

# NT-RC

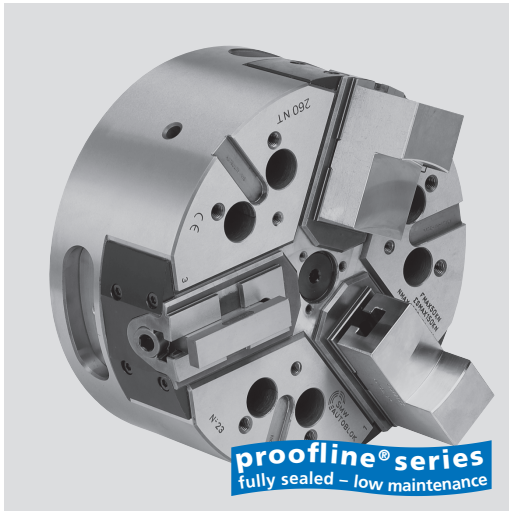
Quick jaw change  
TONGUE & GROOVE

# NT-RD

Quick jaw change  
SERRATION

## Quick jaw change high precision power chuck Ø 170 - 400 mm

- Centrifugal force compensation
- 3 jaws, closed center
- proofline® chucks = fully sealed – low maintenance



### Application/customer benefits

- For mid to large batches flexible production / high speed machining and for fragile parts
- Quick jaw change = short set up time
- Fully sealed, ideal for dry machining of castings and forgings or if high pressure coolant is used
- Ideal for vertical, pick up and horizontal machines

**NT-RC:** Quick jaw change with TONGUE & GROOVE master jaws

**NT-RD:** Quick jaw change with serrated master jaws (2.5 mm x 60°)  
(radially adjustable)

### Technical features

- High accuracy patented quick jaw change
- Centrifugal force compensation
- Constant gripping force with permanent grease lubrication
- Central bore for coolant and / or air
- Chuck body and internal parts case hardened
- **proofline® chucks** = fully sealed – low maintenance

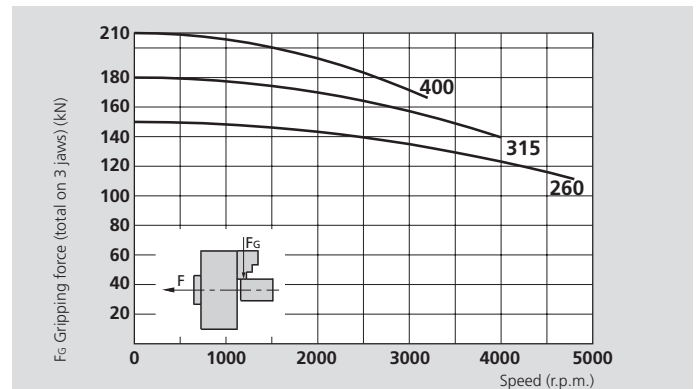
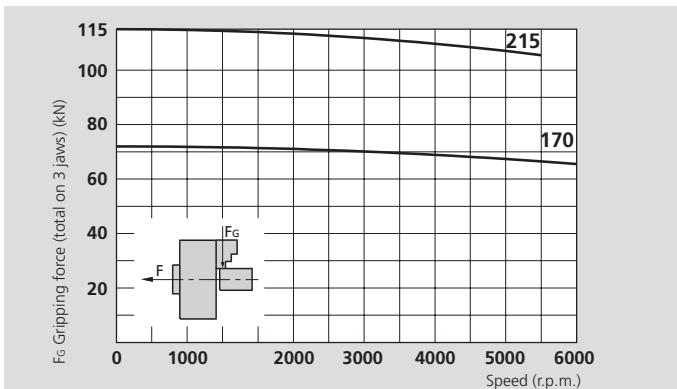
### Standard equipment

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

### Ordering example

- 3-jaw chuck NT-RC 215 / A6
- or
- 3-jaw chuck NT-RD 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.

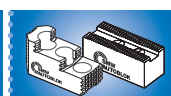
## Technical data

SMW-AUTOBLOK Type		NT-RD 170 NT-RC 170	NT-RD 215 NT-RC 215	NT-RD 260 NT-RC 260	NT-RD 315 NT-RC 315	NT-RD 400 NT-RC 400
<b>Number of jaws</b>		<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
<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.	6500	6000	4800	4000	3200
<b>Weight (without top jaws)</b>	kg	13	25	40	68	112
<b>Moment of inertia</b>	kg·m <sup>2</sup>	0.048	0.146	0.34	0.84	2.15
<b>Recommended actuating cylinders</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>
<b>Id.-No. NT-RC (Center mounting)</b>		77188317	77188321	77188326	77188331	77188340
<b>Id.-No. NT-RD (Center mounting)</b>		77183317	77183321	77183326	77183331	77183340

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



SMW-AUTOBLOK  
466



SMW-AUTOBLOK  
172



SMW-AUTOBLOK  
327

# Quick jaw change high precision power chuck

Ø 170 - 400 mm

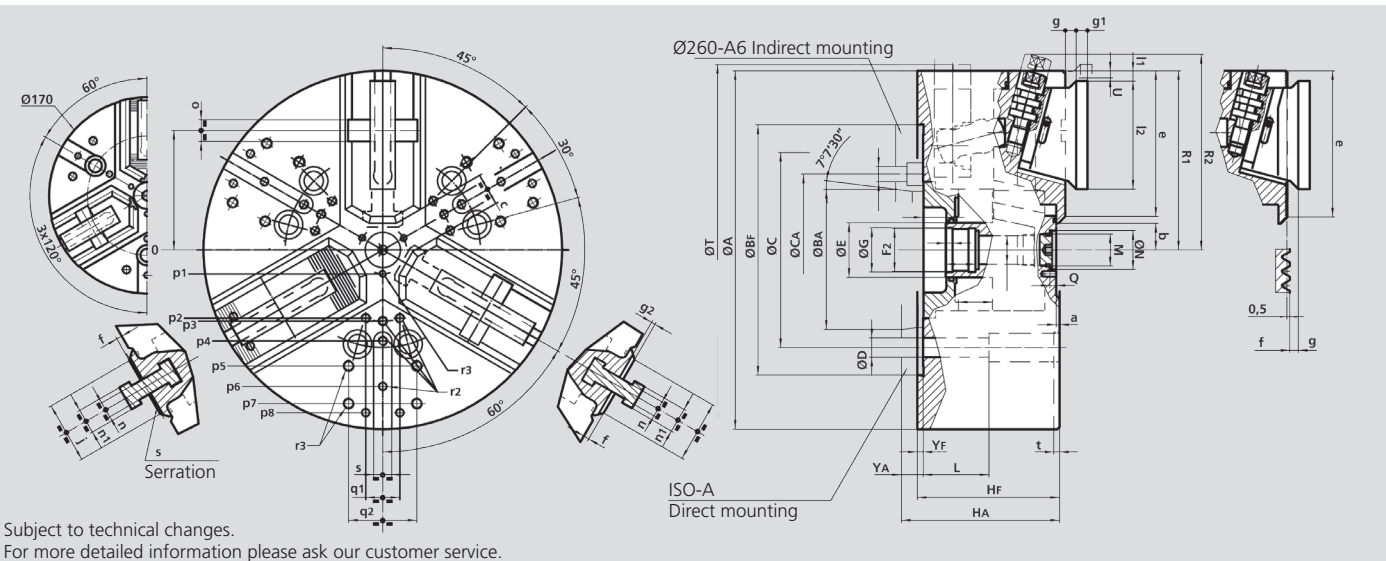
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## NT-RD

Quick jaw change  
SERRATION



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

SMW-AUTOBLOK Type			NT-RD 170 NT-RC 170		NT-RD 215 NT-RC 215		NT-RD 260 NT-RC 260			NT-RD 315 NT-RC 315		NT-RD 400 NT-RC 400	
Mounting			Z140	A5	Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	<b>A</b>	mm	172		216		262			315		390	
	<b>BF/BA H6</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	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	92	102	104	116	118	137	132	125	139	149	164
	<b>K</b>	mm	18.5		20		25			25		48	
	<b>L</b>	mm	43		52		58			58		74	
	<b>M</b>	mm	M10 x 1		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	
Max.	<b>R</b>	mm	56		72		88			105		133.5	
Chuck open	<b>R1</b>	mm	86.5		108		131			157.5		195	
	<b>R2 *</b>	mm	99		122.5		145.5			172		217.5	
Max. / min.	<b>S</b>	mm	20 / 3		19 / -3		22 / -2			20 / -10		33 / 0	
Chuck fully closed	<b>T</b>	mm	175		220		-			-		-	
Radial jaw stroke	<b>U</b>	mm	3.6		4.6		5			6.3		7	
	<b>W</b>	mm	22		26		26			26		38	
Max. / min.	<b>YF/YA</b>	mm	5	15	5	17	5	24	19	5	19	6	21
	<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>d</b>	mm	2.5 x 60°		2.5 x 60°		2.5 x 60°			2.5 x 60°		2.5 x 60°	
	<b>e</b>	mm	68		85		106			128.5		150	
	<b>f</b>	mm	5		5		5			5		7	
	<b>g</b>	mm	7.5		7.5		8.5			9.5		11.5	
	<b>g1</b>	mm	8		8		9			10		12	
	<b>g2</b>	mm	3.5		3.5		3.5			3.5		5.5	
	<b>j</b>	mm	30		38		44			54		63	
	<b>l1</b>	mm	2.5		2.5		9			9		8.5	
	<b>l2</b>	mm	52		66		78			95		118	
	<b>n h8</b>	mm	10		10		12			14		18	
	<b>n1</b>	mm	16		16		19			22		28	
	<b>o H7</b>	mm	12.68		12.68		19.03			19.03		19.03	
	<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	

\* Quick jaw change position.