

NTL-D

INCH
SERRATION

NTL-M

METRIC
SERRATION

High precision power chucks Ø 260 - 400 mm

- Centrifugal force compensation
- Closed center - 3 jaws
- Long stroke
- proofline® chucks = fully sealed – low maintenance



Application/customer benefits

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

NTL-D: Master jaws with INCH SERRATION (1/16" x 90°, 3/32" x 90°)

NTL-M: Master jaws with METRIC SERRATION (1.5 mm x 60°)
(suitable for japanese chuck top jaws)

Technical features

- Long jaw stroke
- Centrifugal force compensation
- Constant gripping force with permanent grease lubrication
- Center bore for coolant and / or air
- Chuck body and internal parts case hardened
- **proofline® chucks** = fully sealed – low maintenance

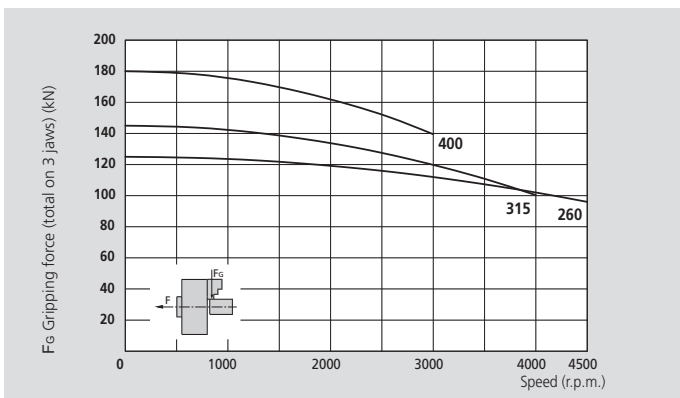
Standard equipment

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

Ordering example

- 3 jaw chuck NTL-D 260 / A6
- or
- 3 jaw chuck NTL-M 260 / Z220

Actual gripping force diagram



The data in the diagram 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.

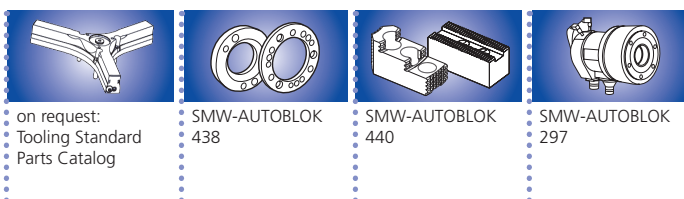
⚠ Safety advice / danger of damage:

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

Technical data

SMW-AUTOBLOK Type		NTL-D 260 NTL-M 260	NTL-D 315 NTL-M 315	NTL-D 400 NTL-M 400
Number of jaws		3	3	3
Radial jaw stroke	mm	9	11	12
Axial piston stroke	mm	22.3	27.3	30
Max. draw pull*	kN	68	80	100
Max. gripping force*	kN	125	145	180
Max. speed	r.p.m.	4400	3700	3000
Weight (without top jaws)	kg	44	69	114
Moment of inertia	kg·m²	0.35	0.85	2.15
Recommended actuating cylinders	Type	SIN-S 125 / 150	SIN-S 125 / 150	SIN-S 150 / 175

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



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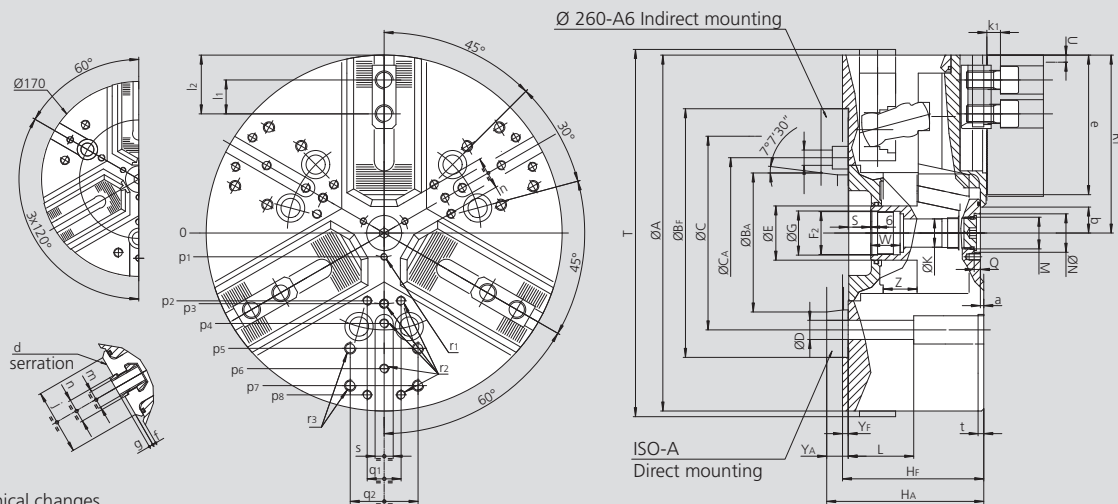
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Subject to technical changes.
For more detailed information please ask our customer service.

SMW-AUTOBLOK Type			NTL-D 260 NTL-M 260			NTL-D 315 NTL-M 315		NTL-D 400 NTL-M 400	
Mounting			Z220	A6	A8	Z220	A8	Z300	A11
	A	mm		262		315		390	
	BF/BA H6	mm	220	106.375	139.719	220	139.719	300	196.869
	C	mm	171.4	-	171.4	171.4		235	
	CA	mm	-	133.4	-	-	-	-	-
	D	mm	17	13.5	17	17		21	
	E	mm		48		48		75	
	F2	mm		M38 x 1.5		M38 x 1.5		M60 x 1.5	
	G H8	mm		39		39		61	
	Hf/HA	mm	118	137	132	125	139	149	164
	K	mm		25		25		48	
	L	mm		58		58		74	
	M	mm		M28 x 1.5		M28 x 1.5		M52 x 1.5	
	N H9	mm		34		34		60	
	Q	mm		5.5		5.5		9	
Chuck open	R1	mm		136		163.6		202	
Max. / min.	S	mm		22 / -0.3		20 / -7.3		33 / 3	
Chuck fully closed	T	mm		275		328		412	
Radial jaw stroke	U	mm		9		11		12	
	W	mm		26		26		38	
	Yf/YA	mm	5	24	19	5	19	6	21
Max. / min.	Z	mm		22.3 / 0		27.3 / 0		30 / 0	
	a	mm		3		3		3	
Min.	b	mm		10		12		26	
Min.	c	mm		7.4		7.9		30	
NTL-D serration	d	inch		1/16" x 90°		1/16" x 90°		3/32" x 90° (1)	
NTL-M serration	d	mm		1.5 x 60°		1.5 x 60°		1.5 x 60°	
	e	mm		102		123		144	
	f	mm		3		3		6	
	g	mm		2.5		3.5		3.5	
	j	mm		48		58		63	
	k1	mm		12		12		14	
NTL-D	l1	mm		30		30		38	
NTL-M	l1	mm		30		30		38	
	l2	mm		70 / 41		88 / 43		102 / 54	
NTL-D	m	mm		M12		M16		M20	
NTL-M	m	mm		M12		M16		M20	
NTL-D	n	mm		17		21		25.5	
NTL-M	n	mm		16		21		22	
	p1	mm		21		21		37.5	
	p2	mm		-		60		80	
	p3	mm		55		62.5		83	
	p4	mm		70		80		110	
	p5	mm		102		102		140	
	p6	mm		102		120		155	
	p7	mm		-		135		170	
	p8	mm		-		-		170	
	q1	mm		-		30		36	
	q2	mm		60		60		80	
	r1	mm		M6 / 10		M6 / 10		M6 / 12	
	r2	mm		M8 / 17		M8 / 17		M10 / 19	
	r3	mm		M10 / 19		M10 / 19		M12 / 22	
	s	mm		16		16		20	
	t	mm		5		5		5	

(1) Serration 1/16 x 90° on request.