

BB-D

INCH serration

BB-M

METRIC serration

High precision power chucks Ø 140 - 315 mm

- EXTRA LARGE THROUGH HOLE
- 3 jaws

**Application/customer benefits**

- For open center or partial open center clamping
- For machines with very large spindle bore

BB-D: Master jaws with INCH serration (1/16" x 90°)**BB-M:** Master jaws with METRIC serration (1.5 mm x 60°)
(Suitable for Japanese chucks top jaws)**Technical features**

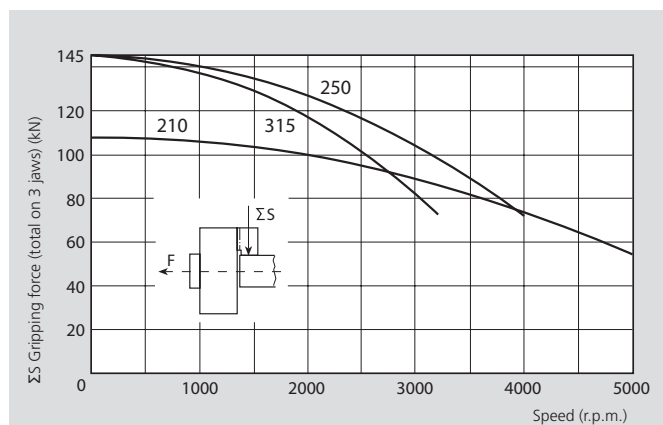
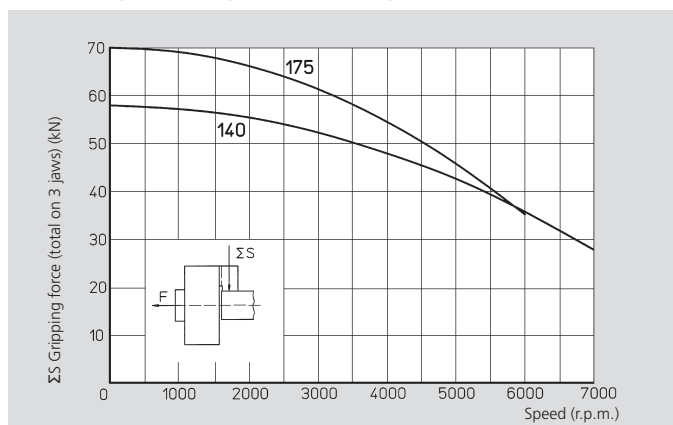
- Extra large through-hole
- Gripping force transmission via wedge hook
- Case hardened body to assure greatest precision and long chuck life

Standard equipment

3 jaw chuck
 1 set T-nuts with bolts
 1 set soft top jaws
 Mounting bolts
 Grease gun

Ordering example

3 jaw chuck BB-D 175/A6
 or
 3 jaw chuck BB-M 250/Z220

Actual gripping force diagrams

The data in the diagrams refer to 3-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 grease. The static and dynamic gripping forces have been measured using standard soft top jaws, placed in a position not exceeding the outer diameter of the chuck.

△ Safety advice/danger of damage:

When using taller/heavier jaws and/or clamping on a bigger diameter reduce draw pull/rotating speed accordingly.

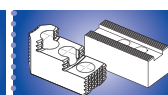
Technical data

SMW-AUTOBLOK Type		BB-D 140 BB-M 140	BB-D 175 BB-M 175	BB-D 210 BB-M 210	BB-D 250 BB-M 250	BB-D 315 BB-M 315
Number of jaws		3	3	3	3	3
Through-hole	mm	39	56	66	78	122
Radial jaw stroke	mm	3.2	3.2	4	5	5
Axial piston stroke	mm	15	15	19	24	24
Max. draw pull*	kN	22	25	38	50	50
Max. gripping force*	kN	58	70	108	145	145
Max. speed	r.p.m.	7000	6000	5000	4000	3200
Weight (without top jaws)	kg	6	11.5	19.5	30	44
Moment of inertia	kg·m ²	0.016	0.05	0.12	0.27	0.62
Recommended actuating cylinders		SIN-S 85/100 VNK 70-37	SIN-S 100 VNK 130-52	SIN-S 100/125 VNK 150-67	SIN-S 125/150 VNK 170-77	SIN-S 125/150 VNK 320-127

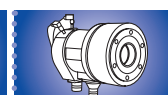
* For internal clamping reduce the draw pull by 30 %



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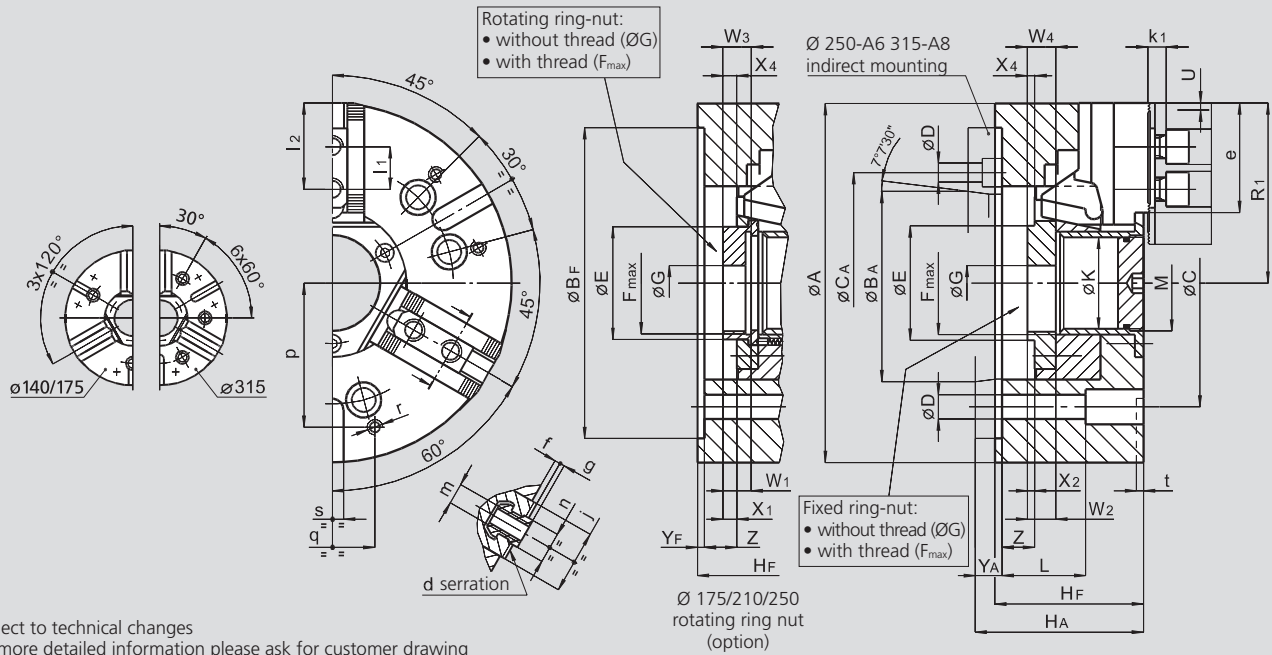
- EXTRA LARGE THROUGH HOLE
- 3 jaws

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INCH serration

BB-M

METRIC serration



Subject to technical changes
For more detailed information please ask for customer drawing

SMW-AUTOBLOK Type		BB-D 140 BB-M 140		BB-D 175 BB-M 175		BB-D 210 BB-M 210		BB-D 250 BB-M 250			BB-D 315 BB-M 315		
Mounting		Z130	A5	Z160	A6	Z170	A6	Z220	A6	A8	Z300	A8	A11
	A	mm 140		175		210		254			315		
	Bf/BA H6	mm 130	82.563	160	106.375	170	106.375	220	106.375	139.719	300	139.719	196.869
	C	mm 104.8		133.4		133.4		171.4	-	171.4	235	-	235
	CA	mm -		-		-		-	133.4	-	-	171.4	-
	D	mm 11.5		13.5		13.5		13.5			17		21
	E	mm 53		71		78		92			143		
	Fmax	mm M45 x 1.5		M62 x 1.5		M72 x 1.5		M85 x 2			M135 x 2		
	G	mm 16		20		20		25			70		
	Hf/HA	mm 67	77	82	94	92	104	105	124	119	118	143	134
	K	mm 39		56		66		78			122		
	L	mm 46		54		66		89			72		
	M	mm M42 x 1.5		M58 x 1.5		M68 x 2		M80 x 2			M125 x 2		
Chuck open	R1	mm 70		89		106		128			157.5		
Jaw stroke	U	mm 3.2		3.2		4		5			5		
	(1) W1/W2	mm -/14		18/16		20/18		20/20			-/23		
	(2) W3/W4	mm -/14		28/35		30/35		33/38			-/23		
BB-D	X1/X2	mm -/6		11/5		12/5		11/6			-/5		
BB-M	X1/X2 (X4)	mm -/6 (6)		11/5 (22)		12/5 (22)		11/11 (23)			-/5 (5)		
	Yf/YA	mm 5	15	5	17	5	17	5	24	19	5	30	21
max./min.	Z	mm 15/0		15/0		19/0		24/0			24/0		
BB-D serration	d	inch 1/16" x 90°		1/16" x 90°		1/16" x 90°		1/16" x 90°			1/16" x 90°		
BB-M serration	d	mm 1.5 x 60°		1.5 x 60°		1.5 x 60°		1.5 x 60°			1.5 x 60°		
	e	mm 39		49.5		59		73			77.5		
	f	mm 2		3		3		4			4		
	g	mm 2.5		2.5		2.5		3.5			3.5		
	j	mm 30		33		38		45			45		
	k1	mm 10		10		11		12			12		
BB-D	l1	mm 16		16.5		23		30			30		
BB-M	l1	mm 16		20		25		30			30		
max./min.	l2	mm 32/23		41/24		49/33		57/43			62/43		
BB-D	m	mm M8		M10		M12		M16			M16		
BB-D	n h8	mm 12		14		17		21			21		
BB-M	m	mm M8		M10		M12		M12			M16		
BB-M	n h8	mm 12		12		14		16			21		
	p	mm 52		65		80		102			100		
	q	mm 30		36		45		60			60		
	r	mm M6		M8		M8		M10			M10		
	s H12	mm 12		16		16		16			20		
	t	mm 5		5		5		5			5		

(1) Rotating ring-nut with thread
Fixed ring-nut with thread

W₁=BBD-BBM
W₂=BBD-BBM

(2) Blank rotating ring-nut without thread
Fixed ring-nut blank without thread

W₃ = BBD-BBM
W₄ = BBD-BBM