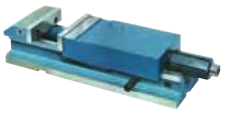
Overview of the vice programme

Machining with high accuracy for milling machines







Art. no.	27649	27656	27724	27651	27708
Cat. page	27.30	27.30	27.51	27.31	27.52

Machining with high accuracy for milling machines

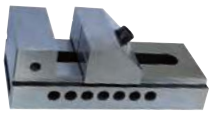


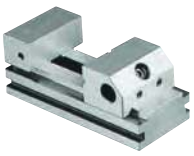
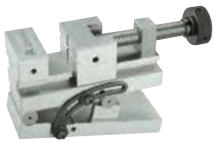

Art. no.	27710	27716	27695	27800	
Cat. page	27.54	27.55	27.57	27.57	

Machining with normal accuracy for milling machines


Art. no.	27625	27628			
Cat. page	27.29	27.29			

Grinding Eroding Measuring



Art. no.	27617	27620	27622	
Cat. page	27.28	27.28	27.28	

5-axis CNC machining for milling machines




Art. no.	27592	27669	27590	27591	27595
Cat. page	27.32	27.40	27.35	27.36	27.37

Drilling machine



Art. no.	27505 / 27508	27510	27530 / 27534 / 27535 / 27537	
Cat. page	27.26	27.26	27.26 - 27.27	

Series production

Art. no.	27750	27751	
Cat. page	27.49	27.49	

27505 - 27508 Drill vices

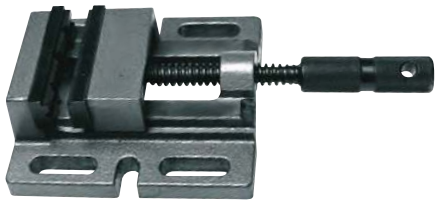
Design
- Made from special cast iron
- Steel jaws with V-shaped recesses for clamping round parts, with contact surfaces for flat workpieces

Applications
For use on drilling stands, bench drills and smaller column drills.

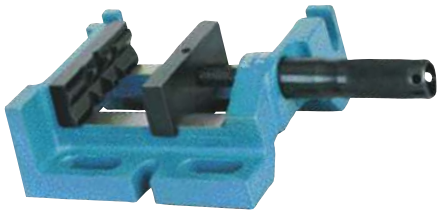
27505
Design
- With a clamping surface and 4 longitudinal grooves

27508
RÖHM
Design
- With additional right-angled machined contact surfaces, so that the right and front side of the vice can be tilted to enable multiple machining options without re-clamping the workpiece

27505



27508



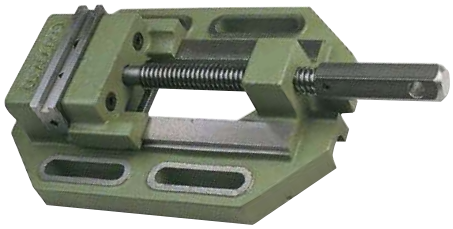
Jaw width mm	Clamping width mm	Jaw height mm	RÖHM 27505	...	RÖHM 27508	...
85	70	28.0		201		
100	90	28.0		202		
100	93	15.0				102
120	110	35.0		203		
150	150	13.5		104		

27510 - 27511 Prismatic vices

CEKABA
27510
Prismatic vices
Design
- With offset, exchangeable prism jaws for clamping round, hexagonal and flat material
- Open base plate, for clamping and drilling through workpieces
- **Long guide covering the entire clamping range**
- All jaws with horizontal prisms
- Size 1 with 1 additional vertical prism
- Sizes 2/3/4 with 2 vertical prisms in different sizes

27511
Replacement jaws
Design
- Pairs

27510



27511

Size	Jaw width mm	Clamping width mm	Overall height mm	Base plate L x W mm	Clamping groove width mm	Weight approx. kg	Vice 27510	...	Replacement jaws 27511	...
1	80	70	62	150 x 140	12	4		101		101
2	100	115	74	280 x 180	14	9		102		102
3	125	130	85	350 x 205	14	15		103		103
4	160	225	102	460 x 255	18	29		104		104

27530 Drill vices with quick adjustment

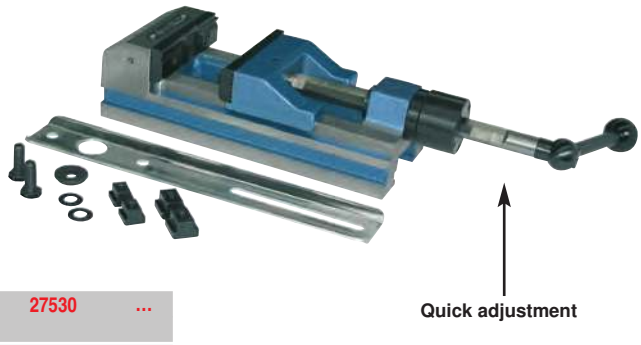
ATORN®
Design
- Flat and stable
- Max. clamping force 10 kN
- **Includes guide rail**

Applications
For fast and safe clamping. Can be used with guide rail, **base and side clamping,** single-handed operation with just one lever handle.

27530 101
Jaw width 110 mm.

27530 102
Jaw width 135 mm.

27530



Jaw width mm	Clamping width mm	Jaw height mm	Weight approx. kg	27530	...
110	130	32	12.5		101
135	160	40	19.0		102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

27534 - 27536 Drill vices/quick-action clamping vices

ROHM

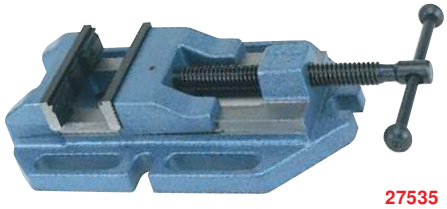
27534 - 27535
Design
- With **large clamping ranges**
- One clamping surface
- **Long flat guides**
- **High clamping force** and clamping safety
- The rear jaw has additional horizontal and vertical V-shaped recesses

27534
Design
- Adjustment via **threaded spindle**

27535
Design
- **Single-handed quick adjustment** via push rod with pointed teeth
- Without threaded spindle

27536
Replacement jaws
Design
- Prism jaw and normal jaw with workpiece support
- Soft and bronzed
- Pairs

27534



27535

27536

Jaw width mm	Clamping width mm	Jaw height mm	Overall height mm	Clamping groove width mm	Base plate L x W mm	Weight approx. kg	Vice 27534	...	Vice 27535	...	Replacement jaw 27536	...
90	90	25	60.0	14	195 x 145	5.5		101				101
110	130	32	72.5	17	315 x 175	9.5		102		101		102
135	160	40	80.5	17	365 x 205	13.5		103		102		103
160	220	50	95.5	17	445 x 245	25.0		104				104

27537 Drill vices

Design
- Broad range of uses
- **Large clamping width,** flat design
- The **reversible clamping jaws** are **hardened and ground**
- One jaw with horizontal and vertical prism for round material
- The other jaw is grooved
- Both **jaws** have one smooth side and can be reversed **as required**
- For clamping flat parts, **both jaws are stepped at the top**
- Open base plate with 8 chip grooves

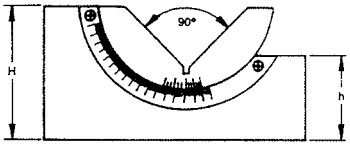
Quality
The body and the moving parts are made of special cast iron.

27537

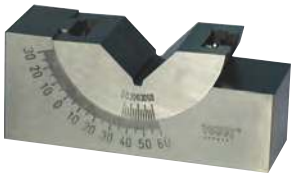
Jaw width mm	Clamping width mm	Jaw height mm	Overall height mm	Weight kg	27537	...
110	130	32	72.5	9.5		101
135	160	40	80.5	14.0		102
160	220	50	95.5	25.5		103

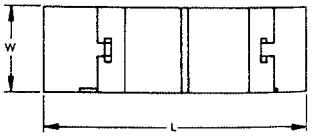
27610 Adjustable optical squares

Design
Accuracy +/- 0.1 mm,
angle accuracy +/- 10 min.
Applications
Universal use for grinding, drilling, measuring and marking off. The prism is clamped in a vice. The desired angle is set and locked with a locking screw.
Quality
Alloyed tool steel, hardened to HRC 55.



27610

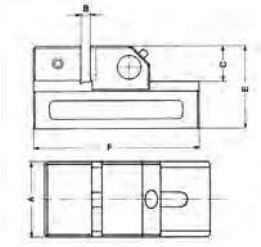




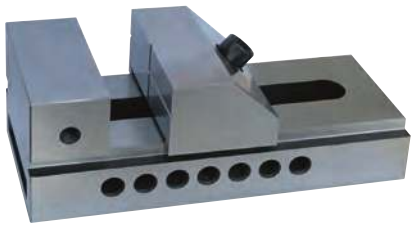
Length mm	W mm	H mm	h mm	Weight approx. g	27610	...
75	25	33	23	380		101
102	30	46	29	850		102

27617 Precision clamps

Design
Surface **precision-ground.**
Perpendicularity: 0.005/100 mm.
Parallelism: 0.005/100 mm.
Applications
For precise clamping on NC machines during grinding, eroding, measuring and milling work.
Quality
Tool steel, hardened, HRC 58.



27617



Clamping width B mm	A mm	C mm	E mm	F mm	Weight approx. kg	27617	...
65	50	25	50	140	1.4		101
100	73	35	67	190	4.1		102
125	100	45	90	245	7.3		103

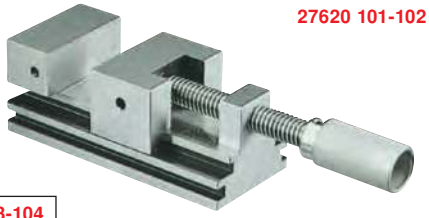
27620 Grinding and control vices

Design
Surface **precision-ground.** The **precision-angled design** allows the machining of workpieces from 4 sides.
Perpendicularity: 0.002/100 mm.
Parallelism: 0.002/100 mm.
Applications
For highly accurate machining of workpieces—grinding, drilling, milling, measuring—on all precision machines.
Quality
Tool steel, hardened, HRC 60.

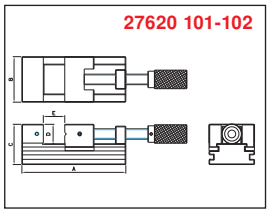
27620 101-102
With threaded spindle.

27620 103-104
With quick adjustment (no spindle). The movable jaw is pushed towards the workpiece on the V-guide and clamped by a screw.

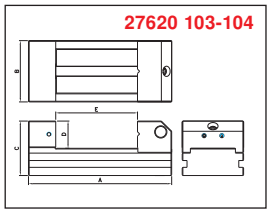
27620 101-102



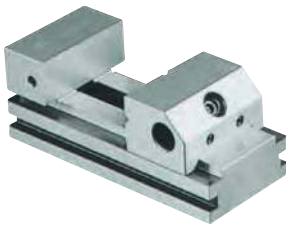
27620 101-102



27620 103-104



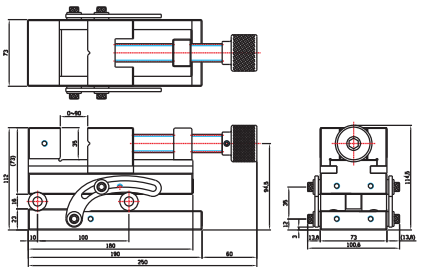
27620 103-104



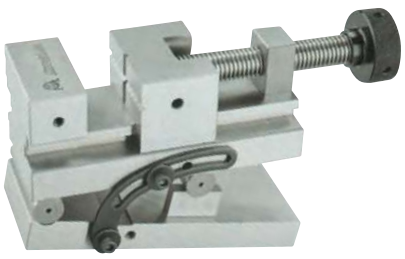
Clamping width E mm	A mm	B mm	C mm	D mm	Weight kg	27620	...
0–35	90	60	50	25	1.6		101
0–80	160	70	62	30	4.3		102
0–80	160	70	62	30	3.3		103
0–120	210	90	80	40	8.3		104

27622 Sine bar vice

Design
Surface **precision-ground.**
Perpendicularity: 0.005/100 mm.
Parallelism: 0.005/100 mm.
Axis distance: 100 mm.
Applications
For highly accurate machining of workpieces—grinding, drilling, milling, measuring—on all precision machines. For precise clamping; can be pivoted around the transverse axis.
Quality
Tool steel, hardened, HRC 58.



27622



Clamping width mm	Length mm	Width mm	Height mm	Weight kg	27622	...
0–90	190	73	112	10		101

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27625 - 27627 Machine vices

ROHM

27625
Design
Made of special cast iron, top pressure clamp, **long flat track guide** for the movable jaw, turned spindle, clamping jaws reversible, smooth and grooved.

27627
Standard turntable
Design
With ground support edge for additional support of the vice (for art. no. 27625 105 with additional clamping slots).

27627

27625

Jaw width mm	Clamping width mm	Jaw height mm	Overall height mm	Clamping groove width mm	Base plate L x W mm	Clamping force kN	Weight approx. kg	Vice 27625	...	Turntable 27627	...
113	105	31.6	90	14	300 x 160	25	13.5		102		102
135	125	39.6	104	14	365 x 200	35	25.0		103		103
160	145	49.6	120	18	410 x 240	45	40.0		104		104
200	185	62.6	145	22	460 x 280	55	65.0		105		105

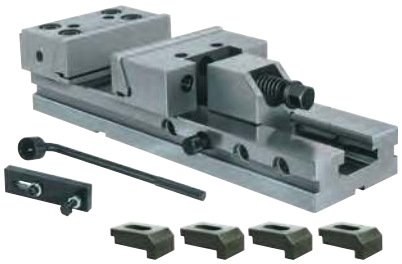
27628 Machine vices, type MSR

ROHM

Design
Mechanical clamping system. Body made of **hardened steel 60 HRC. Clamping repeat accuracy 0.02 mm.**

Scope of delivery:
Includes spanner, workpiece stop and 4 adjustable clamps (without T-groove screws).
Applications
For milling machines and machining centres.

27628



Jaw width mm	Clamping width mm	Jaw height mm	Clamping groove width mm	Base plate L x W mm	Clamping force kN	Weight approx. kg	27628	...
125	150	40	20	345 x 95	30	12.7		101
150	200	50	20	420 x 125	50	25.6		102
150	300	50	20	520 x 125	50	29.5		103
175	400	58	20	655 x 145	60	51.2		104

27629 Adjustable clamps for vices, type MSR

ROHM

Design
Complete, for base mounting. Individual.

Applications
For art. no. 27628.

Note:
Four adjustable clamps are required for proper clamping.

27629

Suitable for T-groove	For jaw width 125 27629	...	For jaw width 150/175 27629	...
12		101		201
14		102		202
16		103		203
18		104		204

27631 Turntables for vices, type MSR

ROHM

Applications
Turntables for machine vices, type MSR, see art. no. 27628.

27631

For jaw width mm	A mm	B mm	C mm	D mm	27631	...
125	226	23	47	95		101
150	290	28	58	125		102
175	320	28	58	145		103

27632 - 27635 Special clamping jaws for vices, type MSR

ROHM

Design
Individual.
Applications
For art. no. 27628.

27632
Stepped jaws
Applications
For fixed jaw.

27633
Stepped jaws
Applications
For movable jaw.

27634
Prism jaws with jaw step
Applications
For movable jaw.

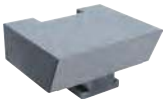
27635
Angle jaw
Applications
For movable jaw (for round parts).

27632

27633

27634

27635



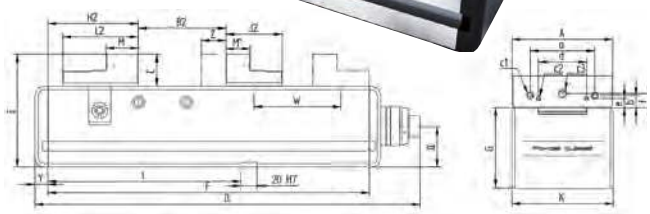
For jaw width mm	27632	...	27633	...	27634	...	27635	...
125		101		101		101		101
150		102		102		102		102
175		103		103		103		103

27656 NC compact clamp, type RKE

ROHM

27656

Design
With mechanical power transmission; can be clamped horizontally, vertically or laterally. Steel basic body with all sides **hardened and ground.** Stepped jaws, **fixed,** reversible; **stepped jaws**, **movable,** reversible. Long sliding clamp with transverse grooves. Drive spindle with default clamping force setting. Mounting thread M12 for workpiece stop. Clamping surfaces for adjustable clamps; reliable chip protection prevents the penetration of chips into the interior of the body.



Note:
For accessories, see art. no. 27657–27663 and 27682–27684.
Standard interchangeable jaw grips on request.
Clamping width for reversible stepped jaws: Jaw width 125 = 97–312 mm, 160 = 131–451 mm.

Jaw width A mm	B2 mm	E mm	F mm	G mm	H2 mm	K mm	W mm	Clamping force kN	Weight approx. kg	27656	...
125	0–216	140	400	100	112.5	126	1 x 108.0	40	41		**201**
160	0–320	165	530	115	130.0	162	2 x 102.5	60	79		**202**

27649 NC compact clamp, type MM-G 125/160

ATORN®

27649 101

Design
Standard version, can be clamped on the base. Clamping system **mechanical/mechanical. Basic body made of GGG. Stepped jaws reversible, hardened and ground.** Long sliding clamp with transverse grooves, drive spindle with default clamping force setting. Mounting thread M 12 for workpiece stop. Clamping surface for adjustable clamps. Reliable chip protection prevents chips from penetrating into the interior of the body.
Applications
Locating holes compatible with ATORN zero-point clamping system. Depth gauge 200 mm.

Note:
For accessories, see art. no. 27657–27663 and 27682–27684.

Jaw width mm	Jaw offset range mm	Travel of slide mm	Total length mm	Total height mm	Jaw height mm	Clamping range (high side) mm	Clamping range (step side) mm	Clamping force kN	Weight kg	27649	...
125	1 x 108.0	109	463	140	40	0–216	97–312	40	41		**101**
160	2 x 102.5	117	618	165	50	0–320	131–451	60	79		**102**

27657 - 27663 Accessories for NC compact clamp, type RKE + MMG

27657
Set of stepped jaws

27658
Set of support jaws

27659
Claw insert, single with fastening screw suitable for support jaws.

27663
Angle drive, 90°
Applications
Ideal for side-mounted clamping or for large machine tables.

27663 101
Dimensions: A = 133 mm, B = 106 mm, C = 98 mm.

27663 102
Dimensions: A = 166 mm, B = 111 mm, C = 98 mm.

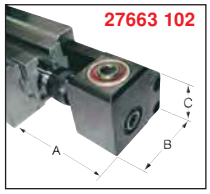
27657

27658

27659 201-202

27663 101

27663 102



For jaw width mm	27657	...	27658	...	27659	...	27663	...
92–125		**101**		**101**		**201**		**101**
160		**102**		**102**		**202**		**102**

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27651 High-pressure vice, NCA

kesel

Design
- ALLMATIC compatible jaw interface
- Small dimensions
- Optimum ratio between the clamping width and overall length
- Rigid basic body made of GJS 600
- Inductively hardened
- Upper and lower side ground
- Pairing accuracy 0.02 mm

Advantages:
- Fully enclosed spindle
- Increased functional safety
- Optimised chip protection
- Minimal cleaning effort
- Mechanical power booster
- Quick-change system for spindle unit

Scope of delivery:
- Basic body with stepped jaws
- 1 hand crank
- 4 adjustable clamps

Note:
The overall length remains unchanged even when clamping large workpieces.

① Clamping with hand crank; highest clamping forces are achieved with max. 2 spindle revolutions

② Maintenance-free high-pressure spindle with constant pressure. Wear-resistant, purely mechanical power booster. No decrease in clamping force

③ Guideways inductively hardened and ground

④ Precise cross-directional aligning grooves on the underside

⑤ Thread for workpiece stop

⑥ Quick-change click system, Kesel

⑦ Thread for holding Kesel/ALLMATIC interchangeable jaws (except for ALLMATIC step strips)

⑧ Outlet for chips and coolant

27651

Type	Jaw width mm	Clamping width (high side) mm	Clamping width (step side) mm	Clamping force max. kN	Clamping force steps	Basic body (L x W x H) mm	Total length mm	Bed height mm	Weight kg	27651	...
NCA 90	90	0–126	91–217	28	11	305 x 90 x 80	340	80	15		101
NCA 125	125	0–182	131–313	40	4	424 x 126 x 100	483	100	35		102
NCA 160	160	17–263	187–433	60	4	560 x 164 x 115	616	115	65		103

27592 5-axis clamp, TCA 70

ATORN®

NEW

Design
- Guides hardened and ground on all sides
- Mechanical clamping system without power transmission with manual control
- Centric clamping with two movable jaws

Advantage:
- Repeat accuracy 0.02 mm with the same clamping force/clamping properties
- Symmetrical design = workpiece is centred and parallel
- Telescopic spindle; interference contour remains unchanged
- Centric clamping and simple programming without zero offset
- Integrated scale ring for fine adjustment of the centre position
- Material allowance is distributed symmetrically
- Conventional clamping and grip clamping possible without pre-stamping
- Support height of the workpiece 192 mm
- Quick-change jaw system without tools, using quick-release fastener
- Change time per pair of jaws less than 10 seconds
- Jaws reversible for max./min. clamping widths with one pair of jaws
- Location holes for ATORN zero-point clamping system, depth gauge 200 mm, as standard
- Mounting on machine table with through bolts/ fitting screws in 50/63 mm increments
- Fastening also possible with adjustable clamps
- Low weight (without jaws):
  TCA 70 K (27592 101) = 17.5 kg
  TCA 70 M (27592 102) = 19.5 kg

Scope of delivery:
- ATORN TCA 70 without jaws
- Quick start guide
- Hook eye for transport by crane hook
- Hand crank for presetting with hexagon socket AF 14 mm

Applications
Ideal for use on 5-axis machining centres. Operation with torque wrench/max. 45 Nm = **30 kN clamping force.**

Note:
For suitable torque wrench, 1/2 inch, see art. no. 55640 204.
For suitable hexagon screwdriver bit see art. no. 51424 120.

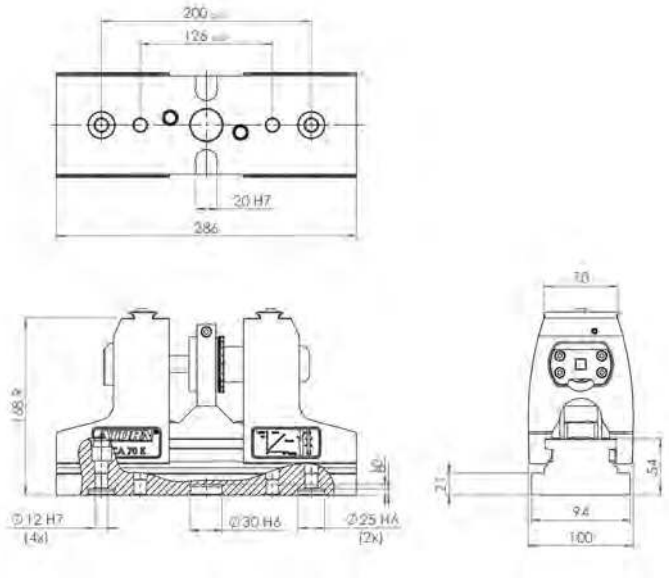
Low-maintenance telescopic spindle

27592 101

Clamping force 30 kN

Quick jaw change system

Back of TCA 70 K
(Art. no. 27592 101)



Type	Total length mm	Basic body height mm	Workpiece support height smooth mm/grip mm	Clamping width smooth/grip mm	Groove widths mm (H7)	Max. clamping force kN	Max. required torque Nm	27592	...
TCA 70 K	286	168.9	185/191 / 185/192	9–135* / 9–134*	20	30	45		**101**
TCA 70 M	351	168.9	185/191 / 185/192	42–200* / 42–199*	20	30	45		**102**

*Different clamping steps

For accessories see next page

Continued

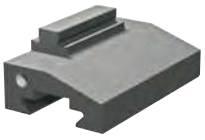
ATORN®

NEW

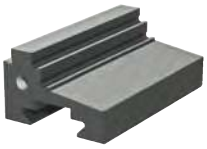
Stepped jaws

27592 103-105
Stepped jaws
- Steps are hardened and coated
- For parallel workpieces
- Contents: 1 piece

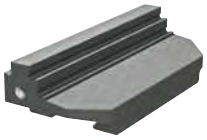
27592 103



27592 104



27592 105



Stepped jaw (2nd clamping)		
Jaw width mm	27592	...
38		103
70		104
100		105

Grip jaws

27592 106-108
Grip jaws
- Clamping of unmachined parts
- Integrated row of grips in horizontal position to prevent vibration when parts are placed on edge
- Additional clamping surfaces ground on both sides
- Minimum lost clamping edge 4 mm
- Suitable for material up to 1000 N/mm²
- Contents: 1 piece

27592 106

27592 107

27592 108

Grip jaw (1st clamping)		
Jaw width mm	27592	...
38		106
70		107
100		108

Prism jaw

27592 109
Vee block jaw
- Clamping width at TCA 70 K (27592 101):
  horizontal: 10–40 mm
  vertical: 16 - 80 mm
- Clamping width at TCA 70 M (27592 102):
  horizontal: 10–40 mm
  vertical: 47 - 110 mm
- Contents: 1 piece

27592 109

Vee block jaw		
Jaw width mm	27592	...
70		109

Soft jaws

27592 110-111
Soft jaws
- For self-production of special jaws
- Max. machining depth 15 mm
- Contents: 1 piece

27592 110
Design
Material: Case-hardening steel 21MnCr5G

27592 111
Design
Material: AlZn5.5MgCu

27592 110

27592 111

Soft jaw			
Jaw width mm	Material	27592	...
120	Steel		110
120	Aluminium		111

Continued

27592 Accessories for 5-axis clamp, TCA 70

Continued

ATORN®

NEW

Workpiece stops

27592 112
Design
- Mechanical, complete

27592 113
Design
- Magnetic, complete

27592 112

27592 113

Version	27592	...
Mechanical		112
Magnetic		113

Adjustable clamps (pair)

27592 114
- For mounting the clamp on the machine table
- Delivery: 1 pair

27592 114

Thread	27592	...
M 10/12/16		114

Alignment and fixing sets

27592 115-117
For aligning (positioning) and mounting the clamp on a pallet or machine table.

27592 115-117

Groove size mm	Thread	27592	...
14	M 12		115
16	M 12		116
18	M 12		117

Alignment and fixing sets including mounting base

27592 118-122
For aligning (positioning) and mounting the clamp on a pallet or machine table.

27592 118-122

Groove size mm	Thread	27592	...
12	M 10		118
14	M 12		119
16	M 14		120
18	M 16		121
22	M 16		122

Shoulder screw

27592 123

Ø mm	Thread	27592	...
12	M 12		123

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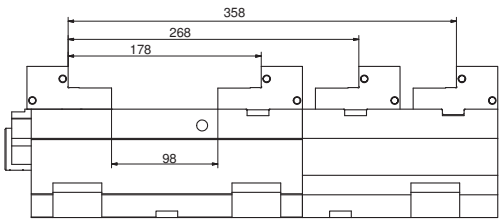
27590 ATORN 5-axis compact clamp

Design
Sturdy, compact basic body (GGG60). Guideways inductively hardened and ground. Maintenance-free, enclosed high-pressure spindle with retensioning spring assembly. Precise aligning grooves. Optimised chip protection. Minimal cleaning effort. Mechanical/mechanical clamping system.

Advantages:
- Max. accessibility during machining
- Patented quick adjustment
- Little clamping loss even when clamping close to the edge
- Very low clamping loss even when clamping with grip inserts
- Stepped jaws with clipping devices for underlay bars

Applications
For 5-axis machines or on CNC machines. Safe and fast clamping of blanks. Exchangeable grip jaws for flame and saw cuts.

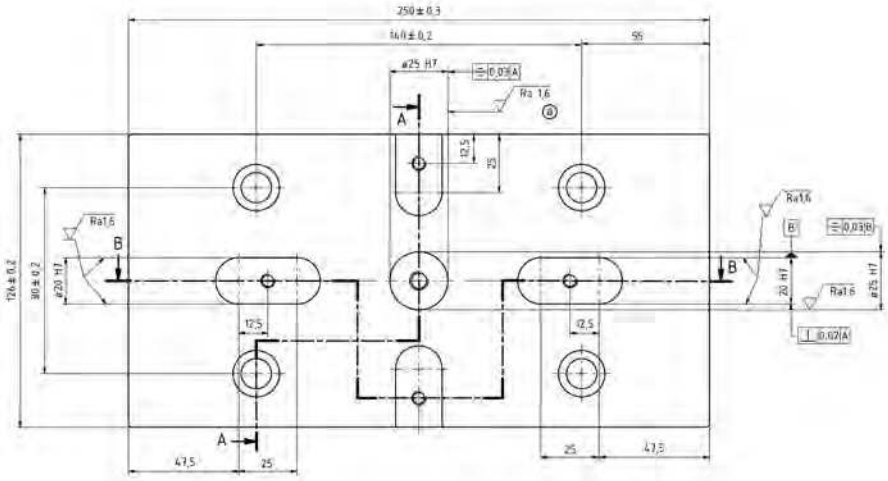


Scope of delivery, basic body:
- Without jaws
- Including 4 adjustable clamps

Scope of delivery, substructure console:
- Without fastening material

27590 101

Basic body art. no. 27590 101	
Height mm:	100
Width mm:	126
Body length mm:	250
Total length mm:	273
Clamping force at 110 Nm kN:	40



27590 104

Substructure console art. no. 27590 104	
Height mm:	100
Width mm:	126
Body length mm:	250

27590 201 **27590 202** **27590 203** **27590 204** **27590 301** **27590 401** **27590 402** **27590 501-502** **27590 601** **27590 602**

Design	Dimensions H x W x L mm	Clamping width mm	Pieces	27590 ...
Basic body including accessories	100 x 126 x 250	-	1	101
Substructure console	100 x 126 x 250	-	1	104
Stepped jaws, fixed	39.5 x 125 x 78	0–178	2	201
Stepped jaw, movable	39.5 x 125 x 78	0–178	1	202
Grip jaw, fixed	25 x 160 x 105	10–202	1	203
Grip jaw, movable	25 x 160 x 105	10–202	1	204
Pendulum jaw with 2 grip inserts	20 x 156 x 65	6–168	1	301
Screw-on grip strips	19.5 x 125 x 5	39–172	2	401
Screw-on grip strips	39.5 x 125 x 6.4	5–82	2	402
Step strips for clipping	15–125	10–178	2	501
Step strips for clipping	35–125	10–178	2	502
Screw-on jaws for large clamping widths	15 x 125 x 45	75–240	2	601
Screw-on jaws for narrow workpieces	15 x 60 x 45	7–168	2	602

27591 Mechanical centric clamp, MZE

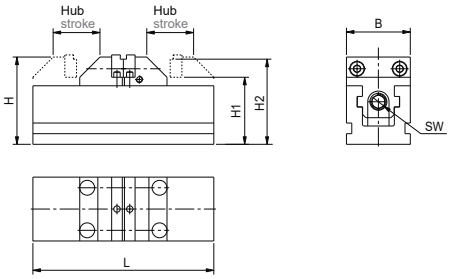
SPREITZER

27591 101-106
Design
- Robust steel design
- Basic body, plain jaws and spindle surface-hardened
- High clamping force
- Compact design
- Maximum freedom of movement for 5-sided and multi-sided machining
- Centring accuracy 0.03 mm
- Mounting drilling template on the underside.

Scope of delivery:
- Includes 1 pair of hard stepped jaws with undercut
- 1 operating key

Applications
Specially designed for clamping and machining of unmachined parts on multi-axis machining centres and for use as an economical centric clamping solution on palletising or automation systems.

27591 101-106



Jaw width mm	L mm	H mm	H1 mm	H2 mm	Clamping width mm	Clamping force kN	AF mm	Weight approx. kg	27591	...
36	80	50	39	48	4–40	8.0	8	1		**101**
60	170	82	63	80	18–90	12.5	12	4		**103**
100	280	114	90	112	50–190	22.5	15	15		**105**
125	360	140	110	138	58–250	32.5	18	30		**106**

Short clamping jaws, hardened

27591 201-206
Applications
- For form-fit clamping of workpieces during roughing
- 15° undercut (dovetail), maximum retention force on workpiece

Jaw width mm	Clamping depth mm	27591	...
36	4		**201**
60	4		**203**
100	4		**205**
125	4		**206**

27591 201-206

Grip jaws, hardened and coated

27591 211-216
Applications
- For increasing the retention forces on workpiece blanks

Jaw width mm	Clamping depth mm	27591	...
36	4		**211**
60	4		**213**
100	4		**215**
125	4		**216**

27591 211-216

Interchangeable jaw grips, hardened and ground

27591 223-226
Applications
- Increased clamping position allows the use of short tools, especially for small workpieces
- Suitable for holding all standard clamping jaws and self-manufactured jaws

Jaw width mm	H1 mm	Clamping width mm	27591	...
60	20	7–42		**223**
100	28	7–146		**225**
125	40	7–195		**226**

27591 223-226

Substructure

27591 233-235
Scope of delivery:
Includes centring bolts and fastening screws.
Applications
- For collision-free machining with short tools
- To reduce the Z movement of the machine spindle

Jaw width mm	L mm	W mm	H mm	27591	...
60	170	160	78		**233**
100	280	160	78		**235**

27591 233-235

Fastening material

27591 243-246
Scope of delivery:
2 centring pins, d = 14 mm; 4 adjustable clamps; 4 screws, M 12; 4 T-sliding blocks, 14 mm.
Applications
- For mounting the centring clamp MZE on the machine table
- T-groove dimension 14 mm.

Jaw width mm	27591	...
60		**243**
100		**245**
125		**246**

27591 243-246

Clamping technology

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27595 Mechanical centre clamping device

ATORN®

Design
- Robust steel design
- Basic body hardened and ground. spindle nitrided
- Compact design, high clamping force
- Sturdy chip guard and scraper to protect the spindle and spindle nut against dirt and damage
- Centring and repeat accuracy 0.02 mm
- Mounting of the vice:
  - From above through the basic body
  - From below with threads in the basic body
  - With adjustable clamps

Advantage:
- The precise grinding height means the clamp can also be mounted in series

Applications
Ideal for 5-sided machining or for use as an economical solution on palletising or automation systems.

Scope of delivery:
- Basic body with plain jaw set for ATORN interchangeable jaw click system (art. no. 27870)

Note:
*Supplied **without interchangeable jaw grips.***

						Centre clamping device		Adjustable clamp	
Basic body W x D x H mm	**System**	**Max. clamping range* mm**	**Width of interchangeable jaw grips min.–max. mm**	**Clamping force max. kN**	**Torque max. Nm**	**27595**	**...**	**27595**	**...**
90 x 180 x 45	2	96	65–180	30	80		**101**		
125 x 250 x 66	3	152	80–250	40	100		**102**		
For screw M 10	-	-	-	-	-				**110**
For screw M 12	-	-	-	-	-				**111**

				Torque wrench	
Driving square inch	**Adjustment range Nm**	**Scale graduation Nm**	**Length mm**	**55640**	**...**
1/2	20–120	1	456		**204**

3/8"

			Hex socket wrench insert	
AF mm	**Length mm**	**Outer Ø mm**	**51222**	**...**
15	30	20.8		**110**

27870 Interchangeable jaws (single)

ATORN®

Design
- Quick-change system can be adapted for use with many common vices
- Mounting, guide and lock offer a high degree of production safety
- Plain jaws and stepped jaws nitrided
- Interchangeable jaw grips made of high-strength aluminium or case-hardening steel

Advantage:
- Unprecedented economy and measurable advantages in daily use
- Quick change, even of special jaws
- Jaws in the system compatible with one another
- Jaw width up to 400 mm

Note:
Plain jaw sets also deliverable for other vice types on request.

Plain jaw set

Vice	Type	Design mm	For system	27870	...
ATORN	MM-G	125	3		101
ATORN	MM-G	160	4		102
ATORN	5-axis clamp	125	3		142
Allmatic	Centro Grip	125	3		103
Allmatic	Duo Plus	125	3		104
Allmatic	LC/TC up to April 98	125	3		105
Allmatic	LC/TC from May 98	125	3		106
Allmatic	T-Rex (14 mm groove)	125	3		107
Allmatic	T-Rex (XL)	125	3		108
Allmatic	Titan	125	3		109
Arnold Arno	NC Twin	125	3		110
Fresmak Arno	MB2	125	3		111
Fresmak Arno	Twin	90	2		112
Fresmak Arno	Twin	125	3		113
Garant	NC-LC	125	3		114
Garant	NC-TC	125	3		115
Gressel	Centrinos	65	2		116
Gressel	Centrinos	100	2		117
Gressel	Duogrip (all types)	100	3		118
Gressel	Duogrip (all types)	125	3		119
Gressel	Grepos 5X	125	3		120
Gressel	Gripos	100	3		121
Gressel	Gripos	125	3		122
Hilma	CS	80	2		123
Hilma	DCS	80	2		124
Hilma	DS/TS	100	2		125
Hilma	DS/TS	125	3		126
Hilma	KNC	100	3		127
Hilma	KNC	125	3		128
Hilma	KNC	160	4		129
Hilma	SCS	80	2		130
Hilma	SCS	120	3		131
Röhm	KZS	80	2		132
Röhm	KZS	125	3		133
Röhm	RKD	125	3		134
Röhm	RKE/RKG	125	3		135
Röhm	RKE	160	4		136
Röhm	RKZ	125	3		137
Schunk	KSP-250. KSH-250	125	3		138
WNT	DSG	125	3		139
WNT	NCG	125	3		140
WNT	ZSG	125	3		141

Continued ▶

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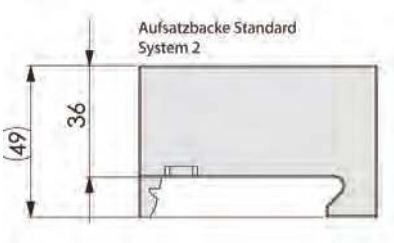
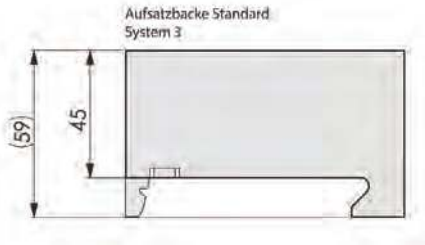
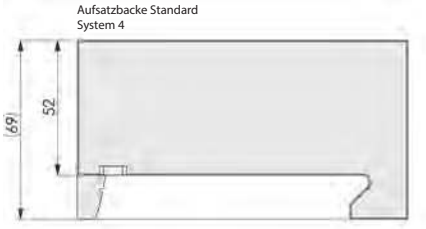
Continued

Design
- Block interchangeable jaw grips made of high-strength aluminium or nitrided case-hardening steel
- Stepped jaws made of case-hardening steel

Advantage:
- Wide variety and many possible combinations
- Milling down the old clamping contours enables the jaws to be used multiple times

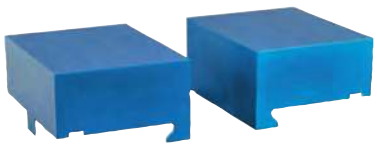






Steel interchangeable jaw grips 1 piece

System	Jaw width mm	27870 ...
2	65	202
2	70	205
2	80	209
2	90	215
2	100	221
2	150	228
2	160	237
2	180	243
2	200	247
3	80	210
3	90	216
3	100	222
3	125	229
3	140	233
3	160	238
3	180	244
3	225	251
3	250	254
4	80	211
4	100	223
4	125	230
4	160	239
4	200	248
4	250	255
4	300	257
4	400	259



Alu interchangeable jaw grips 1 piece

System	Jaw width mm	27870 ...
2	65	201
2	70	204
2	80	206
2	90	213
2	100	218
2	125	225
2	160	234
2	180	241
3	80	207
3	90	214
3	100	219
3	125	226
3	140	232
3	160	235
3	180	242
3	200	245
3	225	250
3	250	252
4	80	208
4	100	220
4	125	227
4	160	236
4	200	246
4	250	253
4	300	256
4	400	258

Grip inserts

Design
- Optimal clamping results with workpieces that require short-term clamping

Advantage:
- High transmission of clamping forces at minimal clamping depths
- Optimum absorption of vibrations that can occur during machining
- Extension of the service life of the tools used

Note:
A calculation tool for positioning the grip inserts is available on our website at www.hhw.de. Enter a few details and the tool will calculate the ideal installation position for your grip inserts.

27870 301-306

Grip insert

Size	27870 ...
M 4 x 8	301
M 5 x 10	302
M 6 x 12	303

Grip insert

Size	27870 ...
M 8 x 16	304
M 10 x 20	305
M 12 x 24	306

27870 401

Accessories

	27870 ...
Lifting device for clamping jaws	401

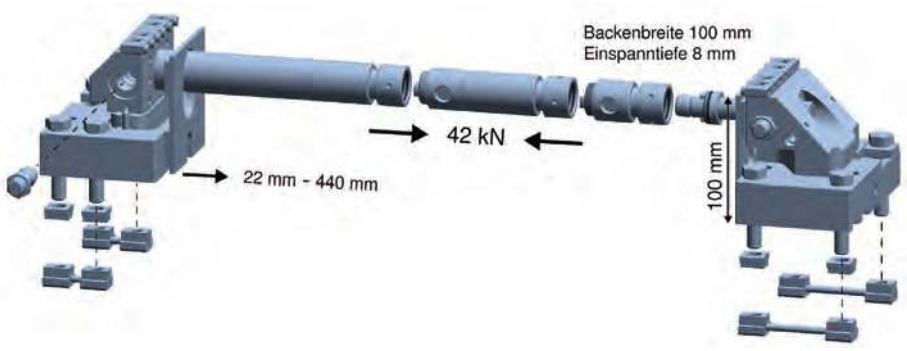
27669 Clamping systems 3AX-100 and 5AX-100

ATORN®

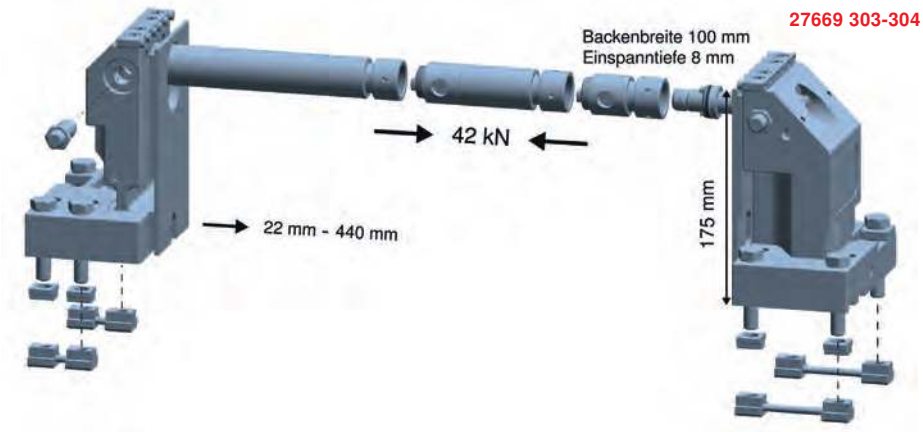
Design
- High clamping force (up to 42 kN) where it is required
- Feed spindle immediately below the workpiece support
- No widening of the jaws under load
- No distortion of the machine table
- Extreme system rigidity
- Clamping depth of 3 or 8 mm
- 3- or 5-axis machining with no projecting edges
- Any clamping width

Applications
For clamping workpieces on a 3- or 5-axis milling machine.

27669 301-302



27669 303-304

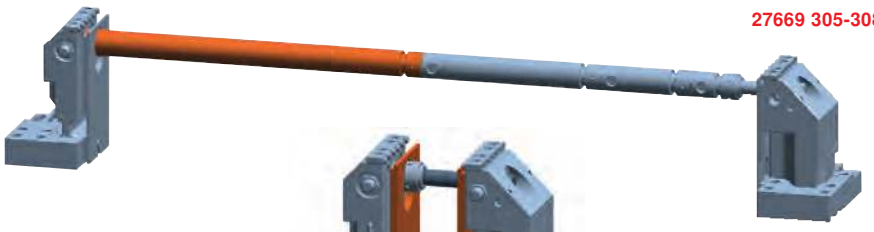


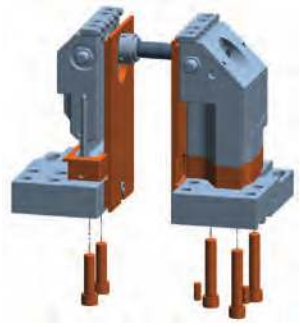
Type	For groove mm	27669 ...
3AX-100	14	301
3AX-100	18	302
5AX-100	14	303
5AX-100	18	304

Extension shaft with nut

Length mm	27669 ...
60	305
120	306
240	307
480	308

27669 305-308





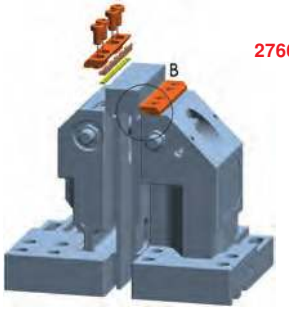
27669 309-313

For clamp	Height increase to mm	27669 ...
3AX-100	125	309
3AX-100	150	310
5AX-100	200	311
5AX-100	225	312
5AX-100	250	313

27669 314

Description	27669 ...
Round clamping chucks including pins, fastening material and support	314

27669 315



Description	27669 ...
Pull-down jaws, smooth	315

Continued

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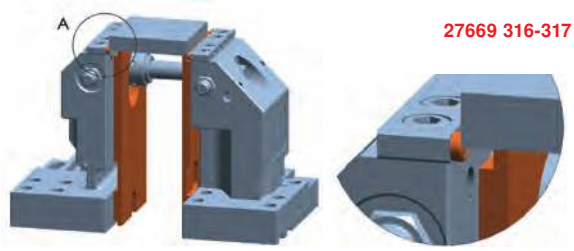
Continued

Designation	For clamp	27669 ...
Support strip, 105 mm, clamping depth 3 mm including 12 pins, ring cutter, 6 mm	3AX-100	316
Support strip, 180 mm, clamping depth 3 mm including 12 pins, ring cutter, 6 mm	5AX-100	317

27669 316-317

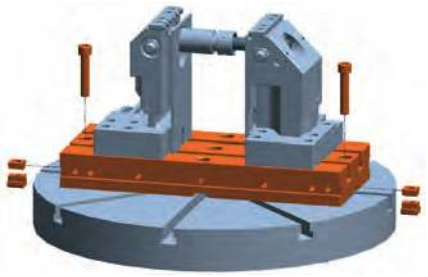


Description	27669 ...
Stop set, swivelling	318

27669 318

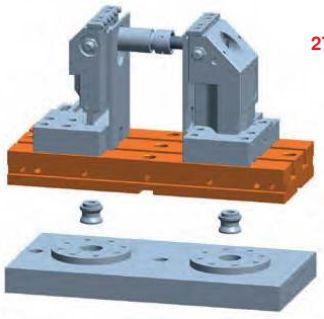
Designation	27669 ...
T-groove plate, 400 mm, including mounting for groove width 14 mm	319
T-groove plate, 400 mm, including mounting for groove width 18 mm	320

27669 319-320



Description	27669 ...
T-groove plate, 400 mm, with NP pin bore	323

27669 323

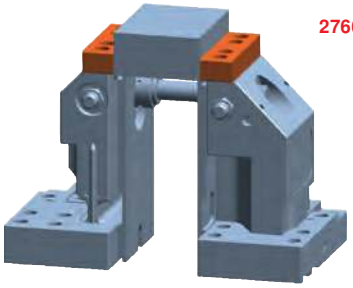


Designation	27669 ...
Pin, smooth	324
Pin with ring cutter Ø 4 mm	325
Pin with ring cutter Ø 6 mm	326

27669 324-326

Description	27669 ...
Clamping jaw, rough	327

27669 327



Your benefits at a glance!

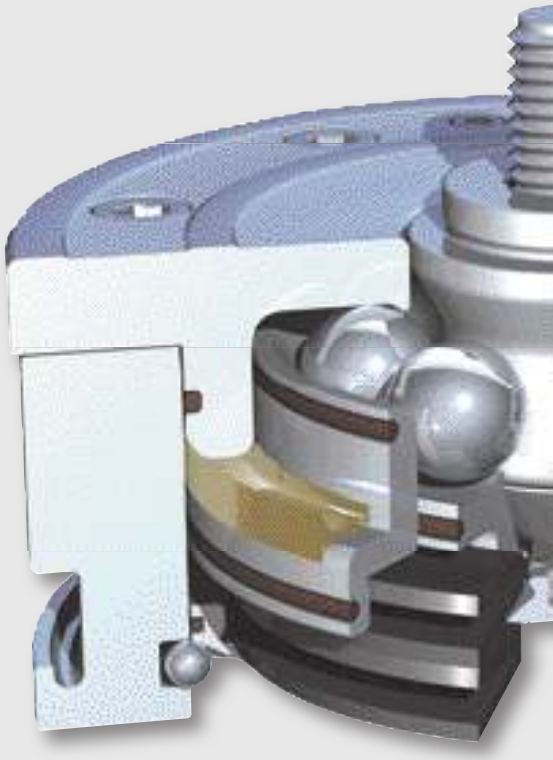
10 distinctive features give you priceless benefits. The sum of these benefits is a new product line that meets your requirements 100% with experience in zero point clamping technology since 1985.

Stainless steel!

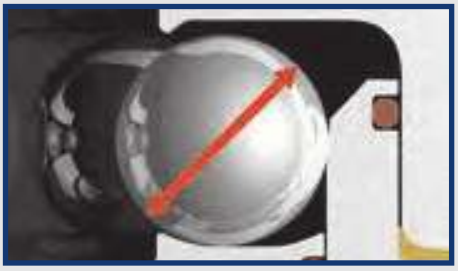
High-alloy hardened tool steel - so no corrosion.

Form fit!

The balls are optimally enclosed on three sides.

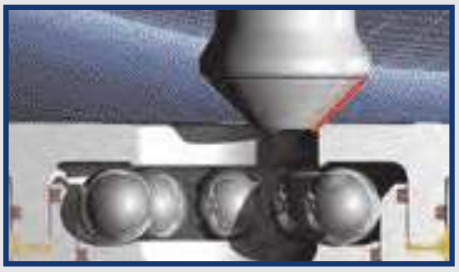


Large ball diameter!



Ball surfaces 784% larger than conventional ball systems.

Large catchment!



Pre-positioning of 12 mm is sufficient.

Safety system!

Process-safe - The clamping module can always be opened.

- **Secure the future**
  by optimising the product quality (repeat accuracy up to 2 µm
- **Increase the efficiency of processes**
  to ensure competitiveness
- **Increase profitability**
  by minimising set-up costs, increasing product quality and protecting the machine
- **Optimisation of production**
  through variability and flexibility with the market-leading system
- **Precise and user-friendly clamping**
  with maximum precision for a wide and demanding range of users

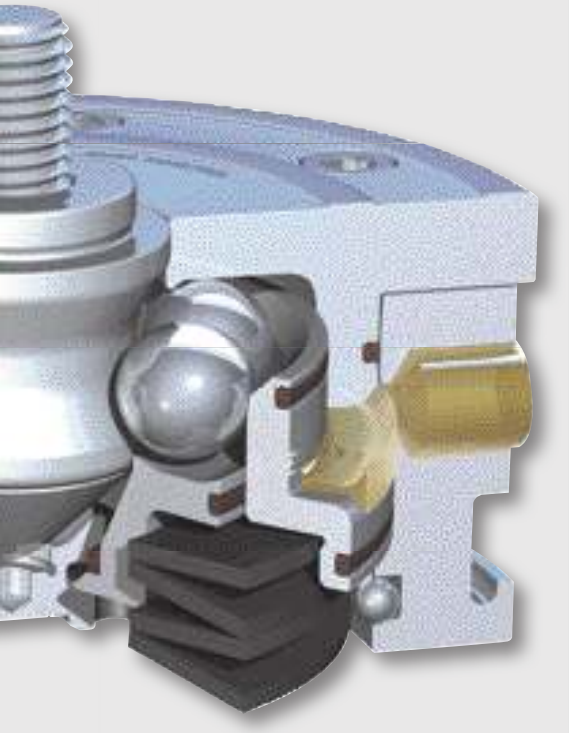
Zero-point clamping system

Three-cycle principle!

Power transmission by means of three-stroke principle. Due to the optimum distribution of force, there is no shear stress on the balls.

No ball cage!

The balls lie freely in the ball channel. Due to the freedom of movement of the balls, they always reposition themselves.



High holding, retraction and sealing forces!

size	Holding force [kN]	Retraction/sealing force up to [kN]	
		hydr.	pneum.
K 5	13	5	1.5
K 10	25	10	8
K 20	55	20	17
K 40	105	40	30

Media supply system!

Low installation depth, fewer supply holes required.

Tilt-free!

Tilt-free retraction and extension over the own supporting edge.

- **Optimum safety**
  even under difficult operating conditions for the demanding user
- **Individual adaptation**
  to the various tasks in order to meet the diverse requirements of the market
- **Sustainability and longevity**
  outstanding product quality and precision ensure the long-term success of the company
- **Technology transfer through optimal consulting**
  achieves success with difficult machining tasks, especially with 6-sided machining

27830 - 27845 Integrated clamping modules K10.2 and K20

ATORN®

Design
- Hydraulic opening
- Pneumatic blow-out
- Open operating pressure: min. 50 bar to max. 60 bar
- Cover and piston hardened
- Repeat accuracy < 0.005 mm

Applications
Zero-point clamping system for clamping with optimised setup time, for cutting and non-cutting machining in all areas and in the food, pharmaceutical and chemical industries.

Note:
The integrated clamping module K10.2 is opened via the air hydraulic pump (optional, see art. no. 27843 201) with pneumatic input pressure of 5 bar.

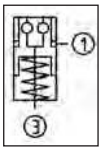
The clamping module has high retention, retracting and locking forces. It is opened hydraulically (1) and locked mechanically by spring force. Subsequent uncoupling of the pressure lines is possible at any time (module is clamped without pressure).

The clamping module with blow-out and support control has two connections: 1x hydraulic opening (1), 1x pneumatic blow-out and support control (3). (The pneumatic blow-out and support control can be connected optionally.)

NEW

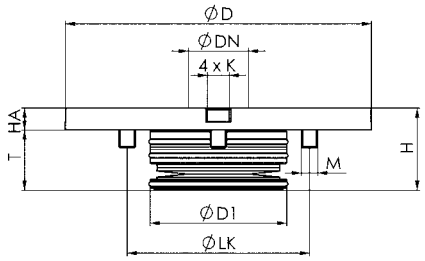
27830 201

Without indexing

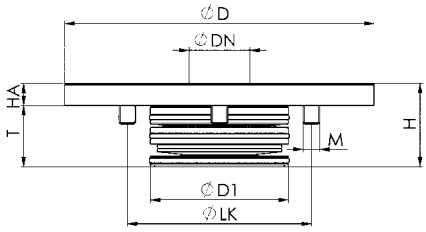


27830 202

With indexing



Without indexing



With indexing

K10.2

Design	Retention force N	Retracting/ locking force kN	D mm	DN mm	D1 mm	H mm	HA mm	LK mm	M mm	K mm	T mm	Weight kg	27830	...
K10.2/without indexing	25	10	112	22	50	30	8	77	M6	-	22	0.6		201
K10.2/with indexing	25	10	112	22	50	30	8	77	M6	8	22	0.6		202

K20

Design	Retention force N	Retracting/ locking force kN	D mm	DN mm	D1 mm	H mm	HA mm	LK mm	M mm	K mm	T mm	Weight kg	27845	...
K20/without indexing	55	20	112	32	78	44	10	88	M6	-	34	1.4		101
K20/with indexing	55	20	112	32	78	44	10	88	M6	8	34	1.4		201

27831 Multiple clamping stations, K10.2

ATORN®

Design
- Hydraulic unlocking
- Pneumatic blow-out
- Steel, unhardened
- Repeat accuracy < 0.005 mm

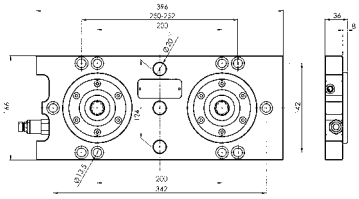
Advantage:
- Low overall height of just 36 mm

Applications
Hydraulic clamping stations for clamping with optimised setup time on machine tables with 63, 100 and 125 mm groove spacing. Mounted using M12 cheese head screws. At least two locating holes are provided for alignment. The pitch of the clamping modules is 200 mm. The quick-action coupling plug is pre-assembled and the integrated blow-out function can be connected individually.

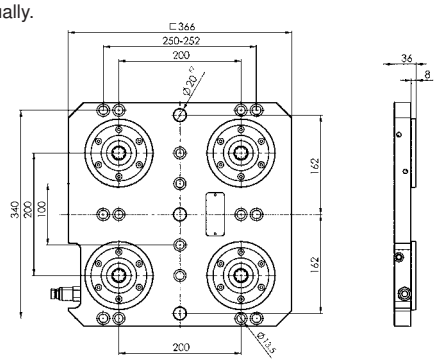
NEW

27831 202

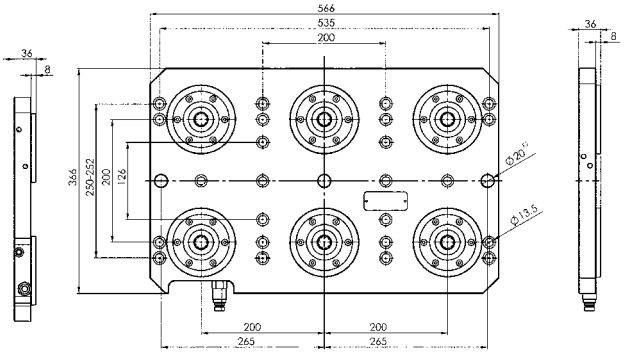
27831 201



27831 202



27831 203



Design	Retraction/ locking force up to kN	Retention force kN	Weight kg	K10.2 27831	...
K10.2/2x	2 x 10	2 x 25	14		201
K10.2/4x	4 x 10	4 x 25	30		202
K10.2/6x	6 x 10	6 x 25	46		203

27846 Multiple clamping stations, K20

ATORN®

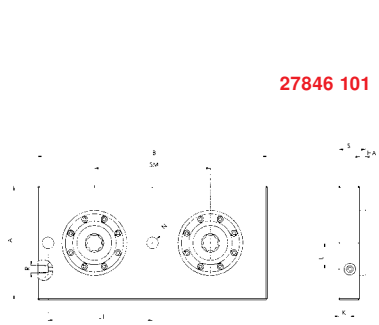
Design
- Hydraulic unlocking
- Steel, unhardened
- Repeat accuracy < 0.005 mm

Note:
On request, mounting holes can be created in the base plate according to your specifications.

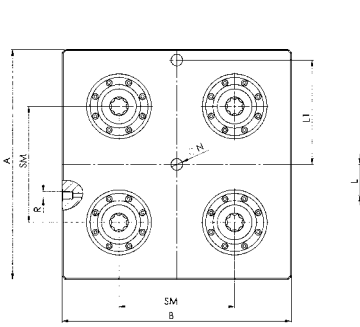
NEW

27846 201

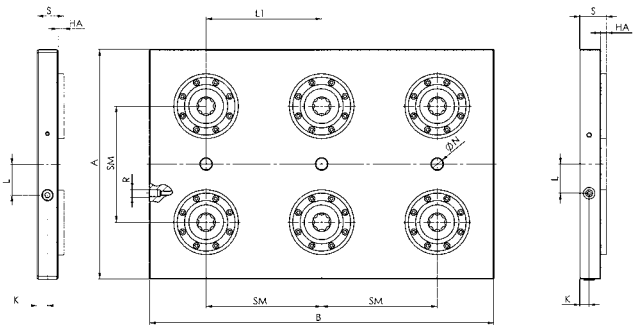
27846 101



27846 201



27846 301



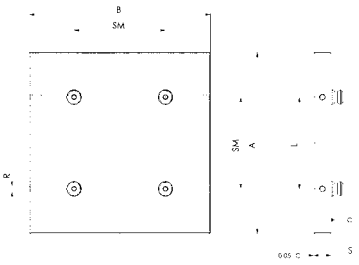
Design	Retraction/ locking force up to kN	Retention force kN	A mm	B mm	HA mm	K mm	L mm	L1 mm	N mm	R	S mm	SM mm	Weight kg	K 20 27846	...
K20/2x	2 x 20	2 x 55	196	396	10	19	45	180	20	G1/4	46	200	21.9		101
K20/4x	4 x 20	4 x 55	396	396	10	19	50	180	20	G1/4	46	200	44.0		201
K20/6x	6 x 20	6 x 55	396	596	10	20	50	200	20	G1/4	46	200	75.0		301

27836 - 27847 Replacement pallets for K10.2 and K20

ATORN®

Design
- High-strength aluminium
- Including clamping nipple and nipple catchment screw

Note:
On request, mounting holes can be drilled into the replacement pallet according to your specifications.
Different dimensions, pitches and number of clamping nipples deliverable on request.



NEW

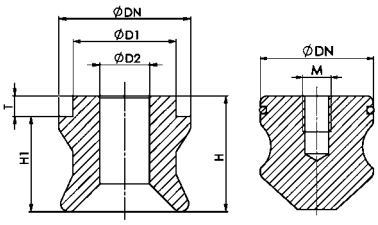
27836 202

For clamping station Size/design	A mm	B mm	L mm	R	S mm	SM mm	Weight kg	K10.2 27836	...	K20 27847	...
K10.2/2x	166	396	90	M12	30	200	6		201		
K10.2/4x	366	366	200	M12	30	200	10		202		
K10.2/6x	366	566	200	M12	30	200	16		203		
K20/2x	196	396	120	M12	40	200	6				101
K20/4x	396	396	200	M12	40	200	16				201
K20/6x	396	596	200	M12	40	200	25				301

27837 - 27848 Clamping nipples

ATORN®

Design
- Hardened, for hydraulic and pneumatic clamping modules



NEW

27837 - 27848

Size	Type	ØDN mm	ØD1 mm	ØD2 mm	H mm	H1 mm	M mm	T mm	Weight g	K10.2 27837	...	K20 27848	...
K10.2	Zero-point nipple	22.0	15	8	19	16	-	3	30		201		
K10.2	Sword nipple	22.0	15	8	19	16	-	3	30		202		
K10.2	Undersize nipple	21.8	15	8	19	16	-	3	30		203		
K10.2	Protection nipple	21.8	-	-	-	-	M8	-	30		204		
K20	Zero-point nipple	32.0	25	12	28	23	-	5	110				101
K20	Sword nipple	32.0	25	12	28	23	-	5	110				102
K20	Undersize nipple	31.8	25	12	28	23	-	5	110				103
K20	Protection nipple	31.8	-	-	-	-	M8	-	110				104

27838 - 27849 Nipple catchment screws

ATORN®

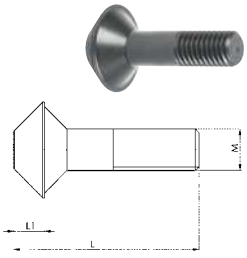
Design
- Strength class 10.9

Applications
Suitable for clamping nipples.

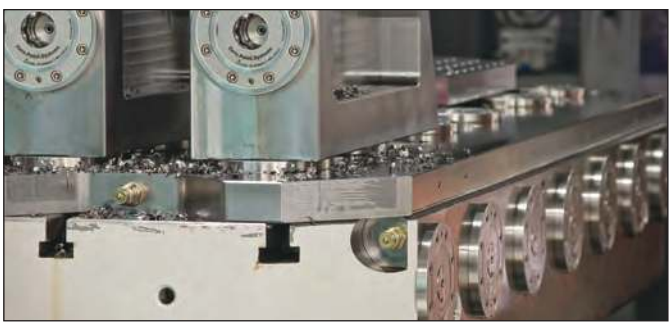
Note:
Versions in different lengths and materials (e.g. stainless steel) on request.

NEW

27838 - 27849



Size	M mm	L mm	L1 mm	Weight g	K10.2 27838	...	K20 27849	...
K10.2	M8	37	6	30		201		
K20	M12	54	9	70				101



= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

27840 High-pressure hose

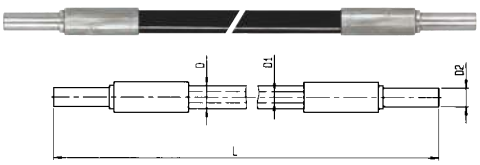
ATORN®

Design
- Fitting made of steel, zinc-plated and passivated
- Plastic hose with brass-plated steel wire and high tensile strength

Applications
The high-pressure hose is used for the hydraulic connection of surface-mounted clamping modules or clamping stations to the pressure generator, e.g. pressure booster or air hydraulic pump.
Bending radius min. 30 mm.

NEW

27840



Size	Test pressure bar	Operating pressure bar	ØD mm	ØD1 mm	ØD2 mm	L mm	Weight g	27840	...
K10.2/K20	750	375	9.8	5	8	2000	265		201

27841 Quick-action coupling

ATORN®

Design
- Zinc-plated
- Max. operating pressure 325 bar

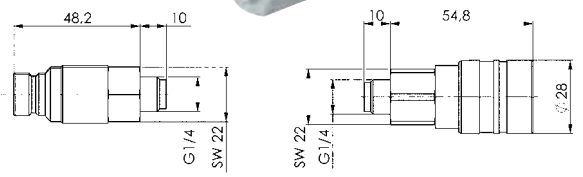
Applications
Because the clamping modules are mechanically locked after the opening pressure is released, the hose can then be uncoupled using the quick-action couplings. The advantage is that there are no annoying leads.

Note:
Flat-sealing quick-action coupling with female thread G1/4. A set screw is included for male thread G1/4.

NEW

27841 201

27841 202



Size	Type	Nominal width NW	Nominal flow l/min	AF mm	Weight g	27841	...
K10.2/K20	Plug	6	12	22	100		201
K10.2/K20	Sleeve	6	12	22	170		202

27842 Pipe fitting

ATORN®

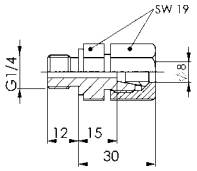
Design
- With cutting ring

Applications
For high-pressure hose, outer Ø 8 mm, inner Ø 4 mm.

Note:
Sealing to DIN 3852 type B via sealing edge and cutting ring.

NEW

27842



Size	AF mm	Weight g	27842	...
K10.2/K20	19	55		201

27843 Air hydraulic pump

ATORN®

Design
- Compact, compressed air operated hydraulic pump for single-acting circuits
- The pump is equipped with an integrated safety valve which regulates the hydraulic output pressure
- The factory default setting for the safety valve is a max. operating pressure of 60 bar
- The expansion body in the oil tank enables the pump to be used horizontally and vertically

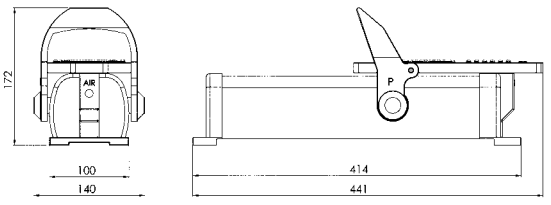
- Connecting thread, air: G1/4
- Connecting thread, oil: G1/4

Applications
The air hydraulic pump is used to open hydraulic clamping modules or hydraulic clamping stations.

Note:
When operating the pump, the use of cleaned and lubricated compressed air is recommended.

NEW

27843



Size	Air pressure min. bar	Air pressure max. bar	Usable oil volume cm^3	Delivery volume max. cm^3/min	Weight kg	27843	...
K10.2/K20	4	6	1000	750	5.9		201

27701 Force measuring cell for machine vices

Applications
For monitoring the clamping force.

Note:
For more force measuring cells, see HHW catalogue volume 2 (Tools + Machines) art. no. 38801.

27701

For jaw width mm	Display range kN	27701 ...
100/125/160	0–60	101

27680 Claw jaw sets, SKB

ROHM

Design
Form-fit clamping due to penetration of the hardened claw tips. **Retention force 3–5 times higher** than with standard jaws. **5-sided machining** in one clamping operation, low material loss, shortened throughput times, reduced production and unit costs.

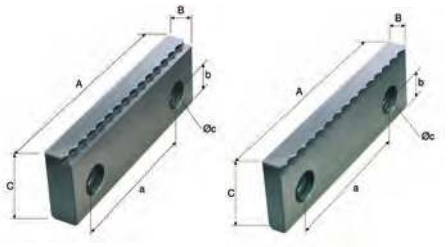
Applications
For use on vices. Easily screwed onto ROHM NC compact clamps. Simple and secure clamping of parallel blanks and sawn parts. Hydraulic or manual clamping possible.

27680 101–103
Design
With fine step for clamping depth to 2 mm.

27680 201-203
Design
Without fine step for clamping depth greater than 2 mm.

Fine step	Clamping depth	A mm	B mm	C mm	a mm	b mm	Øc mm	27680 ...
x	Less than 2 mm	92	14	32	63	13.6	7 (M 6)	101
x	Less than 2 mm	125	16	40	80	15.6	9 (M 8)	102
x	Less than 2 mm	160	18	50	100	19.6	9 (M 8)	103
-	More than 2 mm	92	14	32	63	13.6	7 (M 6)	201
-	More than 2 mm	125	16	40	80	15.6	9 (M 8)	202
-	More than 2 mm	160	18	50	100	19.6	9 (M 8)	203

27680 101-103 27680 201-203



27682 Single adjustable clamps for NC clamps

ROHM

Design
Complete, for front and base mounting. **Individual.**

Applications
For art. no. 27655, 27656.

Note:
Four single adjustable clamps are required for proper clamping.

27682

Suitable for T-groove	27682 ...
12	201
14	202

Suitable for T-groove	27682 ...
16	203
18	204

27683 Double adjustable clamp for NC clamps

ROHM

Design
Complete, for supporting opposing sides during front-face paired clamping. **Individual.**

Applications
For art. no. 27655, 27656.

27683

	27683 ...
	201

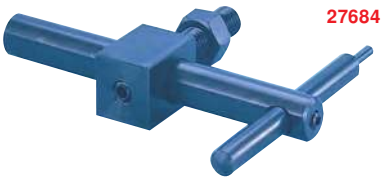
27684 Workpiece stop for NC clamps

ROHM

Design
Connecting thread M 12, universally adjustable.

Applications
For art. no. 27655, 27656 and 27710.

27684



	27684 ...
	101

Info Power Grip modular palletising system

ROHM

Zero-point clamping system with guaranteed repeat accuracy ± 0.002 mm

Unproductive machine downtimes are reduced to a minimum. The resulting machine uptime increases productivity and profitability.

27750 Multiple clamping rails (sets)

ATORN®

Design
Multiple clamping system based on the wedge clamping device principle. Simple yet precise design. Extension of the clamps by means of a connecting system, resulting in optimum utilisation of the machine table. Excellent price/performance ratio.

Applications
Fast and precise clamp for all machine tools.

Advantage:
- All components of the system are compatible
- Can also be used on the ATORN zero-point clamping system
- Completely flexible
- Easy-to-mount stop system
- Solve all clamping tasks with one clamping system
- Replaces any vice

Note:
Very high clamping forces can be generated with the wedge clamping device. However, workpieces that only allow a low clamping force can also be clamped without any problems.
The clamping elements are mounted on the rail. Other combinations must be assembled individually. See art. no. 27751–27754.

27750 208

Clamping rail L x W x H mm	Jaws L x W x H mm	Fixed jaw (pieces)	Wedge clamping device (pieces)	27750	...
200 x 50 x 80	50 x 42 x 22	2	1		**201**
200 x 80 x 80	72 x 42 x 29	2	1		**202**
300 x 50 x 80	50 x 42 x 22	3	2		**203**
300 x 80 x 80	72 x 42 x 29	3	2		**204**
400 x 50 x 80	50 x 42 x 22	3	2		**205**
400 x 80 x 80	72 x 42 x 29	3	2		**206**
500 x 50 x 80	50 x 42 x 22	3	2		**207**
500 x 80 x 80	72 x 42 x 29	3	2		**208**

27751 Multiple clamping rails (individual)

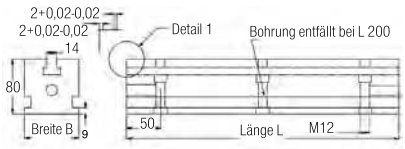
ATORN®

Design
Without jaws (see art. no. 27752) and wedge clamping device (see art. no. 27753).

Note:
For additional accessories, see art. no. 27754.

27751

Length mm	Width mm	Height mm	27751	...
200	50	80		**101**
200	80	80		**102**
300	50	80		**103**
300	80	80		**104**
400	50	80		**105**
400	80	80		**106**
500	50	80		**107**
500	80	80		**108**



27752 Fixed jaws (individual)

ATORN®

Design
Includes sliding block and screw.

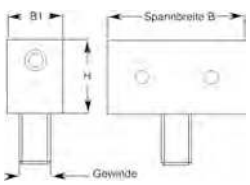
27752 101-109
Design
With smooth clamping surface.

27752 201-209
Design
With serrated clamping surface.

27752 301-309
Design
With claws.

Note:
T-sliding block with M 8 thread required for art. no. 27752 101–103, 27752 201–203 and 27752 301–303.

27752 201-209



Clamping width B mm	B1 mm	H mm	Screw DIN 912	Smooth 27752	...	Serrated 27752	...	With claws 27752	...
22	22	15	M 8		**101**		**201**		**301**
32	22	15	M 8		**102**		**202**		**302**
42	22	15	M 8		**103**		**203**		**303**
30	42	22	M 12		**104**		**204**		**304**
40	42	22	M 12		**105**		**205**		**305**
50	42	22	M 12		**106**		**206**		**306**
42	42	29	M 12		**107**		**207**		**307**
57	42	29	M 12		**108**		**208**		**308**
72	42	29	M 12		**109**		**209**		**309**

27753 Wedge clamping device (individual)

ATORN®

Design
Includes sliding block and screw.

27753 101-109
Design
With smooth clamping surface (standard clamp).

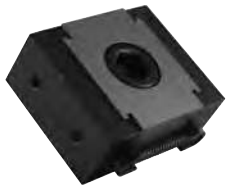
27753 201-209
Design
With serrated clamping surface (blank clamp).

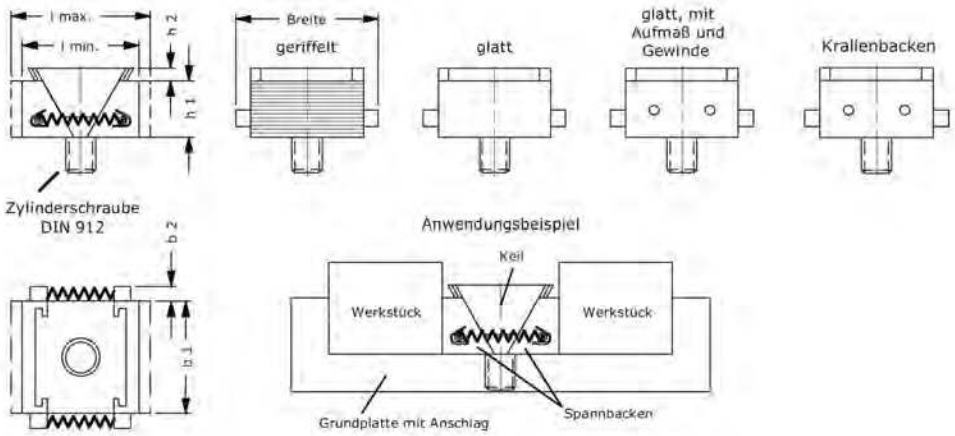
27753 301-309
With allowance.

27753 401-409
With claws.

Note:
T-sliding block with M 8 thread required for art. no. 27753 101–103, 27753 201–203, 27753 301–303 and 27753 401–403.

27753 101-109





Width mm	Clamping force kN	L min. mm	L max. mm	h1 mm	b1 mm	b2 mm	h2 mm	Screw DIN 912	Smooth 27753 ...	Serrated 27753 ...	With allowance 27753 ...	With claws 27753 ...
30	15	27	31	15	22	4	4	M 8	101	201	301	401
40	15	27	31	15	32	4	4	M 8	102	202	302	402
50	15	27	31	15	42	4	4	M 8	103	203	303	403
40	30	39	45	22	30	5	7	M 12	104	204	304	404
50	30	39	45	22	40	5	7	M 12	105	205	305	405
60	30	39	45	22	50	5	7	M 12	106	206	306	406
54	50	52	62	29	42	6	11	M 12	107	207	307	407
69	50	52	62	29	57	6	11	M 12	108	208	308	408
84	50	52	62	29	72	6	11	M 12	109	209	309	409

27754 Accessories

ATORN®

Applications
Accessories for ATORN multiple clamping rails, see art. no. 27750–27751.

Note:
** The length of the adapter is 72 mm. The adapter is used to connect two clamping rails without spacing. Any length is deliverable on request to provide appropriate spacing between the clamping rails.*

27754 101

27754 102

27754 103

27754 104-107

27754 108

27754 109-110

27754 111

Designation	Pieces	27754 ...
Adapter set*	1	101
Stop, adjustable	1	102
Stop, fixed	1	103
Sliding block, short, M 8	5	104
Sliding block, short, M 12	5	105
Sliding block, long, M 12	5	107
Screw bushing	5	108
Positioning sleeve, 20 x 14	1	109
Positioning sleeve, 20 x 18	1	110
Adjustable clamps	4	111

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

27724
High-pressure machine vices
Design
- Basic body and upper slide made of spheroidal graphite iron GGG60
- Guideways hardened and ground
- Ground camber to compensate for tilting
- Maintenance-free and fully enclosed high-pressure spindle with integrated mechanical power amplifier
- Lower section with longitudinal and transverse grooves for exact alignment
- Quick adjustment via stud bolts

Scope of delivery:
- 4 adjustable clamps
- 1 pair of hardened clamping jaws
- 1 hand crank

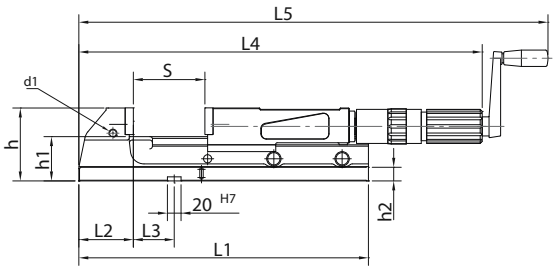
Applications
For vibration-free, absolutely safe clamping with extremely high cutting and feed forces.

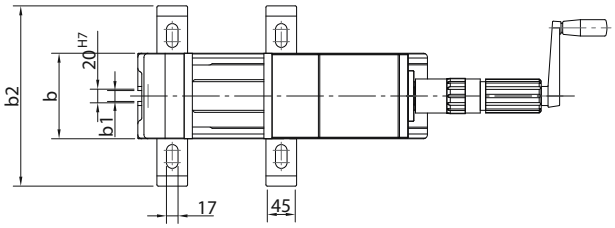
27724

Note:
Narrow production tolerances allow subsequent assembly of several vices next to one another.

Technical data:		
Art. no.	**27724 101**	**27724 102**
Jaw width mm:	125	160
Clamping range S, step 1/2 mm:	0–105/100–205	0–155/150–305
Clamping range, extended mm*:	255	365
Clamping force, max. kN:	40	50
L1 mm:	425	570
L2 mm:	80	90
L3 mm:	60	95
L4 min./max. mm:	489/694	575/880
L5 min./max. mm:	613/818	712/1007
h mm:	107	130
h1 (+0.002) mm:	65	80
d1:	M 12	M 16

* Clamping range extended by fixing the bolt in the transverse groove of the spindle nut

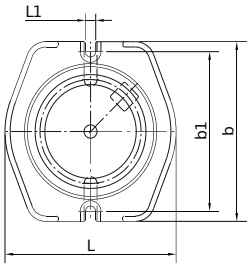




Vices		
Jaw width mm	**27724**	**...**
125		**101**
160		**102**

27725 201-202
Turntables
Design
- Turntable with 360 easily readable graduation lines (4 x 90°)
- Clamping slots for easy fastening on the machine table

27725 201-202



Turntables								
For jaw width mm	**L mm**	**L1 mm**	**Height mm**	**b mm**	**b1 mm**	**Weight kg**	**27725**	**...**
125	264	16	28	270	240	10.8		**201**
160	325	16	32	325	295	18.4		**202**

27725 301-305
Clamping jaws

27725 301-302

27725 304-305

Clamping jaws	With longitudinal groove		With step	
For jaw width mm	**27725**	**...**	**27725**	**...**
125		**301**		**304**
160		**302**		**305**

27708 High-pressure machine vices

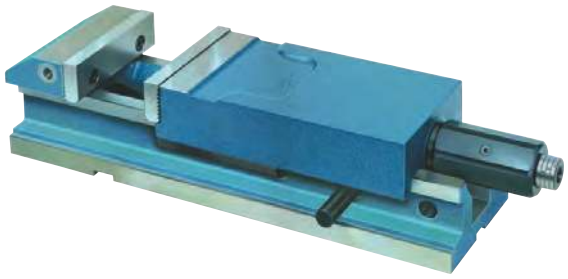
ATORN®

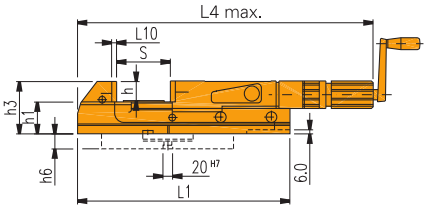
27708 101-102

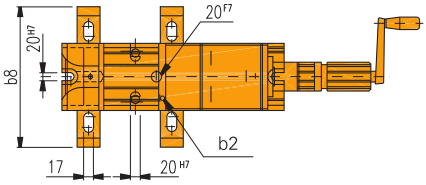
Design
- **Mechanical/hydraulic**
- Steel **body, guideways hardened** and **ground**
- Alignment on the machine table: longitudinal and transverse via groove and sliding blocks
- Rough adjustment of the clamping range via rigging pin
- **Clamping repeat accuracy** with a constant clamping force: **0.01 mm**
- **Clamping force adjustment** for fast pre-selection of the clamping force, precise repeatability
- Pre-clamping facility for elastic parts
- Package clamping
- Compensation jaws

Scope of delivery:
- 1 set of jaws (1 side smooth, 1 side serrated)
- 4 adjustable clamps
- Hand crank

27708 101-102





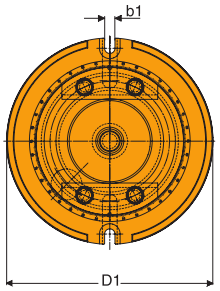


Technical data:		
Item no.	**27708 101**	**27708 102**
Jaw width b2 mm:	90	125
Clamping width S mm:	0–150	0–220
Jaw height h mm:	39.6	39.6
Jaw thickness L10 mm:	15.6	15.6
h3 x h1 x b8 mm:	99 x 53 x 230	120 x 70 x 265
L1 x l4 mm:	370 x 553	470 x 681
Clamping force kN:	25	40

	Vices	
Jaw width mm	**27708**	**...**
90		**101**
125		**102**

27708 201-202
Turntables

27708 201-202

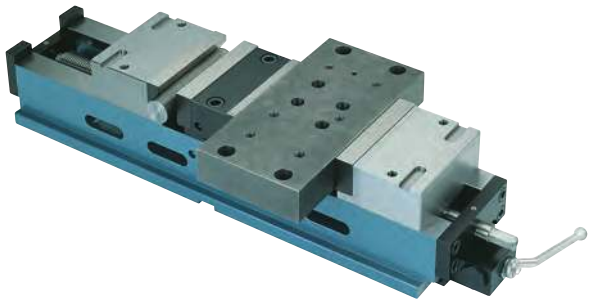


				Turntables	
For jaw width mm	**Slot width b1 mm**	**d x h6 mm**	**b5 x L8 x h6 mm**	**27708**	**...**
90	14	242 x 30	230 x 220 x 25		**201**
125	16	280 x 30	270 x 264 x 28		**202**

Info Single, double and multiple vices

MULTI 2000 – versatile, economical, compact –
A sophisticated enhancement to the standard double vice and single vice ranges.
- Multifunctional use possible
- Mechanical or fully hydraulic operation
- Change to other workpiece sizes in seconds
- High clamping and repeat accuracy
- Same clamping pressure at both clamping points
- Basic body made of case-hardening steel, guides inductively hardened
- Two independent spindles (only one operating side)
- Can be equipped with workpieces of different sizes
- Side slots on the underside of the vice divert chips and cooling water
- Small dimensions
- Ideal for use on vertical machining centres

Please contact us!



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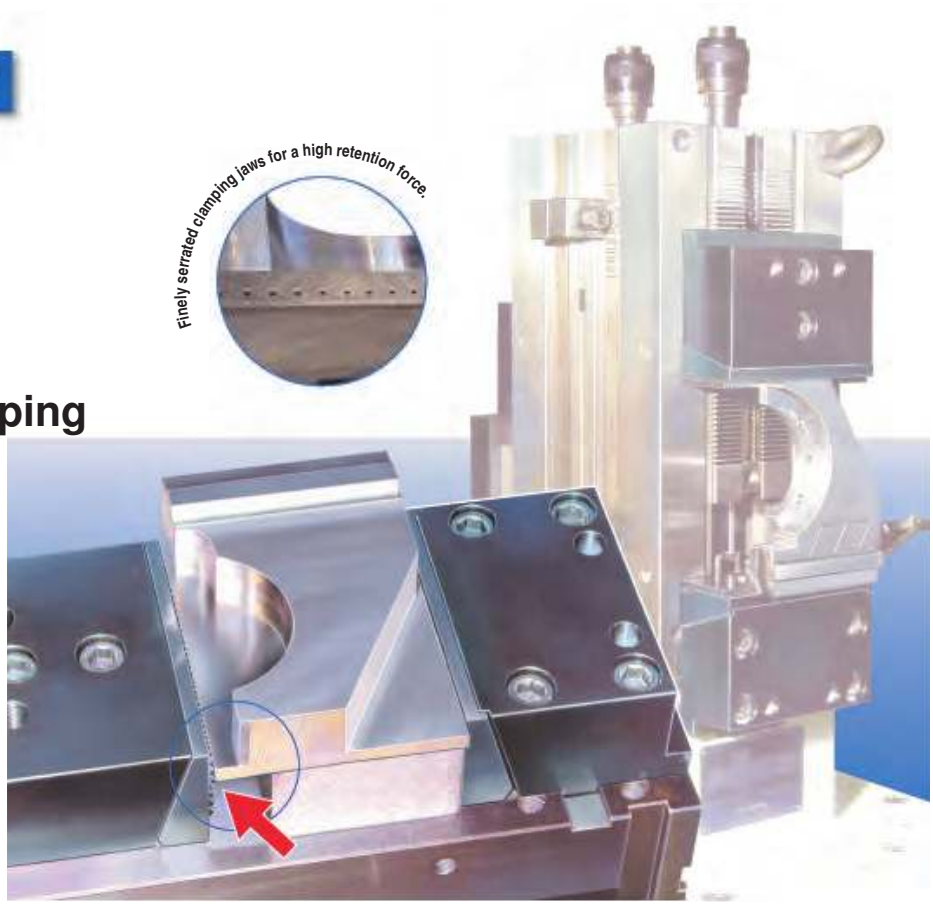
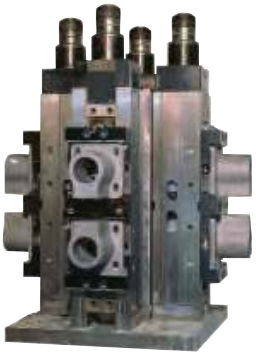


Precise workpiece clamping

Flexibility with Röhm clamping jaws

Can be used on NC compact clamps and machine vices



QUATRO clamping tower
With four NC compact clamps RKD mounted in a star shape

5-sided machining:
Multiple clamping (blank) in RKD 125 with pull-down claw inserts

Clamping jaws with 4 pendulum supports, serrated, compensation +/-9°, pendular movable jaw, without pull-down for clamping forged parts

27710 - 27715 High-pressure machine vices, RB

27710
High-pressure machine vices, RB
Design
- **Mechanical/hydraulic**
- With mechanical pre-clamping via hand crank
- Clamping force can be preset via stop
- Alignment on the machine table via longitudinal grooves
- Rough adjustment of the clamping range via rigging pin
- **Clamping repeat accuracy** with a constant clamping force: **0.01 mm**

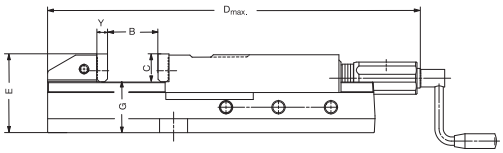
Scope of delivery:
- 1 set of standard jaws (1 side smooth, 1 side grooved)
- Hand crank

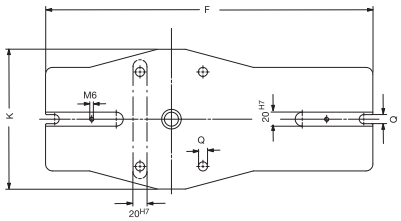
Applications
For individual and series production on drills and milling machines.
Quality
Steel body, forged (jaws made from nodular cast iron, jaw width 200 mm). Guideways hardened and ground.

Note:
For workpiece stop see art. no. 27684. Vices with jaw width 250 and 315 mm and additional angle drive deliverable on request.

27710

Technical data:				
Art. no.	**27710 101**	**27710 102**	**27710 103**	**27710 104**
Jaw width mm:	113	135	160	200
Clamping width B mm:	170	220	310	350
Jaw height C mm:	31.6	39.6	49.6	66.6
Length D mm:	583	681	817	1022
Height E mm:	97	112	133	171
Length F mm:	390	468	574	685
Height G +/- 0.02 mm:	65.5	72.5	83.5	104.5
Width K mm:	160	200	240	280
Slot width Q mm:	13	13	17	21
Jaw thickness y mm:	12	16	16	20
Clamping force, max. kN:	30	40	50	100
Weight kg:	24	39	60	112





	Vices	
Jaw width mm	**27710**	**...**
113		101
135		102
160		103
200		104

27711
Turntables
Design
- With ground support edge to support the vice

- Graduation, fastening screws and sliding blocks for fixing the vice on the turntable

27711 101-103

27711 104

	Turntables	
For jaw width mm	**27711**	**...**
113		101
135		102
160		103
200		104

27715
Prism and normal jaw
Design
- With workpiece support
- Soft and bronzed
- Pairs

Applications
Screw-on.

27715

For jaw width mm	**27715**	**...**
113		101
135		102
160		103

27716 Machine vice, MH-S 125

ATORN®

Design
- Basic body and jaws made of case-hardening steel, nitrided on all sides
- Repeat accuracy ≤ 0.01 mm
- Clamping force up to 40 kN
- Mechanical/hydraulic spindle made of high-strength special steel
- Transverse grooves for fast positioning on tool table
- Basic body clampable and ground on 3 sides (for bed length 470 mm, otherwise optional)
- Ground internal guideway 58 HRC
- Positioning holes Ø 12H7 on underside in 40 and 50 mm pitch for grid plate clamping
- Use of pull-down quick-change jaws and interchangeable stepped jaw grips
- Spindle nut with double trapezoidal thread for quick adjustment
- Thread for workpiece stop

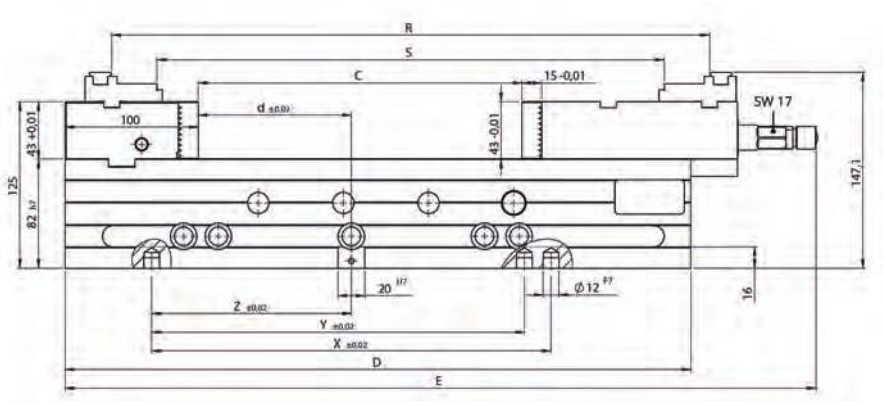
Scope of delivery:
- Delivery includes reversible screw-in jaws (serrated and smooth side)
- Hand crank
- Crank extension
- For bed length greater than 662 mm, crank extension deliverable on request

Applications
For precise clamping of workpieces.

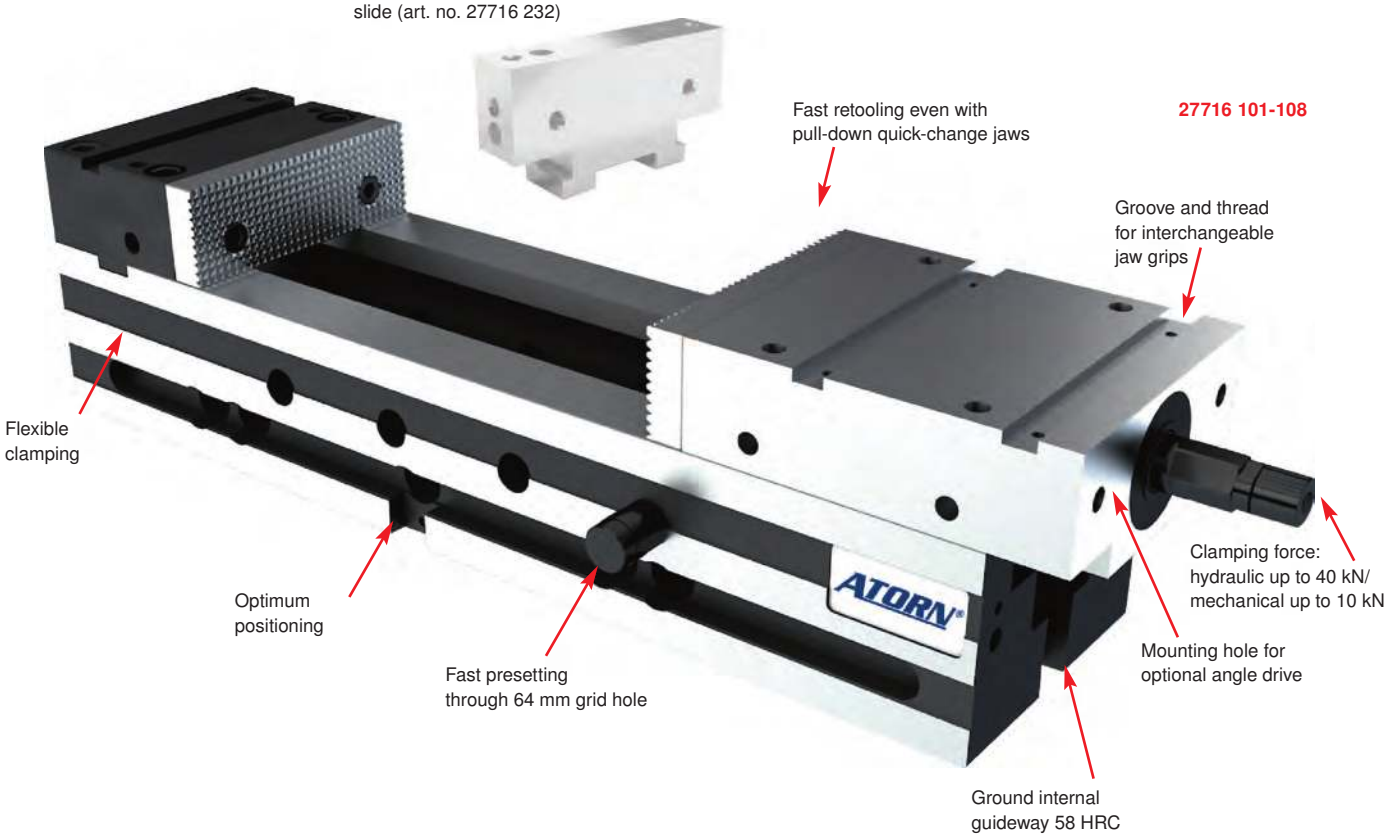
Note:
Can also be used for tower clamping.
For workpiece stops see art. no. 27410.

Bed length up to 1200 mm and hydraulically operated versions deliverable on request.

NEW



Multiple clamping optionally possible with interchangeable slide (art. no. 27716 232)



Jaw width mm	Bed length D mm	Total length E mm	Clamping width C mm	Clamping width R mm	Clamping width S mm	Bed height mm H7	Groove width mm H7	Jaw height +/- mm	27716 ...
125	470	564	0–239	131–445	63–377	82	20	43	**101**
125	534	628	0–303	131–509	63–441	82	20	43	**102**
125	598	692	0–367	131–573	63–505	82	20	43	**103**
125	662	756	0–431	131–637	63–569	82	20	43	**104**
125	726	820	0–495	131–701	63–633	82	20	43	**105**
125	790	884	0–559	131–765	63–697	82	20	43	**106**
125	854	948	0–623	131–829	63–761	82	20	43	**107**
125	918	1012	0–687	131–893	63–825	82	20	43	**108**

See next page for accessories

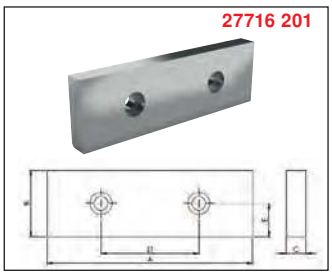
27716 Accessories for machine vice MH-S 125

Continued

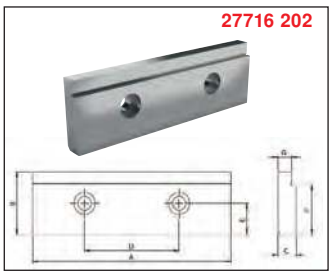
Scope of delivery:
All jaws 1 piece each.

NEW

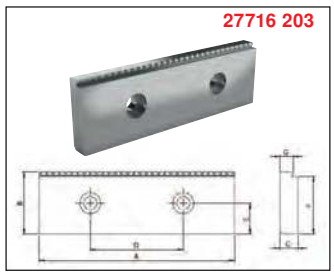
27716 201



27716 202



27716 203



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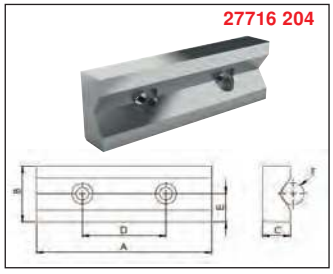

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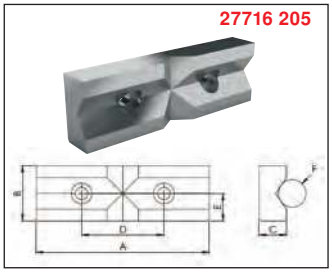

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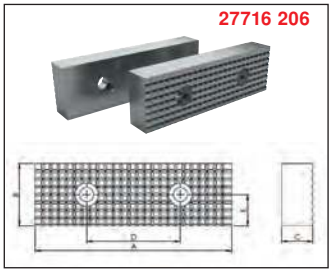

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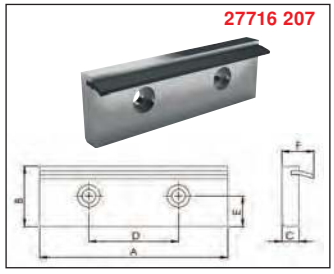

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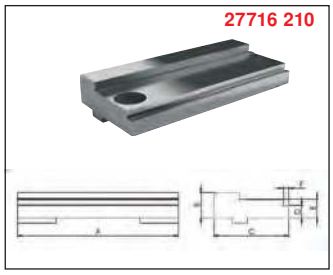

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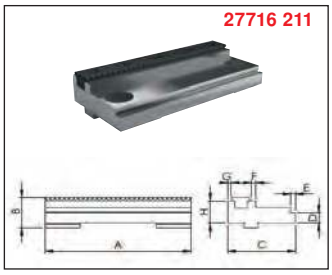

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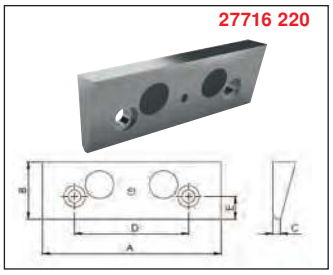

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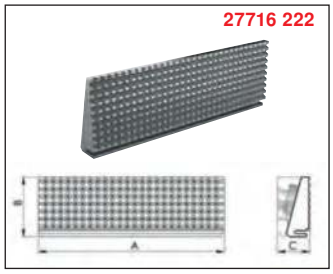
27716 222



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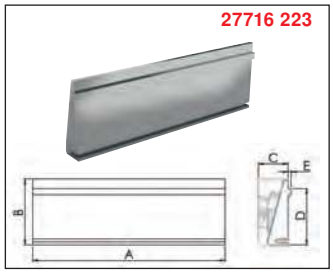

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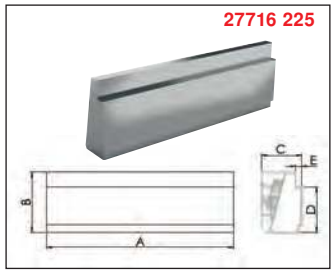

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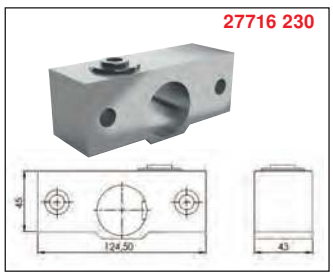

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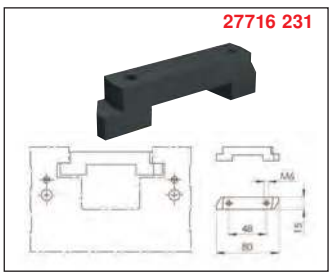
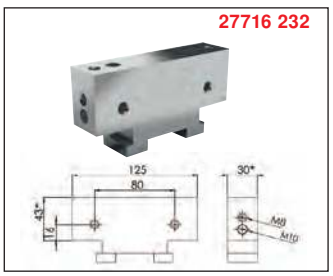


27716 232



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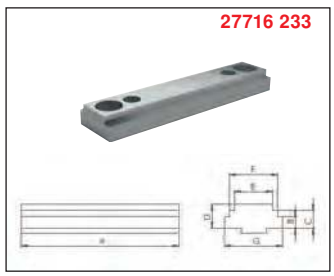


Type	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	27716 ...
Soft jaw	125	43.4	15.4	80	16	-	-	-	201
Stepped jaw	125	43	11.5	80	16	35	8.5	-	202
Grip stepped jaw	125	43	11.5	80	16	40	8.5	-	203
Prism jaw, vertical	125	43	20	80	16	8–38	-	-	204
Prism jaw, horizontal and vertical	125	43	20	80	16	8–38	-	-	205
Reversible screw-in jaw	125	43	15	80	16	-	-	-	206
Pull-down jaw with spring plate	125	43	11.5	80	16	21.5	-	-	207
Interchangeable stepped jaw	125	19	58	9	14	4	-	-	210
Interchangeable stepped jaw with grip insert	125	26.1	58	9	4	4	3	19	211
Plain jaw with two permanent magnets	125	43	6	80	16	-	-	-	220
Interchangeable jaw, smooth	125	43	21.5	-	-	-	-	-	221
Interchangeable jaw, serrated	125	43	21.5	-	-	-	-	-	222
Line interchangeable jaw	125	43	21.5	37	2	-	-	-	223
Serrated line interchangeable jaw	125	43	21.5	37	2	-	-	-	224
Stepped interchangeable jaw	125	43	26.9	33	4	-	-	-	225
Angle drive	-	-	-	-	-	-	-	-	230
Rhombic T-sliding block	-	-	-	-	-	-	-	-	231
Interchangeable slide	-	-	-	-	-	-	-	-	232
Interchangeable stepped jaw for interchangeable slide	124.9	-	-	105	-	-	-	-	233

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

27695 Hydro machine vices, EuroLine

ROEMHELD HILMA • STARK

Design

Mechanical/hydraulic. The redesigned power transmission requires a minimum crank force. An angle drive (see art. no. 27703) facilitates operation, e.g. for longitudinal clamping on the machine table. An optional clamping force pre-selector (see art. no. 27705) enables 6-stage limitation of the maximum clamping force to partial values.

Function:

When the hand crank is turned, the mechanical/hydraulic clamping jaw is quickly brought to the workpiece via a steep threaded hollow spindle. After contact with the workpiece: Automatic disengagement of the inner pressure spindle. When the hand crank is turned further: Infinitely variable increase in the clamping force up to the maximum. To release the clamping force, the hand crank is turned in the opposite direction.

Scope of delivery:

Standard reversible jaws, smooth/serrated, hand crank and operating instructions.

Applications

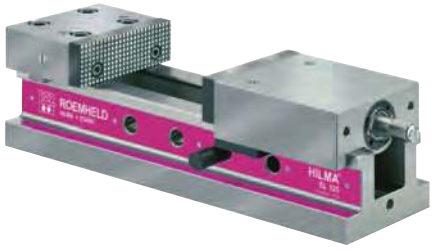
For tool and mould making, jig manufacturing and production.

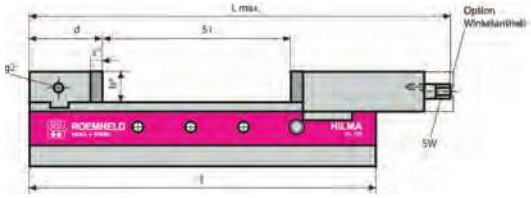
Note:

Cannot be used with turntable.

For adjustable clamp sets, see art. no. 27805.

27695 302





Type	Jaw width mm	Clamping width S1 mm	Clamping force approx. kN	Jaw height b mm	Total length L max. mm	Lower section f mm	Crank force N	Crank radius mm	Weight approx. kg	27695	...
EL 100	100	205	25	34	464	380	50	80	18.5		**301**
EL 125	125	225	40	45	526	430	75	100	31.5		**302**
EL 160	160	309	50	54	684	550	95	125	58.5		**303**
EL 160 L	160	509	50	54	884	750	95	125	75.0		**304**

27800 Hydro machine vices, type NC

ROEMHELD HILMA • STARK

Design

Mechanical/hydraulic. Manual clamping with hydraulic power transmission. Precise alignment on the machine table using longitudinal and transverse grooves. Extension of the clamping range with interchangeable stepped jaws or customer-specific special jaws via grooves and threaded holes on slides and fixed jaws. Threaded holes for holding extra-high clamping jaws as standard.

Function:

When the hand crank is turned, the mechanical/hydraulic clamping jaw is quickly brought to the workpiece via a steep threaded hollow spindle. After contact with the workpiece: Automatic disengagement of the inner pressure spindle. When the hand crank is turned further: Infinitely variable increase in the clamping force up to the maximum. To release the clamping force, the hand crank is turned in the opposite direction.

Applications

For tool and mould making, jig manufacturing and production.

Note:

1 = Interchangeable stepped jaws option

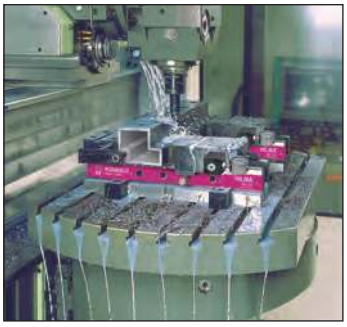
2 = Angle drive option

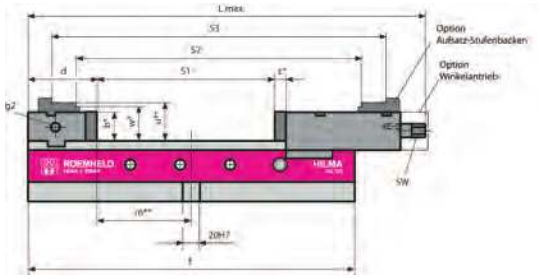
3 = Clamping force display in kN option

For adjustable clamp sets, see art. no. 27805.

Hydraulically operated version on request.

27800 102





Type	Jaw width mm	Clamping width S1/S2/S3 max. mm	Clamping force kN	Jaw height b mm	Total length L max. mm	Lower section f mm	Crank force N	Crank radius mm	Weight approx. kg	27800	...
NC 100	100	205/330/386	25	34	464	380	50	80	18.5		**101**
NC 125	125	225/363/431	40	45	526	430	75	100	31.5		**102**
NC 160	160	309/503/573	50	54	684	550	95	125	58.5		**103**

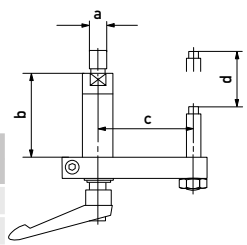
27702 Workpiece stops for type EL, NC

ROEMHELD HILMA • STARK

Applications

Coordinate workpiece stops, for self-assembly on all HILMA machine vices; can be swivelled away for 3-sided machining.

27702



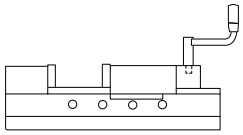
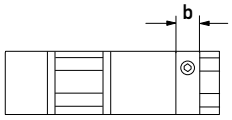
Type	For jaw width mm	a	b mm	c mm	d mm	27702	...
9.3291.0201	100/125	M 12	61	95	46		**101**
9.3291.0401	160	M 20	81	124	66		**102**

27703 Angle drives for type EL, NC-M

ROEMHELD HILMA • STARK

Design
Fast assembly with just 2 screws (overall length L max. of the machine vice does not change).
Supplied without hand crank.

Applications
Important accessory for longitudinal clamping on the machine table or when normal crank operation is difficult.

Type	For jaw width mm	b mm	27703	...
9.3294.0605	125	43		102
9.3294.0705	160	46		103

27705 Clamping force pre-selector, 6-stage

ROEMHELD HILMA • STARK

Design
The clamping force pre-selector limits the travel of the pressure spindle and thus enables gradual adjustment of the clamping force. The maximum clamping force is reached in stage 6.
Safety instructions:
The set clamping force must be high enough to ensure that the machining forces cannot move the workpiece.

Scope of delivery:
6-stage clamping force pre-selector, including fastening screw and two shims for tolerance compensation.
Applications
The 6-stage clamping force pre-selector is used to clamp thin-walled parts, sensitive materials and workpieces for fine machining with an adapted clamping force. For mechanical/hydraulic machine vices, type EL, NC-M.

27705

Type	For jaw width mm	Thread of pressure spindle	Spacing X mm	27705	...
9.3762.0100	100	M 6 x 12	0.7–1.0		101
9.3762.0125	125	M 8 x 14	1.0–1.5		102
9.3762.0160	160	M 8 x 14	1.0–1.5		103

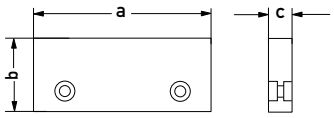
27729 Standard clamping jaws

ROEMHELD HILMA • STARK

Design
Can be used on both sides
1. Serrated side.
2. Smooth side.

Applications
For hydro machine vices, type EL, NC.

27729

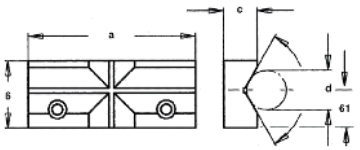
Type	a mm	b mm	c mm	Pieces 27729	...
5.2058.1003	100	34	13		101
5.2058.1004	125	45	15		102
5.2058.1005	160	54	18		103

27734 Vee block jaw

ROEMHELD HILMA • STARK

Applications
For clamping round workpieces horizontally and vertically.
For hydro machine vices, type EL, NC.

27734

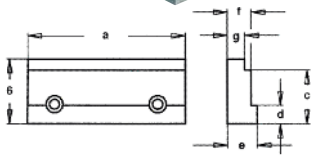
Type	a mm	b mm	b1 mm	c mm	d mm	Pieces 27734	...
5.3030.0002	100	34	19	17	8–35		101
5.3030.0003	125	45	27	19	10–50		102
5.3030.0004	160	54	32	21	12–60		103

27738 Precision stepped jaws

ROEMHELD HILMA • STARK

Applications
For use in pairs. For clamping rectangular workpieces without parallel pieces. For producing bores close to the edge. For hydro machine vices, type EL, NC.

27738

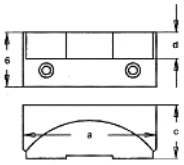
Type	a mm	b mm	c mm	d mm	e mm	f mm	g mm	Pieces 27738	...
5.2082.0001	100	34	29	10	19	15	11		201
5.2082.0002	125	45	39	13	25	20	16		202
5.2082.0003	160	54	45	15	25	20	16		203

27739 Pendulum jaws

ROEMHELD HILMA • STARK

Applications
For clamping workpieces with non-parallel clamping surfaces or 2 workpieces with different tolerances.
For hydro machine vices, type EL, NC.

27739



Type	a mm	b mm	c mm	d mm	Pieces 27739	...
8.3711.0208	100	34	35	16		101
8.3711.0308	125	45	50	22		102
8.3711.0408	160	54	55	26		103

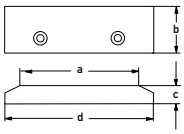
27741 Clamping jaws, extra-wide

ROEMHELD HILMA • STARK

Applications
For safe clamping of workpieces that exceed the normal jaw widths.

For use in pairs.
For hydro machine vices, type EL, NC.

27741



Type	a mm	b mm	c mm	d mm	Pieces 27741	...
5.2058.1025	100	34	13	125		201
5.2058.1026	125	45	15	160		202
5.2058.1027	160	54	18	200		203

27803 - 27804 Interchangeable stepped jaws

ROEMHELD HILMA • STARK

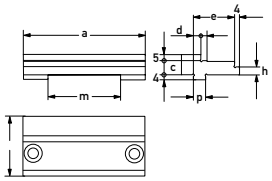
Design
For achieving very large clamping widths. Includes fastening screws.
Applications
For machine vices art. no. 27800.

27803
For fixed jaws.

27804
For slides.

Note:
Recess dimension m for art. no. 27804 only.

27803



Type	a mm	c mm	d mm	e mm	h mm	m mm	p mm	27803 ...	27804 ...
9.3284.0201	100	11.5	6	34	6.5	60	10h6	101	
9.3284.0301	125	14.0	6	40	9.0	58	12h6	102	
9.3284.0401	160	17.0	8	43	12.0	64	18h6	103	
9.3284.1201	100	11.5	6	34	6.5	60	10h6		201
9.3284.1301	125	14.0	6	40	9.0	58	12h6		202
9.3284.1401	160	17.0	8	43	12.0	64	18h6		203

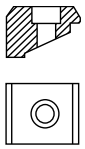
27805 Adjustable clamp sets for type EL/NC/DS

ROEMHELD HILMA • STARK

Design
4 pieces, with screws.

Applications
For machine vices art. no. 27695, 27800.

27805



Type	For type	Clamping edge mm	Groove mm	Cheese head	27805 ...
9.3777.2011	EL/NC 100, DS 100	24	14	M 12	101
9.3777.3011	EL/NC 125/160, DS 125	27	14	M 12	102
9.3777.3021	EL/NC 125/160, DS 125	27	18	M 16	103

Info Double clamping system, DS

The ideal component for efficient multiple clamping. One-sided spindle action and 3rd manual function enables successive loading and unloading of the clamping points with workpieces of the same size or different sizes. The spindle chamber is completely enclosed, providing optimum protection against chips and coolant.
A zero-backlash linear guide ensures maximum precision. Pre-selectable clamping force via torque wrench.

Please enquire as necessary.

27895 Clamping jaws with positioning pins, pneumatic operation

ATORN®

Design
- Fast and precise clamping of a wide variety of workpieces
- Changeover in seconds for different machining operations
- Loose surfaces become superfluous, as does time-consuming cleaning
- Stable and robust construction, also suitable for high clamping forces
- Compressed air supply via valves on both front ends
- Enclosed on all sides when installed, thus low maintenance
- Recommended air pressure: 5.5 bar
- Contents: 1 piece

Applications
Clamping jaw system with positioning pins eliminates the need for complex and time-consuming clamping devices; practical, fast and uncomplicated position fixing of workpieces in seconds.

NEW

Quality
High-quality tool steel, hardened, ground and treated with a special oxidation process.

Advantage: Actuate once with the blow-out gun and all pins are driven out

27895 201

27895 202

27895 203

27895 204

Jaw width mm	For vice brand	For vice type	Pitches of mounting hole (w x h)	27895 ...
125	Hilma:	NC 125, NC 125 H, EL 125, KNC 125	2 x M 8	**201**
125	ATORN:	MM-G 125		**202**
	Gressel:	Gripos GPS 125, Gripos GPS 125-VS, Gripos2,		
		Grepos-5X, Grepos-5X-S, Grefors, S2, Duogrip, C2, Ecopos	2 x M 8/1 x M 10	
	Kesel:	CNC 125, Bull pneumatic 125, Bull 125 mechanical, ARNO 125		
	Röhm:	RKE 125, RKE-L 125, RKE-U 125, RKG-L 125, RKE-LV 125		
160	Hilma:	NC 160, NC 160 H, EL 160, KNC 160	2 x M10	**203**
160	ATORN:	MM-G 160		**204**
	Gressel:	Gripos GPS 160, Gripos GPS 160-VS, Gripos2,		
		Grepos-5X, Grefors, S2, Duogrip, C2, Ecopos	3 x M 10	
	Kesel:	CNC 160, Bull pneumatic 160, Bull 160 mechanical, ARNO 160		
	Röhm:	RKE 160, RKE-L 160, RKE-U 160, RKG-L 160, RKE-LV 160		

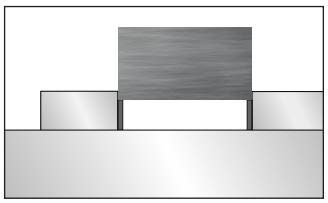
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

27890 Magnetic parallel rest sets

ATORN®

Design
- Made from hardened, bronzed and distortion-free tool steel
- High retention force of the magnets

Advantage:
Strip width 2.5 mm, enabling machining close to the edge.



27890

Height tolerance +/- mm	Length mm	Width mm	Contents, pairs	Contents, height mm	27890	...
0.01	100	2.5	5	20/27/29/31/32		101
0.01	125	2.5	5	15/30/35/37/39		102
0.01	160	2.5	5	22/30/37/42/47		103

36600 Precision parallel rest sets

AMF

Design
- Pairs
- Plane parallel, finely ground
- Size specifications on the face
- Sets cover a wide range with 1 mm increment
- Case-hardened.
- **Nominal dimension tolerance +/- 0.01 mm**
- Remaining dimensions in accordance with **DIN ISO 2768 m**
- In wooden holder

Applications
For clamping and positioning a wide range of workpieces, e.g. when grinding, milling, eroding, measuring and marking off.
In connection with corresponding clamping tools such as the precision grinding and eroding vice, ideal for exact-angle or exact-parallel processing of a wide range of workpieces.

Note:
Designs of special dimensions, in high precision or as individual pairs available on request.

36600 101
Design
Length 100 mm.
Box contents one pair each:
2 x 5 / 2 x 10 / 2 x 15 / 2 x 20 / 3 x 6 / 3 x 11 / 3 x 16 / 3 x 21 / 4 x 7 / 4 x 12 / 4 x 17 / 4 x 22 / 5 x 8 / 5 x 13 / 5 x 18 / 5 x 23 / 6 x 9 / 6 x 14 / 6 x 19 / 6 x 24 mm.

36600 103
Design
Length 125 mm.
Box contents one pair each:
8 x 11 / 8 x 16 / 8 x 21 / 8 x 26 / 8 x 31 / 8 x 36 / 10 x 13 / 10 x 18 / 10 x 23 / 10 x 28 / 10 x 33 / 10 x 38 / 12 x 15 / 12 x 20 / 12 x 25 / 12 x 30 / 12 x 35 / 12 x 40 / 14 x 17 / 14 x 22 / 14 x 27 / 14 x 32 / 14 x 37 / 14 x 42 mm.

36600 102
Design
Length 150 mm.
Box contents one pair each:
8 x 11 / 8 x 16 / 8 x 21 / 8 x 26 / 8 x 31 / 8 x 36 / 10 x 13 / 10 x 18 / 10 x 23 / 10 x 28 / 10 x 33 / 10 x 38 / 12 x 15 / 12 x 20 / 12 x 25 / 12 x 30 / 12 x 35 / 12 x 40 / 14 x 17 / 14 x 22 / 14 x 27 / 14 x 32 / 14 x 37 / 14 x 42 mm.


36600

Pair tolerance in height mm	Length mm	Contents pairs	36600	...
IT 5	100	20		101
IT 5	125	24		103
IT 5	150	24		102

36602 Parallel rest sets

Design
- Case-hardened and ground
- Contact surfaces finely ground
- **Nominal dimension tolerance** up to height 30 mm = **+/- 0.2 mm,** from height 35 mm = **+/- 0.3 mm.**
- Nominal dimensions in accordance with **ISO 2768 m**
- In wooden case with removable hinged lid

Contents:
1 pair each (= 14 pairs).
Height of the measuring surfaces mm:
14/16/18/20/22/ 24/26/28/30/32/35/40/45/50.


36602

Pair tolerance, height mm	Length mm	Width mm	Contents, pairs	36602	...
0.01	150	10	14		101

36615 Parallel rest sets

AMF

Design
- Case-hardened and ground
- Contact surfaces finely ground
- **Nominal dimension tolerance, height +/- 0.004 mm**
- Nominal length and width in accordance with **ISO 2768 m**
- In wooden case with removable hinged lid

Contents:
1 pair each (= 14 pairs).
Height of the measuring surfaces mm:
14/16/18/20/22/24/26/28/30/32/35/40/45/50.

Applications
As spacers for workpieces in a wide variety of machining operations.
The constant width means that the parallel rests can be built up in height.
The removable hinged lid allows the set to be stored open in the tool cabinet.


36615

Pair tolerance, height mm	Length mm	Width mm	Contents, pairs	36615	...
0.004	150	10	14		101