



## 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:

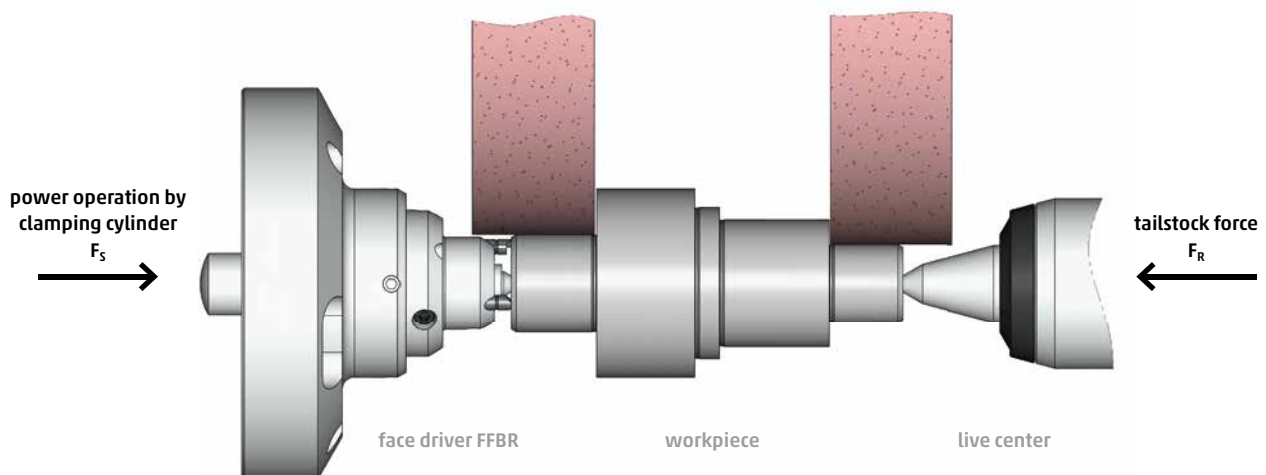
- datum-point located in the center of the workpiece
- run-out deviation max.: 0.002 - 0.003 mm
- compensating drive components
- retractable drive pins for secure loading and unloading of the workpiece
- adjustment true at face drivers for highest run-out requirements

## 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.

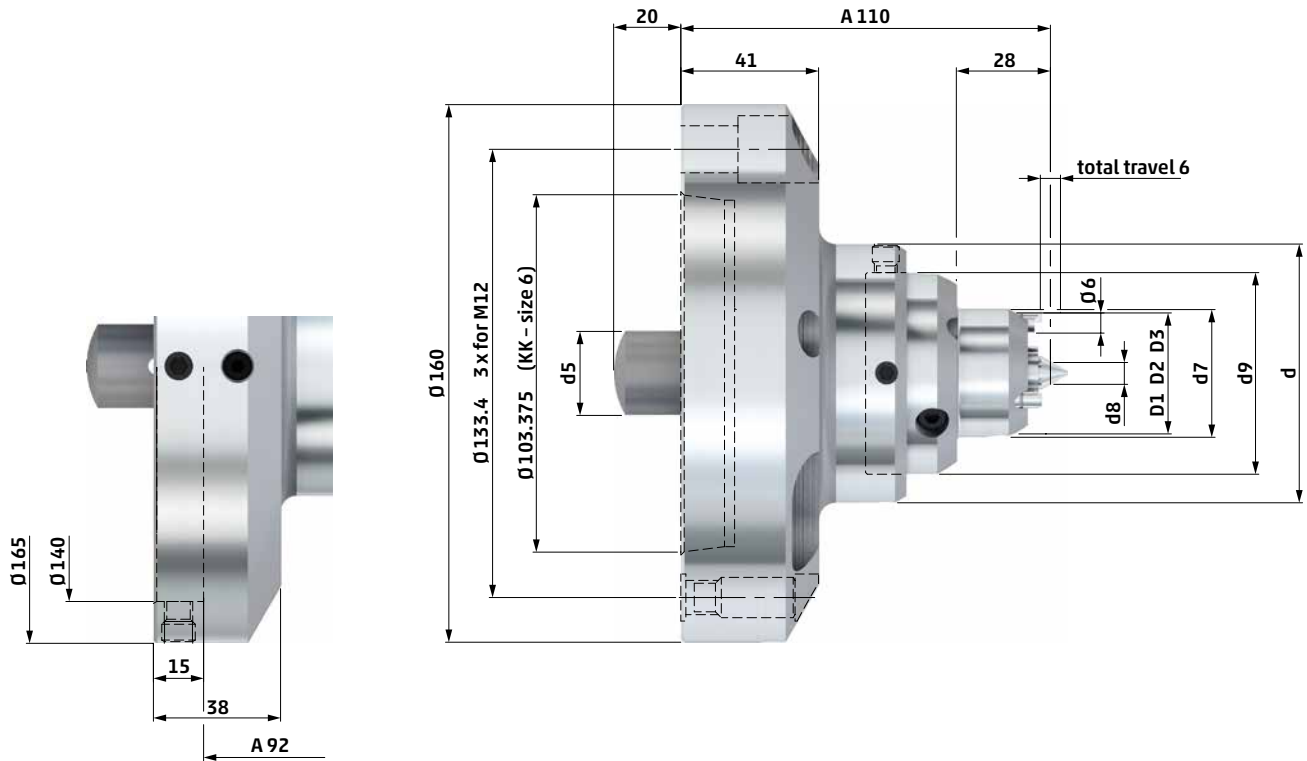
### Typ FFBR mit Flanschaufnahme



**Technical data – type FFBR face driver**

type cylindrical retainer  $\varnothing 140$  mm  
on flange adapter

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

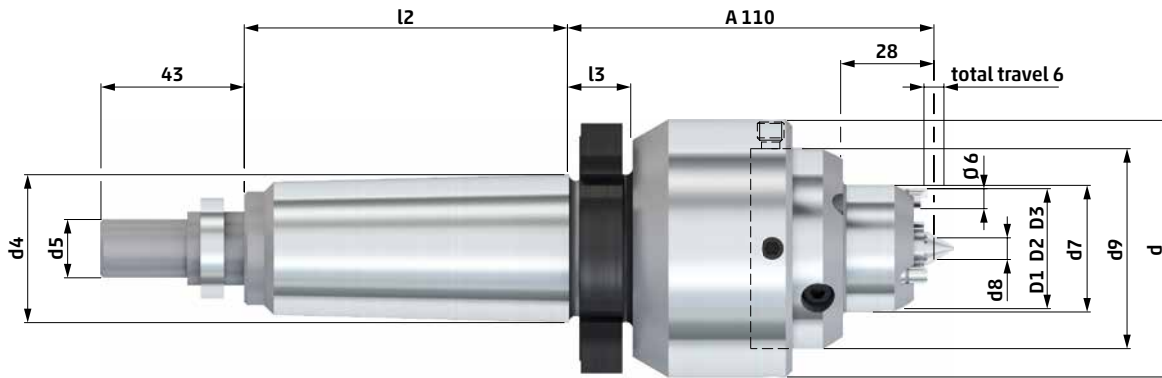
**TYPE CYLINDRICAL  
RETAINER  $\varnothing 140$  mm****TYPE SHORT TAPER  
RETAINER SIZE 6**

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

cat. no.
<b>726 01</b>
<b>726 02</b>
<b>726 03</b>
<b>726 04</b>
<b>726 05</b>
<b>726 06</b>
<b>726 07</b>

- 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	<b>726 51</b>
01	4	65	1 - 5	11.5	18	3	48	183	73	16	8	11	17	<b>726 52</b>
11	4	65	2 - 6.5	11.5	21	4.25	48	183	73	16	11	14	20	<b>726 53</b>
1	4	65	4 - 8.5	11.5	25	6.25	48	183	73	16	15	18	24	<b>726 54</b>
	5	65	4 - 8.5	17.5	25	6.25	48	207	97	19	15	18	24	<b>726 55</b>
2	4	77	4 - 9	11.5	38	6.5	60	183	73	16	27	30	36	<b>726 56</b>
	5	77	4 - 9	17.5	38	6.5	60	207	97	19	27	30	36	<b>726 57</b>
3	4	85	6 - 11	11.5	46	8.5	68	183	73	16	35	38	44	<b>726 58</b>
	5	85	6 - 11	17.5	46	8.5	68	207	97	19	35	38	44	<b>726 59</b>
4	4	110	10 - 15	11.5	62	12.5	85	183	73	16	50	53	59	<b>726 60</b>
	5	110	10 - 15	17.5	62	12.5	85	207	97	19	50	53	59	<b>726 61</b>

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## 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



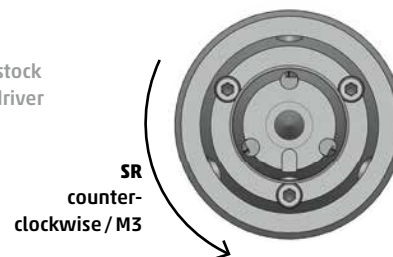
model B



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	<b>736 651</b>
FFBR FBSR	D2	B	2	<b>736 652</b>
FFBR FBSR	D3	A	2	<b>736 653</b>

#### TYPE DIAMOND COATING

l	cat. no.
1.5	<b>736 654</b>
3	<b>736 655</b>
3	<b>736 656</b>

- Clamping diameter D1, D2, D3 see pages 54 - 55.
- Further clamping  $\varnothing$  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.

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

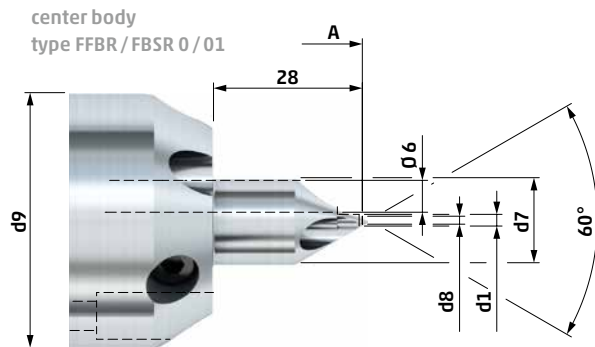
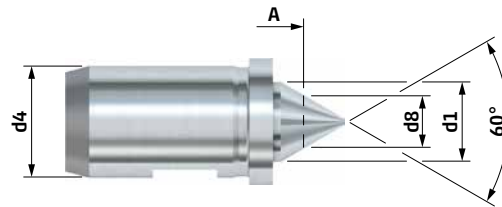
For a large batch of hardened workpieces we recommend the construction comprising carbide insert. Center heads of type 0 / 01 consist of 60°-taper tip that are carbide coated.

### Type FFBR / FBSR · tool steel or carbide

### Technical data – type FFBR / FBSR · tool steel or carbide



with carbide insert



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	CARBIDE
							cat. no.	cat. no.
<b>0</b>	3	-	1 - 3	18	1.5	48	<b>734 15</b>	<b>734 31</b>
<b>01</b>	5	-	1 - 5	18	3	48	<b>734 16</b>	<b>734 32</b>
<b>11</b>	7.8	6	2 - 6.5	-	4.25	-	<b>734 11</b>	<b>734 33</b>
<b>1</b>	9.8	8	4 - 8.5	-	6.25	-	<b>734 02</b>	<b>734 34</b>
<b>2</b>	10	14	4 - 9	-	6.5	-	<b>734 03</b>	<b>734 35</b>
<b>3</b>	12	18	6 - 11	-	8.5	-	<b>734 04</b>	<b>734 36</b>
<b>4</b>	16	20	10 - 15	-	12.5	-	<b>734 05</b>	<b>734 38</b>

Further center pins for other center holes upon request.