

BH-D

INCH
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-D: Master jaws with INCH SERRATION (1/16" x 90°) (400 and 450 3/32" x 90°)

Technical features

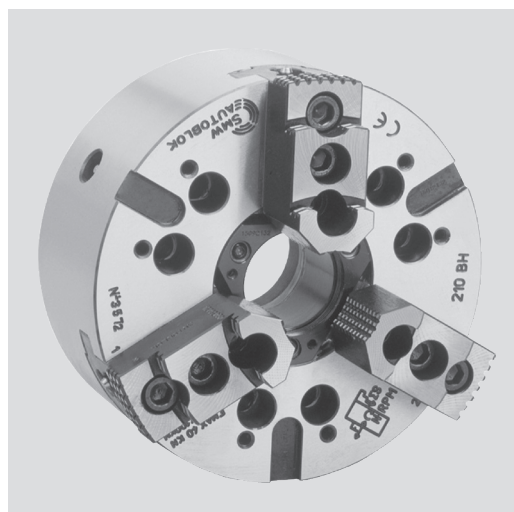
- Gripping force transmission via wedge hook
- Case hardened body to assure greatest precision and long chuck life
- 2 jaw version from diameter 130 to 315
- 3 jaw version available in all diameters
- 4 jaw chuck available starting from diameter 165 mm

Standard equipment

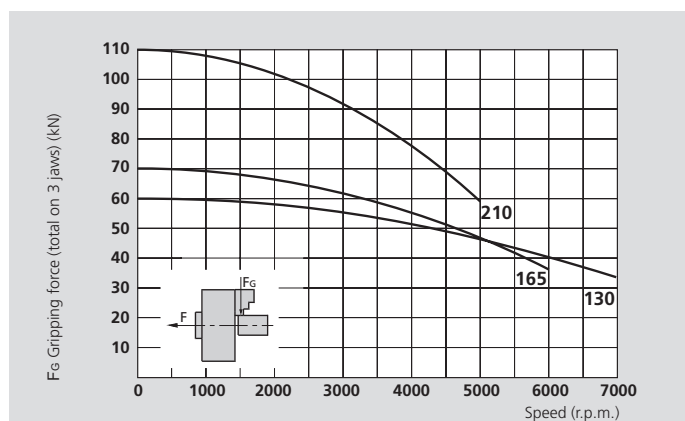
2, 3 or 4 jaw chuck
1 set T-nuts with bolts
1 set soft top jaws
Mounting bolts

Ordering example

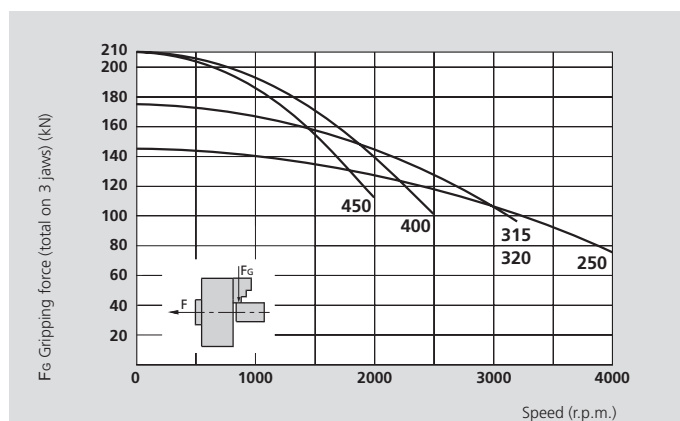
2 jaw chuck BH-D 210 / A6
or
3 jaw chuck BH-D 250 / A8



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.

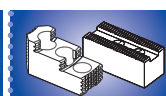
Technical data

SMW-AUTOBLOK Type		BH-D 130		BH-D 165			BH-D 210			BH-D 250			BH-D 315			BH-D 320		BH-D 400		BH-D 450	
Number of jaws		2	3	2	3	4	2	3	4	2	3	4	2	3	4	3	3	4	3	4	
Through-hole	mm	32		46			52			66			95			103		118		118	
Radial jaw stroke	mm	3.2		3.2			4			5			5			5		6.5		6.5	
Axial piston stroke	mm	15		15			19			24			24			24		31		31	
Max. draw pull*	kN	15	22	17	25	25	25	38	38	34	50	50	40	60	60	60	70	70	70	70	
Max. gripping force*	kN	42	60	48	70	70	72	110	110	98	145	145	115	175	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	3200	2500	2000	2000	1700	
Weight (without top jaws)	kg	5		9.5			19			30			46			52		86		135	
Moment of inertia	kg·m²	0.012		0.036			0.12			0.27			0.62			0.72		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 125 / 150		SIN-S 150 / 175			
		VNK-T2 70-37		VNK-T2 102-46			VNK-T2 130-52			VNK-T2 150-67			VNK-T2 225-95			VNK-T2 250-110		VNK-T2 320-127			

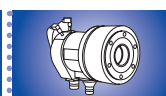
* For internal clamping reduce the draw pull by 30%.



SMW-AUTOBLOK
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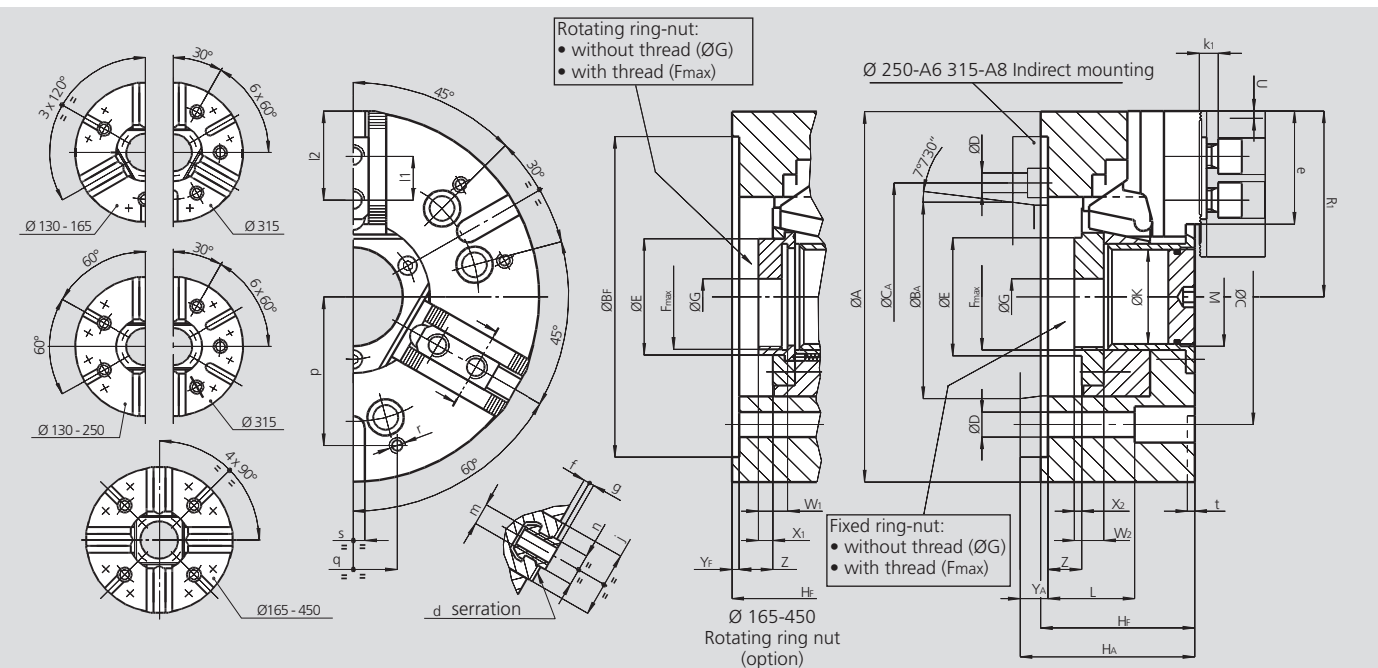
SMW-AUTOBLOK
440



SMW-AUTOBLOK
297

- Large through hole
- 2, 3 and 4 jaws

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Subject to technical changes.

For more detailed information please ask our customer service.

SMW-AUTOBLOK Type			BH-D 130		BH-D 165		BH-D 210		BH-D 250			BH-D 315			BH-D 320			BH-D 400		BH-D 450	
Mounting			Z115	A4	Z140	A5	Z170	A6	Z220	A6	A8	Z300	A8	A11	Z300	A8	A11	Z300	A11	Z300	A11
A			mm 130		mm 165		mm 210		mm 254			mm 315			mm 320			mm 390		mm 450	
Bf/BA H6			mm	115 63.513	mm	140 82.563	mm	170 106.375	mm	220 106.375	139.719	mm	300 139.719	196.869	mm	300 139.719	196.869	mm	300 196.869	mm	300 196.869
C			mm	82.6	mm 104.8		mm 133.4		mm	171.4	- 171.4	mm	235	- 235	mm	235	- 235	mm	235	mm 235	
CA			mm	- -	mm	- -	mm	- -	mm	- 133.4	- -	mm	- 171.4	- -	mm	- 171.4	- -	mm	- -	mm - -	
D			mm	11.5	mm 11.5		mm 13.5		mm	17	13.5 17	mm	21	17 21	mm	21	17 21	mm	21	mm 21	
E			mm	43.5	(*)		mm 67		mm 78			mm 111			mm 119			mm 143		mm 143	
Fmax			mm	M38 x 1.5	(**)		mm M60 x 1.5		mm M72 x 1.5			mm M102 x 2			mm M110 x 2			mm M130 x 2		mm M130 x 2	
G			mm	12.5	mm 20		mm 20		mm 25			mm 25			mm 35			mm 70		mm 70	
Hf/HA			mm	67 75	mm	77 87	mm	92 104	mm	105 124	119	mm	111 136	127	mm	111 136	127	mm	128 143	mm	128 143
K			mm	32	mm 46		mm 52		mm 66			mm 95			mm 103			mm 118		mm 118	
L			mm	51	mm 61		mm 66		mm 59			mm 33			mm 33			mm 101		mm 101	
M			mm	M35 x 1.5	mm M48 x 1.5		mm M54 x 1.5		mm M68 x 2			mm M98 x 2			mm M106 x 2			mm M120 x 2		mm M120 x 2	
Chuck open R1			mm	66.5	mm 84.5		mm 105.5		mm 127.5			mm 158			mm 162			mm 195		mm 225	
Jaw stroke U			mm	3.2	mm 3.2		mm 4		mm 5			mm 5			mm 5			mm 6.5		mm 6.5	
W1/W2			mm	- / 14	mm 18 / 16		mm 20 / 18		mm 20 / 20			mm 23 / 23			mm 23 / 40			mm 33 / 35		mm 33 / 35	
X1/X2			mm	- / 6	mm 11 / 5		mm 10 / 4		mm 11 / 6			mm 12 / 7			mm 12 / 24			mm 19 / 17		mm 19 / 17	
Yf/YA			mm	5 13	mm	5 15	mm	5 17	mm	5 24	19	mm	5 30	21	mm	5 30	21	mm	6 21	mm	6 21
Max. / min. Z			mm	15 / 0	mm 15 / 0		mm 19 / 0		mm 24 / 0			mm 24 / 0			mm 0 / -24			mm 31 / 0		mm 31 / 0	
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°			3/32" x 90° ⁽¹⁾		3/32" x 90°	
e			mm	39	mm 49.5		mm 66		mm 77.5			mm 93			mm 93			mm 116.5		mm 146.5	
f			mm	2	mm 3		mm 3		mm 4			mm 4			mm 4			mm 5		mm 5	
g			mm	2.5	mm 2.5		mm 2.5		mm 3.5			mm 3.5			mm 3.5			mm 3.5		mm 3.5	
j			mm	30	mm 33		mm 38		mm 45			mm 45			mm 45			mm 62		mm 62	
k1			mm	10	mm 10		mm 11		mm 12			mm 12			mm 12			mm 14		mm 14	
l1			mm	16	mm 16.5		mm 23		mm 30			mm 30			mm 30			mm 31		mm 31	
Max. / min. l2			mm	32 / 23	mm 41 / 24		mm 56 / 33		mm 62 / 43			mm 78 / 43			mm 78 / 43			mm 90 / 49		mm 120 / 49	
m			mm	M8	mm M10		mm M12		mm M16			mm M16			mm M16			mm M20		mm M20	
n h8			mm	12	mm 14		mm 17		mm 21			mm 21			mm 21			mm 25.5		mm 25.5	
p			mm	52	mm 65		mm 80		mm 102			mm 100			mm 100			mm 150		mm 150	
q			mm	30	mm 36		mm 45		mm 60			mm 60			mm 60			mm 80		mm 80	
r			mm	M6	mm M8		mm M8		mm M10			mm M10			mm M10			mm M12		mm M12	
s H12			mm	12	mm 16		mm 16		mm 16			mm 20			mm 20			mm 20		mm 20	
t			mm	5	mm 5		mm 5		mm 5			mm 5			mm 5			mm 5		mm 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

⁽¹⁾ Serration 1/16 x 90° on request