

## Face Drivers FSB / SB



### with drive pins and movable center pin

The entire surface of the workpiece can be tooled and finished by clamping with a maximum of torque transmission. NEIDLEIN face drivers are mechanical clamping systems which are suited **for turning as well as hard turning.**

Face drivers of type FSB / SB are power-operated by the thrust of the tailstock. Workpieces are clamped centrally using a movable center pin. This way different centerings can be adjusted, thus ensuring a constant datum-point at the end face of the workpieces.

#### Type FSB with flange retainer

Type FSB is mounted onto the machine spindle nose using a flange adapter.



#### Type SB with MK- or cylindrical retainer

Type SB with taper shank and extracting nut for fast mounting into the machine spindle.



#### NEIDLEIN face drivers FSB / SB with movable center pins ensure:

- a maximum of torque transmission, thus achieving high metal removing rates
- datum-point at the end face of the workpiece  
stable datum-point in case of different centerings
- extended tool-life of driving devices and cutting tools due to vibration-free running
- run-out deviation max.: 0.015 - 0.02 mm
- clamping force is triggered by tailstock
- fixed center pin/fixed datum-point in clamped state
- compensating driving devices/ideal clamping of the workpiece
- simple handling

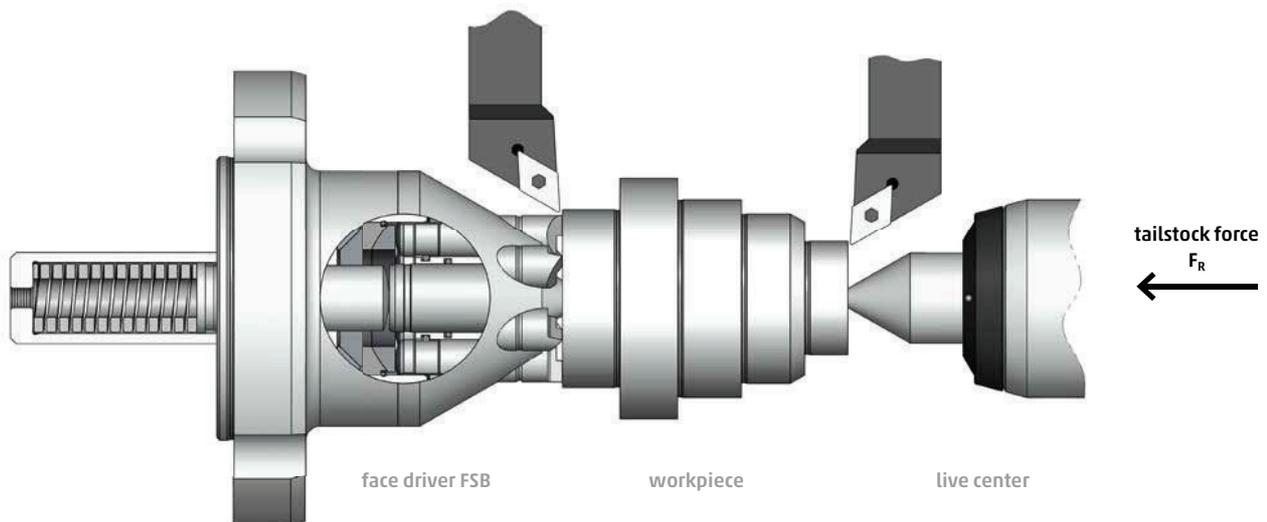
## Clamping principle

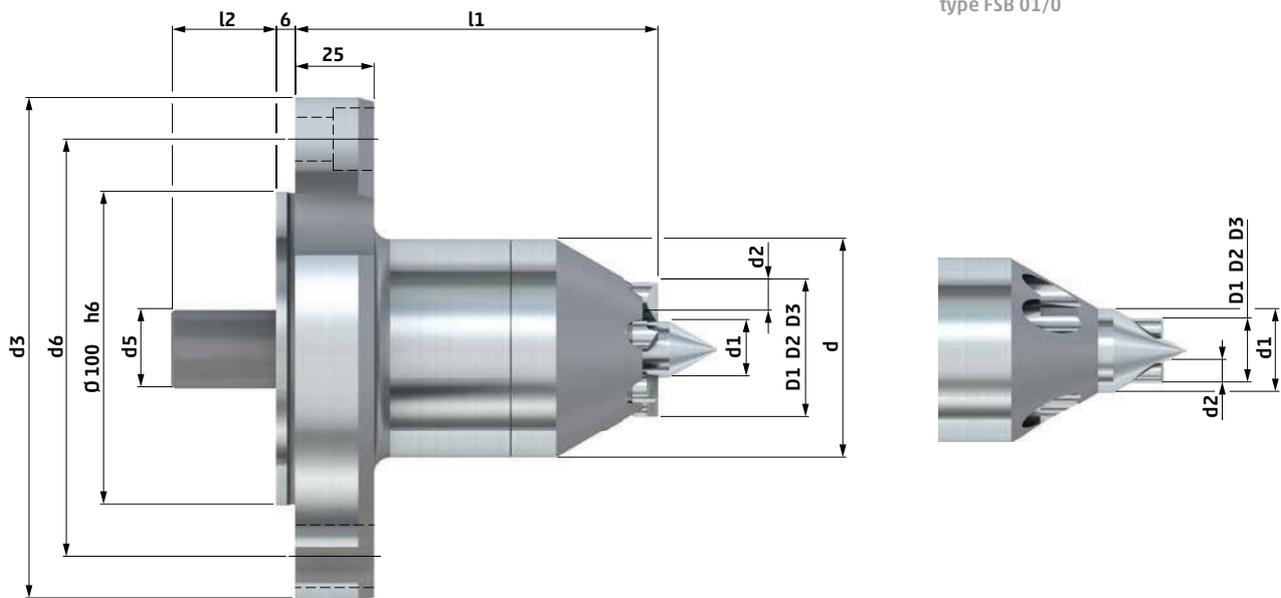
The center pin located on the side of the tailstock pushes the workpiece against the movable center pin of the face driver. The center pin will draw back until the surface of the workpiece bears against the drive pins. In this state the clamping bolt is clamped over the power flow in order to ensure a fixed datum-point during the entire tooling process.

The drive pins are "floatingly", thus compensating for variations in workpiece, squareness and surface finish. The entire surface of the workpiece can now be finished in one single clamping. Please check page 14 - 15 for metal removing rates to be obtained as well as for the tailstock forces required. Compatible standard drive pins and center pins are listed on page 22 - 28.

We will be glad to design clamping devices suitable for your workpieces.

### Type FSB with flange retainer



**Technical data – type FSB face driver**

type FSB	d	d1	center Ø	d2	d3	d5	d6	l1	l2	drive pin	fastening screw		clamping Ø			cat. no.
											type	pcs	D1	D2	D3	
<b>01</b>	48	22	0 - 5	6	160	25	133.4	115	28	3	M12	3	8	11	17	<b>730 12</b>
<b>0</b>	48	22	0 - 3	8	160	25	133.4	115	28	3	M12	3	6	11	19	<b>730 01</b>
<b>11</b>	42	6	0 - 6	6	160	25	133.4	115	28	3	M12	3	11	14	20	<b>730 11</b>
<b>1</b>	48	8	0 - 8	8	160	25	133.4	115	28	3	M12	3	13	18	26	<b>730 02</b>
<b>2</b>	70	14	2 - 14	10	160	25	133.4	115	23	6	M12	3	26	31	36	<b>730 03</b>
<b>3</b>	70	18	2 - 18	10	160	25	133.4	115	33	6	M12	3	34	39	44	<b>730 04</b>
<b>35</b>	80	14	2 - 14	15	160	25	133.4	115	33	6	M12	3	29	39	49	<b>730 09</b>
<b>4</b>	90	24	3 - 24	15	160	32	133.4	115	72	6	M12	3	39	49	59	<b>730 05</b>
<b>45</b>	100	28	3 - 28	15	160	32	133.4	115	72	6	M12	3	49	59	69	<b>730 10</b>
<b>5</b>	132	35	6 - 35	20	160	45	133.4	115	164	6	M12	3	69	84	99	<b>730 06</b>
<b>55</b>	182	35	6 - 35	20	220	45	171.4	115	165	6	M16	3	110	125	140	<b>730 08</b>
<b>6</b>	212	35	6 - 35	20	250	45	210	115	165	6	M20	3	140	155	170	<b>730 07</b>
<b>7</b>	255	50	25 - 48	20	290	50	250	132	165	6	M20	6	180	195	210	<b>730 13</b>
<b>75</b>	302	50	25 - 48	20	348	50	310	132	165	6	M20	6	230	245	260	<b>730 14</b>
<b>8</b>	360	80	30 - 76	30	440	78	394	190	262	6	M20	6	270	290	310	<b>730 16</b>
<b>85</b>	410	80	30 - 76	30	490	78	444	190	262	6	M20	6	320	340	360	<b>730 15</b>

- All face drivers are supplied without drive pins. (drive pins see page 22 - 27)
- Types FSB 01 / 0 are supplied with center body, all other types without center pin. (center pins see page 28)
- Mounting elements for face drivers see page 76 - 73.

It is the purpose of a flange-adapter to provide stable connection to the machine spindle. We supply these flange adapters for various sizes of spindle noses either in standard size (DIN ISO 702-1 / DIN 55028) or for spindle noses specific to manufacturer of machine-tools. Thus face drivers of type FSB can be used on different machines. Driving devices and center pins can be exchanged front view on the machine without any effort.

Upon request and depending on the tooling direction of the machine the face driver can be equipped optionally with drive pins for counter-clockwise tooling (SR / tooling direction M3), for clockwise tooling (SL / tooling direction M4) or for both tooling directions (NV = bi-directional).

Apart from the clamping diameters listed in the table under D1, D2, D3 we can also supply intermediate dimensions upon request. We can as well make extra-large center pins or mushroom centers appropriate to oversized centerings in workpieces. (see page 30)