

# BIG BORE®

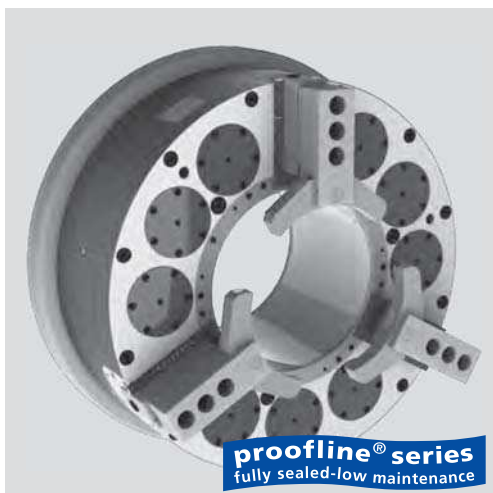
## BB-SC

INCH serration

### Front-end spring clamp power chucks

Ø 275 - 565 mm

- EXTRA LARGE THROUGH HOLE
- Clamping with spring packs
- Rapid and clamping stroke



### Application/customer benefits

- End machining of long pipe/self centering clamping
- Long jaw stroke to clear upset piping
- Highest productivity/open and clamp time < 3 sec.
- Low maintenance = high availability of the machine
- Step mode for partial opening/clamping for shimming
- Full availability of the spindle bore

### Technical features

- Self centering clamping with either 9/6/3 spring packs
- Encapsulated spring packs
- Opening via integrated cylinder
- Permanent grease lubricated for constant grip force
- Step mode for opening/clamping for shimming
- Long jaw stroke with rapid and clamping stroke
- Low air consumption
- **proofline® chucks** = fully sealed – low maintenance

### Standard equipment

- Chuck with mounting bolts
- 1 set of soft top jaws
- 1 set of T-nuts and bolts

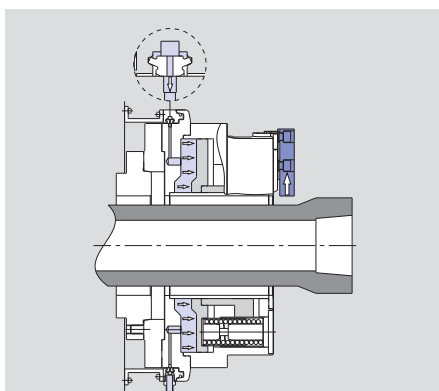
### Ordering example

Big Bore SC 850-395  
Id. No. 053350

### Accessories

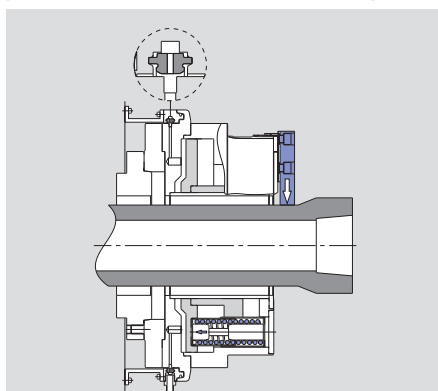
Air control AC-SC

## The reliable principle: Clamping via encapsulated spring packs/opening via air cylinder



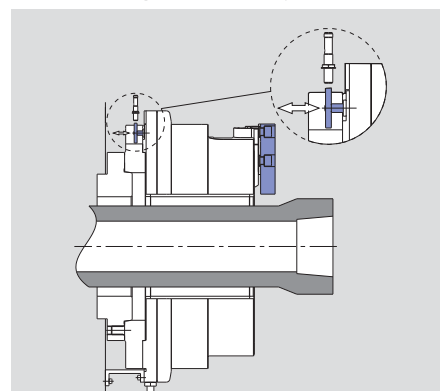
**Fig. 1**

Chuck open (only at stopped spindle). The SMW profile seal collapses radial under the air pressure and seals against the chuck body. The cylinder chamber is filled. The piston is compressing the springs, the jaws open.



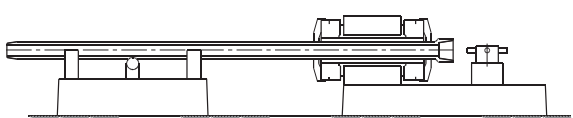
**Fig. 2**

Chuck clamped. The SMW profile seal lifts off the chuck body due to elastic force. The springs expand and transmit their force onto the jaws via the wedge hook drive. The spindle can rotate.

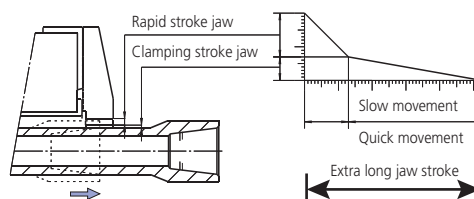


**Fig. 3**

Stroke control chuck open. The position "chuck open" can be monitored via a mechanical cam by a proximity switch.



End machining of tubes with front and rear chucks



### Technical data

SMW-AUTOBLOK Type		BB-SC 600-275			BB-SC 850-395			BB-SC 1020-565		
Id. No.		053540			053350			053570		
Chuck trough hole	mm	275			395			565		
Total stroke per jaw	mm	25.4			27			27		
Rapid stroke per jaw*	mm	16.9			15			15		
Clamping stroke per jaw	mm	8.5			12			12		
Opening pressure at 9 springs	bar	5 bar			5 bar			5 bar		
Max. gripping force at 3/6/9 springs	kN	50	100	150	57	113	170	57	113	170
Max. speed	r.p.m	1000			700			420		
Air consumption to open at 5 bar (73 psi)	l	60			115			139		
Mass (without jaws)	kg	510			930			1260		
Moment of inertia	kg·m <sup>2</sup>	34			101			223		

\*must not be used for clamping

