BH-M

METRIC serration

High precision power chucks Ø 130 - 450 mm

■ LARGE THROUGH HOLE
■ 2, 3 and 4 jaws

Application/customer benefits

- For open center or partial open center clamping
- Large through-hole

BH-M: Master jaws with METRIC serration (1.5 mm x 60°)
(Suitable for Japanese chucks top jaws)

Technical features

- Gripping force transmission via wedge hook
- Case hardened body to assure greatest precision and long chuck life
- 2 jaw version from diameter 130 to 315
- 3 jaw version available in all diameters
- 4 jaw chuck available starting from diameter 165 mm

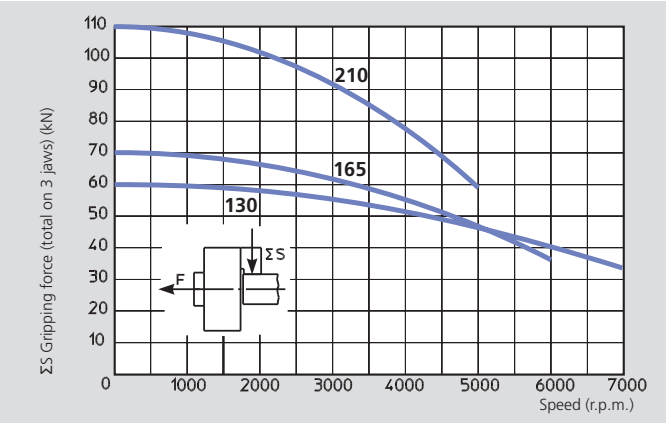
Standard equipment

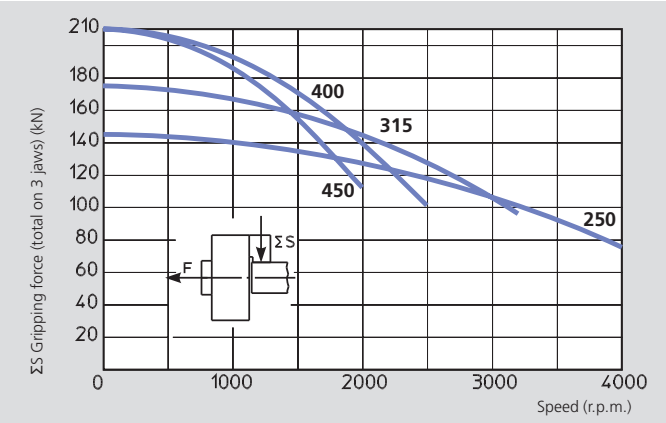
2, 3 or 4 jaw chuck
1 set T-nuts with bolts
1 set soft top jaws
Mounting bolts
Grease gun

Ordering example

2 jaw chuck BH-M 210/A6
or
3 jaw chuck BH-M 250/A8

Actual gripping force diagrams





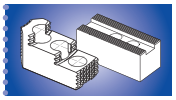
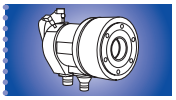
The data in the diagrams refer to 3-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 grease. The static and dynamic gripping forces have been measured using standard soft top jaws, placed in a position not exceeding the outer diameter of the chuck.

⚠ 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		BH-M 130		BH-M 165			BH-M 210			BH-M 250			BH-M 315			BH-M 400		BH-M 450	
Number of jaws		2	3	2	3	4	2	3	4	2	3	4	2	3	4	3	4	3	4
Through-hole	mm	32		46			52			66			95			118		118	
Radial jaw stroke	mm	3.2		3.2			4			5			5			6.5		6.5	
Axial piston stroke	mm	15		15			19			24			24			31		31	
Max. draw pull*	kN	15	22	17	25	25	25	38	38	34	50	50	40	60	60	70	70	70	70
Max. gripping force*	kN	42	60	48	70	70	72	110	110	98	145	145	115	175	175	210	210	210	210
Max. speed	r.p.m.	7000	7000	6000	6000	5000	5000	5000	4300	4000	4000	3400	3200	3200	2700	2500	2000	2000	1700
Weight (without top jaws)	kg	5		9.5			19			30			46			86		135	
Moment of inertia	kg·m²	0.012		0.036			0.12			0.27			0.62			2		3.5	
Recommended actuating cylinders		SIN-S 85/100		SIN-S 100			SIN-S 100/125			SIN-S 125/150			SIN-S 125/150			SIN-S 150/175		SIN-S 150/175	
		VNK 70-37		VNK 102-46			VNK 130-52			VNK 150-67			VNK 225-95			VNK 320-127		VNK 320-127	

* For internal clamping reduce the draw pull by 30 %


Page 324

Page 326

Page 225

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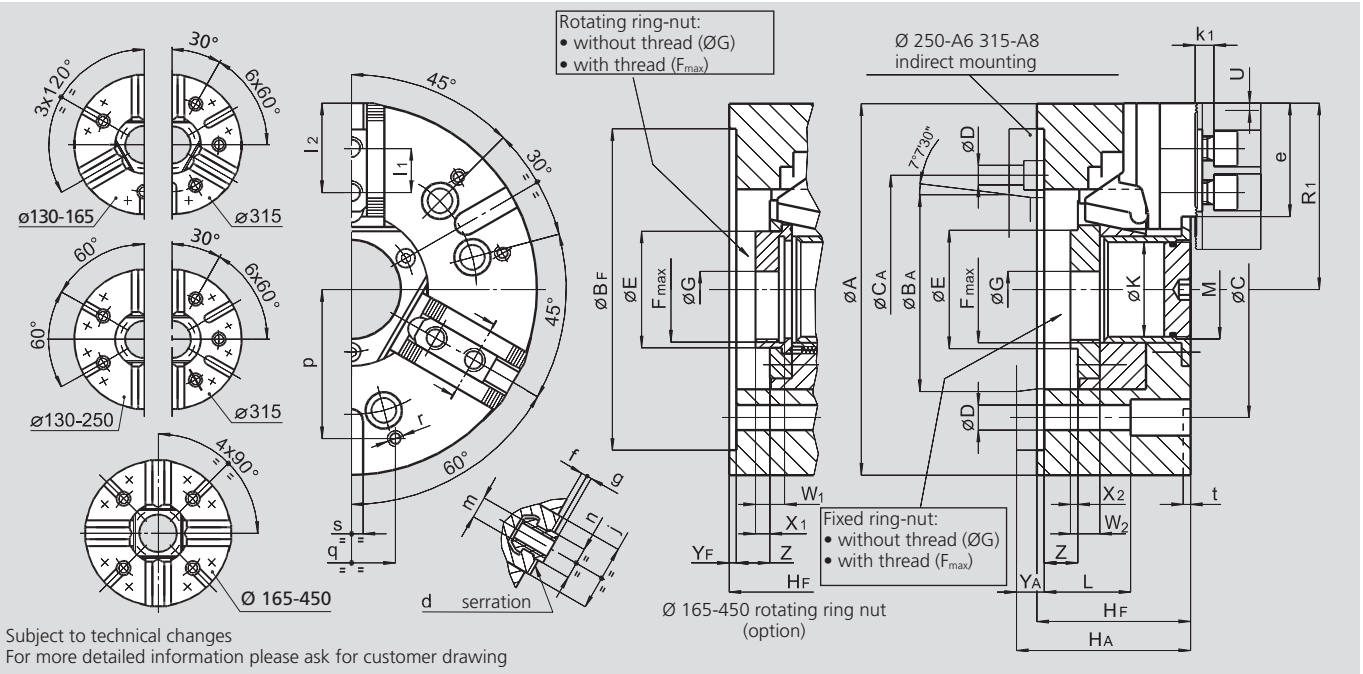

Subject to technical changes
For more detailed information please ask for customer drawing

SMW-AUTOBLOK Type			BH-M 130		BH-M 165		BH-M 210		BH-M 250			BH-M 315			BH-M 400		BH-M 450	
Mounting			Z115	A4	Z140	A5	Z170	A6	Z220	A6	A8	Z300	A8	A11	Z300	A11	Z300	A11
	A	mm	130		165		210		254			315			390		450	
	BF/BA H6	mm	115	63.513	140	82.563	170	106.375	220	106.375	139.719	300	139.719	196.869	300	196.869	300	196.869
	C	mm	82.6		104.8		133.4		171.4	-	171.4	235	-	235	235		235	
	CA	mm	-	-	-	-	-	-	-	133.4	-	-	171.4	-	-	-	-	-
	D	mm	11.5		11.5		13.5			13.5	17		17	21	21		21	
	E	mm	43.5		(*)		67		81			111			143		143	
	Fmax	mm	M38 x 1.5		(**)		M60 x 2		M75 x 2			M100 x 2			M130 x 2		M130 x 2	
	G	mm	16		20		20		25			25			70		70	
	HF/HA	mm	67	75	77	87	92	104	105	124	119	111	136	127	128	143	128	143
	K	mm	32		46		52		66			95			118		118	
	L	mm	51		61		66		59			33			101		101	
	M	mm	M35 x 1.5		M48 x 1.5		M54 x 1.5		M68 x 2			M98 x 2			M120 x 2		M120 x 2	
Chuck open	R1	mm	66.5		84.5		105.5		127.5			158			195		225	
Jaw stroke	U	mm	3.2		3.2		4		5			5			6.5		6.5	
	W1/W2	mm	-/14		18/16		20/18		33/38			33/40			33/35		33/35	
	X1/X2	mm	-/6		11/5		11/5		24/24			24/24			19/17		19/17	
	YF/YA	mm	5	13	5	15	5	17	5	24	19	5	30	21	6	21	6	21
max./min.	Z	mm	15/0		15/0		19/0		24/0			24/0			31/0		31/0	
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°		1.5 x 60°	
	e	mm	39		49.5		66		77.5			93			116.5		146.5	
	f	mm	2		3		3		4			4			5		5	
	g	mm	2.5		2.5		2.5		3.5			3.5			3.5		3.5	
	j	mm	30		33		38		45			45			62		62	
	k1	mm	10		10		11		12			12			14		14	
	l1	mm	16		20		25		30			30			34		34	
max./min.	l2	mm	32/23		41/24		56/33		62/43			78/43			90/49		120/49	
	m	mm	M8		M10		M12		M12			M16			M20		M20	
	n h8	mm	12		12		14		16			21			22		22	
	p	mm	52		65		80		102			100			150		150	
	q	mm	30		36		45		60			60			80		80	
	r	mm	M6		M8		M8		M10			M10			M12		M12	
	s H12	mm	12		16		16		16			20			20		20	
	t	mm	5		5		5		5			5			5		5	

(*) E fixed ring nut Ø 60
E rotating ring nut Ø 56
(**) F_{max} fixed ring nut M55 x 2
F_{max} rotating ring nut M50 x 1.5