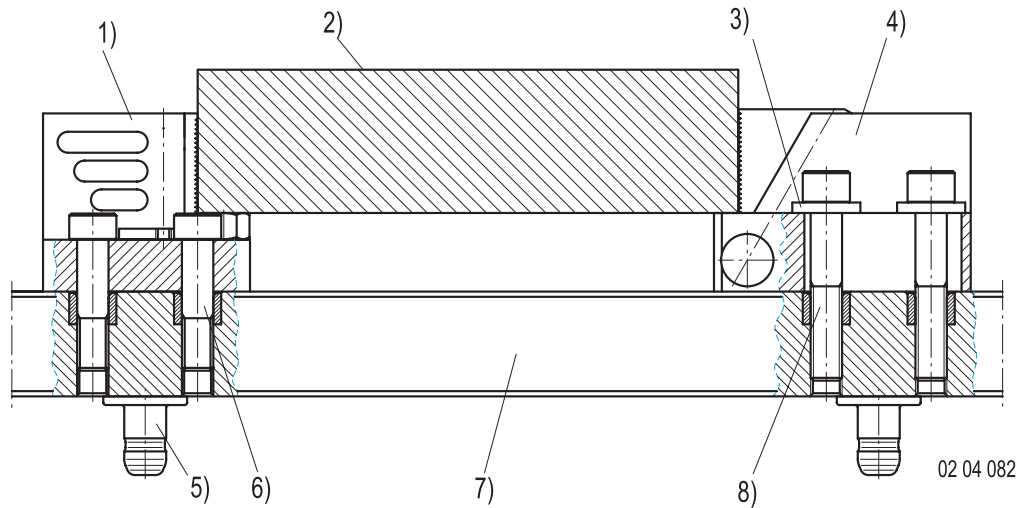




Zero point reference also on down draw clamps

A fixed zero point reference on down draw clamps is self-evident in the STARK zero point mounting system. This zero point reference on down draw clamps is a definite must on external setting-up and palletting work.



- | | |
|-----------------------------------------------|--------------------------|
| 1) Down draw clamp with zero point | 5) Retractable nipple |
| 2) The workpiece can be machined on all sides | 6) Precision collar bolt |
| 3) Washer | 7) Perforated pallet |
| 4) Down draw clamp | 8) Bolt DIN 912 |



Guidelines for working with clamping devices

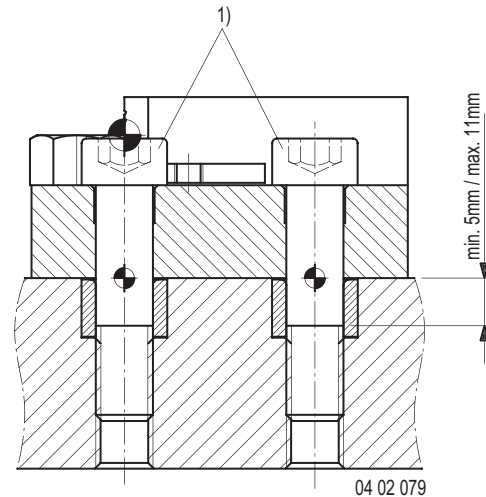
Clamping devices for pegging out with zero point

To mount clamping devices only precision collar bolts of the property class 10.9 may be used. The bolts with adequate length have to be screwed into the plate to a depth of at least 12 mm.

Caution: Watch the length of the positioning socket!

Max. tightening torque

M12 = 70 Nm



1) Precision collar bolts

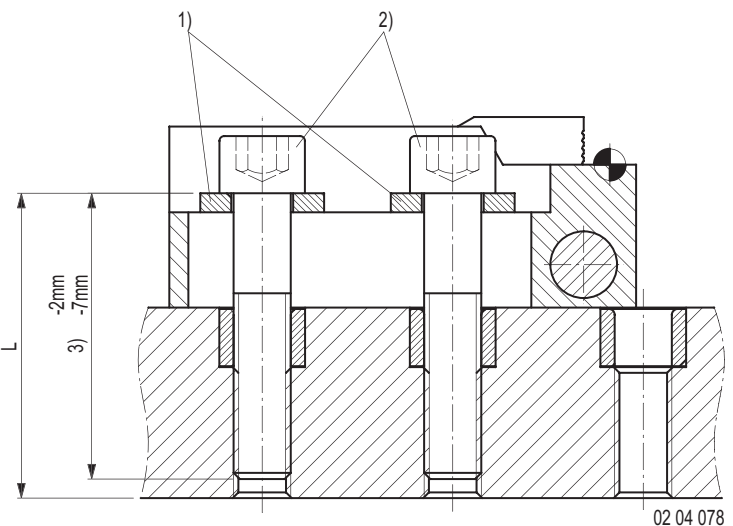
Adjustable clamping devices

In attaching clamping devices, screws of the property class 10.9 or 12.9 and hardened washers must be used.

To assure the downtime of the plate the length of the screw must be as given in the illustration at the right.

Maximum tightening torque

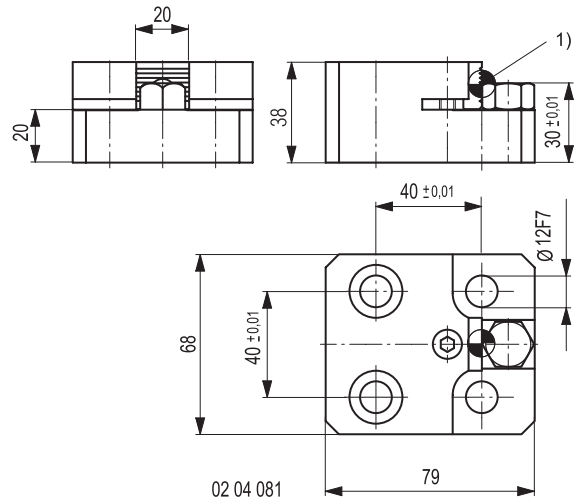
M 12 = 94 Nm



- 1) Washers
- 2) Bolts DIN 912
- 3) Length of screw (L - 2 mm to L - 7 mm)



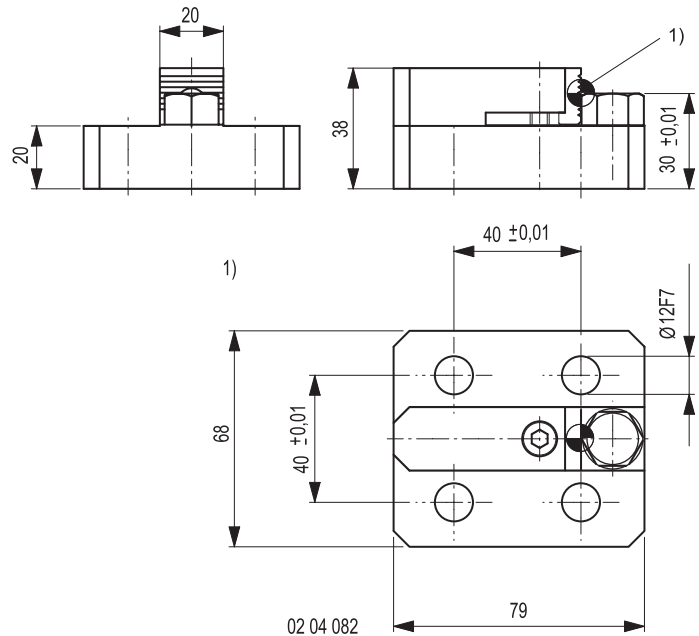
Down draw clamp for pegging out zero point



1) Middle of the bore = End position of work piece ± 0.01

Order no.	Description
804 011	Down draw clamp
704 054	Precision collar bolt M12 10.9

Down draw clamp for pegging out zero point, narrow edition

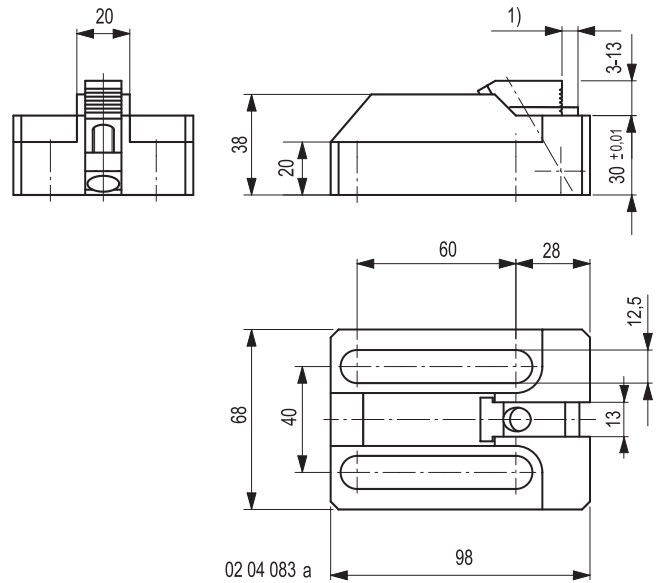


1) Middle of the bore = End position of work piece ± 0.01

Order no.	Description
804 025	Down draw clamp
704 054	Precision collar bolt M12 10.9 x L = 60mm



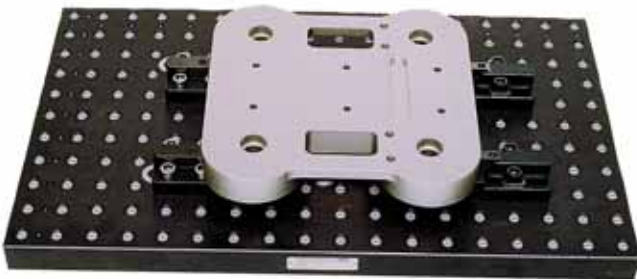
Adjustable down draw clamp



We recommend using washers when mounting the clamps.

Order no.	Description
804 009	Down draw clamp
931 065	Bolt DIN 912, M12, 10.9, L = 60mm
704 020	Washer

1) Clamping distance



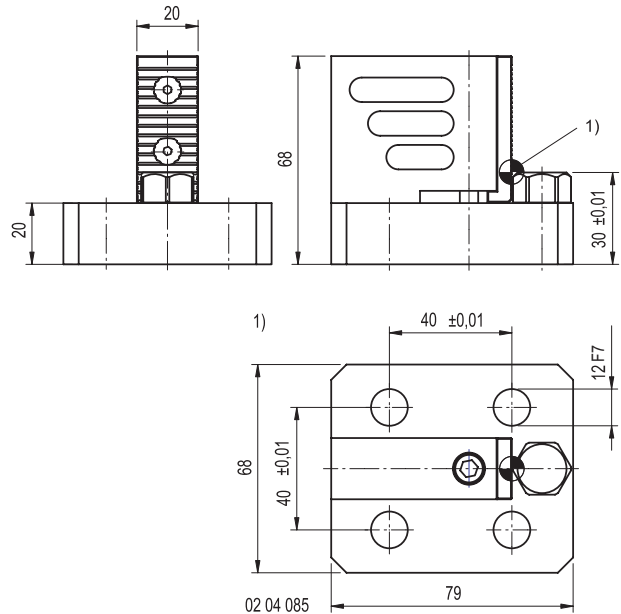
Down draw clamp for pegging out zero point



Down draw clamp in use



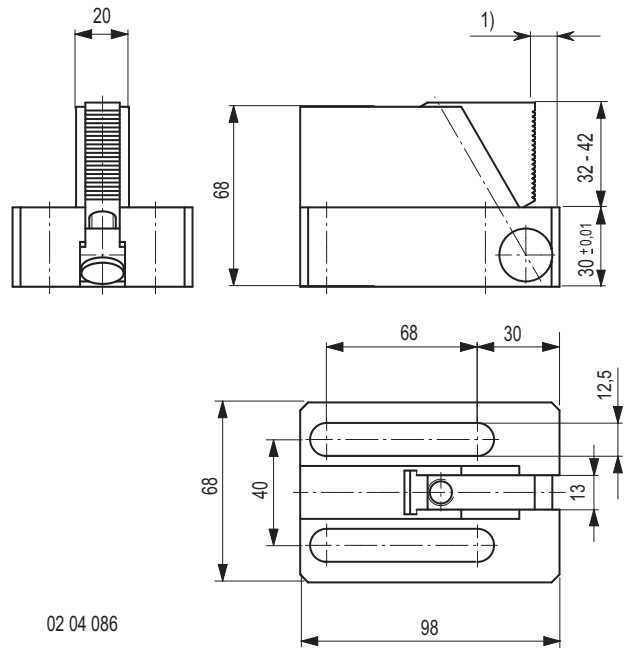
Down draw clamp for pegging out - zero point reference - raised model



Order no.	Description
804 019	Down draw clamp
704 054	Precision collar bolt M12 10.9

1) Middle of the bore = End position of work piece ± 0.01

Down draw clamp - adjustable - raised model



Max. torque 42 Nm
 Max. clamp strength 62 000 N

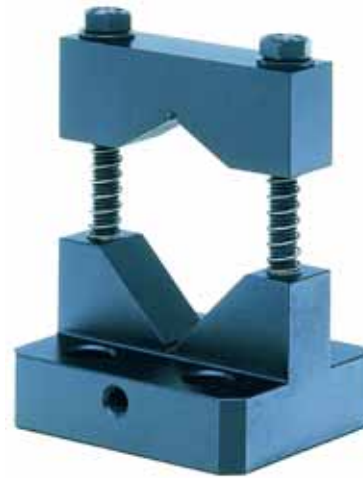
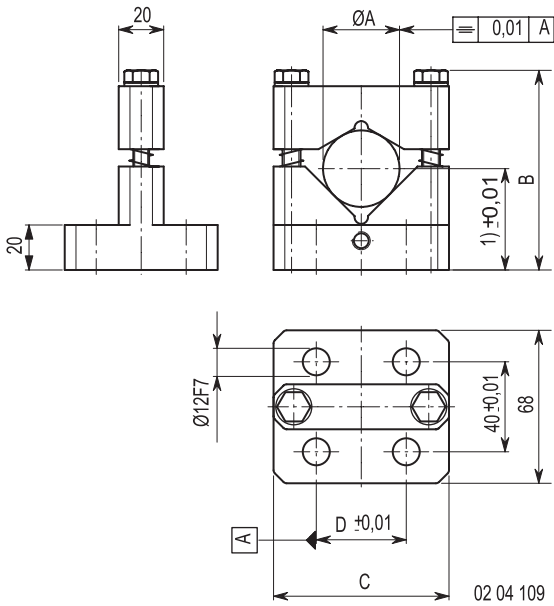
We recommend using washers when mounting the clamps.

Order no.	Description
804 017	Down draw clamp
931 068	Bolt DIN 912, M12, 8.8, L = 70mm
704 020	Washer

1) Clamping distance



Simple prism clamp, as cover with zero point



Order no.	Description	ØA	B	C	D
804 050	Prism clamp	14-30	82-103	78	40
804 052	Prism clamp	29-50	82-110	78	40
804 054	Prism clamp	40-90	120-184	118	80
704 054	Precision collar bolt M12, 10.9				

1) Middle of the bore = End position of work piece ± 0.01

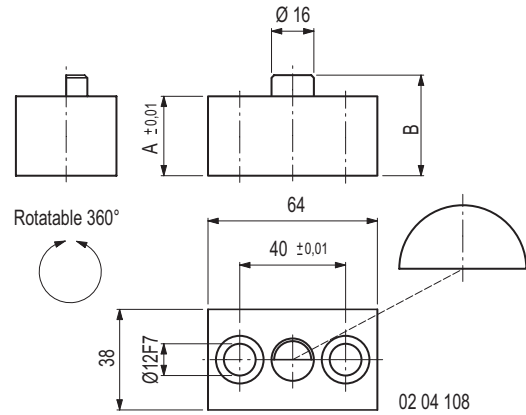
The clamp distance "B" can be extended by exchanging the clamping screws and the support screws.



Example: Prism clamp

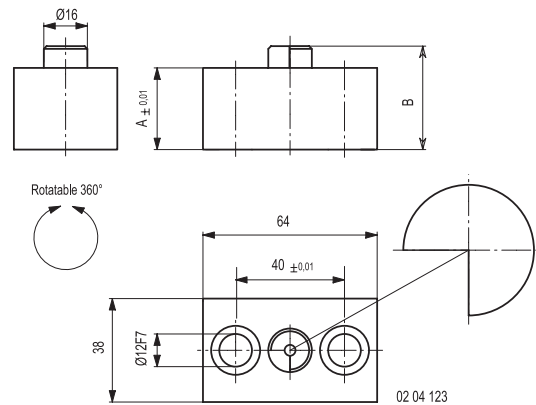


Stop rotatable by 360°, with zero point, straight version



Order no.	Description	A	B
904 404	Stop, straight version	30	38
904 405	Stop, straight version	60	68
704 054	Precision collar bolt M12 10.9 for 904 404		
704 058	Precision collar bolt M12 10.9 for 904 405		

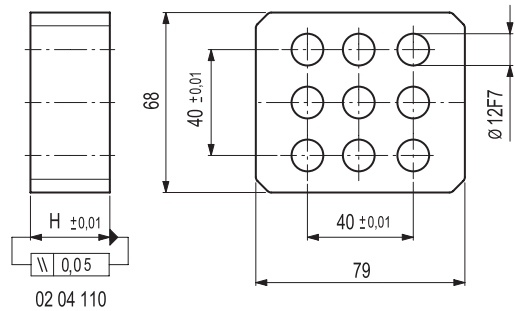
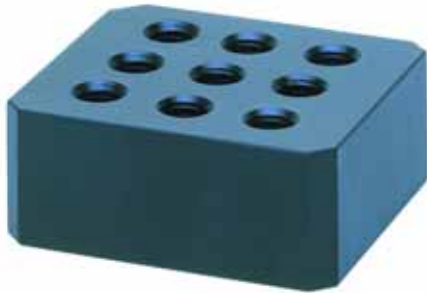
Stop rotatable by 360°, with zero point, corner version



Order no.	Description	A	B
904 406	Stop, corner version	30	38
904 407	Stop, corner version	60	68
704 054	Precision collar bolt M12 10.9 for 904 406		
704 058	Precision collar bolt M12 10.9 for 904 407		

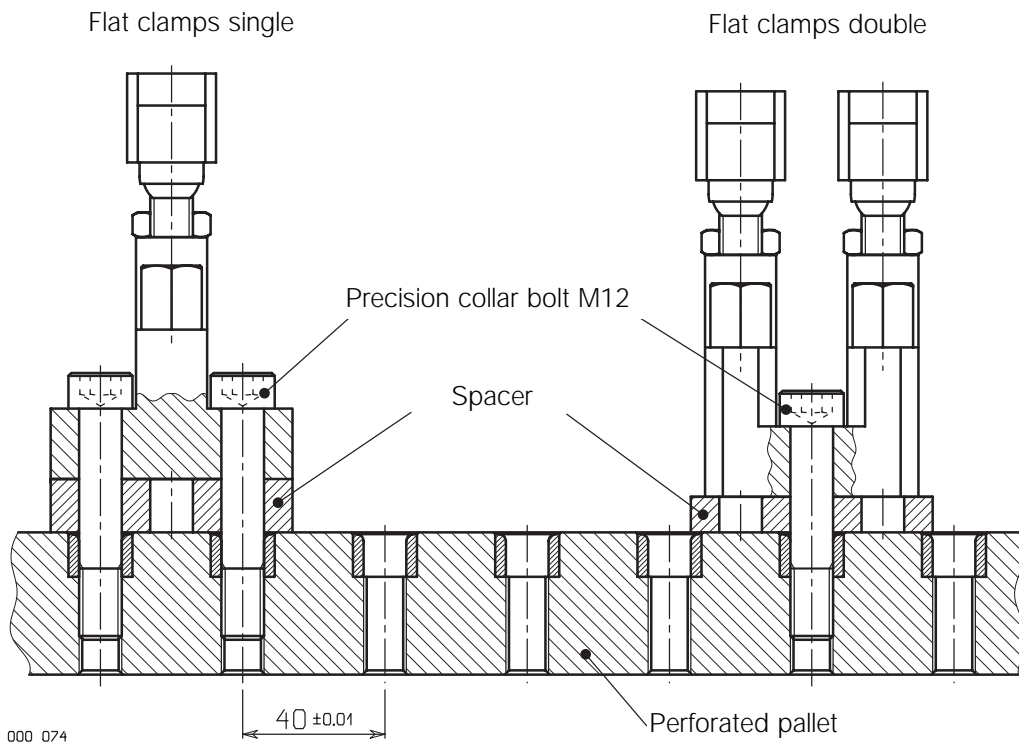


Base for flat clamps, deep drawing clamps etc.



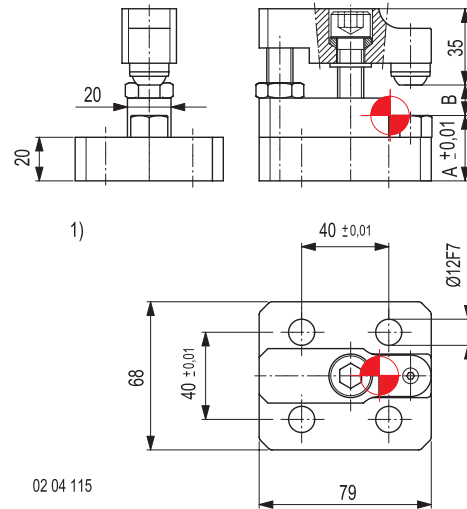
Order no.	Description	H
704 100	Base	2
704 101	Base	3
704 102	Base	4
704 103	Base	5
704 104	Base	10
704 105	Base	15
704 106	Base	20
704 107	Base	30
704 108	Base	40
704 109	Base	50

Practical example





Flat clamp single, for setting out with zero point



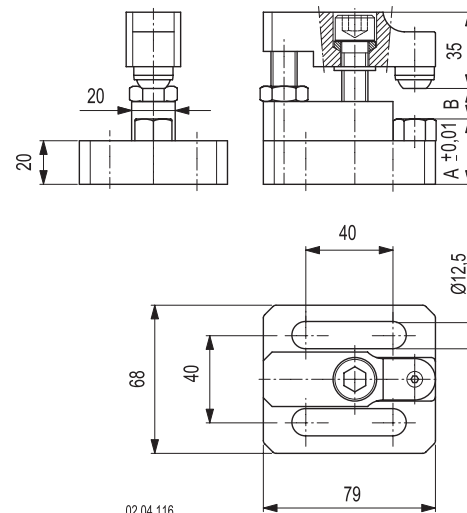
02 04 115

Order no.	Description	A	B
904 010	Flat clamp	30	4 - 26
904 150	Flat clamp	60	0 - 45
704 054	Precision collar bolt M12 10.9		

1) Middle of the bore = End position of work piece +/- 0.01

The clamp distance "B" can be extended by exchanging the clamping screws and the support screws.

Flat clamp single, for setting out

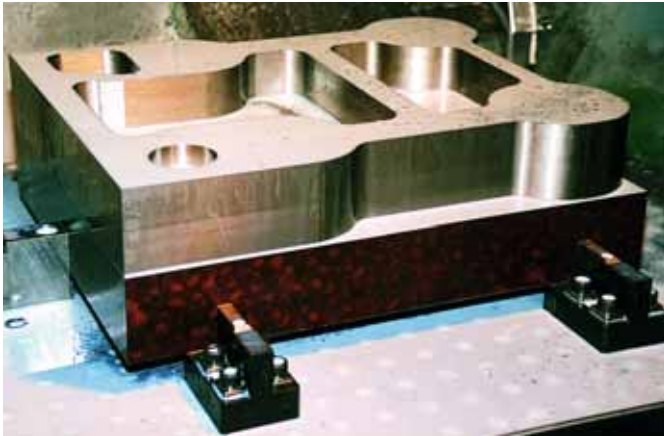


02 04 116

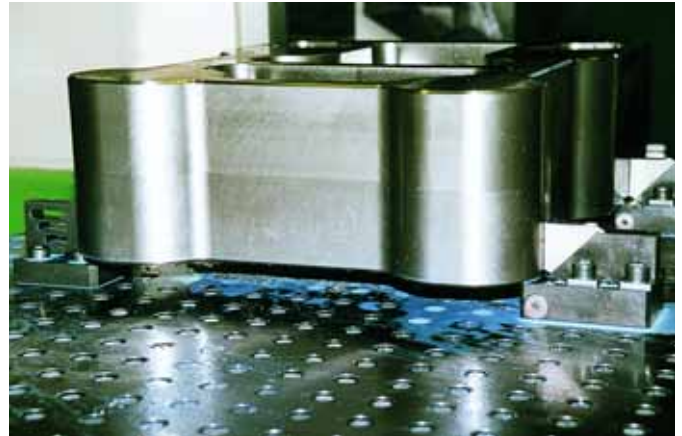
Order no.	Description	A	B
904 110	Flat clamp	30	4 - 26
904 250	Flat clamp	60	0 - 45
931 065	Bolt DIN 912, M12, 10.9, L = 60mm		

The clamp distance "B" can be extended by exchanging the clamping screws and the support screws.

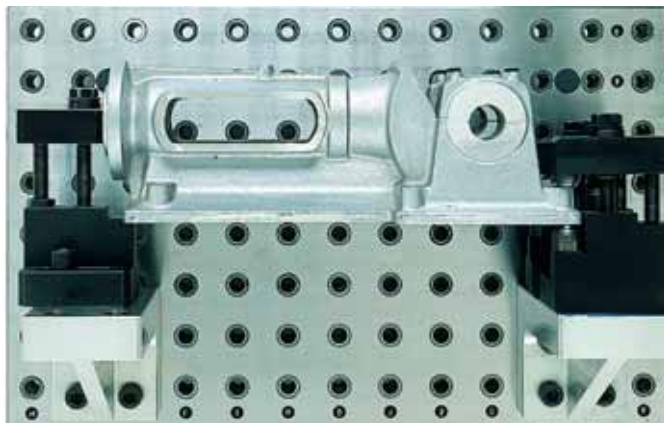
We recommend the use of washers (order no. 704 020) when bolting on clamping elements.



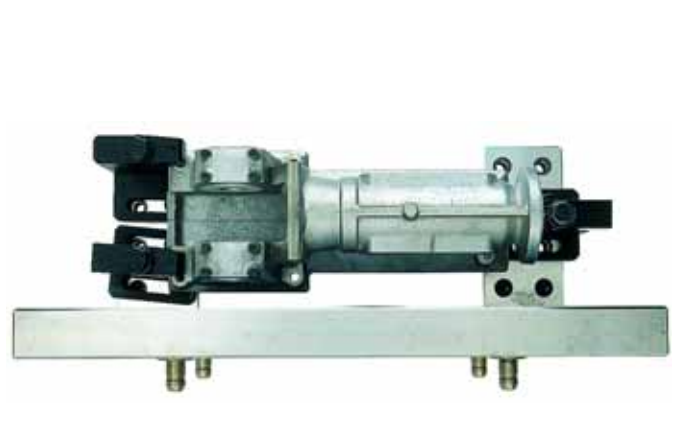
Raw work piece clamped with down draw clamp, raised model



Finished work piece clamped with down draw clamp, raised model



Workpiece with flat clamp



Perforated pallet with retractable nipple 1000



Down draw clamp for pegging the zero point



Adjustable down draw clamp

