

BHD-FC

INCH
SERRATION

BHM-FC

METRIC
SERRATION

High precision power chucks Ø 165 - 630 mm

- Centrifugal force compensation
- Large through hole
- 3 jaws

Application/customer benefits

- For open center or partial open center clamping
- Large through-hole
- Compensation of centrifugal force for high speed
- Clamping of easily deformed parts with low gripping force, maintained to high speed

BHD-FC: Master jaws with INCH SERRATION (1/16" x 90°, 3/32" x 90°)

BHM-FC: Master jaws with METRIC SERRATION (1.5 mm x 60°) (Ø 165-400 mm)
(suitable for Japanese jaws)

Technical features

- Gripping force transmission via wedge hook
- Centrifugal force compensation by means of counter balance weights for minimum loss of gripping force at high speed
- Case hardened body (up to Ø 315) to assure greatest precision and long chuck life

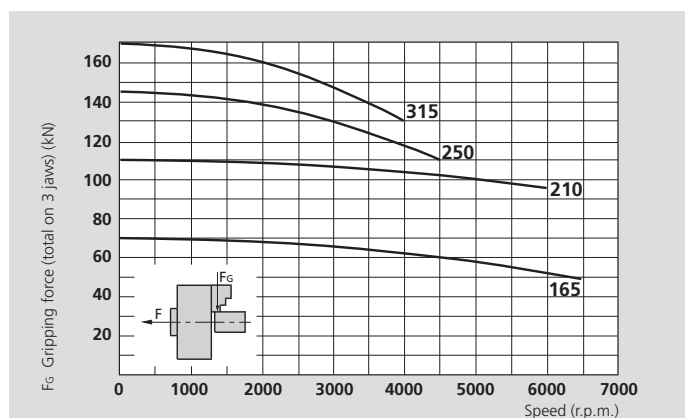
Standard equipment

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

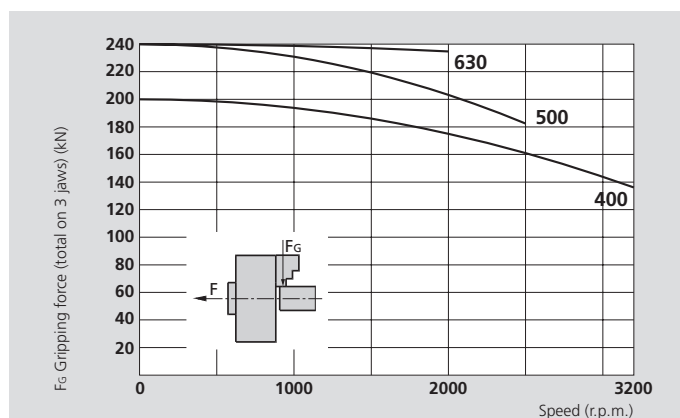
Ordering example

3 jaw chuck BHD-FC 210 / A6
or
3 jaw chuck BHM-FC 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.

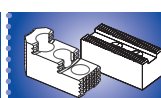
Technical data

SMW-AUTOBLOK Type		BHD-FC 165 BHM-FC 165	BHD-FC 210 BHM-FC 210	BHD-FC 250 BHM-FC 250	BHD-FC 315 BHM-FC 315	BHD-FC 400 BHM-FC 400	BHD-FC 500 -	BHD-FC 630 -
Number of jaws		3	3	3	3	3	3	3
Through-hole	mm	45	52	66	95	118	125	165
Radial jaw stroke	mm	3.2	4	5	5	6.5	9	9
Axial piston stroke	mm	15	19	24	24	31	34	34
Max. draw pull*	kN	25	38	50	60	70	100	100
Max. gripping force*	kN	70	110	145	170	200	240	240
Max. speed	r.p.m.	6500	6000	4500	4000	3200	2500	2000
Weight (without top jaws)	kg	11	21	32	50	95	160	335
Moment of inertia	kg·m²	0.042	0.13	0.29	0.67	2	5.2	18
Recommended actuating cylinders		SIN-S	100	100 / 125	125 / 150	125 / 150	150 / 175	150 / 175 / 200
VNK-T2 / VSG		102-46	130-52	150-67	225-95	320-127	320-127	450 / 165

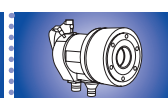
* For internal clamping reduce the draw pull by 30%.



SMW-AUTOBLOK
438



SMW-AUTOBLOK
440



SMW-AUTOBLOK
297

High precision power chucks Ø 165 - 630 mm

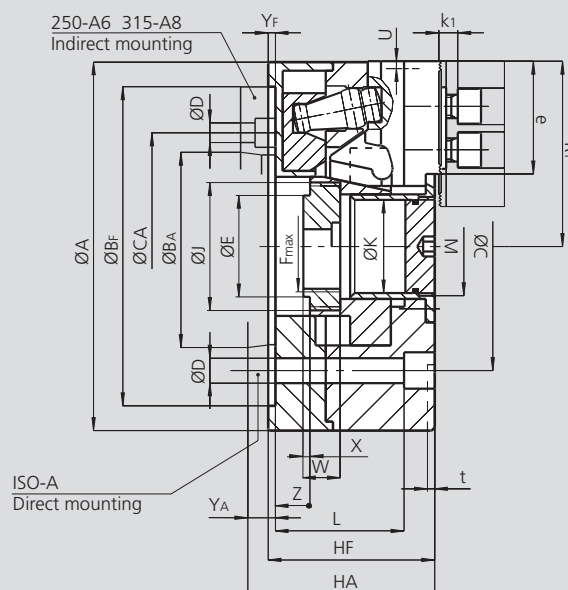
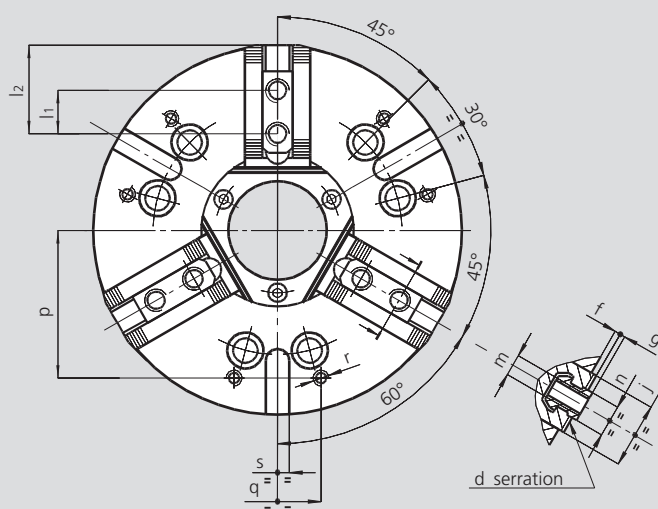
- Centrifugal force compensation
- Large through hole
- 3 jaws

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

SMW-AUTOBLOK Type			BHD-FC 165 BHM-FC 165			BHD-FC 210 BHM-FC 210			BHD-FC 250 BHM-FC 250			BHD-FC 315 BHM-FC 315			BHD-FC 400 BHM-FC 400			BHD-FC 500 -			BHD-FC 630 -		
Mounting			Z140	A5		Z170	A6		Z220	A6	A8	Z300	A8	A11	Z300	A11		Z380	A15		Z380	A15	
	A	mm	168			210			250			315			390			510			630		
	Bf/BA H6	mm	140	82.563		170	106.375		220	106.375	139.719	300	139.719	196.869	300	196.869		380	285.775		380	285.775	
	C	mm	104.8			133.4			171.4	-	171.4	235	-	235	235			330.2			330.2		
	CA	mm	-	-		-	-		-	133.4	-	-	171.4	-	-			-			-		
	D	mm	11.5			13.5			17	13.5	17	21	17	21	21			25			25		
	E	mm	58			67			78			111			140			148			198		
	F/Fmax	mm	M52 x 1.5			M60 x 1.5			M72 x 1.5			M105 x 2			M130 x 2			M135 x 2			M175 x 2		
	J	mm	M60 x 1.5			M72 x 1.5			M88 x 1.5			M120 x 2			M145 x 2			M160 x 2			M195 x 2		
	Hf/HA	mm	90	100		100	112		115	134	129	120	145	136	143	158		160	177		160	177	
	K	mm	45			52			66			95			118			125			165		
	L	mm	72			83			89			72			115			129			129		
	M	mm	M47 x 1.5			M54 x 1.5			M68 x 2			M98 x 2			M120 x 2			-			-		
Chuck open	R1	mm	84			105.5			127.5			158			195			255			315		
Jaw stroke	U	mm	3.2			4			5			5			6.5			9			9		
	W	mm	23			24			26			28			46			25			30		
	X	mm	5			4			6			6			17			3			5		
	Yf/YA	mm	5	15		5	17		5	24	19	5	30	21	6	21		6	23		6	23	
Max. / min.	Z	mm	15 / 0			19 / 0			24 / 0			24 / 0			31 / 0			37 / 3			37 / 3		
BHD-FC ser.	d	inch	1/16" x 90°			1/16" x 90°			1/16" x 90°			1/16" x 90°			3/32" x 90°			3/32" x 90°			3/32" x 90°		
BHM-FC ser.	d	mm	1.5 x 60°			1.5 x 60°			1.5 x 60°			1.5 x 60°			1.5 x 60°			-			-		
	e	mm	49.5			66			77.5			93			116.5			152			192		
	f	mm	5			4			4			4			5			10			10		
	g	mm	2.5			2.5			3.5			3.5			3.5			3.5			3.5		
	j	mm	30			36			45			45			62			62			62		
	k1	mm	10			11			12			12			14			16			16		
BHD-FC	l1	mm	16.5			23			30			30			34			38			38		
BHM-FC	l1	mm	20			25			30			30			34			-			-		
Max. / min.	l2	mm	41 / 23			56 / 33			62 / 43			78 / 43			90 / 49			129 / 53			167 / 53		
BHD-FC	m	mm	M10			M12			M16			M16			M20			M20			M20		
BHM-FC	m	mm	M10			M12			M12			M16			M20			-			-		
BHD-FC	n h8	mm	14			17			21			21			25.5			25.5			25.5		
BHM-FC	n h8	mm	12			14			16			21			22			-			-		
	p	mm	65			80			102			125			150			160			200		
	q	mm	36			45			60			100			80			100			100		
	r	mm	M8			M8			M10			M10			M12			M12			M12		
	s H9	mm	16			16			16			20			20			20			20		
	t	mm	4.5			5			5			5			5			5			5		