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

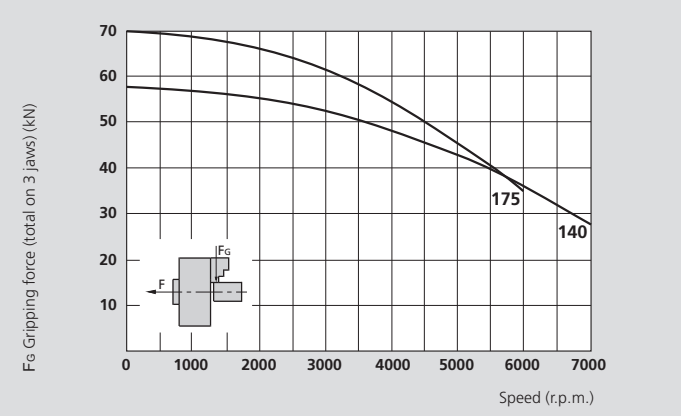
Standard equipment

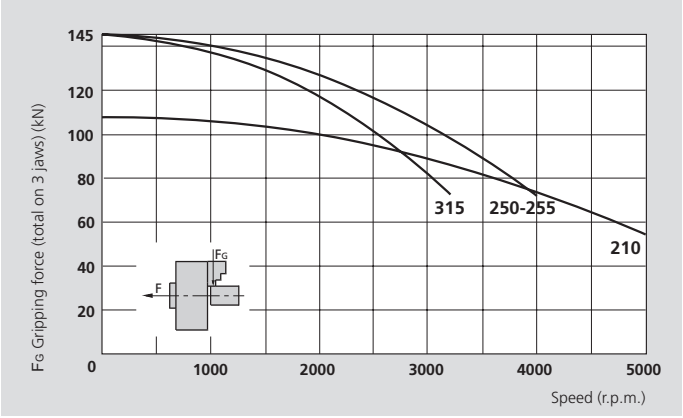
3 jaw chuck
1 set T-nuts with bolts
1 set soft top jaws
Mounting bolts

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.

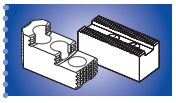
⚠ **Safety advice / danger of damage:**
When using taller / heavier jaws and / or clamping on a bigger diameter reduce draw pull / rotating speed accordingly.

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 255 BB-M 255	BB-D 315 BB-M 315
Number of jaws		3	3	3	3	3	3
Through-hole	mm	39	56	66	78	82	122
Radial jaw stroke	mm	3.2	3.2	4	5	5	5
Axial piston stroke	mm	15	15	19	24	24	24
Max. draw pull*	kN	22	25	38	50	50	50
Max. gripping force*	kN	58	70	108	145	145	145
Max. speed	r.p.m.	7000	6000	5000	4000	4000	3200
Weight (without top jaws)	kg	6	11.5	19.5	30	33	44
Moment of inertia	kg·m²	0.016	0.05	0.12	0.27	0.32	0.62
Recommended actuating cylinders		SIN-S 85 / 100 VNK-T2 70-37	SIN-S 100 VNK-T2 130-52	SIN-S 100 / 125 VNK-T2 150-67	SIN-S 125 / 150 VNK-T2 170-77	SIN-S 125 / 150 VNK-T2 176-82	SIN-S 125 / 150 VNK-T2 320-127

* For internal clamping reduce the draw pull by 30%.


SMW-AUTOBLOK 438


SMW-AUTOBLOK 440

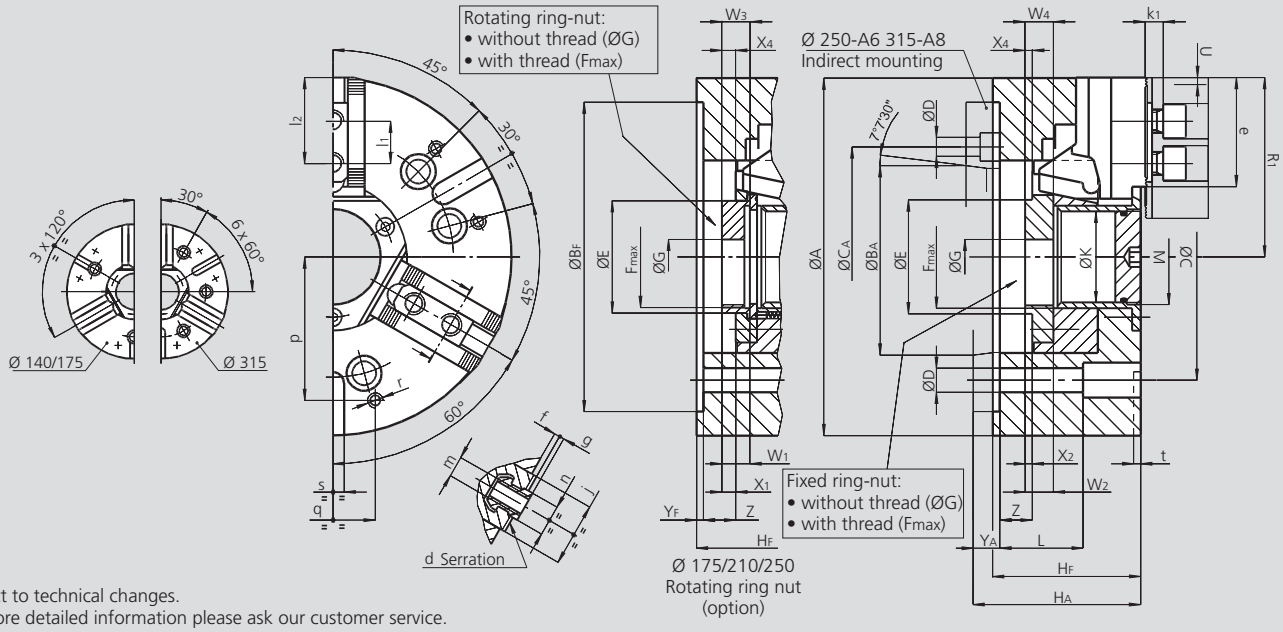

SMW-AUTOBLOK 297

High precision power chucks Ø 140 - 315 mm

■ EXTRA large through hole
■ 3 jaws

BB-D
INCH SERRATION

BB-M
METRIC SERRATION



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

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 255 BB-M 255			BB-D 315 BB-M 315		
Mounting			**Z130**	**A5**	**Z160**	**A6**	**Z170**	**A6**	**Z220**	**A6**	**A8**	**Z220**	**A6**	**A8**	**Z300**	**A8**	**A11**
	A	mm	140		175		210		254			255			315		
	BF/BA H6	mm	130	82.563	160	106.375	170	106.375	220	106.375	139.719	220	106.375	139.719	300	139.719	196.869
	C	mm	104.8		133.4		133.4		171.4	-	171.4	171.4	-	171.4	235	-	235
	CA	mm	-	-	-	-	-	-	-	133.4	-	-	133.4	-	-	171.4	-
	D	mm	11.5		13.5		13.5			13.5	17	17	13.5	17		17	21
	E	mm	53		71		78		92			95			143		
	Fmax	mm	M45 x 1.5		M62 x 1.5		M72 x 1.5		M85 x 2			M90 x 2			M135 x 2		
	G	mm	16		20		20		25			20			70		
	HF/HA	mm	67	77	82	94	92	104	105	124	119	105	124	119	118	143	134
	K	mm	39		56		66		78			82			122		
	L	mm	46		54		66		79			79			72		
	M	mm	M42 x 1.5		M58 x 1.5		M68 x 2		M80 x 2			M84 x 2			M125 x 2		
Chuck open	**R1**	mm	70		89		106		128			130.5			157.5		
Jaw stroke	**U**	mm	3.2		3.2		4		5			5			5		
	(1) **W1/W2**	mm	- / 14		18 / 16		20 / 18		20 / 20			20 / 20			- / 23		
	(2) **W3/W4**	mm	- / 14		28 / 35		30 / 35		33 / 38			33 / 38			- / 23		
BB-D	**X1/X2**	mm	- / 6		11 / 5		12 / 5		11 / 6			9 / 4			- / 5		
BB-M	**X1/X2 (X4)**	mm	- / 6 (6)		11 / 5 (22)		12 / 5 (22)		11 / 11 (23)			9 / 4 (23)			- / 5 (5)		
	YF/YA	mm	5	15	5	17	5	17	5	24	19	5	24	19	5	30	21
Max. / min.	**Z**	mm	15/0		15/0		19/0		24/0			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°			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°			1.5 x 60°		
	e	mm	39		49.5		59		73			72.5			77.5		
	f	mm	2		3		3		4			4			4		
	g	mm	2.5		2.5		2.5		3.5			3.5			3.5		
	j	mm	30		33		38		45			45			45		
	k1	mm	10		10		11		12			12			12		
BB-D	**l1**	mm	16		16.5		23		30			30			30		
BB-M	**l1**	mm	16		20		25		30			30			30		
Max. / min.	**l2**	mm	32 / 23		41 / 24		49 / 33		57 / 43			57 / 43			62 / 43		
BB-D	**m**	mm	M8		M10		M12		M16			M16			M16		
BB-D	**n** h8	mm	12		14		17		21			21			21		
BB-M	**m**	mm	M8		M10		M12		M12			M12			M16		
BB-M	**n** h8	mm	12		12		14		16			16			21		
	p	mm	52		65		80		102			102			100		
	q	mm	30		36		45		60			60			60		
	r	mm	M6		M8		M8		M10			M10			M10		
	s H12	mm	12		16		16		16			16			20		
	t	mm	5		5		5		5			5			5		

(1) Rotating ring-nut with thread W_1=BBD-BBM
Fixed ring-nut with thread W_2=BBD-BBM

(2) Blank rotating ring-nut without thread W_3 = BBD-BBM
Fixed ring-nut blank without thread W_4 = BBD-BBM