# Overview Pipe

### Customer's OCTG product:

Straight pipe
Bent pipe Bent pipe



## BB-N Page 12



#### Threading of straight pipe with the original SMW Big Bore Type BB-N.

APPLICATION



**OCTG PRODUCT** 

### **CUSTOMER BENEFITS**

- •Quick jaw movement more pipe per hour
- Can be used for other work pieces besides piping
- O.D. and I.D. clamping

**BB-N-ES** Page 14

Threading of straight pipe with upset ends with the original SMW Big Bore Type BB-N-ES.



- •Quick jaw movement more pipe per hour
- Large jaw stroke for easy loading of pipe and less danger of damaging threads when unloading

**BB-SC** Page 16



High production spring clamp chuck for threading of straight pipe with or without upset ends with the original SMW Big Bore Type BB-SC.



- Full jaw stroke in 2 seconds for highest productivity
- Fully sealed/low maintenance for highest availabitlity of the machine
- Safe clamping of pipe even in longer machining processes with spring clamp technology

**BB-AZ2G** Page 18



Threading of straight and bent pipe with the original SMW Big Bore Type BB-AZ2G.



- Self centering or compensating clamping for universal use
- Quick jaw movement
- External centering device needed when used in compensating mode
- O.D. clamping only

**BB-FZA2G** Page 22



Threading of straight and bent pipe with integrated centering jaws with the original SMW Big Bore Type BB-FZA2G.





- Quick jaw movement
- Fully automatic programable cycle



## **Respective chuck matrix:**

<b>↓</b> Self centering clamping	<b>↓</b> <b>↓</b> <b>↓</b> <b>↓</b> <b>↓</b> <b>↓</b> <b>↓</b> <b>↓</b> <b>↓</b> <b>↓</b>	≨ → 3 jaw + 3 jaw combination			
BB-N/ BB-N-ES Page 12/14	BB-AZ2G Page 18	BB-FZA2G Page 22			
BB-SC Page 16					

## **Centering options:**



**Turret** by customer

## BIG BORE® BB-SC INCH SERRATION



#### Front-end spring clamp power chucks EXTRA large through hole Ø 275 - 565 mm ■ Chuck size 600 - 1020 ■ 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 possible
- Full spindle bore can be used

#### **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
- Stroke control
- proofline<sup>®</sup> 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** <sup>16</sup> <sup>10</sup> 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.



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.



**Stroke control.** The position of the jaws can be monitored via a mechanical cam by 1 or 2 proximity switches.

Rapid stroke Clamping stroke

Extra long jaw stroke

Rapid stroke/jaw

Clamping stroke/jaw



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		565	
ld. No.		053540		053350		053570			
Chuck trough hole	mm (inch)	275 (10.83	395 (15.55")			565 (22.24")			
Total stroke per jaw	mm (inch)	25.4 (1")		27 (1.06")			27 (1.06")		
Rapid stroke per jaw*	mm (inch)	16.9 (0.67	16.9 (0.67")		15 (0.59")		15 (0.59")		
Clamping stroke per jaw	mm (inch)	8.5 (0.33"	)	12 (0.47")			12 (0.47")		
Operating pressure at 9 springs	bar (psi)	5 (73)		5 (73)		5 (73)			
Max. gripping force at 3/6/9 springs	kN (lbf)	50 (11240) 100 (22480	) 150 (33721)	57 (12814)	113 (25403)	170 (38218)	57 (12814)	113 (25403)	170 (38218)
Max. speed	r.p.m.	1000		700		420			
Air consumption to open at 5 bar (73 psi)	liter	60		115		139			
Weight (without jaws)	kg (lbs)	510 (1124	)	930 (2050)		1260 (2779)		)	
Moment of inertia	kg∙m²	34		101		223			

\* Could not be used for clamping



290

293

#### **G BORE**® B **BB-SC** INCH SERRATION

D

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F G

C Ø

Id. of air hose min. 19 mm / 3/4"

Ξ,

H2

Н

H1

N

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P

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В

Ø

A Ø

#### Main dimensions and technical data





Subject to technical changes. For more detailed information please ask our customer service.

SMW-AUTOBLOK Type			BB-SC 600-275	BB-SC 850-395	BB-SC 1020-565		
Mounting			Z520	Z700	Z870		
	А	mm	605	850	1020		
(BB-SC-600-275)	<b>A</b> 1	mm	675	-	-		
Through hole	В	mm	275	395	565		
	С	mm	750	925	1095		
	<b>D</b> H6	mm	520	700	870		
	F	mm	640	810	980		
	G		M12 (12x)	M16 (12x)	M16 (12x)		
	н		126.7	282.5	282.5		
	H1		307.5	361.5	361.5		
	H2		320.5	374.5	374.5		
(BB-SC-600-275)	H3		102	-	-		
	N		G 3/4 "	G 3/4"	G 3/4 "		
	0		21.5	21.5	21.5		
Max. swing	Р		655.8	902.8	1074		
	а		58	73	73		
	b		25.5	30	30		
Rapid stroke		mm	16.9	15	15		
Clamping stroke		mm	8.5	12	12		
Total clamping stroke		mm	25.4	27	27		

### **Spindle-Adapters**

Spindle-Adapters ISO-A DIN 55026



BB-SC	600-275			850	-395	1020-565			
Spindle nose	A11	A15	A20	A15	A20	A15	A20	A28	
ld. No.	on request	053590	053591	053362	053358	on request	053595	053596	