

- Pull-down effect of inclined master jaws
- Tongue & groove master jaws
- 3 jaws



Application/customer benefits

- 1st or 2nd operation of parts requesting close squareness and parallelism tolerances
- For chucking parts
- External clamping only

RAN: Inclined master jaws with pull-down effect and TONGUE & GROOVE

Technical features

- Chuck only available with 3 tongue & groove master jaws
- Clamping on raw diameters with carbide inserts, increases the pull-down effect thanks to the penetration into the workpiece
- Central bore for coolant and / or air
- Chuck body and internal parts case hardened

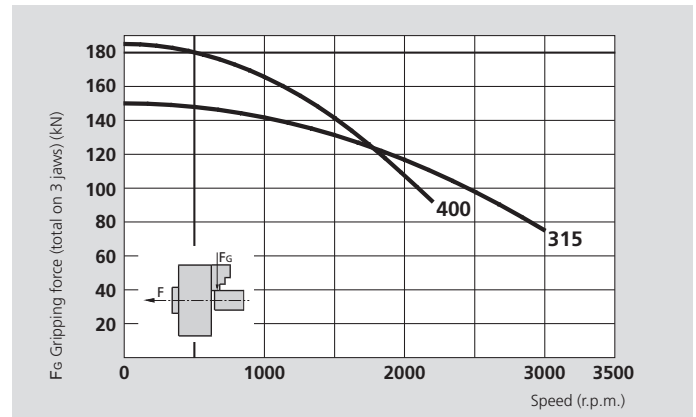
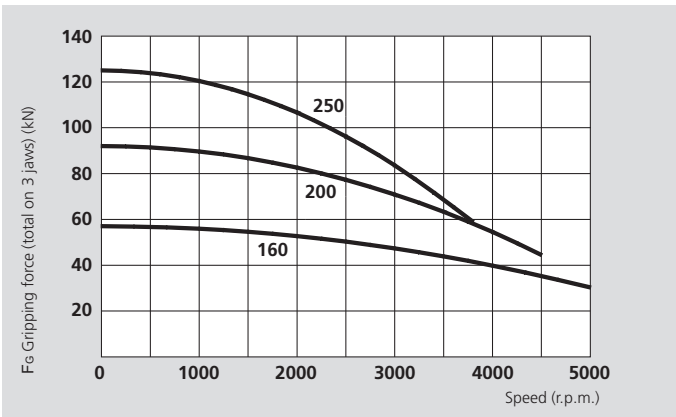
Standard equipment

3-jaw chuck
Mounting bolts

Ordering example

3-jaw chuck RAN 200 / A6
or
3-jaw chuck RAN 315 / A8

Actual gripping force diagrams



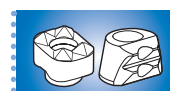
The data in the diagrams refer to 3-jaw chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K67 grease. The static and dynamic gripping forces have been measured using standard soft top jaws, placed in a position not exceeding the outer diameter of the chuck.

⚠ 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

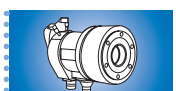
SMW-AUTOBLOK Type		RAN 160	RAN 200	RAN 250	RAN 315	RAN 400
Number of jaws		3	3	3	3	3
Radial jaw stroke	mm	5	5	6	8	8
Axial jaw stroke (pull-down)	mm	1.25	1.25	1.5	2	2
Axial piston stroke	mm	20	20	25	32	32
Max. draw pull	kN	25	40	55	65	80
Max. gripping force	kN	57	92	125	150	185
Max. speed	r.p.m.	5000	4500	3800	3000	2200
Weight (without top jaws)	kg	10	17	31	54	95
Moment of inertia	kg·m ²	0.034	0.10	0.26	0.65	1.85
Top jaw reference mass	kg	0.58	0.92	1.25	2.15	3.6
Recommended actuating cylinders	Type	SIN-S 85 / 100	SIN-S 100 / 125	SIN-S 125 / 150	SIN-S 125 / 150	SIN-S 150 / 175
Id. No. RAN (Center mounting)		77383216	77383220	77383225	77383231	77383240



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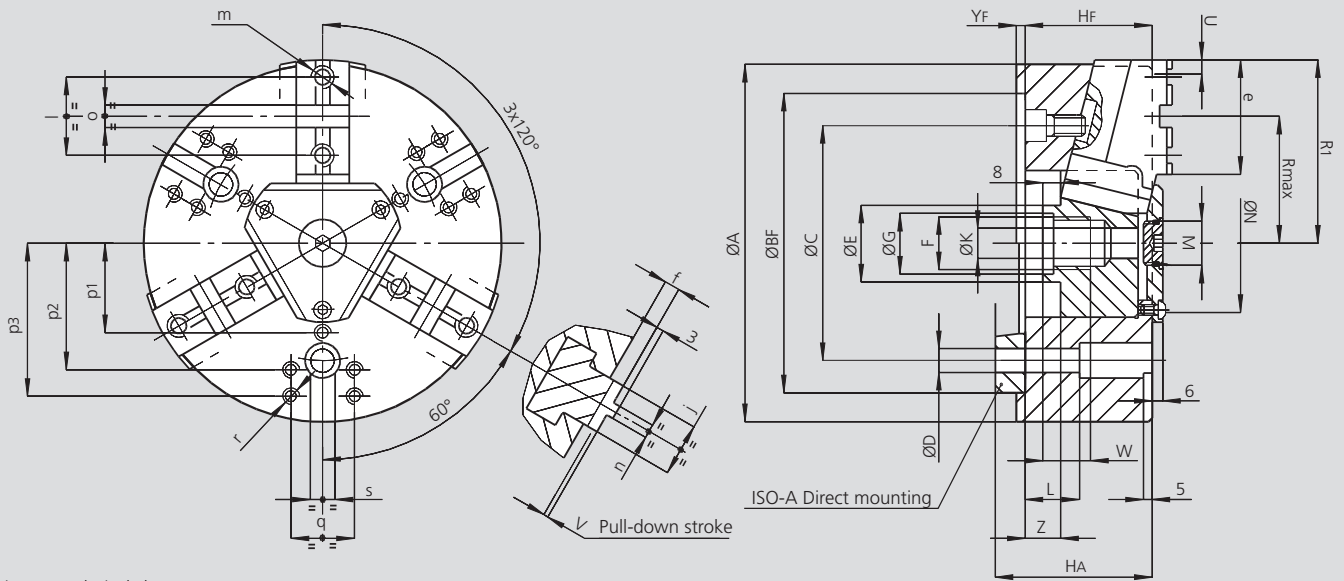
SMW-AUTOBLOK
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High precision pull-down chuck \varnothing 160 - 400 mm

RAN

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- 3 jaws

TONGUE & GROOVE



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

SMW-AUTOBLOK Type			RAN 160		RAN 200		RAN 250		RAN 315		RAN 400	
Mounting			Z140	A5	Z170	A6	Z220	A8	Z220	A8	Z300	A11
	A	mm	165		203		250		305		390	
	BF H6	mm	140		170		220		220		300	
Fixing holes circle	C	mm	104.8		133.4		171.4		171.4		235	
Fixing holes diameter	D	mm	11.5		13.5		17		17		21	
	E	mm	32		41		47		47		66	
	F	mm	M24 x 2		M32 x 1.5		M38 x 1.5		M38 x 1.5		M56 x 2	
	G	mm	25		33		39		39		57	
	HF/HA	mm	66	81	72	89	87	106	95	114	104	125
Central through-hole	K	mm	16		18		25		25		36	
	L	mm	13		22		18		18		54	
	M	mm	M20 x 1		M24 x 1		M28 x 1.5		M28 x 1.5		M52 x 1.5	
Chuck open	N	mm	75		90		105		112		145	
Chuck open	R1	mm	85		104		128		155		198	
Chuck open	Rmax	mm	56		72		88		105		133	
Radial clamp. stroke	U	mm	5		5		6		8		8	
Pull-down clamp. stroke	V	mm	1.25		1.25		1.5		2		2	
	W	mm	20		25		25		25		35	
	YF	mm	5		5		5		5		6	
Axial wedge stroke	Z	mm	20		20		25		32		32	
	e	mm	57		65		84		103		130	
Chuck open	f	mm	8.25		8.25		8.5		9		11	
	j	mm	24		30		36		36		45	
	l	mm	38		44.4		54		63.5		76.2	
	m	mm	M10		M12		M16		M16		M20	
	n h8	mm	7.94		7.94		12.7		12.7		12.7	
	o H7	mm	12.68		12.68		19.03		19.03		19.03	
	p1	mm	-		-		60		65		85	
	p2	mm	65		72		100		90		120	
	p3	mm	-		87		-		120		150	
	q	mm	36		36		60		60		80	
	r	mm	M8		M8		M10		M10		M12	
	s	mm	16		14		16		20		20	