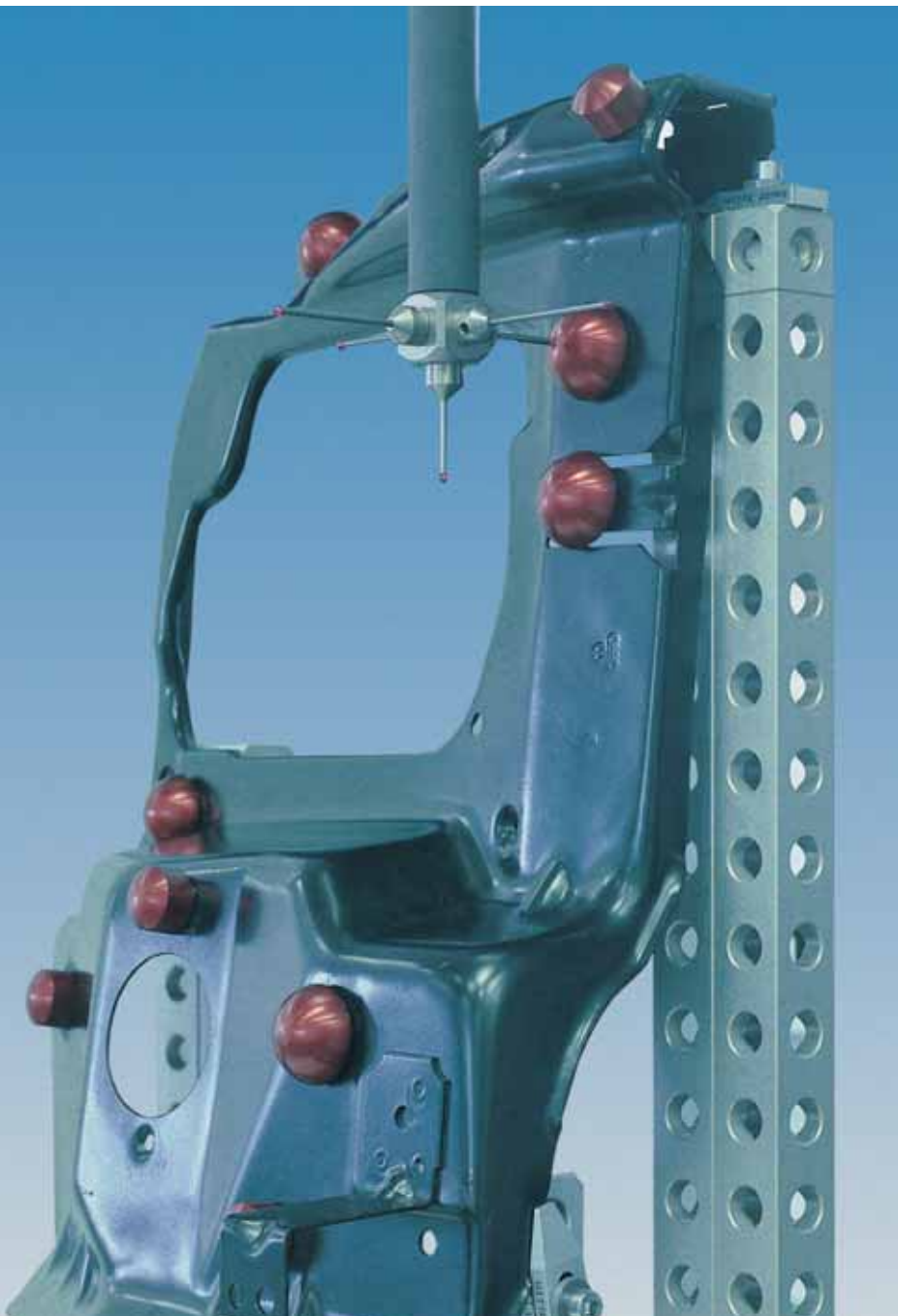
FIXINSPECT LT

Measuring accessory for Lasertracker



FIXINSPECT PG

Measuring accessory for photogrammetry systems



FIXINSPECT KR

Measuring accessory for laser tracker

MEGALU

Megalu is an extruded profile with medium tensile strength (220N/mm²), through holes and is divided by chamfer grooves.

The profile holes are 9,5mm in diameter (for Helicoil inserts M8, direct thread M10 or as access hole for screws M8).

Profiles are available in three versions:

L 64x64, L80x80, □80x80.

Megalu connections fulfill high demands on torsion and bending.

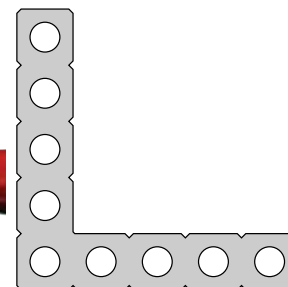
Megalu was designed to be used throughout the whole life of a fixture to ensure stable, repeatable work piece positioning.

Megalu is intended as a dedicated solution so fixture changes are not as easy or convenient as with other systems such as ALUFIX Classic.

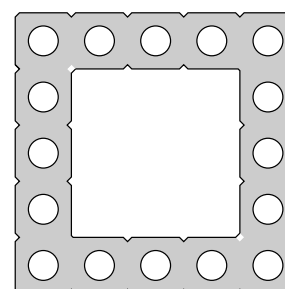
Megalu is a simple yet accurate and economical fixturing system.

This system
is no longer part of
our main range:

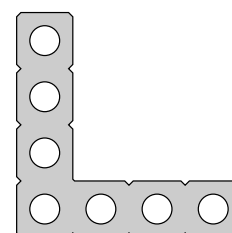
**Only
available on
request!**



MEGALU profile
L 80 x 80 mm



MEGALU profile
□ 80 x 80 mm



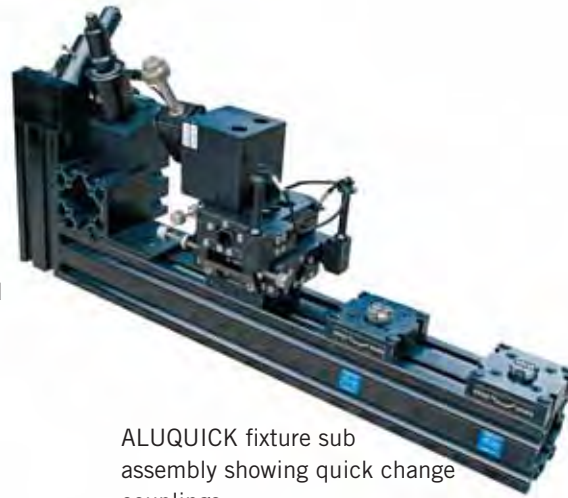
MEGALU profile
L 64 x 64 mm



ALUQUICK

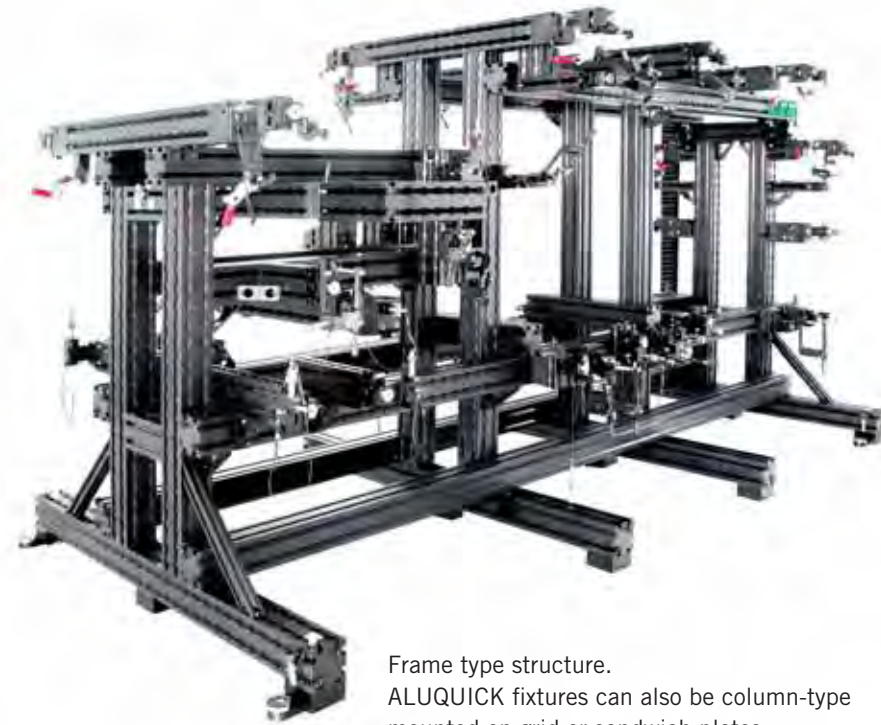
ALUQUICK Profiles
can be mounted on 6 sides

- no further machining required
- one slot width for all profile cross sections, therefore only one type of connector required
- slot geometry for tight connections
- grid and face slot for repeatability, available without grid if required
- outer dimensions are a multiple of grid
- compatible with ALUFIX Classic and ECO
- grid holes with fit feature or fine thread



ALUQUICK fixture sub assembly showing quick change couplings

This system is no longer part of our main range:
Still available,
see catalogue Aluquick

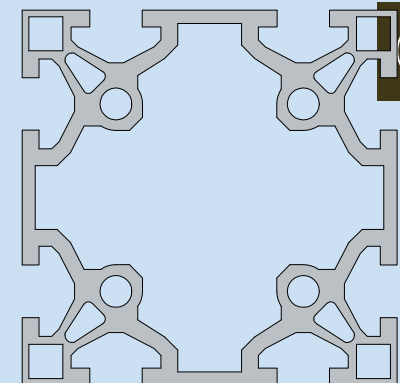
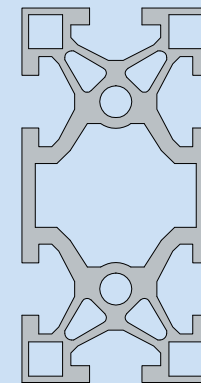
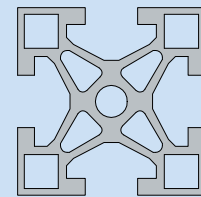


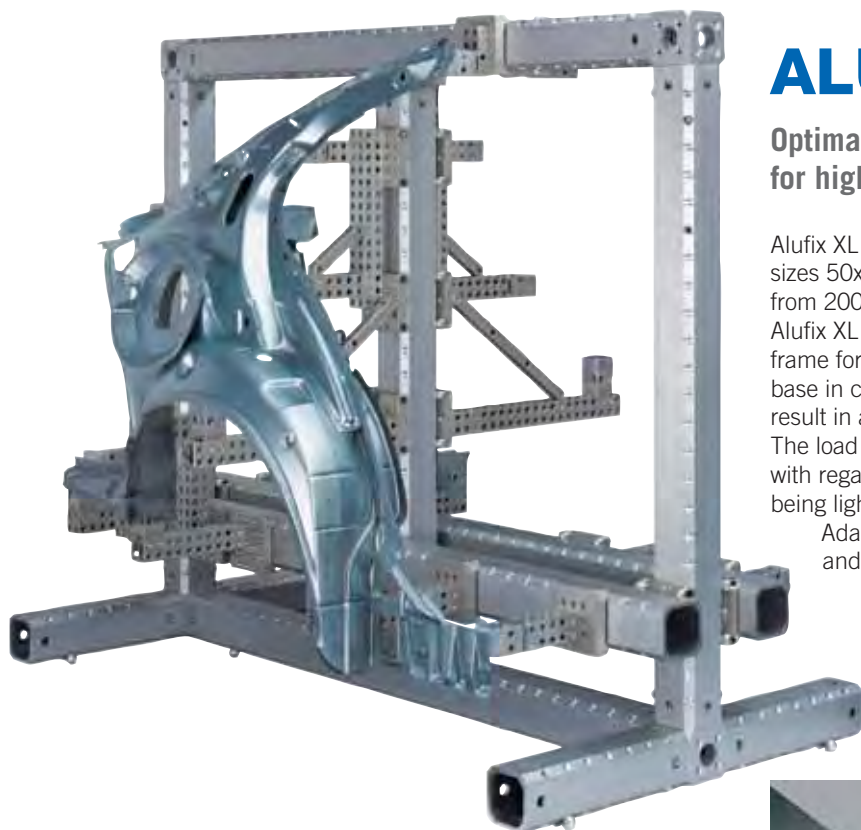
Frame type structure.
ALUQUICK fixtures can also be column-type mounted on grid or sandwich plates



ALUQUICK profiles:

- 40x40, 40x80, 80x80
- 50x50, 50x100, 100x100
- max. length: 6000 mm





ALUFIX XL

**Optimal profile cross section
for highest rigidity**

Alufix XL is available in grid system sizes 50x50 and 100x100, in standard lengths from 200mm to 10000mm in steps of 50 or 100 respectively. Alufix XL is especially suitable for large fixtures or as a base frame for Alufix Classic. This special thick-walled profile as a base in combination with 4-point ball-seat contact surfaces result in a particularly strong construction. The load spread via profile cross section offers high resistance with regard to torque or bending with an added advantage of being lightweight.

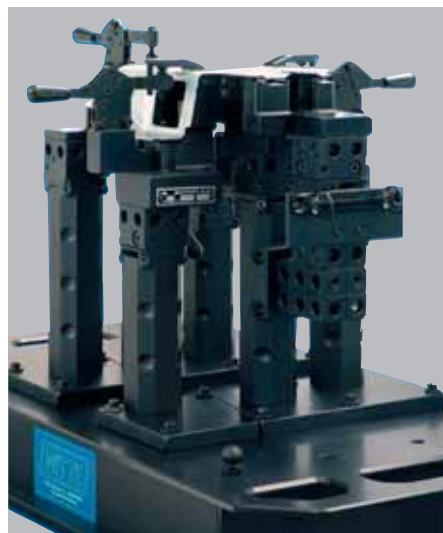
Adapter plates enable connection to all Witte systems and guarantee system integrity.

This system
is no longer part of
our main range:

**Only
available on
request!**

System sizes

System	XL 50	XL 100
Grid	50	100
Grid start	25	50
Ball-seat ø	12,5	12,5
Bar lengths are a multiple of system size	100 150 200 250 etc.	200 300 400 500 etc.



POSIFIX

Complementary system

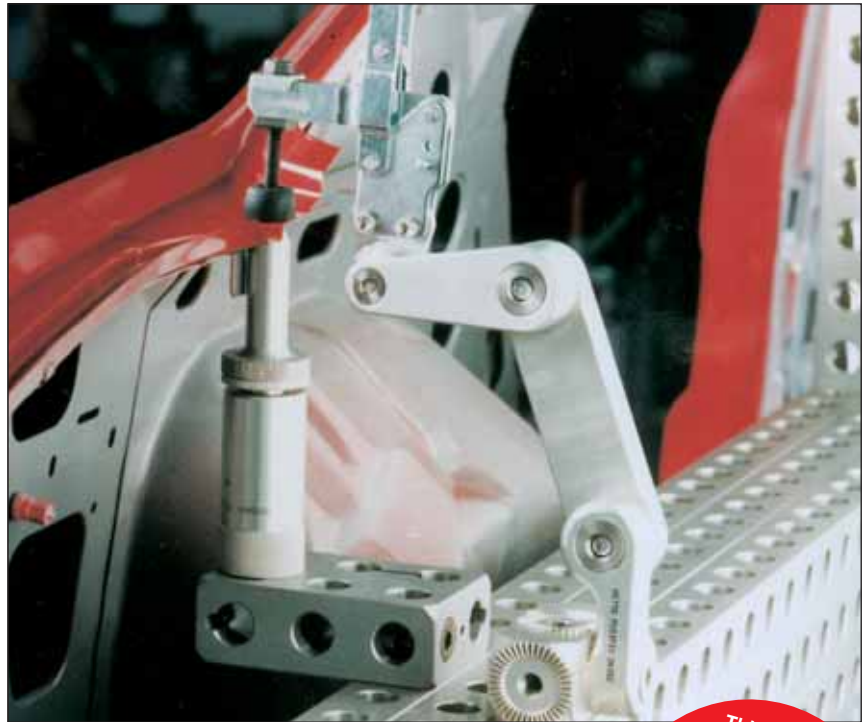
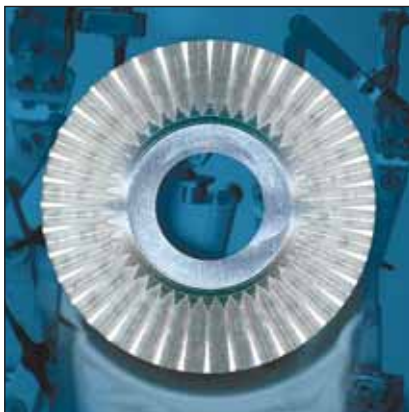
Posifix from Witte is a three-dimensional jointed arm system made of high-tensile aluminium.



With Posifix elements a multitude of contact surfaces, positioning aids, styli extensions for measuring machines etc. are accurately and repeatably carried out.

Typically characteristic for this product are the serrated grooves, which allow a form fit.

The differential washer features two serrated faces with 9° increments, which are slightly offset from each other. This allows for even finer adjustment of angle settings of 4,5° or 2,5°.

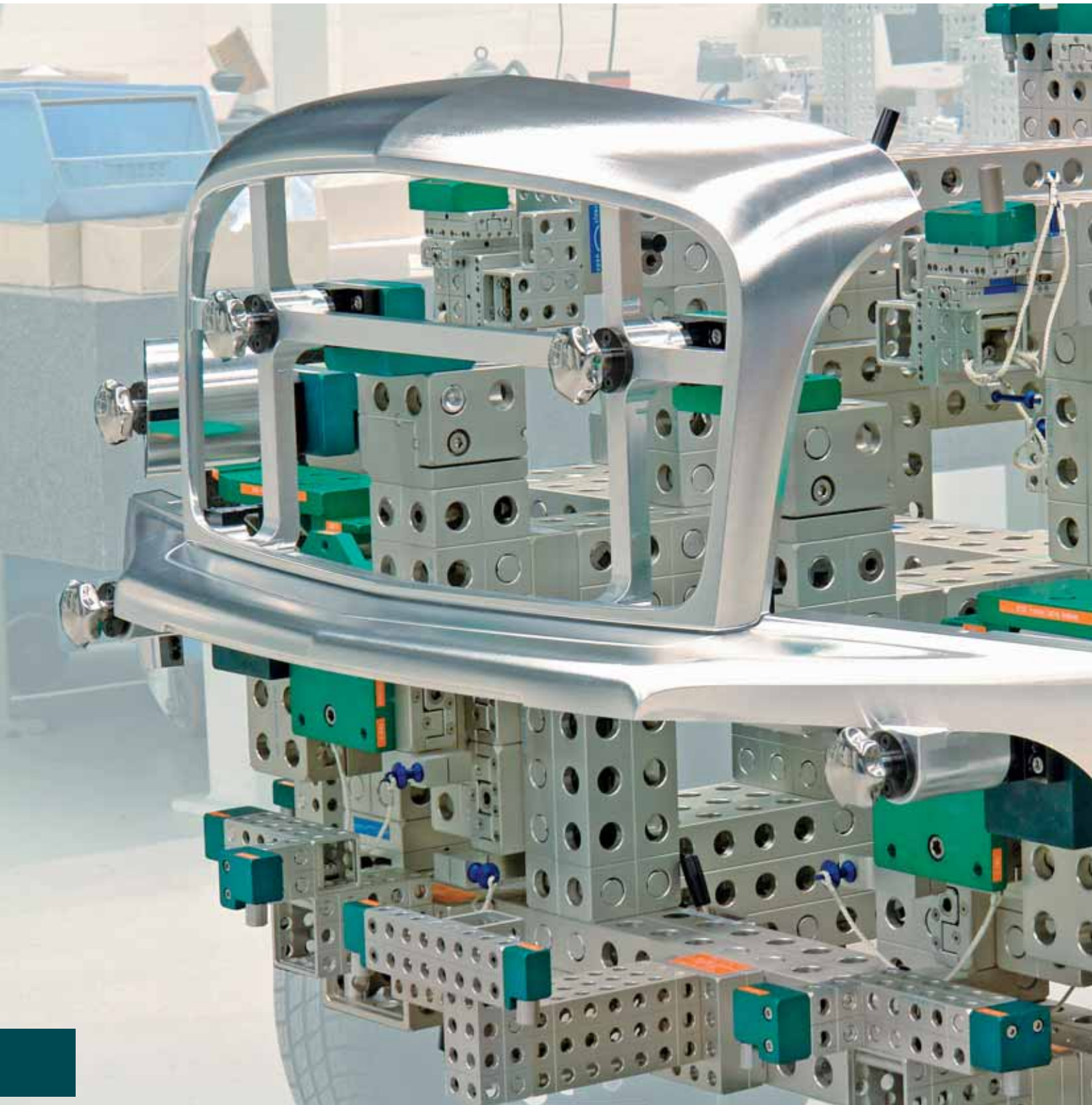


Fixture with Posifix to position toggle clamp, using reducer and angle adapters

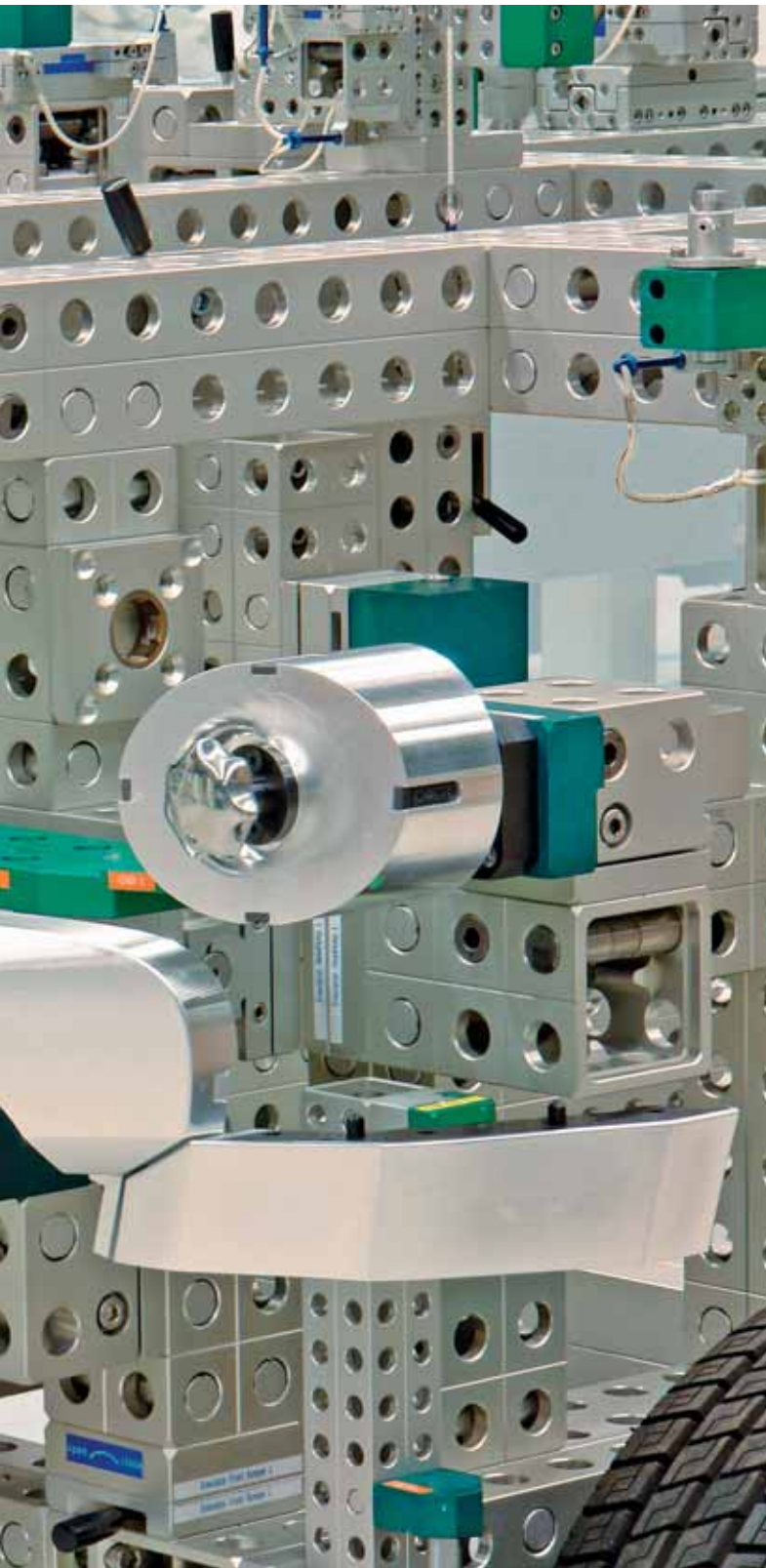


*This system is no longer part of our main range:
Only available on request!*





Alufix outer meistarbock in combination with simulators for early part alignment, the analysis of which lead to improved quality of auto components.



Meisterbocks, Outline gauges, Cubings

Not only fixtures for single parts or assemblies can be assembled from Alufix profiles and components but all kinds of frames and fixtures up to the size of an original vehicle.

Meisterbocks

Outer meisterbocks are used for mounting outer skin parts or groups of any production step. Structures can be made of different sections or system sizes, to support different derivatives or vehicle families.

Inner meisterbocks are made to analyse different interior parts. Part specific machined contours simulate parts or the original body-in-white parts can be mounted.

Fuegemeisterbocks (match metal fixtures) are used to position or match sub-groups, sidepanels, front end with each other. Joining of single parts to a complete vehicle is easy with a modular fixturing system. This method of analysis helps early recognition of problem areas, enabling cost and time savings in vehicle development process.

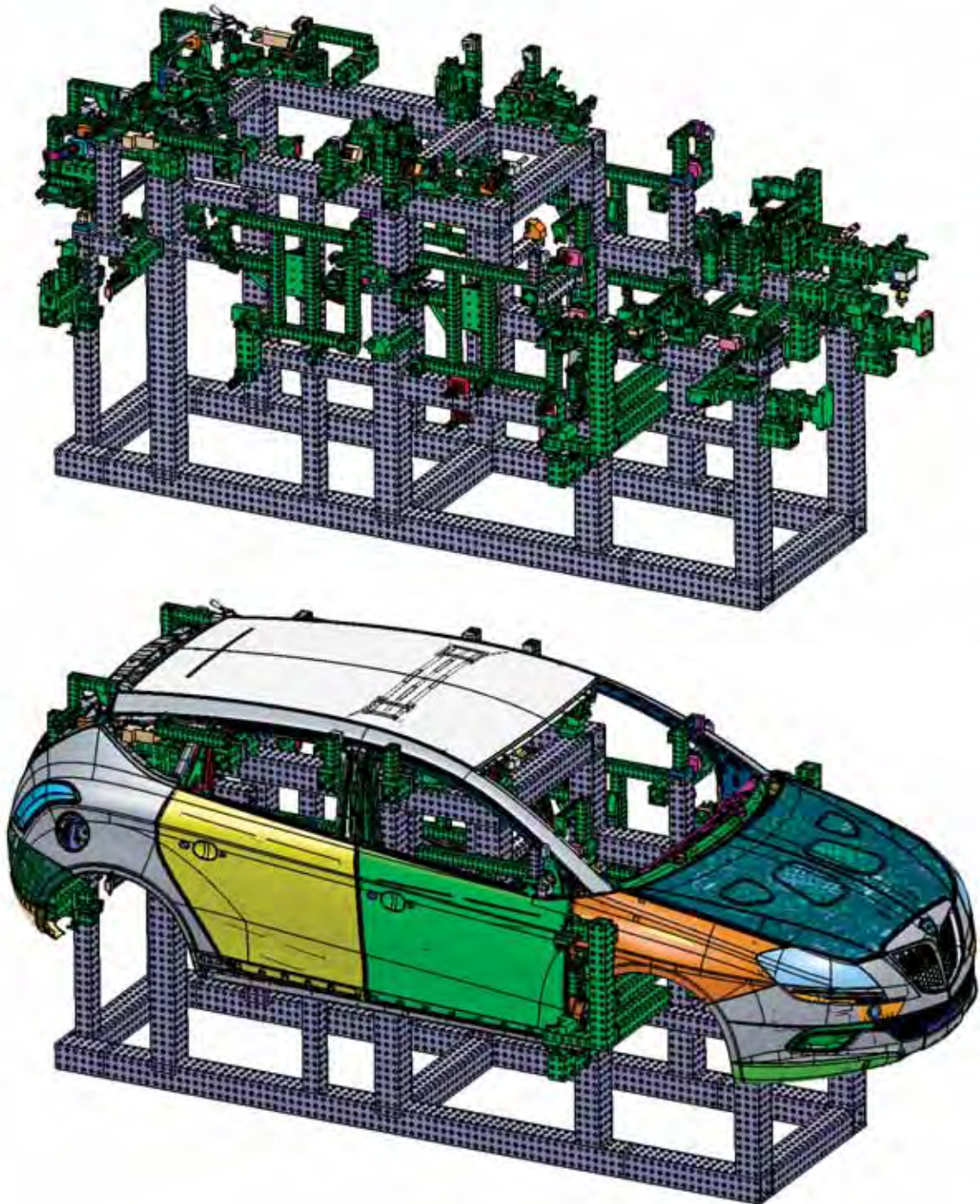
Outline gauges

Outline gauges help to check parts in relation to neighbouring parts which are represented by outline 3D contours/strike or stripe models. The contours can also be removed from the gauge and added to measuring fixtures using quick change couplings.

Cubings

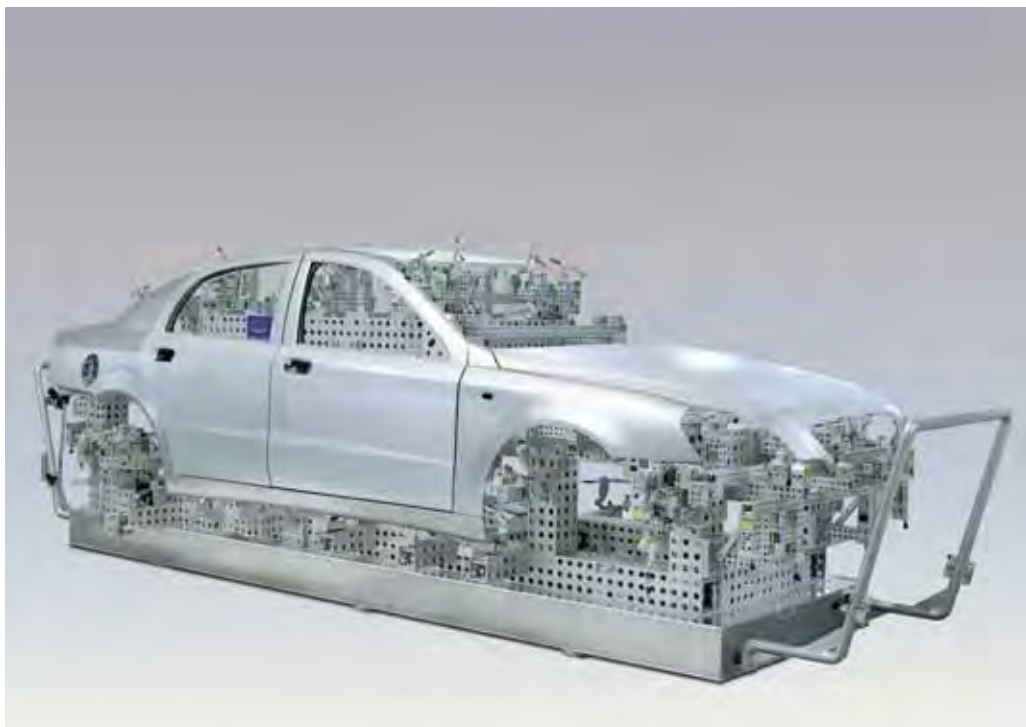
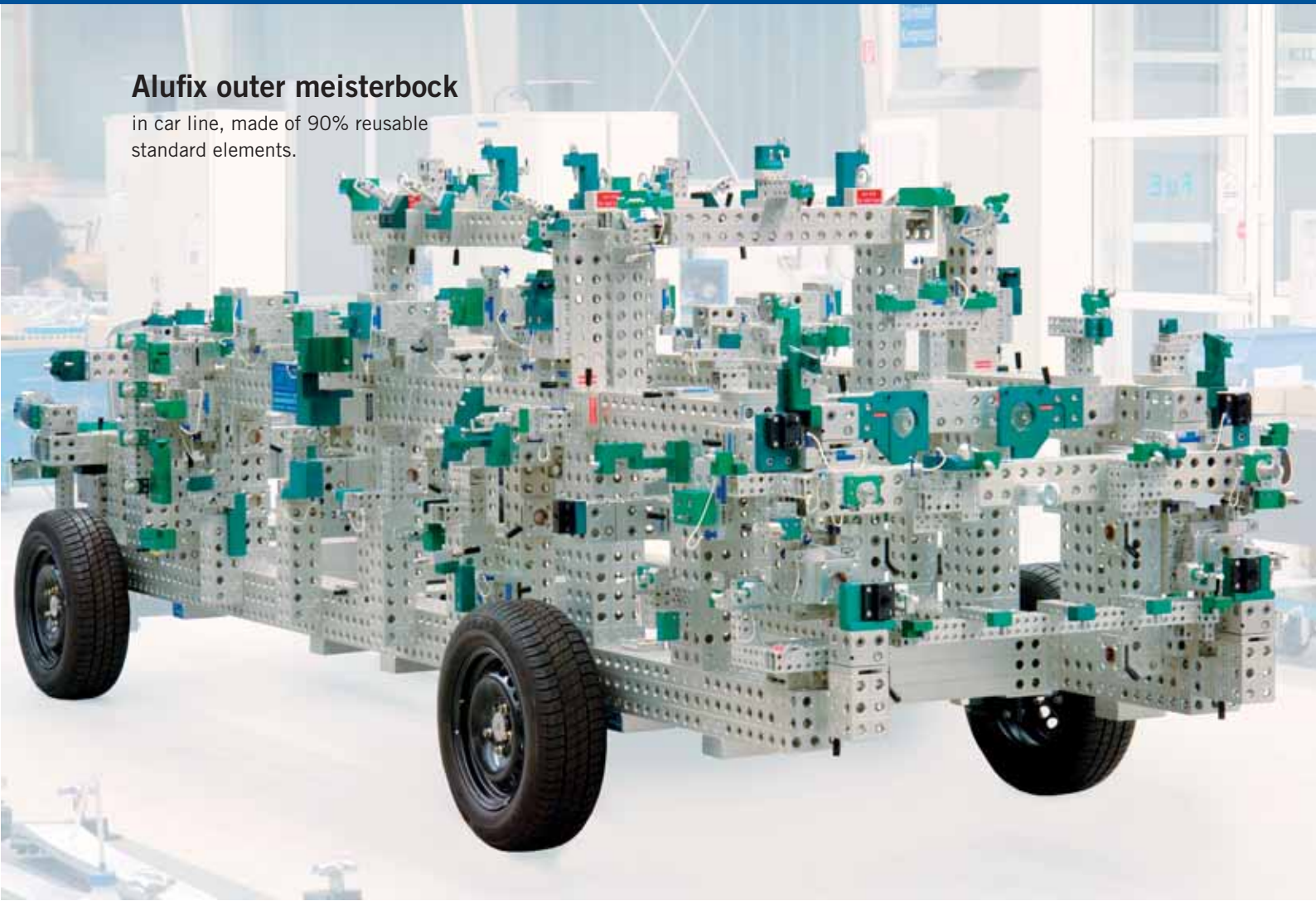
Alufix basic frames are an ideal base for cubing elements because of their rigidity, accuracy and modularity. Cubing base frames for front or rear ends, doors or complete cubings. Because of its reusability and modularity Alufix is pre-destined as a platform for inner cubings, area sections or complete vehicle cubings.

Outer meisterbock,
shown without and with parts.
Adapters (usually extremeties) can be
exchanged for next model.



Alufix outer meisterbock

in car line, made of 90% reusable standard elements.



Outer meisterbock

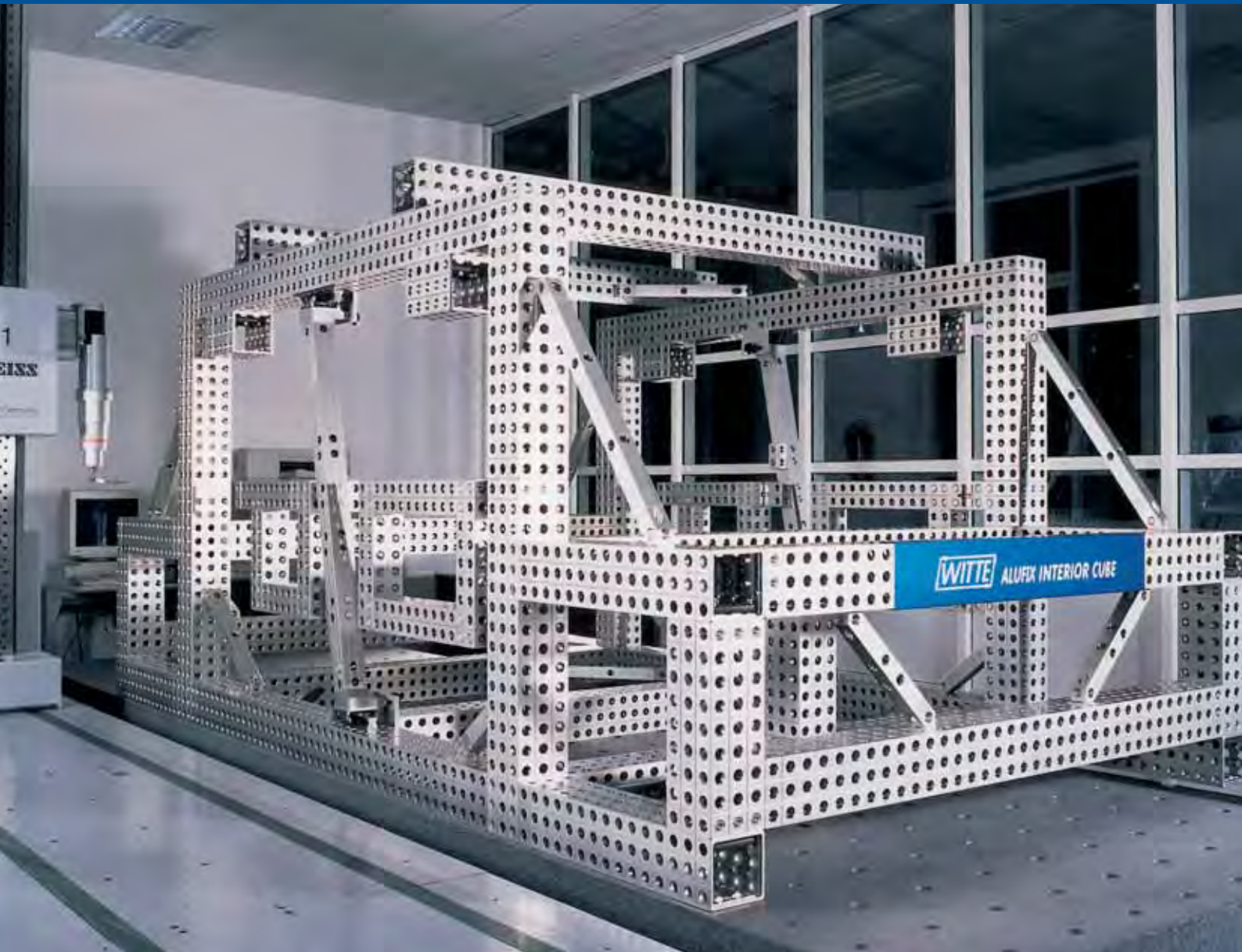
with parts mounted using hovercraft sandwich plate as base and transport platform.





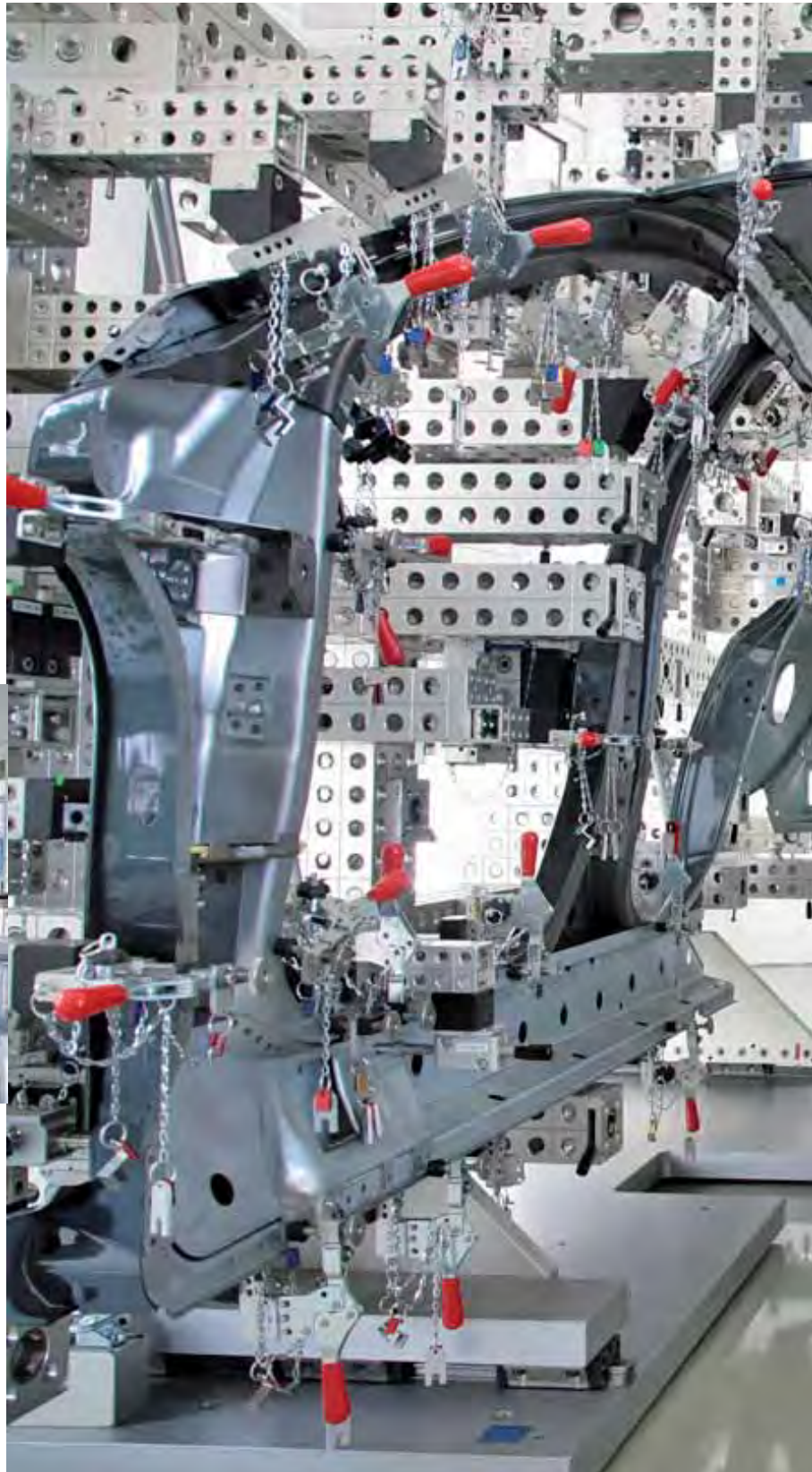
Outline gauge

for 4 door vehicle mounted on horizontal and vertical sandwich plate combination. B pillar can be rotated out for single door check.



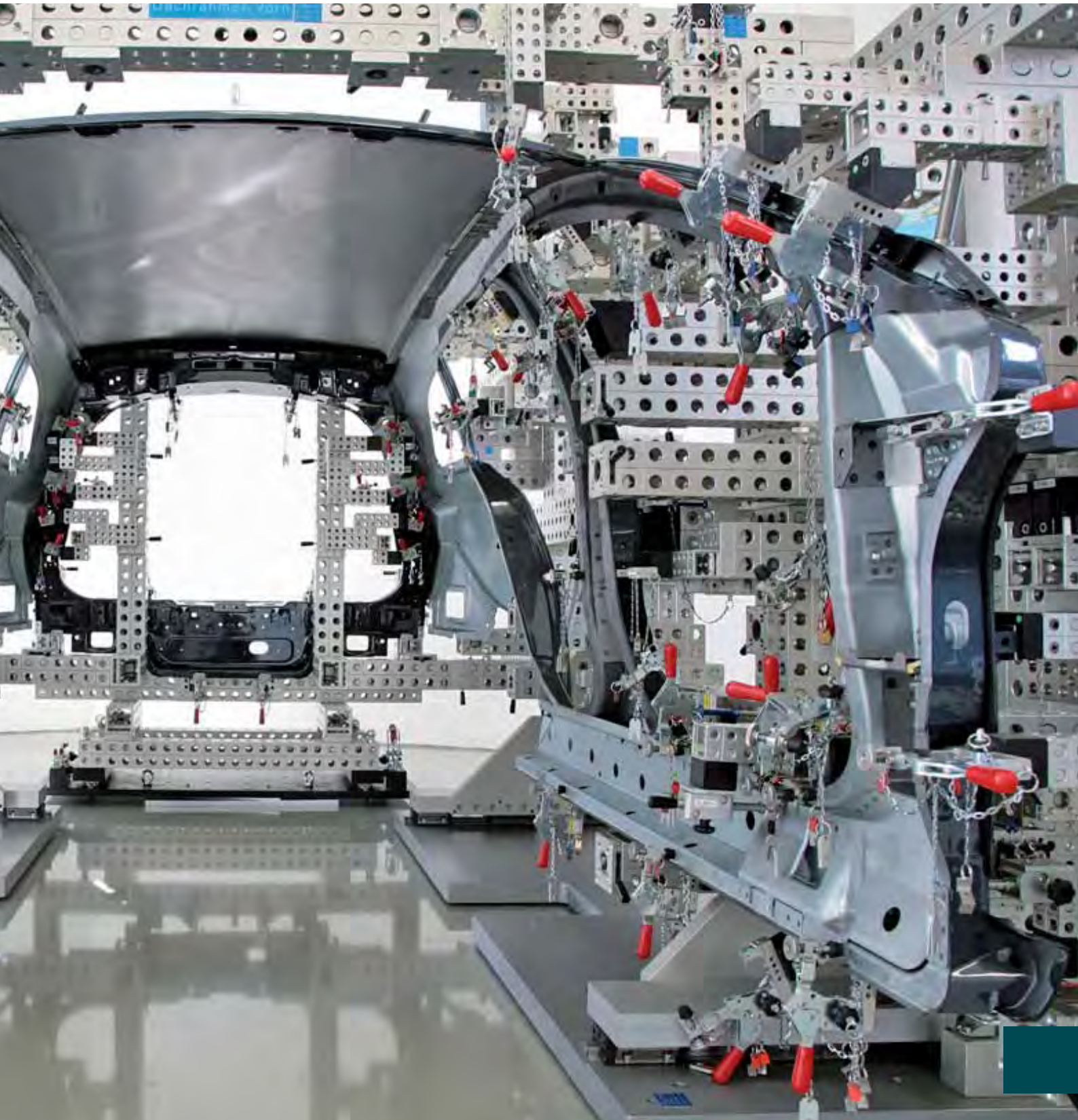
Inner meisterbock

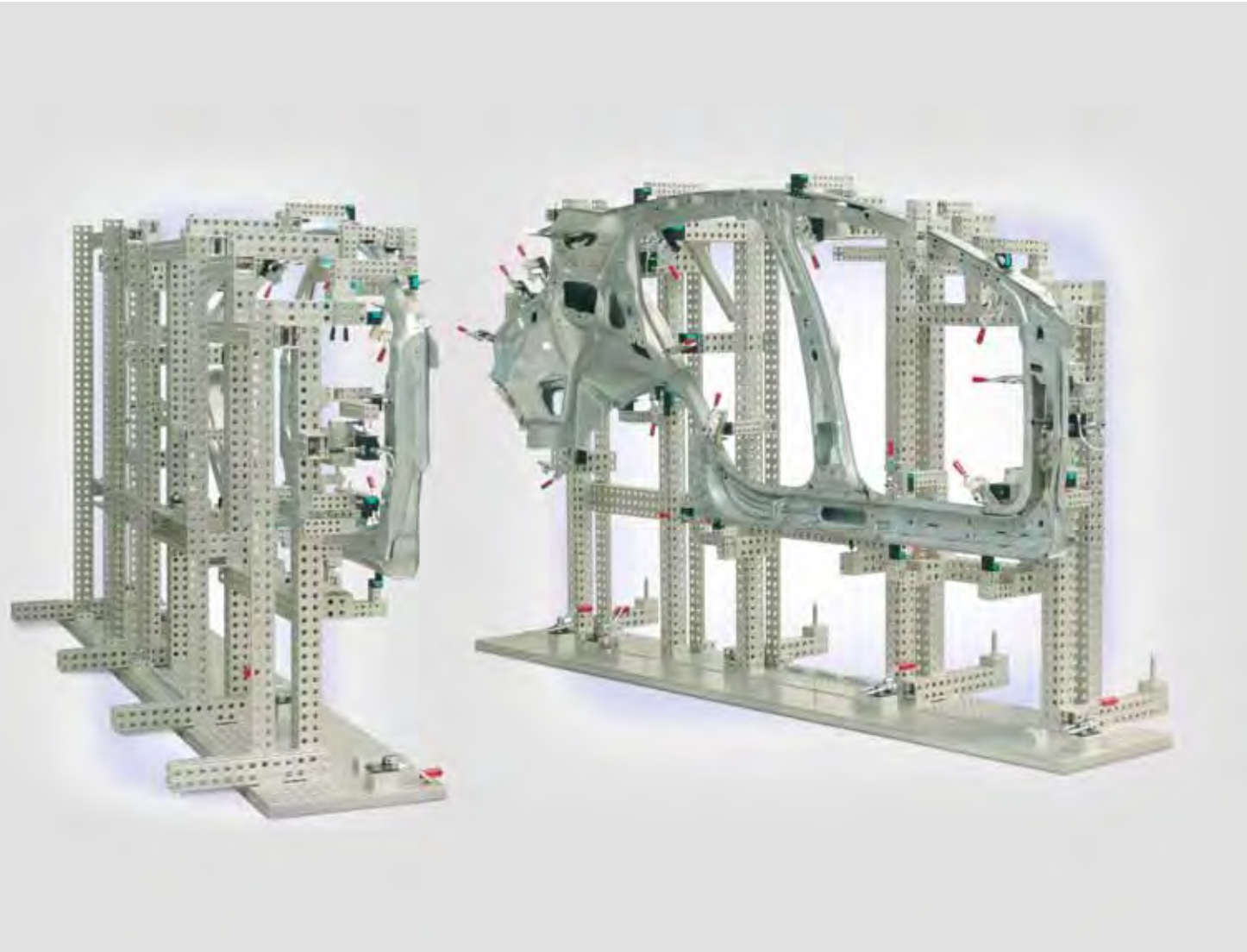
with movable support strut
for B-pillar enabling use for 2
and 4 door models.



Fuegemeisterbock (match metal fixture)

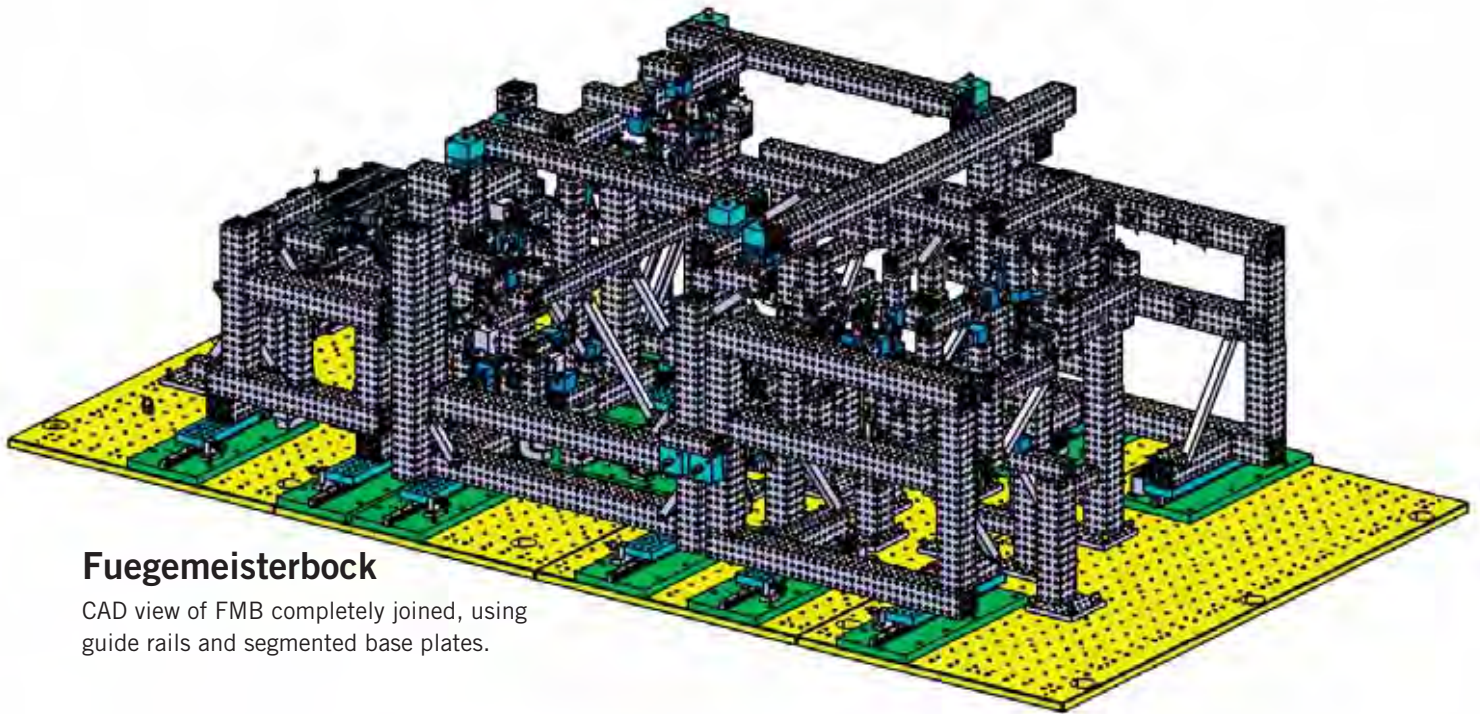
For passenger vehicle comprising independent match metal floor, left and right side, rear wall fixtures as well as cross member supports for roof reinforcement. Floor group is joined on floor FMB, sidepanels are joined on separate side FMBs. These three units are then joined and enable mounting of roof reinforcements and roof.





Fuegemeisterbock side panel frames

These are used for joining welded groups of side panels i.e. inner, reinforcement and outer and can be accurately docked on to FMB floor.

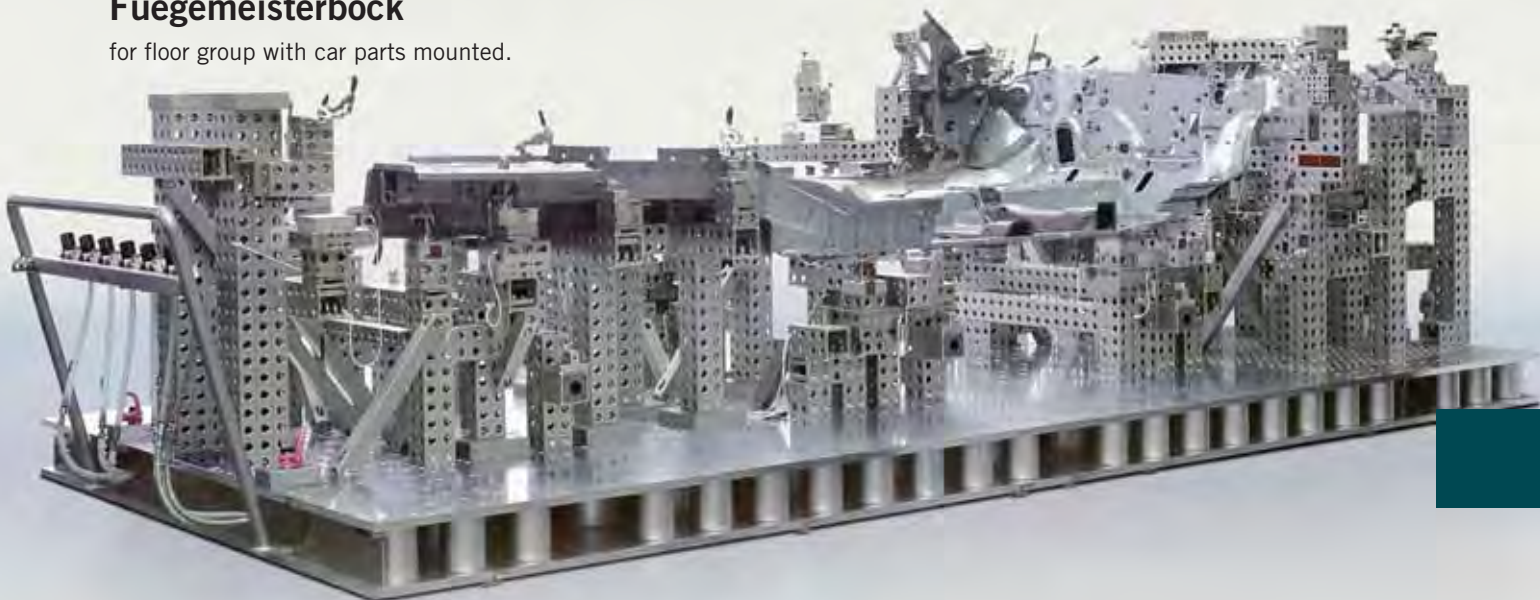


Fuegemeisterbock

CAD view of FMB completely joined, using guide rails and segmented base plates.

Fuegemeisterbock

for floor group with car parts mounted.



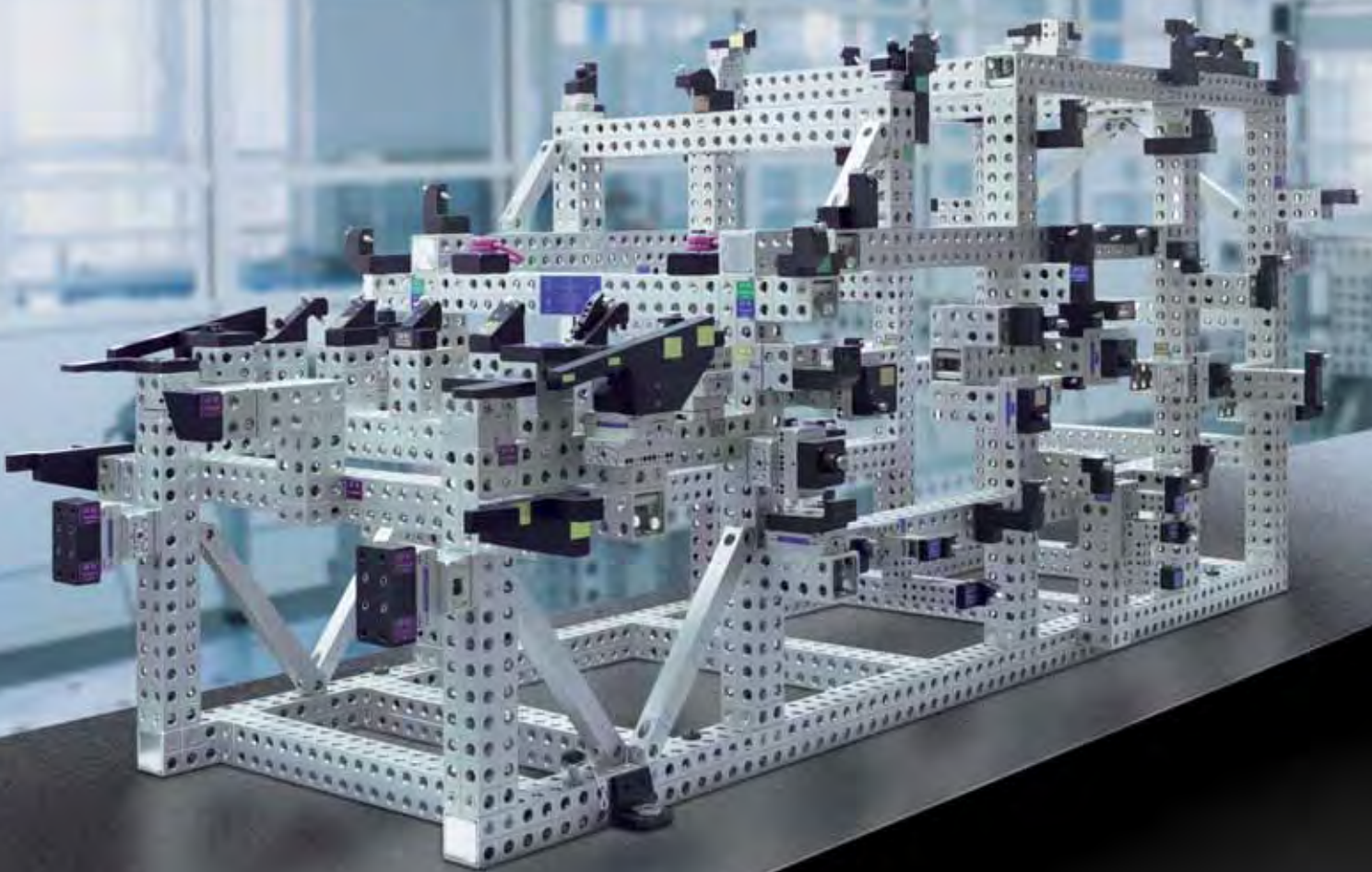


Cubings

Top:
Outer cubing frame
showing some
parts mounted

Right:
Inner cubing frame
showing some
parts mounted



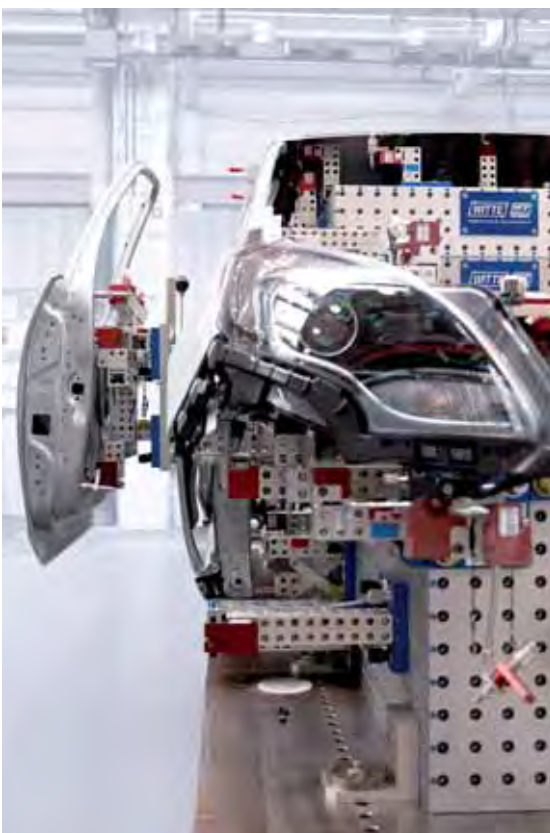


Outer meisterbock

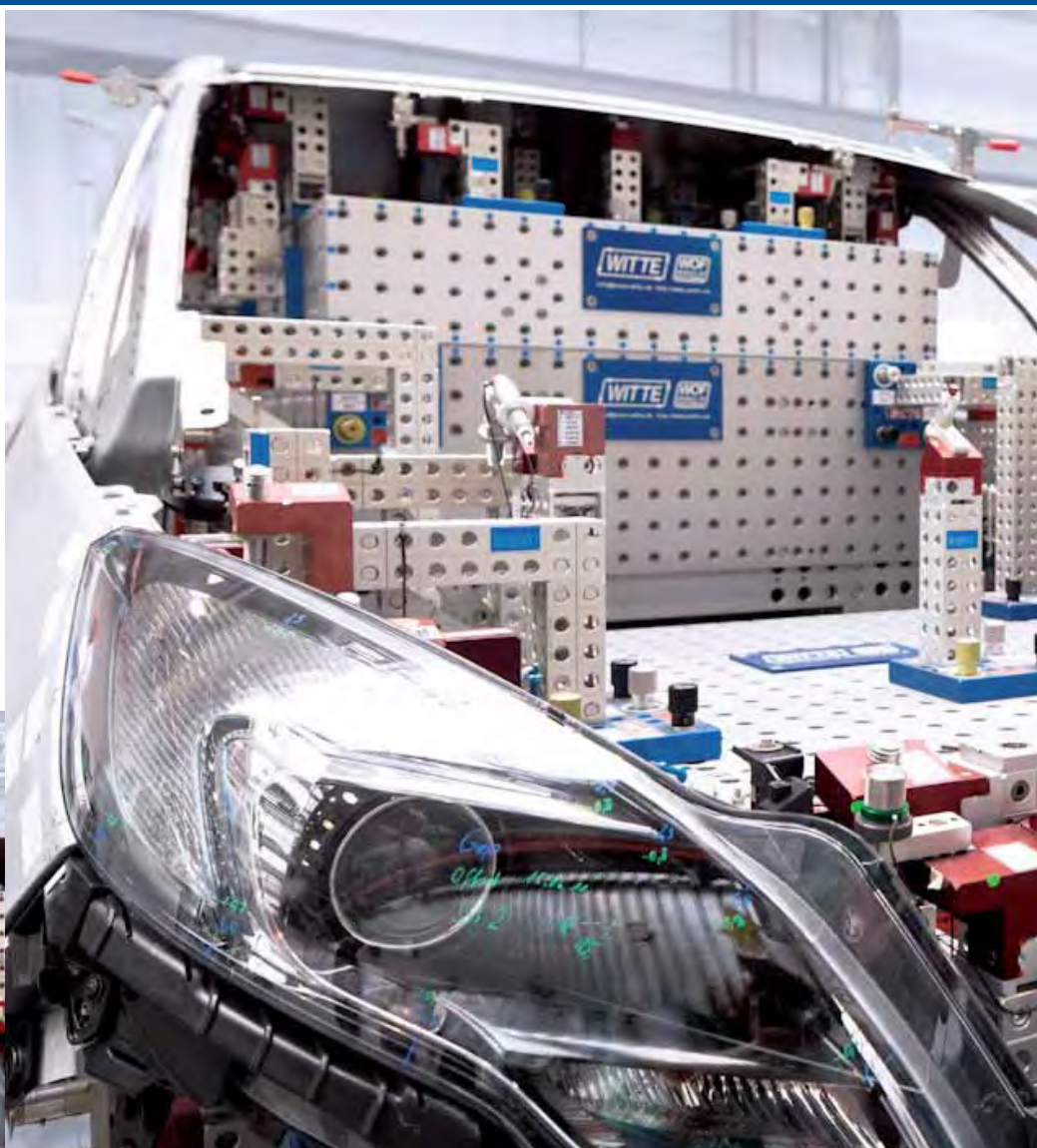
showing black specially designed and
manufactured contact surfaces

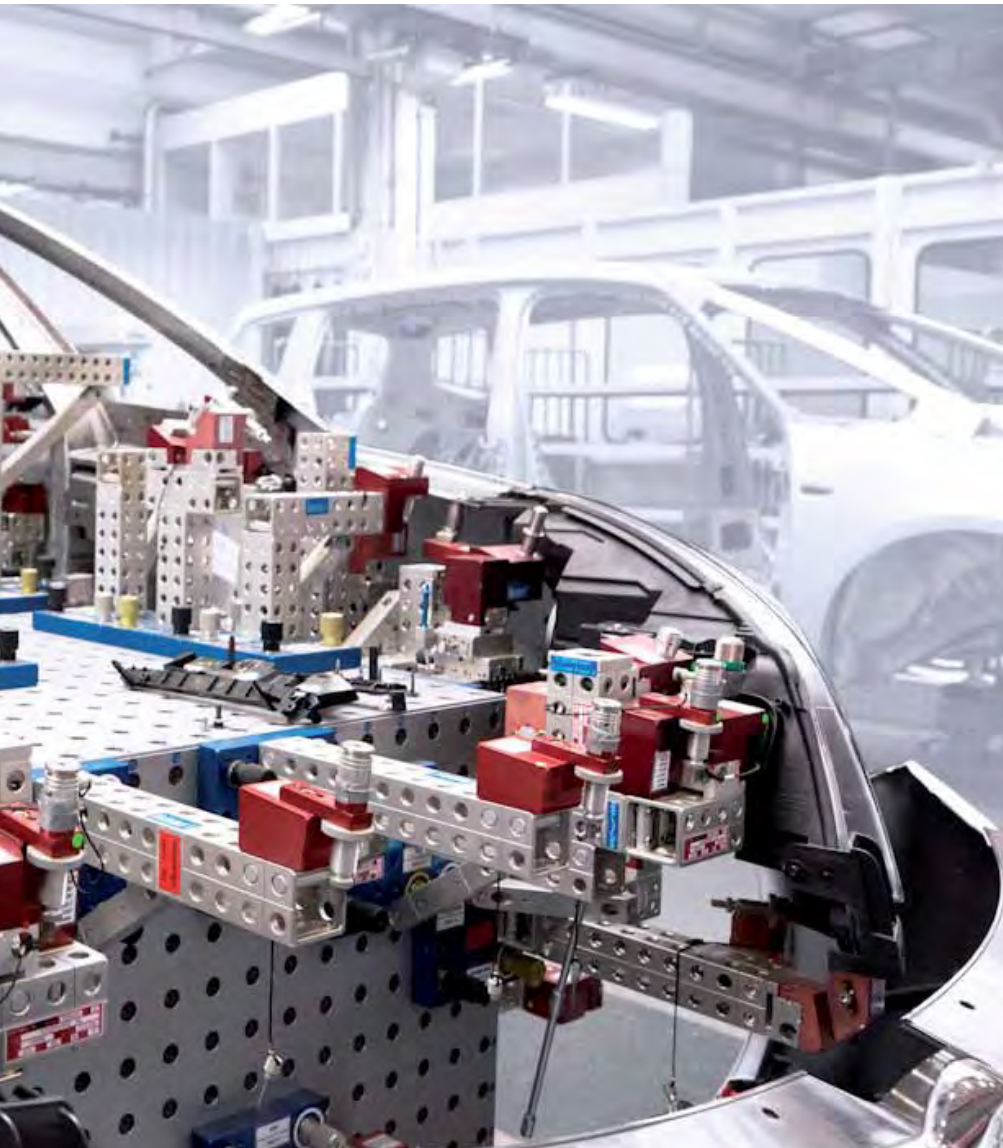
FXB-Cubing

Witte Fixbase cubes configured for mounting of automotive parts

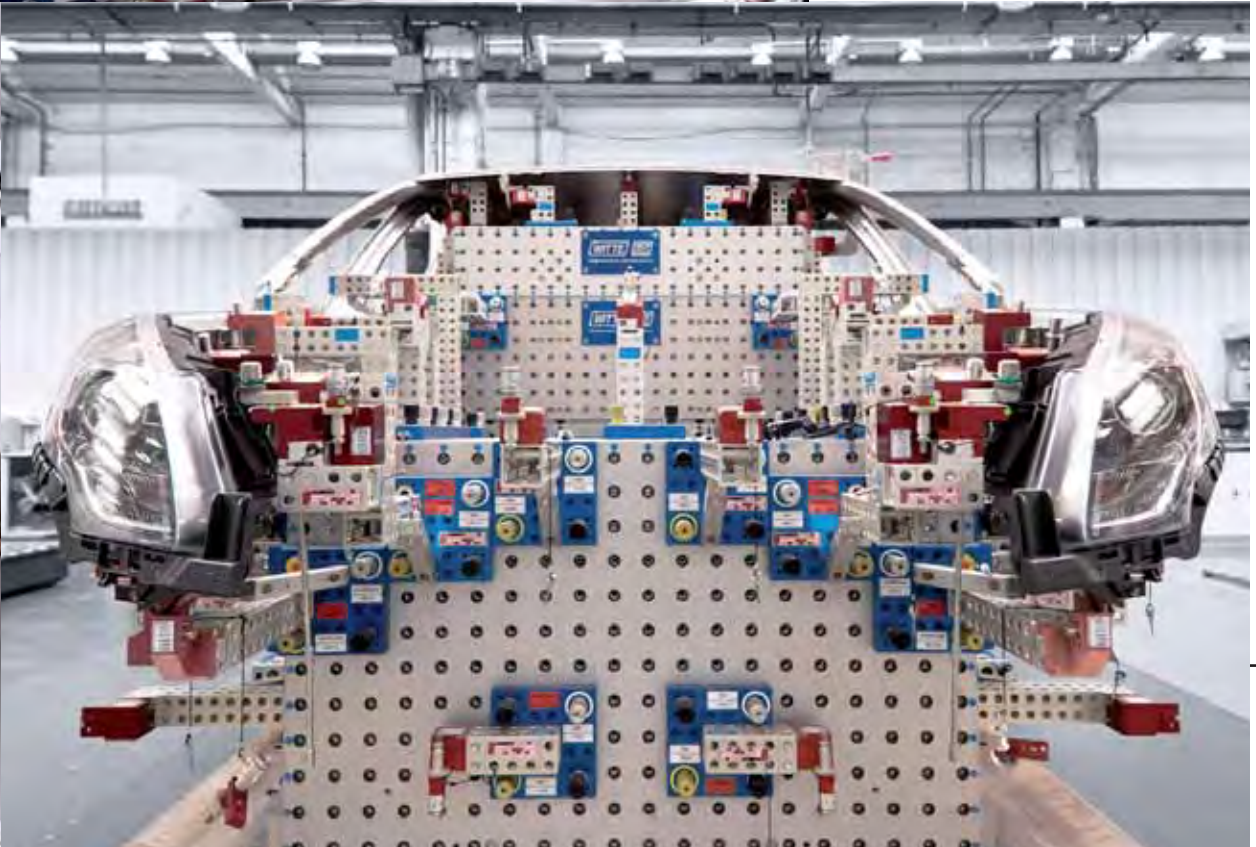


The doors of vehicle to be checked are mounted on separate, retractable adapters



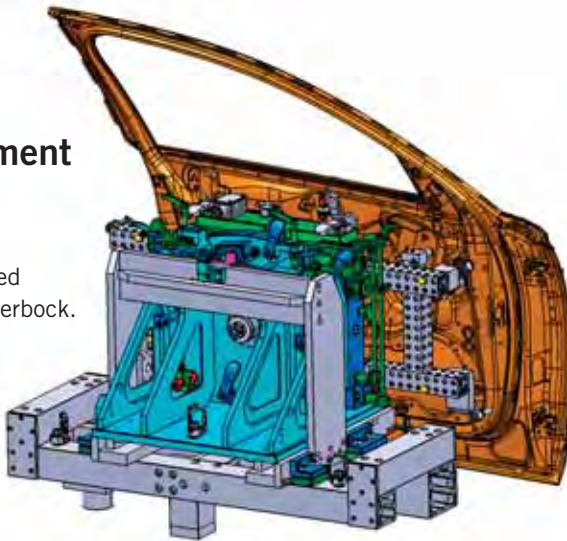


Cube prepared with various contact points and clamp combinations



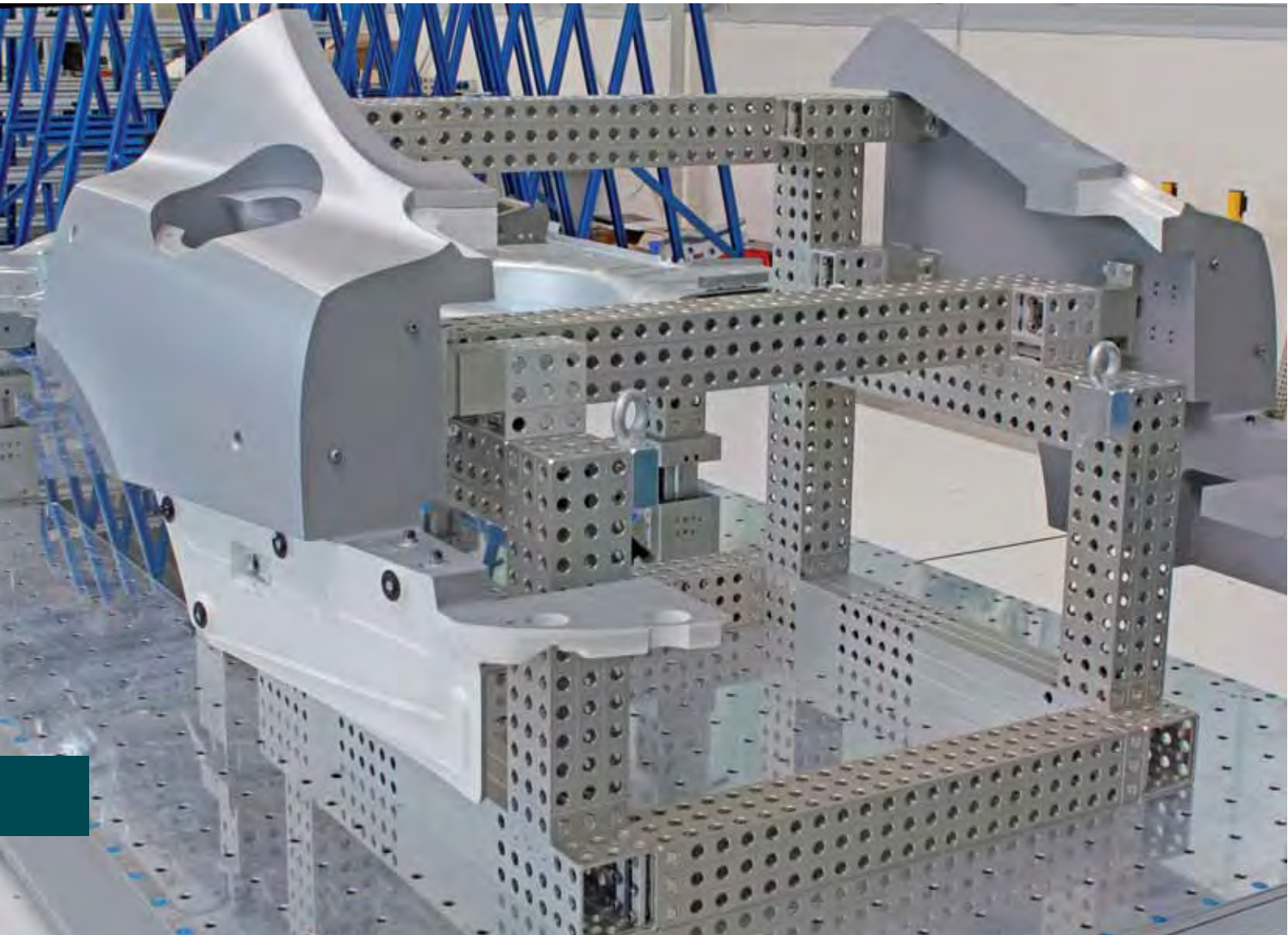
Tilt, turn and alignment unit

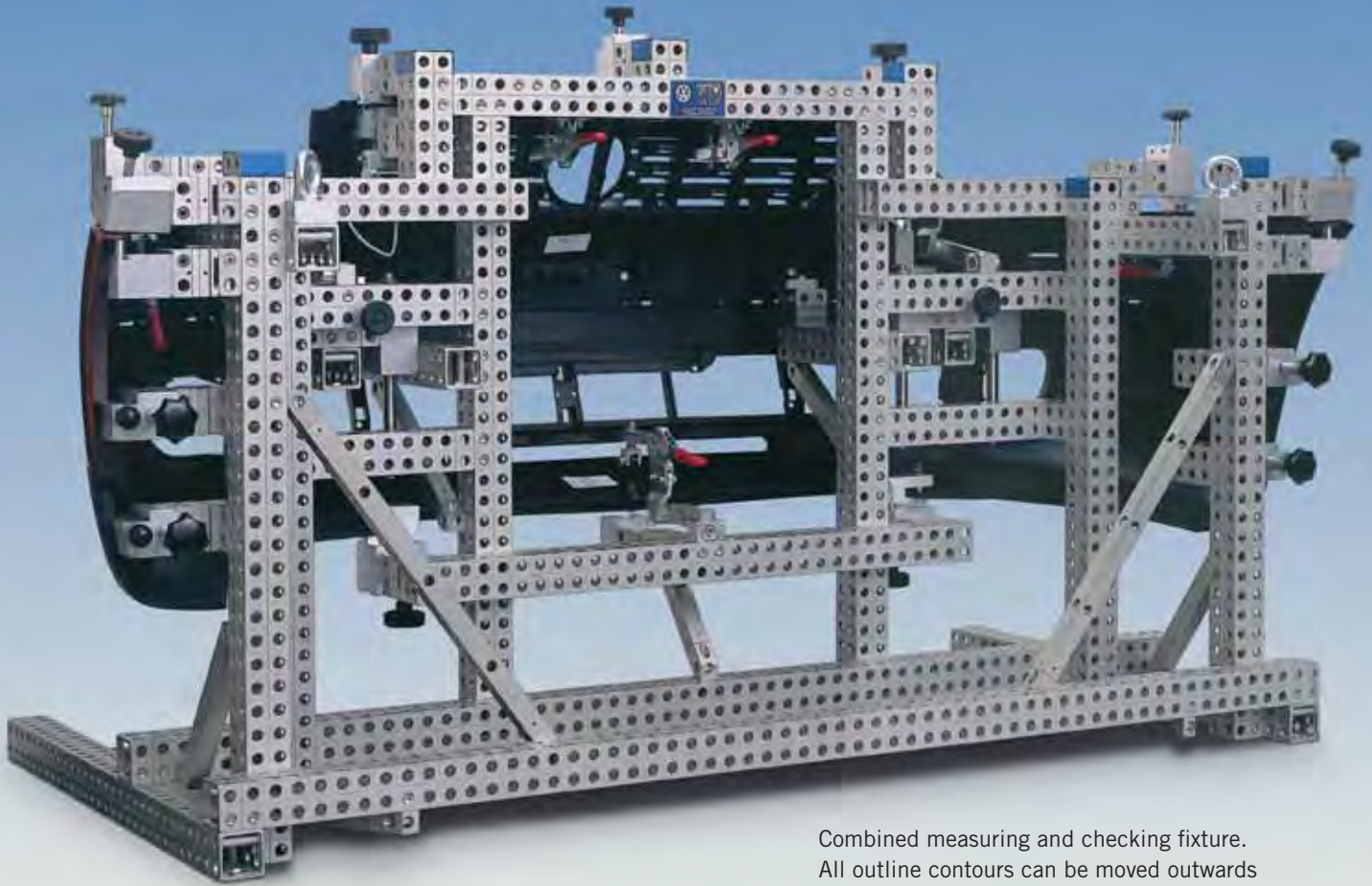
for car doors, can be integrated into fuegemaisterbock.



Rear cubing

for supporting simulated rear sidepanel, cross member and bumper parts. The original trunk lid can also be mounted.



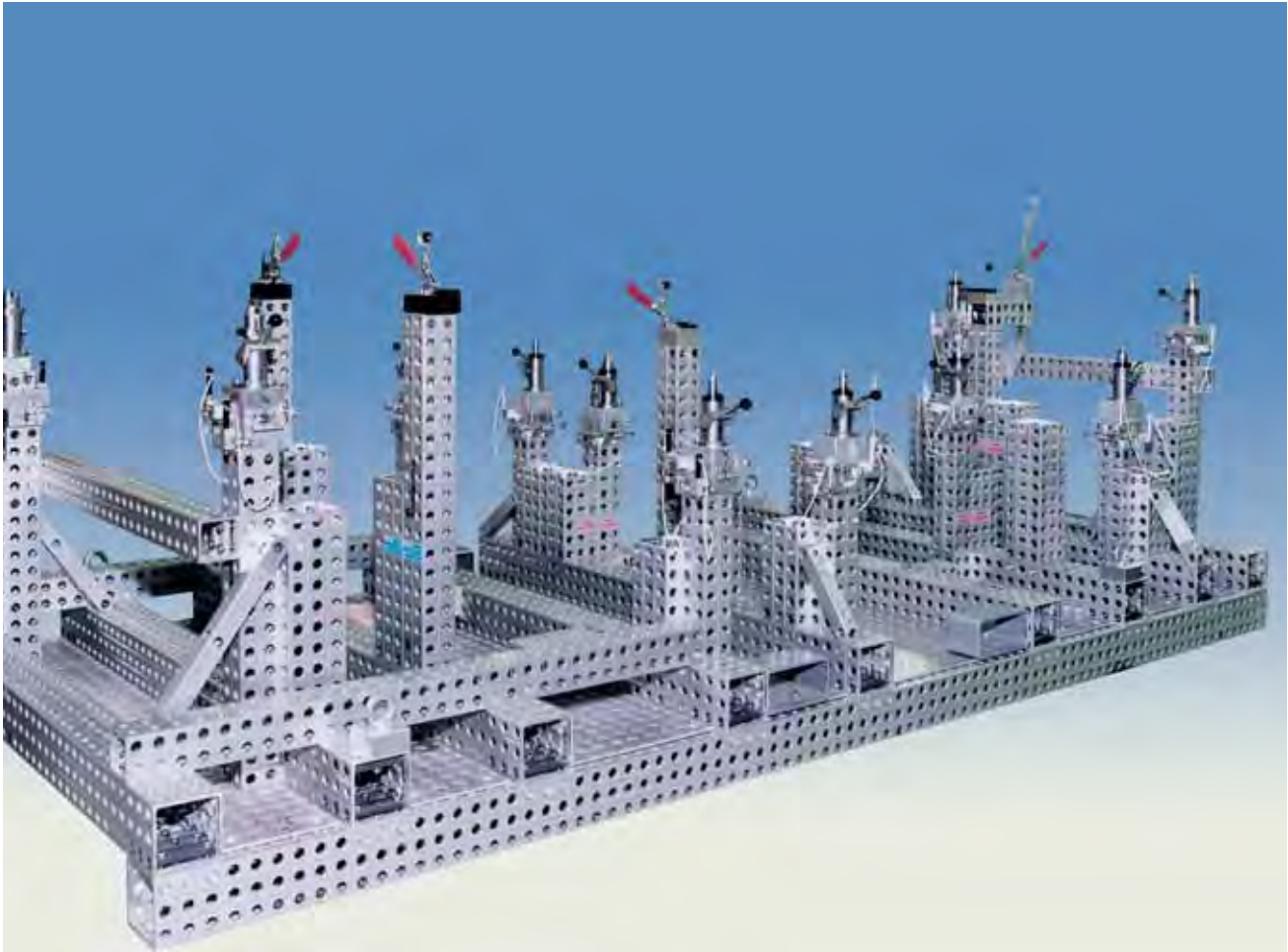


Combined measuring and checking fixture.
All outline contours can be moved outwards

Gap and Flush Gauge

for Radiator parts





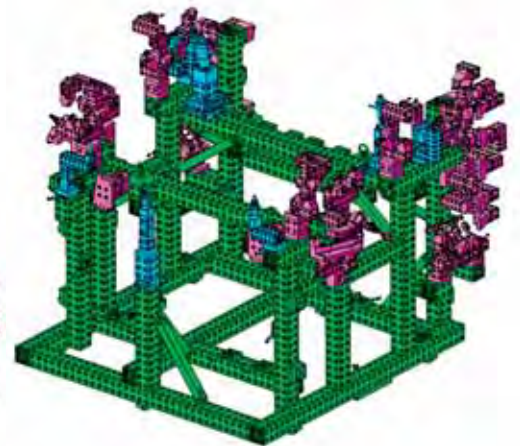
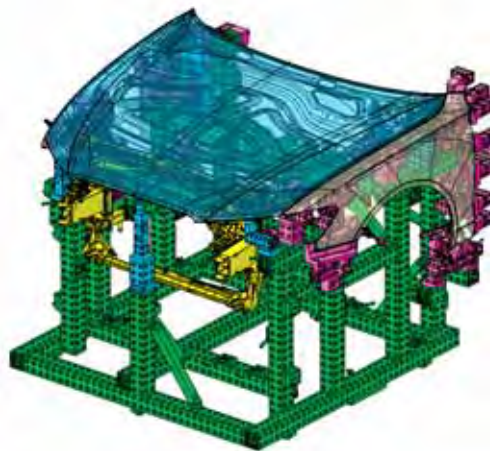
Measuring fixture

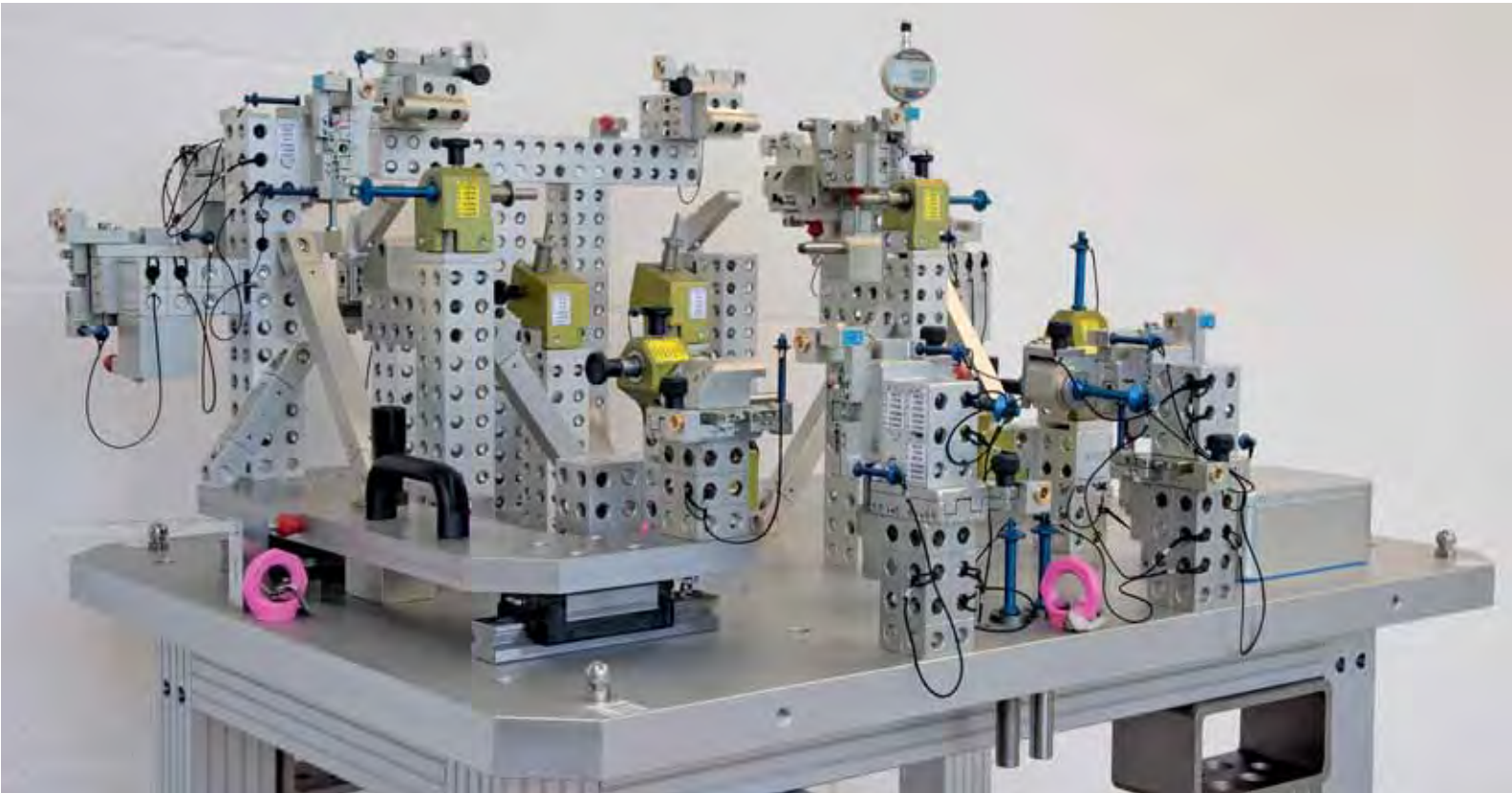
for front and rear floor as single or pre assembled groups.

Meisterbock

measuring fixture combination
for front end.

Fenders, bumpers,
power carriers and hood
can be mounted.





Combined measuring and checking fixture.

Gauges

Measuring and checking fixture for welded titanium pipe group.

All relevant areas requiring checking are measured using accurately positionable dial gauges, which can also be moved outwards



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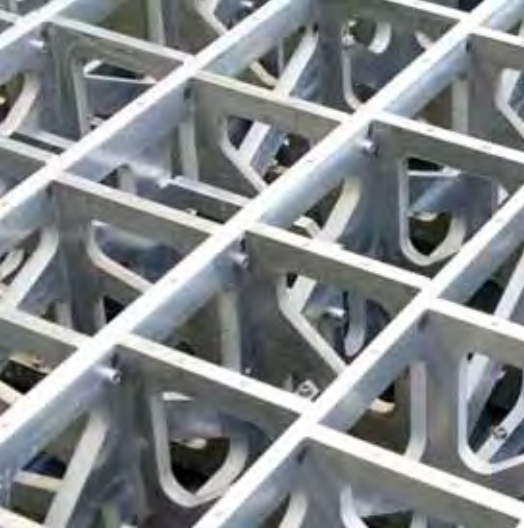
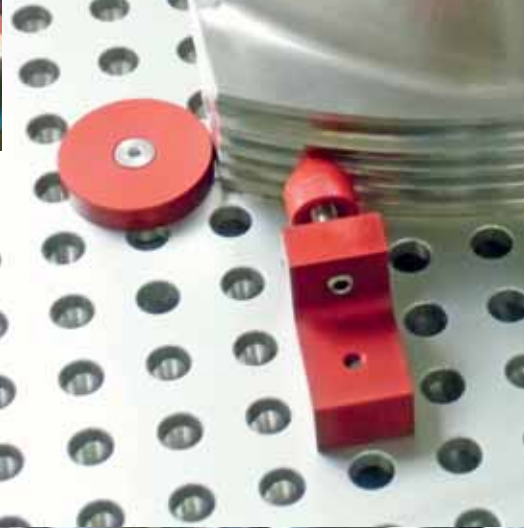
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