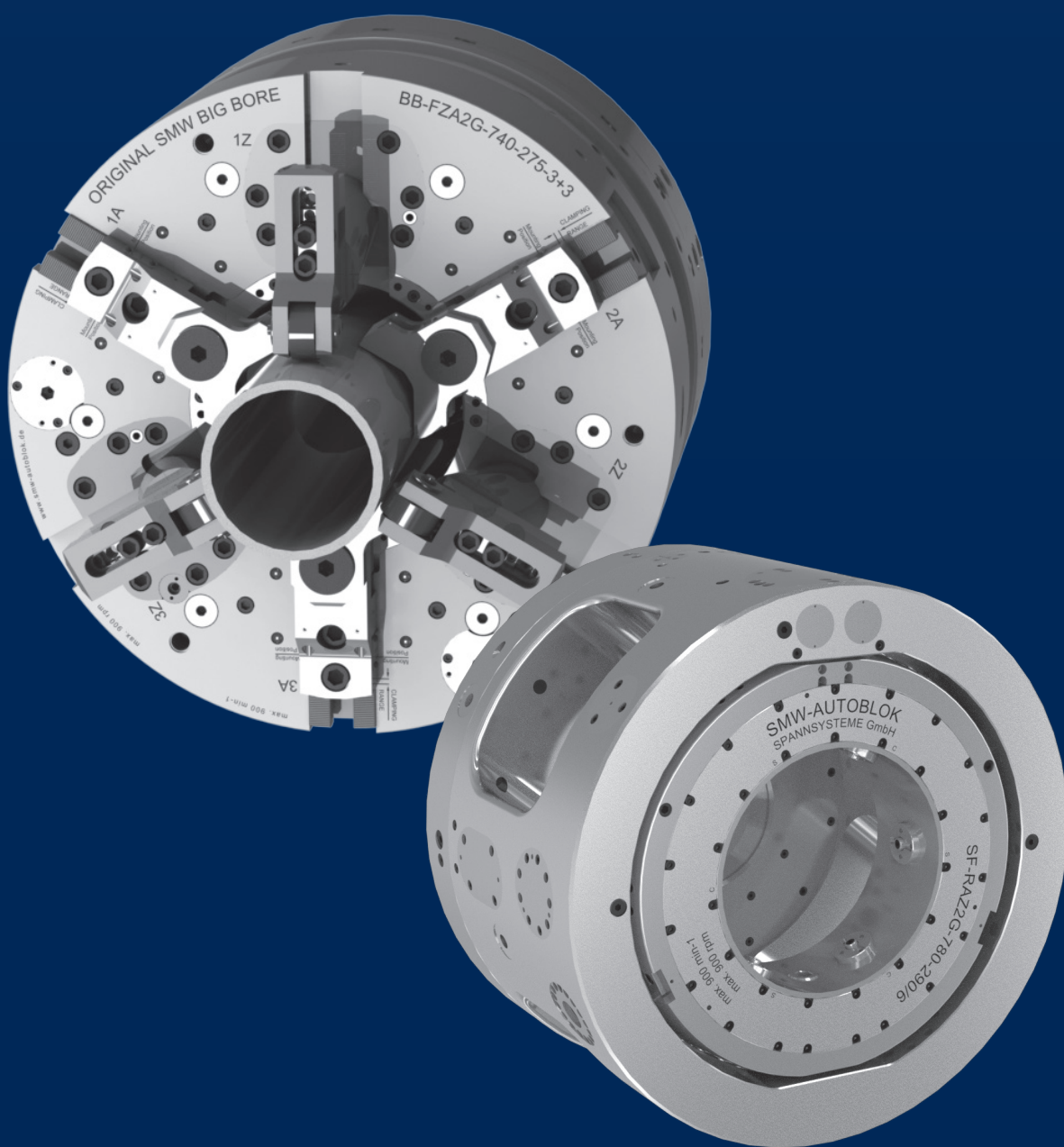




www.smw-autoblok.com

5T0

CUSTOMER BENEFITS

SMW-AUTOBLOK is the inventor



SMW-AUTOBLOK - the inventor and pacemaker in technology for OCTG chucks. More than 40 years of experience ensure the highest productivity for all of our customers.

Worldwide Service + Support



Our worldwide SMW-AUTOBLOK network guarantees immediate service, availability of parts and support wherever needed.

Partner of oil industry



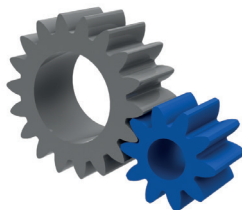
Working closely with our customers, we are able to provide new and innovative solutions as challenges arise.

Widest range of OCTG products



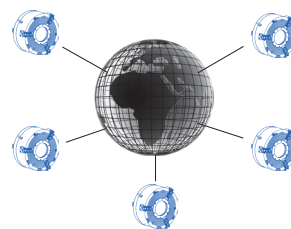
SMW-AUTOBLOK offers a complete range of OCTG chucks as standard products. The need for expensive "special product" chucks with long lead times is eliminated.

Fast time and high accuracy



Improving production processes with rapid chuck actuation, SMW-AUTOBLOK's OCTG chucks increase productivity and decrease machine downtimes.

Applications worldwide



5 continents - 1 partner: All major players in the OCTG industry on 5 continents trust in SMW-AUTOBLOK as their reliable workholding partner.

CONTENT

Applications:

Chapters

OIL COUNTRY TUBULAR GOODS

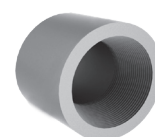
Straight pipes



Bent pipes



Couplings



Introduction

Page 5

Performance characteristics

Page 6

Pipes

Page 9

Couplings

Page 27

Accessories (control units, standard jaws)

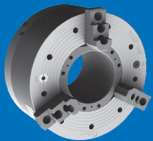
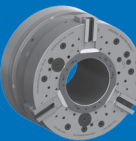
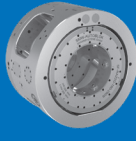
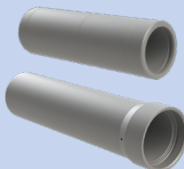
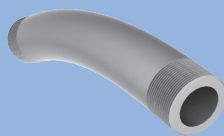
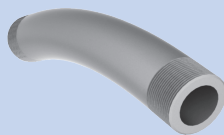
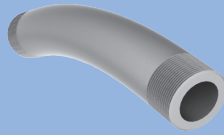
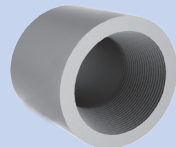
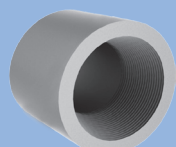
Page 36

Pneumatic diagrams

Page 40

Chuck finder for Oil Country Tubular Goods: Introduction

- Straight pipes
- Bent pipes
- Couplings

Chuck type						
Machining OCTG product	BB-N / BB-N-ES	BB-EXL2G	BB-SC	BB-AZ2G	BB-FZA2G	SF-RAZ2G
 Straight pipes	 Page 12 / 14	 Page 16	 Page 18	 Page 20		
 Bent pipes with shimming	 Page 12 / 14	 Page 16	 Page 18	 Page 20		
 Bent pipes with external centering chuck				 Page 20		
 Bent pipes with integrated centering chuck					 Page 24	
 Threadings of couplings in 1 set-up						 Page 30
 Threadings of couplings in 2 set-ups	 Page 12 / 14	 Page 16	 Page 18			 Page 30



Ideal



Possible

Big Bore



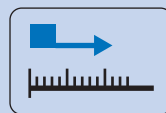
Big Bore is synonymous for **self contained air chucks with large through holes**. Big Bore chucks allow for the full spindle bore of the machine to be utilized.

Quick clamping circle



Optimal sized air feeds and valve systems guarantee a **quick clamping cycle**.

ES



ES chucks offer **extended jaw stroke** for greater clearance to ensure safe loading and unloading of pipe.

Spring clamp



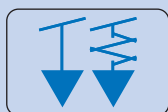
Spring clamp technology ensures the quickest clamping cycles and the highest degree of safety under any conditions.

Low maintenance



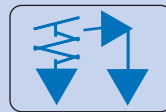
Proofline chucks are **fully sealed** and **low maintenance** allowing for long service intervals, minimizing machine downtime.

AZ-2G

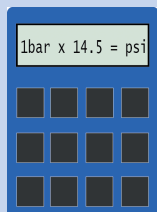


AZ-2G chucks offer the versatility of clamping either **compensating** or **self centering**.

FZA-2G



FZA-2G chucks **sequence 3 centering jaws** along with **3 compensating jaws** integrated within the same chuck body.



Conversion table (US)

1 mm	=	0.03937 Inch	1 cm ²	=	0.155 square inches
1 bar	=	14.5 psi	1 liter	=	1.05 quarts (qt)
1 kN	=	220.46 lbf	1 kg·m ²	=	3417 lb square inches
1 kg	=	2.2046 lbs	1 liter / min	=	0.264 gallon / min

Data sheet						Performance characteristics		
OCTG chuck	Size	Outside dia. max	Work piece capacity	Time for a full clamping	Time for a full opening	Max. grip force (at max. pressure)	Height of chuck without adapter	Weight without jaws and adapter
	mm	mm	mm	max.	max.	kN	mm	kg
BB-N ■ Big Bore ■ Quick clamping circle	400 - 140	467	140	-	-	266	196	155
	470 - 191	470	191	4.5	3.0	191	196	160
	500 - 205	570	205	6.0	6.0	350	225	230
	500 - 230	570	230	6.0	6.0	316	225	200
	600 - 275	605	275	6.0	6.0	333	225	270
	630 - 310	685	310	6.5	6.5	366	263	420
	800 - 410	850	410	7.0	5.5	550	305	650
BB-N-ES ■ Big Bore ■ Quick clamping circle ■ Extended stroke	400 - 140	467	140	on request	on request	216	240	200
	470 - 191	470	191	4.5	3.0	191	240	195
	500 - 205	570	205	6.0	4.5	316	280	340
	500 - 230	570	230	6.0	4.5	283	280	325
	600 - 275	605	275	6.0	4.5	308	280	350
	630 - 325	685	325	6.0	4.5	333	307.5	630
	850 - 375	850	375	7.0	5.5	333	354	970
	1000 - 560	1000	560	7.5	6.0	283	332	960
BB-SC ■ Big Bore ■ Spring clamp ■ Low maintenance	600 - 275	750	275	3	3	150	320.5	516
	850 - 395	925	395	3	3	170	375.5	1025
	1020 - 565	1095	565	4.5	4.5	170	375.5	1256
BB-AZ2G ■ Big Bore ■ Self centering or compensating ■ Extended stroke	685 - 275	685	275	on request	on request	266	380.5	800
	740 - 330	740	330	on request	on request	266	380.5	875
	800 - 390	800	800	on request	on request	300	380.5	1000
	1000 - 560	1000	560	on request	on request	300	380.5	1420
BB-FZA2G ■ Big Bore ■ Sequence chuck	740 - 275	740	275	on request	on request	149	516.5	1100
	800 - 330	800	330	on request	on request	133	516.5	1080
	920 - 390	920	390	on request	on request	255	546.5	1900
SF-RAZ2G ■ Hydraulic indexing chuck ■ Low maintenance	750	750	185	2	2	250	456	1018
	840	840	275	2	2	250	501	1286
	950	950	368	2	2	250	560	1650

Clamping times have been measured with the corresponding original SMW-AUTOBLOK air control unit on the SMW-AUTOBLOK test stand. For more information please contact SMW-AUTOBLOK.



PIPES

Straight pipes



Bent pipes



Overview pipes

Page 10

Recommended combinations

Page 11

BB-N

Page 12

BB-N ES

Page 14

BB-EXL2G

Page 16

BB-SC

Page 18

BB-AZ2G

Page 20

CC

Page 22

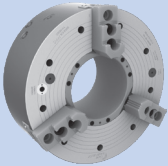
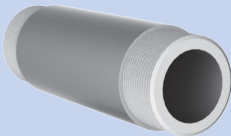
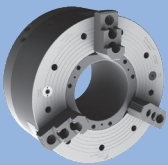
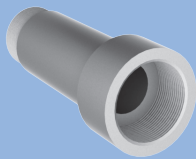
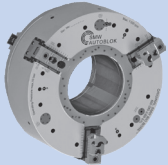
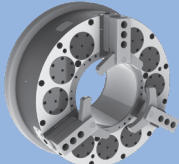
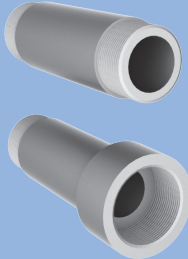
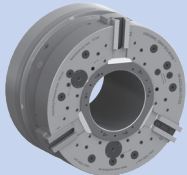
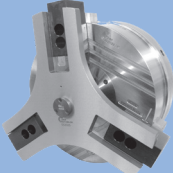
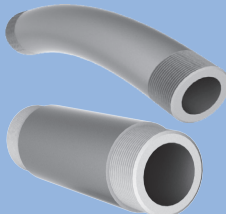
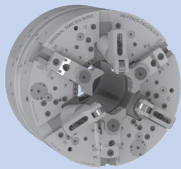
BB-FZA2G

Page 24

Overview Pipes

Customer's OCTG product:

- Straight pipes
- Bent pipes

CHUCK	APPLICATION	OCTG PRODUCT	CUSTOMER BENEFITS
BB-N Page 12 	Threading of straight pipes with the original SMW Big Bore type BB-N.		■ Quick jaw movement more pipes 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 pipes with upset ends with the original SMW Big Bore type BB-N-ES.		■ Quick jaw movement more pipes per hour ■ Large jaw stroke for easy loading of pipe and less danger of damaging threads when unloading
BB-EXL2G Page 16 	Threading of straight pipes with collars with the original SMW Big Bore Type BB-EXL2G.		
BB-SC Page 18 	High production spring clamp chuck for threading of straight pipes 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 availability of the machine ■ Safe clamping of pipes even in longer machining processes with spring clamp technology
BB-AZ2G Page 20 	Threading of straight and bent pipes 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
CC Page 22 	Threading of straight pipes with upset ends with the original SMW Big Bore type CC.		
BB-FZA2G Page 24 	Threading of straight and bent pipes with integrated centering jaws with the original SMW Big Bore type BB-FZA2G.		■ Integrated centering jaws for the pipe = no external centering device needed ■ Quick jaw movement ■ Fully automatic programable cycle

Self-centering clamping	Self-centering or compensating clamping	3+3 combination
Combination A Note: This combination can only be used for straight pipes!		
Combination B Note: No centering necessary!		
Combination C Note: No centering necessary!		
Combination D Note: No centering necessary!		
Combination E Note: No centering necessary!		

Respective chuck matrix:

Self-centering clamping	Self-centering or compensating clamping	3 jaw + 3 jaw combination
BB-N / BB-N-ES Page 12/14 BB-EXL2G Page 16	BB-AZ2G Page 20	BB-FZA2G Page 24
BB-SC Page 18		

Centering options:

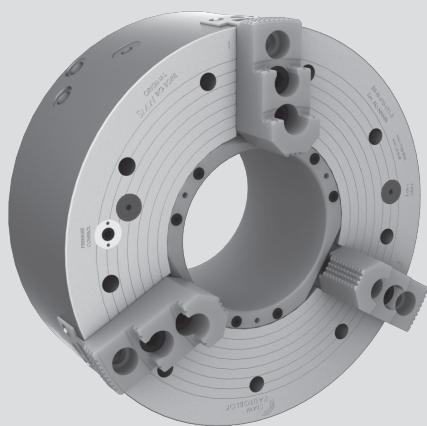
Chuck CC Page 22	Turret by customer
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BIG BORE® BB-N

INCH
SERRATION

Front-end pneumatic power chuck
EXTRA large through-hole Ø 140 - 410 mm

- Chuck size 400 - 800
- Standard jaw stroke
- 3 jaws



Application/customer benefits

- End machining of long pipes
- Full spindle bore can be used

Technical features

- Air chuck for external / internal 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
- Jaw stroke control for O.D. and I.D. gripping (not BB-N 400-140)

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

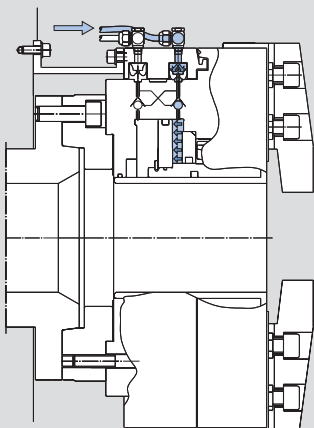
Ordering example

BIG BORE BB-N 470-191 / Z310

Accessories

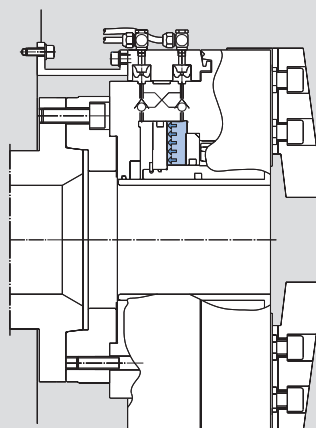
Control unit AC-BB / AC-XN
(see general catalog pages 386-389)

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



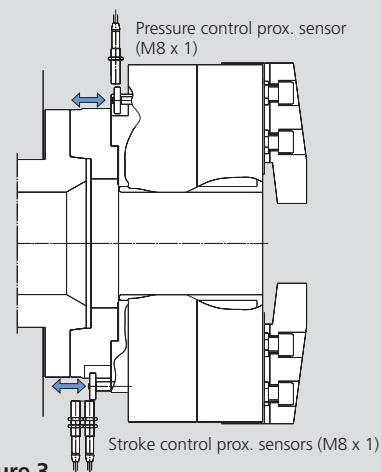
Picture 1

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.



Picture 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.



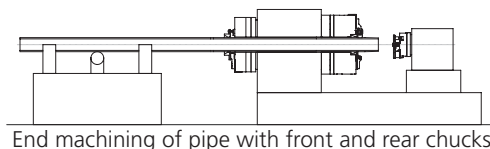
Picture 3

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.

Jaw stroke control: If the part is clamped in a not correct jaw stroke position, the switch ring moves into the proximity switch field sending an alarm signal.*

* BB-N-400-140 has no stroke control.

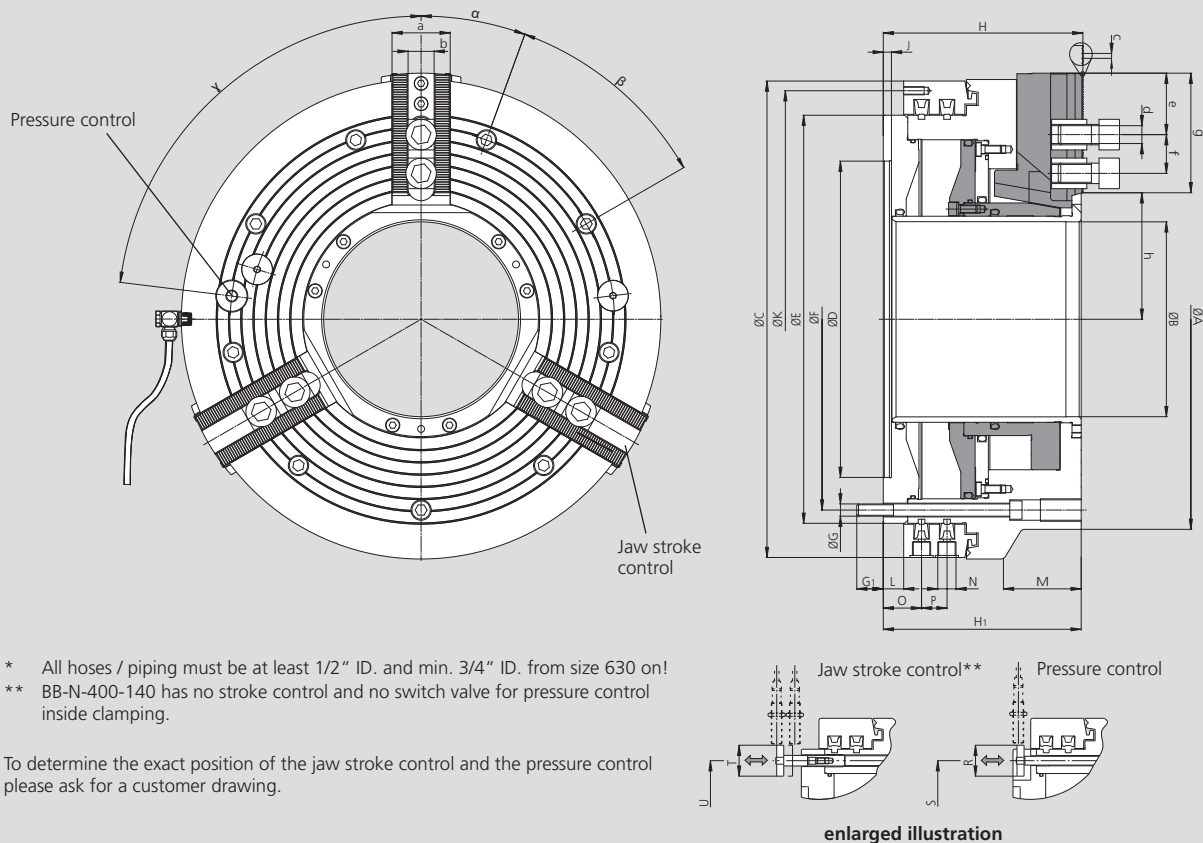
Technical data



SMW-AUTOBLOK Type BB-N		400-140	470-191	500-205	500-230	600-275	630-310	800-410
Id. No.		052300	053535	053830	053832	053834	053836	053838
Through-hole	mm (inch)	140 (5.51")	191 (7.52")	205 (8.07")	230 (9.06")	275 (10.83")	310 (12.20")	410 (16.14")
Stroke per jaw	mm (inch)	7 (0.28")	7 (0.28")	8.5 (0.33")	8.5 (0.33")	8.5 (0.33")	10 (0.39")	12 (0.47")
Operating pressure min. / max.	bar (psi)	2 / 10 (29 / 145)						
Piston area	cm²	710	565	1024	940	990	1270	2064
Gripping force at 6 bar	kN (lbf)	160 (35969)	115 (25853)	210 (47210)	190 (42714)	200 (44962)	220 (49458)	330 (74186)
Max. speed	r.p.m.	1700	1700	1300	1300	1300	1000	750
Air consumption / jaw stroke at 6 bar	liter	21	16	36	32	34	52	108
Weight (without top jaws)	kg (lbs)	150 (331)	150 (331)	230 (507)	200 (441)	270 (595)	420 (926)	650 (1433)
Moment of inertia	kg·m²	3.22	5.66	8.53	8	15	28	71.25

■ Main dimensions and technical data

Jaw position: Open for external clamping



- * All hoses / piping must be at least 1/2" ID. and min. 3/4" ID. from size 630 on!
 ** BB-N-400-140 has no stroke control and no switch valve for pressure control inside clamping.

To determine the exact position of the jaw stroke control and the pressure control please ask for a customer drawing.

enlarged illustration

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

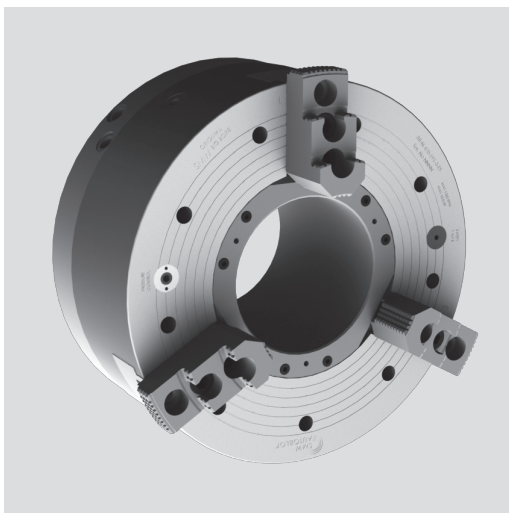
SMW-AUTOBLOK Type BB-N			400-140	470-191	500-205	500-230	600-275	630-310	800-410
Id. No.			052300	053535	053830	053832	053834	053836	053838
Mounting			Z310	Z310	Z415	Z415	Z450	Z510	Z700
Fixing bolts circle	A	mm	422	470	540	570	605	662	800
	B	mm	140	191	205	230	275	310	410
	C	mm	467	467	570	570	605	685	850
	D H6	mm	310	310	415	415	450	510	700
	E	mm	400	400	500	500	535	610	775
	F	mm	374	374	474	474	508	580	745
	G	mm	M12	M12	M12	M12	M12	M16	M16
	G1	mm	26	26	27	27	27	30	30
Thread circle 6 x M8	H	mm	196	196	225	225	225	263	305
	H1	mm	194	194	223	223	223	261	303
	J	mm	8	8	8	8	8	8	8
	K	mm	448	448	550	550	585	666	830
Pneumatic connection	L	mm	20	20	20	20	20	20	25
	M	mm	70	-	98	98	-	115	154
	N	inch	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"
	O	mm	37	37	37	37	37	39.5	44.5
	P	mm	26	26	26	26	26	33	33
	R	mm	35	35	35	35	35	42	35
	S	mm	374	374	474	474	508	575	745
	T	mm	35	35	35	35	35	35	35
Serration	U	mm	374	374	474	474	508	580	745
	a	mm	57	57	57	57	57	75	75
Bolt ISO 4762 12.9	b	mm	25.5	25.5	25.5	25.5	25.5	30	30
	c	inch	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
Min.	d	mm	M20	M20	M20	M20	M20	M24	M24
	e	mm	13	13	14	14	14	16	16
T-nuts distance min. / max.	f	mm	38 / 85	38 / 85	38 / 102	38 / 102	38 / 94	47 / 103	47 / 130
	g	mm	117.5	117	138	138	130	142	171.5
Serration length	h	mm	94.5 / 101.5	124 / 131	133.5 / 142	143.5 / 152	165 / 173.5	190.5 / 200.5	243 / 255
	α	deg.	20	20	15	15	15	15	15
(Pressure control)	β	deg.	9 x 40	9 x 40	12 x 30	12 x 30	12 x 30	12 x 30	12 x 30
	γ	deg.	83	83	60	60	60	60	60

BIG BORE® BB-N-ES

INCH SERRATION

Front-end pneumatic power chuck EXTRA large through-hole Ø 140 - 560 mm

- Chuck size 400 - 1000
- Extended jaw stroke
- 3 jaws



Application/customer benefits

- End machining of long pipes with upset ends
- 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-ES 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

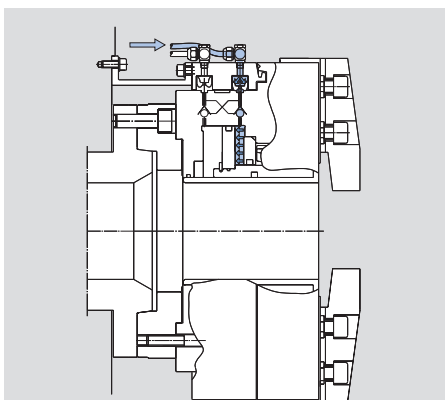
Ordering example

BIG BORE BB-N-ES 400 / Z310

Accessories

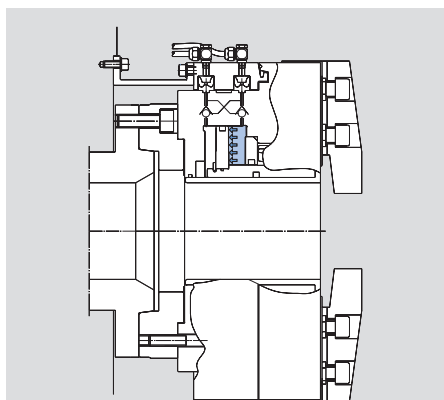
Control unit AC-BB / AC-XN
(see general catalog pages 386-389)

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



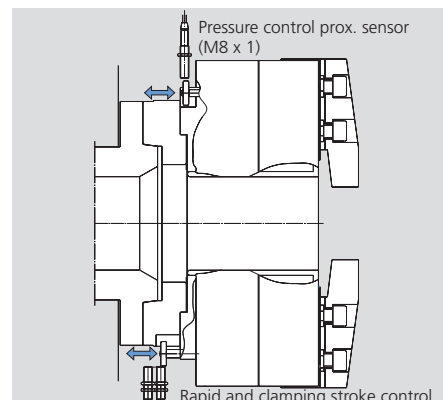
Picture 1

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.



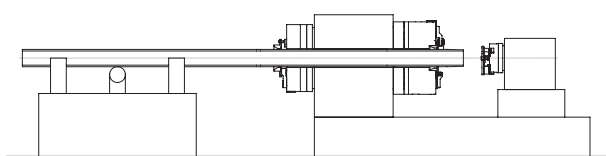
Picture 2

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.

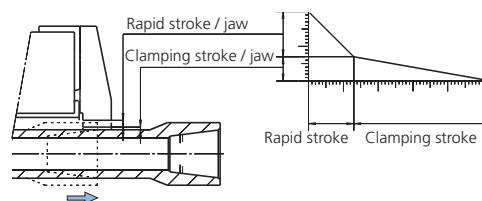


Picture 3

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.
Jaw stroke control: If the part is clamped in a not correct jaw stroke position, 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 Type BB-N-ES		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 (inch)	140 (5.51")	191 (7.52")	205 (8.07")	230 (9.06")	275 (10.83")	325 (12.80")	375 (14.76")	560 (22.05")
Total stroke per jaw	mm (inch)	20 (0.79")	20 (0.79")	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")
Rapid stroke per jaw*	mm (inch)	13 (0.51")	13 (0.51")	16.9 (0.67")	16.9 (0.67")	16.9 (0.67")	17.2 (0.67")	13.4 (0.53")	15 (0.59")
Clamping stroke per jaw	mm (inch)	7 (0.28")	7 (0.28")	8.5 (0.33")	8.5 (0.33")	8.5 (0.33")	8.2 (0.32")	12 (0.47")	10.4 (0.41")
Operating pressure min. / max.	bar (psi)	2 / 10 (29 / 145)							
Piston area	cm ²	705	565	1004	895	954	1192	1340	1090
Gripping force at 6 bar	kN (lbf)	130 (29225)	115 (25853)	190 (42714)	170 (38218)	185 (41590)	200 (44962)	200 (44962)	170 (38218)
Max. speed	r.p.m.	1300	1300	1100	1300	1100	900	750	450
Air consumption / jaw stroke at 6 bar	liter	29	22	41	37	39	48	79	57
Weight (without top jaws)	kg (lbs)	200 (441)	190 (419)	340 (750)	325 (717)	360 (794)	630 (1389)	970 (2138)	960 (2116)
Moment of inertia	kg·m ²	6.5	9.83	16.4	16.1	19	36	105	160

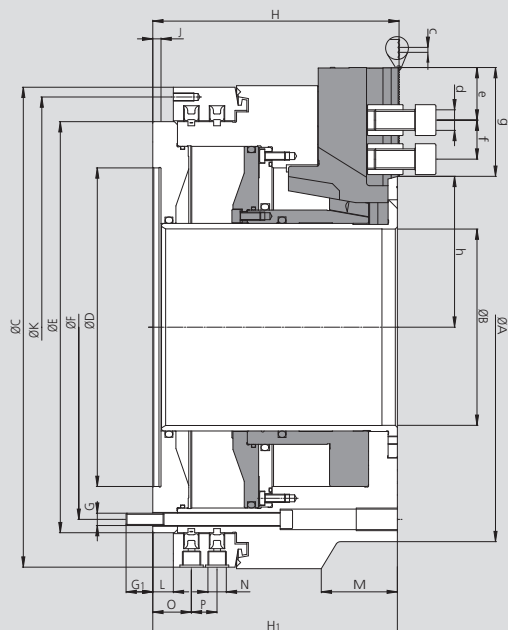
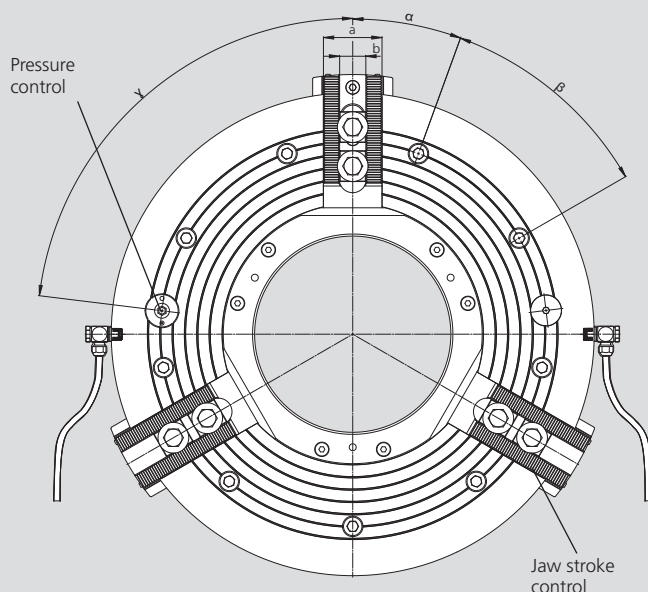
* May not be used for clamping.

BIG BORE® BB-N-ES

INCH SERRATION

■ Main dimensions and technical data

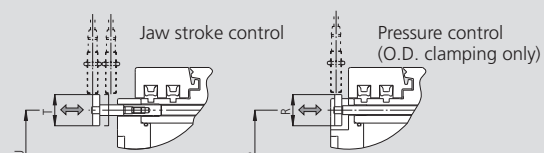
Jaw position: Open for external clamping



* All hoses / piping must be at least 1/2" ID and min 3/4" ID from chuck size 630 on.

BB-N-ES 1000 needs 2 hoses per function open / close (see installation manual).

To determine the exact position of the jaw stroke control and the pressure control please ask for a customer drawing.



enlarged illustration

Subject to technical changes.

For more detailed information please ask our customer service.

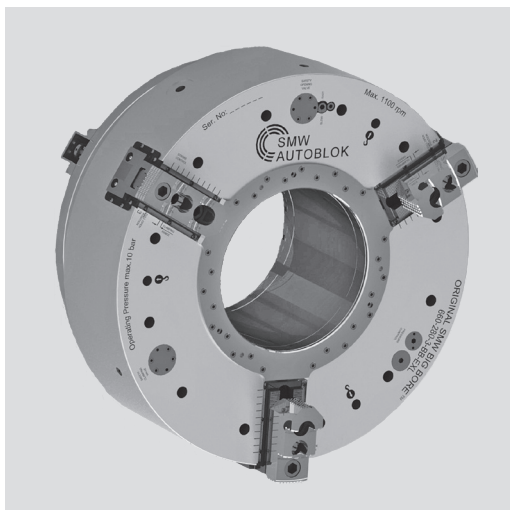
SMW-AUTOBLOK Type BB-N-ES			400-140	470-191	500-205	500-230	600-275	630-325	850-375	1000-560
Id. No.			052330	053536	052651	052652	052990	052653	052654	052655
Mounting			Z310	Z310	Z415	Z415	Z450	Z510	Z700	Z700
Fixing bolts circle	A	mm	467	470	570	570	605	685	850	1000
	B	mm	140	191	205	230	275	325	375	560
	C	mm	467	467	570	570	605	685	850	925
	D H6	mm	310	310	415	415	450	510	700	700
	E	mm	400	400	500	500	535	610	775	850
	F	mm	374	374	474	474	508	580	745	815
Thread circle 6 x M8	G	mm	M12	M12	M12	M12	M12	M16	M16	M16
	G1	mm	26	26	25	25	25	30	30	30
	H	mm	240	240	282	282	282	307.5	354	332
	H1	mm	238	238	280	280	280	305.5	352	330
	J	mm	8	8	8	8	8	8	8	10
	K	mm	448	448	550	550	585	666	830	910
Pneumatic connection	L	mm	20	20	20	20	20	20	25	33
	M	mm	-	-	-	-	-	-	-	224
	N	inch	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"
	O	mm	37	37	37	37	37	39.5	44.5	52.5
	P	mm	26	26	26	26	26	33	33	33
	R	mm	35	35	35	35	35	42	35	42
Serration	S	mm	374	374	474	474	508	580	745	815
	T	mm	35	35	35	35	35	35	35	35
	U	mm	374	374	474	474	508	580	745	815
	a	mm	57	57	57	57	57	75	75	75
	b	mm	25.5	25.5	25.5	25.5	25.5	30	30	30
	c	inch	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
Bolt ISO 4762 12.9	d	mm	M20	M20	M20	M20	M20	M24	M24	M24
Min.	e	mm	14	14	14	14	14	16	16	16
T-nuts distance min. / max.	f	mm	38 / 90	38 / 85	38 / 104	38 / 92	38 / 79	47 / 100	47 / 140	47 / 125
Serration length	g	mm	121	106	140	127.5	116.5	138	182	166
Min. / max.	h	mm	104 / 124	127 / 147	145.6 / 171	158 / 182.5	179.1 / 204.5	204.6 / 230	242.6 / 268	334.6 / 360
	α	deg.	20	20	15	15	15	15	15	15
	β	deg.	9 x 40	9 x 40	12 x 30	12 x 30	12 x 30	12 x 30	12 x 30	12 x 30
(Pressure control)	γ	deg.	83	83	60	60	60	60	60	60

BIG BORE® BB-EXL2G

INCH SERRATION

Front-end pneumatic power chuck EXTRA large through-hole Ø 191 - 390 mm

- Chuck size 510 - 900
- 3 jaws
- Extended extra long jaw stroke



Application/customer benefits

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

Technical features

- Suitable for jaw jog mode
- 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)
- Clamping stroke control (no clamping in rapid stroke) is monitored
- Extra long jaw stroke (1 1/2" total)

Standard equipment

3-jaw chuck
2 elbow unions G 1/2"
12 mounting bolts
3 lifting eye bolt, 1 set T-nuts with bolts
1 set soft top jaws
Without distributor ring bracket

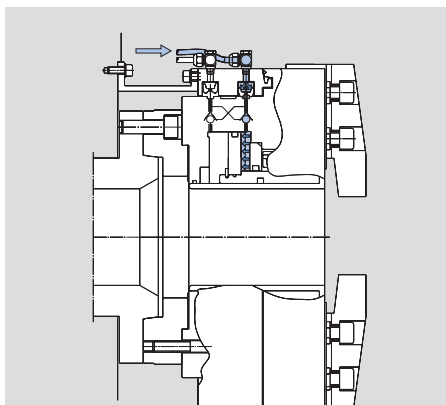
Ordering example

Big Bore BB-EXL2G 660 / Z450

Accessories

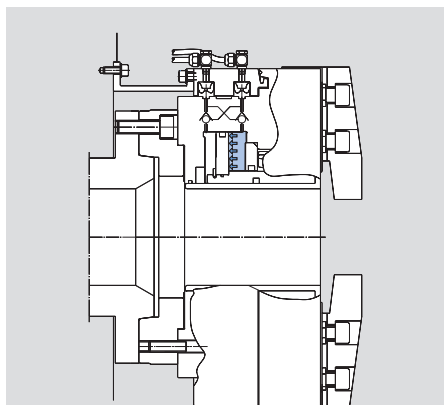
Control unit AC-BB / AC-XN
(see general catalog pages 386-389)

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



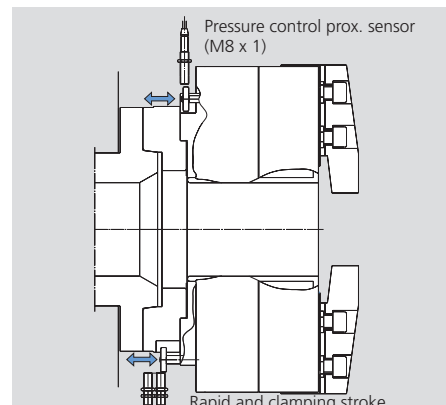
Picture 1

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 non-return valve.



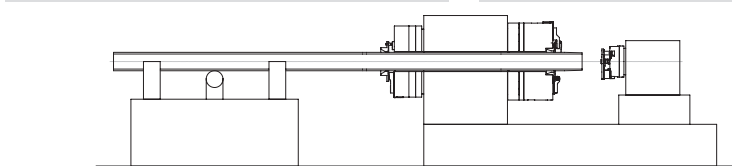
Picture 2

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.

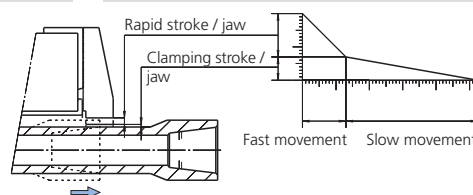


Picture 3

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.
Jaw stroke control: If the part is clamped in a not correct jaw stroke position, 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 Type		BB-EXL2G 510-191	BB-EXL2G 660-280	BB-EXL2G 900-390
Id. No.		77784553	77784566	77784588
Through-hole	mm (inch)	191 (7.52")	280 (11.02")	390 (15.35")
Total stroke per jaw	mm (inch)	38.5 (1.52")	38.5 (1.52")	38.5 (1.52")
Rapid stroke per jaw*	mm (inch)	30 (1.18")	30 (1.18")	30 (1.18")
Clamping stroke per jaw	mm (inch)	8.5 (0.33")	8.5 (0.33")	8.5 (0.33")
Operating pressure min. / max.	bar (psi)	2 / 10 (29 / 145)	2 / 10 (29 / 145)	2 / 10 (29 / 145)
Piston area	cm²	760	1300	1800
Gripping force at 6 bar (87 psi)	kN (lbf)	115 (25853)	195 (43838)	270 (60698)
Max. speed	r.p.m.	1300	1100	750
Air consumption / jaw stroke at 6 bar (87 psi)	liter	37	58	78
Weight (without top jaws)	kg (lbs)	260 (573)	470 (1036)	950 (2094)
Moment of inertia	kg·m²	10	30.4	112

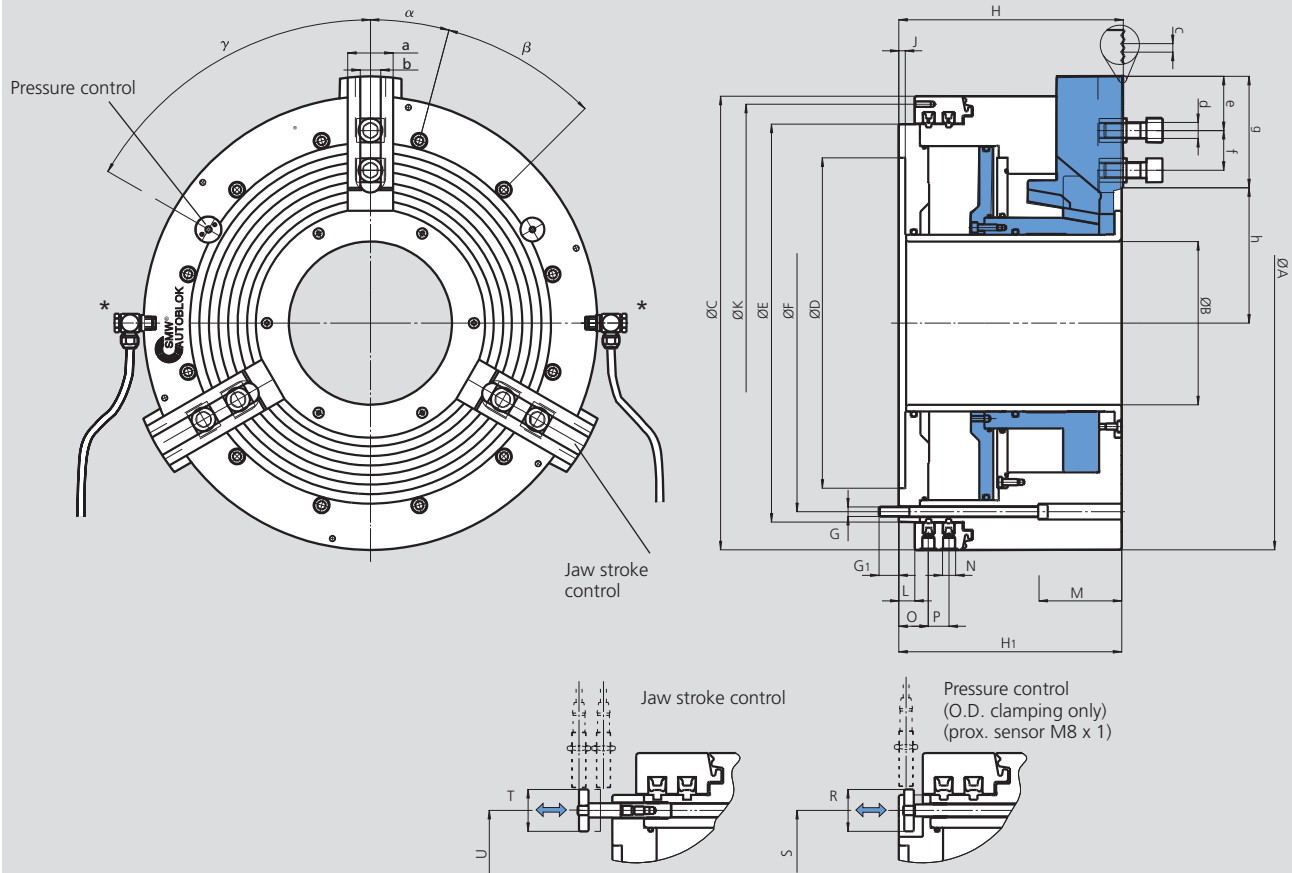
* May not be used for clamping.

BIG BORE® BB-EXL2G

INCH SERRATION

■ Main dimensions and technical data

Jaw position: Open for external clamping



enlarged illustration

Subject to technical changes.

For more detailed information please ask for customer drawing.

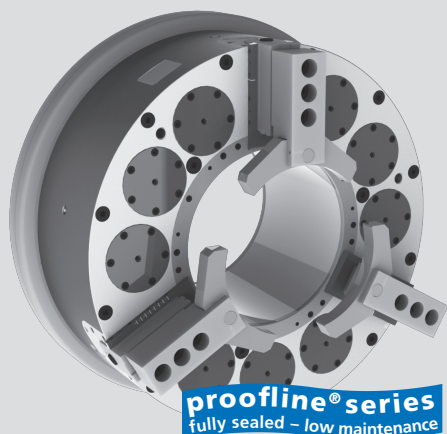
SMW-AUTOBLOK Type			BB-EXL2G 510-191	BB-EXL2G 660-280	BB-EXL2G 900-390
Mounting			Z310	Z450	Z700
Fixing bolts circle	A	mm	520	673	900
	B	mm	191	280	390
	C	mm	520	665	852
	D H6	mm	310	450	700
	E	mm	446	585	775
	F	mm	414	558	745
	G	mm	M12	M12	M16
	G1	mm	25	25	29
	H	mm	277	292	323
	H1	mm	270	285	314
Thread circle 6 x M8	J	mm	8	8	8
	K	mm	500	640	830
	L	mm	25	25	33
Pneumatic connection	M	mm	115	110	143
	N	inch	G 1/2"	G 1/2"	G 1/2"
	O	mm	46,5	46	54,5
	P	mm	36	36	33
	R	mm	35	35	35
	S	mm	414	554	745
	T	mm	35	35	35
	U	mm	414	554	745
	a	mm	57	62	75
	b	mm	25,5	25,5	30
Serration	c	inch	3/32" x 90°	3/32" x 90°	3/32" x 90°
Bolts ISO 4762 12.9	d	mm	M20	M20	M24
Min.	e	mm	15	15	18
T-nuts distance min. / max.	f	mm	30 / 84	30 / 107	36 / 150
Serration length	g	mm	110	142	194
Min. / max.	h	mm	151,5 / 190	199,5 / 238	262 / 300,5
	α	deg.	20	15	15
	β	deg.	9 x 40	12 x 30	12 x 30
(Pressure control)	γ	deg.	83	60	60

BIG BORE® BB-SC

INCH SERRATION

Front-end spring clamp power chuck 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 pipes / 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
- Permanently grease lubricated for constant grip force
- Long jaw stroke with rapid and clamping stroke
- Low air consumption
- Stroke control
- **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

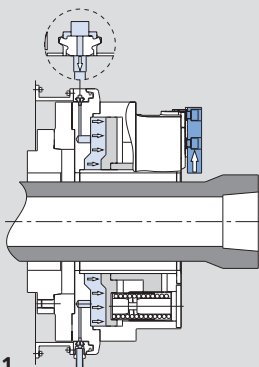
Ordering example

Big Bore SC 850-395
Id. No. 053350

Accessories

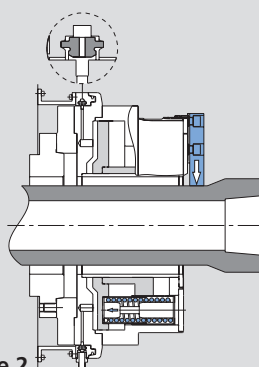
Air control AC-SC

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



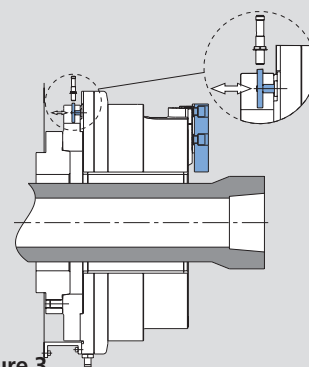
Picture 1

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.



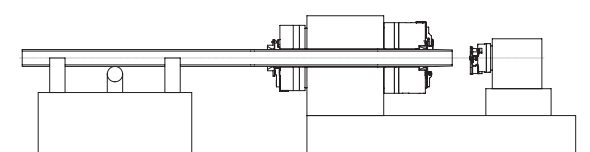
Picture 2

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.

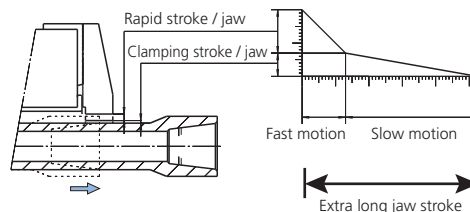


Picture 3

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



End machining of tubes with front and rear chucks

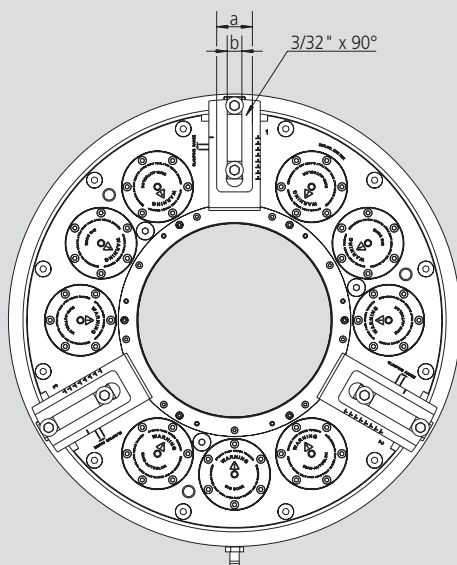


Technical data

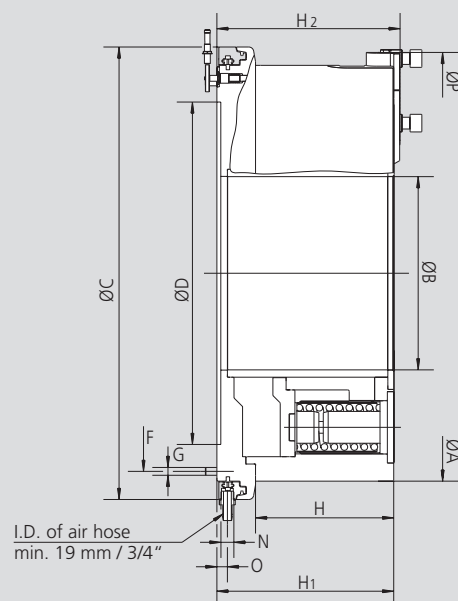
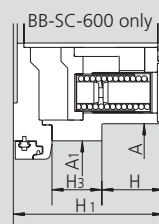
SMW-AUTOBLOK Type		BB-SC 600-275			BB-SC 850-395			BB-SC 1020-565		
Id. No.		053540			053350			053570		
Through-hole	mm (inch)	275 (10.83")			395 (15.55")			565 (22.24")		
Total stroke per jaw	mm (inch)	25.4 (1")			27 (1.06")			27 (1.06")		
Rapid stroke per jaw*	mm (inch)	16.9 (0.67")			15 (0.59")			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		

* May not be used for clamping.

■ Main dimensions and technical data



Opening pressure with all springs mounted
Min. 5 bar (73 psi), max. 8 bar (116 psi)

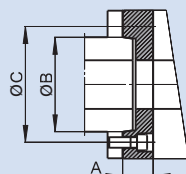


Subject to technical changes.
For more detailed information please ask our customer service.

SMW-AUTOBLOK Type			BB-SC 600-275	BB-SC 850-395	BB-SC 1020-565
Mounting			Z520	Z700	Z870
(BB-SC-600-275)	A	mm	605	850	1020
	A1	mm	675	-	-
	B	mm	275	395	565
	C	mm	750	925	1095
	D H6	mm	520	700	870
	F	mm	640	810	980
(BB-SC-600-275)	G		M12 (12x)	M16 (12x)	M16 (12x)
	H		126.7	282.5	282.5
	H1		307.5	361.5	361.5
	H2		320.5	374.5	374.5
	H3		102	-	-
	N		G 3/4"	G 3/4"	G 3/4"
Max. swing	O		21.5	21.5	21.5
	P		655.8	902.8	1074
	a		58	73	73
Rapid stroke	b		25.5	30	30
		mm	16.9	15	15
		mm	8.5	12	12
Total clamping stroke			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
Id. No.	on request	053590	053591	053362	053358	on request	053595	053596

BIG BORE® BB-AZ2G

INCH SERRATION

Front-end pneumatic power chuck EXTRA large through-hole Ø 275 - 560 mm

- Chuck size 685 - 1000
- Self-centering or compensating clamping
- Chuck with EXTRA long rapid and clamping stroke - 3 jaws

Application/customer benefits

- End machining of straight or bent pipes
- Tubes can be clamped self-centering or with radial jaw compensation at bent pipes, using a retractable centering chuck
- Full spindle bore can be used
- Stroke control for each jaw
- EXTRA long rapid and clamping stroke (1 1/2" total)
- Pressure control

Technical features

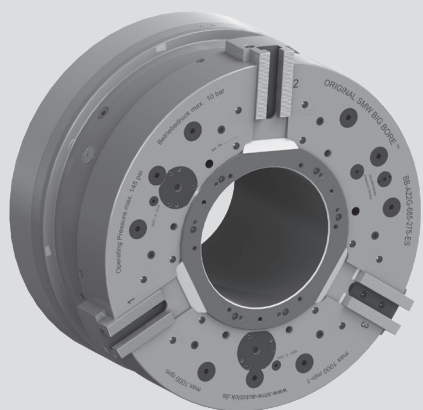
- Air chuck with built-in pneumatic cylinders for self-centering or compensating clamping mode
- Air feed for both functions via distributor ring and SMW-AUTOBLOK profile seals at stopped spindle
- Built-in non-return valves maintain the air pressure during machining
- EXTRA long rapid and clamping stroke
- For external clamping only

Standard equipment

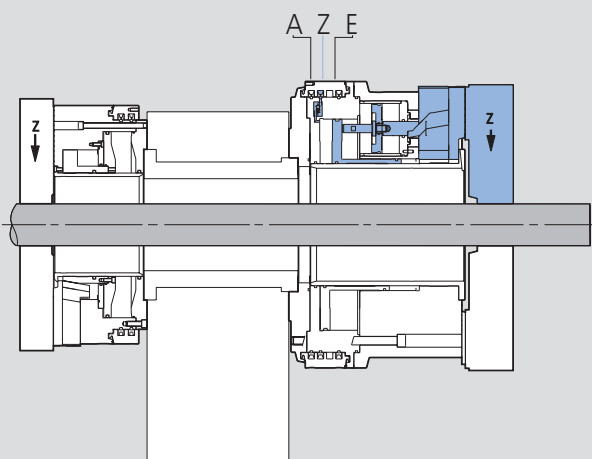
Chuck with mounting bolts
1 set of T-nuts with bolts

Ordering example

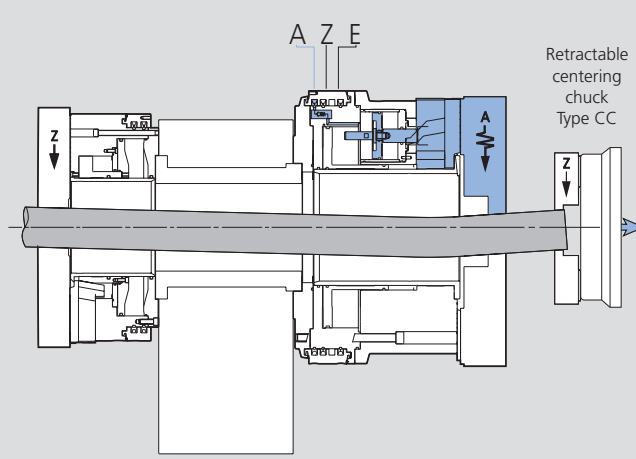
Big Bore BB-AZ2G 685-275- A15



Self-centering clamping



Compensating clamping

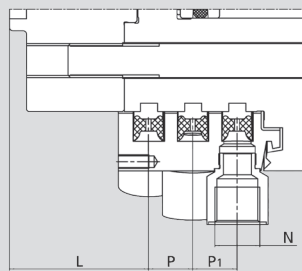
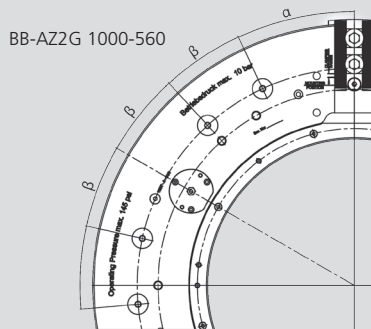
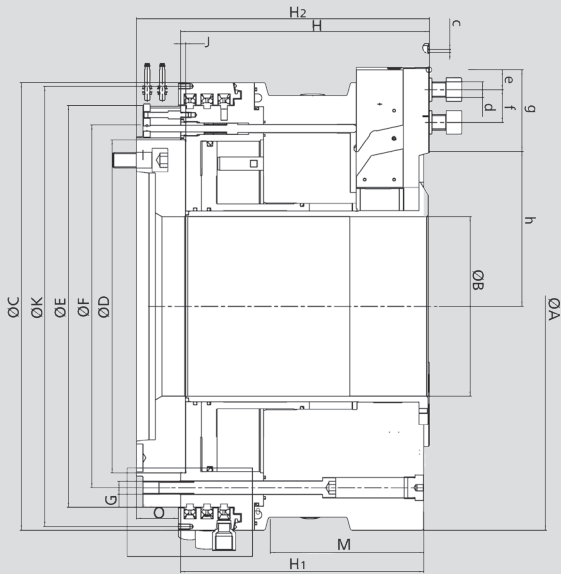


Technical data

SMW-AUTOBLOK Type		BB-AZ2G 685-275	BB-AZ2G 740-330	BB-AZ2G 800-390	BB-AZ2G 1000-560
Through-hole	mm (inch)	275 (10.83")	330 (13")	390 (15.35")	560 (22.05")
Total stroke per jaw	mm (inch)	38.1 (1 1/2")	38.1 (1 1/2")	38.1 (1 1/2")	38.1 (1 1/2")
Rapid stroke per jaw*	mm (inch)	28.7 (1.13")	28.7 (1.13")	28.7 (1.13")	28.7 (1.13")
Clamping stroke per jaw	mm (inch)	9.4 (0.37")	9.4 (0.37")	9.4 (0.37")	9.4 (0.37")
Operating pressure min. / max.	bar (psi)	2 / 10 (29 / 145)	2 / 10 (29 / 145)	2 / 10 (29 / 145)	2 / 10 (29 / 145)
Piston area	cm²	1333	1344	1505	1570
Gripping force at 6 bar self-centering	kN (lbf)	160 (35969)	160 (35969)	180 (40466)	180 (40466)
Gripping force at 6 bar compensating	kN (lbf)	90 (20233)	90 (20233)	90 (20233)	90 (20233)
Max. speed	r.p.m.	1000	850	750	500
Air consumption / jaw stroke at 6 bar					
Centering	liter	57	57	63	66
Compensating	liter	72	71	76	76
Open	liter	27	27	27	27
Weight (without top jaws)	kg (lbs)	800 (1764)	875 (1929)	1000 (2204)	1420 (3131)
Moment of inertia	kg·m²	51.5	68.4	90.5	221.4
Compensating stroke	mm (inch)	± 3.5 (0.14")	± 3.5 (0.14")	± 3.5 (0.14")	± 3.5 (0.14")

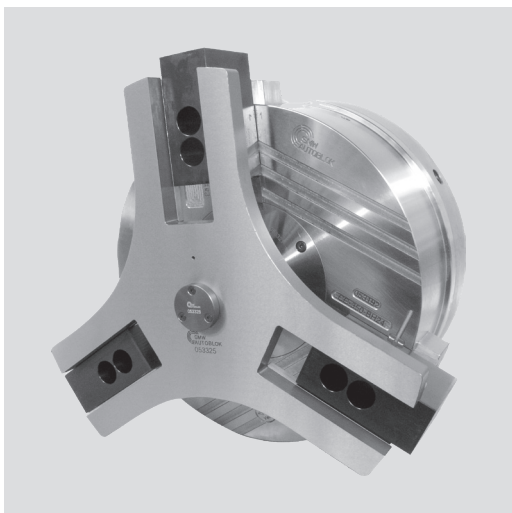
* May not be used for clamping.

INCH SERRATION

[illegible]

All hoses must be min. 3/4" I.D.

SMW-AUTOBLOK 21

**Application/customer benefits**

- Axial positioning and centering of tubes when a BB-AZ2G chuck on the main spindle is used in compensating clamping mode
- Integrated hydraulic dampener with fixed end position for controlled deceleration and positioning of tubes
- Suitable for O.D. and I.D. centering

Technical features

- Stationary pneumatic clamping unit with integrated dampener / end stop
- Operating pressure 2 - 10 bar (29 - 145 psi)
- Monitoring of end position of the axial stop via prox. switch (prox. switch optional)

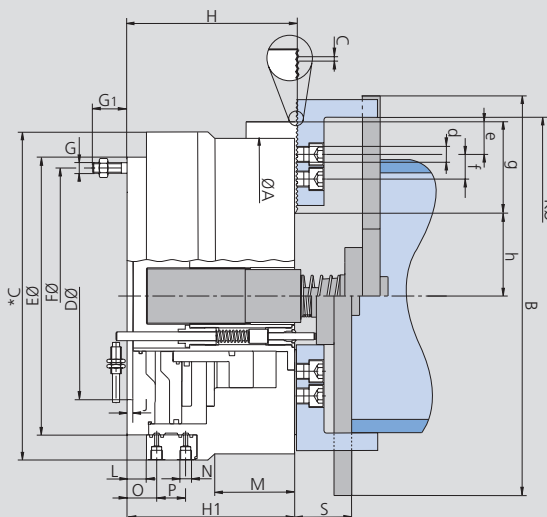
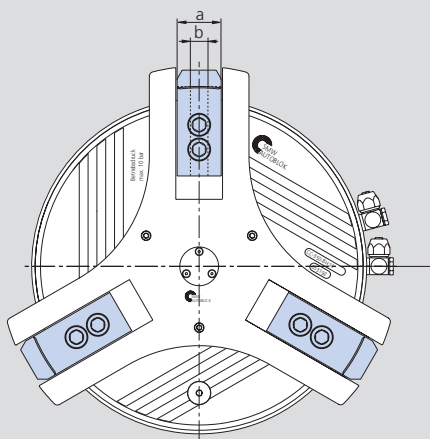
Standard equipment

3-jaw centering chuck
1 set of soft top jaws

Ordering example

Stationary centering chuck CC-350

* Chuck CC-240 has fixed positioned connections.



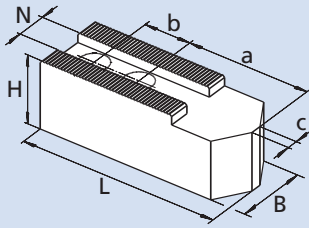
Subject to technical changes.
For more detailed information please ask our customer service.

SMW-AUTOBLOK Type			CC 240 Z	CC 350 Z	CC 470 Z
Id. No.			053290	053192	054470
	A	mm	240	360	470
	B	mm	306	446	550
	C	mm	250	372	n.a.
	D H6	mm	195	235	310
	E	mm		315	400
	F	mm	223.8	290.5	374
	G/G1	mm	M12 / 39	M12 / 39	M12 / 26
	H	mm	135.5	191.5	239.5
	H1	mm	134	190	238
	J	mm	6.5	6.5	8
Clamping Ø max.	K	mm	245	365	507
	L	mm	—	21	20
	M	mm	49	92	n.a.
Pneumatic connection	N	inch	G 1/4"	G 1/4"	G 1/2"
Min. / max.	S	mm	45 / 95	47 / 97	50.5 / 152.5
	a	mm	40	44	60
	o	mm	74	33	37
	p	mm	—	33	26
	b f7	mm	17	21	25.5
Serration	c	inch	1/16" x 90°	1/16" x 90°	3/32" x 90°
Bolts ISO 4762 12.9	d	mm	M12 x 30	M16 x 35	M20 x 45
Min.	e	mm	9.5	12	15
T-nut distance min. / max.	f	mm	22 / 41.5	25 / 72	35 / 68
Length of serration	g	mm	59	95	99
Min. / max.	h	mm	53 / 66	85 / 109	128 / 153
Stroke / jaw		mm (inch)	12.7 (0.5")	24 (0.94")	25 (0.98")
Pressure min. / max.		bar (psi)	2 / 10 (29 / 145)	2 / 10 (29 / 145)	2 / 10 (29 / 145)
Piston area		cm²	290	486	652
Max. gripping force at 6 bar (closing)		kN (lbf)	20 (4496)	31 (6969)	40 (8992)
Air consumption / jaw stroke at 6 bar		liter	5.5	13.5	21
Weight (without top jaws)		kg (lbs)	53 (11915)	115 (25853)	260 (58450)

- Top jaws
- T-nuts

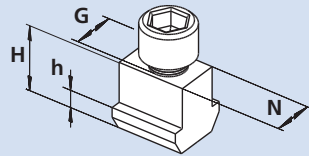
INCH SERRATION

MWB-D / MAB-D Soft top jaws



Chuck Type	CC 240 Z	CC 350 Z	CC 470 Z
Jaw type	MWB-D 240	MWB-D 250	MAB-D 2505
Jaw Id. No. (set)	233462	013491	081603
B	40	50	60
H	80	80	120
L	90	120	155
N	17	21	25.5
Serration	1/16" x 90°	1/16" x 90°	3/32" x 90°
a	20	62	94
b	22	28	35
kg / set	4.2	10.5	21.5

NST T-nuts



Chuck Type	CC 240 Z	CC 350 Z	CC 470 Z
T-nut type	NST 17-4	NST 21-5	NST 21-5
T-nut Id. No. / piece	013864	033429	014812
N	17	21	25.5
H	26.5	30	29
h	9.5	11	11
G	M12	M16	M20
Bolt ISO 4762 12.9	M12 x 30	M16 x 35	M20 x 40

JAWS-CATALOG

Request or
download:
www.smw-autoblok.com



BIG BORE® BB-FZA2G

INCH SERRATION

Front-end pneumatic 6-jaw sequence chuck EXTRA large through-hole Ø 275 - 390 mm

- Chuck size 740 - 920
- 3 integrated centering jaws and 3 compensating jaws



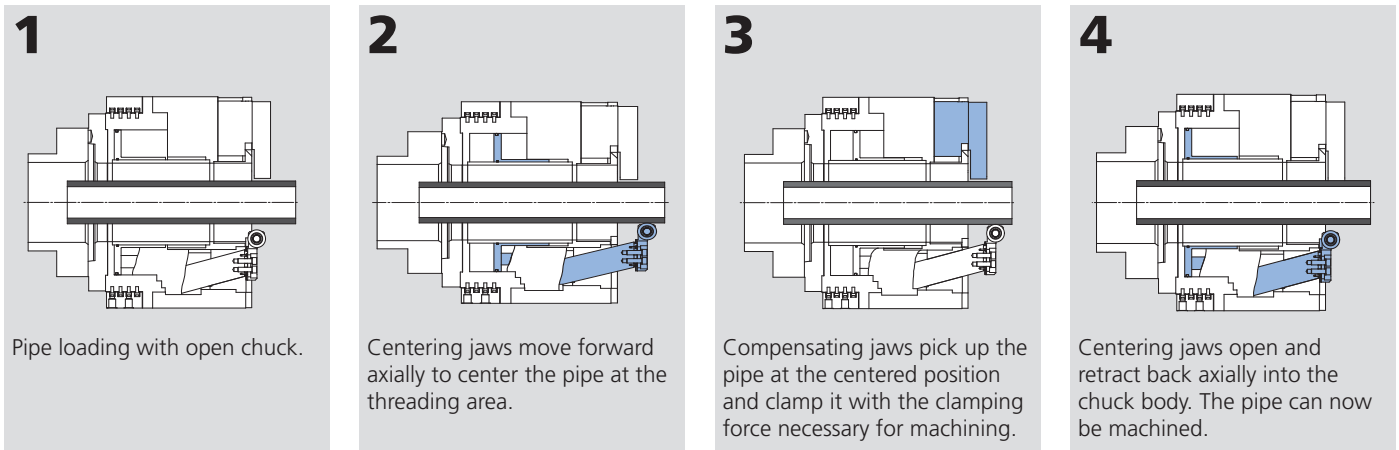
Application/customer benefits

- EXTRA long axial and radial stroke for centering jaws
- Adjustability of the axial centering position for pipe threading
- EXTRA long rapid and clamping stroke (1 1/2" total) for compensating jaws
- Stroke control for centering jaws
- Stroke control for each compensating jaw
- Pressure control

Technical features

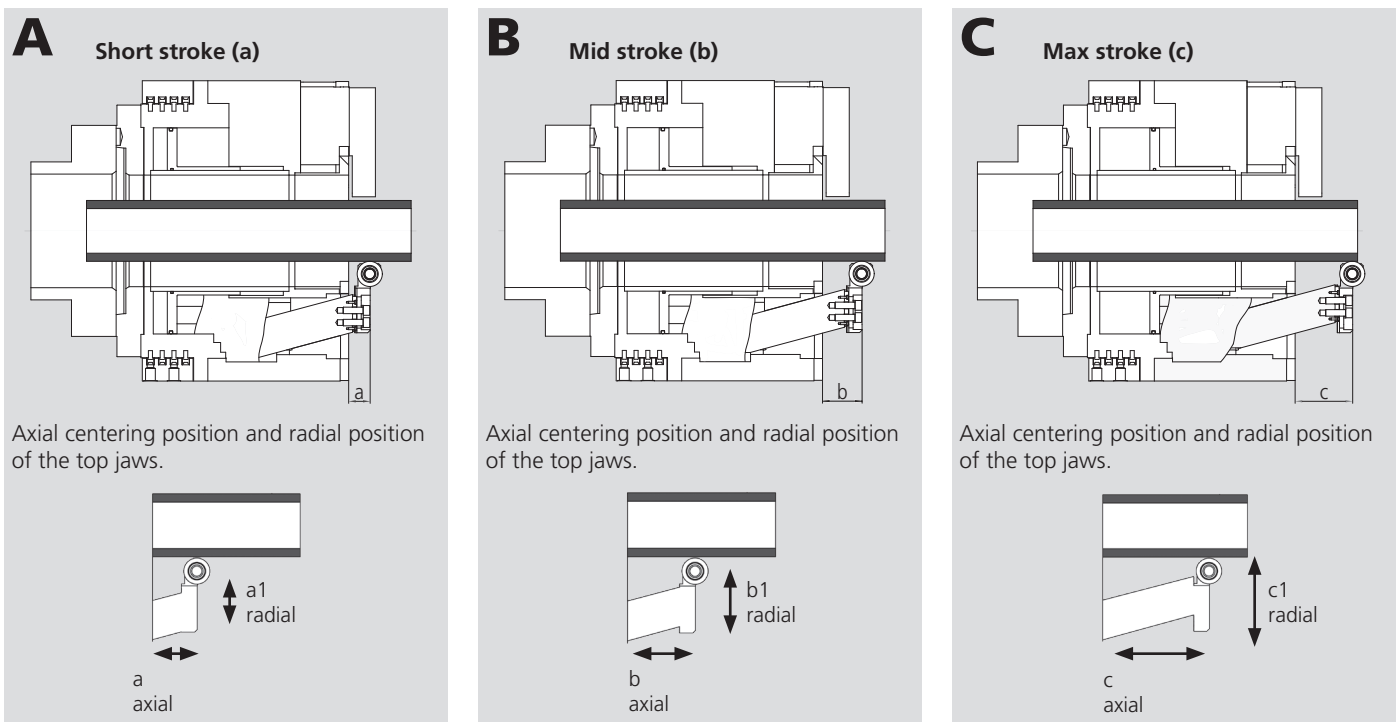
- 3+3 jaw air chuck with 3 integrated centering jaws and 3 compensating jaws
- Integrated centering jaws move axially forward to center the pipe exactly at the area to be threaded
- For external clamping only
- Fully automatic sequence is programmable
- EXTRA long jaw stroke
- Possibility to adjust the axial centering position through the radial position of the centering jaws

Machining of bent pipe with chuck with integrated centering jaws:



Adjustability of the axial centering position

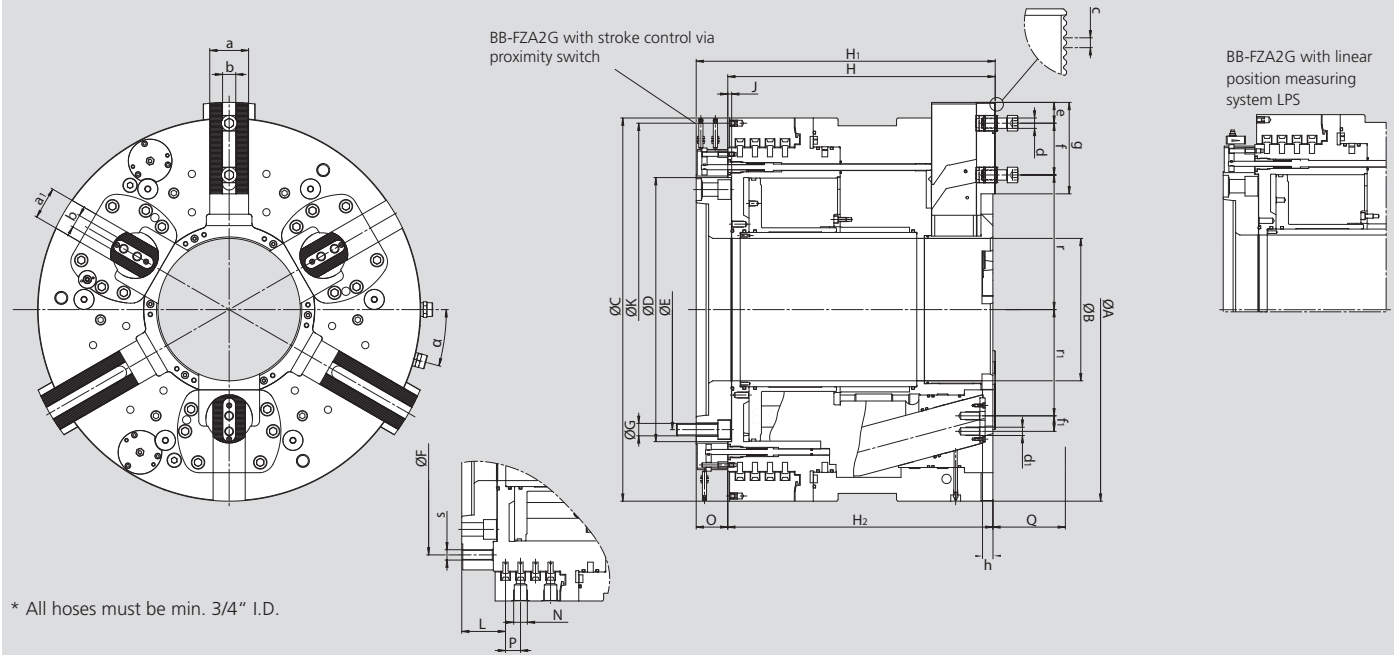
By changing the radial position of the top jaws, the axial centering position can be changed. The axial centering position is dependent from the radial adjustment of the top jaws.



BIG BORE® BB-FZA2G

INCH SERRATION

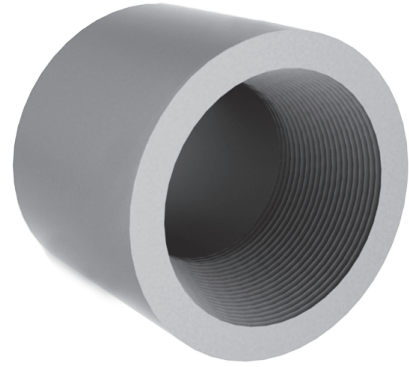
■ Main dimensions and technical data



SMW-AUTOBLOK Type			BB-FZA2G 740-275-A20	BB-FZA2G 800-330-A20	BB-FZA2G 920-390-A20
Id. No.			054159	054300	054228
Id. No. with LPS			054698	054692	054768
Chuck diameter	A	mm	740	800	920
Through-hole	B	mm	275	330	390
	C	mm	740	800	920
	D	mm	510	510	550
	E	mm	463.6	463.6	463.5
	F	mm	562	615	724
	G	mm	M24	M24	M24
	H	mm	516.5	516.5	546.5
Chuck height	H1	mm	577.5	577.5	607.5
	H2	mm	512	512	542
	J	mm	7.5	7.5	7.5
	K	mm	720 / 6 x M8	780 / 6 x M8	890 / 6 x M8
	L	mm	84.5	84.5	86.5
Connection for air hoses	N	inch	G 3/4"	G3/4"	G 3/4"
	O	mm	61	61	61
	P	mm	3x29	3x29	3x31
Centering jaws axial stroke	Q	mm	140	140	160
	a	mm	75	75	75
	a1	mm	62	62	62
	b	mm	25.5 H7	25.5 H7	25.5 H7
	c	inch	3/32" x 90°	3/32" x 90°	3/32" x 90°
Jaw mounting bolts	d	mm	M20	M20	M20
Jaw mounting bolts	d1	mm	M16	M16	M16
Min.	e	mm	30	30	30
Max.	f	mm	100	100	135
	f1	mm	30	30	30
	g	mm	176.6	176.6	190
Serration to face of chuck	h	mm	19	19	19
	r	mm	260	287.5	321
	r1	mm	205.2	232.7	270.3
	s	mm	M20	M20	M24
	α	deg.	15	15	15
Speed max.		r.p.m.	900	750	600
Gripping force compensating jaws at 6 bar		kN (lbf)	83 (18660)	83 (18660)	137 (30799)
Gripping force centering jaws at 6 bar		kN (lbf)	100 (22481)	114 (25628)	102 (22930)
Jaw stroke compensating jaws total		mm (inch)	38.1 (1 1/2")	38.1 (1 1/2")	38.1 (1 1/2")
Rapid stroke		mm (inch)	27.2 (1.07")	27.2 (1.07")	27.2 (1.07")
Clamping stroke		mm (inch)	10.9 (0.43")	10.9 (0.43")	10.9 (0.43")
Jaw stroke centering jaws max.		mm (inch)	37.5 (1.48")	37.5 (1.48")	42.7 (1.68")
Air consumption centering at 6 bar (87psi) max.		liter	92	92	142
Air consumption compensating at 6 bar (87psi) max.		liter	30	30	54
Weight (without top jaws)		kg (lbs)	1140 (2513)	1350 (2976)	1850 (4079)
Operating pressure min. / max.		bar (psi)	2 / 8 (29 / 116)	2 / 8 (29 / 116)	2 / 8 (29 / 116)
Moment of inertia		kg·m²	88	121	230



COUPLINGS



Overview couplings

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SF-RAZ2G

Page 30

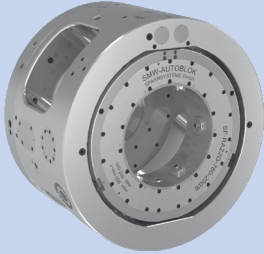
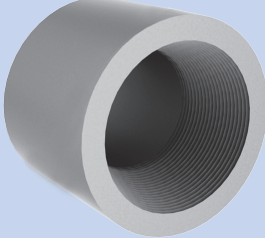
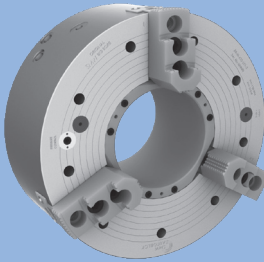
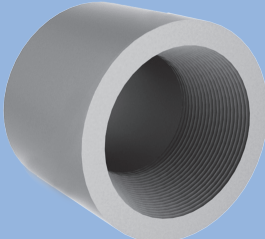
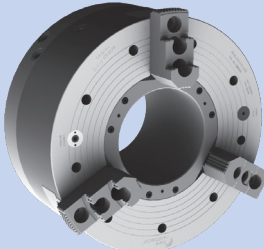
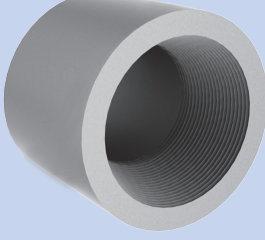
BB-N

Page 32

BB-N ES

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Notes

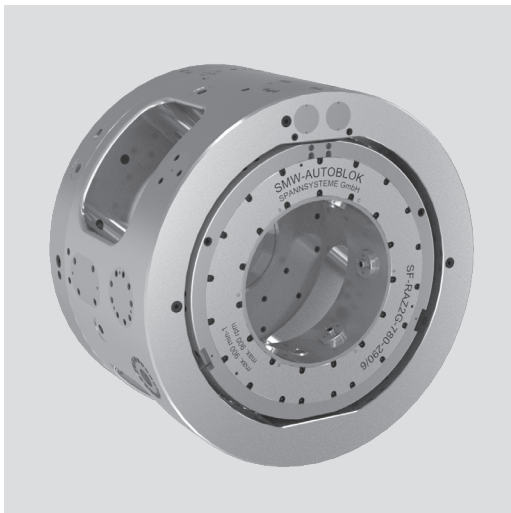
CHUCK	APPLICATION	OCTG PRODUCT	CUSTOMER BENEFITS
SF-RAZ2G Page 30 	Hydraulic ring indexing chuck for threading of couplings in 1 set-up with the original SMW type SF-RAZ2G (6-jaw clamping: 3-jaw self centering, 3-jaw compensating).		▪ 6-jaw clamping for low deformation of coupling ▪ Quick jaw movement more couplings per hour ▪ Rigid strong design and highest accuracy for all premium couplings
BB-N Page 32 	Threading of couplings in 2 set ups with the original SMW Big Bore type BB-N (3-jaw clamping).		▪ Quick jaw movement more couplings per hour ▪ Can be used for other work pieces besides coupling ▪ O.D. and I.D. clamping
BB-N ES Page 34 	Threading of couplings in 2 set-ups with the original SMW Big Bore type BB-N ES (3-jaw clamping).		▪ Quick jaw movement more couplings per hour ▪ Large jaw stroke for easy loading of couplings

SF-RAZ2G

TONGUE & GROOVE

2 Position hydraulic ring indexing chuck

- 3 self-centering and 3 compensating jaws
- Very compact design
- Fully automatic and controlled indexing
- Hydraulic actuation



Application/customer benefits

- Machining of couplings in one set-up
- Indexing 180° in 2 seconds
- 6-jaw clamping for perfect roundness of the coupling = ideal for premium threads
- High-Low clamping (roughing - finishing)
- Central coolant supply available on request

Technical features

- Better chuck to workpiece dia. ratio
- Less chuck weight on the spindle
- Extremely accurate and rigid indexing mechanism with locking system free of clearance
- All functions controlled by proximity switches
- For external clamping only
- Automatic central lubrication

Standard equipment

Chuck with mounting bolts

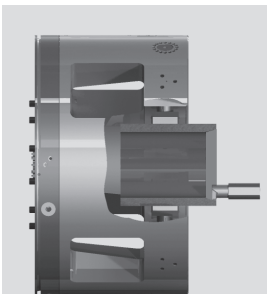
Ordering example

SF-RAZ2G 710

Accessories

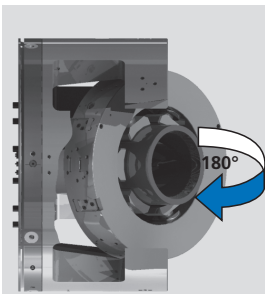
Hydraulic manifold including electric manifold, hose kit

Machining of a coupling in 1 set-up:



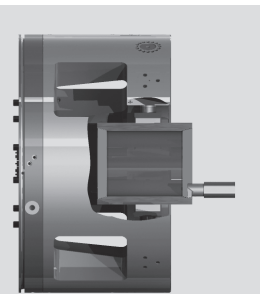
Picture 1

Clamping the coupling on the outside diameter with 6 jaws (3 self centering and 3 compensating jaws) and machining the thread on side 1.



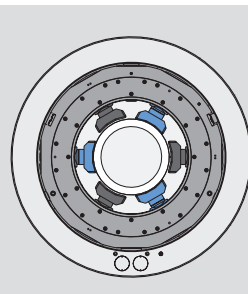
Picture 2

Indexing the chuck 180° with the coupling remaining clamped.



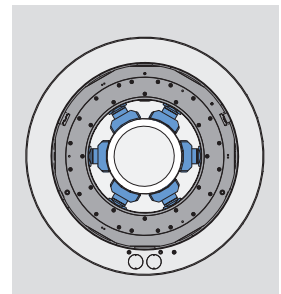
Picture 3

After indexing 180°, machining the thread on side 2.



Picture 4

3 self centering jaws center and clamp the coupling.



Picture 5

When the coupling is centered and clamped, 3 compensating jaws clamp the coupling additionally to distribute the total clamping force onto 6 jaws = less deformation of the coupling / perfect roundness of thread.

Technical data

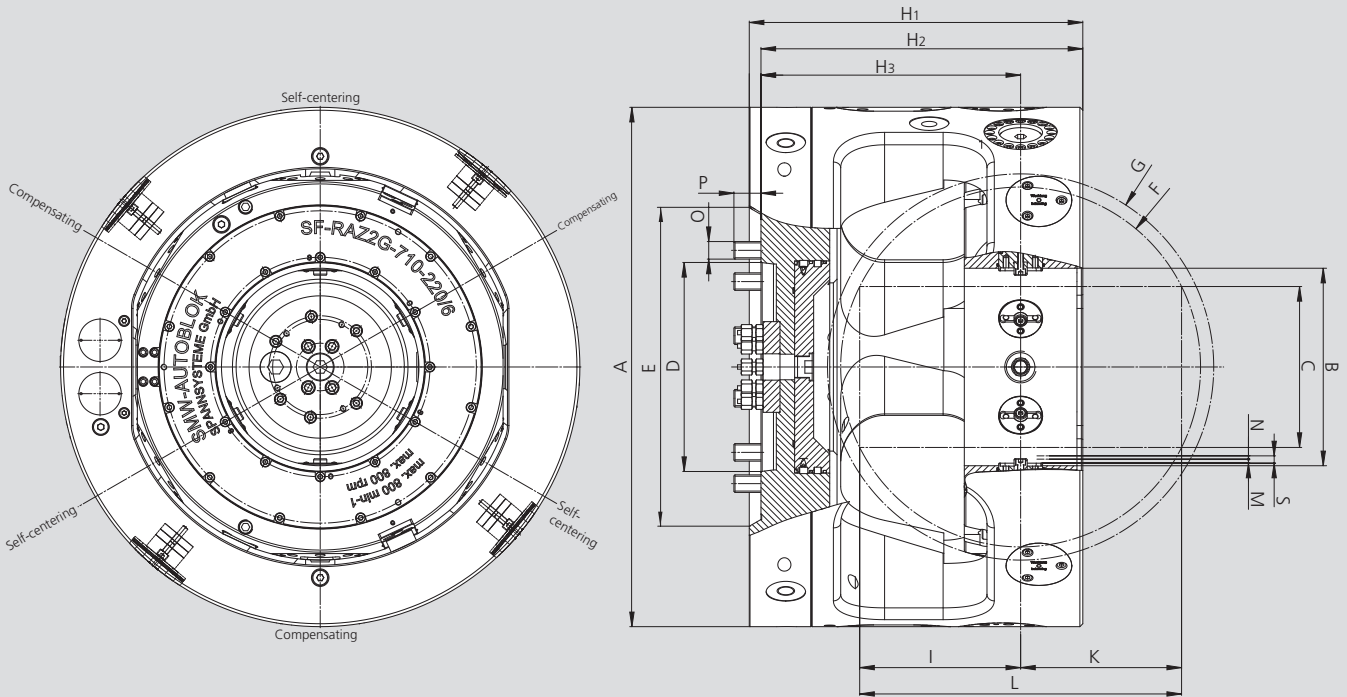
SMW-AUTOBLOK Type		SF-RAZ2G 710-220	SF-RAZ2G 780-290	SF-RAZ2G 880-390	SF-RAZ2G 1100-570
Id. No.		054720	055170	054819	on request*
Number of jaws		3+3	3+3	3+3	3+3
Chuck O.D.	mm	710	780	880	1.100
Stroke per jaw	mm	10	10	10	10
Pressure max.	bar	70	70	70	70
Clamping force at 50 bar	kN	175	175	175	175
Clamping diameter max.	mm	220	290	390	570
Speed max.	r.p.m	1100	900	700	(*)
Weight	kg	800	~ 1.015	~ 1.380	~ 2.155
Coupling size / label size	inch	7 1/2"	9 5/8"	13 3/8"	20
Wall thickness (calc.)	mm	14.75	20	25	31

* Detailed dimensions on request.

■ Main dimensions and technical data

TONGUE & GROOVE

Data sheet shows no jaw dimensions and radial covers for switches and adjustments.
Data sheet shows only general dimensions!

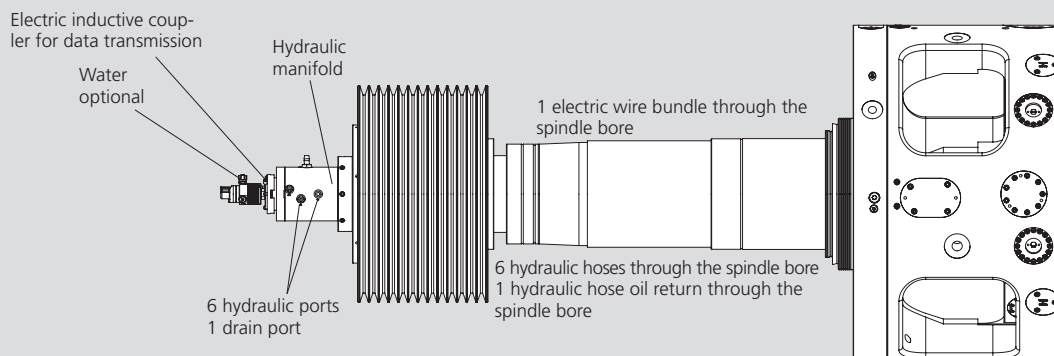


Subject to technical changes.
For more detailed information please ask our customer service.

SMW-AUTOBLOK Type			SF-RAZ2G 710-220	SF-RAZ2G 780-290	SF-RAZ2G 880-390	SF-RAZ2G 1100-570
Id. No.			054720	055170	054819	on request*
Chuck O.D.	A	mm	710	780	880	1100
Indexing ring I.D.	B	mm	270	340	440	
Max. workpiece O.D.	C	mm	220	290	390	570
Spindle mounting	D		A15	A15	A15	
Recess for spindle O.D.	E	mm	435	435	550	
Max. swing workpiece	F	mm	492	550	650	
Swing indexing ring	G	mm	528	598	698	
	H1	mm	456	491	555	
	H2	mm	440	475	539	
	H3	mm	355	390	454	
	I	mm	220	233.7	260	
	K	mm	220	233.7	260	
Max. length of workpiece	L	mm	440	467.4	520	
Rec. clamping stroke	M	mm	5.5	5.5	5.5	
Recom. residual stroke	N	mm	4.5	4.5	4.5	
Total jaw stroke	S	mm	10	10	10	
Mounting bolts	O	mm	M24	M24	M24	
	P	mm	37	37	37	

* Detailed dimensions on request.

Installation of SF-RAZ2G with hydraulic manifold, electric manifold and hose kit: (All accessories must be ordered separately)

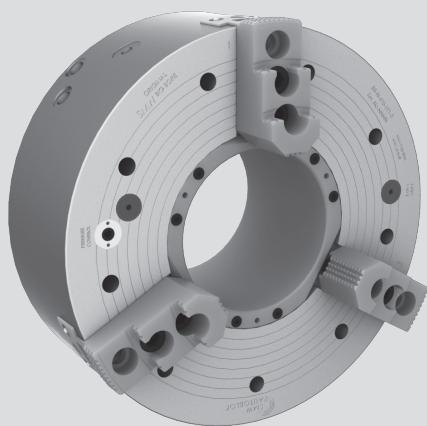


BIG BORE® BB-N

INCH
SERRATION

Front-end pneumatic power chuck
EXTRA large through-hole Ø 140 - 410 mm

- Chuck size 400 - 800
- Standard jaw stroke
- 3 jaws



Application/customer benefits

- End machining of long pipes
- Full spindle bore can be used

Technical features

- Air chuck for external / internal 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
- Jaw stroke control for O.D. and I.D. gripping (not BB-N 400-140)

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

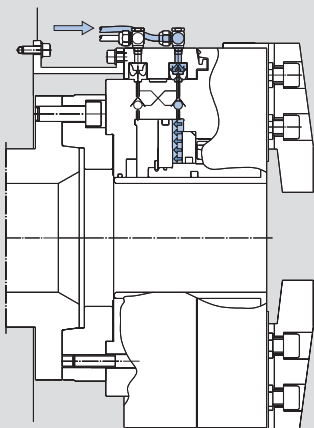
Ordering example

BIG BORE BB-N 470-191 / Z310

Accessories

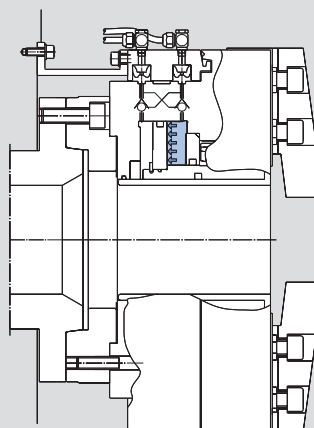
Control unit AC-BB / AC-XN
(see general catalog pages 386-389)

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



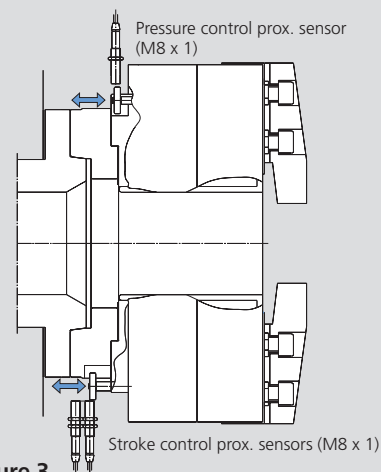
Picture 1

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.



Picture 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.

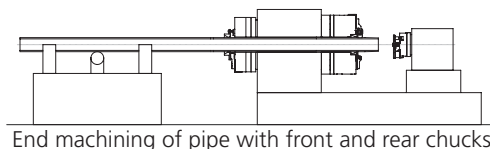


Picture 3

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.
Jaw stroke control: If the part is clamped in a not correct jaw stroke position, the switch ring moves into the proximity switch field sending an alarm signal.*

* BB-N-400-140 has no stroke control.

Technical data

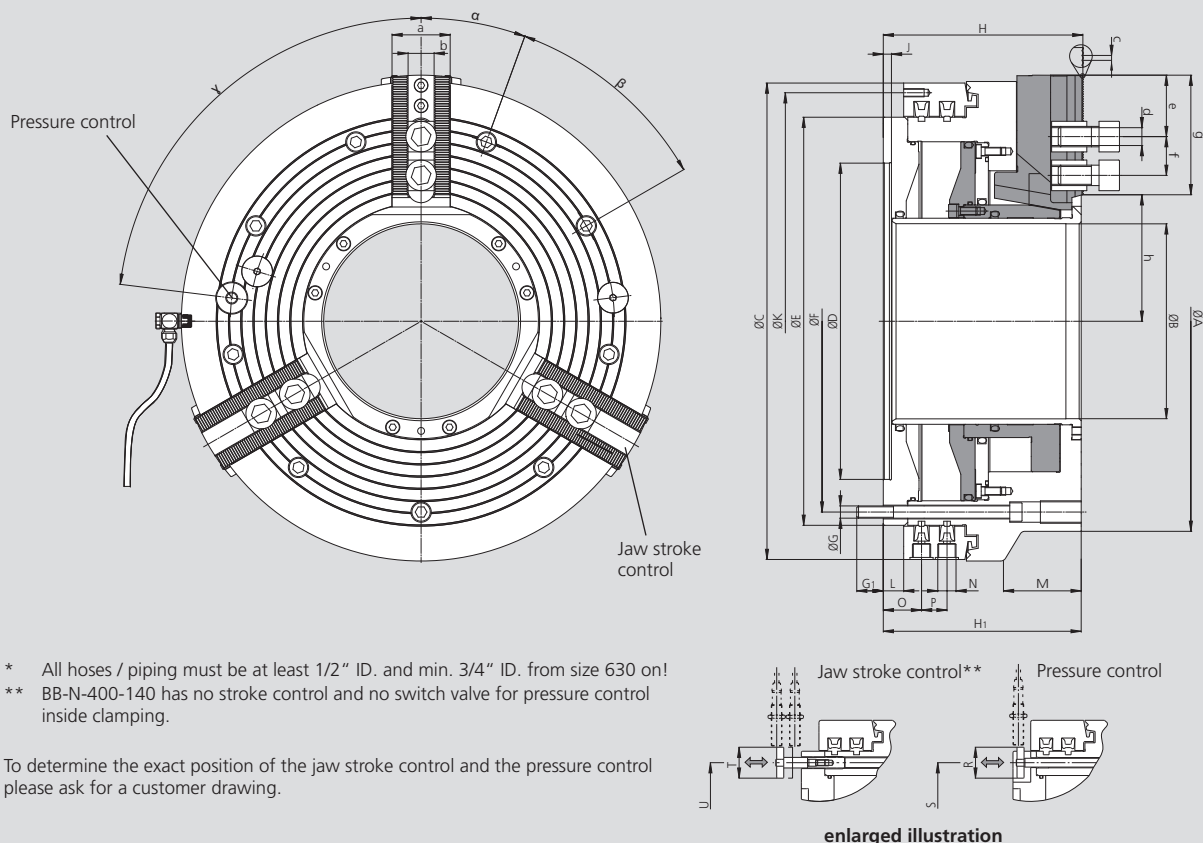


End machining of pipe with front and rear chucks

SMW-AUTOBLOK Type BB-N		400-140	470-191	500-205	500-230	600-275	630-310	800-410
Id. No.		052300	053535	053830	053832	053834	053836	053838
Through-hole	mm (inch)	140 (5.51")	191 (7.52")	205 (8.07")	230 (9.06")	275 (10.83")	310 (12.20")	410 (16.14")
Stroke per jaw	mm (inch)	7 (0.28")	7 (0.28")	8.5 (0.33")	8.5 (0.33")	8.5 (0.33")	10 (0.39")	12 (0.47")
Operating pressure min. / max.	bar (psi)	2 / 10 (29 / 145)						
Piston area	cm ²	710	565	1024	940	990	1270	2064
Gripping force at 6 bar	kN (lbf)	160 (35969)	115 (25853)	210 (47210)	190 (42714)	200 (44962)	220 (49458)	330 (74186)
Max. speed	r.p.m.	1700	1700	1300	1300	1300	1000	750
Air consumption / jaw stroke at 6 bar	liter	21	16	36	32	34	52	108
Weight (without top jaws)	kg (lbs)	150 (331)	150 (331)	230 (507)	200 (441)	270 (595)	420 (926)	650 (1433)
Moment of inertia	kg·m ²	3.22	5.66	8.53	8	15	28	71.25

■ Main dimensions and technical data

Jaw position: Open for external clamping



- * All hoses / piping must be at least 1/2" ID. and min. 3/4" ID. from size 630 on!
 ** BB-N-400-140 has no stroke control and no switch valve for pressure control inside clamping.

To determine the exact position of the jaw stroke control and the pressure control please ask for a customer drawing.

enlarged illustration

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

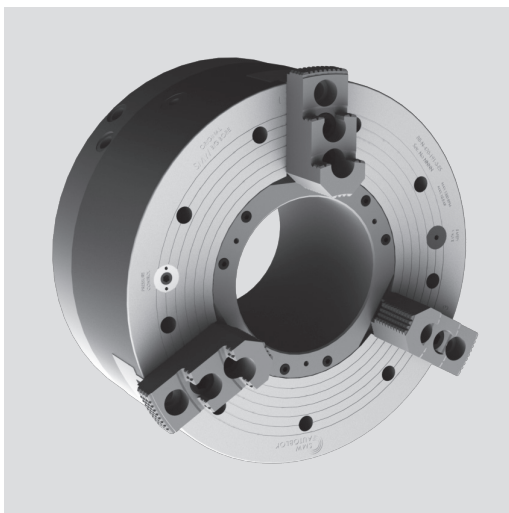
SMW-AUTOBLOK Type BB-N			400-140	470-191	500-205	500-230	600-275	630-310	800-410
Id. No.			052300	053535	053830	053832	053834	053836	053838
Mounting			Z310	Z310	Z415	Z415	Z450	Z510	Z700
Fixing bolts circle	A	mm	422	470	540	570	605	662	800
	B	mm	140	191	205	230	275	310	410
	C	mm	467	467	570	570	605	685	850
	D H6	mm	310	310	415	415	450	510	700
	E	mm	400	400	500	500	535	610	775
	F	mm	374	374	474	474	508	580	745
	G	mm	M12	M12	M12	M12	M12	M16	M16
	G1	mm	26	26	27	27	27	30	30
Thread circle 6 x M8	H	mm	196	196	225	225	225	263	305
	H1	mm	194	194	223	223	223	261	303
	J	mm	8	8	8	8	8	8	8
	K	mm	448	448	550	550	585	666	830
Pneumatic connection	L	mm	20	20	20	20	20	20	25
	M	mm	70	-	98	98	-	115	154
	N	inch	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"
	O	mm	37	37	37	37	37	39.5	44.5
	P	mm	26	26	26	26	26	33	33
	R	mm	35	35	35	35	35	42	35
	S	mm	374	374	474	474	508	575	745
	T	mm	35	35	35	35	35	35	35
Serration	U	mm	374	374	474	474	508	580	745
	a	mm	57	57	57	57	57	75	75
	b	mm	25.5	25.5	25.5	25.5	25.5	30	30
	c	inch	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
Bolt ISO 4762 12.9	d	mm	M20	M20	M20	M20	M20	M24	M24
Min.	e	mm	13	13	14	14	14	16	16
T-nuts distance min. / max.	f	mm	38 / 85	38 / 85	38 / 102	38 / 102	38 / 94	47 / 103	47 / 130
Serration length	g	mm	117.5	117	138	138	130	142	171.5
Min. / max.	h	mm	94.5 / 101.5	124 / 131	133.5 / 142	143.5 / 152	165 / 173.5	190.5 / 200.5	243 / 255
	α	deg.	20	20	15	15	15	15	15
	β	deg.	9 x 40	9 x 40	12 x 30	12 x 30	12 x 30	12 x 30	12 x 30
(Pressure control)	γ	deg.	83	83	60	60	60	60	60

BIG BORE® BB-N-ES

INCH SERRATION

Front-end pneumatic power chuck EXTRA large through-hole Ø 140 - 560 mm

- Chuck size 400 - 1000
- Extended jaw stroke
- 3 jaws



Application/customer benefits

- End machining of long pipes with upset ends
- 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-ES 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

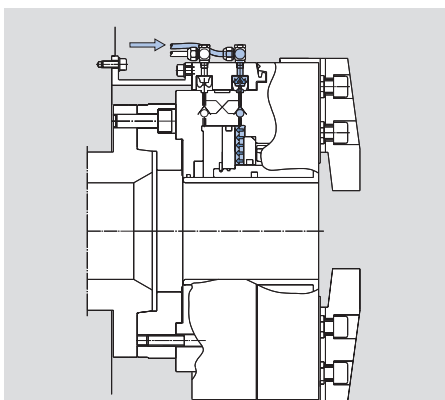
Ordering example

BIG BORE BB-N-ES 400 / Z310

Accessories

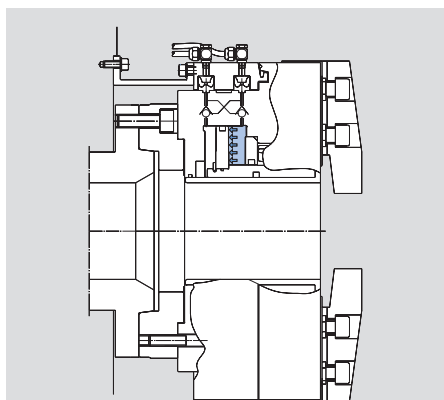
Control unit AC-BB / AC-XN
(see general catalog pages 386-389)

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



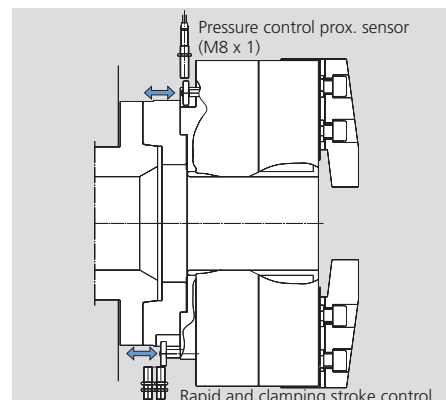
Picture 1

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.



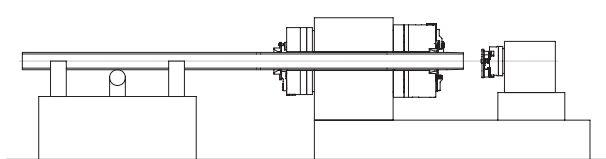
Picture 2

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.

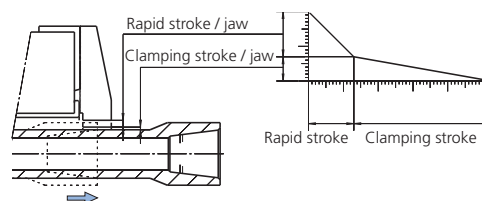


Picture 3

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.
Jaw stroke control: If the part is clamped in a not correct jaw stroke position, 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 Type BB-N-ES		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 (inch)	140 (5.51")	191 (7.52")	205 (8.07")	230 (9.06")	275 (10.83")	325 (12.80")	375 (14.76")	560 (22.05")
Total stroke per jaw	mm (inch)	20 (0.79")	20 (0.79")	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")
Rapid stroke per jaw*	mm (inch)	13 (0.51")	13 (0.51")	16.9 (0.67")	16.9 (0.67")	16.9 (0.67")	17.2 (0.67")	13.4 (0.53")	15 (0.59")
Clamping stroke per jaw	mm (inch)	7 (0.28")	7 (0.28")	8.5 (0.33")	8.5 (0.33")	8.5 (0.33")	8.2 (0.32")	12 (0.47")	10.4 (0.41")
Operating pressure min. / max.	bar (psi)	2 / 10 (29 / 145)							
Piston area	cm ²	705	565	1004	895	954	1192	1340	1090
Gripping force at 6 bar	kN (lbf)	130 (29225)	115 (25853)	190 (42714)	170 (38218)	185 (41590)	200 (44962)	200 (44962)	170 (38218)
Max. speed	r.p.m.	1300	1300	1100	1300	1100	900	750	450
Air consumption / jaw stroke at 6 bar	liter	29	22	41	37	39	48	79	57
Weight (without top jaws)	kg (lbs)	200 (441)	190 (419)	340 (750)	325 (717)	360 (794)	630 (1389)	970 (2138)	960 (2116)
Moment of inertia	kg·m ²	6.5	9.83	16.4	16.1	19	36	105	160

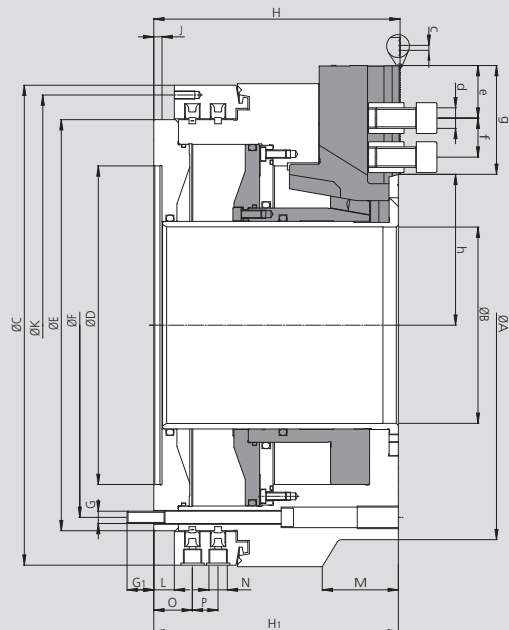
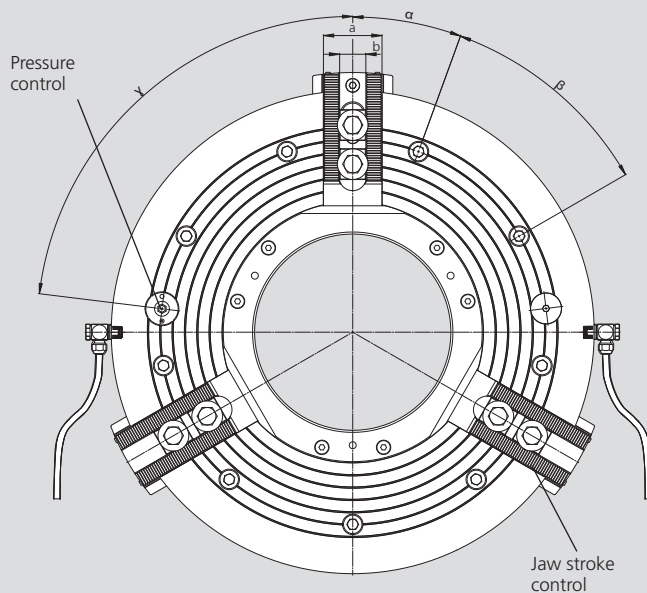
* May not be used for clamping.

BIG BORE® BB-N-ES

INCH SERRATION

■ Main dimensions and technical data

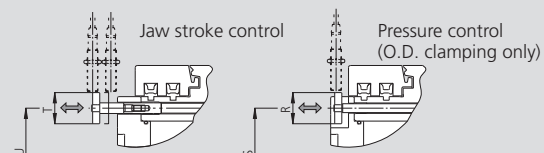
Jaw position: Open for external clamping



* All hoses / piping must be at least 1/2" ID and min 3/4" ID from chuck size 630 on.

BB-N-ES 1000 needs 2 hoses per function open / close (see installation manual).

To determine the exact position of the jaw stroke control and the pressure control please ask for a customer drawing.



enlarged illustration

Subject to technical changes.

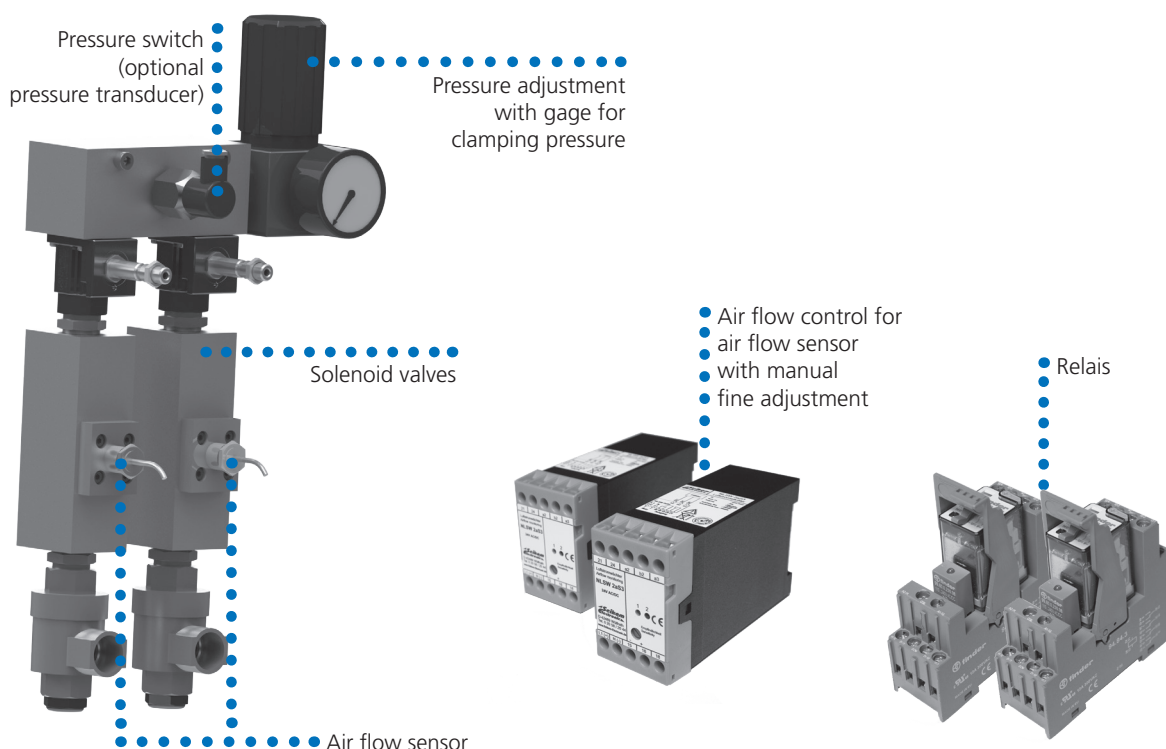
For more detailed information please ask our customer service.

SMW-AUTOBLOK Type BB-N-ES			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
Mounting			Z310	Z310	Z415	Z415	Z450	Z510	Z700	Z700
	A	mm	467	470	570	570	605	685	850	1000
	B	mm	140	191	205	230	275	325	375	560
	C	mm	467	467	570	570	605	685	850	925
	D H6	mm	310	310	415	415	450	510	700	700
	E	mm	400	400	500	500	535	610	775	850
Fixing bolts circle	F	mm	374	374	474	474	508	580	745	815
	G	mm	M12	M12	M12	M12	M12	M16	M16	M16
	G1	mm	26	26	25	25	25	30	30	30
	H	mm	240	240	282	282	282	307.5	354	332
	H1	mm	238	238	280	280	280	305.5	352	330
Thread circle 6 x M8	J	mm	8	8	8	8	8	8	8	10
	K	mm	448	448	550	550	585	666	830	910
	L	mm	20	20	20	20	20	20	25	33
	M	mm	-	-	-	-	-	-	-	224
	N	inch	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"
Pneumatic connection	O	mm	37	37	37	37	37	39.5	44.5	52.5
	P	mm	26	26	26	26	26	33	33	33
	R	mm	35	35	35	35	35	42	35	42
	S	mm	374	374	474	474	508	580	745	815
	T	mm	35	35	35	35	35	35	35	35
	U	mm	374	374	474	474	508	580	745	815
	a	mm	57	57	57	57	57	75	75	75
	b	mm	25.5	25.5	25.5	25.5	25.5	30	30	30
	c	inch	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
	d	mm	M20	M20	M20	M20	M20	M24	M24	M24
Bolt ISO 4762 12.9	e	mm	14	14	14	14	14	16	16	16
Min.	f	mm	38 / 90	38 / 85	38 / 104	38 / 92	38 / 79	47 / 100	47 / 140	47 / 125
T-nuts distance min. / max.	g	mm	121	106	140	127.5	116.5	138	182	166
Serration length	h	mm	104 / 124	127 / 147	145.6 / 171	158 / 182.5	179.1 / 204.5	204.6 / 230	242.6 / 268	334.6 / 360
Min. / max.	α	deg.	20	20	15	15	15	15	15	15
	β	deg.	9 x 40	9 x 40	12 x 30	12 x 30	12 x 30	12 x 30	12 x 30	12 x 30
(Pressure control)	γ	deg.	83	83	60	60	60	60	60	60

- Electronic safety control unit
- For SP and Big Bore chucks
- Without pressure control
- Without stroke control

Electropneumatic control unit for SP and Big Bore® chucks

- 1/2" or 3/4" design for SP and Big Bore chucks
- Actuation via foot pedal or push button (not included in the supply range)
- Clamping control via air flow sensors
- Quick chuck actuation via diaphragm valves with quick exhaust
- Airflow control with LED for ready and air flow. Adjustable air flow sensor sensitivity



SMW-AUTOBLOK Type	Voltage	Size	Id. No.
AC-BB	24 V	1/2"	202342
AC-BB	110 V	1/2"	202343
AC-BB	220 V	1/2"	202344
AC-BB	24 V	3/4"	202837
AC-BB	110 V	3/4"	202838
AC-BB	220 V	3/4"	202839

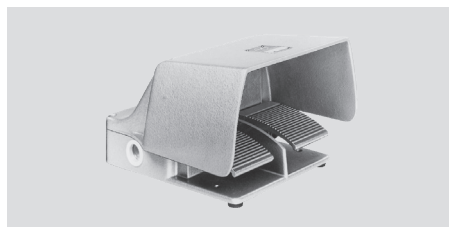
Standard equipment:

as shown, without hoses and fittings

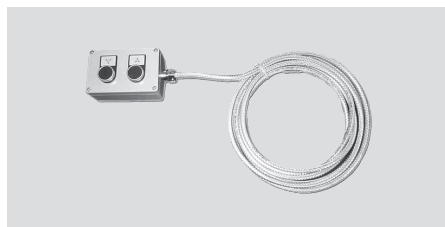
Approx. dimensions (w x h x d)
222 x 465 x 128 mm

Accessories:

Foot pedal F2 with 4 m cable
Id. No. 013324



Push button with 5 m cable
Id. No. 192942



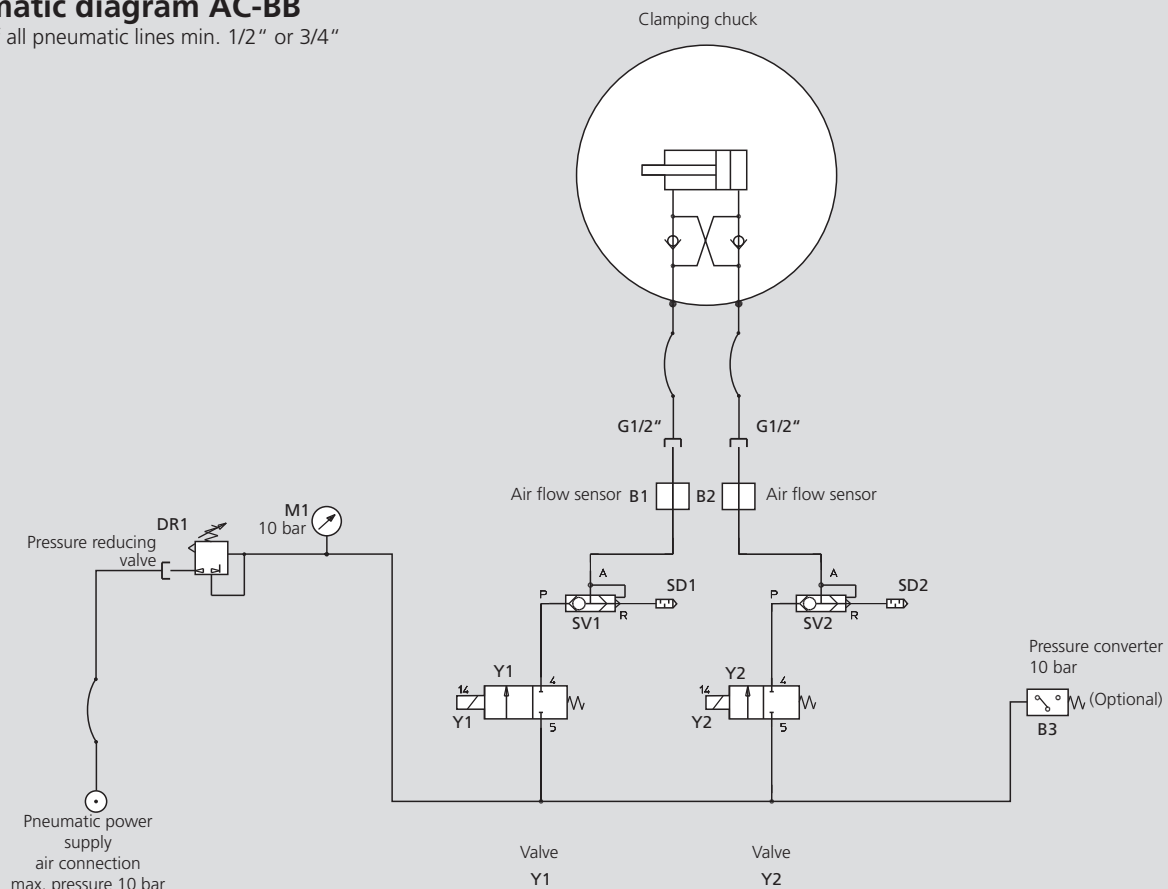
Air service unit
Id. No. 1/2" 192074,
Id. No. 3/4" 199790



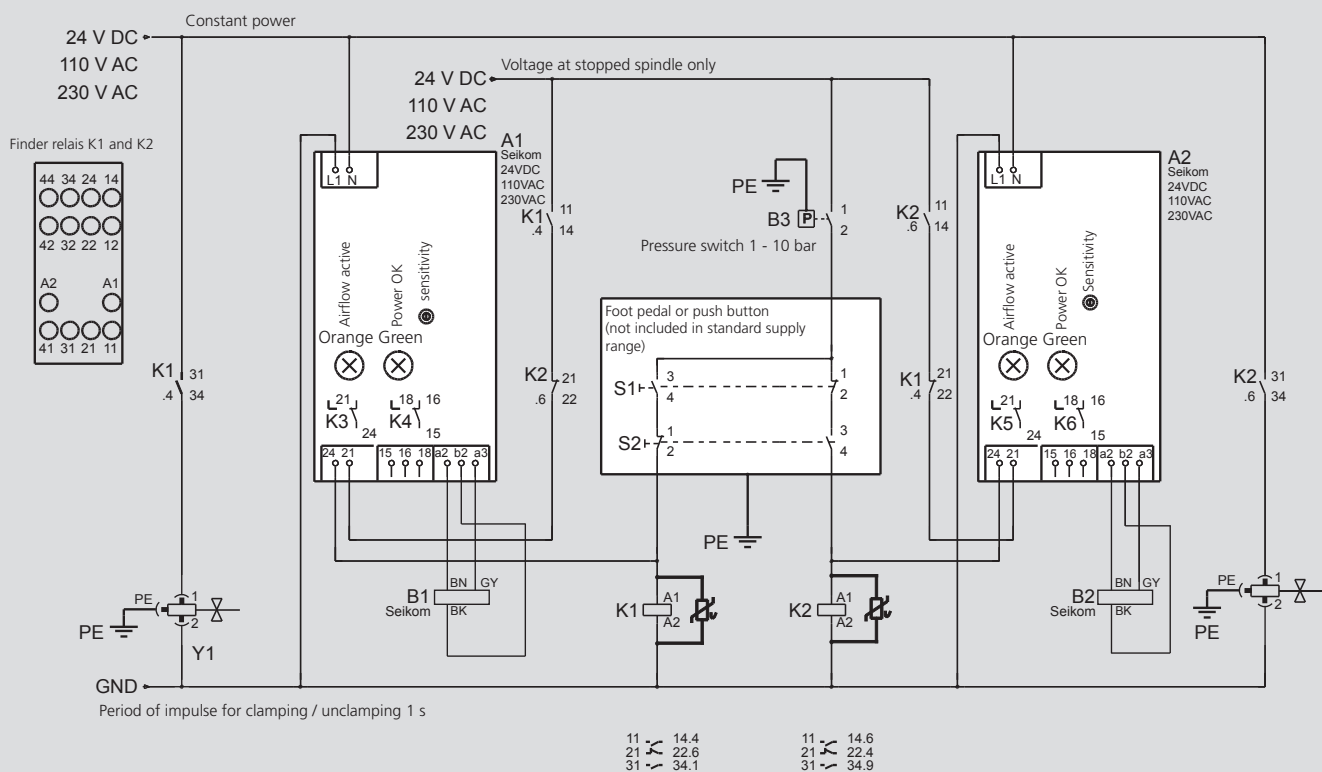
- Pneumatic diagram
- Wiring diagram

Pneumatic diagram AC-BB

⚠ Size of all pneumatic lines min. 1/2" or 3/4"



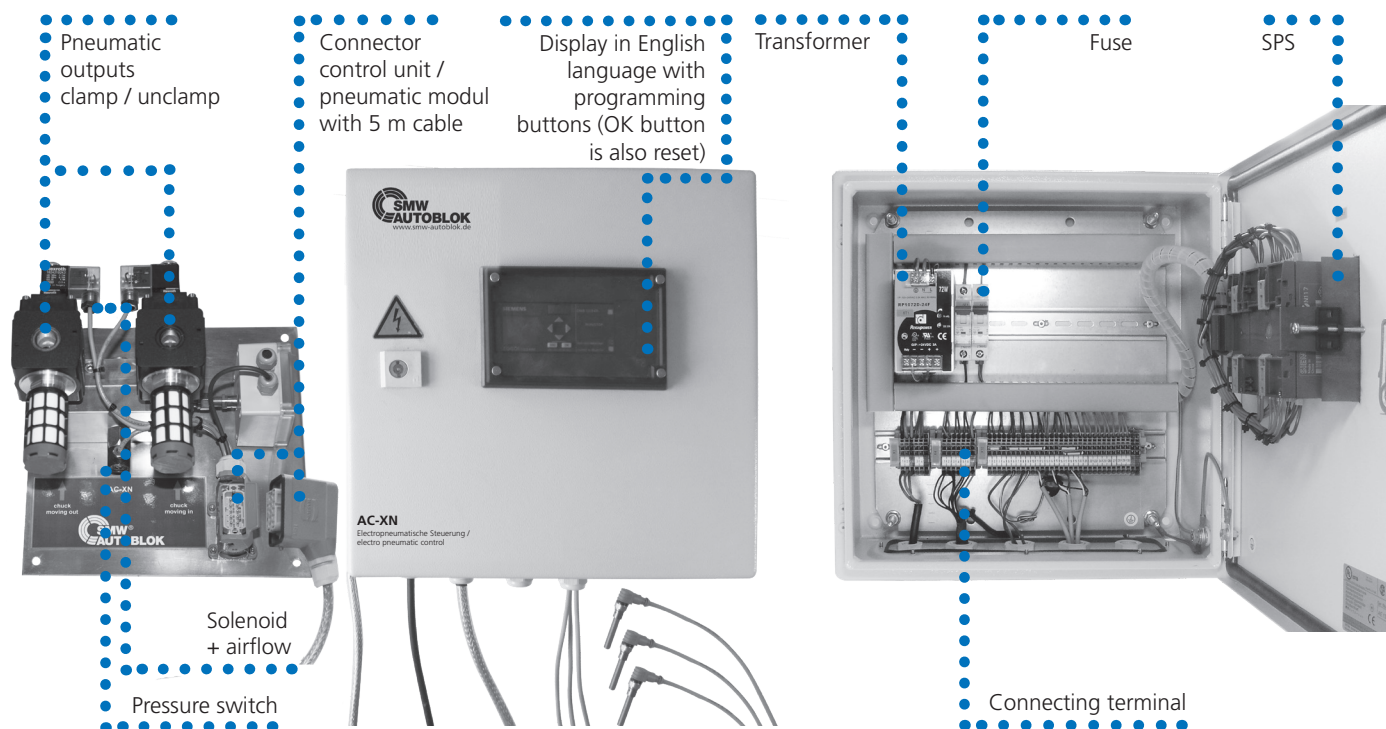
Wiring diagram AC-BB



- Electronic safety control unit
- For Big Bore chucks
- Proximity switch for pressure and stroke control signals

Universal, electronic micro-processor compact control unit for Big Bore chucks in 1/2" / 3/4" design

- All safety systems integrated
- Easy installation - no other devices needed
- Can be connected to all common voltages
- LCD display in English language
- Quick chuck actuation by 1/2" / 3/4" pneumatic parts
- To be actuated by an external signal

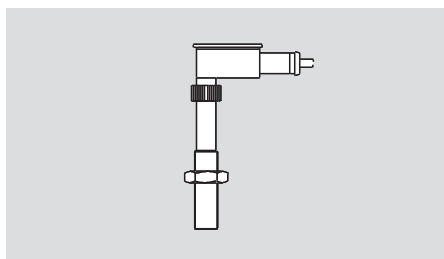


Accessories:

Foot pedal F2
with 4 m cabel
Id. No. 013324

Proximity switch for pressure and stroke control signals
M8 x 1
Id. No. 203500

Air service unit 1/2"
Id. No. 192074
Air service unit 3/4"
Id. No. 199790



Order review:

Control unit AC-XN complete 1/2"	Id. No. 203491
Control unit AC-XN complete 3/4"	Id. No. 203490

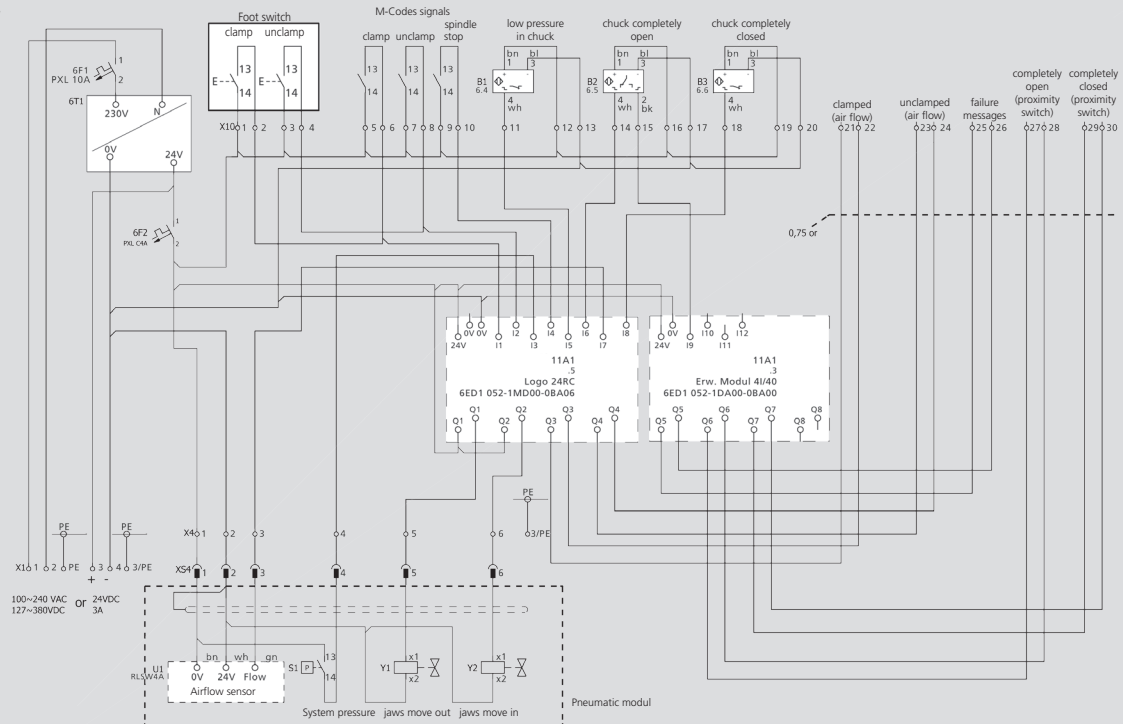
Standard equipment:

Control unit
W x H x D = 380 x 380 x 220 mm

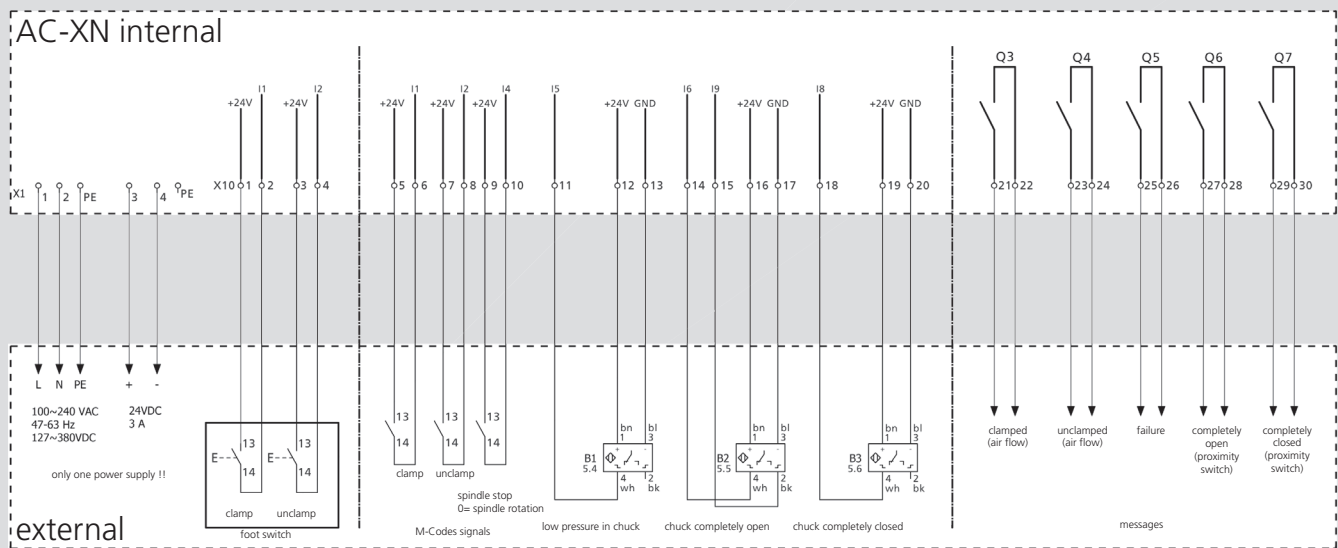
Pneumatic module 1/2" or 3/4"
W x H x D = 300 x 300 x 130 mm

3 pcs. Proximity switch M8 x 1
(Id. No. 203500) included in supply range

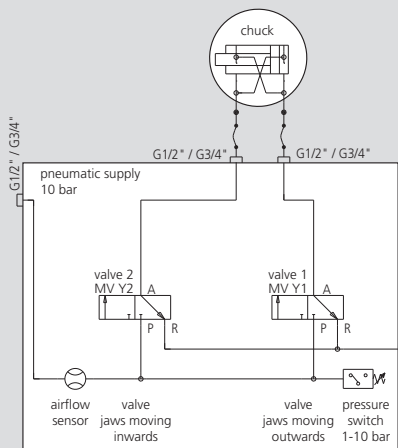
Electric connection AC-XN



Electric diagram AC-XN



Pneumatic diagram AC-XN



- Cycle clamp BB-N / BB-N ES
- Cycle clamp BB-SC

Common parts for all Big Bore air circuits:

V	Non return valve towards the pneumatic system
S	Accumulator (approx. 90 normal liter / 23 gallon)
W	Air service unit 3/4" with filter, dryer, oiler and pressure regulator (0 - 10 bar), min. flowrate 3100 l/min (819 gallon / min); rec. Type: FRL 34S; Riegler & Co. KG, Bad Urach, Germany
D	Silencer 3/4", min. flowrate 15000 l / min (3963 gallon / min); rec. Type: 2311; Festo, Esslingen, Germany
F	Air flow sensor

Used connection parts for time measuring according to page 7:

- Length of hoses from air control to chuck: 3000 mm
- Inside dia. of hoses from air control to chuck 3/4" (19 mm)

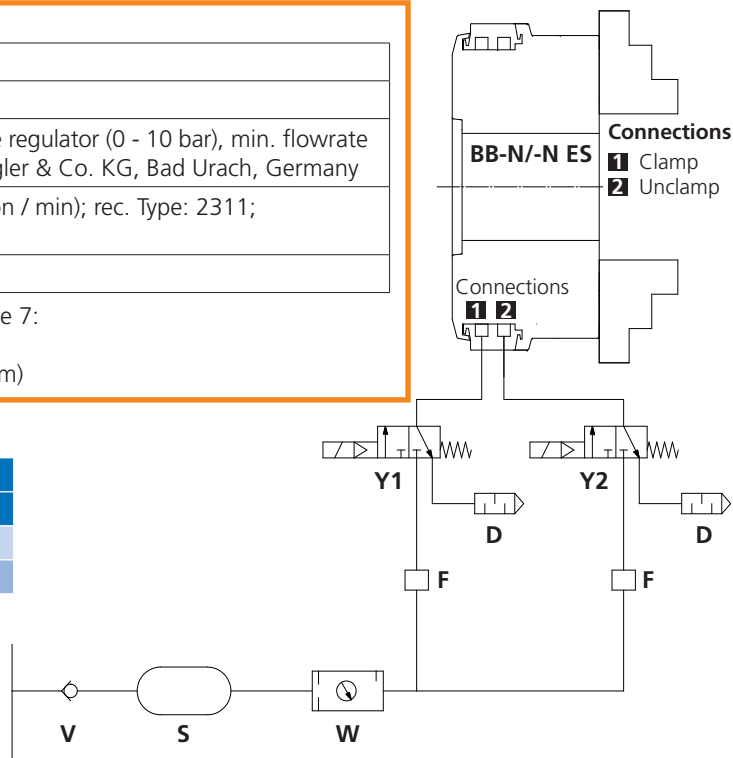
Cycle clamp BB-N / BB-N ES

action	Valve Y1	Valve Y2
clamp / unclamp	clamp	unclamp
1. chuck open		O
2. chuck clamp	O	

O = Valve actuated for jaw movement

NOTE:

All valves, hoses and fittings must be at least:
 1/2" inside dia. per function up to chuck size 600
 3/4" inside dia. per function on larger chuck sizes



Cycle standard clamp BB-SC

action	Valve Y1	Valve Y2
clamp / unclamp	unclamp	clamp
1. chuck open	X	
2. chuck clamp		O

Cycle step mode / inching BB-SC

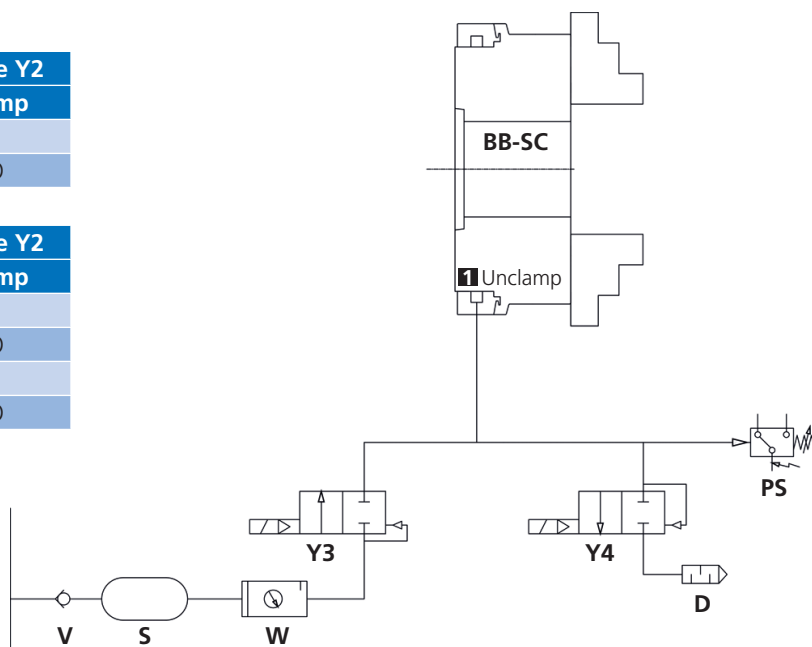
action	Valve Y1	Valve Y2
clamp / unclamp	unclamp	clamp
1. chuck open	X	
2. chuck clamp		O
3. step open	O	
4. step close		O

X = Valve permanently actuated

O = Valve actuated for jaw movement

NOTE:

All valves, hoses and fittings must be at least 3/4"



Pneumatic connection parts for BB-N/-N ES and BB-SC:

Y1/Y2	3/2 solenoid valve 1", min. flowrate 3900 l / min (1031 gallon / min); rec. Type: NL6-SOV; Bosch Rexroth, Germany
Y3/Y4	2/2 solenoid valve 3/4", min. flowrate 3100 l / min (819 gallon / min); rec. Type: EGV 121/C78/3/4"BN; AVS Roemer GmbH, Koenigsdorf, Germany
PS	Pressure switch, 0 - 10 bar, 4 - 20 mA; rec. Type: A-10-6-BG410-HD1Z-AA-AGZ; WIKA, Klingenberg, Germany
Q	Quick exhaust valves, min. flowrate 6800 l / min (1765 gallon/min) rec. Type: 573, 1"; Bosch Rexroth, Germany

Summary of pneumatic cycles and parts

Pneumatic diagrams

- Cycle clamp BB-AZ2G
- Cycle clamp BB-FZA2G

Cycle compensating clamp BB-AZ2G

action	Valve Y1	Valve Y2	Valve Y3
clamp / unclamp	clamp comp.	clamp self cent.	unclamp
1. chuck open		-	O
2. chuck compensating clamp	O	-	

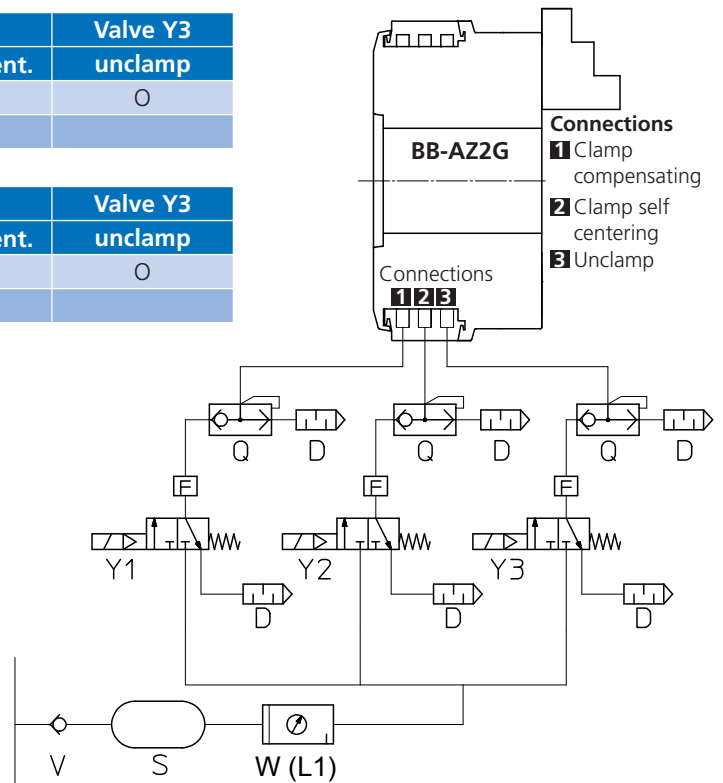
Cycle self centering clamp BB-AZ2G

action	Valve Y1	Valve Y2	Valve Y3
clamp / unclamp	clamp comp.	clamp self cent.	unclamp
1. chuck open	-		O
2. chuck centering clamp	-	O	

O = Valve actuated for jaw movement

NOTE:

All valves, hoses and fittings must be at least 3/4"



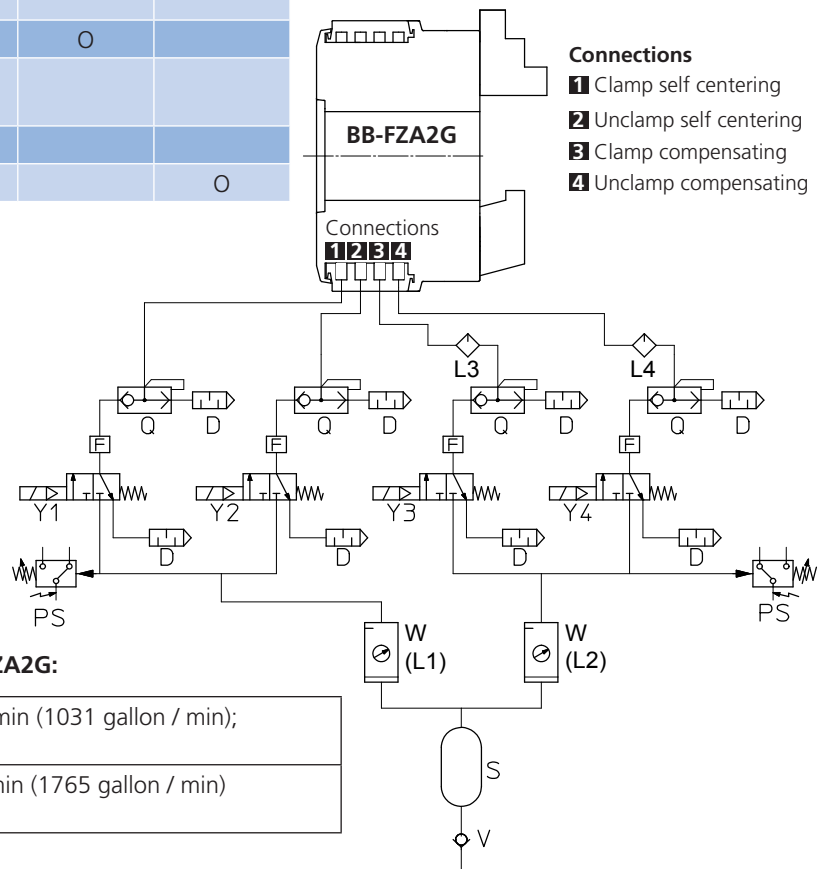
Cycle BB-FZA2G

action when pipe is loaded	Valve Y1	Valve Y2	Valve Y3	Valve Y4
clamp cent.	unclamp cent.	clamp comp.	unclamp comp.	
1. Self centering jaws forward and clamp	O			
2. Compensating jaws clamp			O	
3. Centering jaws open and retract		O		
4. Machining of pipe				
5. Compensating jaws open				O

O = Valve actuated for jaw movement

NOTE:

All valves, hoses and fittings must be at least 3/4"



Pneumatic connection parts for BB-AZ2G and BB-FZA2G:

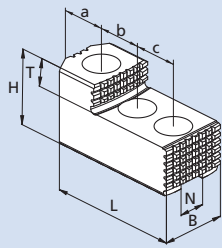
Y1/Y2/ Y3/Y4	3/2 solenoid valve 1", min. flowrate 3900 l / min (1031 gallon / min); rec. Type: NL6-SOV; Bosch Rexroth, Germany
Q	Quick exhaust valves, min. flowrate 6800 l / min (1765 gallon / min) rec. Type: 573, 1"; Bosch Rexroth, Germany

BIG BORE® BB-N

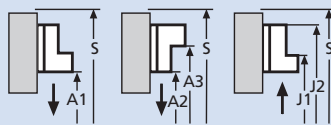
INCH
SERRATION

■ Top jaws

MHB-D Hard reversible top jaws

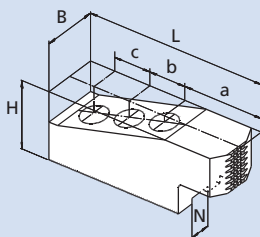


Gripping ranges

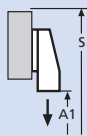


Chuck BB - N	400-140	470-191	500-205	500-230	600-275	630-310	800-410
Jaw type	MHB- D 500	MHB- D 500	MHB- D 500	MHB- D 500	MHB- D 500	MHB- D 630	MHB- D 800
Id. No. (set)	12084546	12084546	12084546	12084546	12084546	12086446	12088046
B	60	60	60	60	60	75	75
H	75	75	75	75	75	85	85
L	140	140	140	140	140	160	220
T	2x19	2x19	2x19	2x19	2x19	30	30
N	25.5	25.5	25.5	25.5	25.5	30	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	46	46	46	46	46	30	51
b	38	38	38	38	38	50	62
c	38	38	38	38	38	50	62
kg / set	6.6	6.6	6.6	6.6	6.6	13.5	19.5
A1	65 - 238	100 - 273	150 - 358	175 - 378	224 - 424	275 - 485	320 - 590
A2	110 - 284	145 - 320	200 - 405	225 - 425	348 - 548	275 - 485	330 - 600
A3	294 - 470	330 - 505	385 - 590	410 - 610	447 - 647	475 - 685	590 - 865
J1	175 - 350	210 - 385	265 - 470	285 - 490	307 - 506	395 - 610	500 - 770
J2	355 - 530	390 - 565	445 - 650	465 - 670	504 - 704	595 - 810	760 - 1030
S	585	620	705	725	735	820	1050

GAB Hard top jaws

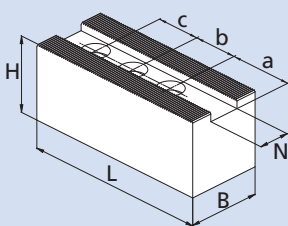


Gripping ranges

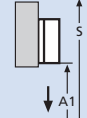


Chuck BB - N	400-140	470-191	500-205	500-230	600-275	630-310	800-410
Jaw type	GAB 500	GAB 500	GAB 500	GAB 500	GAB 500	GAB 630	GAB 800
Id. No. (set)	12085146	12085146	12085146	12085146	12085146	12086546	12089046
B	55	55	55	55	55	75	75
H	73	73	73	73	73	82	82
L	195	195	195	195	195	245	320
N	25.5	25.5	25.5	25.5	25.5	30	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	96	96	96	96	96	113	165
b	38	38	38	38	38	50	60
c	38	38	38	38	38	50	60
kg / set	16.5	16.5	16.5	16.5	16.5	31.5	40.5
A1	25 - 140	60 - 175	50 - 260	70 - 280	107 - 308	105 - 320	95 - 272
S	585	620	705	725	700	820	1010

WBSA-D / WBC-D Soft top jaws



Gripping ranges



Chuck BB - N	400-140	470-191	500-205	500-230	600-275	630-310	800-410
Jaw type	WBSA-D 500	WBSA-D 500	WBSA-D 500	WBSA-D 500	WBSA-D 500	WBC-D 630	WBC-D 800
Id. No. (pc.)	12075050	12075050	12075050	12075050	12075050	12076440	12078040
B	60	60	60	60	60	80	80
H	60	60	60	60	60	80	80
L	170	170	170	170	170	240	320
N	25.5	25.5	25.5	25.5	25.5	30	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	69	69	69	69	69	110	165
b	38	38	38	38	38	50	60
c	38	38	38	38	38	50	60
kg / piece	3.6	3.6	3.6	3.6	3.6	11	15
A1	25 - 195	60 - 230	105 - 315	125 - 325	161 - 362	110 - 325	95 - 272
S	545	580	660	680	707	815	1010

JAWS-CATALOG

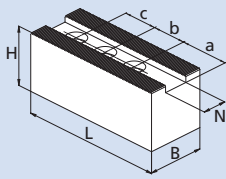
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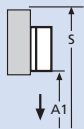
- Top jaws
- T-nuts
- Spindle Adapters

INCH
SERRATION

WBC-D, WBCL-D Soft top jaws long version

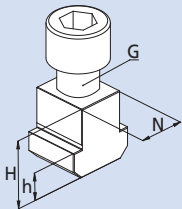


Gripping ranges



Chuck BB-N	400-140	470-191	500-205	500-230	600-275	630-310	800-410
Jaw type	WBC-D 502	WBC-D 502	WBC-D 502	WBC-D 502	WBC-D 502	WBC-D 800	WBCL-D 800
Id. No. (piece)	12075140	12075140	12075140	12075140	12075140	12078040	12079040
B	60	60	60	60	60	80	80
H	60	60	60	60	60	80	80
L	205	205	205	205	205	320	390
N	25.5	25.5	25.5	25.5	25.5	30	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	104	104	104	104	104	165	230
b	38	38	38	38	38	60	60
c	38	38	38	38	38	60	60
kg / piece	4.5	4.5	4.5	4.5	4.5	15	18
A1	-	0 - 155	35 - 245	55 - 265	91 - 292	25 - 195	25 - 235
S	-	575	660	680	707	845	1020

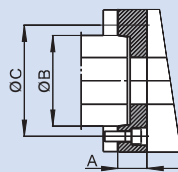
NST T-nuts



Chuck BB-N	400-140	470-191	500-205	500-230	600-275	630-310	800-410
T-nut type	NST	NST	NST	NST	NST	NST	NST
Id. No. (piece)	12065020	12065020	12065020	12065020	12065020	13063900	13063900
N	25.5	25.5	25.5	25.5	25.5	30	30
H	34	34	34	34	34	44	44
h	15	15	15	15	15	18	18
G	M20	M20	M20	M20	M20	M24	M24
Bolt ISO 4762 12.9	M20 x 40	M20 x 40	M20 x 40	M20 x 40	M20 x 40	M24 x 60	M24 x 60

Spindle adapters for BIG BORE chucks

ISO-A DIN 55026 Spindle adapters

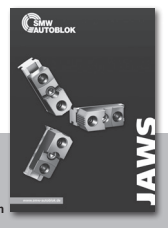


BB-N	400-140/470-191			500-205/500-230			600-275			630-310			800-410	
Spindle nose	A8	A11	A15	A11	A15	A20	A11	A15	A20	A11	A15	A20	A15	A20
Id. No.	24184020	24114020	24124020	24115030	24125020	24175020	24116020	24126020	24176020	24116320	24126320	24176320	24128020	24178020
A mm	40	40	40	40	40	40	40	40	40	50	50	50	50	50
B mm	139.719	196.869	285.775	196.869	285.775	412.775	196.869	285.775	412.775	196.869	285.775	412.775	285.775	412.775
C mm	171.4	235	330.2	235	330.2	463.6	235	330.2	463.6	235	330.2	463.6	330.2	463.6

Bayonet and camlock spindle adapters are available on request.

JAWS-CATALOG

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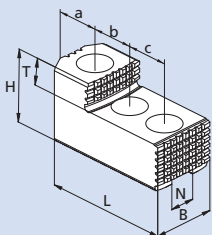
BIG BORE® BB-N-ES

INCH SERRATION

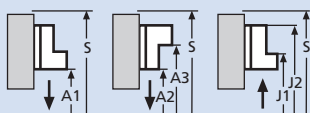
■ Top jaws

MHB-D

Hard reversible top jaws



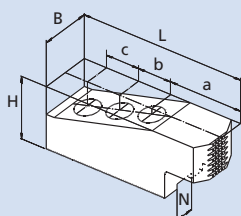
Gripping ranges



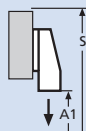
Chuck BB-N-ES	400-140	470-191	500-205	500-230	600-275	630-325	850-375	1000-560
Jaw type	MHB-D 500	MHB-D 500	MHB-D 500	MHB-D 500	MHB-D 500	MHB-D 630	MHB-D 800	MHB-D 800
Id. No.	12084546	12084546	12084546	12084546	12084546	12086446	12088046	12088046
B	60	60	60	60	60	75	75	75
H	75	75	75	75	75	85	85	85
L	140	140	140	140	140	160	220	220
T	2 x 19	2 x 19	2 x 19	2 x 19	2 x 19	30	30	30
N	25.5	25.5	25.5	25.5	25.5	30	30	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	46	46	46	46	46	30	51	51
b	38	38	38	38	38	50	62	62
c	38	38	38	38	38	50	62	62
kg / set	6.6	6.6	6.6	6.6	6.6	13.5	19.5	19.5
A1	78-264	113-270	175-388	200-388	252-422	295-500	320-610	470-760
A2	125-310	160-315	225-435	250-435	376-546	295-500	330-620	480-770
A3	310-495	345-500	410-620	435-620	475-645	495-700	590-865	745-1030
J1	-	-	-	-	-	-	-	-
J2	-	-	-	-	-	-	-	-
S	635	640	765	765	765	870	1070	1250

GAB

Hard top jaws



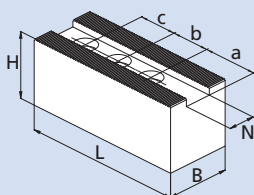
Gripping ranges



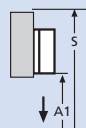
Chuck BB-N-ES	400-140	470-191	500-205	500-230	600-275	630-325	850-375	1000-560
Jaw type	GAB 500	GAB 500	GAB 500	GAB 500	GAB 500	GAB 630	GAB 800	GAB 800
Id. No.	12085146	12085146	12085146	12085146	12085146	12086546	12089046	12089046
B	55	55	55	55	55	75	75	75
H	73	73	73	73	73	82	82	82
L	195	195	195	195	195	245	320	320
N	25.5	25.5	25.5	25.5	25.5	30	30	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	96	96	96	96	96	113	165	165
b	38	38	38	38	38	50	60	60
c	38	38	38	38	38	50	60	60
kg / set	16.5	16.5	16.5	16.5	16.5	31.5	40.5	40.5
A1	25-160	60-165	75-290	100-290	135-306	130-335	95-385	245-535
S	635	640	765	765	740	870	1060	1210

WBSA-D / WBC-D

Soft top jaws



Gripping ranges



Chuck BB-N-ES	400-140	470-191	500-205	500-230	600-275	630-325	850-375	1000-560
Jaw type	WBSA-D 500	WBSA-D 500	WBSA-D 500	WBSA-D 500	WBSA-D 500	WBC-D 630	WBC 800	WBC-D 800
Id. No. (pc.)	12075050	12075050	12075050	12075050	12075050	12076440	12078040	12078040
B	60	60	60	60	60	80	80	80
H	60	60	60	60	60	80	80	80
L	170	170	170	170	170	240	320	320
N	25.5	25.5	25.5	25.5	25.5	30	30	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	69	69	69	69	69	110	165	165
b	38	38	38	38	38	50	60	60
c	38	38	38	38	38	50	60	60
kg / piece	3.6	3.6	3.6	3.6	3.6	11	15	15
A1	35-220	70-225	130-335	155-335	189-360	135-340	95-385	245-535
S	590	595	720	720	740	865	1060	1210

JAWS-CATALOG

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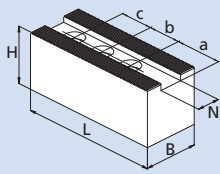


BIG BORE® BB-N-ES

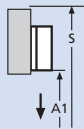
INCH SERRATION

- Top jaws
- T-nuts
- Spindle adapters

WBC-D, WBCL-D Soft top jaws long version

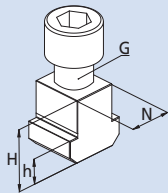


Gripping ranges



Chuck BB-N-ES	400-140	470-191	500-205	500-230	600-275	630-325	850-375	1000-560
Jaw type	WBC-D 502	WBC-D 502	WBC-D 502	WBC-D 502	WBC-D 502	WBC-D 800	WBCL-D 800	WBCL-D 800
Id. No. (pc.)	12075140	12075140	12075140	12075140	12075140	12078040	12079040	12079040
B	60	60	60	60	60	80	80	80
H	60	60	60	60	60	80	80	80
L	205	205	205	205	205	320	390	390
N	25.5	25.5	25.5	25.5	25.5	30	30	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	104	104	104	104	104	165	230	230
b	38	38	38	38	38	60	60	60
c	38	38	38	38	38	60	60	60
kg	4.5	4.5	4.5	4.5	4.5	15	18	18
A1	-	0-150	60-275	85-275	119-290	25-210	25-255	115-405
S	-	595	720	720	740	895	1070	1220

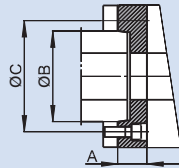
NST T-nuts



Chuck BB-N-ES	400-140	470-191	500-205	500-230	600-275	630-325	850-375	1000-560
T-nut type	NST	NST	NST	NST	NST	NST	NST	NST
Id. No. (pc.)	12065020	12065020	12065020	12065020	12065020	13063900	13063900	13063900
N	25.5	25.5	25.5	25.5	25.5	30	30	30
H	34	34	34	34	34	44	44	44
h	15	15	15	15	15	18	18	18
G	M 20	M 20	M 20	M 20	M 20	M 24	M24	M 24
Bolt ISO 4762 12.9	M20 x 40	M20 x 40	M20 x 40	M20 x 40	M20 x 40	M24 x 60	M24 x 60	M24 x 60

Spindle adapters for BIG BORE chucks

ISO-A DIN 55026 Spindle adapters



BB-N-ES	400-140/470-191			500-205/500-230			600-275			630-325			850-375		1000-560	
Spindle nose	A8	A11	A15	A11	A15	A20	A11	A15	A20	A11	A15	A20	A15	A20	A15	A20
Id. No.	24184020	24114020	24124020	24115030	24125020	24175020	24116020	24126020	24176020	24116320	24126320	24176320	24128020	24178020	on request	
A	mm	40	40	40	40	40	40	40	40	50	50	50	50	50		
B	mm	139.719	196.869	285.775	196.869	285.775	412.775	196.869	285.775	412.775	196.869	285.775	412.775	285.775	265.775	412.775
C	mm	171.4	235	330.2	235	330.2	463.6	235	330.2	463.6	235	330.2	463.6	330.2	330.2	463.6

Bayonet and camlock spindle adapters are available on request.

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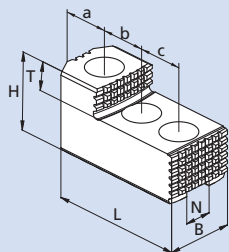
BIG BORE® BB-EXL2G

INCH SERRATION

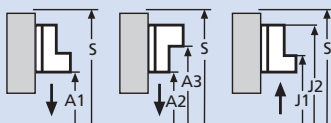
■ Top jaws

MHB-D

Hard reversible top jaws



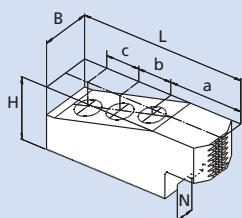
Gripping ranges



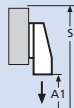
Chuck BB-EXL2G	510-191	660-280	900-390
Jaw type	MHB-D 500	MHB-D 500	MHB-D 800
Id. No.	12084546	12084546	12088046
B	60	60	75
H	75	75	85
L	140	140	220
T	2 x 19	2 x 19	30
N	25.5	25.5	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	46	46	51
b	38	38	62
c	38	38	62
kg / set	6.6	6.6	19.5
A1			
A2			
A3			
J1			
J2			
S			

GAB

Hard top jaws



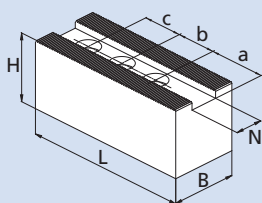
Gripping ranges



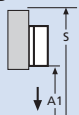
Chuck BB-EXL2G	510-191	660-280	900-390
Jaw type	GAB 500*	GAB 660	GAB 800
Id. No.	12085146	12086646	12089046
B	55	55	75
H	73	73	82
L	195	255	320
N	25.5	25.5	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	96	156	165
b	38	38	60
c	38	38	60
kg / set	16.5	26.7	40.5
A1			
S			

WBSA-D / WBC-D

Soft top jaws



Gripping ranges



Chuck BB-EXL2G	510-191	660-280	900-390
Jaw type	WBSA-D 500	WBSA-D 500	WBC 800
Id. No. (pc.)	12075050	12075050	12078040
B	60	60	80
H	60	60	80
L	170	170	320
N	25.5	25.5	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	69	69	165
b	38	38	60
c	38	38	60
kg / piece	3.6	3.6	15
A1			
S			

* For small clamping dia. please use hard top jaws type GAB-660.

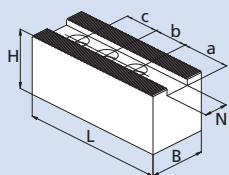


JAWS-CATALOG

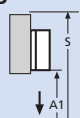
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- Top jaws
- T-nuts
- Adapters

WBC-D, WBCL-D Soft top jaws long version

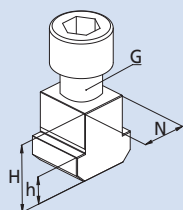


Gripping ranges



Chuck BB-EXL2G	510-191	660-280	900-390
Jaw type	WBC-D 502	WBC-D 502	WBCL-D 800
Id. No. (piece)	12075140	12075140	12079040
B	60	60	80
H	60	60	80
L	205	205	390
N	25.5	25.5	30
Serration	3/32" x 90°	3/32" x 90°	3/32" x 90°
a	104	104	230
b	38	38	60
c	38	38	60
kg / piece	4.5	4.5	18
A1			
S			

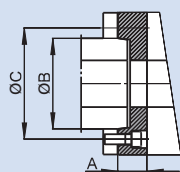
NST T-nuts



Chuck BB-EXL2G	510-191	660-280	900-390
T-nut type	NST	NST	NST
Id. No. (piece)	12065020	12065020	13063900
N	25.5	25.5	30
H	34	34	44
h	15	15	18
G	M 20	M 20	M24
Bolt ISO 4762 12.9	M20 x 40	M20 x 40	M24 x 60

Spindle adapters for BIG BORE BB-EXL2G chucks

ISO-A DIN 55026 Spindle adapters



BB-EXL2G	510-191			660-280			900-390	
Spindle nose	A11	A15	A20	A11	A15	A20	A15	A20
Id. No.	24115120	24125120	24175120	24116620	24126620	24176620	24128020	24178020

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Quick Repair, express service on request

▶ **Original spare parts**

Relevant spare parts are available from stock

▶ **Training**

Individual training courses

▶ **Run-off**

Run-off and support at the point of use

▶ **Maintenance**

Scheduled maintenance, at SMW-AUTOBLOK or at the customer

▶ **Warranty**

Warranty of 24 month on request

▶ **Contact**

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E-mail: service@smw-autoblok.de



® refers to Registered Trademarks in Germany
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