

THE MOST IMPORTANT FACTS ABOUT SETTING ELEMENTS

Developed by AMF and proven in service for decades, these screw and aligning jacks offer a broad range of applications. Due to their robust construction, these screw jacks function securely and precisely, with stepless adjustment even under heavy loads.



APPLICATIONS AND COMBINATIONS:

- Safe and reliable clamp supports for heights from 38 to 1250 mm.
- Accurate and safe supporting and setting of any workpiece in various levels and heights.
- Aluminium screw jacks for delicate machine tables, surface plates and plane tables.
- Magnetic screw jacks for horizontal and vertical supporting and setting.

SIMPLY CLEVERLY COMBINE – THE MODULAR SCREW JACK FROM AMF

With the modular screw jack from AMF your production becomes even more flexible and economical.

When cleverly combined, you can achieve a maximum height of 1620 mm. The screw jack can be used on T-slots and grid plates. The individual elements are plugged together, connected by means of a threaded ring ensuring process reliability and guarantee you maximum flexibility during the installation.

THE BENEFITS:

- The maximum height of 1620 mm is continuously adjustable and a height overlap is attainable.
- The connecting points are protected against soiling.
- Improved handling by means of individual elements.
- Set-up time saving thanks to flexibility of parts.
- Storage optimisation.



SUPPORT ELEMENT WITH FINE THREAD

- Used as an extra support point to prevent sagging and vibration of the workpiece.
- Mounted directly under a clamping point, distortion of the workpiece is prevented.





SCREW JACK ELEMENT



SPACER ELEMENTS



BASE ELEMENTS



THREAD ADAPTER



No. 6425-706

Screw jack, modular

Tempered steel, burnished.

Comprising:

- Screw jack element with base element 6425FB
- Spacer element small
- Spacer element medium
- Thread adapter M16, M20, M24
- T-nuts groove 18, 22, 28
- Insertion tool



CAD

Order no.	TR	H min.	H max.	F max.	Weight [g]
				[kN]	
562000	40 x 7	306	706	60	21481

Application:

Can be used on T-slots and grid plates by means of adapters, which are screwed in the base element. The individual elements are plugged together and connected by means of a threaded ring ensuring process reliability. The threaded ring must not be retightened under load. The insertion tool makes it possible to use the head and base elements as well as thread adapter.

Advantage:

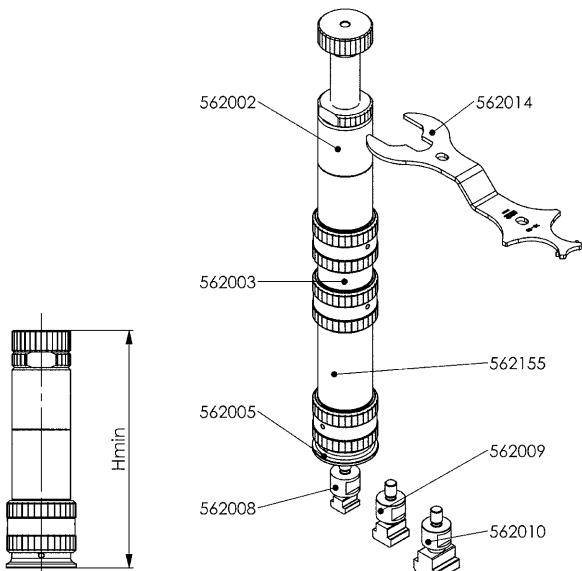
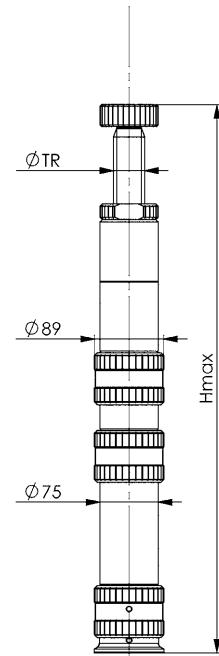
- The maximum height of 1620 mm is continuously adjustable and a height overlap is attainable (with base element 6425FG or 6425FY).
- The connecting points are protected against soiling.
- Improved handling by means of individual elements.
- Set-up time saving thanks to flexibility of parts.
- Storage optimisation.

Note:

- The modular design makes it possible to use different head and intermediate elements. Thus, a maximum height (with base element 6425FG or 6425FY) of 1620 mm with a permissible support force of 60 kN is possible. In addition, there is a risk of buckling.
- Do not adjust under load.



Focus Open 2020
Gold



Recommendations



No. 6425FY,
page 53



No. 6425FG,
page 53



No. 6425WW,
page 56

No. 6425S-406

Screw jack element with acme thread and base element 6425FB

with locknut for locking, centring hole diameter 12 mm. Spindle with acme thread made completely of tempered steel, spindle head burnished.

Body and base element, tempered steel, burnished.



Focus Open 2020
Gold



Recommendations



No. 6425Z,
page 51



No. 6425MW,
page 56

Order no.	TR	H min.	H max.	F max.	Weight [g]
562002	40 x 7	306	406	60	9436

Application:

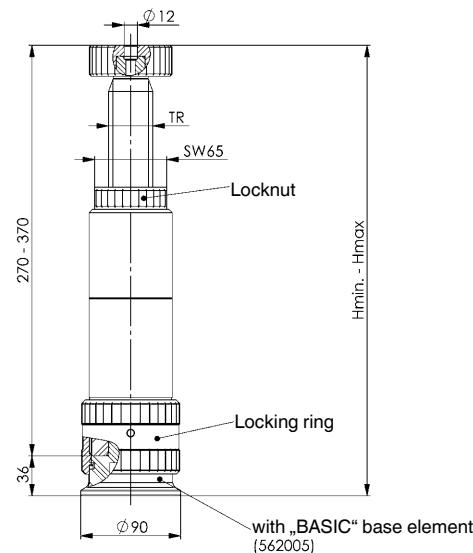
Can be used on T-slots and grid plates by means of adapters, which are screwed in the base element. The individual elements are plugged together and connected by means of a threaded ring ensuring process reliability. The insertion tool makes it possible to use the locknut and base element as well as the thread adapter.

Advantage:

- Can be used modularly.

Note:

- The use as a head element in the screw jack modular makes a maximum height of 1620 mm with a permissible support force of 60 kN possible. In addition, there is a risk of buckling.
- Do not adjust under load.



CAD



No. 6425Z

Spacer element

Tempered steel, burnished.



Order no.	Size	H	H1	Weight [g]
562003	100	100	150 - 166,5	3132
562155	200	200	250 - 266,5	6228
562004	300	300	350 - 366,5	7493

Application:

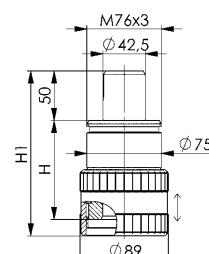
- As a supplement of the screw jack modular for achieving the maximum permitted support height of 1620 mm.

Advantage:

- The maximum height of 1620 mm is continuously adjustable and a height overlap is attainable.
- The connecting points are protected against soiling.
- Improved handling by means of individual elements.
- Set-up time saving thanks to flexibility of parts.
- Storage optimisation.

Note:

- The use as an intermediate element in the screw jack modular makes a maximum height of 1620 mm with a permissible support force of 60 kN possible. In addition, there is a risk of buckling.
- Do not adjust under load.



CAD



No. 6425FB
Base element

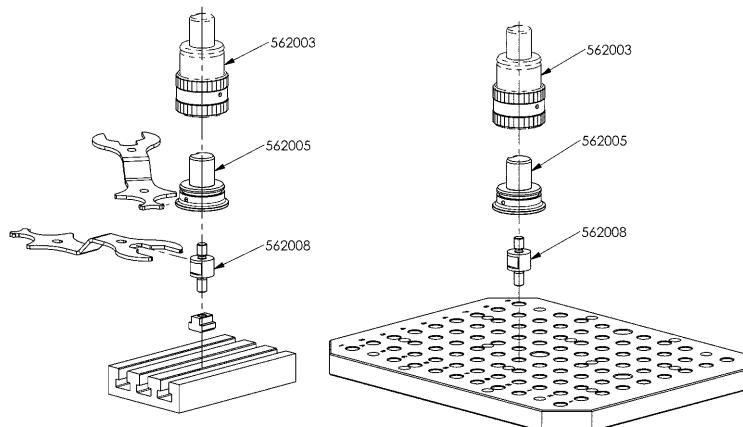
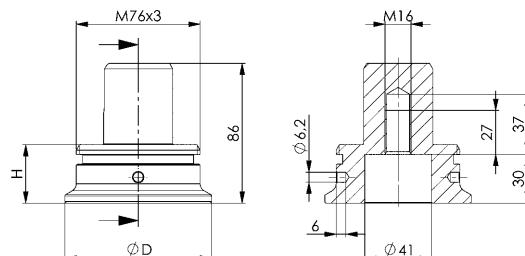
Tempered steel, burnished.



Order no.	D	H	Weight [g]
562005	90	36	1497


Application:

Can be used on T-slots and grid plates by means of adapters, which are screwed in the base element. The individual elements are plugged together and connected by means of a threaded ring ensuring process reliability. The insertion tool makes it possible to use the base element as well as thread adapter.


Recommendations

 No. 6425GA,
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 No. 6425MW,
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No. 6425GA
Thread adapter

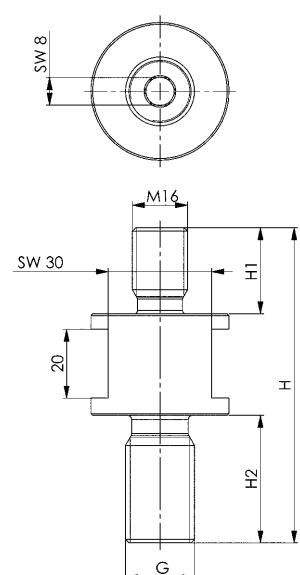
Tempered steel, burnished.



Order no.	G	H	H1	H2	Weight [g]
562008	M16	83,5	25	29	339
562009	M20	91,5	25	37	381
562010	M24	101,5	25	47	452

Application:

The thread adapters are screwed in the base element 6425FB and can thus be used on T-slots and grid plates. The insertion tool makes it easy to use the thread adapter.



No. 6425FG
Base element

Tempered steel, burnished.



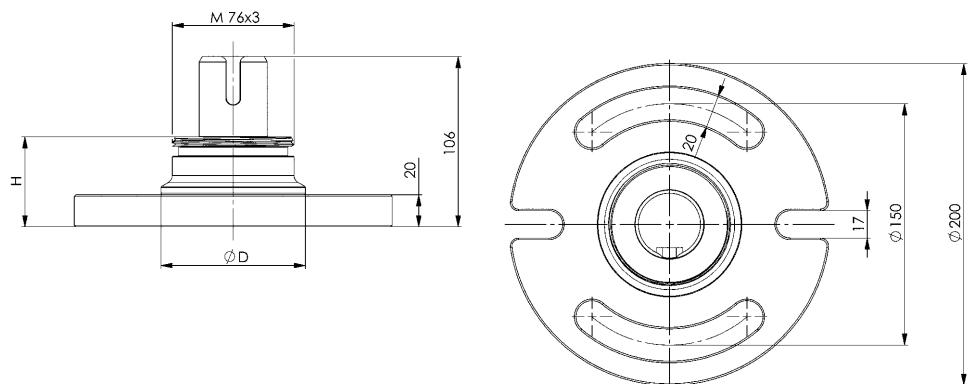
Order no.	D	H	Weight [g]
562006	90	56	5717


Application:

Can be used on T-slots and grid plates. The individual elements are plugged together and connected by means of a threaded ring ensuring process reliability. The insertion tool makes it possible to use the base element as well as thread adapter.

Advantage:

- Enables variable positioning on the machine table.
- The threaded interface allows the base element to be replaced easily on the modular screw jack.


No. 6425FY
Base element

Tempered steel, burnished.



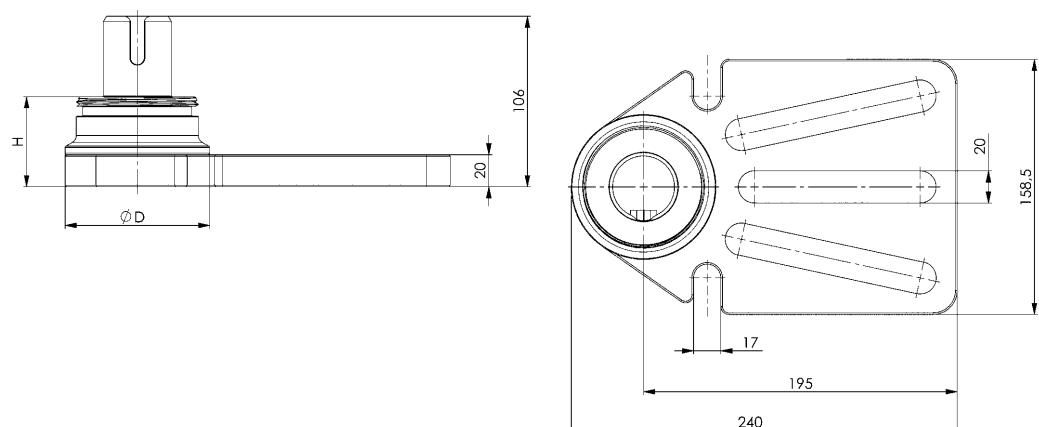
Order no.	D	H	Weight [g]
562007	90	56	5652


Application:

Can be used on T-slots and grid plates. The individual elements are plugged together and connected by means of a threaded ring ensuring process reliability. The insertion tool makes it possible to use the base element as well as thread adapter.

Advantage:

- Enables variable positioning on the machine table.
- The threaded interface allows the base element to be replaced easily on the modular screw jack.



No. 6425A-230

Support element with fine thread and base element 6425FB

Body and base element, tempered steel, burnished.
Spindle and bearing smooth, tempered steel, plasma-nitrided and burnished.



Order no.	H min.	H max.*	F max.	Weight
			[kN]	[g]
562001	210	230	35	6671

* maximum attainable height with an spacer element 6425Z-100 is 330 mm

Application:

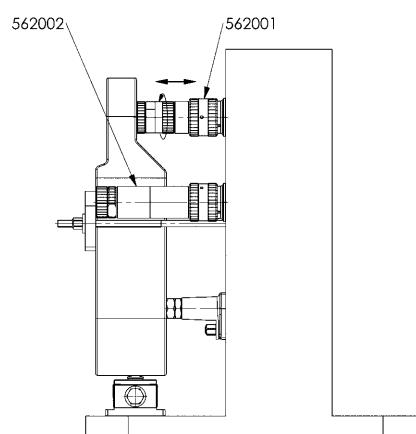
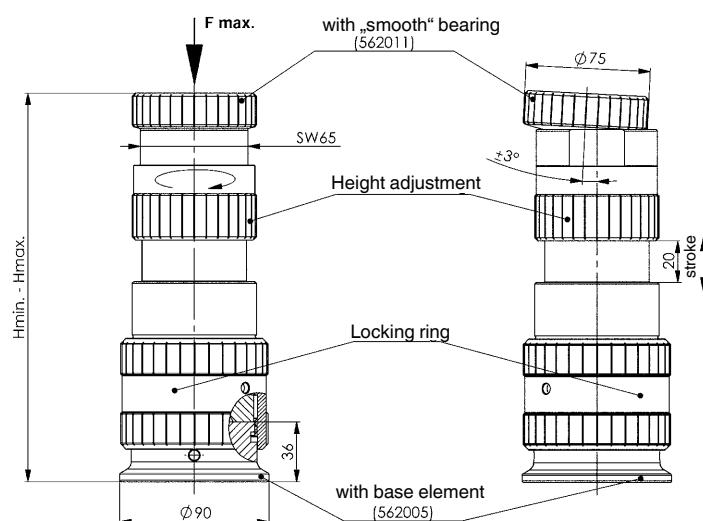
Can be used on T-slots and grid plates by means of adapters, which are screwed in the base element. The support element can be sensitively adjusted to a maximum bearing height of 330 mm under load. The bearings can be adjusted with an angle of + / - 3°.

Advantage:

- Used as an extra support point to prevent sagging and vibration of the workpiece.
- Mounted directly under a clamping point, distortion of the workpiece is prevented.
- Compensation of large workpiece tolerances (castings and forgings).
- For use in horizontal and vertical clamping.

Note:

- maximum height 330 mm
- 3 different bearings are held in place by magnets
- bearings (smooth, spherical, point) are interchangeable



No. 6425AB
Bearing, spherical

Tempered steel, plasma-nitrided and burnished.



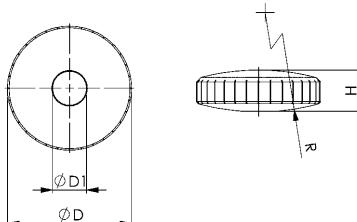
Order no.	dia. D	dia. D1	H	R	Weight [g]
562012	75	20,5	24,7	140	655

Application:

- Interchangeable bearing for the support element 6425A-230.

Advantage:

- Compensation of large workpiece tolerances (castings and forgings).
- For use in horizontal and vertical clamping, since secured by magnet and cylinder pin.


No. 6425AG
Bearing, smooth

Tempered steel, plasma-nitrided and burnished.



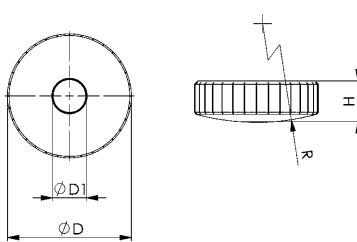
Order no.	dia. D	dia. D1	H	R	Weight [g]
562011	75	20,5	24,7	140	739

Application:

- Interchangeable bearing for the support element 6425A-230.

Advantage:

- Compensation of large workpiece tolerances (castings and forgings).
- For use in horizontal and vertical clamping, since secured by magnet and cylinder pin.


No. 6425AP
Bearing, point

Tempered steel, plasma-nitrided and burnished.



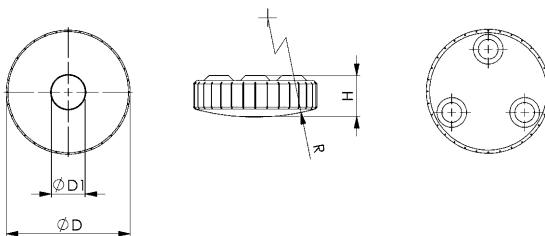
Order no.	dia. D	dia. D1	H	R	Weight [g]
562013	75	20,5	24,7	140	651

Application:

- Interchangeable bearing for the support element 6425A-230.

Advantage:

- Compensation of large workpiece tolerances (castings and forgings).
- For use in horizontal and vertical clamping, since secured by magnet and cylinder pin.



No. 6425WW
Tool cart

without screw jack elements

Steel housing powder-coated.

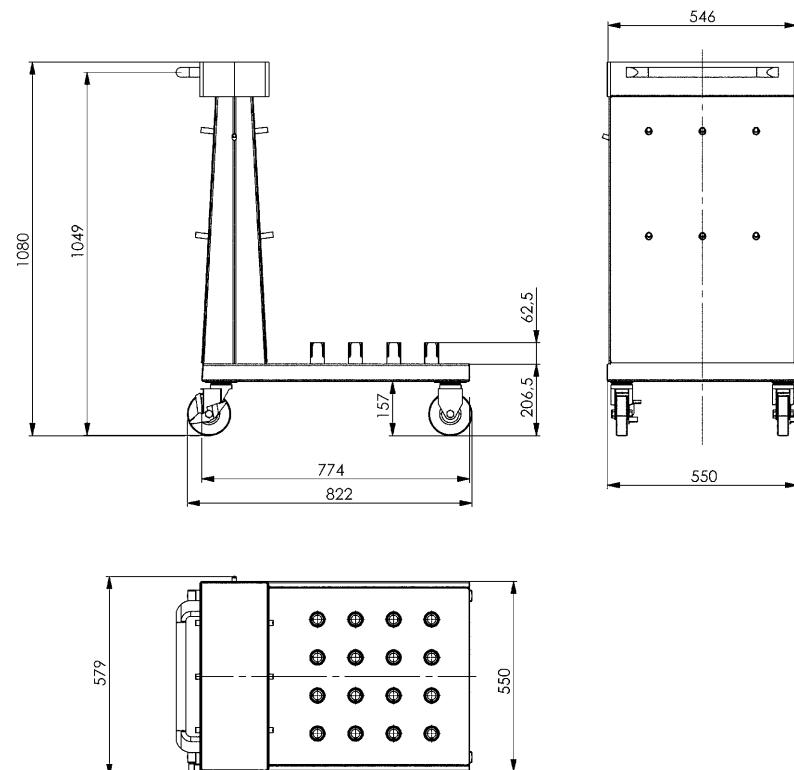
All surfaces protected with rubber mats.

2 rollers + 2 castors with locking brake

Order no.	Height x length [mm]	Weight [g]
562015	1080 x 822	63240

Advantage:

- mobile = quickly ready when needed at the workplace
- Tidy = convenient, space-saving and always readily available
- Individual equipment configurations possible through construction of many mounting points

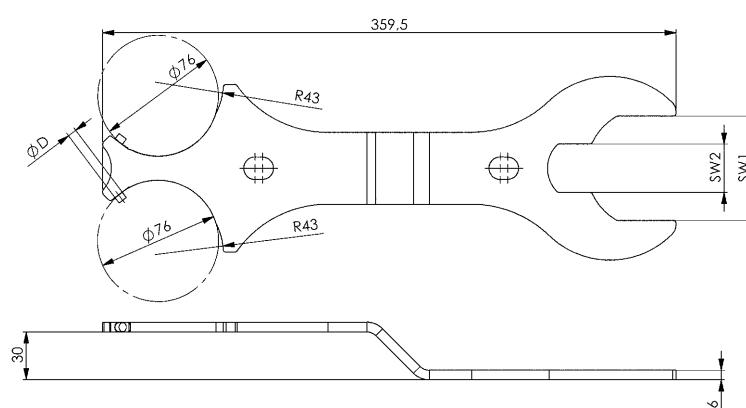

No. 6425MW
Insertion tool

Special steel, hardened and blued in black oxide finish.

Order no.	Size	D	SW1	SW2	Weight [g]
562014	76	6	65	30	960

Application:

The insertion tool makes it possible to use the head and base elements of the screw jack modular as well as thread adapter.





No. 6415

Height setting screw jack

with a cylinder pin ISO8734-12x50. Centring hole Ø12 mm. Spindle: Metric fine thread M30x1.5 with final stop. Sliding insert runs on pressed plain bearing bushing. Tempered steel, burnished.



CAD



Order no.	Size	H min.	H max.	D1	D2	H1 min.	H1 max.	F max.	Weight
								[kN]	[g]
86504	75	55	75	50	34	82	102	30	680
86512	115	75	115	50	34	102	142	30	950

Application:

The height guide bench vice can also be used without cylinder pin or with the attachments No. 6440 and No. 6441. The combination with all AMF screw jacks is possible with centring plate.

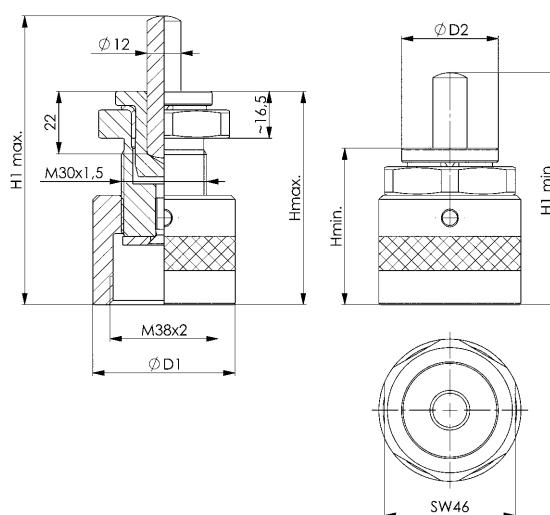
Advantage:

Sensitive adjustment. A bearing insert prevents the workpiece from being turned while the jack is adjusted.

Note:

Suitable attachments: No. 6440, 6441 and 6442.

Suitable support: No. 6442G.



Recommendations



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No. 6441,
page 68



No. 6442,
page 68

No. 6416

Height setting screw jack with magnetic base

with a cylinder pin ISO8737-12x50. Centring hole Ø12 mm. Spindle: Metric fine thread M30x1.5 with final stop. Sliding insert runs on pressed plain bearing bushing. Tempered steel, burnished.



Order no.	Size	H min.	H max.	D1	D2	H1 min.	H1 max.	F max.	Weight
								[kN]	[g]
86520	85	65	85	50	34	92	112	30	800
86538	125	85	125	50	34	112	152	30	1000

Application:

The height guide bench vice can also be used without cylinder pin or with the attachments No. 6440 and No. 6441. The combination with all AMF screw jacks is possible with centring plate.

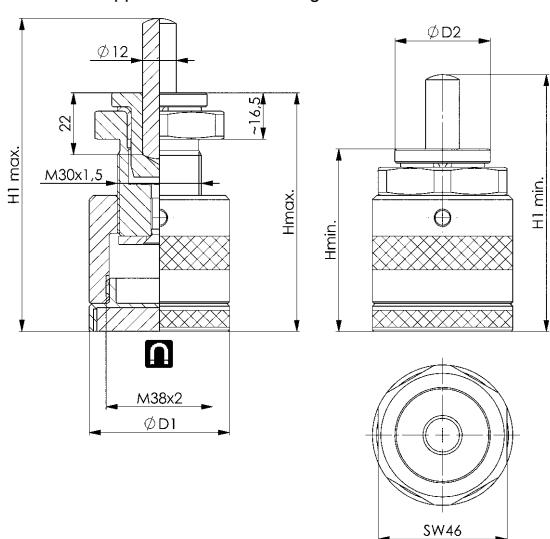
Advantage:

Sensitive adjustment. A bearing insert prevents the workpiece from being turned while the jack is adjusted.

Note:

Suitable attachments: No. 6440, 6441 and 6442.

Suitable support for dismantled magnetic base: No. 6442G.



Recommendations



No. 6315GN,
page 24



No. 6315GNG,
page 24

CAD



No. 6420
Height setting screw jack with pivotable ball

Steel tempered, burnished. Ball made of hardened steel.


CAD

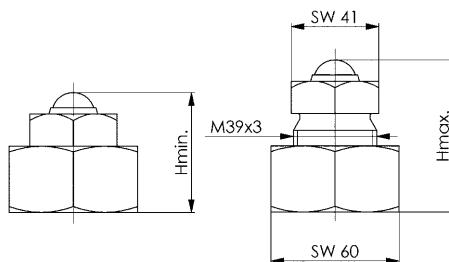

Order no.	Size	H min.	H max.	F max. [kN]	Weight [g]
72546	70	56	70	30	950

Application:

This element with its punctual support is particularly useful in the support and alignment of free-form surfaces e.g. of workpieces which are made of cast iron and forging-grade steels. The precision of alignment is approx. 0.1 mm.

Advantage:

- The pivotable ball minimizes the friction on the support and reduces the required operating forces.
- The use of a point-like support prevents the transmission of the torsional force created by the movement of the spindle. The position of the workpiece remains unchanged.
- The simple and rugged construction provides for a long lasting service life.


Recommendations


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No. 6400
Screw jack with flat support

Centring hole dia. 12 mm. Spindle: Trapezoidal thread, self-locking with end stopbody. Tempering steel, varnished.



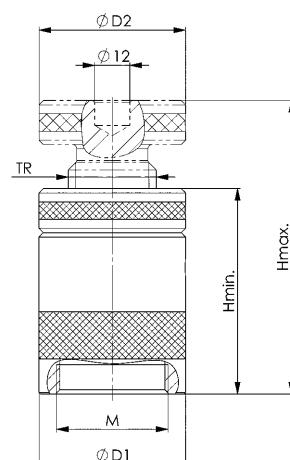
Order no.	Size	H min.	H max.	TR	D1	D2	M	F max. [kN]	Weight [g]
72397	50	38	50	20 x 4	31	31	-	25	190
72389	52	42	52	30 x 4	50	50	M38 x 2	100	550
72405	70	50	70	30 x 4	50	50	M38 x 2	100	620
72413	100	70	100	30 x 4	50	50	M38 x 2	100	900
72421	140	100	140	40 x 7	68	68	-	120	2760
72439	210	140	210	50 x 8	80	70	-	170	4600
72496	200	140	200	65 x 10	100	80	-	350	6900
72447	300	190	300	65 x 10	100	80	-	350	9000
72504	280	190	280	80 x 10	140	110	-	600	19000

Advantage:

Higher support forces F max. through material optimisation with sizes 50 - 140.

Note:

Size 50 without centring hole Ø 12 mm. The sizes 52-100 are suitable for clamps with a slot width of approx. 14-22 mm. The screw jack no. 6430 represents a useful addition for large clamping heights. The sizes 140-300 are suitable for clamps with a slot width of approx. 20-40 mm. For these, the screw jacks no. 6435S represent a useful addition for large clamping heights. When using clamps DIN 6315B, 6315C and 6315GN from 26 mm slot width, we recommend, fixing cap no. 6443. The sizes 200-280 are intended for supporting large workpieces. Suitable attachments for screw jack sizes 52-280 are nos. 6440, 6441, 6442, 6443 and 6445. The suitable support for sizes 52-100 is no. 6442. Do not adjust screw jack under load!


Recommendations


No. 6440,
page 68



No. 6441,
page 68

CAD


No. 6400M

Screw jack with flat support and magnetic base

Centring hole dia. 12 mm. Spindle: Self-locking trapezoidal thread with final stop. Painted tempered steel.



CAD



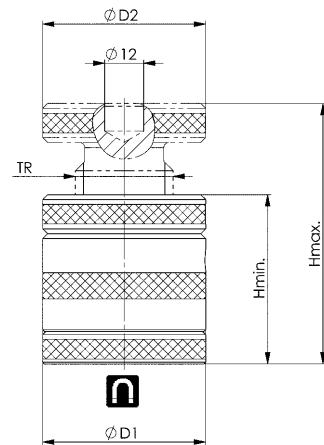
Order no.	Size	H min.	H max.	TR	D1	D2	F max. [kN]	Weight [g]
73320	62	52	62	30x4	50	50	100	700
73361	80	60	80	30x4	50	50	100	770
73403	110	80	110	30x4	50	50	100	1050

Advantage:

Higher support forces F max through material optimisation.

Note:

AMF screw jacks with magnetic base are designed for horizontal and vertical application. The permanent magnet allows permanent and exact positioning of the workpiece in a vertical position. The screw jacks are suitable for clamps of approx. 14-22 mm. When using clamps DIN 6415B, 6315C and 6315GN from 26 mm slot width, we recommend, by way of precaution, fixing cap no. 6443. Suitable attachments: No. 6440, 6441, 6442, 6443 and 6445. Suitable support for dismantled magnetic base: No. 6442G. Do not adjust screw jack under load!



Recommendations



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No. 6443,
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No. 6400G

Screw jack with flat support and thread

Thread for fastening.

Centring hole M12. Spindle: Trapezoidal thread, self-locking with end stopbody. Tempering steel, varnished.



CAD



Order no.	Size	H min.	H max.	TR	D1	D2	F max. [kN]	Weight [g]
376194	52	42	52	30x4	50	50	100	550
376210	70	50	70	30x4	50	50	100	620
376236	100	70	100	30x4	50	50	100	948

Application:

Especially suited for use on vertical turning and boring machines to achieve optimal clamping heights and absorb centrifugal forces.

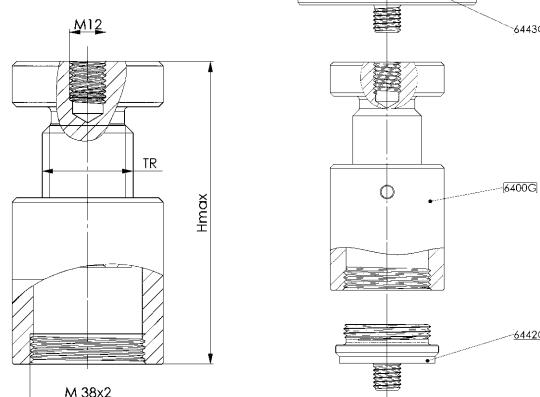
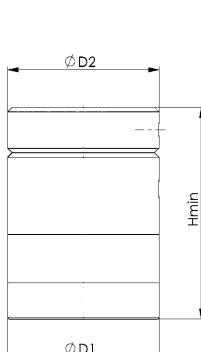
Advantage:

Screw jack can be screwed onto the heavy-duty screw jack no. 6435SG to guarantee optimum security against the occurrence of centrifugal forces. Fixing cap no. 6443G or a screw for retaining a clamp can be incorporated into the screw jack top.

Higher support forces through material optimisation with sizes 52 - 100.

Note:

Do not adjust screw jack under load!



Recommendations



No. 6442G,
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No. 6443G,
page 70

No. 6401
Aluminium screw jack

Centring hole dia. 12 mm. Spindle: Tempering steel, blued. Trapezoidal thread, self-locking with end stopbody. Base: Aluminium 400 N/mm² tensile strength.

Order no.	Size	H min.	H max.	TR	D1	D2	M	F max.	Weight
								[kN]	[g]
75770	52	42	52	30x4	50	50	M38 x 2	30 *	370
75788	70	50	70	30x4	50	50	M38 x 2	30 *	430
75796	100	70	100	30x4	50	50	M38 x 2	30 *	600

Application:

Protects the tables from precision machines (steel chips do not penetrate into the machine table, but into the aluminium base). Suitable for all machine tool tables as well as for guide and measuring plates with precision machined surfaces.

Advantage:

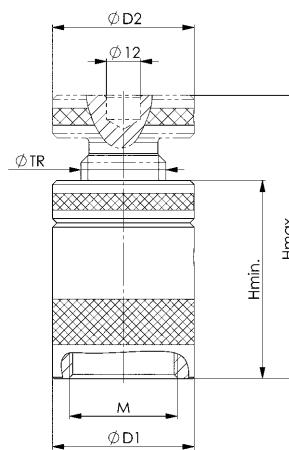
Greater clamping heights can be achieved using the support with aluminium intermediate rings 6406A.

Note:

F max.* until max. 350 mm total height ensured. In addition, there is a risk of buckling.

Suitable attachments: no. 6440, 6441, 6442, 6443/14 and 6445

Do not subject the screw jack to excessive load!


Recommendations


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No. 6440,
page 68

CAD

No. 6405
**Aluminium screw jack
with magnetic base**

Centring hole dia. 12 mm. Spindle: Tempering steel, blued. Trapezoidal thread, self-locking with end stopbody. Base: Aluminium 400 N/mm² tensile strength.

Order no.	Size	H min.	H max.	TR	D1	D2	F max.	Weight
							[kN]	[g]
75804	62	52	62	30x4	50	50	30 *	380
75812	80	60	80	30x4	50	50	30 *	550
75820	110	80	110	30x4	50	50	30 *	710

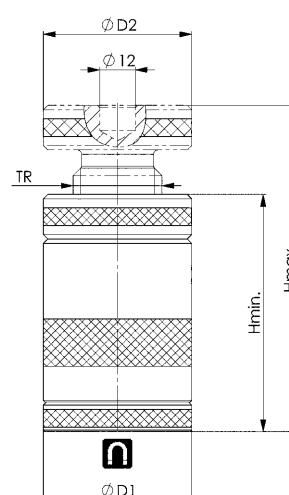
Advantage:

Greater clamping heights can be achieved by installing aluminium intermediate rings 6406A. Magnetic base removable.

Note:

AMF screw jacks with magnetic base are designed for horizontal and vertical application. The permanent magnet allows permanent and exact positioning of the workpiece in a vertical position. F max.* until max. 350 mm total height ensured. In addition, there is a risk of buckling. Suitable attachments: No. 6440, 6441, 6442, 6443/14 and 6445.

Do not adjust screw jack under load!


CAD




Aluminium screw jack with swarf protection

No. 6406

Aluminium screw jack with swarf protection

Scraper ring protects screw jack spindle against chips. Centring hole dia. 12 mm. Spindle tempering steel, blued. Trapezoidal thread, self-locking with end stopbody.

Composed of:

- screw jack with swarf protection
- Alu-base (size 10) or magnetic base (size 20).



Order no.	Size	H min.	H max.	TR	D1	D2	F max. [kN]	Weight [g]
72850	10	75	88	30x4	50	50	30	630
72868	20	75	88	30x4	50	50	30	720

Application:

AMF screw jacks with magnetic base are designed for horizontal and vertical application. The permanent magnet allows permanent and exact positioning of the workpiece in a vertical position.

Advantage:

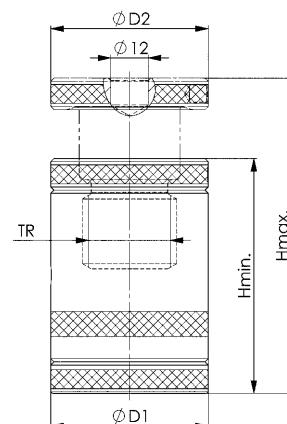
The screw jack thread is protected from the penetration of chips by the scraper.

Note:

F max. until max. 350 mm total height ensured. In addition, there is a risk of buckling.

Suitable attachments: no. 6440, 6441 and 6445

Do not subject the screw jack to excessive load!



Recommendations



No. 6440,
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No. 6441,
page 68

CAD



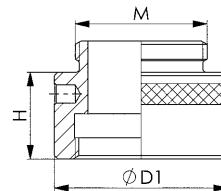
No. 6406A

Alu-intermediate ring

for the height extension of aluminium screw jacks.



Order no.	Size	H	D1	M	F max. [kN]	Weight [g]
72876	12	12,5	50	M38 x 2	30	38
72884	25	25,0	50	M38 x 2	30	76
72926	50	50,0	50	M38 x 2	30	165



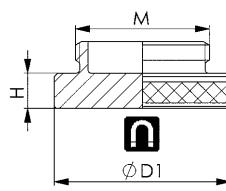
No. 6401M

Magnetic base for screw jacks

Case: Steel, zinc-plated



Order no.	H	D1	M	Weight [g]
558436	10	50	M38 x 2	125



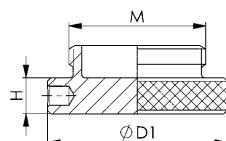
No. 6406AF

Aluminium base for screw jacks

Case: Aluminium



Order no.	H	D1	M	Weight [g]
557186	10	50	M38 x 2	60



Subject to technical alterations.

CAD





Aluminium screw jack with swarf protection

No. 6406-125

Aluminium screw jack with swarf protection

Scraper ring protects screw jack spindle against chips. Centring hole dia. 12 mm. Spindle tempering steel, blued. Trapezoidal thread, self-locking with end stopbody.

Composed of:

- screw jack with swarf protection
- intermediate ring 12.5 mm
- intermediate ring 25 mm and
- Alu- and magnetic base.

Order no.	Size	H min.	H max.	TR	D1	D2	F max. [kN]	Weight [g]
72371	125	75	125	30x4	50	50	30*	920

Application:

AMF screw jacks with magnetic base are designed for horizontal and vertical application. The permanent magnet allows permanent and exact positioning of the workpiece in a vertical position.

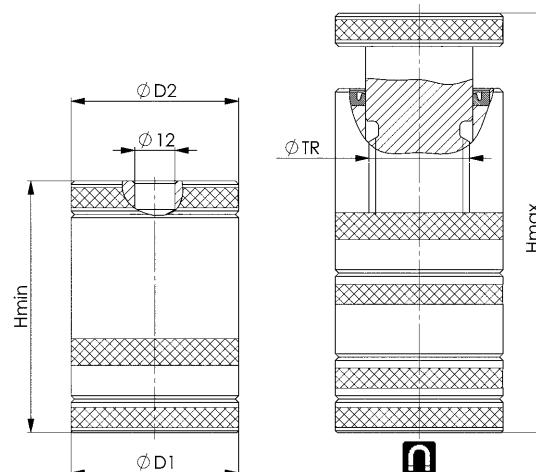
Advantage:

The screw jack thread is protected from the penetration of chips by the scraper.

Note:

F max. until max. 350 mm total height ensured. In addition, there is a risk of buckling.

Suitable attachments: no. 6440, 6441 and 6445
do not subject the screw jack to excessive load!



Recommendations



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page 68



No. 6441,
page 68



No. 6445,
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CAD



Subject to technical alterations.

No. 6460

Wedge block „Herkules“ height wedge

Centring hole dia. 12 mm. Spherical graphite cast iron and steel tempered and burnished. Wedge faces precision machined. Complete with one ball-pad no. 6440.



Order no.	Size	H min.	H max.	B1	B2	H1	H4	L	SW	H/U*	F max.	Weight
		[mm]								[kN]		[g]
72777	63	50	68	63	40	80	7	63	13	0,86	40	1700
72785	125	100	125	115	60	135	20	125	24	1,16	100	8600
72793	190	170	190	145	80	200	20	175	36	2,02	250	23750

*H/U= height adjustment per single turn.

Application:

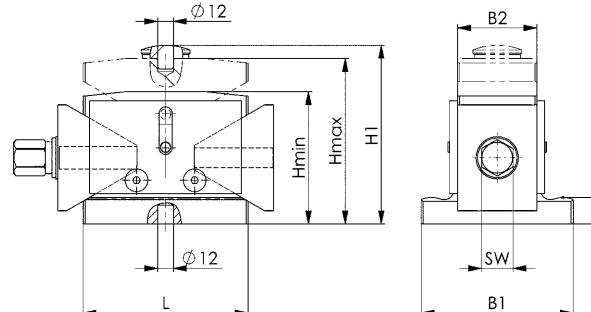
The fine-machined wedge surfaces permits a smooth, precise adjustment to less than 1/10 mm. The double wedge effect produces a large stroke and precise vertical movement with no lateral shift. The height wedge proves its worth with heavy castings or forgings on large tool machines. The AMF „Herkules“ whipstock has an additional centring hole in the floor of the base area. This enables the whipstock to be mounted on „heavy screw jacks“. A ISO8734-12x30 cylinder pin is required for this purpose.

Note:

Suitable attachments for wedge block No. 6460 are No. 6440, 6441 and 6442.

All sizes with lateral clamping rim for fastening on the machine table.

For size 63, the base plate is removable for reaching Hmin.



Recommendations



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No. 6420,
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No. 6444,
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No. 6465

Precision wedge block

Centring hole Ø 12 mm. Case-hardened steel and fine-machined wedge surfaces. A spherical attachment no. 6440 is included with every precision whipstock.



Order no.	Size	H min.	H max.	H/U*	F max.	SW	Weight
		[mm]		[mm]	[kN]	[mm]	[Kg]
375592	55	50	55	0,71	40	22	2,8
375618	85	77	85	0,71	250	36	11,5

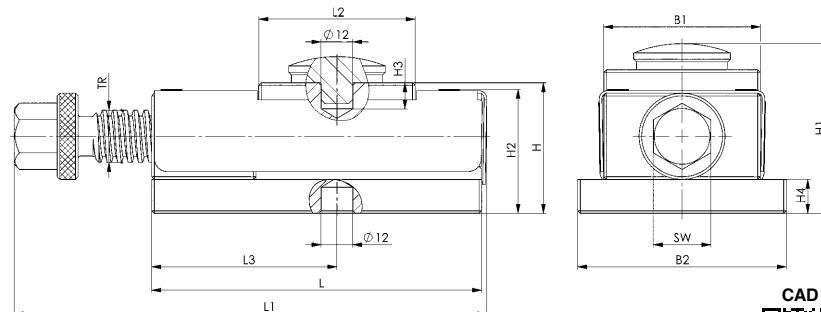
*H/U= height adjustment per single turn.

Application:

- The fine-machined wedge surfaces permits a smooth, precise adjustment to less than 1/10 mm.
- Operation can be via an open-ended spanner - hence ensuring enhanced safety and ease of handling due to the large adjusting forces.
- The double wedge effect produces a precise vertical movement with no lateral slide.
- The flat design of the precision height wedge enables higher safety properties to be realised when aligning heavy and large components.
- The precision whipstock has an additional centring hole in the floor of the base surface for alignment on the machine table. (suitable for a pin ISO 8734 - 12 mm diameter)

Note:

- Suitable caps for the precision whipstock are nos. 6440, 6441 and 6442
- Precision whipstock can be adjusted under load
- Height adjustment is 0.71 mm / revolution



Recommendations



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No. 6445,
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No. 6443,
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Dimensions:

Order no.	B1	B2	TR	H1	H2	H3	H4	L	L1	L2	L3
375592	60	80	20	60-65	47,5	10	13	128	150-179	60	71
375618	100	140	30	87-95	74,0	15	15	204	242-287	81	102

No. 6430S

Atlas screw jack with counter nut

Centring hole dia. 12 mm. Spindle complete: tempering steel with trapezoidal thread. Spindle head blued. Housing: cast iron, varnished.



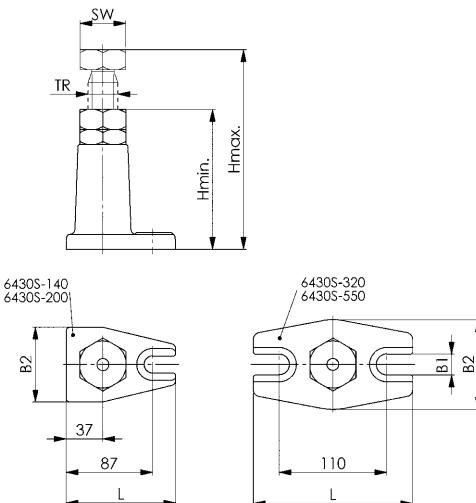
CAD



Order no.	Size	H min.	H max.	TR	B1	B2	L	SW	F max. [kN]	Weight [Kg]
72553	140	100	140	30x6	18	75	110	46	60	1,8
72561	200	140	200	30x6	18	75	110	46	60	2,2
72579	320	200	320	30x6	22	90	160	46	40	3,8
72587	550	320	550	30x6	22	90	160	46	25	4,9

Note:

When using clamps DIN 6315B, 6315C and no. 6315GN with slot-sizes above 26 mm we recommend the use of locating pad no. 6443 for safety. Suitable pads are no. 6440, 6441, 6442, 6443 and 6445. Do not adjust screw jack under load!



Recommendations



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No. 6435S

Heavy screw jack

with nickel lock bolt. Centring hole D12 / M10. Spindle: Tempered steel, self-locking acme thread, with final stop. Spindle head burnished. Body: tempered steel, painted.



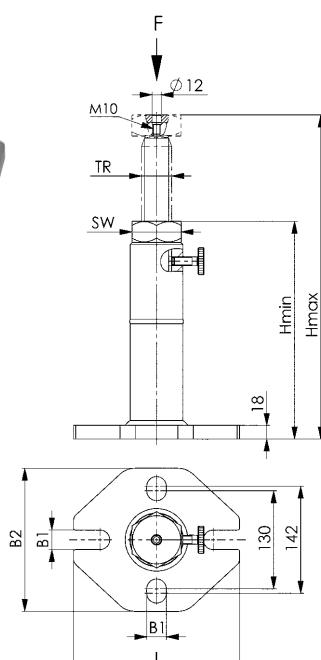
Order no.	Size	H min.	H max.	TR	B1	B2	L	SW	F max. [kN]	Weight [Kg]
72637	300	200	300	40x7	26	190	220	65	80	8
72645	460	290	470	40x7	26	190	220	65	60	10
72652	750	430	750	40x7	26	190	220	65	50	13
72660	1250	710	1250	40x7	26	190	220	65	40	18

Advantage:

- Thread M10 on the spindle top for fixing attachment elements.
- Greater clamping heights can be achieved by installing with No. 6442G and No. 6415.
- Base plate with closed slots for fastening on the machine table.

Note:

When using clamps DIN 6315B, 6315C and No. 6315GN from 26 mm slot width, we recommend the fixing cap No. 6443. Suitable attachments for screw jack No. 6435S are No. 6440, 6441, 6442, 6443, 6445 and 6442G. Do not adjust screw jack under load!



Recommendations



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No. 6438S

Screw jack, quick-action

continuously adjustable with nickel lock bolt.

Centring hole D12 / M10. Spindle: Tempered steel, self-locking acme thread with final stop.

Spindle head burnished. Body: tempered steel, painted.

Order no.	Size	H min.	H max.	TR	B1	B2	D	L	SW	F max.	Weight
										[kN]	[Kg]
75705	450	320	450	40x7	26	190	90	220	65	50	11,5
75713	710	450	710	40x7	26	190	90	220	65	40	13,7
75721	1250	710	1250	40x7	26	190	90	220	65	30	18,3

Application:

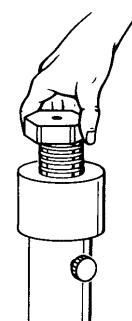
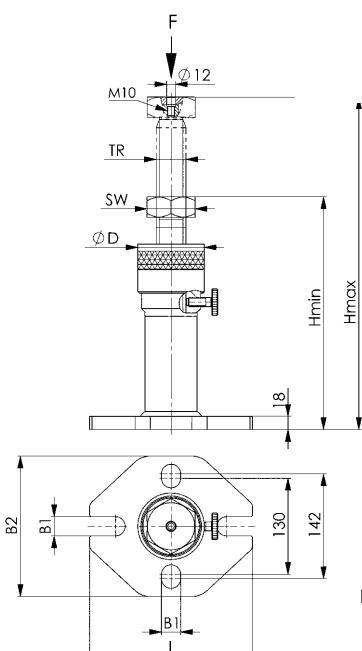
This screw jack allows fast adjustment and continuous adjustment within the entire height range. Suitable attachments: No. 6440, 6441, 6443, 6445 and 6442G.

Advantage:

- Thread M10 on the spindle top for fixing attachment elements.
- Greater clamping heights can be achieved by installing with No. 6442G and No. 6415.
- Base plate with closed slots for fastening on the machine table.

Note:

- Hold spindle, max. 6 kg
 - Undo lock bolt
 - Turn actuating ring to undo the spindle
 - Adjust height
 - Turn actuating ring to fasten the spindle
 - Secure spindle with lock bolt
- Do not subject the screw jack to excessive load!



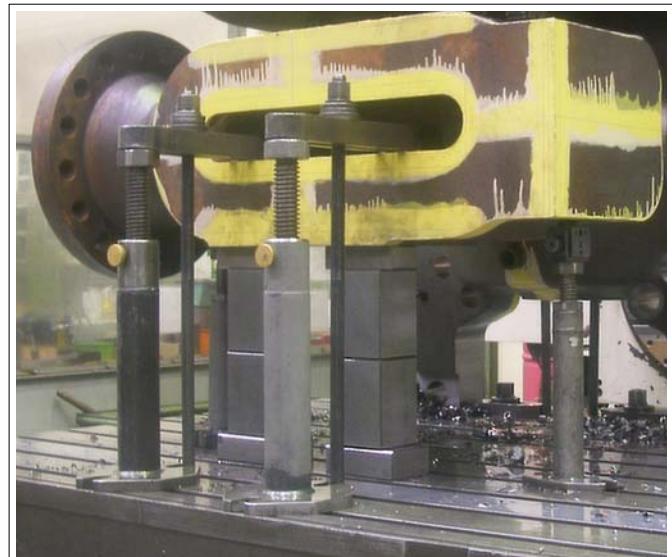
Recommendations



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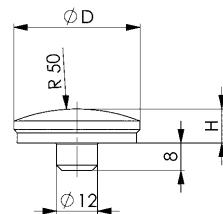


No. 6440

Ball-pad

Steel tempered, burnished.

Order no.	H	D	Weight [g]
72710	10	37	90



CAD

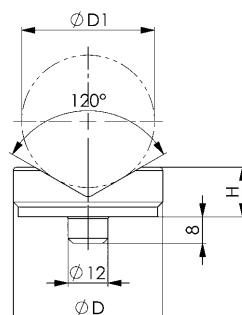


No. 6441

Vee-pad

Steel tempered, burnished.

Order no.	Size	H	D	D1 min.	D1 max.	Weight [g]
72728	45	15	45	10	50	120
72769	65	30	65	22	100	545



CAD

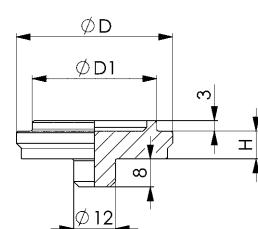


No. 6442

Centering-pad

Steel tempered, burnished.

Order no.	H	D	D1	Weight [g]
72736	8	45	35,8	120



CAD



No. 6443

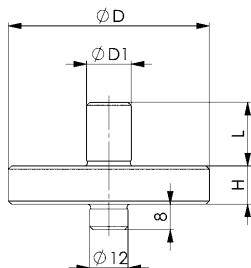
Locating-pad

for forked clamps. Steel tempered, burnished.

Order no.	Size	H	D	D1	L	Weight [g]
72751	14	12	63	14	15	310
72744	25	15	78	25	25	650



CAD



No. 6444

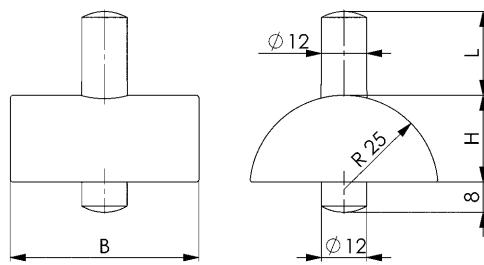
Locating-pad

with cylindrical face. Steel tempered and burnished.

Order no.	H	B	L	Weight [g]
72454	23	50	19	370



CAD



No. 6445

Support with pivotable ball

Steel tempered, burnished. Ball made of hardened steel.

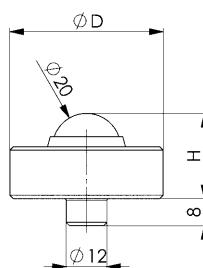
Order no.	H	D	F max. [kN]	Weight [g]
72819	25	45	30	240

Application:

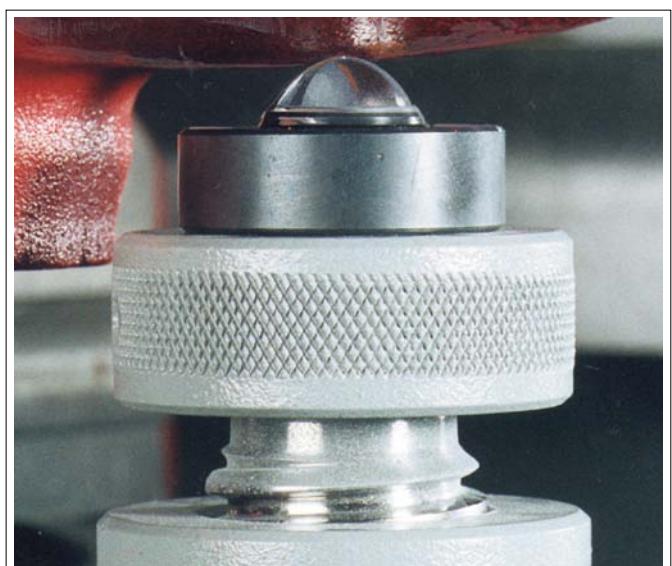
This rugged element was designed for the supporting and alignment of workpieces made of cast iron and forging-grade steels. Designed for use with AMF-screw jacks.

Advantage:

- The pivotable ball minimizes the friction on the support and reduces the required operating forces.
- The use of a point-like support prevents the transmission of the torsional force created by the movement of the spindle. The position of the workpiece remains unchanged.
- The simple and rugged construction provides for a long lasting service life.



CAD



No. 6442G

Centring plate with thread

Steel tempered, burnished.



Order no.	Size	D1	D2	H	H1	H2	M	Weight [g]
562125	M10	50	11,9	10	33	25	M38x2	200

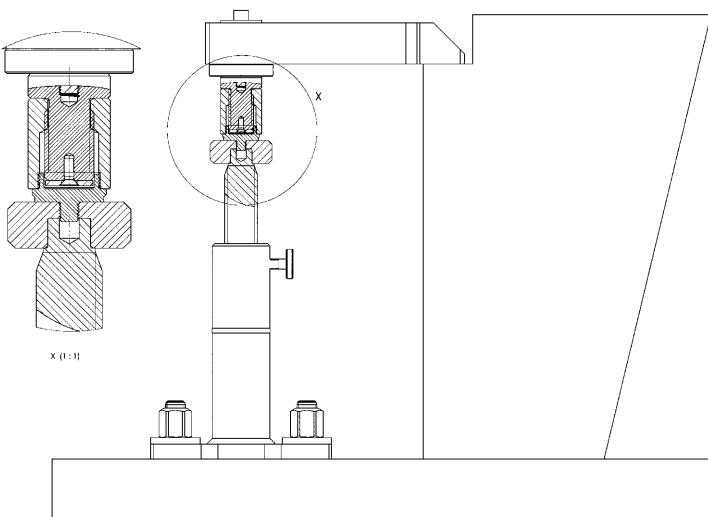
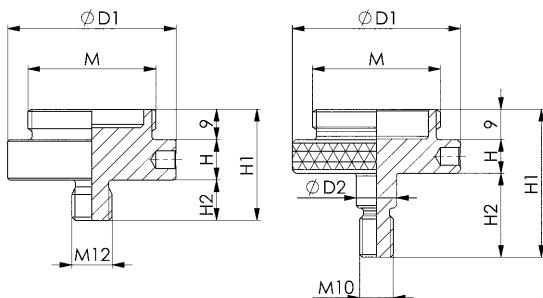
Advantage:

Centring plate can be screwed onto screw jacks. The screw jacks can be screwed onto the centring plate.

- Height guide bench 6415
- Screw jack with flat bearing 6400-52/-70/-100
- Screw jack with flat bearing and thread 6400G
- Aluminium-screw jack 6401

Note:

The maximum possible support force of the screw jack combination must be adjusted to the support force (Fmax.) of the screw jack used.



CAD



No. 6443G

Fixing cap with thread

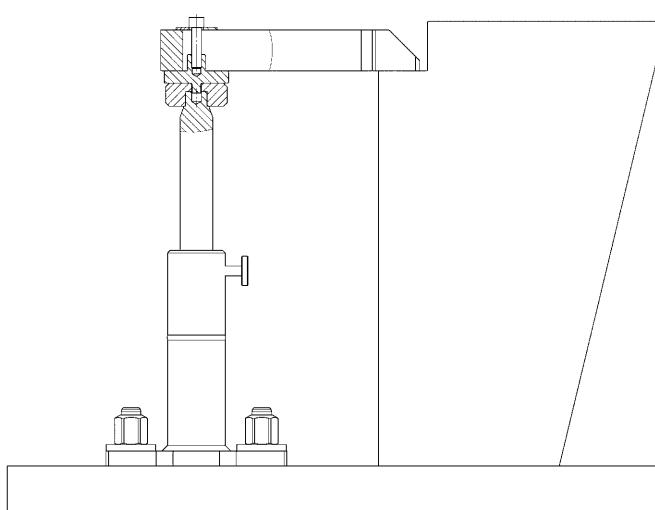
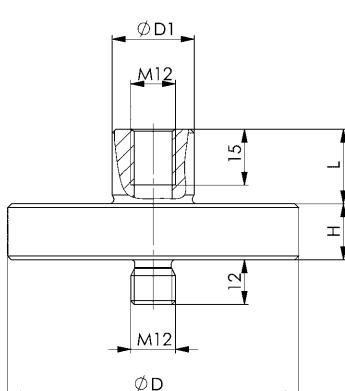
for forked clamps. Steel tempered, burnished.



Order no.	Size	H	D	D1	L	Weight [g]
376350	25	15	78	22	20	601

Advantage:

Centring plate can be screwed onto screw jacks. Internal thread for additional fastening of clamps onto screw jacks. Safety with vertical turning and boring machines.



CAD



No. 6417
Mandrel

blued, with brass thrust piece.

Order no.	Size	Slot	H ±0,1	H1 min.	H1 max.	H2 min.	H2 max.	dia. D1	dia. D2	dia. D3	G1	G2	SW	Weight [g]
74179	80	14	80	116	148	8	40	40	50	32	M12	M16	27	1270

Application:

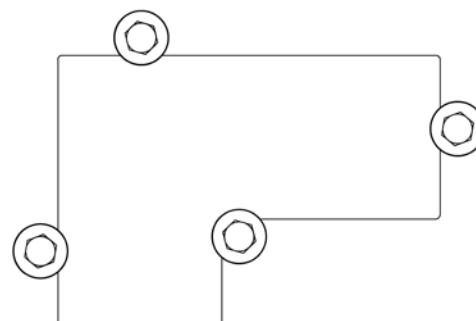
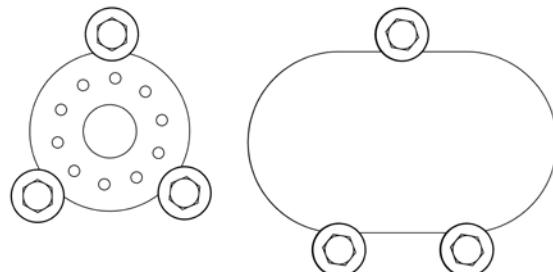
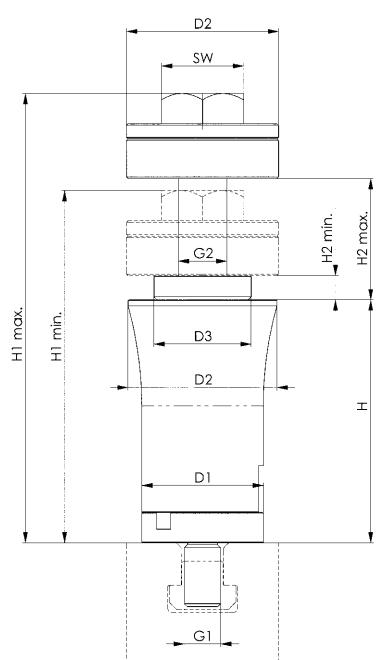
- The mandrels are fastened to the machine table by means of T-nuts.
- The mandrel is fixed on the slotted table by operating the SW 27 mm pre-tensioning nut.
- Clamping is by means of the SW 27 mm screw of tempered steel.
- Damage to the workpiece is prevented by a brass clamping ring.

Advantage:

- Reduced tooling time and tool elements cuts tooling costs
- Optimal use of the machine table
- Tension on flat workpieces increased to make holes, threads and grooves

Note:

- Suitable for workpiece thicknesses from 8 to 40 mm
- Support height 80 mm
- Also available is an extension screw for workpiece thicknesses from 40 - 72 mm and spacer elements of 25 mm and 50 mm to increase the support height


Recommendations

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page 72

No. 6417SP,
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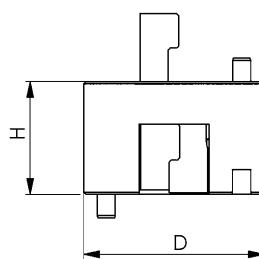

No. 6417Z
Spacer element

blued.

Order no.	Size	dia. D	H	Weight [g]
74195	25	40	25	214
74211	50	40	50	459

Application:

Used to increase the support height.



CAD

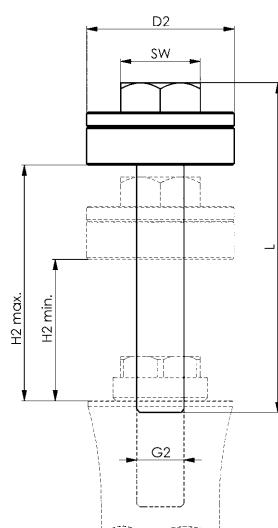

No. 6417SP
Spindle, long

blued.

Order no.	Size	L	dia. D2	G2	SW	H2 min.	H2 max.	Weight [g]
74237	M16	104	50	M16	27	40	72	423

Application:

Used to increase the clamping height.



CAD



No. 6418

Support element, mechanical

incl. DIN 508-M12x14 nut for T-grooves, M12x30-10.9 threaded stud. Body: Case-hardened steel, manganese phosphatised and ground. Body: Aluminium.



Order no.	Size	Support force F max. [kN]	H [mm]	Stroke [mm]	SW1	SW2	G	Weight [g]
75416	M12	8	78-83	5	21	6	M12	939

Application:

1. Fasten support element (2x M6 connecting thread) on fixture.
- Note operator side!
- Alternatively: Remove M12 x 10 threaded stud and replace with M12 x 30 threaded stud and mount the support element with key (size 21), e.g. for T-groove mounting
- (No defined operator side ensured).
2. Turning the clamping cam (hexagon socket size 6) on the outside surface of the red protective sleeve positions the supporting bolt against the workpiece with light spring force.
3. Turning further as far as it will go (lock) - a total of 180° - locks the clamping mechanism of the supporting bolt without length change.
The support element is positioned on the workpiece and locked.
4. Turning in the opposite direction (unlock) releases the clamping. Continuing to turn back as far as it will go - a total of 180° - moves the supporting bolt to the end position.

Advantage:

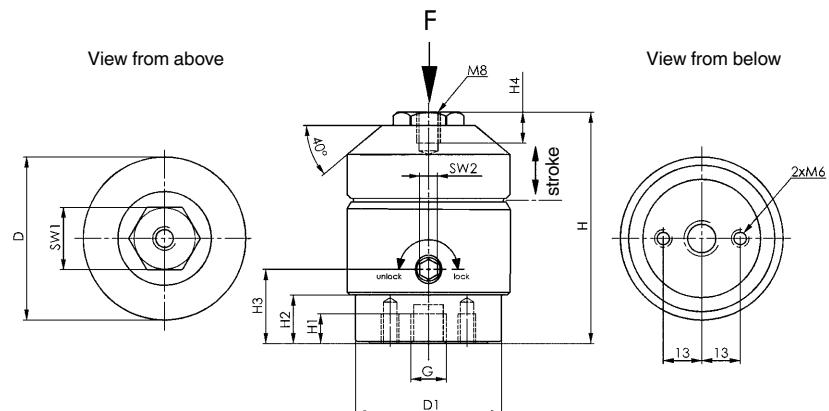
- Used as an extra support to prevent sagging and vibration of the workpiece.
- Mounted directly under a clamping point, it prevents distortion of the workpiece.
- Compensation of large workpiece tolerances (castings).

Note:

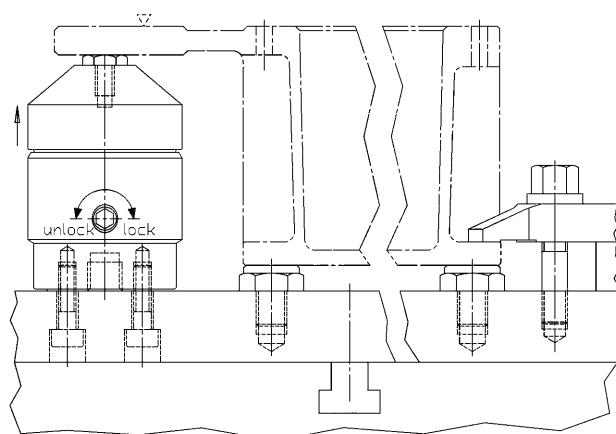
- M8 thread on supporting bolt can be mounted with pressure screws (Nos. 7110DHX, 7110DIX, 7110DKX, 7110DFX).
- Customer-specific extensions can also be mounted.
- For reliable function the M12 threaded hole must always be closed.

Dimensions:

Order no.	Size	D	D1	H1	H2	H3	H4
75416	M12	55	49,4	10	16	25	10,5



Application example:



CAD



No. 6419
Floating clamp

combined support and clamping,
incl. fastening for T-slots.



Order no.	Size	Slot	G	Md min. - max. [Nm]	F [kN]	Setting travel H	Clamping stroke H2* [mm]	Weight [g]
75754	12	14	M12	15-30	2-8	102-112	0-12	1880
75622	16	18	M16	50-115	8-25	163-175	10-25	6250

* Clamping stroke = clamping range with upper and lower standard clamping jaw.

Application:

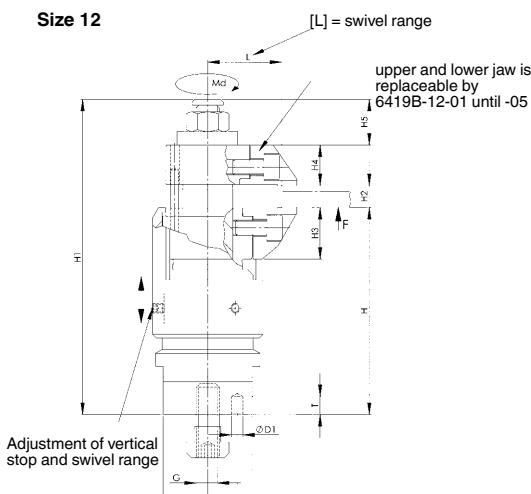
1. Fasten floating clamp on fixture or machine table.
2. Adjust height stop and swivel range with red adjustment sleeve and lock with threaded stud. When setting the upwards height limitation, allow for generous play (workpiece manufacturing tolerance).
3. Press floating clamp downwards.
4. Swivel clamping jaws in as far as they will go.
- The floating clamp is positioned with light spring force on bottom of workpiece.
5. Tighten floating clamp with hexagon nut.
- During the clamping process the workpiece is clamped and at the same time supported.
6. Unclamping is carried out in the reverse sequence.

Advantage:

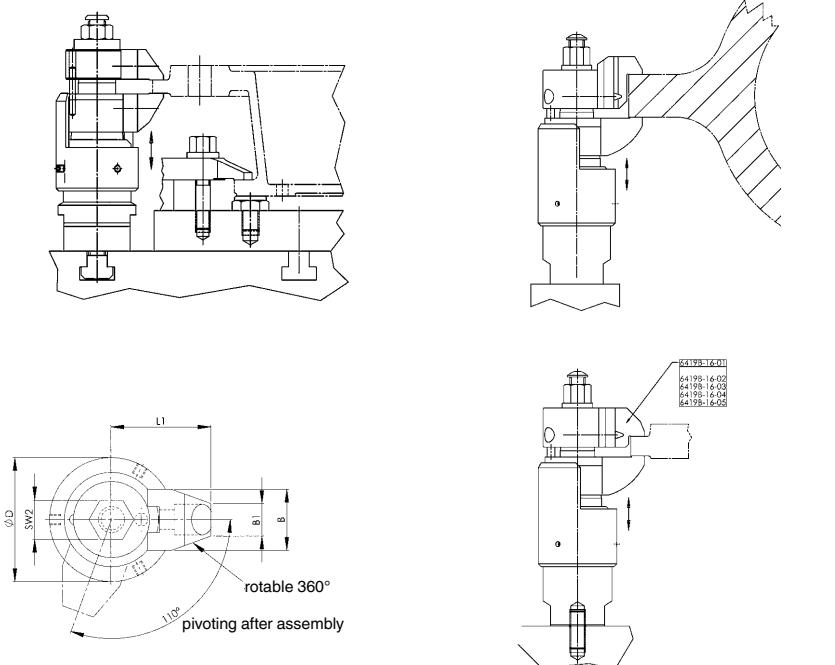
- Especially suitable for large, hard-to-machine components (size 16).
- No deformation when clamping weak components.
- Vibration suppression during machining.
- Clamping of ribs, creases and tabs for stiffening on clamped components.
- Deformation-free clamping of blanks.

Note:

- The floating clamp is used to clamp and support overdetermined clamping points on components.
- For customer-specific clamping situations the supplied clamping jaws can be replaced with the following clamping jaws (Nos. 6419B-12 and 6418B-16) (max. tightening torque = 43 Nm)

Size 12

Dimensions:

Order no.	Size	A	B	B1	D	ØD1 +0.3	H1	H3	H4	H5	L	SW2	SW1	L1	T
75754	12	14	28	15	57	6	163	26,8	21	32	39	18	46	46	8
75622	16	20	54	20	80	6	261	40,0	29	45	54	24	55	68	8

Application examples:

CAD


Subject to technical alterations.

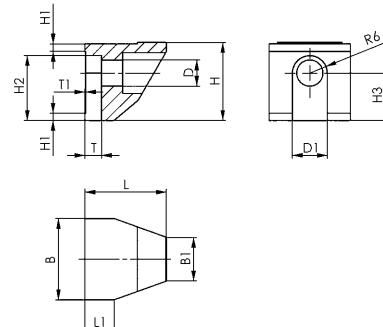
No. 6419B-12-01
Clamping jaw

Case-hardened steel, nitrided and burnished.
Lower standard clamping jaw.

Order no.	Size	B	B1	D	D1 +0,02	H -0,1	H1	H2 -0,1	H3 ±0,1	L	L1	T +0,2	T1	Weight [g]
71233	12	28	15	9	12	26,8	2,5	22,3	16,3	28	10	5,5	0,2	83

Note:

Fastening with ISO 4762-M8 cylinder bolts.


CAD

No. 6419B-12-02
Clamping jaw

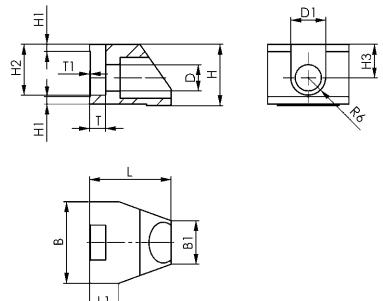
Case-hardened steel, nitrided and burnished.
Upper standard clamping jaw.

Order no.	Size	B	B1	D	D1 +0,02	H -0,1	H1	H2 -0,1	H3 ±0,1	L	L1	T +0,2	T1	Weight [g]
71605	12	28	15	9	12	21	2,5	17,5	11,5	29,5	11,5	5,5	0,2	71

Clamping range = workpiece thickness 0-12 mm.

Note:

Fastening with ISO 4762-M8 cylinder bolts.


CAD

No. 6419B-12-03
Clamping jaw

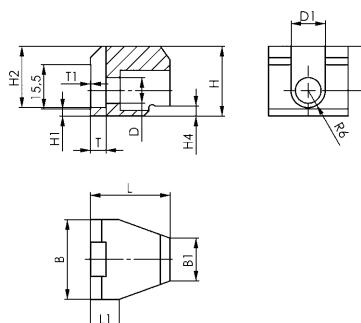
Case-hardened steel, nitrided and burnished.
Upper exchangeable clamping jaw.

Order no.	Size	B	B1	D	D1 +0,02	H -0,1	H1	H2 -0,1	H3 ±0,1	H4	L	L1	T +0,2	T1	Weight [g]
74229	12	28	15	9	12	24,5	2,5	21,5	15,5	3,5	29,5	11,5	5,5	0,2	94

Clamping range = workpiece thickness 4-16 mm.

Note:

Fastening with ISO 4762-M8 cylinder bolts.


CAD


No. 6419B-12-04
Clamping jaw

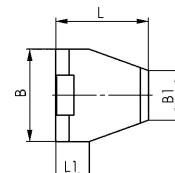
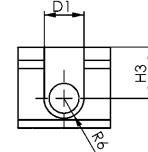
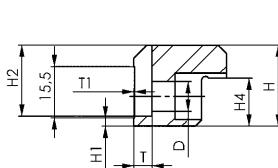
Case-hardened steel, nitrided and burnished.
Upper exchangeable clamping jaw.

Order no.	Size	B	B1	D	D1 +0,02	H -0,1	H1	H2 -0,1	H3 ±0,1	H4	L	L1	T +0,2	T1	Weight [g]
74245	12	28	15	9	12	24,5	2,5	21,5	15,5	14,5	29,5	11,5	5,5	0,2	90

Clamping range = workpiece thickness 15-27 mm.

Note:

Fastening with ISO 4762-M8 cylinder bolts.



CAD


No. 6419B-12-05
Clamping jaw

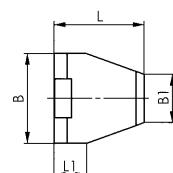
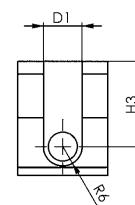
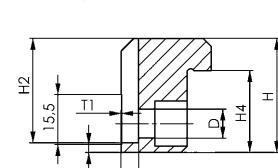
Case-hardened steel, nitrided and burnished.
Upper exchangeable clamping jaw.

Order no.	Size	B	B1	D	D1 +0,02	H -0,1	H1	H2 -0,1	H3 ±0,1	H4	L	L1	T +0,2	T1	Weight [g]
75051	12	28	15	9	12	35,5	2,5	32,5	26,5	25,5	29,5	11,5	5,5	0,2	132

Clamping range = workpiece thickness 26-38 mm.

Note:

Fastening with ISO 4762-M8 cylinder bolts.



CAD


No. 6419B-16-01
Clamping jaw

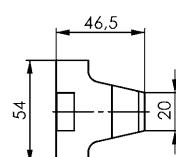
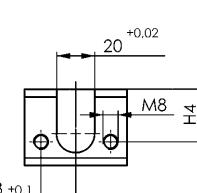
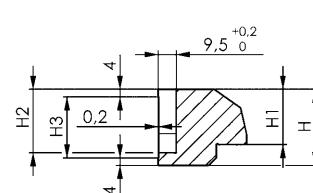
Case-hardened steel, nitrided and manganese phosphatised.
Upper standard clamping jaw.

Order no.	Size	H	H1	H2	H3	H4	Weight [g]
75382	16	40	29	33,3	32	27,6	400

Clamping range = workpiece thickness 10-25 mm.

Note:

Fastening with ISO 4762-M8x50 cylinder bolts.



CAD



No. 6419B-16-02
Clamping jaw

Case-hardened steel, nitrided and manganese phosphatised.
Upper exchangeable clamping jaw.



CAD

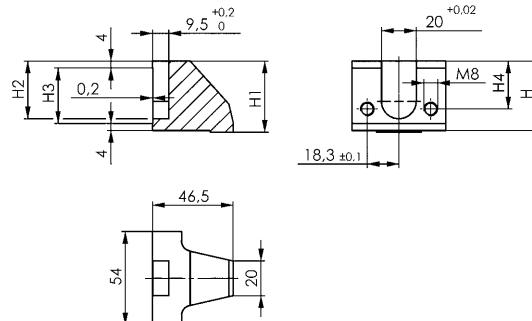


Order no.	Size	H	H1	H2	H3	H4	Weight [g]
75424	16	40	41	33,3	32	27,6	380

Clamping range = workpiece thickness 0-14 mm.

Note:

Fastening with ISO 4762-M8x50 cylinder bolts.


No. 6419B-16-03
Clamping jaw

Case-hardened steel, nitrided and manganese phosphatised.
Upper exchangeable clamping jaw.



CAD

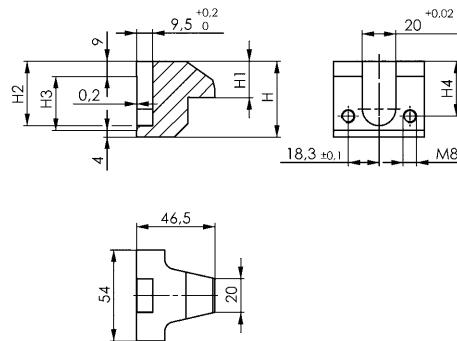


Order no.	Size	H	H1	H2	H3	H4	Weight [g]
75440	16	45	21,6	38,3	32	32,6	440

Clamping range = workpiece thickness 23-38 mm.

Note:

Fastening with ISO 4762-M8x50 cylinder bolts.


No. 6419B-16-04
Clamping jaw

Case-hardened steel, nitrided and manganese phosphatised.
Upper exchangeable clamping jaw.



CAD

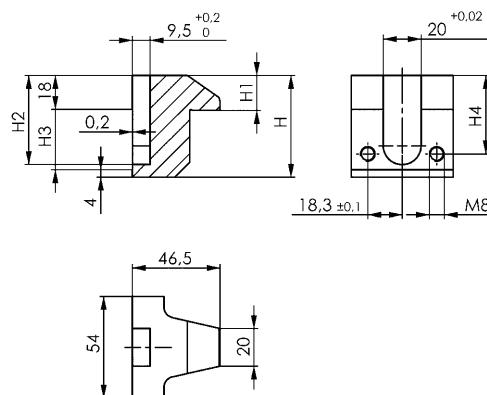


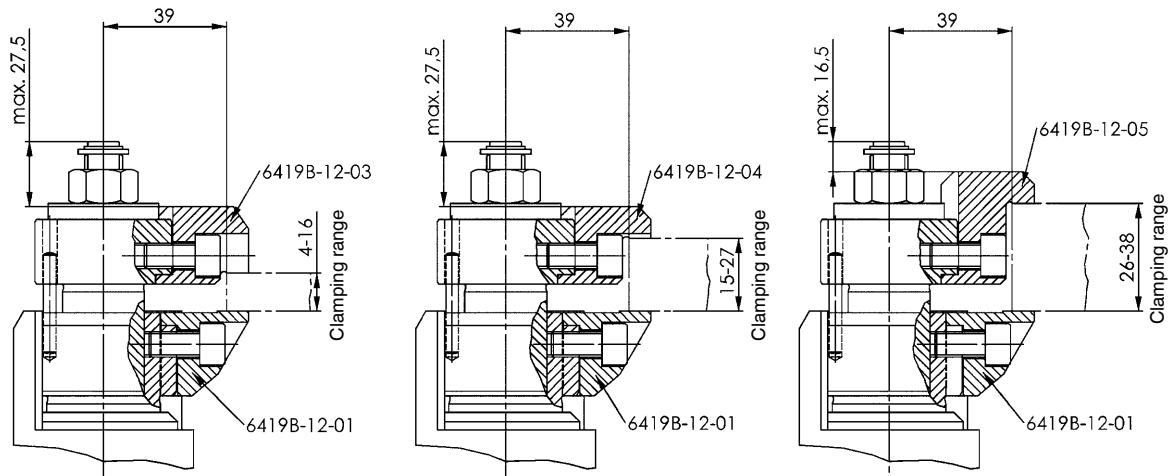
Order no.	Size	H	H1	H2	H3	H4	Weight [g]
75630	16	54	18,6	47,3	32	41,6	510

Clamping range = workpiece thickness 35-50 mm.

Note:

Fastening with ISO 4762-M8x50 cylinder bolts.



Application examples clamping jaw 6419B-12

Application examples clamping jaw 6419B-16
