

BIG BORE® ES

INCH
serration

Front-end pneumatic power chucks Ø 140 - 560 mm

- EXTRA LARGE THROUGH HOLE
- 3 jaws - extended jaw stroke



Application/customer benefits

- End machining of long pipe with collars
- Rapid and clamping stroke for short clamping cycles
- Full spindle bore can be used

Technical features

- Air chuck for external clamping with built-in pneumatic cylinder
- Rapid and clamping stroke
- 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).
- Clamping stroke control (no clamping in rapid stroke) is monitored.

Standard equipment

- 3 jaw chuck
- 2 elbow unions G 1/2" (4 for BB-N 1000)
- 12 mounting bolts (9 for the BB-N ES 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 ES 400/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

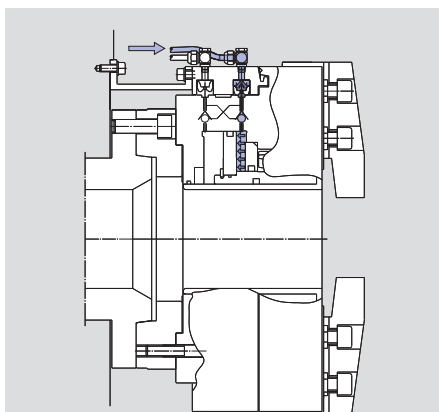


Fig. 1

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.

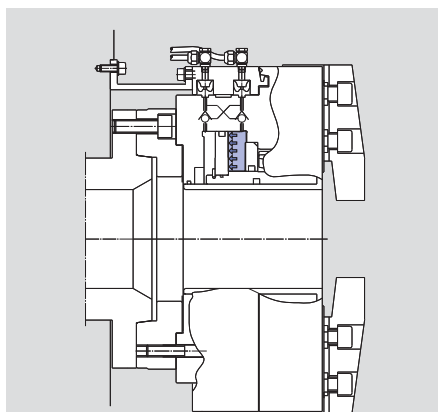


Fig. 2

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.

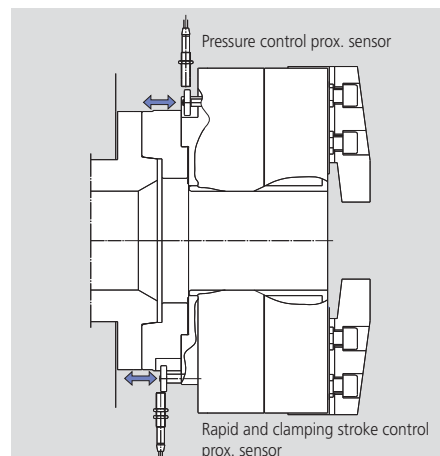
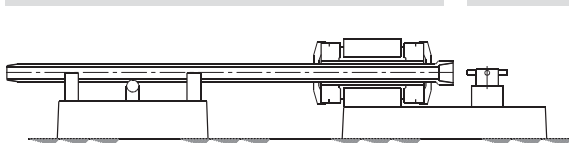
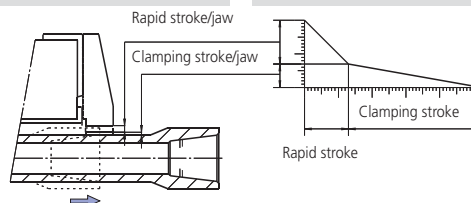


Fig. 3

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. Clamping stroke control: if the part is clamped during the rapid stroke, the proximity-switch sends an alarm signal.



End machining of pipe with front and rear chucks



Technical data

SMW-AUTOBLOK BB-N ES Type		400-140	470-191	500-205	500-230	600-275	630-325	850-375	1000-560
Id. No.		052330	053536	052651	052652	052990	052653	052654	052655
Through-hole	mm	140	191	205	230	275	325	375	560
Total stroke per jaw	mm	20	20	25.4	25.4	25.4	25.4	25.4	25.4
Rapid stroke per jaw	mm	13	13	16.9	16.9	16.9	16.9	13.4	15
Clamping stroke per jaw*	mm	7	7	8.5	8.5	8.5	8.5	12	10.4
Operating pressure min./max.	bar	2/10	2/10	2/10	2/10	2/10	2/10	2/10	3/10
Piston area	cm ²	705	565	1004	895	954	1193	1340	1090
Gripping force at 6 bar	kN	130	115	190	170	185	200	200	170
Max. speed	r.p.m.	1300	1300	1300	1300	1100	900	750	450
Air consumption/jaw stroke at 6 bar	l	29	22	41	37	39	48	79	57
Weight (without top jaws)	kg	200	190	340	325	360	520	970	960
Moment of inertia	kg.m ²	6.5	9.83	16.4	16.1	19	36	105	160

*must not be used for clamping

