



Face Drivers FFBR / FBSR

with drive pins and fixed center pin

The complete surface of both, hardened and soft workpieces, can be finish-ground with one single clamping.

Face drivers types FFBR/FBSR are power-operated on the side of the spindle. The workpieces are clamped centrally using a dead center pin, this way a high true running accuracy is achieved.

Type FFBR with flange retainer

There are two retainer designs for adapting the face drivers onto the machine spindle – either for adaption onto a flange adapter with 140 in diameter or for direct mounting onto a spindle nose DIN 702-1 size 6 (DIN 55026/28).



Type FBSR with morse taper retainer

Like face driver FFBR, but including morse taper shank and extracting nut. Adjustment true by using set screws inside shank for highest true running accuracy.



NEIDLEIN face drivers FFBR / FBSR ensure:

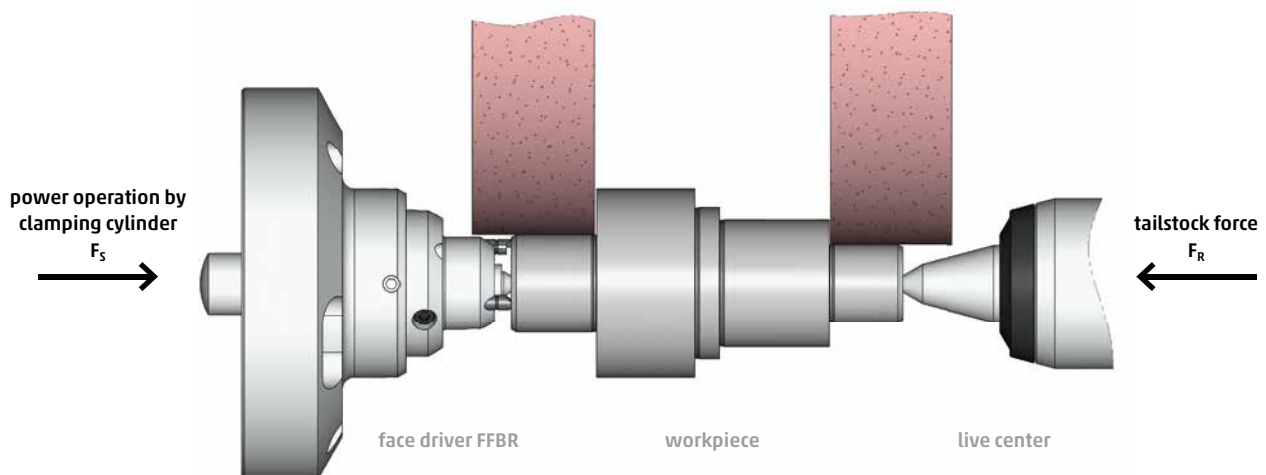
- datum-point located in the center of the workpiece
- run-out deviation max.: 0.002 - 0.003 mm
- compensating drive components
- retractable drive pins for secure loading and unloading of the workpiece
- adjustment true at face drivers for highest run-out requirements

Clamping principle

The center pin located on the side of the tailstock pushes the workpiece against the fixed center pin of the face driver. The motion of the drive pins against the surface of the workpiece is initiated by the clamping cylinder mounted into the machine. The drive pins are "floatingly" suspended, thus compensating

irregularities with regard to possible unevenness of the surface of workpieces. The datum-point of workpieces on the machines is determined by the size of the center hole. The entire surface of workpiece can now be tooled in one single clamping.

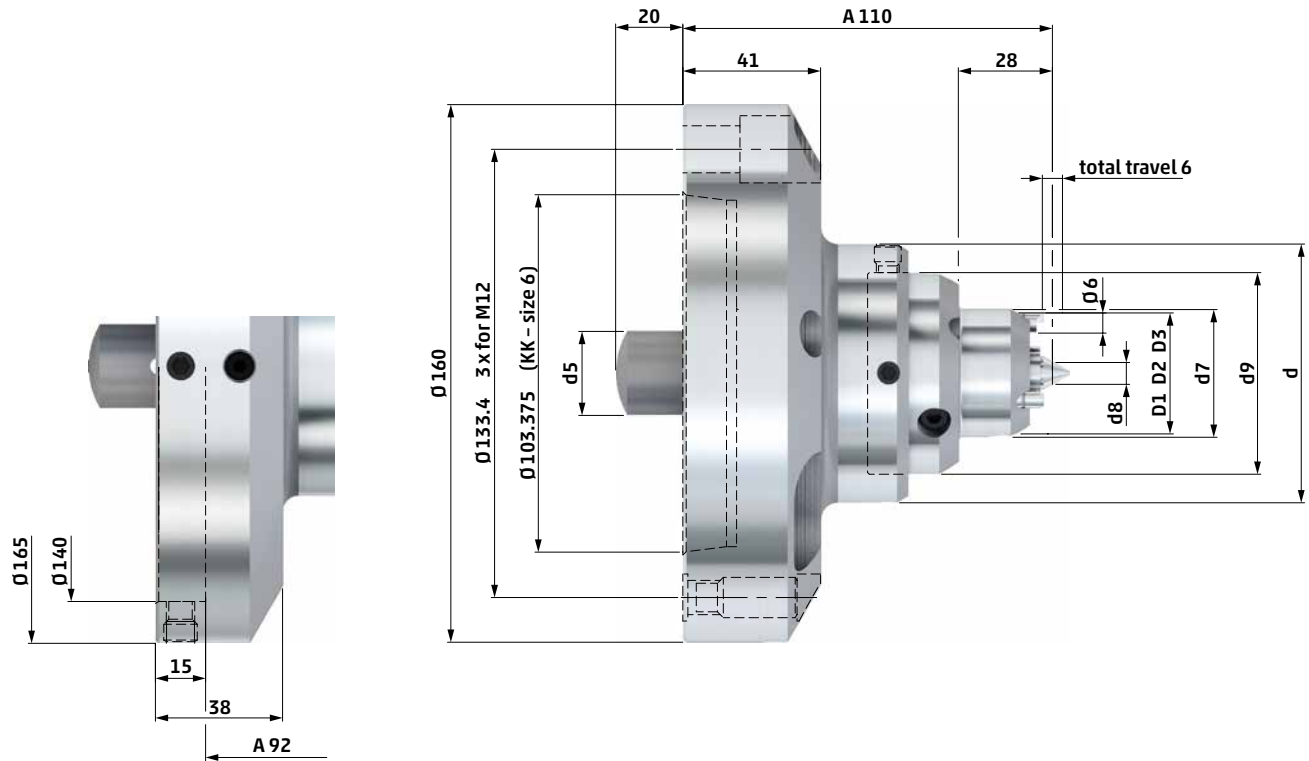
Typ FFBR mit Flanschaufnahme



Technical data – type FFBR face driver

type cylindrical retainer Ø 140 mm
on flange adapter

type short taper retainer DIN 702-1 size 6
directly onto the machine spindle



**TYPE CYLINDRICAL
RETAINER Ø 140 mm**

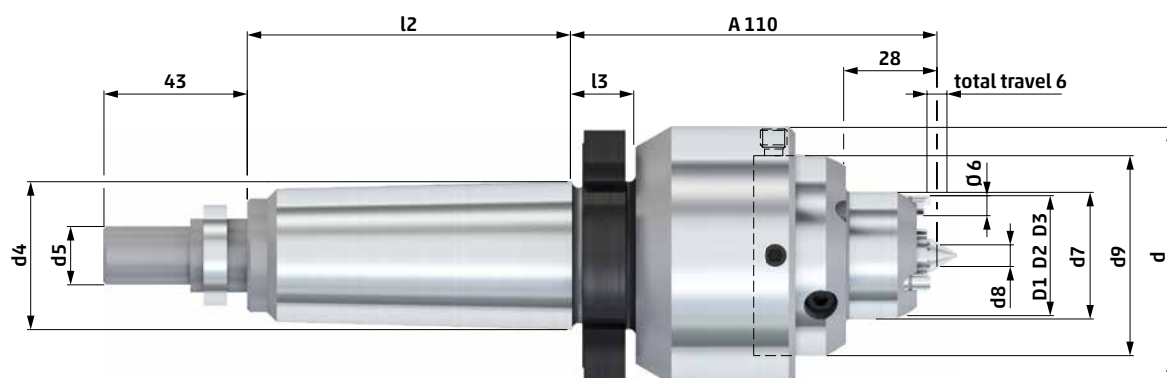
**TYPE SHORT TAPER
RETAINER SIZE 6**

type FFBR	d	center Ø	d5	d7	d8	d9	clamping Ø			cat. no.
							D1	D2	D3	
0	65	1 - 3	18	16	1.5	48	6	9	15	726 31
01	65	1 - 5	18	18	3	48	8	11	17	726 32
11	65	2 - 6.5	18	21	4.25	48	11	14	20	726 33
1	65	4 - 8.5	18	25	6.25	48	15	18	24	726 34
2	77	4 - 9	25	38	6.5	60	27	30	36	726 35
3	85	6 - 11	25	46	8.5	68	35	38	44	726 36
4	110	10 - 15	25	62	12.5	83	50	53	59	726 37

cat. no.
726 01
726 02
726 03
726 04
726 05
726 06
726 07

- Face drivers without changeable parts (types 0/01 include center body). Center pins, center bodies and drive pins see page 56 - 57.
- All face drivers for grinding are designed for 3 drive pins only.
- Diameter d8 refers to standard center pins. (see page 57)
- Further center pins for other center holes upon request.

Technical data – type FBSR face driver



type FBSR	MK	d	center Ø	d5	d7	d8	d9	L	l2	l3	clamping Ø			cat. no.
											D1	D2	D3	
0	4	65	1 - 3	11.5	16	1.5	48	183	73	16	6	9	15	726 51
01	4	65	1 - 5	11.5	18	3	48	183	73	16	8	11	17	726 52
11	4	65	2 - 6.5	11.5	21	4.25	48	183	73	16	11	14	20	726 53
1	4	65	4 - 8.5	11.5	25	6.25	48	183	73	16	15	18	24	726 54
	5	65	4 - 8.5	17.5	25	6.25	48	207	97	19	15	18	24	726 55
2	4	77	4 - 9	11.5	38	6.5	60	183	73	16	27	30	36	726 56
	5	77	4 - 9	17.5	38	6.5	60	207	97	19	27	30	36	726 57
3	4	85	6 - 11	11.5	46	8.5	68	183	73	16	35	38	44	726 58
	5	85	6 - 11	17.5	46	8.5	68	207	97	19	35	38	44	726 59
4	4	110	10 - 15	11.5	62	12.5	85	183	73	16	50	53	59	726 60
	5	110	10 - 15	17.5	62	12.5	85	207	97	19	50	53	59	726 61

- Face drivers without changeable parts (types 0 / 01 include center body). Center pins, center bodies and drive pins see page 56 - 57.
- All face drivers for grinding are designed for 3 drive pins only.
- Diameter d8 refers to standard center pins. (see page 57)
- Further center pins for other center holes upon request.



Drive Pins FFBR / FBSR · Chisel SR · Diamond

**for torque transmission onto the workpiece
by grinding soft and hardened workpieces**

For soft workpieces we apply drive pins made of hardened HSS comprising a chisel. They are characterized by high wear-resistance as well as maximum torque transmission.

For hardened workpieces we apply drive pins that are diamond coated. They are characterized by a high friction-coefficient.

Type FFBR / FBSR · chisel SR · diamond



Technical data – type FFBR / FBSR · chisel SR · diamond

model A



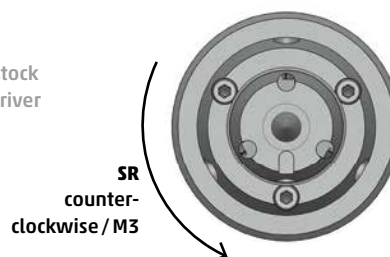
model B



model C



view from tailstock
onto the face driver



TYPE CHISEL SR

for type	for clamping	model	l	cat. no.
FFBR FBSR	D1	C	1.5	736 651
FFBR FBSR	D2	B	2	736 652
FFBR FBSR	D3	A	2	736 653

TYPE DIAMOND COATING

l	cat. no.
1.5	736 654
3	736 655
3	736 656

- Clamping diameter D1, D2, D3 see pages 54 - 55.
- Further clamping Ø of drive pins upon request.

Center Pins FFBR / FBSR

for face drivers FFBR / FBSR with fixed center pin

For maximum stability and run-out requirements the center pins are produced with narrow tolerances and are fixed safely via set screw and plane surface inside the face driver.

For a large batch of hardened workpieces we recommend the construction comprising carbide insert. Center heads of type 0 / 01 consist of 60°-taper tip that are carbide coated.

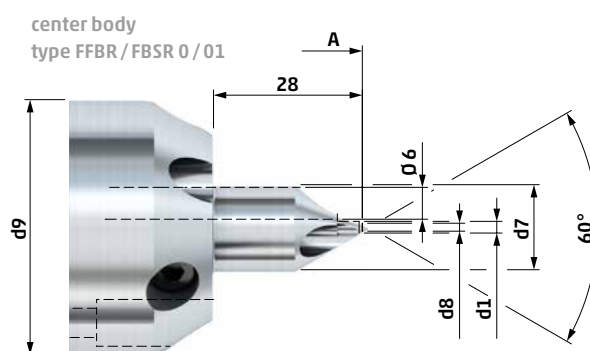
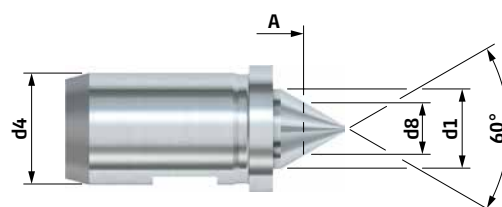
Due to the accurate assembly between center pin and head of face driver we ensure highly accurate replacement.

Type FFBR / FBSR · tool steel or carbide



with carbide insert

Technical data - type FFBR / FBSR · tool steel or carbide



A overhang dimension of face driver to centre d8 (see page 54 - 55)

for type FFBR / FBSR	d1	d4	center Ø	d7	d8	d9	TYPE TOOL STEEL
							cat. no.
0	3	-	1 - 3	18	1.5	48	734 15
01	5	-	1 - 5	18	3	48	734 16
11	7.8	6	2 - 6.5	-	4.25	-	734 11
1	9.8	8	4 - 8.5	-	6.25	-	734 02
2	10	14	4 - 9	-	6.5	-	734 03
3	12	18	6 - 11	-	8.5	-	734 04
4	16	20	10 - 15	-	12.5	-	734 05

TYPE CARBIDE
cat. no.
734 31
734 32
734 33
734 34
734 35
734 36
734 38

■ Further center pins for other center holes upon request.



Face Drivers FFB / FFBH

with drive pins and fixed center pin

The entire surface of the workpiece can be finished with one single clamping and with a maximum of torque transmission. NEIDLEIN face drivers are clamping systems, which are equally suitable **for grinding soft and hard workpieces**.

Face drivers of types FFB / FFBH are power-operated on the side of the spindle.

Originally conceived for turning, face drivers of type FFB / FFBH provide a multitude of possible applications for grinding. Without retraction of drive pins and with NEIDLEIN retainer Ø 100 type FFB / FFBH provides an alternative to face drivers of type FFB / FFBH, especially when machining large-size workpieces.

When FFBH is used, the compensation of drive pins is implemented hydraulically, thus achieving excellent true runout results.

Type FFB with flange retainer

Type FFB is adapted onto the machine spindle using an adjustable flange adapter.



Type FFBH with flange retainer

Type FFBH is adapted onto the machine spindle using an adjustable flange adapter.

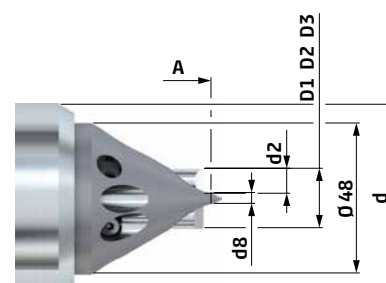
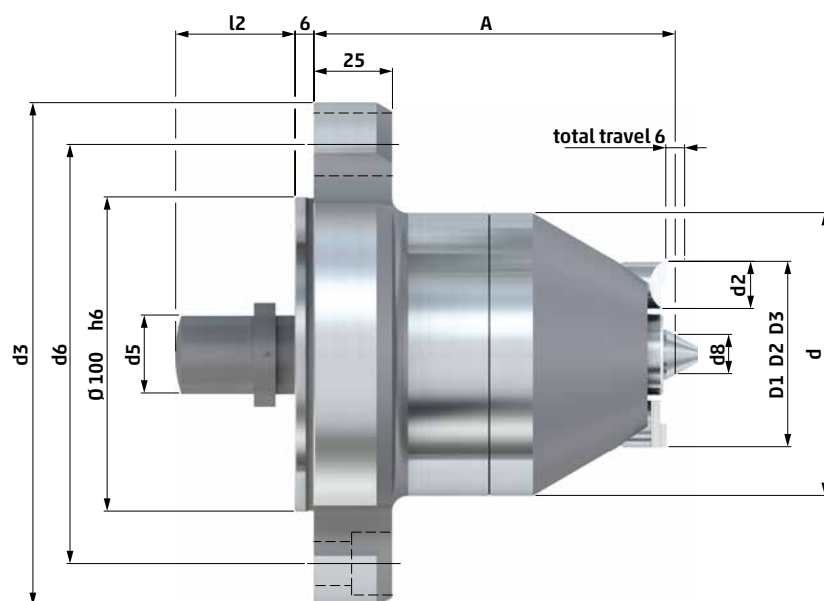


NEIDLEIN face drivers FFB / FFBH ensure:

- datum-point located in the center of the workpiece
- run-out deviation max.: 0.002 - 0.01 mm
- adjustment true via adjustable flange adapter for highest run-out requirements
- compensating drive components / optimal clamping of the workpiece
- easy handling
- face driver type FFBH comprises a hydraulic unit which is exchangeable as a cartridge

Technical data – type FFB face driver

type FFB 01/0



type FFB	d	center Ø	d2	d3	d5	d6	d8	A	l2	drive pins	clamping screws type pcs	clamping Ø D1 D2 D3	cat. no.
01	60	1 - 5	6	160	18	133.4	3.5	115	38	3	M12 3	8 11 17	731 01
0	60	1 - 3	8	160	18	133.4	3	115	38	3	M12 3	6 11 19	731 12
11	42	2 - 6.5	6	160	12	133.4	4.25	115	38	3	M12 3	11 14 20	731 11
1	48	4 - 8.5	8	160	18	133.4	6.25	115	38	3	M12 3	13 18 26	731 02
2	70	4 - 9	10	160	22	133.4	6.5	115	38	3	M12 3	26 31 36	731 03
3	70	6 - 11	10	160	22	133.4	8.5	115	38	3	M12 3	34 39 44	731 04
35	80	4 - 9	15	160	22	133.4	6.5	115	38	3	M12 3	29 39 49	731 13
4	90	10 - 15	15	160	25	133.4	12.5	115	38	5	M12 3	39 49 59	731 05
45	100	10 - 15	15	160	25	133.4	12.5	115	54	5	M12 3	49 59 69	731 06
5	132	10 - 15	20	160	25	133.4	12.5	115	54	5	M12 3	69 84 99	731 07
55	182	10 - 15	20	220	40	171.4	12.5	155	54	5	M16 3	110 125 140	731 08
6	220	10 - 15	20	250	40	210	12.5	171	54	5	M20 3	140 155 170	731 09

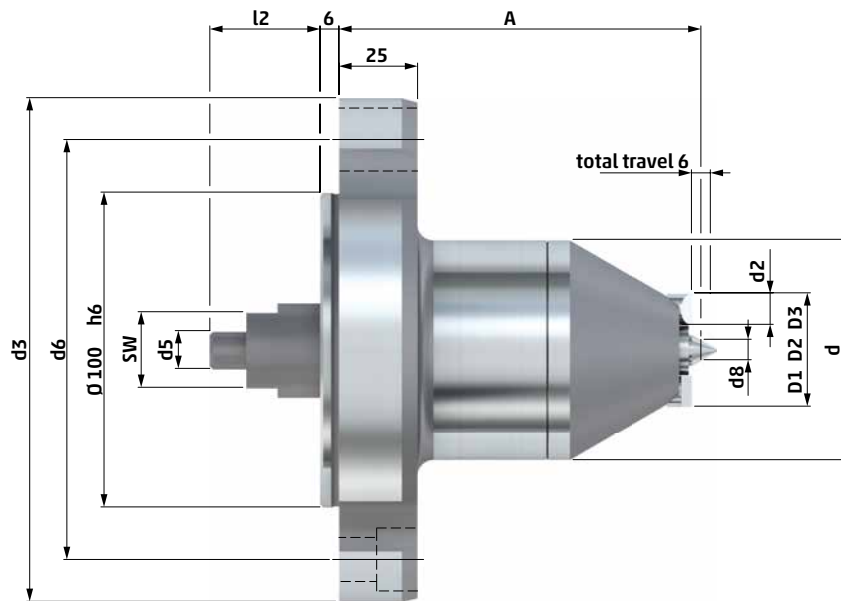
- All face drivers are supplied without drive pins. (drive pins see page 62 - 63)
- Types FFB 01/0 are supplied with center body, all other types without center pin. (center pin see page 61)
- Diameter d8 refers to standard center pins. (see page 61)
- Further center pins for other center holes upon request.
- Mounting elements for face drivers see page 68 - 73.

A stable assembly on the machine spindle is implemented using an adjustable flange adapter. We supply these flange adapters for various sizes of spindle heads in standardized size (DIN ISO 702-1/DIN 702-1) or for vendor-specific spindle heads in particular. Thus face drivers of range FFB can be assembled universally on various machines. Driving components and center pin are easily exchanged from the front part of the machine.

As required, the face driver can be equipped with either drive pins comprising a chisel for machining soft workpieces, or with diamond coated drive pins for machining hardened workpieces.

Apart from the clamping diameters listed above D1, D2, D3, we can also provide alternative sizes upon request. We are also able to manufacture larger center pins or mushroom centers for oversize centering.

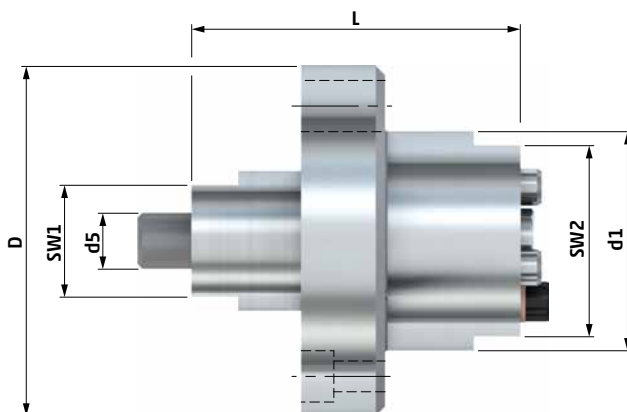
Technical data – type FFBH face driver



type	d	center Ø	d2	d3	SW	d5	d6	d8	A	l2	drive pins	clamping screws		clamping Ø			cat. no.
FFBH												type	pcs	D1	D2	D3	
1	70	4 - 8.5	8	160	24	12	133.4	6.25	115	35	3	M12	3	13	18	26	631 02
2	70	4 - 9	10	160	24	12	133.4	6.5	115	35	3	M12	3	26	31	36	631 03
3	70	6 - 11	10	160	24	12	133.4	8.5	115	35	3	M12	3	34	39	44	631 04
4	90	10 - 15	15	160	34	12	133.4	12.5	132	35	5	M12	3	39	49	59	631 06
45	100	10 - 15	15	160	34	12	133.4	12.5	132	35	5	M12	3	49	59	69	631 07
5	132	10 - 15	20	160	34	12	133.4	12.5	149	35	5	M12	3	69	84	99	631 08

- All face drivers are supplied without drive pins and without center pins. (changeable parts see page 61 - 63)
- The diameter d8 refers to the standard center pins. (see page 61)
- Further center pins for other center holes upon request. (see page 30)
- Mounting elements for face drivers see page 68 - 73.

Technical data – type FFBH hydraulic unit



type	SW1	d5	L	d1	SW2	D	cat. no.
FFBH							
1	24	12	70.5	47	41	75	631 02 HE
2	24	12	70.5	47	41	75	
3	24	12	70.5	47	41	75	
4	34	12	70.5	65	59	93	631 06 HE
45	34	12	70.5	65	59	93	
5	34	12	70.5	87	81	131	631 08 HE

The general explanatory notes for this face driver FFBH can be obtained from the sheet "technical data – type FFB". For safe and smooth operation of face driver we recommend exchange of hydraulic unit after 1500 operating hours.

Furthermore, we offer the option for professional maintenance of the exchanged hydraulic units in our production plant.

Center Pins FFB / FFBH

for face drivers FFB / FFBH with fixed center pin

For maximum stability and run-out requirements the center pins are produced with narrow tolerances and are fixed safely via set screw and plane surface inside the face driver.

For a large batch of hardened workpieces we recommend the construction comprising carbide insert. Center heads of type 0 / 01 consist of 60°-taper tip that are carbide coated.

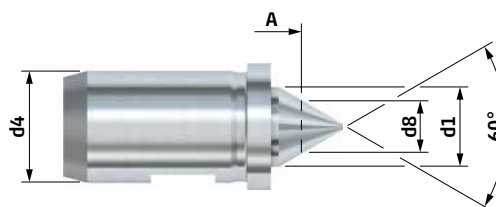
Due to the accurate assembly between center pin and head of face driver we ensure highly accurate replacement.

Type FFB / FFBH · tool steel or carbide

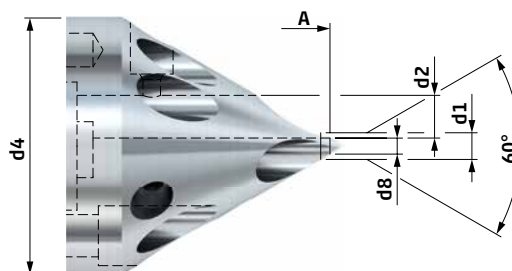


with carbide insert

Technical data – type FFB / FFBH · tool steel or carbide



center body type FSB / SB 01 / 0



A overhang dimension of face driver to centre d8 (see page 59 - 60)

TYPE TOOL STEEL

for type FFB / FFBH	d1	d2	d4	center Ø	d8	cat. no.
01	5	6	48	1 - 5	3.5	734 01
0	3	8	48	1 - 3	3	734 101
11	7.8	-	6	2 - 6.5	4.25	734 11
1	9.8	-	8	4 - 8.5	6.25	734 02
2	10	-	14	4 - 9	6.5	734 03
3	12	-	18	6 - 11	8.5	734 04
35	10	-	14	4 - 9	6.5	734 12
4	16	-	20	10 - 15	12.5	734 05
45	16	-	28	10 - 15	12.5	734 06
5	16	-	35	10 - 15	12.5	734 07
55	16	-	35	10 - 15	12.5	734 08
6	16	-	35	10 - 15	12.5	734 09

TYPE CARBIDE

cat. no.
734 43
734 44
734 33
734 34
734 35
734 36
734 37
734 38
734 39
73440
734 41
734 42

■ Further center pins for other center holes upon request. (see page 30)



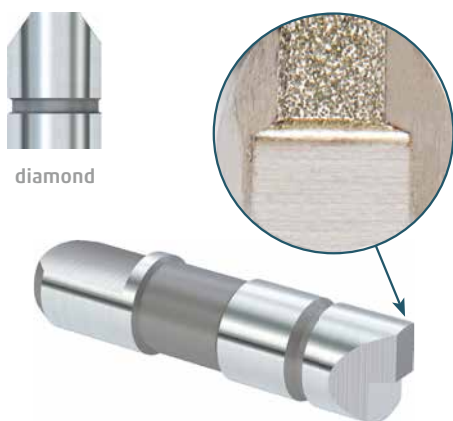
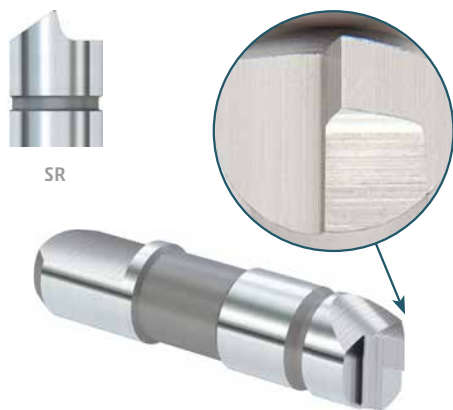
Drive Pins FFB / FFBH · Chisel SR · Diamond

for torque transmission onto the workpiece when grinding soft and hardened workpieces

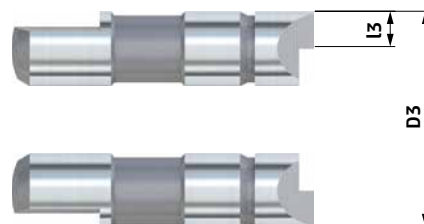
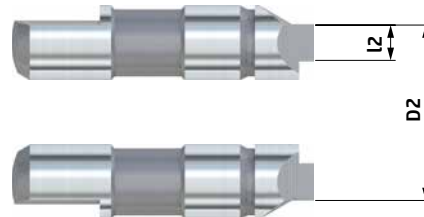
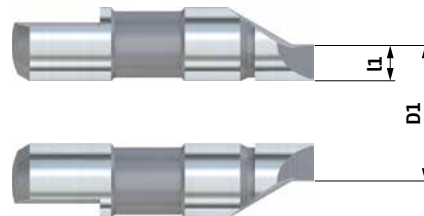
Drive pins made of hardened HSS with chisel are used **for grinding soft workpieces**. These are characterized by a high resistance to wear and tear and a maximum torque transmission.

Diamond coated drive pins are applied **for grinding hardened workpieces**. These are characterized by a high resistance to wear and tear, a maximum of torque transmission and by a high friction-coefficient.

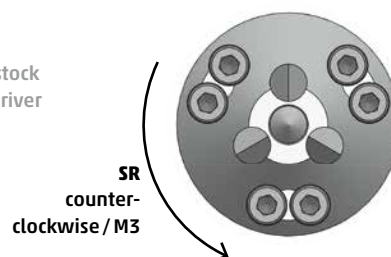
Type FFB / FFBH · chisel SR · diamond



Technical data – type FFB / FFBH · chisel SR · diamond



view from tailstock
onto the face driver



**TYPE
CHISEL SR**

for type FFB / FFBH	d	clamping Ø			chisel length			cat. no.
		D1	D2	D3	l1	l2	l3	
01	6	8			1.5			736 600
	6		11			2		736 601
	6			17			2	736 602
0	8	6			1.5			736 603
	8		11			2		736 604
	8			19			2	736 605
11	6	11			1.5			736 606
	6		14			2		736 607
	6			20			2	736 608
1	8	13			1.5			736 609
	8		18			2		736 610
	8			26			2	736 611
2	10	26			3			736 612
	10		31			3		736 613
	10			36			3	736 614
3	10	34			3			736 615
	10		39			3		736 616
	10			44			3	736 617
35	15	29			3			736 618
	15		39			3		736 619
	15			49			3	736 620
4	15	39			3			736 621
	15		49			3		736 622
	15			59			3	736 623
45	15	49			3			736 624
	15		59			3		736 625
	15			69			3	736 626
5	20	69			4			736 627
	20		84			4		736 628
	20			99			4	736 629
55	20	110			4			736 630
	20		125			4		736 631
	20			140			4	736 632
6	20	140			4			736 633
	20		155			4		736 634
	20			170			4	736 635

**TYPE
DIAMOND COATING**

chisel length			cat. no.
l1	l2	l3	
1.5			736 300
	3		736 301
		3	736 302
1.5			736 303
	4		736 304
		4	736 305
1.5			736 306
	3		736 307
		3	736 308
1.5			736 309
	4		736 310
		4	736 311
5			736 312
	5		736 313
		5	736 314
5			736 315
	5		736 316
		5	736 317
5			736 318
	5		736 319
		5	736 320
5			736 321
	5		736 322
		5	736 323
5			736 324
	5		736 325
		5	736 326
5			736 327
	7.5		736 328
		7.5	736 329
5			736 330
	7.5		736 331
		7.5	736 332
5			736 333
	7.5		736 334
		7.5	736 335

■ Further clamping Ø of drive pins upon request.