BIG BORE®

INCH
serration

Front-end pneumatic power chucks
Ø 140 - 410 mm
■ EXTRA LARGE THROUGH HOLE
■ standard jaw stroke
■ 3 jaws

Application/customer benefits
- End machining of long pipe
- Full spindle bore can be used

Technical features
- Air chuck for external clamping with built-in pneumatic cylinder
- Air feed via distributor ring and SMW-profile seals, at stopped spindle
- Built in non-return valves maintain the air pressure during machining
- Clamping pressure level constantly checked by a safety control system (only for external clamping)

Standard equipment
3 jaw chuck
2 elbow unions G 1/2"
12 mounting bolts (9 for the BB-N 400)
1 lifting eye bolt
1 set T-nuts with bolts
1 set soft top jaws
without distributor ring bracket

Ordering example
BIG BORE BB-N 400-140/Z310

Accessories
Control unit AC-BB/AC-X
(see pages 238-241)

The principle invented by SMW: air supply via distributor ring and SMW-profile seal rings

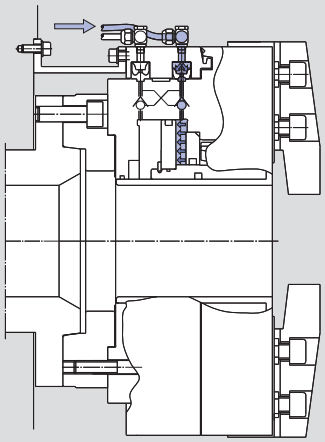


Fig. 1
Open/close movement (only possible at stopped spindle). The profile seals deform radially under the pneumatic pressure, sealing on the chuck body and filling the cylinder chamber. When the clamping pressure is reached, the air feed is stopped, closing the twin non-return valve.

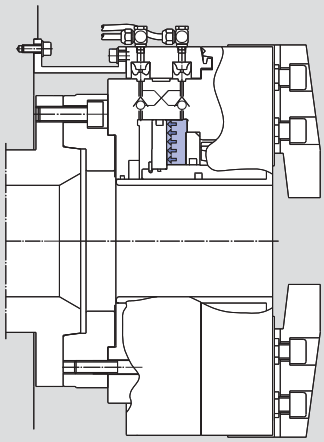


Fig. 2
The SMW-profile seals lift to the expanded position, not touching the chuck body anymore. The clamping pressure is maintained by the twin non-return valve.
The chuck can start to rotate.

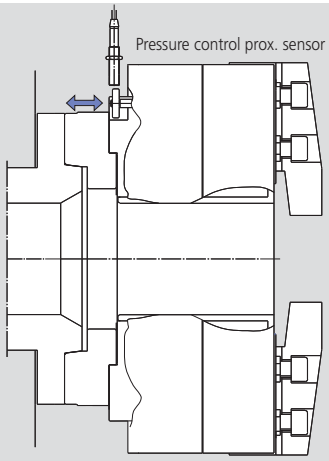
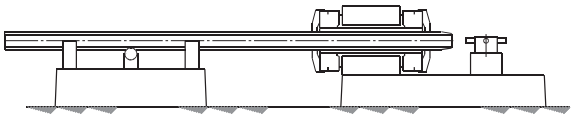


Fig. 3
Safety pressure control: if the pressure is less than a pre-set safety level, the switch ring moves into the proximity-switch field, sending an alarm signal.



End machining of pipe with front and rear chucks

Technical data

SMW-AUTOBLOK BB-N Type		400-140	470-191	500-205	500-230	600-275	630-310	800-410
Id. No.		052300	053535	052318	052340	052989	052534	052347
Through-hole	mm	140	191	205	230	275	310	410
Stroke per jaw	mm	7	7	8.5	8.5	8.5	10	12
Operating pressure min./max.	bar	2/10	2/10	2/10	2/10	2/10	2/10	2/10
Piston area	cm^2	710	565	1024	940	990	1270	2064
Gripping force at 6 bar	kN	160	115	210	190	200	220	330
Max. speed	r.p.m.	1700	1700	1300	1300	1300	1000	750
Air consumption/jaw stroke at 6 bar	l	21	16	36	32	34	52	108
Weight (without top jaws)	kg	150	150	230	200	270	420	650
Moment of inertia	$kg \cdot m^2$	3.22	5.66	8.53	8	15	28	71.25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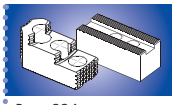
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