

# BP-D

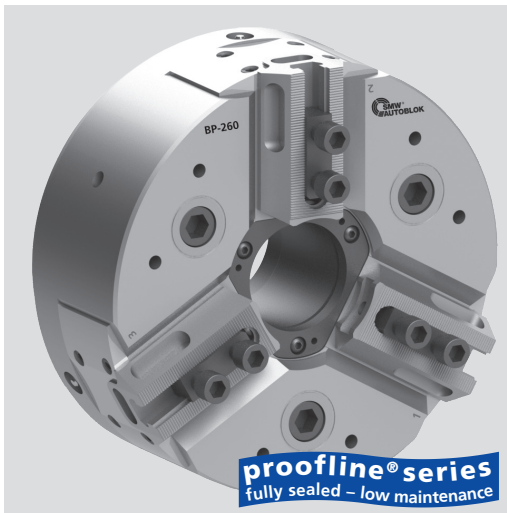
INCH  
serration

# BP-M

METRIC  
serration

## High precision power chucks Ø 220 - 320 mm

- LARGE THROUGH HOLE
- 3 jaws
- proofline® chucks = fully sealed – low maintenance



### Application/customer benefits

- General use on standard lathes due to the through hole, but with advantage of minimum maintenance and use also in extreme environments
- Longer life at high precision due to less wear
- Fully sealed, ideal for dry machining of castings and forgings or if high pressure coolant is used

**BP-D:** Master jaws with INCH serration (1/16" x 90°)

**BP-M:** Master jaws with METRIC serration (1.5 mm x 60°) (suitable for japanese jaws)

### Technical features

- Constant gripping force with permanent grease lubrication
- Large through hole compatible with the standard machines
- Chuck body and internal parts case hardened
- **Proofline®chucks**= fully sealed - low maintenance

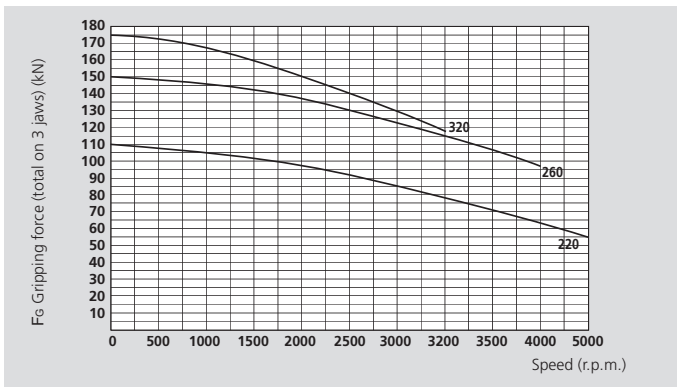
### Standard equipment

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

### Ordering example

- 3 jaw chuck BP-D 220/Z170
- or
- 3 jaw chuck BP-M 220/A6

## Actual gripping force diagrams



The data in the diagrams refer to 3-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K67 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.

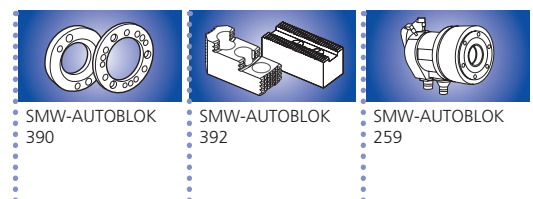
#### ⚠ Safety advice/danger of damage:

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

## Technical data

SMW-AUTOBLOK Type		BP-D 220 BP-M 220	BP-D 260 BP-M 260	BP-D 320 BP-M 320
<b>Number of jaws</b>		<b>3</b>	<b>3</b>	<b>3</b>
<b>Through-hole</b>	mm	52	66	95
<b>Radial jaw stroke</b>	mm	4	5	5
<b>Axial piston stroke</b>	mm	16	19	19
<b>Max. draw pull*</b>	kN	44	60	68
<b>Max. gripping force*</b>	kN	110	150	175
<b>Max. speed</b>	r.p.m.	5000	4000	3200
<b>Weight (without top jaws)</b>	kg	23	36	60
<b>Moment of inertia</b>	kg·m <sup>2</sup>	0.14	0.34	0.85
<b>Recommended actuating cylinders</b>		<b>SIN-S 100/125 VNK-T2 130-52</b>	<b>SIN-S 125/150 VNK-T2 150-67</b>	<b>SIN-S 125/150 VNK-T2 225-95</b>

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



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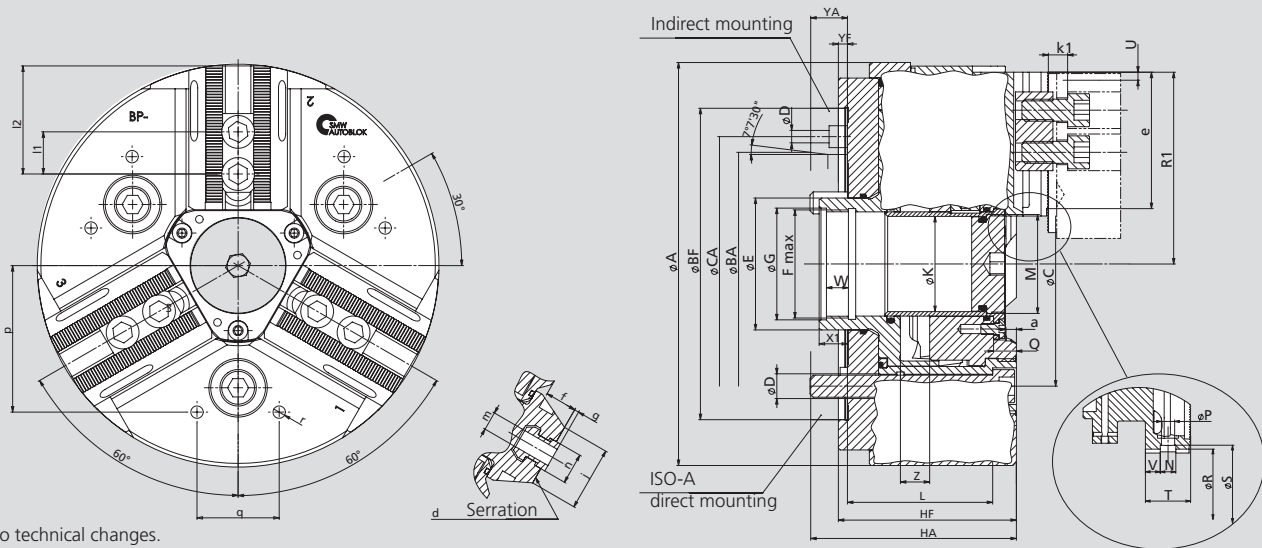
## BP-D

## BP-M

- LARGE THROUGH HOLE
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INCH  
serration

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

SMW-AUTOBLOK Type			BP-D 220 BP-M 220		BP-D 260 BP-M 260			BP-D 320 BP-M 320		
Mounting			Z170	A6	Z220	A6	A8	Z300	A8	A11
	A	mm	220		262			320		
	Bf/BA	H6 mm	170	106.375	220	106.375	139.719	300	139.719	196.869
	C	mm	133.4		171.4			235		
	CA	mm	-	-	-	133.4	-	-	171.4	-
	D	mm	13.5		17	13.5	17	21		
	E	mm	72		88			115		
	Fmax	mm	M60 x 1.5		M75 x 2			M102 x 2		
	G	mm	61		76			102.5		
	Hf/HA	mm	97.5	109.5	114	149	128	114	149	130
	K	mm	52		66			95		
	L	mm	79.5		92			88		
	M	mm	M54 x 1.5		M68 x 2			M98 x 2		
	N	H8 mm	8		10			10		
	P	mm	6.5		8.5			8.5		
	Q	mm	12.5		16.5			16.5		
	R	H7 mm	59		76			108		
Chuck open	R1	mm	109		131			159		
	S	mm	63		81			113		
Jaw stroke	T	mm	23.5		22			29		
	U	mm	4.3		5			5		
	V	mm	7.75		6			9.5		
	W	mm	12		14			16.5		
	X1	mm	15.5		22			21		
	Yf/YA	mm	5	17	5	40	19	5	40	21
max./min.	Z	mm	16 / 0		19 / 0			19 / 0		
	a	mm	5.7		9.7			9.7		
BP-D Serration	d	inch	1/16" x 90°		1/16" x 90°			1/16" x 90°		
BP-M Serration	d	mm	1.5x60°		1.5x60°			1.5x60°		
	e	mm	74.5		89			100.5		
	f	mm	17.5		12			19		
	g	mm	2.5		2.5			3.5		
	j	mm	34		35.22			35		
	k1	mm	10.5		12			12		
BP-D/BP-M	l1	mm	23 / 25		30			30		
max./min.	l2	mm	55.5 / 33		67 / 43			78 / 43		
BP-D/ BP-M	m	mm	M12		M12			M16		
BP-D	n	h8 mm	17		17			21		
BP-M	n	h8 mm	14		16			21		
	p	mm	80		102			100		
	q	mm	45		60			60		
	r	mm	M8		M10			M10		