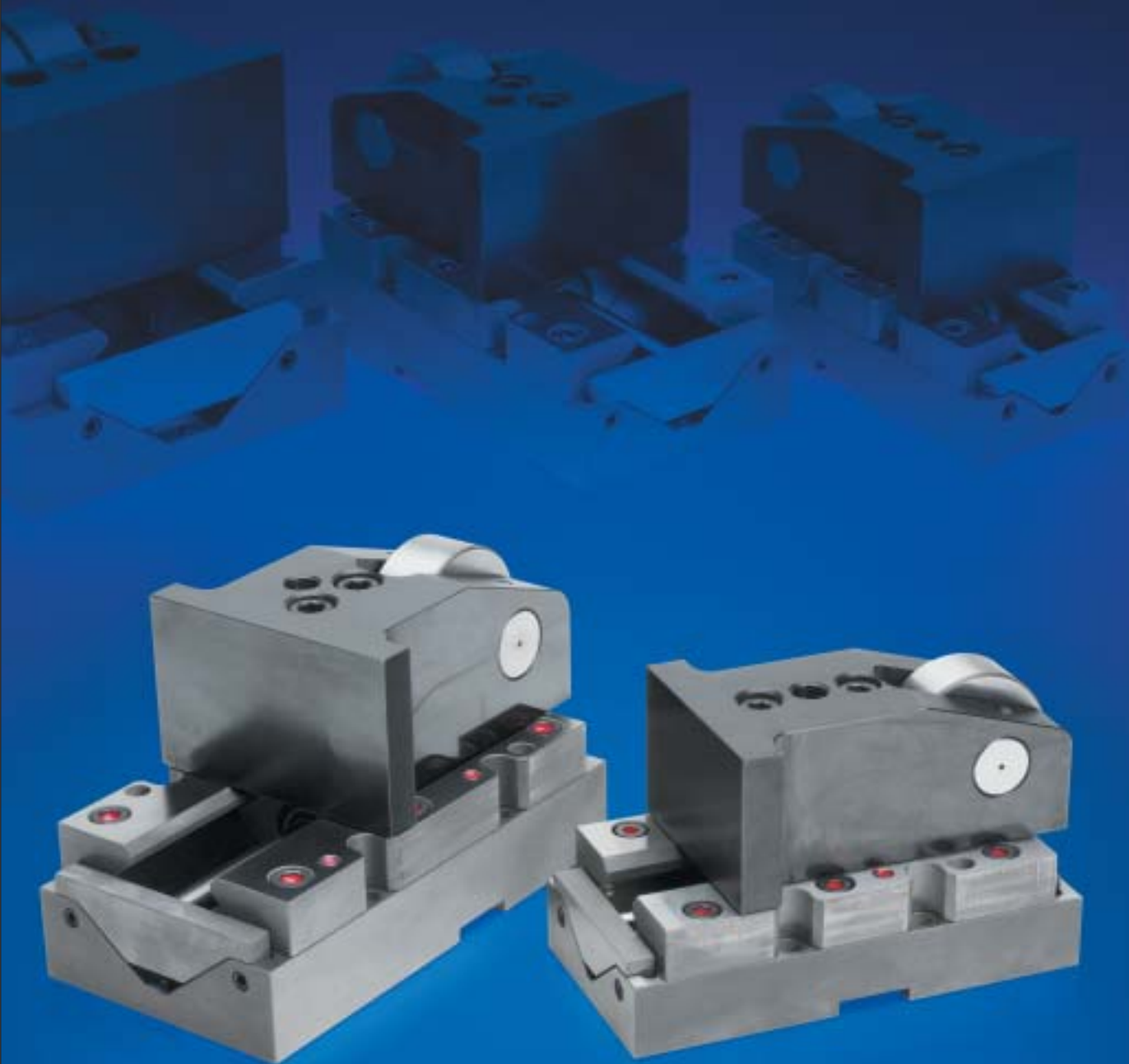




Roller Slide Units



Order-No. 2.2903.00.0305.01000

2-1975-2004-1

05/2005





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Weibertreu
Castle at Weinsberg



FIBRO plant Weinsberg



Indexing tables

FIBRO – The latest technology – with a tradition of service

The FIBRO of today started up in Weinsberg on a very small scale back in 1958. Situated below the historic Weibertreu Castle, the company made precision rotary parts, the forerunners of today's FIBRO Standard Parts range for the toolmaking industry.

Progress was rapid and soon FIBRO needed new production facilities. A new factory was built at Hassmersheim on the River Neckar. Once again it was a historic location, this time opposite Hornberg Castle.

Indexing tables

From 1962 onwards FIBRO at Weinsberg pioneered the design and manufacture of indexing tables and soon gained an enviable reputation.

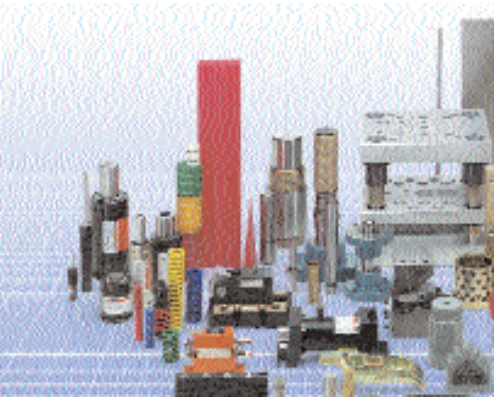
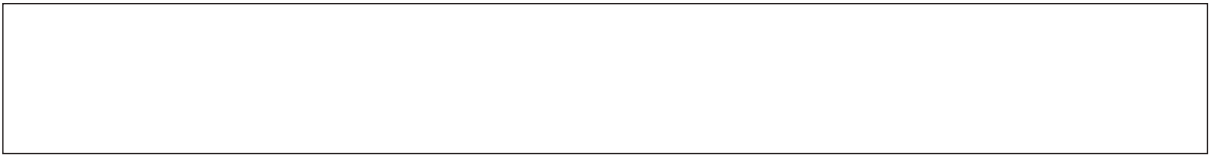
FIBROTAKT: indexing tables with face gear and ultra-high-precision indexing, combined with dependable rigidity. Drive options: pneumatic, hydraulic, electric. Rotation by rack and pinion or worm drive. Manual or NC control.

FIBROPLAN: indexing tables with worm drive and NC indexing and drive, for circular milling and divisions of any size.

FIBROTOR: revolving tables or indexing tables with positive-drive cam, offering very short cycle times even when transporting heavy loads. Suitable for automation with short cycle times. Thousands of FIBRO units are in use world-wide as integral key components in high-output machinery.

Standard Parts

Today the Standard Parts division operates from the Hassmersheim works which manufactures a comprehensive range of standard parts and maintains stocks ready for immediate despatch world-wide. The machine tool, mechanical engineering and systems engineering product range includes machine pillars, guide rails, oilless guide elements and precision parts such as cutting dies and die bushes, special steel pressure springs, gas springs, forming materials, metal bonding agents and moulding resins, accessories for pressing and toolmaking, tool slides with cam or roller drives and independent hydraulic drives. FIBRO has become renowned world-wide for its comprehensive range of products kept in stock and its readiness to deliver.



Hornberg castle on the opposite side of the river



Standard Parts



Automation+Robotics



FIBRO Hassmersheim plant

Automation+Robotics

FIBRO has been active in the field of automation and robotics since 1974 from the Hassmersheim works. Modular construction based on translation units, rotary units, grippers and guide gantries with trolleys make for easy construction of individual machines and complete systems, ranging from simple pick & place units right through to multi-axis robots. These series-manufactured modules are available in several sizes for loads up to 1,000 kg, traversing speeds up to 6.5 m/sec and travel of up to 30 m. Module series with electric-motor, hydraulic and pneumatic drive can be combined to suit the specific requirements. The system has a track record of success in many sectors of industry.

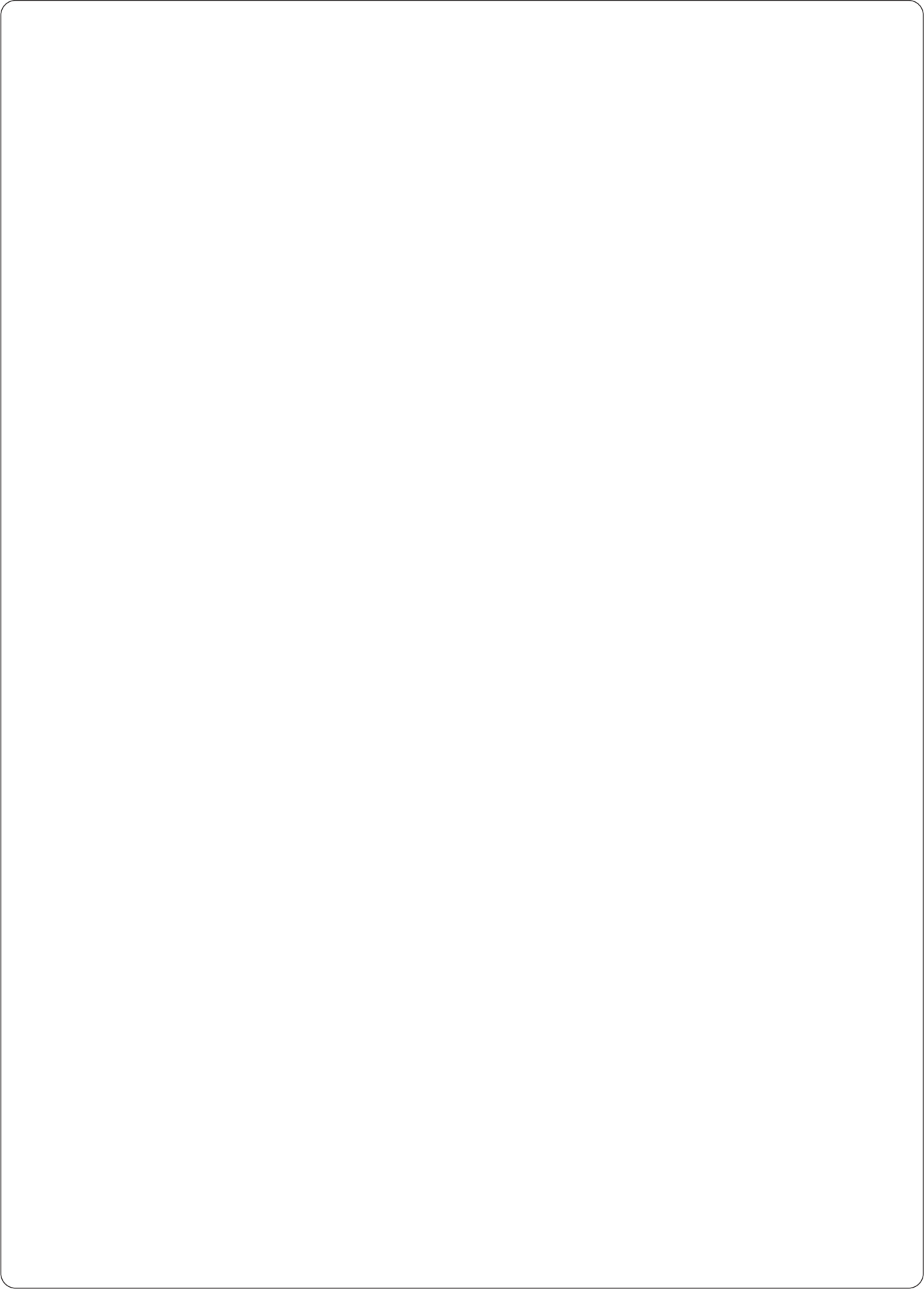
FIBRO is much in demand as a supplier to the mechanical engineering and metalworking sectors. This success is based largely on three factors: FIBRO's in-depth knowledge of the market, its commitment to quality assurance in line with ISO 9001 and its flexible and responsive organisational structure so typical of medium-sized German companies.

FIBRO: a company with a great history. FIBRO has developed at a rapid pace in these fast-moving times and will continue to demonstrate its proactive philosophy in the future.

FIBRO – precision technology for the toughest tasks

More about FIBRO:

- 900 staff
- 80 representatives and service stations world-wide
- branch offices in France, USA, Singapore and Switzerland.





2017.32.
2017.42.

Roller Slide Units

Description:

The new generation of FIBRO Roller Slide Units has been designed to meet the increasing demand for standard slide units in tool making and the automotive industry.

The slides are available for maximum stamping forces of 30 kN, 50 kN and 150 kN.

Gas springs with a restoring force of 200 daN to 500 daN according to the specific roller slide unit are used to restore the slide unit.

Benefits:

- Roller slide units are low maintenance and have a service life of 1 million strokes.
- Thanks to the guide, loads can be applied off-centre (see nominal force in relation to punch arrangement, page 8).
- Seating for the forces acting in the working direction and the return.
- Slide can be dismantled while installed.
- Gas springs can be dismantled while installed.
- Small dimensions, large working surface.

Coating:

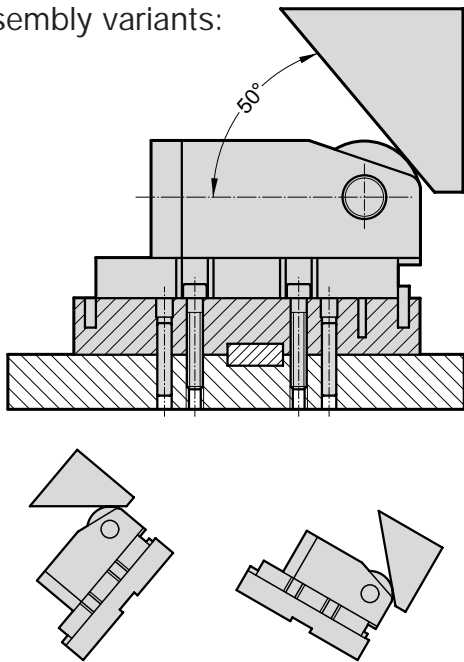
The slide guide is WC/C coated (Tungsten carbide carbon).

Specifications:

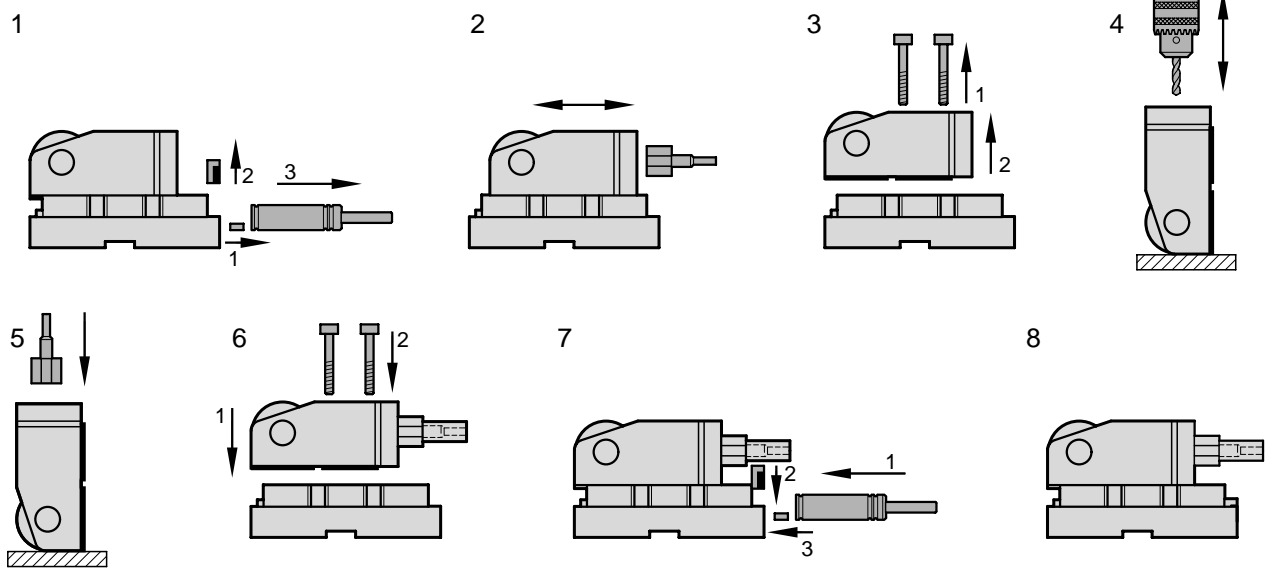
- Low friction
- Good sliding characteristics.



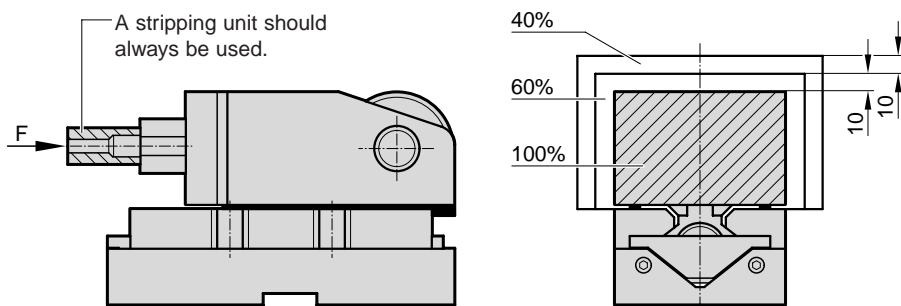
Assembly variants:



Sequence for assembly/disassembly of cutting dies:



Nominal force in relation to punch arrangement:





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Roller Slide Units

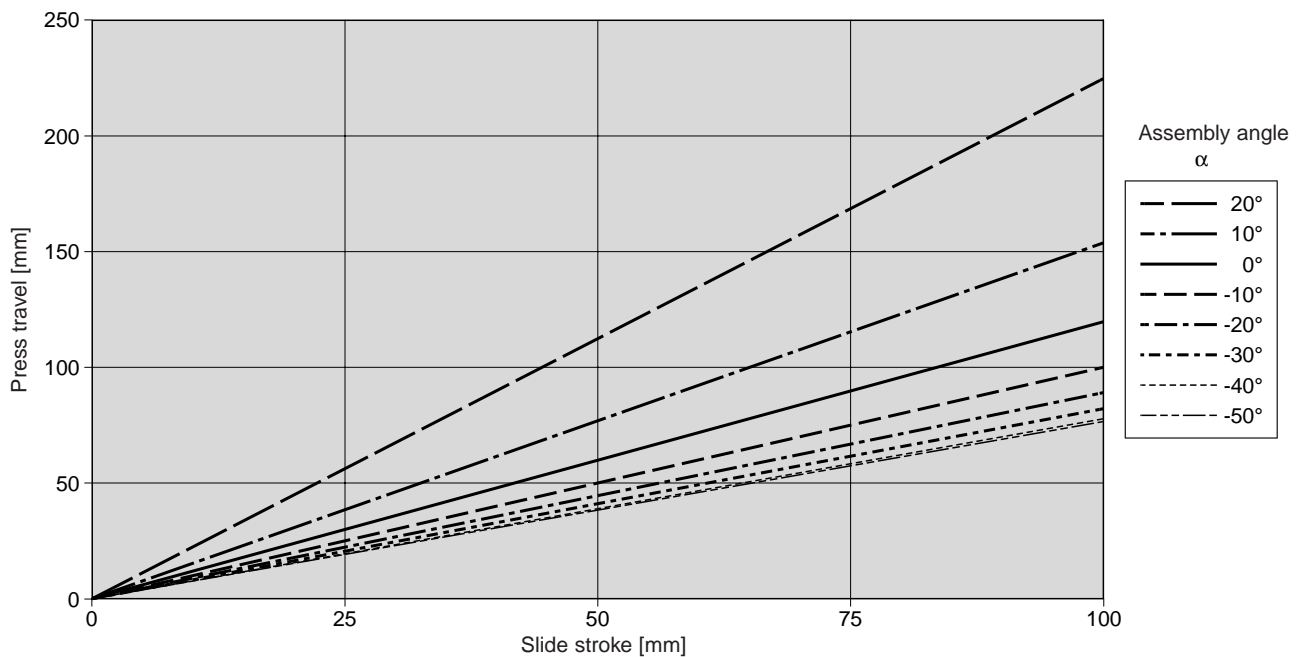
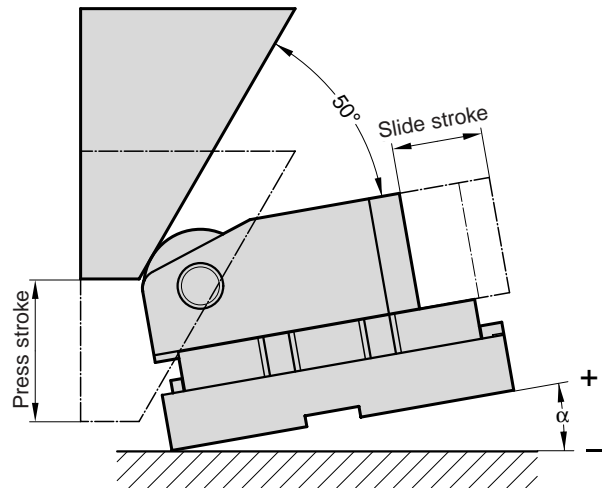
Slide angle:

Ensure that the angle between the driver and the slide is not less than 50°.

The press stroke depends on the assembly angle of the roller slide unit (see table or diagram).

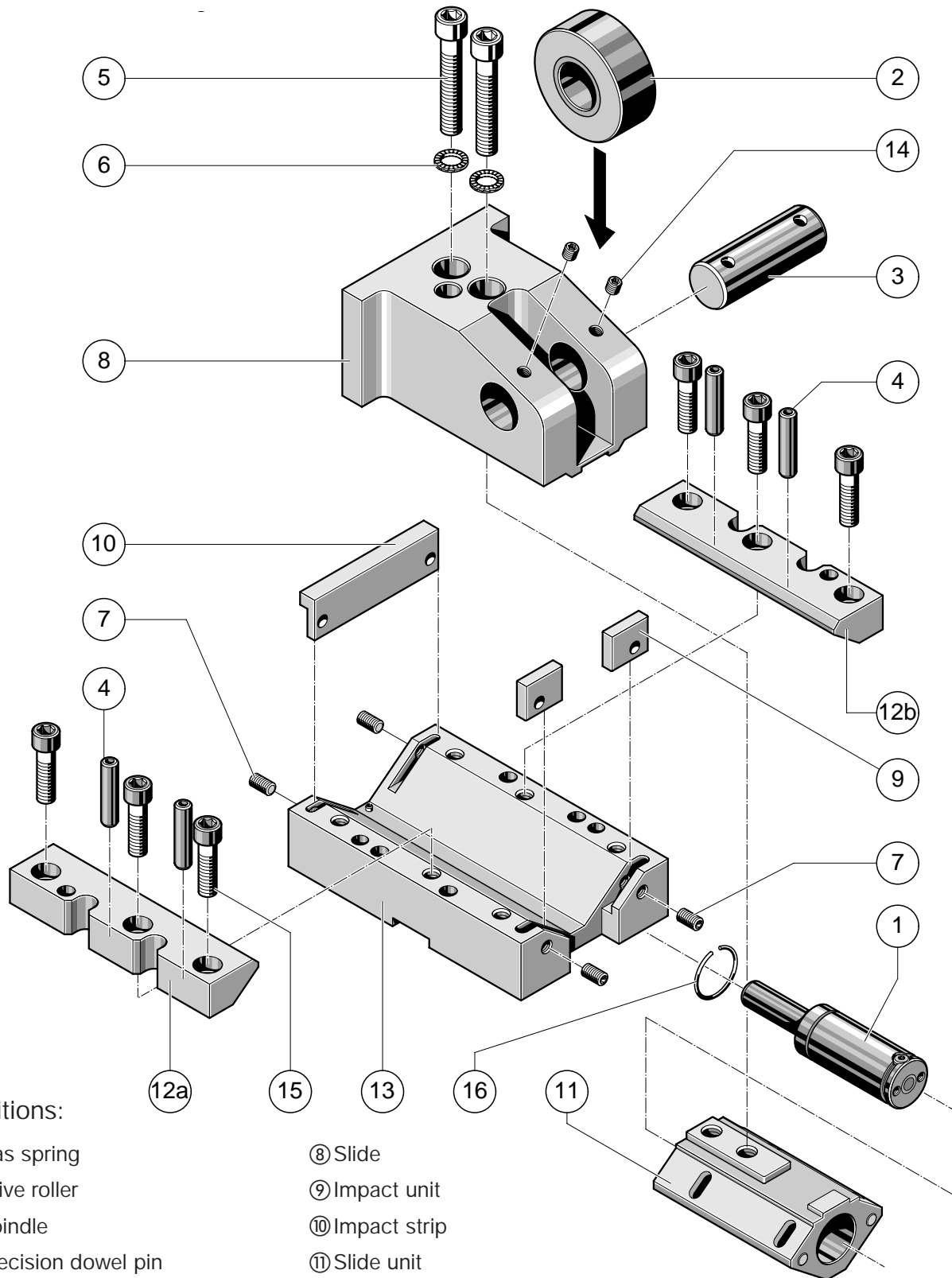
Assembly angle α	Slide stroke		
	50	80	100
20	112,0	179,2	224,0
10	76,6	122,6	153,2
0	59,6	95,3	119,2
-10	50,0	80,0	100,0
-20	44,2	70,8	88,5
-30	40,8	65,2	81,5
-40	38,9	62,2	77,8
-50	38,3	61,3	76,6

Press stroke





Exploded diagram:



Positions:

- | | |
|------------------------|----------------------------|
| ① Gas spring | ⑧ Slide |
| ② Drive roller | ⑨ Impact unit |
| ③ Spindle | ⑩ Impact strip |
| ④ Precision dowel pin | ⑪ Slide unit |
| ⑤ Machine screw | ⑫ Cover strip (right/left) |
| ⑥ Serrated lock washer | ⑬ Slide bed |
| ⑦ Setscrew | ⑭ Setscrew |
| | ⑮ Machine screw |
| | ⑯ Circlip |

Material:

- | | |
|-----|-----------------------|
| ⑧-⑨ | E335 (1.0060) |
| ⑩-⑬ | X100CrMoV5-1 (1.2363) |



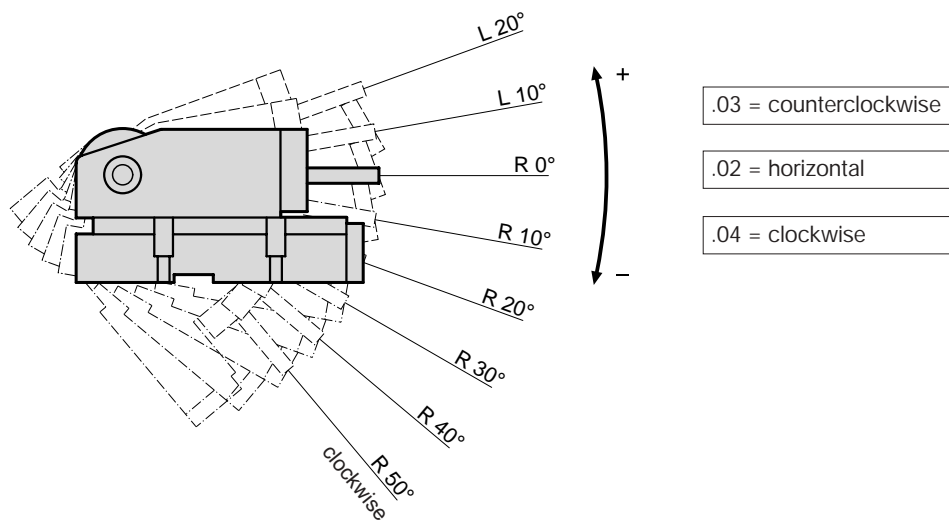
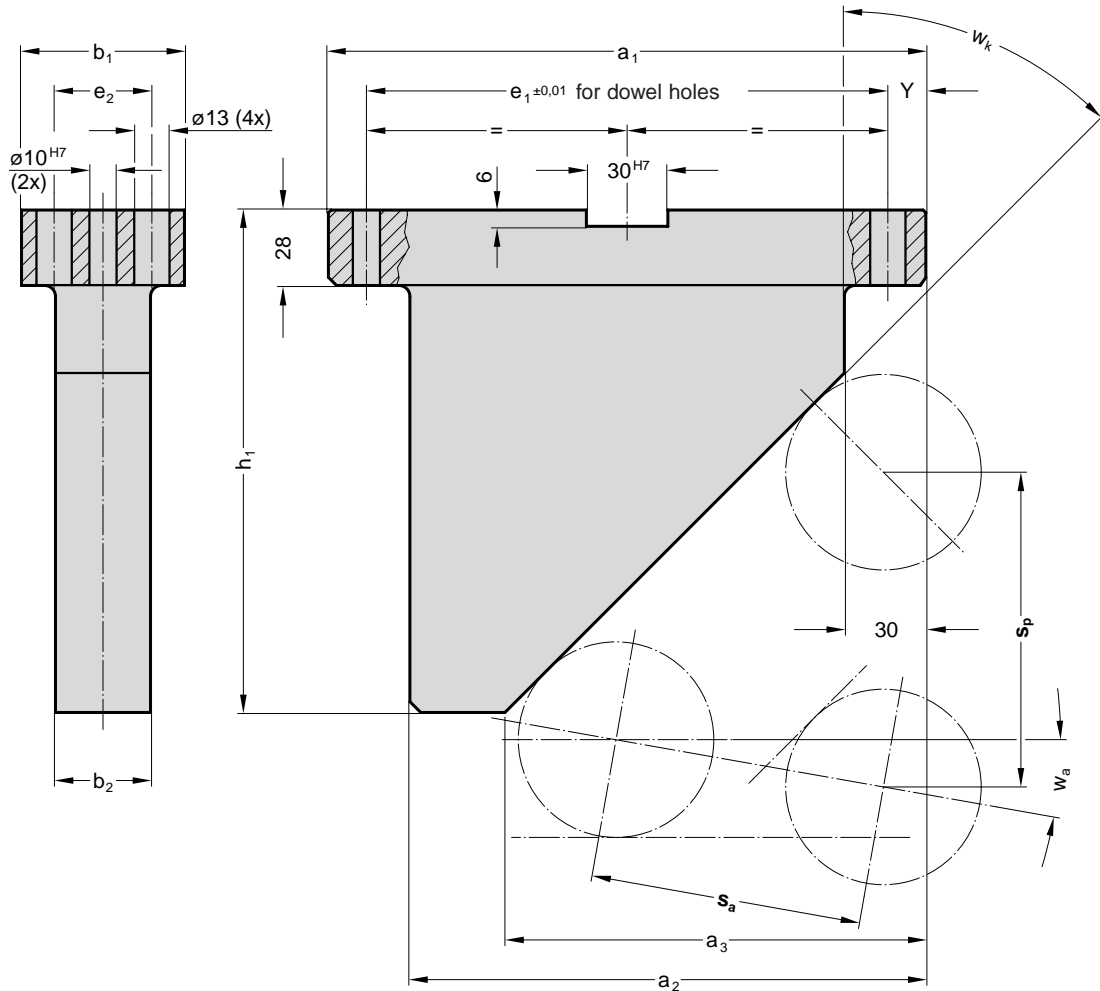
2017.32.
2017.42.

Roller Slide Units

Spare part pos.	Description	Roller slide units order-no.				
		2017.32.00.094.050.2	2017.32.00.094.080.2	2017.32.00.120.050.2	2017.32.00.120.080.2	2017.32.00.120.100.2
1	Gas spring	2480.21.00200.050	2480.21.00200.080	2487.12.00350.050	2487.12.00350.080	2487.12.00350.100
2	Drive roller	502654	502654	502660	502660	502660
3	Spindle	4019188	4019188	4019203	4019203	4019203
4	Precision dowel pin	236.1.0800.040 (4x)	236.1.0800.040 (4x)	236.1.0800.040 (4x)	236.1.0800.040 (4x)	236.1.0800.040 (4x)
5	Machine screw ISO 4762	2192.10.10.060 (2x)	2192.10.10.060 (2x)	2192.10.12.070 (2x)	2192.10.12.070 (2x)	2192.10.12.070 (2x)
6	Serrated lock washer DIN 6798	DIN 6798-A 10,5 (2x)	DIN 6798-A 10,5 (2x)	DIN 6798-A 13 (2x)	DIN 6798-A 13 (2x)	DIN 6798-A 13 (2x)
7	Setscrew DIN 913	DIN 913 M8 x 14 (4x)	DIN 913 M8 x 14 (4x)	DIN 913 M8 x 14 (4x)	DIN 913 M8 x 14 (4x)	DIN 913 M8 x 14 (4x)
8	Slide	3020670	3020670	3020665	3020665	3020665
9	Impact unit	4019189	4019189	4019205	4019205	4019205
10	Impact strip	4019195 (2x)	4019195 (2x)	4019204 (2x)	4019204 (2x)	4019204 (2x)
11	Slide unit	3020669	3020669	3020654	3020654	3020654
12a	Cover strip left	3020671-0500	3020671-0800	3020666-0500	3020666-0800	3020666-1000
12b	Cover strip right	3120671-0500	3120671-0800	3020667-0500	3020667-0800	3020667-1000
13	Slide bed	2019191-0500	2019191-0800	3019199-0500	3019199-0800	3019199-1000
14	Setscrew DIN 913	DIN 913 M8 x 8 (2x)	DIN 913 M8 x 8 (2x)	DIN 913 M8 x 8 (2x)	DIN 913 M8 x 8 (2x)	DIN 913 M8 x 8 (2x)
15	Machine screw ISO 4762	2192.10.08.035 (6x)	2192.10.08.035 (6x)	2192.10.10.040 (6x)	2192.10.10.040 (6x)	2192.10.10.040 (6x)
16	Circlip (Ø2)	4015243-0250	4015243-0250	4020406	4020406	4020406

Spare part pos.	Description	Roller slide units order-no.				
		2017.42.00.094.050.2	2017.42.00.094.080.2	2017.42.00.120.050.2	2017.42.00.120.080.2	2017.42.00.120.100.2
1	Gas spring	2480.21.00200.050	2480.21.00200.080	2487.12.00350.050	2487.12.00350.080	2487.12.00350.100
2	Drive roller	502654	502654	502660	502660	502660
3	Spindle	4019188	4019188	4019203	4019203	4019203
4	Precision dowel pin	236.1.0800.040 (4x)	236.1.0800.040 (4x)	236.1.0800.040 (4x)	236.1.0800.040 (4x)	236.1.0800.040 (4x)
5	Machine screw ISO 4762	2192.10.10.060 (2x)	2192.10.10.060 (2x)	2192.10.12.070 (2x)	2192.10.12.070 (2x)	2192.10.12.070 (2x)
6	Serrated lock washer DIN 6798	DIN 6798-A 10,5 (2x)	DIN 6798-A 10,5 (2x)	DIN 6798-A 13 (2x)	DIN 6798-A 13 (2x)	DIN 6798-A 13 (2x)
7	Setscrew DIN 913	DIN 913 M8 x 14 (4x)	DIN 913 M8 x 14 (4x)	DIN 913 M8 x 14 (4x)	DIN 913 M8 x 14 (4x)	DIN 913 M8 x 14 (4x)
8	Slide	3020670	3020670	3020665	3020665	3020665
9	Impact unit	4019189	4019189	4019205	4019205	4019205
10	Impact strip	4019195 (2x)	4019195 (2x)	4019204 (2x)	4019204 (2x)	4019204 (2x)
11	Slide unit	3020669	3020669	3020654	3020654	3020654
12a	Cover strip left	3020672-0500	3020672-0800	3020674-0500	3020674-0800	3020674-1000
12b	Cover strip right	3020673-0500	3020673-0800	3020675-0500	3020675-0800	3020675-1000
13	Slide bed	2020236-0500	2020236-0800	3020241-0500	3020241-0800	3020241-1000
14	Setscrew DIN 913	DIN 913 M8 x 8 (2x)	DIN 913 M8 x 8 (2x)	DIN 913 M8 x 8 (2x)	DIN 913 M8 x 8 (2x)	DIN 913 M8 x 8 (2x)
15	Machine screw ISO 4762	2192.10.08.035 (6x)	2192.10.08.035 (6x)	2192.10.10.040 (6x)	2192.10.10.040 (6x)	2192.10.10.040 (6x)
16	Circlip (Ø2)	4015243-0250	4015243-0250	4020406	4020406	4020406

Spare part pos.	Description	Roller slide units order-no.		
		2017.42.00.170.050.2	2017.42.00.170.080.2	2017.42.00.170.100.2
1	Gas spring	2487.12.00500.050	2487.12.00500.080	2487.12.00500.100
2	Drive roller	503513	503513	503513
3	Spindle	4020234	4020234	4020234
4	Precision dowel pin	236.1.0800.040 (4x)	236.1.0800.040 (4x)	236.1.0800.040 (4x)
5	Machine screw ISO 4762	2192.10.12.090 (2x)	2192.10.12.090 (2x)	2192.10.12.090 (2x)
6	Serrated lock washer DIN 6798	DIN 6798-A 13 (2x)	DIN 6798-A 13 (2x)	DIN 6798-A 13 (2x)
7	Setscrew DIN 913	DIN 913 M10 x 18 (4x)	DIN 913 M10 x 18 (4x)	DIN 913 M10 x 18 (4x)
8	Slide	3020231	3020231	3020231
9	Impact unit	4020233	4020233	4020233
10	Impact strip	4020232 (2x)	4020232 (2x)	4020232 (2x)
11	Slide unit	3020229	3020229	3020229
12a	Cover strip left	3020228-0500	3020228-0800	3020228-1000
12b	Cover strip right	3120228-0500	3120228-0800	3120228-1000
13	Slide bed	3020227-0500	3020227-0800	3020227-1000
14	Setscrew DIN 913	DIN 913 M8 x 8 (2x)	DIN 913 M8 x 8 (2x)	DIN 913 M8 x 8 (2x)
15	Machine screw ISO 4762	2192.10.12.035 (6x)	2192.10.10.040 (6x)	2192.10.10.040 (6x)
16	Circlip (Ø2)	4020407	4020407	4020407





2017.02./03./04.

Driver for Roller Slide Units

Roller Slide Units Order no.	Driver Order no.	a ₁	a ₂	a ₃	h ₁	b ₁	b ₂	e ₁	e ₂	w _a	w _k	y	S _a	S _a	S _a	
													50	80	100	
													S _p	S _p	S _p	
	2017.02.00.028.050	160	130	100	145	60	25	130	36	0°	40°	15	59,6			
2017.32.00.094.050.2	2017.03.10.028.050			98	165					10°	30°		76,6			
2017.32.00.120.050.2	.20.028.050			98	220					20°	20°		112,0			
2017.42.00.094.050.2																
2017.42.00.120.050.2	2017.04.10.028.050			102	130					10°	50°		50,0			
	.20.028.050			105	120					20°	60°		44,2			
	.30.028.050			102	100					30°	70°		40,8			
	.40.028.050			105	90					40°	80°		38,9			
	.50.028.050			-	80					50°	90°		38,3			
	2017.02.00.028.100	220	190	153	210	60	25	192	36	0°	40°	14		95,3	119,2	
2017.32.00.094.080.2	2017.03.10.028.100			151	250					10°	30°			122,6	153,2	
2017.32.00.120.080.2	.20.028.100			150	380					20°	20°			179,2	224,0	
2017.32.00.120.100.2																
2017.42.00.094.080.2	2017.04.10.028.100			155	185					10°	50°			80,0	100,0	
2017.42.00.120.080.2	.20.028.100			158	165					20°	60°			70,8	88,5	
2017.42.00.120.100.2	.30.028.100			160	145					30°	70°			65,2	81,5	
	.40.028.100	200	170	140	115	60	25	172	36	40°	80°			62,2	77,8	
	.50.028.100			-	95					50°	90°			61,3	76,6	
	2017.02.00.062.050	160	130	100	145	95	63	130	71	0°	40°	15	59,6			
2017.42.00.170.050.2	2017.03.10.062.050			98	165					10°	30°		76,6			
	.20.062.050			98	220					20°	20°		112,0			
	2017.04.10.062.050			102	130					10°	50°		50,0			
	.20.062.050			105	120					20°	60°		44,2			
	.30.062.050			102	100					30°	70°		40,8			
	.40.062.050			105	90					40°	80°		38,9			
	.50.062.050			-	80					50°	90°		38,3			
	2017.02.00.062.100	220	190	153	210	95	63	192	71	0°	40°	14		95,3	119,2	
2017.42.00.170.080.2	2017.03.10.062.100			151	250					10°	30°			122,6	153,2	
2017.42.00.170.100.2	.20.062.100			150	380					20°	20°			179,2	224,0	
	2017.04.10.062.100			155	185					10°	50°			80,0	100,0	
	.20.062.100			158	165					20°	60°			70,8	88,5	
	.30.062.100			160	145					30°	70°			65,2	81,5	
	.40.062.100	200	170	140	115	95	63	172	71	40°	80°			62,2	77,8	
	.50.062.100			-	95					50°	90°			61,3	76,6	

S_a = Slide stroke
S_p = Driver stroke

Note:

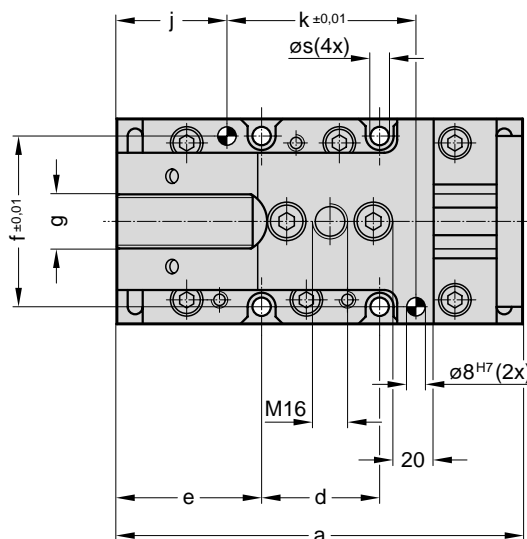
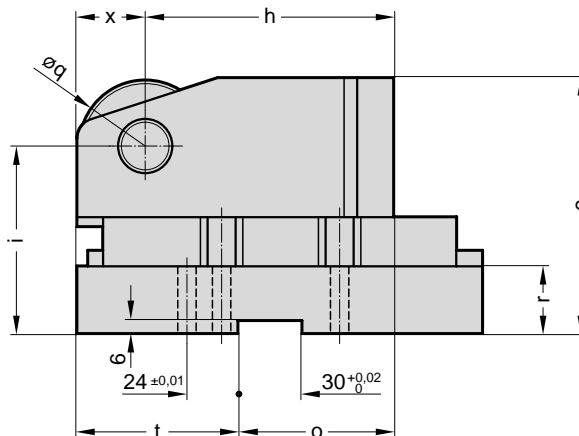
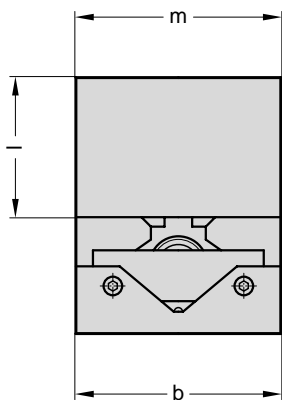
Driver surface: surface hardened

Ordering example:

Driver = 2017.
Horizontal = 02. 03. = counterclockwise 04. = clockwise
0° angle = 00. 10. = 10° 20. = 20° 30. = 30° 40. = 40° 50. = 50° Please contact us for intermediate angles
Width of key = 028.
Max. travel = 100
Order no. = 2017.02.00.028.100



2017.32.



2017.32.

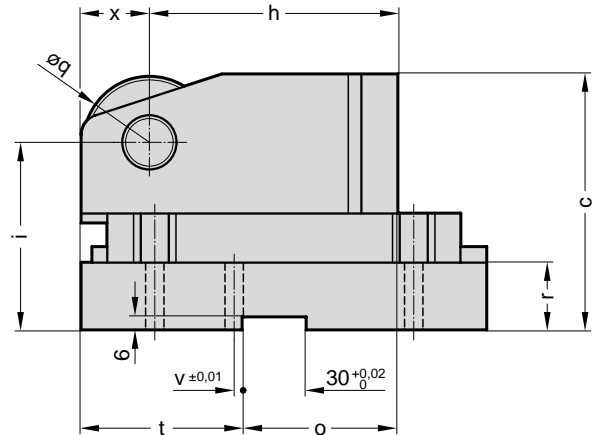
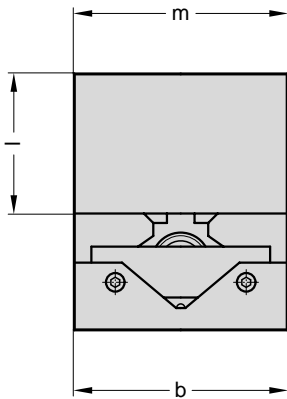
Order no.	Stroke a	b	c	d	e	f	g	h	i	j	k	l	m	o	q	r	s	t	x	Gas spring			
				Nominal force 3000 daN				Initial restoring force 200 daN															
2017.32.00.094.050.2	50	190	94	117	56	67	79	25	116	86	51	88	64	94	72	62	31	9	75	31	2480.21.00200.050		
2017.32.00.094.080.2	80	220	94	117	86	67	79	25	116	86	51	118	64	94	72	62	31	9	75	31	2480.21.00200.080		
				Nominal force 5000 daN				Initial restoring force 350 daN															
2017.32.00.120.050.2	50	190	120	140	56	67	105	29	111	103	51	88	75	120	72	72	40	9	75	36	2487.12.00350.050		
2017.32.00.120.080.2	80	220	120	140	86	67	105	29	111	103	51	118	75	120	72	72	40	9	75	36	2487.12.00350.080		
2017.32.00.120.100.2	100	240	120	157	126	67	105	29	111	120	51	158	75	120	72	72	40	9	75	36	2487.12.00350.100		



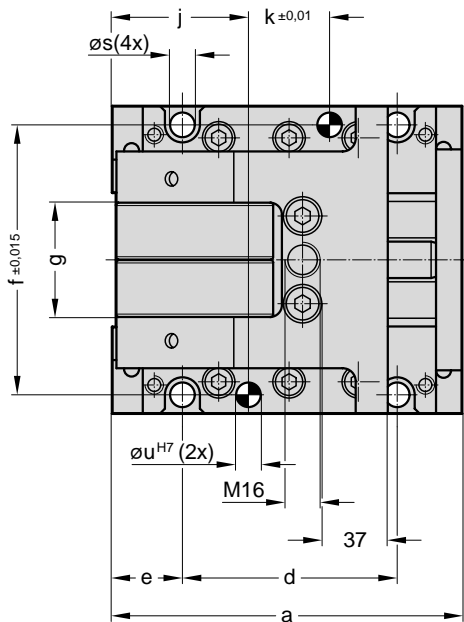
2017.42.

Roller Slide Units

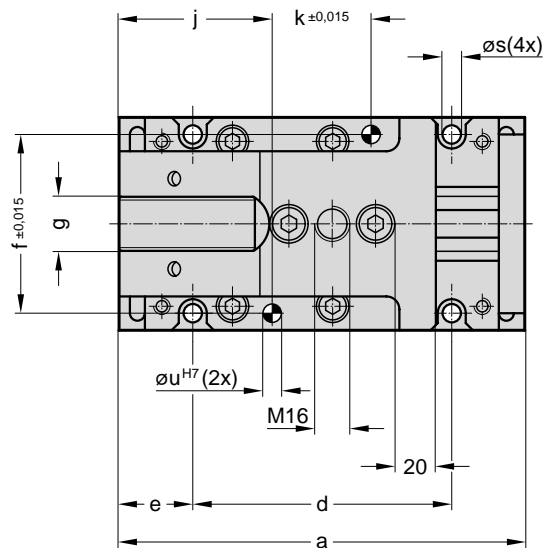
2017.42.



2017.42.00.170...



2017.42.00.094/120...



2017.42.

Order no.	Stroke	a	b	c	d	e	f	g	h	i	j	k	l	m	o	q	r	s	t	u	v	x	Gas spring
		Nominal force 3000 daN											Initial restoring force 200 daN										
2017.42.00.094.050.2	50	190	100	117	116	37	82	25	116	86	72	46	64	94	67,5	62	31	11	79,5	10	7,5	31	2480.21.00200.050
2017.42.00.094.080.2	80	220	100	117	146	37	82	25	116	86	72	76	64	94	67,5	62	31	11	79,5	10	7,5	31	2480.21.00200.080
		Nominal force 5000 daN											Initial restoring force 350 daN										
2017.42.00.120.050.2	50	190	120	140	116	37	102	29	111	103	72	46	75	120	67,5	72	40	11	79,5	10	7,5	36	2487.12.00350.050
2017.42.00.120.080.2	80	220	120	140	146	37	102	29	111	103	72	76	75	120	67,5	72	40	11	79,5	10	7,5	36	2487.12.00350.080
2017.42.00.120.100.2	100	240	120	140	166	37	102	29	111	103	72	96	75	120	67,5	72	40	11	79,5	10	7,5	36	2487.12.00350.100
		Nominal force 15000 daN											Initial restoring force 500 daN										
2017.42.00.170.050.2	50	200	170	165	123	40	150	62	110	120	78	47	92	170	69,5	90	46	14	86,5	12	8,5	46	2487.12.00500.050
2017.42.00.170.080.2	80	230	170	165	153	40	150	62	110	120	78	77	92	170	69,5	90	46	14	86,5	12	8,5	46	2487.12.00500.080
2017.42.00.170.100.2	100	250	170	165	173	40	150	62	110	120	78	97	92	170	69,5	90	46	14	86,5	12	8,5	46	2487.12.00500.100

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