

**AP<sup>®</sup>-D**INCH  
SERRATION**AP<sup>®</sup>-M**METRIC  
SERRATION**High precision power chucks Ø 170 - 400 mm**

- Closed center
- 3 jaws
- proofline<sup>®</sup> chucks = fully sealed – low maintenance

**Application/customer benefits**

- For mid to large batch production
- Fully sealed, ideal for dry machining of castings and forgings or if high pressure coolant is used

**AP-D:** Master jaws with INCH SERRATION (1/16" x 90°, 3/32" x 90°)**AP-M:** Master jaws with METRIC SERRATION (1.5 mm x 60°)  
(suitable for japanese chuck top jaws)**Technical features**

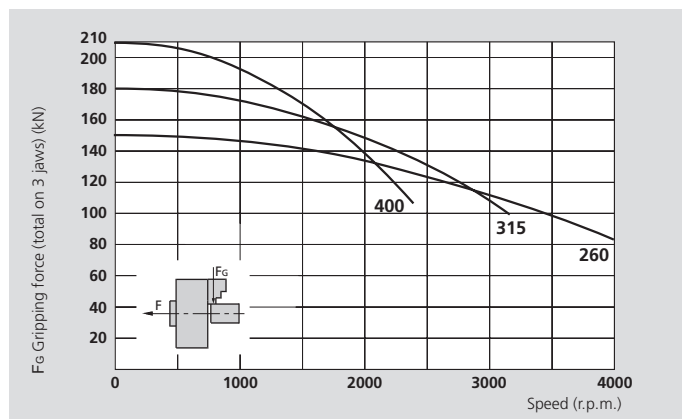
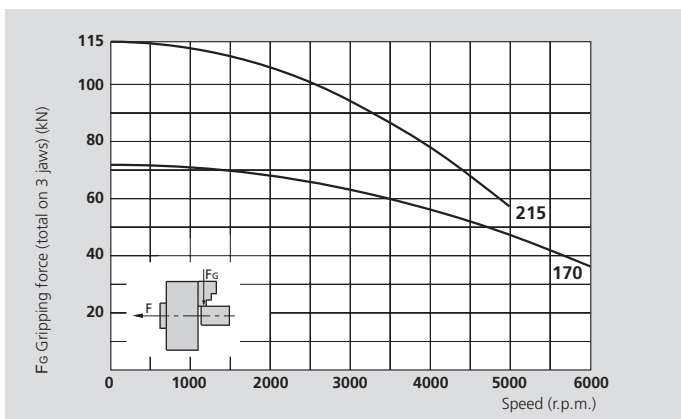
- Constant gripping force with permanent grease lubrication
- Central bore for coolant and/or air
- Chuck body and internal parts case hardened
- **proofline<sup>®</sup> chucks** = fully sealed – low maintenance

**Standard equipment**

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

**Ordering example**

- 3 jaw chuck AP-D 215 / A6
- or
- 3 jaw chuck AP-M 260 / 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 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		AP-D 170 AP-M 170	AP-D 215 AP-M 215	AP-D 260 AP-M 260	AP-D 315 AP-M 315	AP-D 400 AP-M 400
<b>Number of jaws</b>		3	3	3	3	3
<b>Radial jaw stroke</b>	mm	3.6	4.6	5	6.3	7
<b>Axial piston stroke</b>	mm	17	22	24	30	33
<b>Max. draw pull*</b>	kN	30	42	55	65	75
<b>Max. gripping force*</b>	kN	72	112	150	180	210
<b>Max. speed</b>	r.p.m.	6000	5000	4000	3200	2400
<b>Weight (without top jaws)</b>	kg	10	19.5	32.5	56	90
<b>Moment of inertia</b>	kg·m <sup>2</sup>	0.037	0.113	0.28	0.69	1.7
<b>Recommended actuating cylinders</b>	<b>Type</b>	<b>SIN-S 100</b>	<b>SIN-S 100 / 125</b>	<b>SIN-S 125 / 150</b>	<b>SIN-S 125 / 150</b>	<b>SIN-S 150 / 175</b>

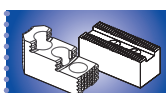
\* For internal clamping reduce the draw pull by 30%.



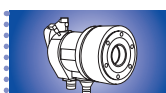
• on request:  
• Tooling Standard  
• Parts Catalog



• SMW-AUTOBLOK  
• 438



• SMW-AUTOBLOK  
• 440



• SMW-AUTOBLOK  
• 297

# High precision power chucks Ø 170 - 400 mm

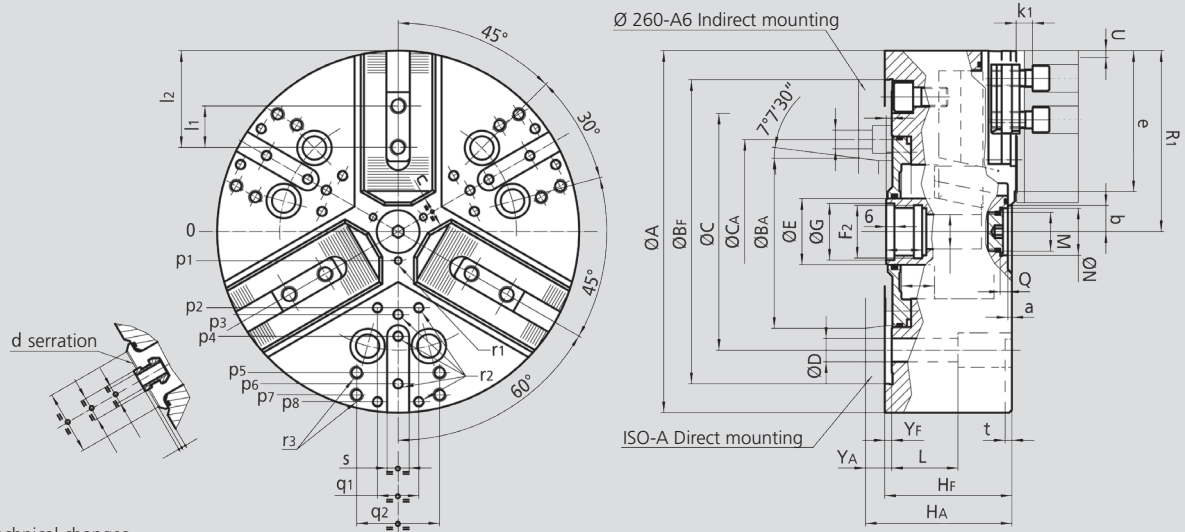
## AP<sup>®</sup>-D

## AP<sup>®</sup>-M

- Closed center
- 3 jaws
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INCH  
SERRATION

METRIC  
SERRATION



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

SMW-AUTOBLOK Type			AP-D 170 AP-M 170		AP-D 215 AP-M 215		AP-D 260 AP-M 260			AP-D 315 AP-M 315		AP-D 400 AP-M 400	
Mounting			Z140	A5	Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	<b>A</b>	mm	172		216		262			315		390	
	<b>BF/BAH6</b>	mm	140	82.563	170	106.375	220	106.375	139.719	220	139.719	300	196.869
	<b>C</b>	mm	104.8		133.4		171.4	171.4			235		
	<b>CA</b>	mm	-	-	-	-	-	133.4	-	-	-	-	-
	<b>D</b>	mm	11.5		13.5		17	13.5	17	17	21		
	<b>E</b>	mm	32		42		48			48		75	
	<b>F2</b>	mm	M24 x 2		M32 x 1.5		M38 x 1.5			M38 x 1.5		M60 x 1.5	
	<b>G H8</b>	mm	25		33		39			39		61	
	<b>HF/HA</b>	mm	68	78	81	93	92	111	106	101	115	112	127
	<b>K</b>	mm	18.5		20		25			25		48	
	<b>L</b>	mm	23		32		38			38		54	
	<b>M</b>	mm	M10 x 1.0		M22 x 1.5		M28 x 1.5			M28 x 1.5		M52 x 1.5	
	<b>N H9</b>	mm	15		24		34			34		60	
	<b>Q</b>	mm	4.5		5.5		5.5			5.5		9	
Chuck open	<b>R1</b>	mm	86.5		108		131			157.5		195	
max. / min.	<b>S</b>	mm	21 / 4		26 / 4		28 / 4			34 / 4		37 / 4	
Jaw stroke	<b>U</b>	mm	3.6		4.6		5			6.3		7	
	<b>W</b>	mm	22		26		26			26		38	
	<b>YF/YA</b>	mm	5	15	5	17	5	24	19	5	19	6	21
Max. / min.	<b>Z</b>	mm	17 / 0		22 / 0		24 / 0			30 / 0		33 / 0	
	<b>a</b>	mm	3		3		3			3		3	
Min.	<b>b</b>	mm	8.5		12		14			16.5		31	
Min.	<b>c</b>	mm	9		13		14			16		38	
<b>AP-D</b>	<b>d</b>	inch	1/16" x 90°		1/16" x 90°		1/16" x 90°			1/16" x 90°		3/32" x 90° <sup>(1)</sup>	
<b>AP-M</b>	<b>d</b>	mm	1.5 x 60°		1.5 x 60°		1.5 x 60°			1.5 x 60°		1.5 x 60°	
	<b>e</b>	mm	67		82		102			123		144	
	<b>f</b>	mm	3		3		3			3		6	
	<b>g</b>	mm	2.5		2.5		2.5			3.5		3.5	
	<b>j</b>	mm	34		46		48			58		63	
	<b>k1</b>	mm	10		11		12			12		14	
<b>AP-D</b>	<b>l1</b>	mm	16.5		23		30			30		38	
<b>AP-M</b>	<b>l1</b>	mm	20		25		30			30		38	
Max. / min.	<b>l2</b>	mm	43 / 24		53 / 33		70 / 41			84 / 43		98 / 54	
<b>AP-D</b>	<b>m</b>	mm	M10		M12		M12			M16		M20	
<b>AP-M</b>	<b>m</b>	mm	M10		M12		M12			M16		M20	
<b>AP-D</b>	<b>n g6</b>	mm	14		17		17			21		25.5	
<b>AP-M</b>	<b>n g6</b>	mm	12		14		16			21		22	
	<b>p1</b>	mm	16		16		21			21		37.5	
	<b>p2</b>	mm	-		-		-			60		80	
	<b>p3</b>	mm	38		49		55			62.5		83	
	<b>p4</b>	mm	-		80		70			80		110	
	<b>p5</b>	mm	65		80		102			102		140	
	<b>p6</b>	mm	70		-		102			120		155	
	<b>p7</b>	mm	-		-		-			135		170	
	<b>p8</b>	mm	-		-		-			-		170	
	<b>q1</b>	mm	-		-		-			30		36	
	<b>q2</b>	mm	36		45		60			60		80	
	<b>r1</b>	mm	M5 / 7		M5 / 8		M6 / 10			M6 / 10		M6 / 12	
	<b>r2</b>	mm	M6 / 14		M8 / 17		M8 / 17			M8 / 17		M10 / 19	
	<b>r3</b>	mm	M8 / 17		M8 / 17		M10 / 19			M10 / 19		M12 / 22	
	<b>s</b>	mm	16		16		16			16		20	
	<b>t</b>	mm	5		5		5			5		5	

<sup>(1)</sup> Serration 1/16 x 90° on request.