

AP-RC

QUICK JAW CHANGE
Tongue & Groove

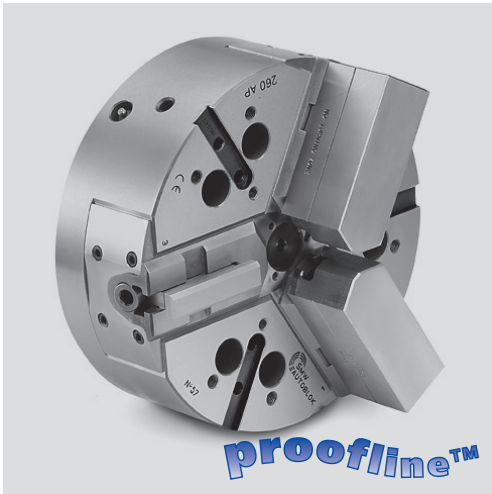
AP-RD

QUICK JAW CHANGE
serrated master jaws

Quick jaw change high precision power chucks

Ø 170 - 400 mm

- proofline = fully sealed/low maintenance
- closed center
- 3 jaws



Application/customer's benefit

For mid to large batch size of chucking parts production, where the flexibility of the quick jaw change is significant.

Fully sealed, ideal for dry machining of castings and forgings or if high pressure coolant is used.

Ideal for vertical machines (traditional or pick-up) and horizontal machines.

AP-RC: quick jaw change with Tongue & Groove master jaws

AP-RD: quick jaw change with serrated master jaws (2.5 mm x 60°)

Technical features

Chuck completely sealed. High accuracy patented quick jaw change specially designed for any type of high production machines. Constant gripping force with permanent grease lubrication.

Use of special top jaws in fix position (AP-RC) or radially adjustable (AP-RD).

Center bore for coolant and/or air.

proofline™ = fully sealed/low maintenance.

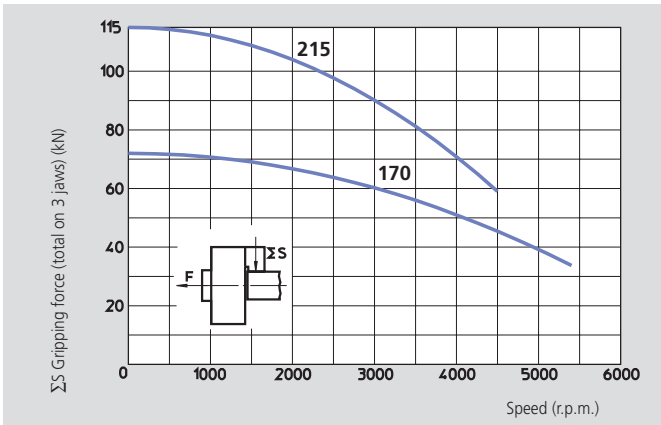
Standard equipment

- 3 jaw chuck
- 1 set soft top jaws
- 1 quick jaw change T wrench
- mounting bolts

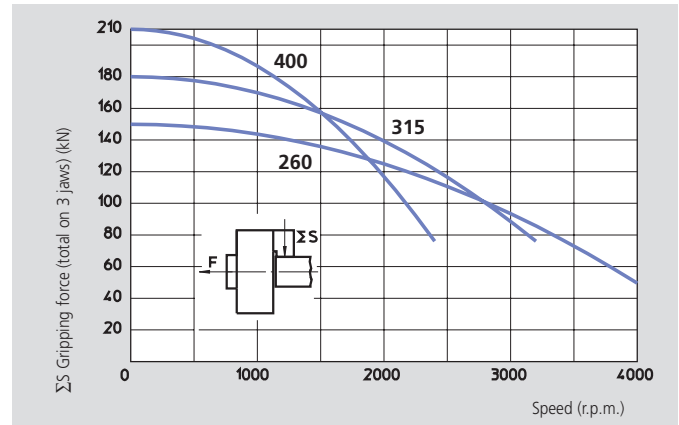
Ordering example

- 3 jaw chuck AP-RC 215/A6
- or
- 3 jaw chuck AP-RD 260/FL220

Actual gripping force diagrams



The diagrams refer to 3-jaw chucks. The max gripping force is the total, acting on the 3 jaws, obtained by applying to the chuck the max. allowed traction to the draw bar. The data refers to a chuck in good conditions, using SMW-AUTOBLOK K67 grease.



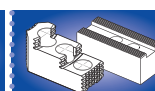
The dynamic gripping forces have been measured using the standard soft top jaws placed in the most external position, but not exceeding the outer diameter of the chuck. Using larger and heavier jaws and/or in a more external position, it is necessary to reduce the rotation speed.

Technical data

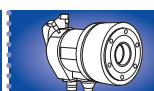
SMW-AUTOBLOK type		AP-RC 170 AP-RD 170	AP-RC 215 AP-RD 215	AP-RC 260 AP-RD 260	AP-RC 315 AP-RD 315	AP-RC 400 AP-RD 400
Number of jaws		3	3	3	3	3
Radial jaw stroke	mm	3.6	4.6	5	6.3	7
Axial piston stroke	mm	17	22	24	30	33
Max. draw-pull	kN	30	42	55	65	75
Max. gripping force	kN	72	112	150	180	210
Max. speed	r.p.m.	5400	4600	4000	3200	2400
Mass (without top jaws)	kg	10	19.5	32.5	56	90
Moment of inertia	kg · m ²	0.037	0.113	0.28	0.69	1.7
Recommended cylinders		SIN-S 100	SIN-S 100/125	SIN-S 125/150	SIN-S 125/150	SIN-S 150/175



page 242



page 88



page 169

Quick jaw change high precision power chucks Ø 170 - 400 mm

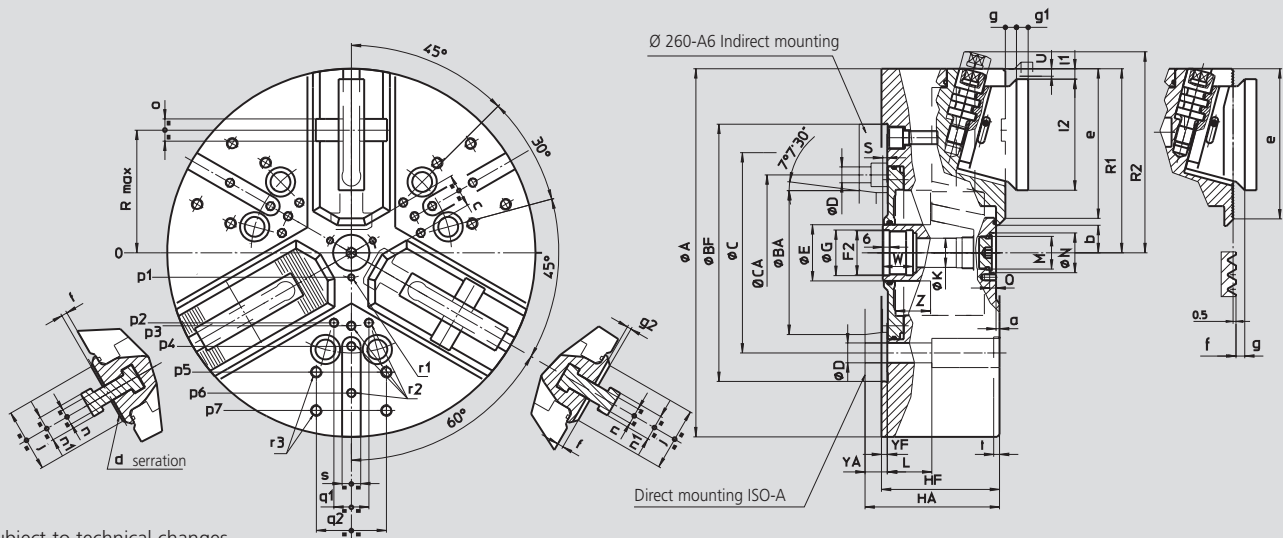
- proffline = fully sealed/low maintenance
- closed center
- 3 jaws

AP-RC

QUICK JAW CHANGE
Tongue & Groove

AP-RD

QUICK JAW CHANGE
serrated master jaws



Subject to technical changes

SMW-AUTOBLOK type			AP-RC 170 AP-RD 170		AP-RC 215 AP-RD 215		AP-RC 260 AP-RD 260			AP-RC 315 AP-RD 315		AP-RC 400 AP-RD 400	
Mounting			Z140	A5	Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	A	mm	172		216		262			315		390	
	Bf/BA	H6 mm	140	82.563	170	106.375	220	106.375	139.719	220	139.719	300	196.869
	C	mm	104.8		133.4		171.4	-	171.4	171.4		235	
	CA	mm	-	-	-	-	-	133.4	-	-	-	-	-
	D	mm	11.5		13.5		17	13.5	17	17		21	
	E	mm	32		42		48			48		75	
	F2	mm	M24 x 2		M32 x 1.5		M38 x 1.5			M38 x 1.5		M60 x 1.5	
	G	H8 mm	25		33		39			39		61	
	Hf/HA	mm	68	78	81	93	92	111	106	101	115	112	127
	K	mm	18.5		20		25			25		48	
	L	mm	23		32		38			38		54	
	M	mm	M22 x 1.5		M22 x 1.5		M28 x 1.5			M28 x 1.5		M52 x 1.5	
	N	H9 mm	24		24		34			34		60	
	Q	mm	5.5		5.5		5.5			5.5		9	
max.	R	mm	56		72		88			105		133.5	
Chuck open	R1	mm	86.5		108		131			157.5		195	
	R2 *	mm	99		122.5		145.5			172		217.5	
max./min.	S	mm	21/4		26/4		28/4			34/4		37/4	
Radial jaw stroke	U	mm	3.6		4.6		5			6.3		7	
	W	mm	22		26		26			26		38	
	Yf/YA	mm	5	15	5	17	5	24	19	5	19	6	21
max./min.	Z	mm	17/0		22/0		24/0			30/0		33/0	
	a	mm	3		3		3			3		3	
min.	b	mm	8.5		12		14			16.5		31	
min.	c	mm	9		13		14			16		38	
serration AP-RD	d	mm	2.5 x 60°		2.5 x 60°		2.5 x 60°			2.5 x 60°		2.5 x 60°	
	e	mm	68		85		106			128.5		150	
	f	mm	5		5		5			5		7	
	g	mm	7.5		7.5		8.5			9.5		11.5	
	g1	mm	8		8		9			10		12	
	g2	mm	3.5		3.5		3.5			3.5		5.5	
	j	mm	30		38		44			54		63	
	l1	mm	2.5		2.5		9			9		8.5	
	l2	mm	52		66		78			95		118	
	n	h8 mm	10		10		12			14		18	
	n1	mm	16		16		19			22		28	
	o	H7 mm	12.68		12.68		19.03			19.03		19.03	
	p1	mm	16		16		21			21		37.5	
	p2	mm	-		-		-			60		80	
	p3	mm	38		49		55			62.5		83	
	p4	mm	-		80		70			80		110	
	p5	mm	65		80		102			102		140	
	p6	mm	70		-		102			120		155	
	p7	mm	-		-		-			135		170	
	q1	mm	-		-		-			30		36	
	q2	mm	36		45		60			60		80	
	r1	mm	M5/7		M5/8		M6/10			M6/10		M6/12	
	r2	mm	M6/14		M8/17		M8/17			M8/17		M10/19	
	r3	mm	M8/17		M8/17		M10/19			M10/19		M12/22	
	s	mm	16		16		16			16		20	
	t	mm	5		5		5			5		5	

*quick jaw change position