

Closed center power chucks (page 1 of 2)

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AN-D INCH serration

High precision power chucks
Ø 125 - 400 mm

- closed center
- 2 and 3 jaws (4 jaws only Ø 400 mm)

Page 38

AN-M METRIC serration



AL-D INCH serration

High precision power chucks
Ø 125 - 400 mm

- closed center – LONG STROKE
- 2 and 3 jaws (4 jaws only Ø 400 mm)

Page 40

AL-M METRIC serration



AN-C Tongue & groove

High precision power chucks
Ø 165 - 400 mm

- closed center
- 2 and 3 jaws (4 jaws only Ø 400 mm)

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AP-D INCH serration

High precision fully sealed power chucks
Ø 170 - 400 mm

- closed center
- 3 jaws
- **proofline® chucks** = fully sealed – low maintenance

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AP-M METRIC serration



AP-C Tongue & groove

High precision fully sealed power chucks
Ø 170 - 400 mm

- closed center
- 3 jaws
- **proofline® chucks** = fully sealed – low maintenance

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APL-D INCH serration

High precision fully sealed power chucks
Ø 215 - 400 mm

- closed center
- 3 jaws – LONG STROKE
- **proofline® chucks** = fully sealed – low maintenance

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APL-M METRIC serration



APL-D INCH serration

High precision fully sealed power chucks
Ø 500 - 1000 mm

- closed center
- 3 jaws – LONG STROKE
- **proofline® chucks** = fully sealed – low maintenance

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APL-C Tongue & Groove



APL-C Tongue & groove

High precision fully sealed power chucks
Ø 215 - 400 mm

- closed center
- 3 jaws – LONG STROKE
- **proofline® chucks** = fully sealed – low maintenance

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NT-C

Tongue & groove

High precision fully sealed power chucks
Ø 170 - 400 mm

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

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NT-D INCH serration

High precision fully sealed power chucks
Ø 170 - 400 mm

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

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NT-M METRIC serration



NTL-D INCH serration

High precision fully sealed power chucks
Ø 260 - 400 mm

- centrifugal force compensation
- closed center
- 3 jaws – LONG STROKE
- **proofline® chucks** = fully sealed – low maintenance

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NTL-M METRIC serration

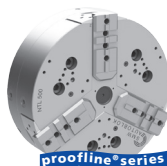


NTL-C Tongue & groove

High precision fully sealed power chucks
Ø 260 - 400 mm

- centrifugal force compensation
- closed center
- 3 jaws – LONG STROKE
- **proofline® chucks** = fully sealed – low maintenance

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NTL-D INCH serration

High precision fully sealed power chucks
Ø 500 - 1000 mm

- centrifugal force compensation
- closed center
- 3 jaws – LONG STROKE
- **proofline® chucks** = fully sealed – low maintenance

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NTL-C Tongue & groove



IN-D INCH serration

High precision power chucks
Ø 500 - 800 mm

- closed center
- 3 and 4 jaws

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IN-C Tongue & groove



IL-D INCH serration

High precision power chucks
Ø 500 - 800 mm

- LONG STROKE
- closed center
- 3 and 4 jaws

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IL-C Tongue & groove

Continuation
on the next page

Closed center power chucks (page 2 of 2)



1



IN-D

Module 2
serration

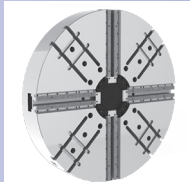
IL-D

Module 2 serration
Long stroke

High precision power chucks
Ø 1000 - 1600 mm

- closed center
- 3 and 6 jaws (all diameters)

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IN-D

Module 2
serration

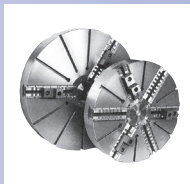
IL-D

Module 2 serration
Long stroke

High precision power chucks
Ø 1000 - 1600 mm

- closed center
- 4 jaws (all diameters)

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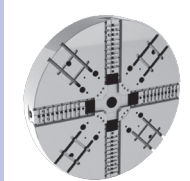
IR-C

Tongue & groove serration
Radial setting of jaws

High precision power chucks
Ø 1000 - 2500 mm

- closed center
- 3-6 jaws (all diameters)

Page 72



IR-C

Tongue & groove serration
Radial setting of jaws

High precision power chucks
Ø 1000 - 2000 mm

- closed center
- 4 jaws (all diameters)

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RAN

Pull down effect
Tongue & groove

High precision pull-down chucks
Ø 160 - 400 mm

- pull-down effect of inclined master jaws
- 3 jaws

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CL-C

Tongue & groove

CL-D

INCH
serration

High precision power chucks – LONG STROKE
Ø 80 - 315 mm

- closed center
- LONG STROKE
- 2 jaws

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AN-DINCH
serration**AN-M**METRIC
serration**High precision power chucks Ø 125 - 400 mm**

- Closed center
- 2 and 3 jaws (4 jaws only Ø 400 mm)

Application/customer benefits

- For chucking parts
- Suitable for vertical machines

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

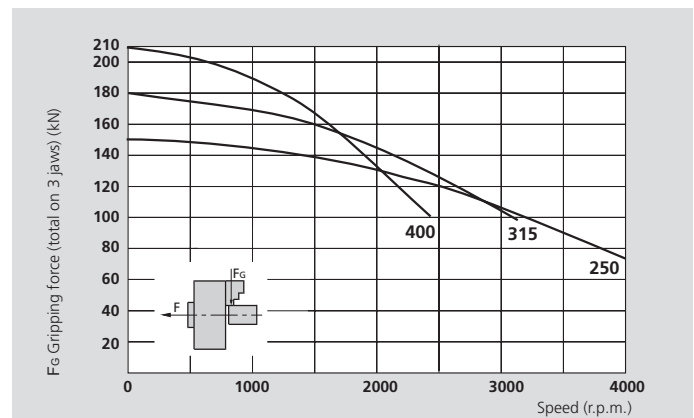
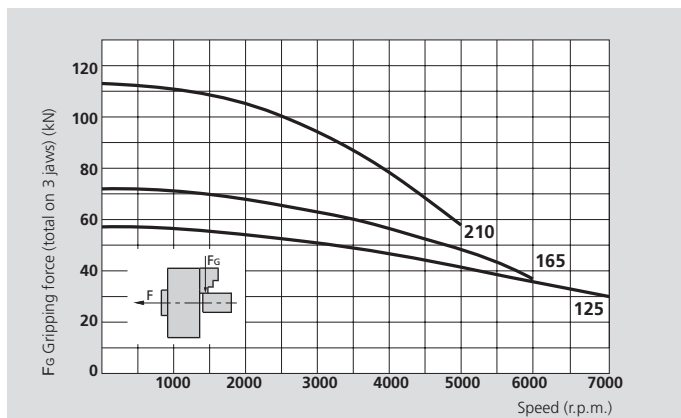
- Gripping force transmission via wedge hook
- Sealed against swarf and chips
- Case hardened body to assure greatest precision and long chuck life

Standard equipment

2, 3 or 4 jaw chuck
1 set T-nuts with bolts
1 set soft top jaws
Mounting bolts
Grease gun

Ordering example

3 jaw chuck AN-D 210/A6
or
2 jaw chuck AN-M 250/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 K05 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.

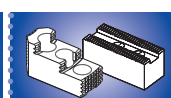
△ Safety advice/danger of damage:

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

Technical data

SMW-AUTOBLOK Type		AN-D 125 AN-M 125		AN-D 165 AN-M 165		AN-D 210 AN-M 210		AN-D 250 AN-M 250		AN-D 315 AN-M 315		AN-D 400 AN-M 400		
Number of jaws		2	3	2	3	2	3	2	3	2	3	2	3	4
Radial jaw stroke	mm	3.2		3.6		4.4		5		6.3		7		
Axial piston stroke	mm	15		17		21		24		30		33		
Max. draw pull*	kN	14	20	17	25	25	38	33	50	40	60	50	70	70
Max. gripping force*	kN	40	56	50	72	75	115	100	150	120	180	150	210	210
Max. speed	r.p.m.	7000		6000		5000		4000		3200		2400		2000
Weight (without top jaws)	kg	5.5		9.5		19		32		56		84		
Moment of inertia	kg·m²	0.011		0.032		0.105		0.26		0.69		1.6		
Recommended actuating cylinders	Type	SIN-S 85/100		SIN-S 100		SIN-S 100/125		SIN-S 125/150		SIN-S 125/150		SIN-S 150/175		

* For internal clamping reduce the draw pull by 30 %

SMW-AUTOBLOK
390SMW-AUTOBLOK
392SMW-AUTOBLOK
259

High precision power chucks Ø 125 - 400 mm

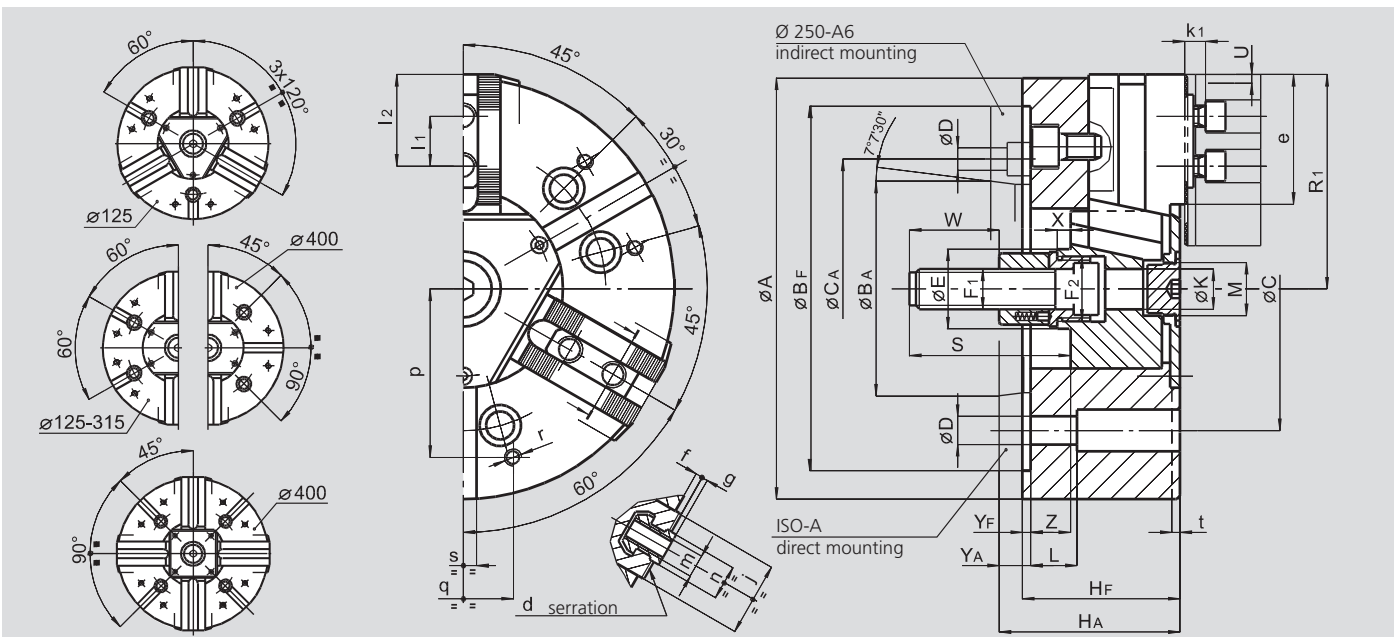
- Closed center
- 2 and 3 jaws (4 jaws only Ø 400 mm)

AN-D

INCH
serration

AN-M

METRIC
serration



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			AN-D 125 AN-M 125		AN-D 165 AN-M 165		AN-D 210 AN-M 210		AN-D 250 AN-M 250			AN-D 315 AN-M 315		AN-D 400 AN-M 400	
Mounting			Z115	A4	Z140	A5	Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	A	mm	127		165		210		254			315		390	
	BF/BAH6	mm	115	63.513	140	82.563	170	106.375	220	106.375	139.719	220	139.719	300	196.869
	C	mm	82.6		104.8		133.4		171.4		171.4	171.4		235	
	CA	mm	—	—	—	—	—	—	—	133.4	—	—	—	—	—
	D	mm	11.5		11.5		13.5		17	13.5	17	17		21	
	E	mm	25		32		41		47			47		86	
	F1	mm	M12 x 1.25		M16		M20		M24			M24		M24	
	F2	mm	M18 x 1.5		M24 x 2		M32 x 1.5		M38 x 1.5			M38 x 1.5		M75 x 2	
	HF/HA	mm	59	67	71	81	85	97	95	114	109	105	119	116	131
	K	mm	9		17		20		25			25		65	
	L	mm	32		23		32		28			38		54	
	M	mm	M16 x 1.5		M24 x 1.5		M32 x 1.5		M32 x 1.5			M38 x 1.5		M68 x 2	
Chuck open	R1	mm	64		83		105		128			158		196	
	S	mm	77		104		97		103			103		105	
Jaw stroke	U	mm	3.2		3.6		4.4		5			6.3		7	
	W	mm	40		52		55		60			60		60	
	X	mm	12		17		8		8			8		8	
	YF/YA	mm	5	13	5	15	5	17	5	24	19	5	19	6	21
max./min.	Z	mm	15/0		17/0		21/0		24/0			30/0		33/0	
AN-D	d	inch	1/16" x 90°		1/16" x 90°		1/16" x 90°		1/16" x 90°			1/16" x 90°		3/32" x 90° ⁽¹⁾	
AN-M	d	mm	1.5 x 60°		1.5 x 60°		1.5 x 60°		1.5 x 60°			1.5 x 60°		1.5 x 60°	
	e	mm	37		48		60		77			99		116	
	f	mm	3		4		3		4			4		6	
	g	mm	2.5		2.5		3		3.5			3.5		3.5	
	j	mm	26		30		36		45			45		62	
	k1	mm	10		10		11		12			12		14	
AN-D	l1	mm	16		16.5		23		30			30		38	
AN-M	l1	mm	16		20		25		30			30		38	
max./min.	l2	mm	30/23		40/24		50/33		62/43			84/43		90/49	
AN-D	m	mm	M8		M10		M12		M16			M16		M20	
AN-M	m	mm	M8		M10		M12		M12			M16		M20	
AN-D	n h8	mm	12		14		17		21			21		25.5	
AN-M	n h8	mm	12		12		14		16			21		22	
	p	mm	52		65		80		102			120		150	
	q	mm	30		36		45		60			60		80	
	r	mm	M6		M8		M8		M10			M10		M12	
	s	mm	12		16		16		16			16		20	
	t	mm	4		5		5		5			5		5	

¹ serration 1/16 x 90° on request

AL-DINCH
serration**AL-M**METRIC
serration**High precision power chucks Ø 125 - 400 mm**

- Closed center
- LONG STROKE
- 2 and 3 jaws (4 jaws only Ø 400 mm)

Application/customer benefits

- For chucking parts
- Suitable for vertical machines
- Long clamping stroke (possibility to clamp 1st and 2nd operation with the same jaws)

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

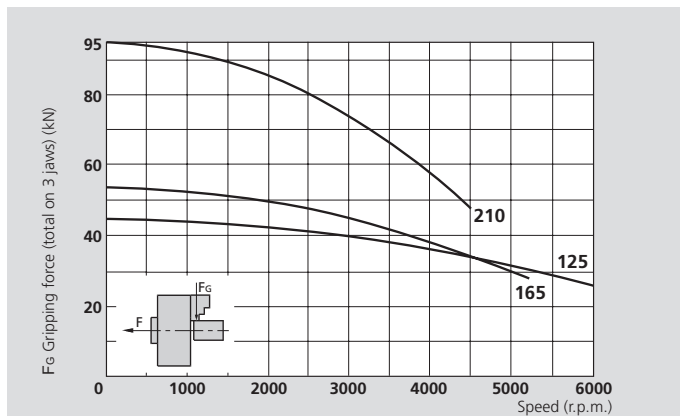
- Extra long jaw stroke
- Gripping force transmission via wedge hook
- Case hardened body to assure greatest precision and long chuck life

Standard equipment

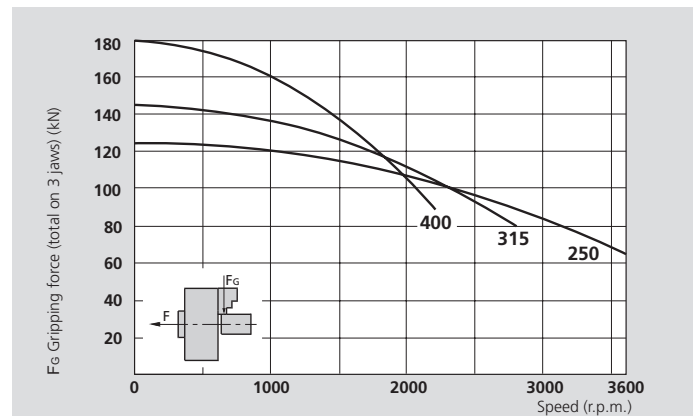
2, 3 or 4 jaw chuck
1 set T-nuts with bolts
1 set soft top jaws
Mounting bolts
Grease gun

Ordering example

3 jaw chuck AL-D 210/A6
or
2 jaw chuck AL-M 250/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 K05 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.

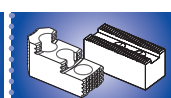
**△ Safety advice/danger of damage:**

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

Technical data

SMW-AUTOBLOK Type		AL-D 125 AL-M 125		AL-D 165 AL-M 165		AL-D 210 AL-M 210		AL-D 250 AL-M 250		AL-D 315 AL-M 315		AL-D 400 AL-M 400		
Number of jaws		2	3	2	3	2	3	2	3	2	3	2	3	4
Radial jaw stroke	mm	6		7		8.5		10		12		13		
Axial piston stroke	mm	15		17		21		25		30		33		
Max. draw pull*	kN	17	25	20	30	35	53	45	68	54	80	67	100	100
Max. gripping force*	kN	30	45	36	54	63	95	83	125	97	145	120	180	180
Max. speed	r.p.m.	6000		5200		4500		3600		2800		2000		1700
Weight (without top jaws)	kg	5.5		9.5		19		32		56		84		
Moment of inertia	kg·m ²	0.011		0.032		0.105		0.26		0.69		1.6		
Recommended actuating cylinders	Type	SIN-S 85/100		SIN-S 100		SIN-S 100/125		SIN-S 125/150		SIN-S 125/150		SIN-S 150/175		

* For internal clamping reduce the draw pull by 30 %

SMW-AUTOBLOK
390SMW-AUTOBLOK
392SMW-AUTOBLOK
259

High precision power chucks Ø 125 - 400 mm

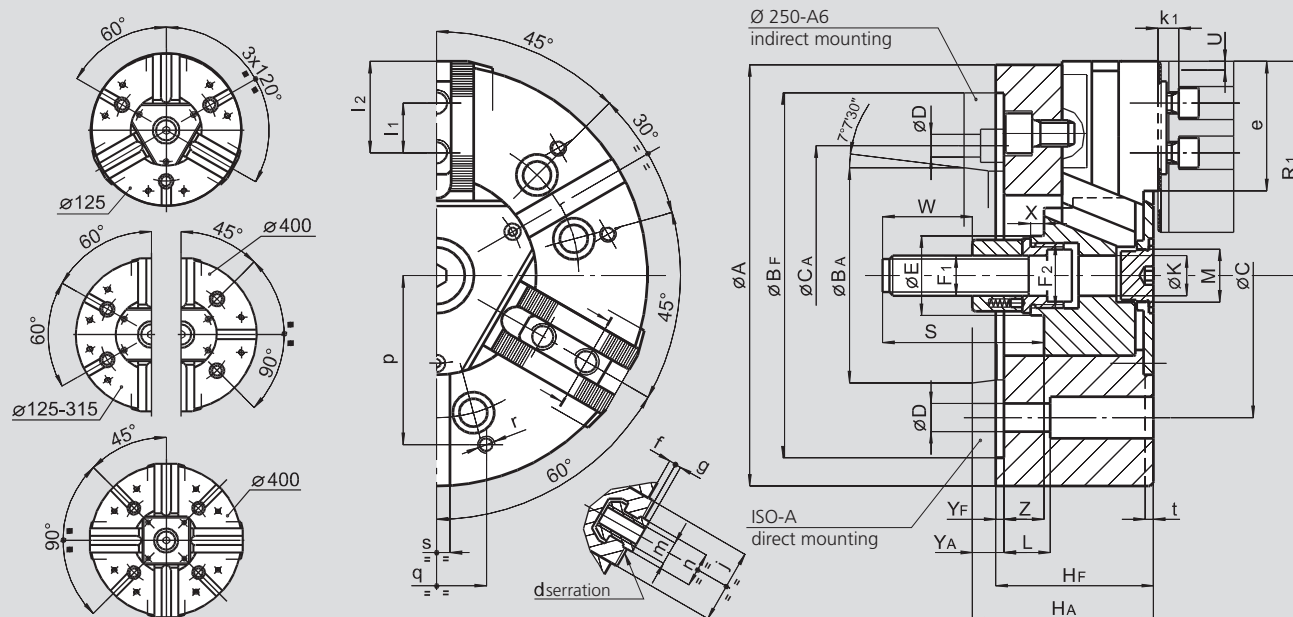
- Closed center
- LONG STROKE
- 2 and 3 jaws (4 jaws only Ø 400 mm)

AL-D

INCH
serration

AL-M

METRIC
serration



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			AL-D 125 AL-M 125		AL-D 165 AL-M 165		AL-D 210 AL-M 210		AL-D 250 AL-M 250			AL-D 315 AL-M 315		AL-D 400 AL-M 400	
Mounting			Z115	A4	Z140	A5	Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	A	mm	127		165		210		254			315		390	
	BF/BAH6	mm	115	63.513	140	82.563	170	106.375	220	106.375	139.719	220	139.719	300	196.869
	C	mm	82.6		104.8		133.4		171.4		171.4	171.4		235	
	CA	mm	—	—	—	—	—	—	—	133.4	—	—	—	—	—
	D	mm	11.5		11.5		13.5		17	13.5	17	17		21	
	E	mm	25		32		41		47			47		86	
	F1	mm	M12 x 1.25		M16		M20		M24			M24		M24	
	F2	mm	M18 x 1.5		M24 x 2		M32 x 1.5		M38 x 1.5			M38 x 1.5		M75 x 2	
	HF/HA	mm	59	67	71	81	85	97	95	114	109	105	119	116	131
	K	mm	9		17		20		25			25		65	
	L	mm	32		23		32		28			38		54	
	M	mm	M16 x 1.5		M24 x 1.5		M32 x 1.5		M32 x 1.5			M38 x 1.5		M68 x 2	
Chuck open	R1	mm	67		86		109		133			164		202	
	S	mm	77		104		97		103			103		105	
Jaw stroke	U	mm	6		7		8.5		10			12		13	
	W	mm	40		52		55		60			60		60	
	X	mm	12		17		8		8			8		8	
	YF/YA	mm	5	13	5	15	5	17	5	24	19	5	19	6	21
max./min.	Z	mm	15/0		17/0		21/0		24/-1			30/0		33/0	
AL-D	d	inch	1/16" x 90°		1/16" x 90°		1/16" x 90°		1/16" x 90°			1/16" x 90°		3/32" x 90° ⁽¹⁾	
AL-M	d	mm	1.5 x 60°		1.5 x 60°		1.5 x 60°		1.5 x 60°			1.5 x 60°		1.5 x 60°	
	e	mm	37		49		61		77			99		116	
	f	mm	3		4		3		4			4		6	
	g	mm	2.5		2.5		3		3.5			3.5		3.5	
	j	mm	26		30		36		45			45		62	
	k1	mm	10		10		11		12			12		14	
AL-D	l1	mm	16		16.5		23		30			30		38	
AL-M	l1	mm	16		20		25		30			30		38	
max./min.	l2	mm	30/23		40/24		50/33		62/43			84/43		90/49	
AL-D	m	mm	M8		M10		M12		M16			M16		M20	
AL-M	m	mm	M8		M10		M12		M12			M16		M20	
AL-D	n h8	mm	12		14		17		21			21		25.5	
AL-M	n h8	mm	12		12		14		16			21		22	
	p	mm	52		65		80		102			120		150	
	q	mm	30		36		45		60			60		80	
	r	mm	M6		M8		M8		M10			M10		M12	
	s	mm	12		16		16		16			16		20	
	t	mm	5		5		5		5			5		5	

⁽¹⁾ serration 1/16 x 90° on request

- Closed center
- 2 and 3 jaws (4 jaws only Ø 400 mm)

Application/customer benefits

- For chucking parts
- Suitable for vertical machines
- Tongue & groove master jaws for heavy or very high profile special top jaws

AN-C: Tongue & groove master jaws (American Standard)

Technical features

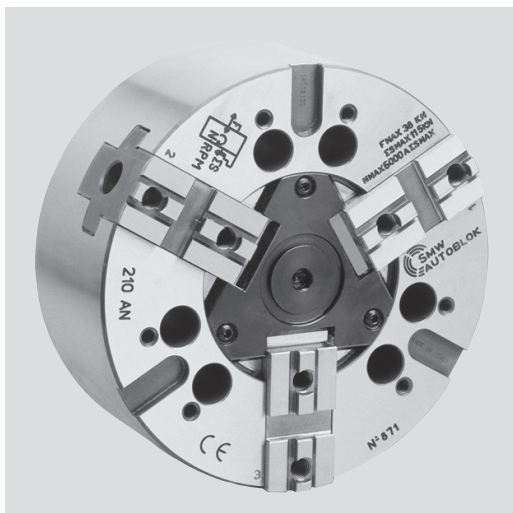
- Gripping force transmission via wedge hook
- Case hardened body to assure greatest precision and long chuck life

Standard equipment

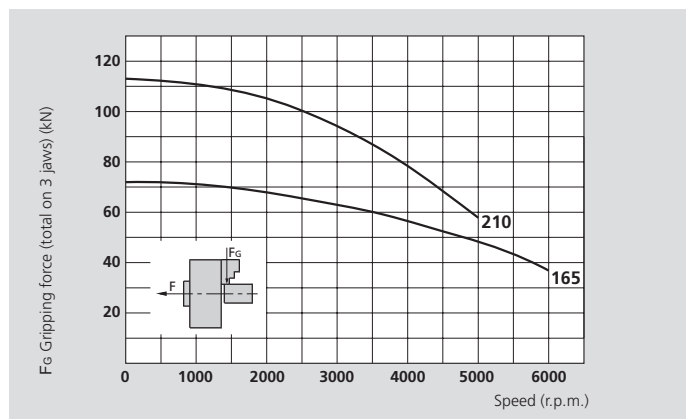
2, 3 or 4 jaw chuck
Mounting bolts
Grease gun

Ordering example

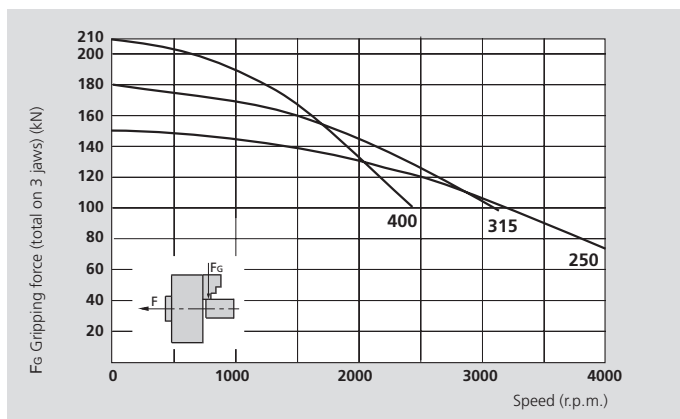
3 jaw chuck AN-C 250/Z220
or
2 jaw chuck AN-C 315/A8



Actual gripping force diagrams



The data in the diagrams refer to 3-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 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.

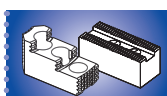
Technical data

SMW-AUTOBLOK Type		AN-C 165		AN-C 210		AN-C 250		AN-C 315		AN-C 400		
Number of jaws		2	3	2	3	2	3	2	3	2	3	4
Radial jaw stroke	mm	3.6		4.4		5		6.3		7		
Axial piston stroke	mm	17		21		24		30		33		
Max. draw pull*	kN	17	25	25	38	33	50	40	60	50	70	70
Max. gripping force*	kN	50	72	75	115	100	150	120	180	150	210	210
Max. speed	r.p.m.	6000		5000		4000		3200		2400		2000
Weight (without top jaws)	kg	10		19.5		33		57		84		
Moment of inertia	kg·m²	0.034		0.11		0.27		0.70		1.6		
Recommended actuating cylinders	Type	SIN-S 100		SIN-S 100/125		SIN-S 125/150		SIN-S 125/150		SIN-S 150/175		

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



SMW-AUTOBLOK
390



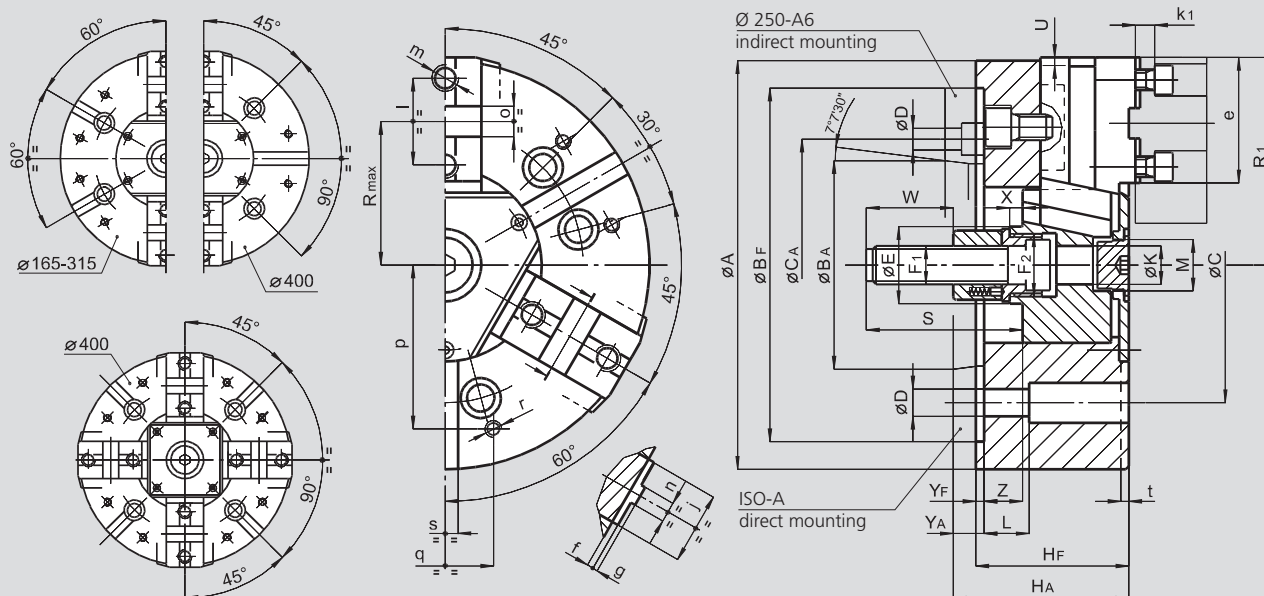
SMW-AUTOBLOK
392



SMW-AUTOBLOK
259

- Closed center
- 2 and 3 jaws (4 jaws only Ø 400 mm)

Tongue & groove



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			AN-C 165		AN-C 210		AN-C 250			AN-C 315		AN-C 400	
Mounting			Z140	A5	Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	A	mm	165		210		254			315		390	
	BF/BAH6	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		41		47			47		86	
	F1	mm	M16		M20		M24			M24		M24	
	F2	mm	M24 x 2		M32 x 1.5		M38 x 1.5			M38 x 1.5		M75 x 2	
	HF/HA	mm	71	81	85	97	95	114	109	105	119	116	131
	K	mm	17		20		25			25		65	
	L	mm	23		32		28			38		54	
	M	mm	M24 x 1.5		M32 x 1.5		M32 x 1.5			M38 x 1.5		M68 x 2	
Chuck open max.	R1	mm	83		105		128			158		196	
	R	mm	56		72		88			105		133.5	
	S	mm	104		97		103			103		105	
Jaw stroke	U	mm	3.6		4.4		5			6.3		7	
	W	mm	52		55		60			60		60	
	X	mm	17		8		8			8		8	
	YF/YA	mm	5	15	5	17	5	24	19	5	19	6	21
max./min.	Z	mm	17/0		21/0		24/0			30/0		33/0	
	e	mm	54		71		77			99		116	
	f	mm	4		4		4			4		7	
	g	mm	3		3		3			3		3	
	j	mm	30		36		45			45		62	
	k1	mm	10		11		12			12		14	
	l	mm	38		44.4		54			63.5		76.2	
	m	mm	M10		M12		M16			M16		M20	
	n h8	mm	7.94		7.94		12.70			12.70		12.70	
	o H7	mm	12.68		12.68		19.03			19.03		19.03	
	p	mm	65		80		102			120		150	
	q	mm	36		45		60			60		80	
	r	mm	M8		M8		M10			M10		M12	
	s	mm	16		16		16			16		20	
	t	mm	5		5		5			5		5	

AP®-DINCH
serration**AP®-M**METRIC
serration**High precision power chucks Ø 170 - 400 mm**

- Closed center
- 3 jaws
- proofline® 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**

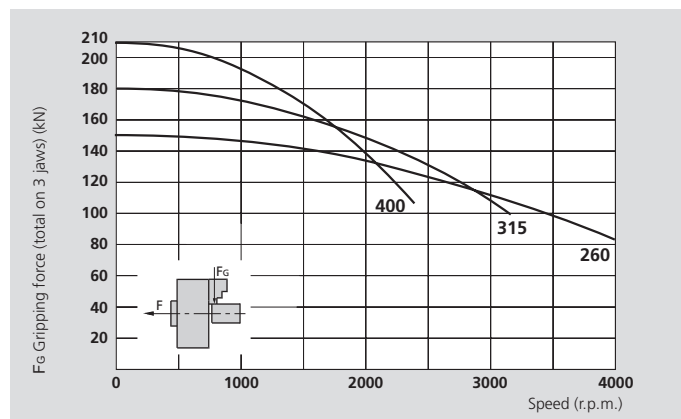
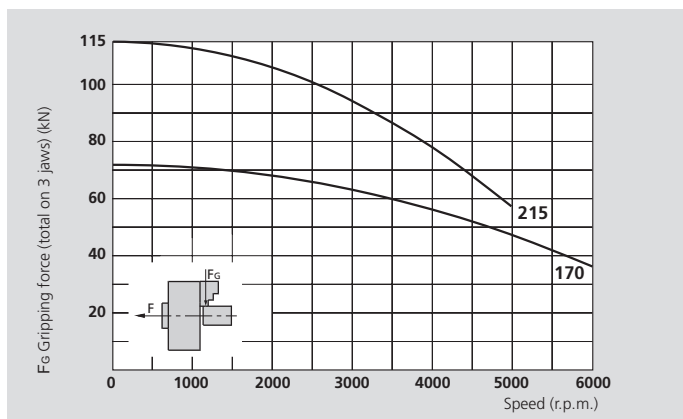
- Constant gripping force with permanent grease lubrication
- Central bore for coolant and/or air
- Chuck body and internal parts case hardened
- **proofline® chucks** = fully sealed – low maintenance

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
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.	6000	5000	4000	3200	2400
Weight (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 actuating cylinders						
	Type	SIN-S 100	SIN-S 100/125	SIN-S 125/150	SIN-S 125/150	SIN-S 150/175

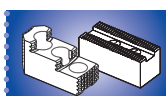
* For internal clamping reduce the draw pull by 30 %



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SMW-AUTOBLOK
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High precision power chucks Ø 170 - 400 mm

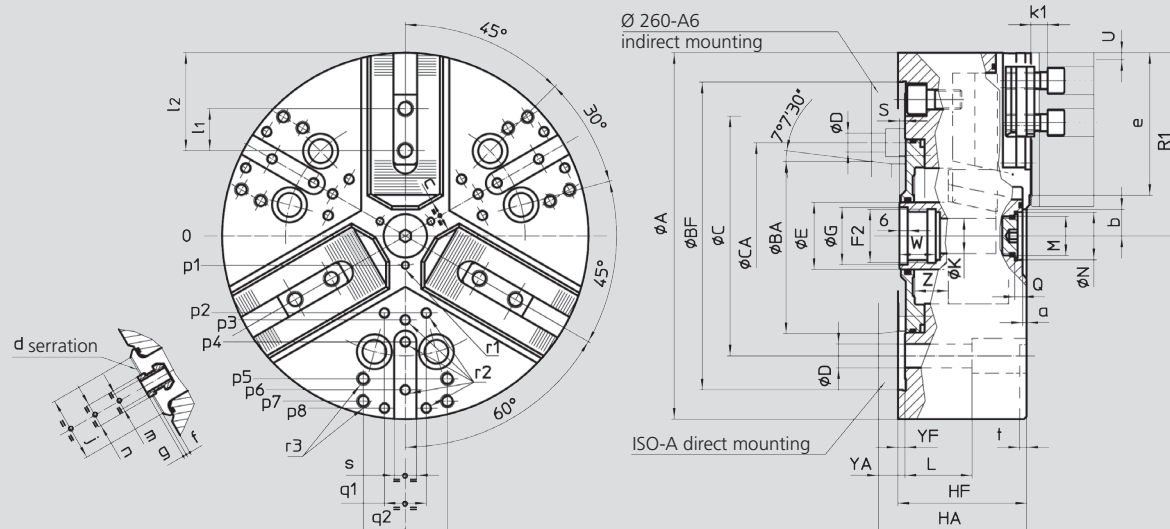
- Closed center
- 3 jaws
- proofline® chucks = fully sealed – low maintenance

AP®-D

INCH
serration

AP®-M

METRIC
serration



Subject to technical changes.
For more detailed information please ask for customer drawing.

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
	A	mm	172		216		262			315		390	
	BF/BAH6	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	17	21	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	M10 x 1.0		M22 x 1.5		M28 x 1.5			M28 x 1.5		M52 x 1.5	
	N H9	mm	15		24		34			34		60	
	Q	mm	4.5		5.5		5.5			5.5		9	
Chuck open	R1	mm	86.5		108		131			157.5		195	
max./min.	S	mm	21/4		26/4		28/4			34/4		37/4	
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	
AP-D	d	inch	1/16" x 90°		1/16" x 90°		1/16" x 90°			1/16" x 90°		3/32" x 90° ⁽¹⁾	
AP-M	d	mm	1.5 x 60°		1.5 x 60°		1.5 x 60°			1.5 x 60°		1.5 x 60°	
	e	mm	67		82		102			123		144	
	f	mm	3		3		3			3		6	
	g	mm	2.5		2.5		2.5			3.5		3.5	
	j	mm	34		46		48			58		63	
	k1	mm	10		11		12			12		14	
AP-D	l1	mm	16.5		23		30			30		38	
AP-M	l1	mm	20		25		30			30		38	
max./min.	l2	mm	43/24		53/33		70/41			84/43		98/54	
AP-D	m	mm	M10		M12		M12			M16		M20	
AP-M	m	mm	M10		M12		M12			M16		M20	
AP-D	n g6	mm	14		17		17			21		25.5	
AP-M	n g6	mm	12		14		16			21		22	
	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	
	p8	mm	-		-		-			-		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	

⁽¹⁾ serration 1/16 x 90° on request

- Closed center
- 3 jaws
- proofline[®] chucks = fully sealed – low maintenance

Application/customer benefits

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

AP-C: Tongue & groove master jaws (American Standard)

Technical features

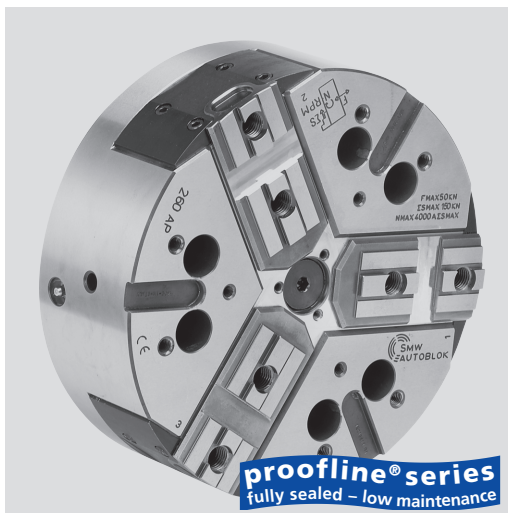
- Constant gripping force with permanent grease lubrication
- Central bore for coolant and/or air
- Chuck body and internal parts case hardened
- **proofline[®] chucks** = fully sealed – low maintenance

Standard equipment

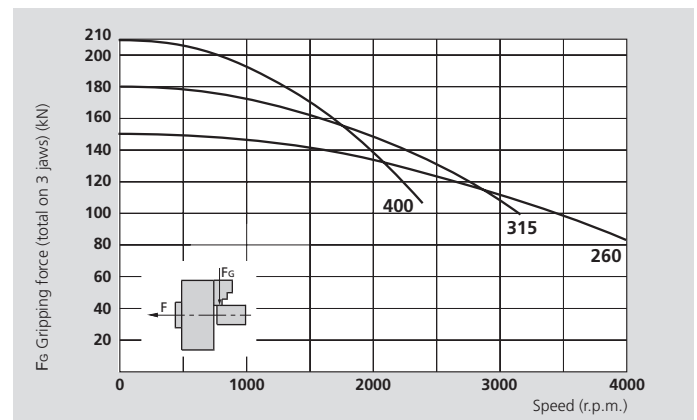
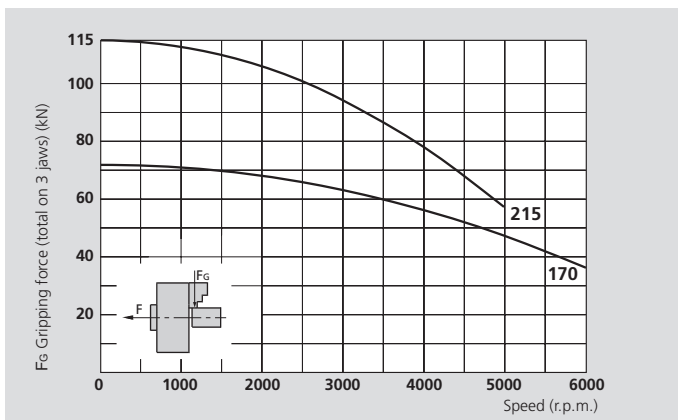
3 jaw chuck
mounting bolts

Ordering example

3 jaw chuck AP-C 215/A6



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-C 170	AP-C 215	AP-C 260	AP-C 315	AP-C 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.	6000	5000	4000	3200	2400
Weight (without top jaws)	kg	10	19.5	32.5	56	90
Moment of inertia	kg·m²	0.037	0.113	0.28	0.69	1.7
Recommended actuating cylinders	Type	SIN-S 100	SIN-S 100/125	SIN-S 125/150	SIN-S 125/150	SIN-S 150/175

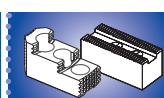
* For internal clamping reduce the draw pull by 30 %.



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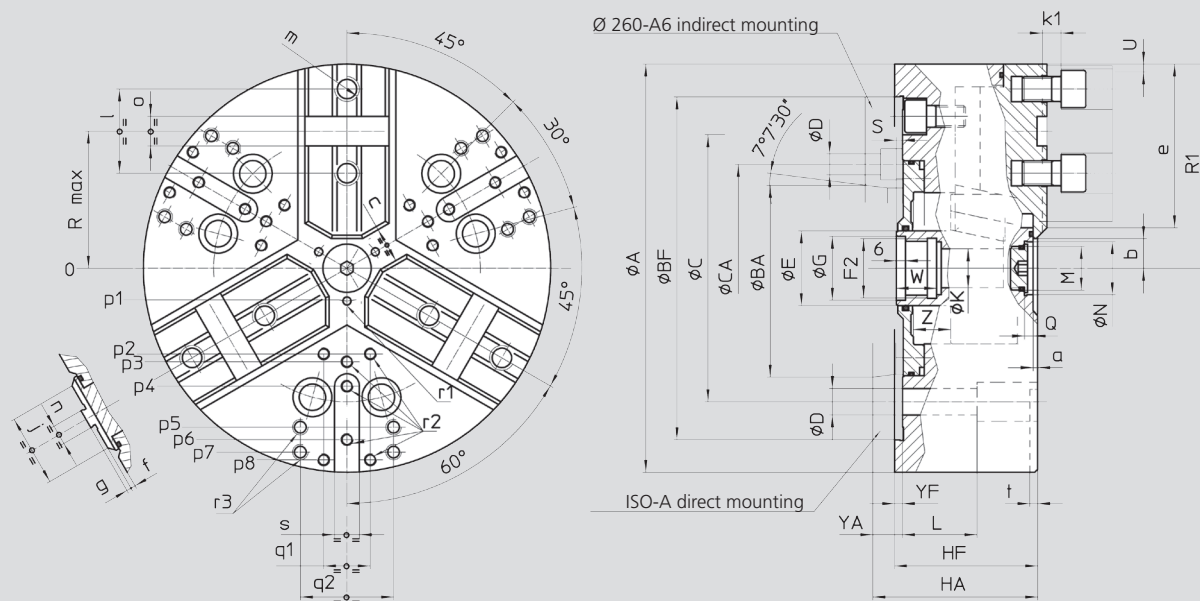
SMW-AUTOBLOK
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High precision power chucks Ø 170 - 400 mm

AP®-C

- Closed center
- 3 jaws
- proofline® chucks = fully sealed – low maintenance

Tongue & groove



Subject to technical changes.

For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			AP-C 170		AP-C 215		AP-C 260			AP-C 315		AP-C 400	
Mounting			Z140	A5	Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	A	mm	172		216		262			315		390	
	BF/BAH6	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	M10 x 1		M22 x 1.5		M28 x 1.5			M28 x 1.5		M52 x 1.5	
	N H9	mm	15		24		34			34		60	
	Q	mm	4.5		5.5		5.5			5.5		9	
Chuck open	R1	mm	86.5		108		131			157.5		195	
max.	R	mm	56		72		88			105		133.5	
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	
	e	mm	70		87		107			129		150	
	f	mm	3		3		3			3		6	
	g	mm	3		3		3			3		3	
	j	mm	34		46		48			58		63	
	k1	mm	10		11		12			12		14	
	l	mm	38		44.4		54			63.5		76.2	
	m	mm	M10		M12		M16			M16		M20	
	n h8	mm	7.94		7.94		12.70			12.70		12.70	
	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	
	p8	mm	-		-		-			-		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	

APL-DINCH
serration**APL-M**METRIC
serration**High precision power chucks Ø 215 - 400 mm**

- Closed center
- LONG STROKE
- 3 jaws
- proofline® 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
- Large clamping range

APL-D: Master jaws with INCH serration (1/16" x 90°, 3/32" x 90°)**APL-M:** Master jaws with METRIC serration (1.5 mm x 60°)

(suitable for japanese chuck top jaws)

Technical features

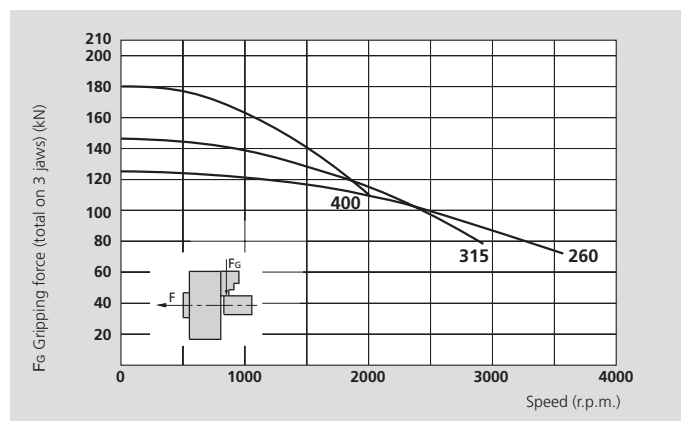
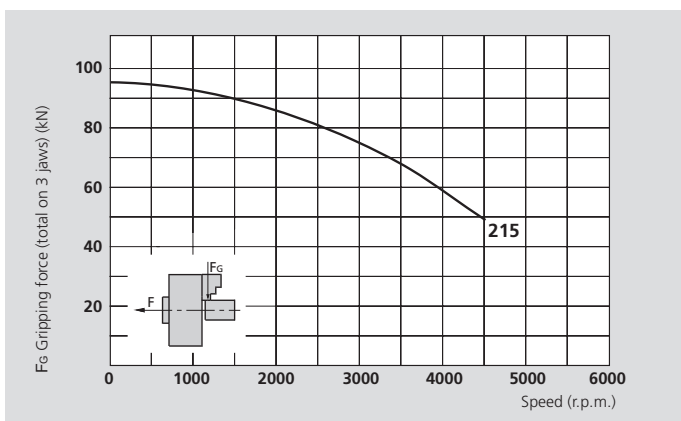
- Extra long jaw stroke
- Constant gripping force with permanent grease lubrication
- Central bore for coolant and/or air
- Chuck body and internal parts case hardened
- **proofline® chucks** = fully sealed – low maintenance

Standard equipment

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

Ordering example

3 jaw chuck APL-D 215/A6
or
3 jaw chuck APL-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		APL-D 215 APL-M 215	APL-D 260 APL-M 260	APL-D 315 APL-M 315	APL-D 400 APL-M 400
Radial jaw stroke	mm	8.5	9.7	12.1	13.3
Axial piston stroke	mm	21	24	30	33
Max. draw pull*	kN	53	68	80	100
Max. gripping force*	kN	95	125	145	180
Max. speed	r.p.m.	4500	3600	2800	2000
Weight (without top jaws)	kg	19.5	32.5	56	90
Moment of inertia	kg·m ²	0.113	0.28	0.69	1.7
Recommended actuating cylinders					
	Type	SIN-S 100/125	SIN-S 125/150	SIN-S 125/150	SIN-S 150/175

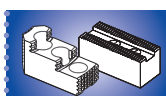
* For internal clamping reduce the draw pull by 30 %.



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High precision power chucks Ø 215 - 400 mm

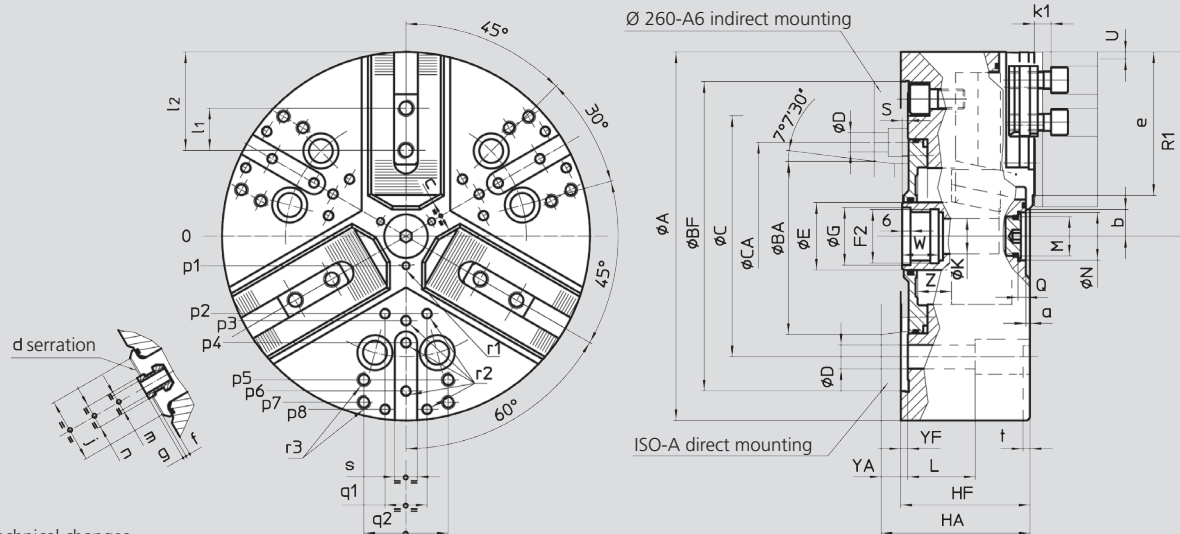
- Closed center
- LONG STROKE
- 3 jaws
- proofline® chucks = fully sealed – low maintenance

APL-D

INCH
serration

APL-M

METRIC
serration



Subject to technical changes.

For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			APL-D 215 APL-M 215		APL-D 260 APL-M 260			APL-D 315 APL-M 315		APL-D 400 APL-M 400	
Mounting			Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	A	mm	216		262			315		390	
	Bf/BA H6	mm	170	106.375	220	106.375	139.719	220	139.719	300	196.869
	C	mm	133.4		171.4	171.4		171.4		235	
	CA	mm	-	-	-	133.4	-	-	-	-	-
	D	mm	13.5		17	13.5	17	17		21	
	E	mm	42		48			48		75	
	F2	mm	M32 x 1.5		M38 x 1.5			M38 x 1.5		M60 x 1.5	
	G H8	mm	33		39			39		61	
	Hf/HA	mm	81	93	92	111	106	101	115	112	127
	K	mm	20		25			25		48	
	L	mm	32		38			38		54	
	M	mm	M22 x 1.5		M28 x 1.5			M28 x 1.5		M52 x 1.5	
	N H9	mm	24		34			34		60	
	Q	mm	5.5		5.5			5.5		9	
Chuck open	R1	mm	112.5		136			163.5		202	
max./min.	S	mm	25/4		28/4			34/4		37/4	
Radial jaw stroke	U	mm	8.5		9.7			12.1		13.3	
	W	mm	26		26			26		38	
	Yf/YA	mm	5	17	5	24	19	5	19	6	21
max./min.	Z	mm	21/0		24/0			30/0		33/0	
	a	mm	3		3			3		3	
min.	b	mm	8.5		9			11		24.5	
min.	c	mm	6.2		6			6		28	
APL-D	d	inch	1/16" x 90°		1/16" x 90°			1/16" x 90°		3/32" x 90° ⁽¹⁾	
APL-M	d	mm	1.5 x 60°		1.5 x 60°			1.5 x 60°		1.5 x 60°	
	e	mm	82.5		102			123.5		145.5	
	f	mm	3		3			3		6	
	g	mm	2.5		2.5			3.5		3.5	
	j	mm	46		48			58		63	
	k1	mm	11		12			12		14	
APL-D	l1	mm	23		30			30		38	
APL-M	l1	mm	25		30			30		38	
max./min.	l2	mm	53/33		73/41			88/43		102/54	
APL-D	m	mm	M12		M12			M16		M20	
APL-M	m	mm	M12		M12			M16		M20	
APL-D	n h8	mm	17		17			21		25.5	
APL-M	n h8	mm	14		16			21		22	
	p1	mm	16		21			21		37.5	
	p2	mm	-		-			60		80	
	p3	mm	49		55			62.5		83	
	p4	mm	80		70			80		110	
	p5	mm	80		102			102		140	
	p6	mm	-		102			120		155	
	p7	mm	-		-			135		170	
	p8	mm	-		-			-		170	
	q1	mm	-		-			30		36	
	q2	mm	45		60			60		80	
	r1	mm	M5/8		M6/10			M6/10		M6/12	
	r2	mm	M8/17		M8/17			M8/17		M10/19	
	r3	mm	M8/17		M10/19			M10/19		M12/22	
	s	mm	16		16			16		20	
	t	mm	5		5			5		5	

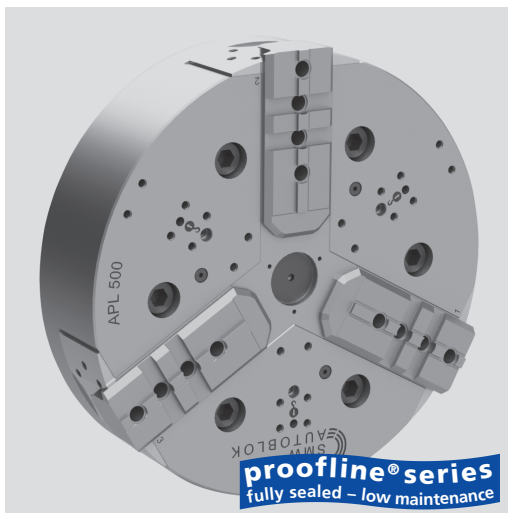
⁽¹⁾ serration 1/16 x 90° on request

APL-DINCH
serration**APL-C**

Tongue & groove

High precision power chucks Ø 500 - 1000 mm

- Closed center
- LONG STROKE
- 3 jaws
- proofline® chucks = fully sealed – low maintenance

**Application/customer benefits**

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

APL-D: INCH serration master jaws**APL-C:** Tongue & groove master jaws (American Standard)**Technical features**

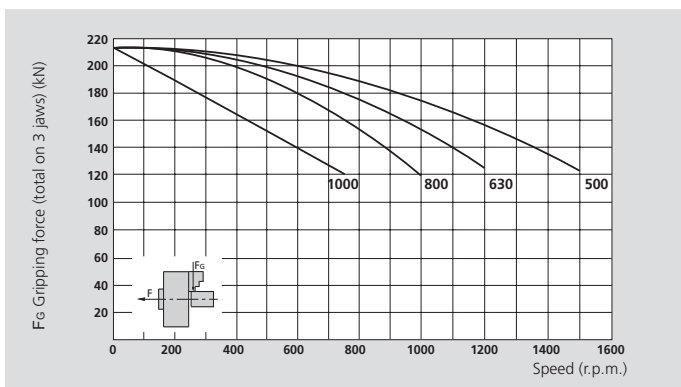
- Extra long jaw stroke
- Constant gripping force with permanent grease lubrication
- Center bore for coolant and/or air
- Chuck body and internal parts case hardened
- **proofline® chucks** = fully sealed – low maintenance

Standard equipment

3 jaw chuck
 1 set T-nuts and bolts (no APL-C)
 1 set soft top jaws (no APL-C)
 mounting bolts

Ordering example

3 jaw chuck APL-C 630 Z380

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.

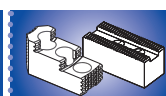
△ Safety advice/danger of damage:

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

Technical data

SMW-AUTOBLOK Type		APL-D 500 APL-C 500	APL-D 630 APL-C 630	APL-D 800 APL-C 800	APL-D 1000 APL-C 1000
Radial jaw stroke	mm	13.3	13.3	13.3	13.3
Axial piston stroke	mm	33	33	33	33
Max. draw pull*	kN	120	120	120	120
Max. gripping force*	kN	215	215	215	215
Max. speed	r.p.m.	1400	1000	800	750
Weight (without top jaws)	kg	170	297	535	840
Moment of inertia	kg·m ²	5.5	14.6	44	105
Recommended actuating cylinders		SIN-S 175/200	SIN-S 175/200	SIN-S 175/200	SIN-S 175/200
Type					

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

SMW-AUTOBLOK
390SMW-AUTOBLOK
392SMW-AUTOBLOK
259

High precision power chucks Ø 500 - 1000 mm

- Closed center
- LONG STROKE
- 3 jaws
- proofline® chucks = fully sealed – low maintenance

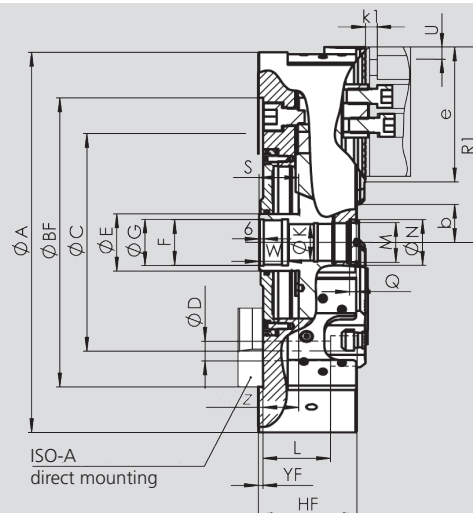
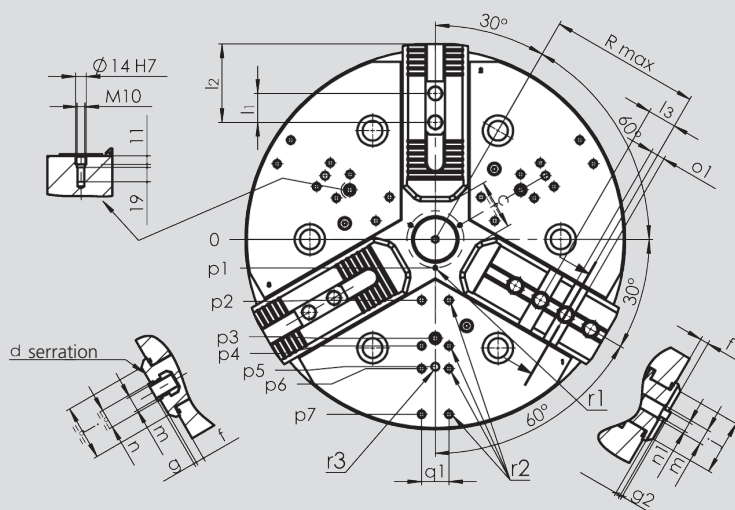
APL-D

INCH
serration

APL-C

Tongue & groove

1



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			APL-D 500 APL-C 500	APL-D 630 APL-C 630	APL-D 800 APL-C 800	APL-D 1000 APL-C 1000
Mounting			Z380	Z380	Z520	Z520
	A	mm	500	630	800	1000
	Bf H6	mm	380	380	520	520
	C	mm	330.2	330.2	463.6	463.6
	D	mm	26	26	26	26
	E	mm	75	75	75	75
	F	mm	M60 x 1.5	M60 x 1.5	M60 x 1.5	M60 x 1.5
	G H8	mm	61	61	61	61
	Hf	mm	130	140	150	150
	K	mm	48	48	48	48
	L	mm	89	89	89	89
	M	mm	M52 x 1.5	M52 x 1.5	M52 x 1.5	M52 x 1.5
	N H8	mm	60	60	60	60
	Q	mm	7.5	7.5	7.5	7.5
Chuck open	R1	mm	257	322	407	507
max.	R	mm	198	250	351	465
	S	mm	52	52	52	52
Jaw stroke	U	mm	13.3	13.3	13.3	13.3
	W	mm	38	38	38	38
max./min.	Z	mm	47/14	57/24	57/24	67/34
min.	b	mm	36.5	36.5	36.5	36.5
min.	c	mm	42	42	42	42
	d	mm	3/32x90°	3/32x90°	3/32x90°	3/32x90°
	e	mm	177	242	327	457
	f	mm	11	11	11	11
	g	mm	3.5	3.5	3.5	3.5
	g2	mm	3	3	3	3
	g3	mm	6.5	6.5	6.5	6.5
	j	mm	72	72	72	72
	k1	mm	16	16	16	16
	l1	mm	38	38	38	38
max./min.	l2	mm	145/54	210/54	295/54	393/54
	l3	mm	38.1	38.1	38.1	38.1
	m	mm	M20	M20	M20	M20
	n H8	mm	25.5	25.5	25.5	25.5
	n1 H8	mm	12.7	12.7	12.7	12.7
	o1	mm	19.03	19.03	19.03	19.03
	p1	mm	37.5	37.5	37.5	37.5
	p2	mm	80	80	-	80
	p3	mm	130	130	130	130
	p4	mm	140	170	200	170
	p5	mm	167.5	280	280	280
	p6	mm	170	-	290	260
	p7	mm	230	260	380	350
	q1	mm	36	36	36	36
	r1	mm	M6	M6	M6	M6
	r2	mm	M10	M10	M10	M10
	r3	mm	M12	M16	M16	M16
	Yf	mm	6	6	6	6
Number of „o1“ cross grooves (only for APL-C)			2	3	6	9
Number of „m“ threads (only for APL-C)			4	5	8	10

APL-C

Tongue & groove

High precision power chucks Ø 215 - 400 mm

- LONG STROKE
- Closed center
- 3 jaws
- proofline® chucks = fully sealed – low maintenance

Application/customer benefits

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

APL-C: Tongue & groove master jaws (American Standard)

Technical features

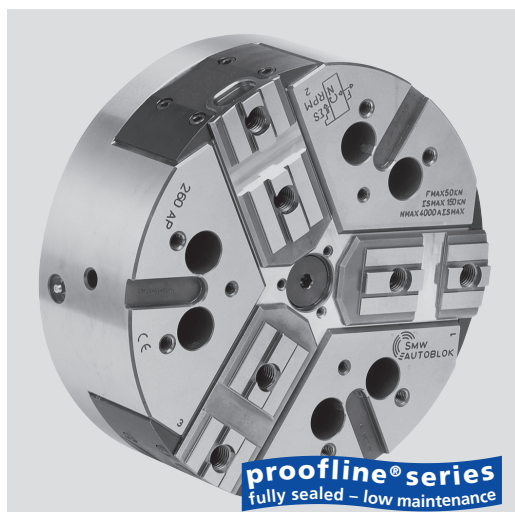
- Extra long jaw stroke
- Constant gripping force with permanent grease lubrication
- Center bore for coolant and/or air
- Chuck body and internal parts case hardened
- **proofline® chucks** = fully sealed – low maintenance

Standard equipment

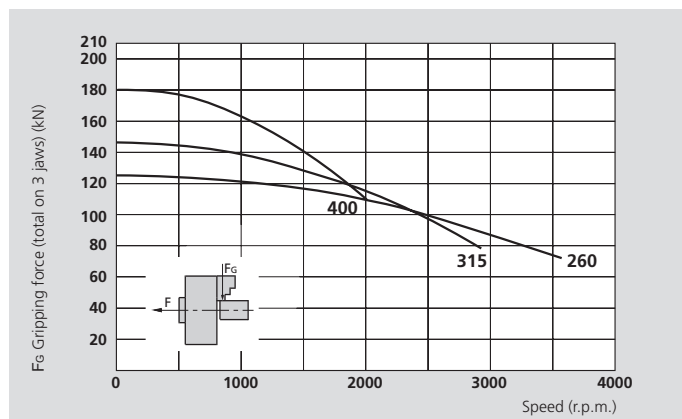
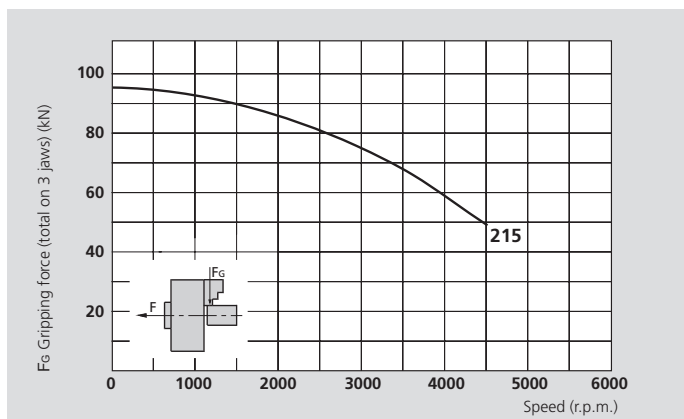
3 jaw chuck
mounting bolts

Ordering example

3 jaw chuck APL-C 215/A6



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.

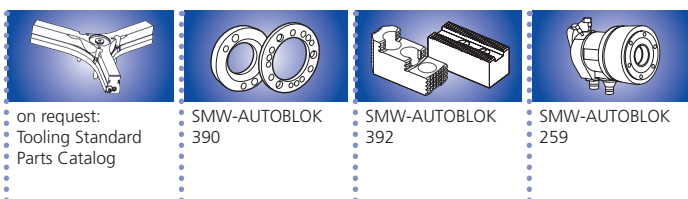
⚠ Safety advice/danger of damage:

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

Technical data

SMW-AUTOBLOK Type		APL-C 215	APL-C 260	APL-C 315	APL-C 400
Radial jaw stroke	mm	8.5	9.7	12.1	13.3
Axial piston stroke	mm	21	24	30	33
Max. draw pull*	kN	53	68	80	100
Max. gripping force*	kN	95	125	145	180
Max. speed	r.p.m.	4500	3600	2800	2000
Weight (without top jaws)	kg	19.5	32.5	56	90
Moment of inertia	kg·m ²	0.113	0.28	0.69	1.7
Recommended actuating cylinders					
	Type	SIN-S 100/125	SIN-S 125/150	SIN-S 125/150	SIN-S 150/175

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



on request:
Tooling Standard
Parts Catalog

SMW-AUTOBLOK
390

SMW-AUTOBLOK
392

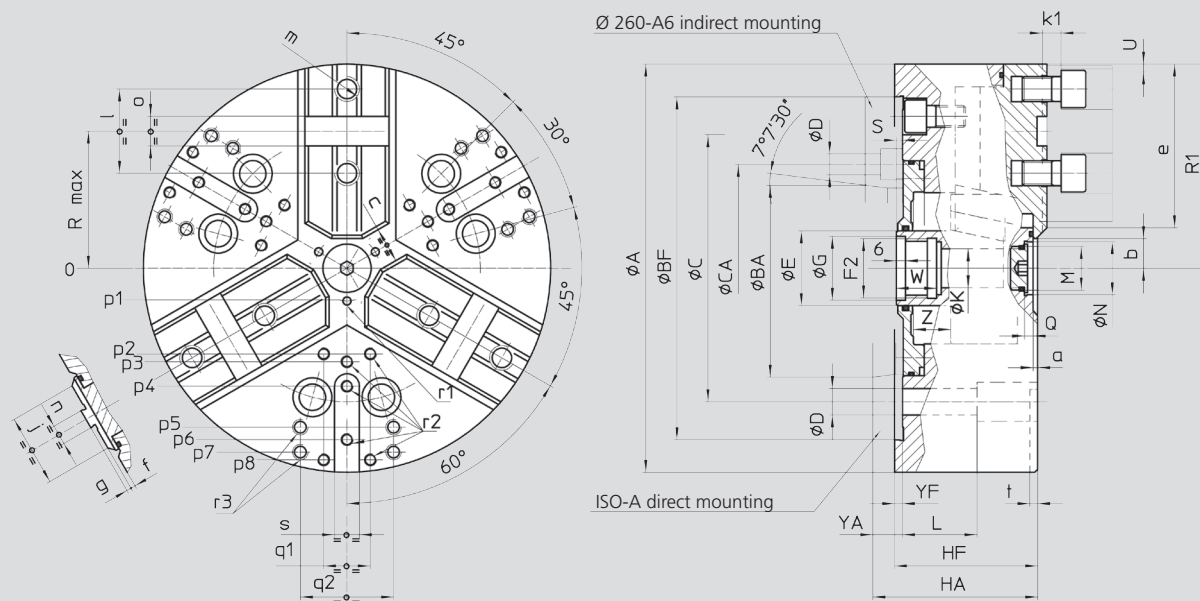
SMW-AUTOBLOK
259

High precision power chucks Ø 215 - 400 mm

- LONG STROKE
- closed center
- 3 jaws
- proofline® chucks = fully sealed – low maintenance

APL-C

Tongue & groove



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			APL-C 215		APL-C 260			APL-C 315		APL-C 400	
Mounting			Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	A	mm	216			262		315		390	
	Bf/BA H6	mm	170	106.375	220	106.375	139.719	220	139.719	300	196.869
	C	mm	133.4		171.4		171.4	171.4		235	
	CA	mm	-	-	-	133.4	-	-	-	-	-
	D	mm	13.5		17	13.5	17	17		21	
	E	mm	42			48		48		75	
	F2	mm	M32 x 1.5			M38 x 1.5		M38 x 1.5		M60 x 1.5	
	G H8	mm	33			39		39		61	
	Hf/HA	mm	81	93	92	111	106	101	115	112	127
	K	mm	20			25		25		48	
	L	mm	32			38		38		54	
	M	mm	M22 x 1.5			M28 x 1.5		M28 x 1.5		M52 x 1.5	
	N H9	mm	24			34		34		60	
	Q	mm	5.5			5.5		5.5		9	
Chuck open	R1	mm	112.5			136		163.5		202	
max.	R	mm	76			92.5		111		139	
max./min.	S	mm	25/4			28/4		34/4		37/4	
Radial jaw stroke	U	mm	8.5			9.7		12.1		13.3	
	W	mm	26			26		26		38	
	Yf/YA	mm	5	17	5	24	19	5	19	6	21
max./min.	Z	mm		21/0		24/0		30/0		33/0	
	a	mm	3			3		3		3	
min.	b	mm	8.5			9		11		24.5	
min.	c	mm	6.2			6		6		28	
	e	mm	87			107		129		150	
	f	mm	3			3		3		6	
	g	mm	3			3		3		3	
	j	mm	46			48		58		63	
	k1	mm	11			12		12		14	
	l	mm	44.4			54		63.5		76.2	
	m	mm	M12			M16		M16		M20	
	n h8	mm	7.94			12.70		12.70		12.70	
	o H7	mm	12.68			19.03		19.03		19.03	
	p1	mm	16			21		21		37.5	
	p2	mm	-			-		60		80	
	p3	mm	49			55		62.5		83	
	p4	mm	80			70		80		110	
	p5	mm	80			102		102		140	
	p6	mm	-			102		120		155	
	p7	mm	-			-		135		170	
	p8	mm	-			-		-		170	
	q1	mm	-			-		30		36	
	q2	mm	45			60		60		80	
	r1	mm	M5/8			M6/10		M6/10		M6/12	
	r2	mm	M8/17			M8/17		M8/17		M10/19	
	r3	mm	M8/17			M10/19		M10/19		M12/22	
	s	mm	16			16		16		20	
	t	mm	5			5		5		5	

NT-C

Tongue & groove

High precision power chucks Ø 170 - 400 mm

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

Application/customer benefits

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

NT-C: Tongue & groove master jaws (American Standard)

Technical features

- 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

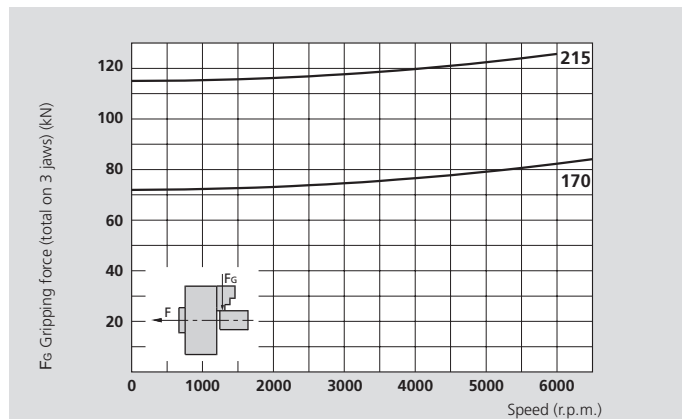
3 jaw chuck
mounting bolts

Ordering example

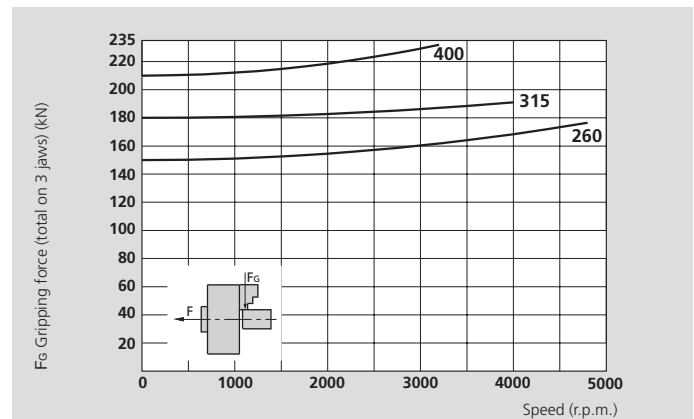
3 jaw chuck NT-C 215/A6



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-C 170	NT-C 215	NT-C 260	NT-C 315	NT-C 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.	6500	6000	4800	4000	3200
Weight (without top jaws)	kg	13	25	40	68	112
Moment of inertia	kg·m ²	0.048	0.146	0.34	0.84	2.15
Recommended actuating cylinders		Type	SIN-S 100	SIN-S 100/125	SIN-S 125/150	SIN-S 125/150
						SIN-S 150/175

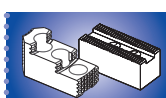
* For internal clamping reduce the draw pull by 30 %.



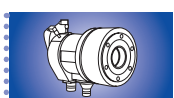
on request:
Tooling Standard
Parts Catalog



SMW-AUTOBLOK
390



SMW-AUTOBLOK
392



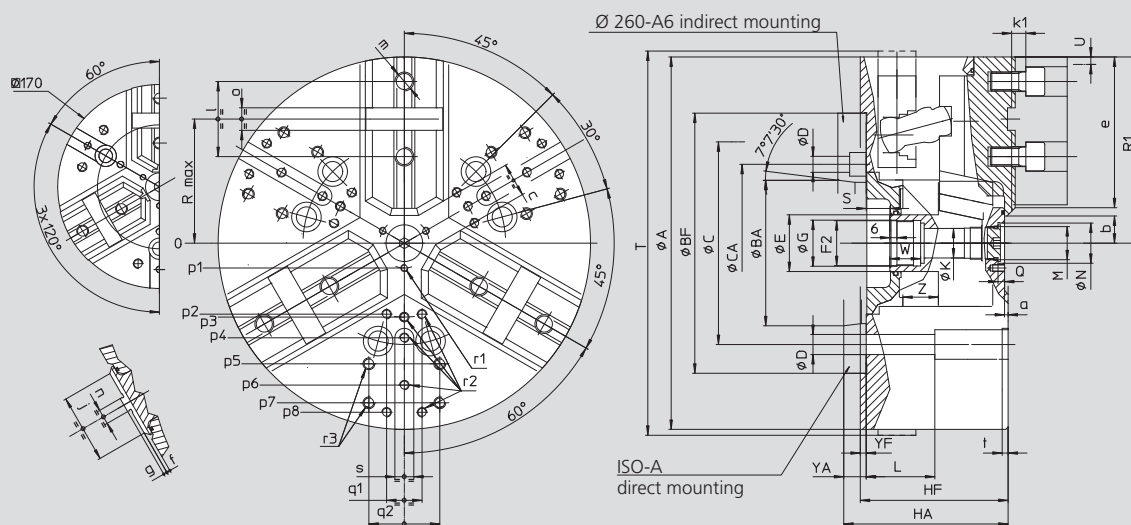
SMW-AUTOBLOK
259

High precision power chucks Ø 170 - 400 mm

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

NT-C

Tongue & groove



Subject to technical changes.

For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			NT-C 170		NT-C 215		NT-C 260			NT-C 315		NT-C 400	
Mounting			Z140	A5	Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	A	mm	172		216		262			315		390	
	Bf/BAH6	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	92	102	104	116	118	137	132	125	139	149	164
	K	mm	18.5		20		25			25		48	
	L	mm	43		52		58			58		74	
	M	mm	M10 x 1		M22 x 1.5		M28 x 1.5			M28 x 1.5		M52 x 1.5	
	N H9	mm	15		24		34			34		60	
	Q	mm	4.5		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	
max./min.	S	mm	20/3		19/-3		22/-2			20/-10		33/0	
Chuck fully closed	T	mm	175		220		-			-		-	
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	
	e	mm	70		87		107			129		150	
	f	mm	3		3		3			3		6	
	g	mm	3		3		3			3		3	
	j	mm	34		46		48			58		63	
	k1	mm	10		11		12			12		14	
	l	mm	38		44.4		54			63.5		76.2	
	m	mm	M10		M12		M16			M16		M20	
	n	mm	7.94		7.94		12.7			12.7		12.7	
	o	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	
	p8	mm	-		-		-			-		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	

NT-DINCH
serration**NT-M**METRIC
serration**High precision power chucks Ø 170 - 400 mm**

- Centrifugal force compensation
- Closed center
- 3 jaws
- 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

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

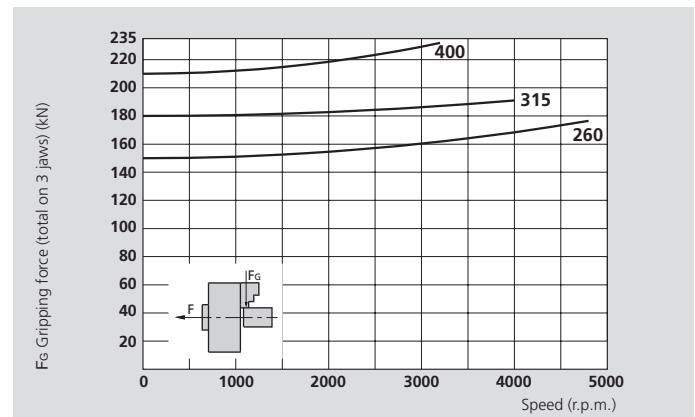
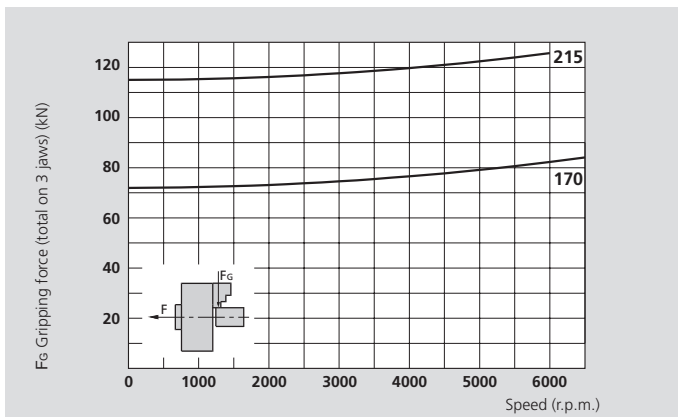
- Centrifugal force compensation
- Constant gripping force with permanent grease lubrication
- Center bore for coolant and/or air
- Chuck body and internal parts case hardened
- **proofline® chucks** = fully sealed – low maintenance

Standard equipment

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

Ordering example

- 3 jaw chuck NT-D 215/A6
- or
- 3 jaw chuck NT-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.

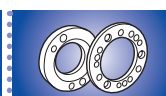
Technical data

SMW-AUTOBLOK Type		NT-D 170 NT-M 170	NT-D 215 NT-M 215	NT-D 260 NT-M 260	NT-D 315 NT-M 315	NT-D 400 NT-M 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.	6500	6000	4800	4000	3200
Weight (without top jaws)	kg	13	25	40	68	112
Moment of inertia	kg·m ²	0.048	0.146	0.34	0.84	2.15
Recommended actuating cylinders	Type	SIN-S 100	SIN-S 100/125	SIN-S 125/150	SIN-S 125/150	SIN-S 150/175

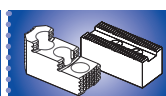
* For internal clamping reduce the draw pull by 30 %.



on request:
• Tooling Standard
• Parts Catalog



SMW-AUTOBLOK
• 390



SMW-AUTOBLOK
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SMW-AUTOBLOK
• 259

High precision power chucks Ø 170 - 400 mm

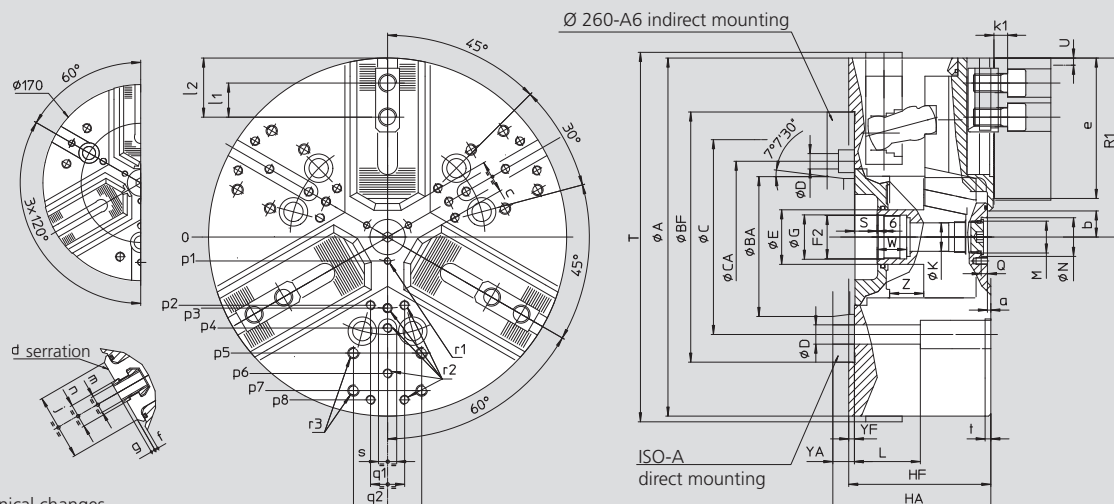
- Centrifugal force compensation
- Closed center
- 3 jaws
- proofline® chucks = fully sealed – low maintenance

NT-D

INCH
serration

NT-M

METRIC
serration



Subject to technical changes.

For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			NT-D 170 NT-M 170		NT-D 215 NT-M 215		NT-D 260 NT-M 260			NT-D 315 NT-M 315		NT-D 400 NT-M 400	
Mounting			Z140	A5	Z170	A6	Z220	A6	A8	Z220	A8	Z300	A11
	A	mm	172		216		262			315		390	
	Bf/BAH6	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	92	102	104	116	118	137	132	125	139	149	164
	K	mm	18.5		20		25			25		48	
	L	mm	43		52		58			58		74	
	M	mm	M10 x 1		M22 x 1.5		M28 x 1.5			M28 x 1.5		M52 x 1.5	
	N H9	mm	15		24		34			34		60	
	Q	mm	4.5		5.5		5.5			5.5		9	
Chuck open	R1	mm	86.5		108		131			157.5		195	
max./min.	S	mm	20/3		19/-3		22/-2			20/-10		33/0	
Chuck fully closed	T	mm	175		220		-			-		-	
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	
NT-D serration	d	inch	1/16" x 90°		1/16" x 90°		1/16" x 90°			1/16" x 90°		3/32" x 90° ⁽¹⁾	
NT-M serration	d	mm	1.5 x 60°		1.5 x 60°		1.5 x 60°			1.5 x 60°		1.5 x 60°	
	e	mm	67		82		102			123		144	
	f	mm	3		3		3			3		6	
	g	mm	2.5		2.5		2.5			3.5		3.5	
	j	mm	34		46		48			58		63	
	k1	mm	10		11		12			12		14	
NT-D	l1	mm	16.5		23		30			30		38	
NT-M	l1	mm	20		25		30			30		38	
	l2	mm	43/24		53/33		70/41			84/43		98/54	
NT-D	m	mm	M10		M12		M12			M16		M20	
NT-M	m	mm	M10		M12		M12			M16		M20	
NT-D	n	mm	14		17		17			21		25.5	
NT-M	n	mm	12		14		16			21		22	
	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	
	p8	mm	-		-		-			-		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	

¹ serration 1/16 x 90° on request

NTL-DINCH
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**

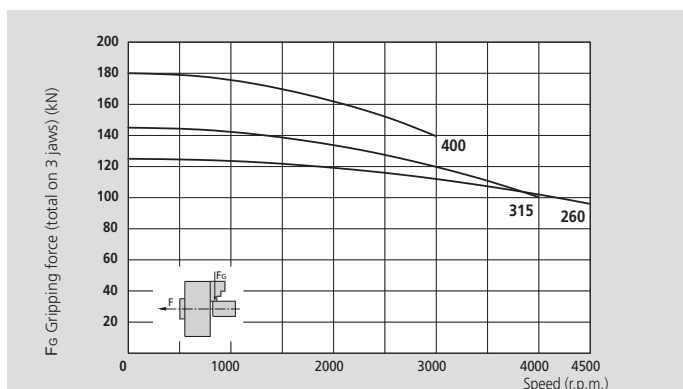
- Long jaw stroke
- Centrifugal force compensation
- Constant gripping force with permanent grease lubrication
- Center bore for coolant and/or air
- Chuck body and internal parts case hardened
- **proofline® chucks** = fully sealed – low maintenance

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		SIN-S 125/150	SIN-S 125/150	SIN-S 150/175
Type		SIN-S 125/150	SIN-S 125/150	SIN-S 150/175

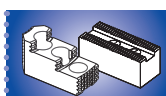
* For internal clamping reduce the draw pull by 30 %.



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High precision power chucks Ø 260 - 400 mm

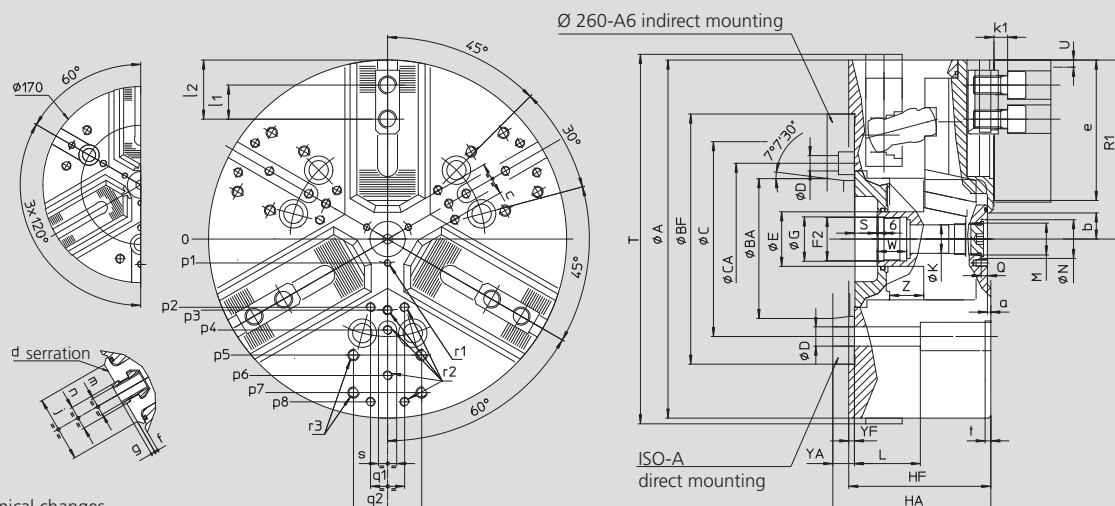
- Centrifugal force compensation
- Closed center - 3 jaws
- LONG STROKE
- proofline® chucks = fully sealed – low maintenance

NTL-D

INCH
serration

NTL-M

METRIC
serration



Subject to technical changes.

For more detailed information please ask for customer drawing.

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

NTL-C

LONG STROKE
Tongue & groove

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 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-C: Tongue & groove master jaws (American Standard)

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

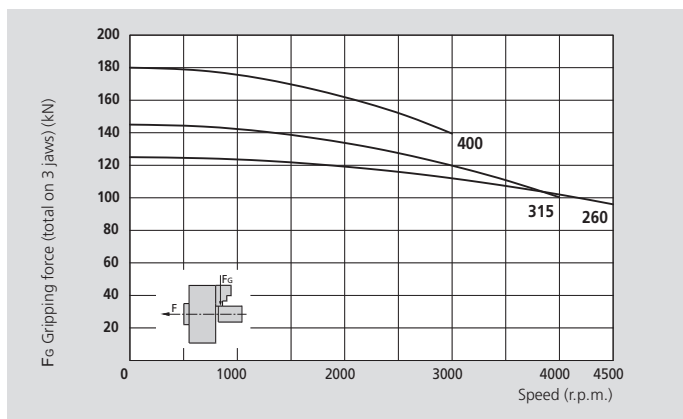
3 jaw chuck
mounting bolts

Ordering example

3 jaw chuck NTL-C 260/A6



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-C 260	NTL-C 315	NTL-C 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		SIN-S 125/150	SIN-S 125/150	SIN-S 150/175
Type				

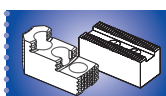
* For internal clamping reduce the draw pull by 30 %.



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Tooling Standard
Parts Catalog



SMW-AUTOBLOK
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SMW-AUTOBLOK
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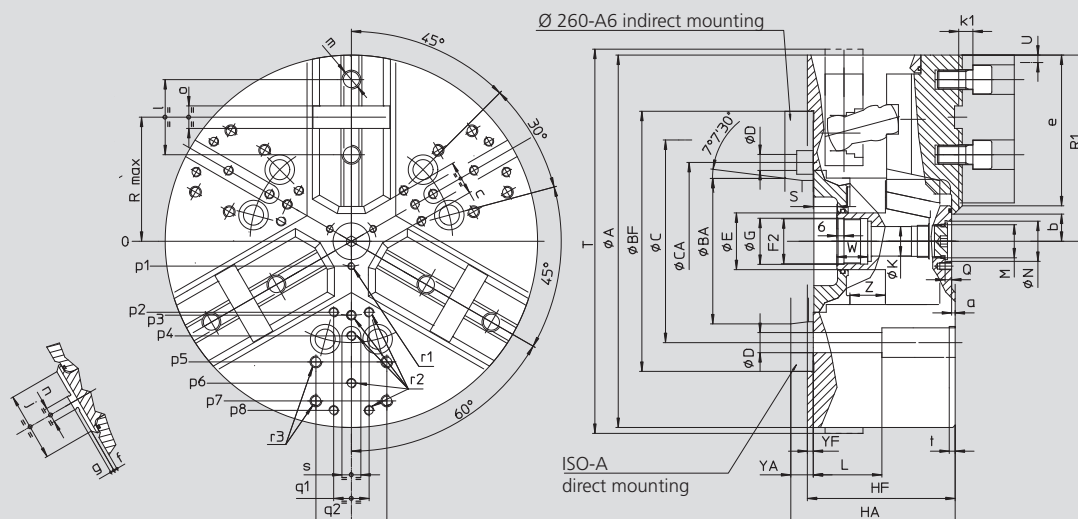
SMW-AUTOBLOK
259

High precision power chucks Ø 260 - 400 mm

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

NTL-C

LONG STROKE
Tongue & groove



Subject to technical changes.

For more detailed information please ask for customer drawing.

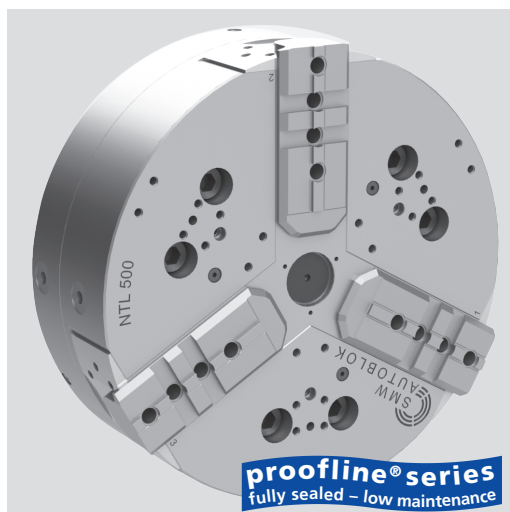
SMW-AUTOBLOK Type			NTL-C 260			NTL-C 315		NTL-C 400	
Mounting			Z220	A6	A8	Z220	A8	Z300	A11
	A	mm		262		315		390	
	Bf/BA H6	mm	220	106.375	139.719	220	139.719	300	196.869
	C	mm	171.4	-	171.4	171.4		235	
	CA	mm	-	133.4	-	-	-	-	-
	D	mm	17	13.5	17	17		21	
	E	mm		48		48		75	
	F2	mm		M38 x 1.5		M38 x 1.5		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	
	R	mm		92.5		111		139	
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	
	e	mm		110		134		154	
	f	mm		3		3		6	
	g	mm		3		3		3	
	j	mm		48		58		63	
	k1	mm		12		12		14	
	l	mm		54		63.5		76.2	
	m	mm		M16		M16		M20	
	n	mm		12.7		12.7		12.7	
	o	mm		19.03		19.03		19.03	
	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	

NTL-DINCH
serration**NTL-C**

Tongue & groove

High precision power chucks Ø 500 - 1000 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 (3/32" x 90°)**NTL-C:** Master jaws with Tongue & groove**Technical features**

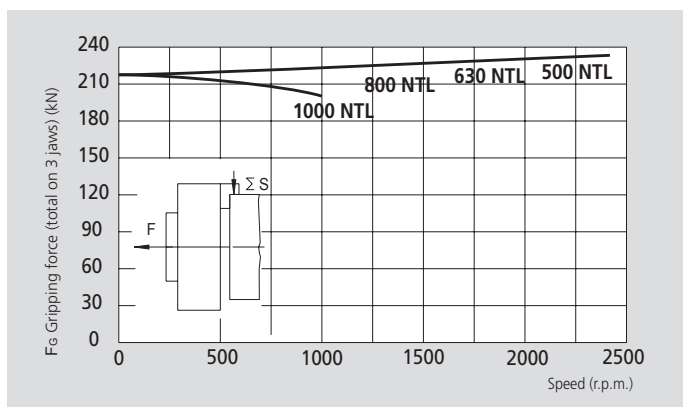
- Long jaw stroke
- Centrifugal force compensation
- Constant gripping force with permanent grease lubrication
- Center bore for coolant and/or air
- Chuck body and internal parts case hardened
- **proofline® chucks** = fully sealed – low maintenance

Standard equipment

3 jaw chuck
1 set soft top jaws
Mounting bolts

Ordering example

3 jaw chuck NTL-D 500/Z380
or
3 jaw chuck NTL-C 800/Z520

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 500 NTL-C 500	NTL-D 630 NTL-C 630	NTL-D 800 NTL-C 800	NTL-D 1000 NTL-C 1000
Radial jaw stroke	mm	12.1	12.1	12.1	12.1
Axial piston stroke	mm	30	30	30	30
Max. draw pull*	kN	120	120	120	120
Max. gripping force*	kN	215	215	215	215
Max. speed	r.p.m.	2400	2000	1500	1000
Weight (without top jaws)	kg	255	420	680	970
Moment of inertia	kg·m²	8.2	21.2	55.7	110
Recommended actuating cylinders	Type	SIN-S 175/200	SIN-S 175/200	SIN-S 175/200	SIN-S 175/200

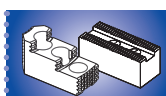
* For internal clamping reduce the draw pull by 30 %.



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Tooling Standard
Parts Catalog



SMW-AUTOBLOK
390



SMW-AUTOBLOK
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SMW-AUTOBLOK
259

High precision power chucks Ø 500 - 1000 mm

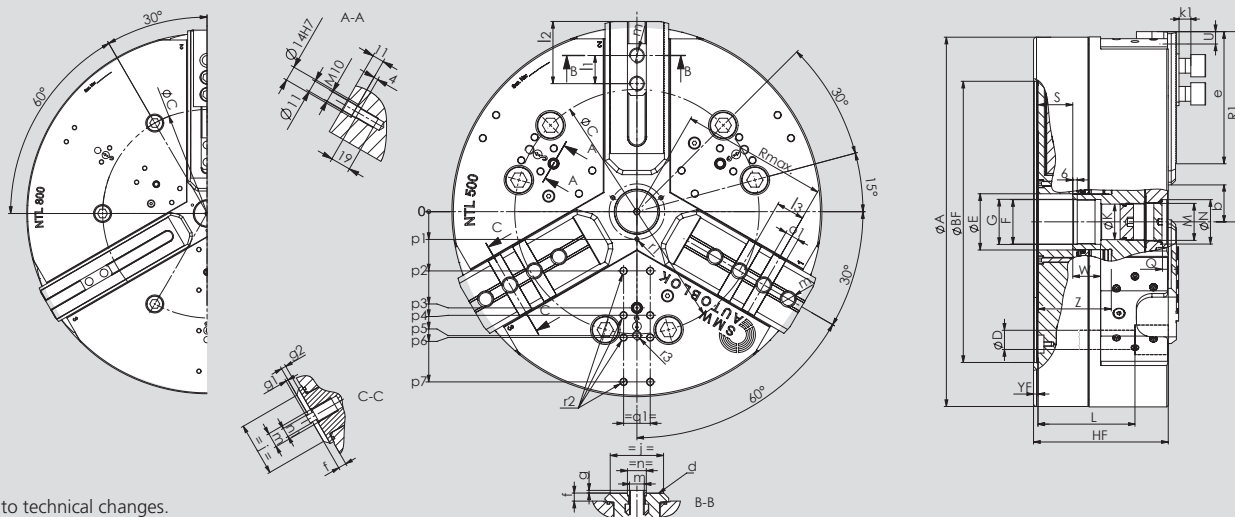
- Centrifugal force compensation
- Closed center - 3 jaws
- LONG STROKE
- proofline® chucks = fully sealed – low maintenance

NTL-D

INCH
serration

NTL-C

Tongue & groove



Subject to technical changes.

For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type				NTL-D 500 NTL-C 500	NTL-D 630 NTL-C 630	NTL-D 800 NTL-C 800	NTL-D 1000 NTL-C 1000
Mounting				Z380	Z380	Z520	Z520
	A		mm	500	630	800	1000
	Bf	H6	mm	380	380	520	520
	C		mm	26	330.2	463,6	463,6
	D		mm	26	26	26	26
	E		mm	75	75	75	75
	F		mm	M60 x 1.5	M60 x 1.5	M60 x 1.5	M60 x 1.5
	G	H8	mm	61	61	61	61
	Hf		mm	182	182	182	187
	K		mm	48	48	48	48
	L		mm	131	131	131	146
	M		mm	M52 x 1.5	M52 x 1.5	M52 x 1.5	M52 x 1.5
	N	H8	mm	60	60	60	60
	Q		mm	7.5	7.5	7.5	7.5
chuck open	R1		mm	257	322	407	507
	R max.		mm	198	250	351	465
	S		mm	47	47	47	52
jaw stroke	U		mm	12.1	12.1	12.1	12.1
	W		mm	38	38	38	38
max./min.	Z		mm	99.5/69.5	99.5/69.5	99.5/69.5	99.5/69.5
min.	b		mm	38	38	38	38
	d		mm	3/32x90°	3/32x90°	3/32x90°	3/32x90°
	e		mm	177	242	327	457
	f		mm	11	11	11	11
	g		mm	3.5	3.5	3.5	3.5
	g1		mm	3	3	3	3
	g2		mm	6.5	6.5	6.5	6.5
	j		mm	72	72	72	72
	k1		mm	16	16	16	16
max./min.	l1		mm	38	38	38	38
	l2		mm	145/54	210/54	295/54	393/54
	l3		mm	38.1	38.1	38.1	38.1
	m		mm	M20	M20	M20	M20
	n	h8	mm	25.5	25.5	25.5	25.5
	n1	h8	mm	12.7	12.7	12.7	12.7
	o1	H8	mm	19.03	19.03	19.03	19.03
	p1		mm	37.5	37.5	37.5	37.5
	p2		mm	80	80	80	80
	p3		mm	130	130	130	130
	p4		mm	140	170	170	170
	p5		mm	167,5	280	280	280
	p6		mm	170	-	260	260
	p7		mm	230	260	350	350
	q1		mm	36	36	36	36
	r1		mm	M6	M6	M6	M6
	r2		mm	M10	M10	M10	M10
	r3		mm	M12	M16	M16	M16
	YF		mm	6	6	6	6
Number of 01 cross grooves (only for NTL-C)				2	3	6	9
Number of "m" threads (only for NTL-C)				4	5	8	10

IN-DINCH
serration**IN-C**

Tongue & groove

High precision power chucks Ø 500 - 800 mm

- Closed center
- 3 and 4 jaws

Application/customer benefits

- For large parts
- Suitable for vertical machines

IN-D: Master jaws with INCH serration (3/32" x 90°)**IN-C:** Tongue & groove master jaws**Technical features**

- Gripping force transmission via wedge hook
- Sealed against swarf and chips

Standard equipment

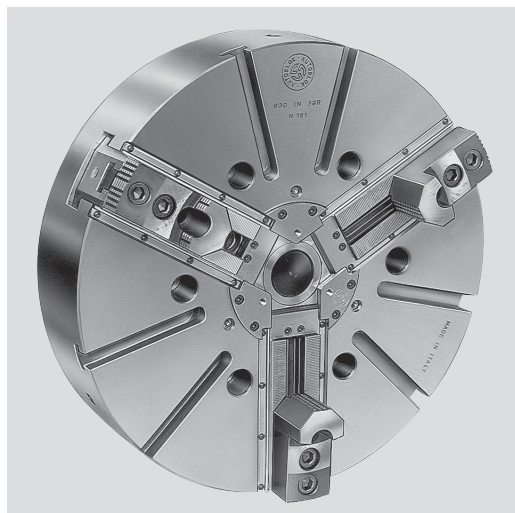
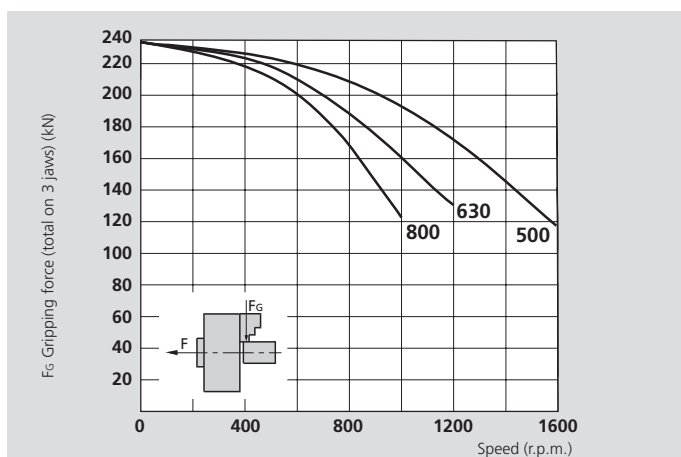
3 or 4 jaw chuck
 1 set T-nuts with bolts
 1 set soft top jaws (not IN-C)
 Mounting bolts
 Grease gun

Ordering example

3 jaw chuck IN-D 500/A15

or

4 jaw chuck IN-C 630/Z380

**Actual gripping force diagram**

The data in the diagram refer to 3-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 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.

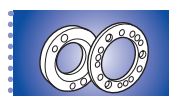
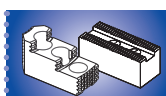
⚠ Safety advice/danger of damage:

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

Technical data

SMW-AUTOBLOK Type		IN-D 500 IN-C 500		IN-D 630 IN-C 630		IN-D 800 IN-C 800	
Number of jaws		3	4	3	4	3	4
Radial jaw stroke	mm	8.5	8.5	10	10	10	10
Axial piston stroke	mm	32	32	38	38	38	38
Max. draw pull*	kN	100	100	100	100	100	100
Max. gripping force*	kN	240	240	240	240	240	240
Max. speed	r.p.m.	1500	1200	1100	850	900	750
Weight (without top jaws)	kg	130	180	220	325	320	550
Moment of inertia	kg·m ²	4.2	5.9	10.8	16	23.8	44
Recommended actuating cylinders	Type	SIN-S 150/175/200		SIN-S 150/175/200		SIN-S 150/175/200	

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

SMW-AUTOBLOK
390SMW-AUTOBLOK
392SMW-AUTOBLOK
259

High precision power chucks Ø 500 - 800 mm

IN-D

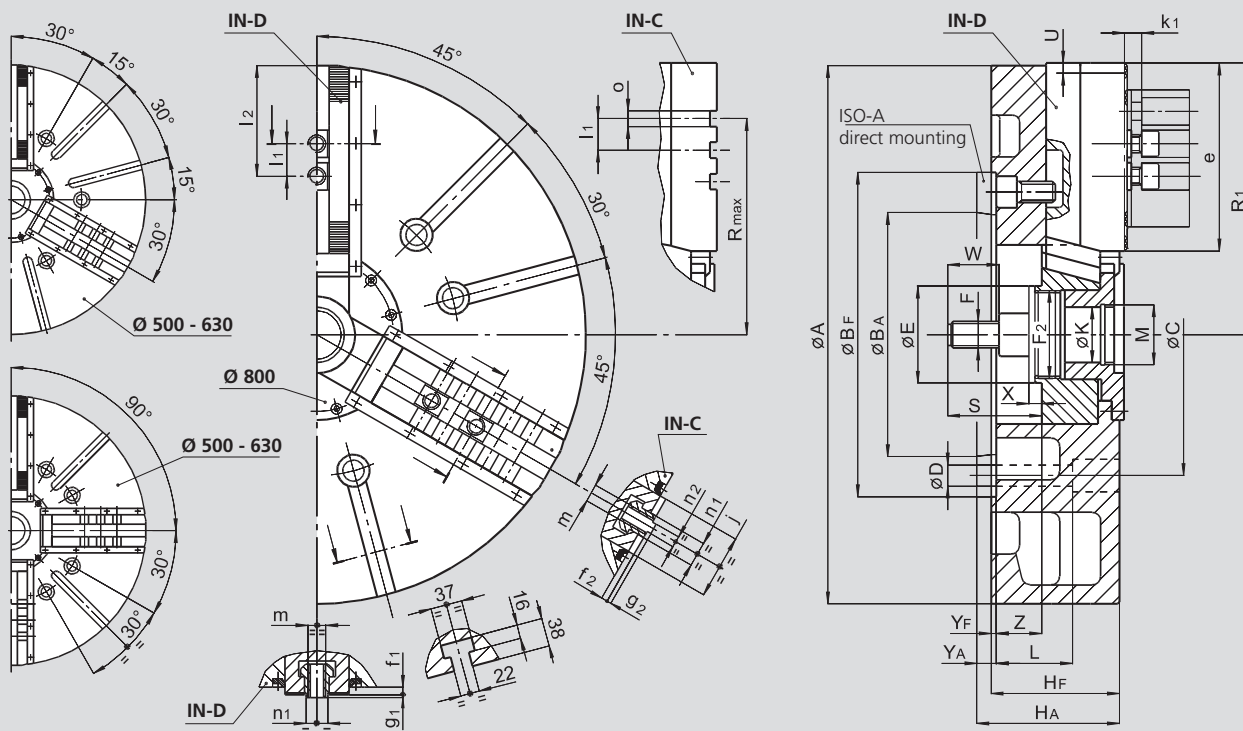
INCH
serration

IN-C

Tongue & groove

- Closed center
- 3 and 4 jaws

1



Subject to technical changes.
For more detailed information please ask for customer drawing.

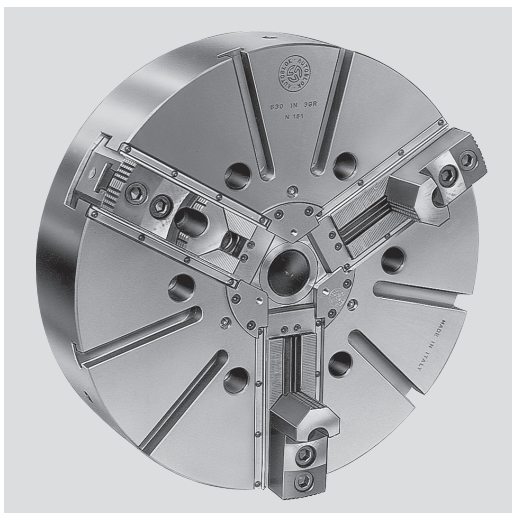
SMW-AUTOBLOK Type			IN-D 500 IN-C 500		IN-D 630 IN-C 630		IN-D 800 IN-C 800	
Mounting			Z380	A15	Z380	A15	Z380	A15
	A	mm	510		630		800	
	Bf/BAH6	mm	380	285.775	380	285.775	380	285.775
	C	mm	330.2		330.2		330.2	
	D	mm	25		25		25	
	E	mm	114		114		114	
	F	mm	M30		M30		M30	
	F2	mm	M102 x 2		M102 x 2		M102 x 2	
	Hf/HA	mm	130	147	150	167	150	167
	K	mm	65		65		65	
	L	mm	89		89		89	
	M	mm	M68 x 2		M68 x 2		M68 x 2	
Chuck open	R1	mm	263		318		405	
	Rmax	mm	209.5		247.5		349	
	S	mm	110		110		110	
Stroke per jaw	U	mm	8.5		10		10	
	W	mm	60		60		60	
	X	mm	15		15		15	
	Yf/YA	mm	6	23	6	23	6	23
max./min.	Z	mm	33/1		53/15		53/15	
	e	mm	165		220		307	
	f1	mm	9		9		9	
	f2	mm	8		8		8	
	g1	mm	4		4		4	
	g2	mm	3		3		3	
	j	mm	75		75		75	
	k1	mm	16		16		16	
	l1	mm	38.1		38.1		38.1	
max./min.	l2	mm	135/48		190/48		277/48	
	m	mm	M20		M20		M20	
	n1 h8	mm	25.5		25.5		25.5	
	n2 h8	mm	12.7		12.7		12.7	
	o H7	mm	19.03		19.03		19.03	

IL-DINCH
serration**IL-C**

Tongue & groove

High precision power chucks Ø 500 - 800 mm

- Closed center
- LONG STROKE
- 3 and 4 jaws

**Application/customer benefits**

- For large parts
- Suitable for vertical machines
- Long clamping stroke (possibility to clamp 1st and 2nd operation with the same jaws)

IL-D: Master jaws with INCH serration (3/32" x 90°)**IL-C:** Tongue & groove master jaws**Technical features**

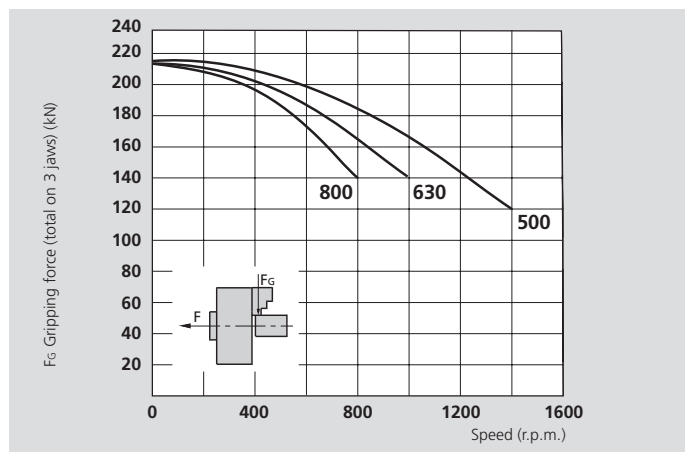
- Extra long stroke per jaw
- Gripping force transmission via wedge hook
- Sealed against swarf and chips

Standard equipment

3 or 4 jaws chuck
 1 set T-nuts with bolts
 1 set soft top jaws (not in IL-C)
 Mounting bolts
 Grease gun

Ordering example

3 jaw chuck IL-D 500/A15
 or
 4 jaw chuck IL-C 630/Z380

Actual gripping force diagram

The data in the diagram refer to 3-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 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.

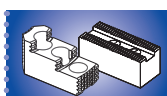
Technical data

SMW-AUTOBLOK Type		IL-D 500 IL-C 500		IL-D 630 IL-C 630		IL-D 800 IL-C 800	
Number of jaws		3	4	3	4	3	4
Radial jaw stroke	mm	13	13	15	15	15	15
Axial piston stroke	mm	33	33	38	38	38	38
Max. draw pull*	kN	120	120	120	120	120	120
Max. gripping force*	kN	215	215	215	215	215	215
Max. speed	r.p.m.	1400	1100	1000	800	800	650
Weight (without top jaws)	kg	130	180	220	325	320	550
Moment of inertia	kg·m ²	4.2	5.9	10.8	16	23.8	44
Recommended actuating cylinders	Type	SIN-S 150/175/200		SIN-S 150/175/200		SIN-S 150/175/200	

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



SMW-AUTOBLOK
390



SMW-AUTOBLOK
392



SMW-AUTOBLOK
259

High precision power chucks Ø 500 - 800 mm

- Closed center
- LONG STROKE
- 3 and 4 jaws

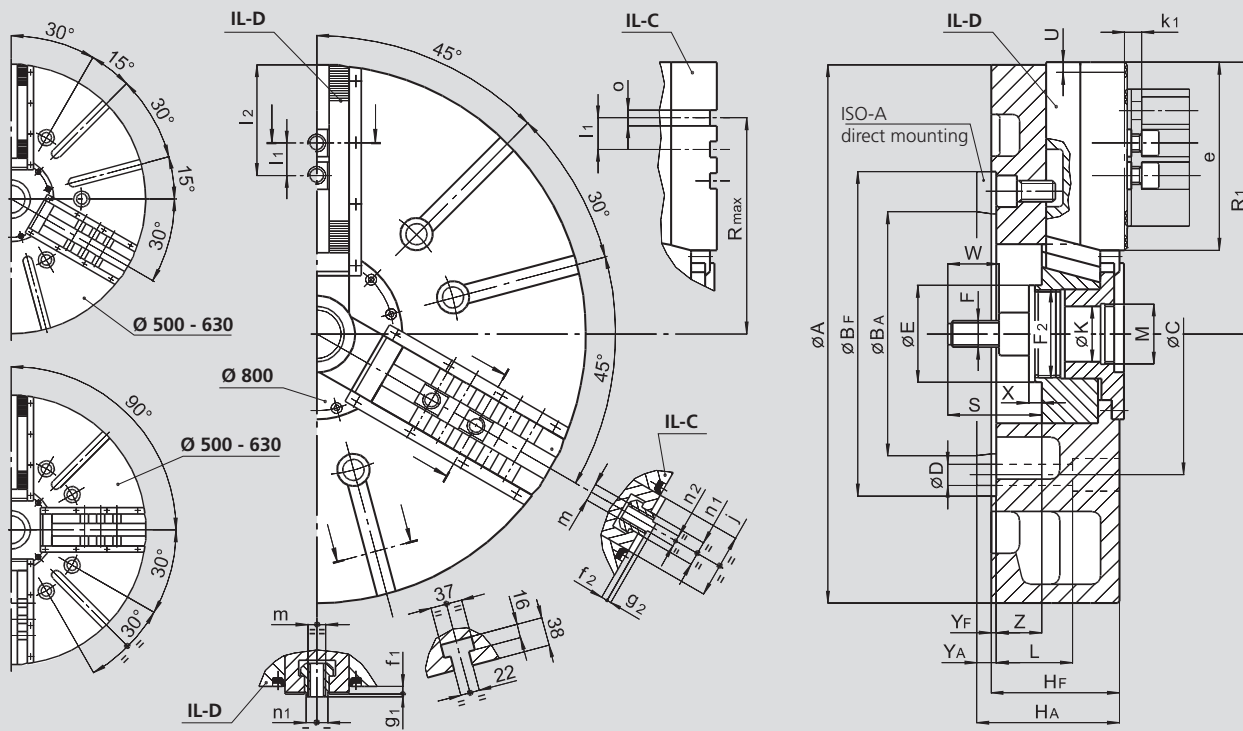
IL-D

INCH
serration

IL-C

Tongue & groove

1



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			IL-D 500 IL-C 500		IL-D 630 IL-C 630		IL-D 800 IL-C 800	
Mounting			Z380	A15	Z380	A15	Z380	A15
	A	mm	510		630		800	
	Bf/BA H6	mm	380	285.775	380	285.775	380	285.775
	C	mm	330.2		330.2		330.2	
	D	mm	25		25		25	
	E	mm	114		114		114	
	F	mm	M30		M30		M30	
	F2	mm	M102 x 2		M102 x 2		M102 x 2	
	Hf/HA	mm	130	147	150	167	150	167
	K	mm	65		65		65	
	L	mm	89		89		89	
	M	mm	M68 x 2		M68 x 2		M68 x 2	
Chuck open	R1	mm	265		321		408	
	Rmax.	mm	212		250		352	
	S	mm	110		110		110	
Jaw stroke	U	mm	13		15		15	
	W	mm	60		60		60	
	X	mm	15		15		15	
	Yf/YA	mm	6	23	6	23	6	23
max./min.	Z	mm	33/0		53/15		53/15	
	e	mm	164		220		307	
	f1	mm	9		9		9	
	f2	mm	8		8		8	
	g1	mm	4		4		4	
	g2	mm	3		3		3	
	j	mm	75		75		75	
	k1	mm	16		16		16	
	l1	mm	38.1		38.1		38.1	
max./min.	l2	mm	135/48		190/48		277/48	
	m	mm	M20		M20		M20	
	n1 h8	mm	25.5		25.5		25.5	
	n2 h8	mm	12.7		12.7		12.7	
	o H7	mm	19.03		19.03		19.03	

IN-D

MODULE 2 serration

IL-DLong jaw stroke
MODULE 2 serration**High precision power chucks Ø 1000 - 1600 mm**

- Closed center
- **LONG JAW STROKE**
- 3 and 6 jaws (all diameters)

Application/customer benefits

- Chucking operations of very large components
- Suitable for vertical machines thanks to the front protection of the slide ways

IN-D/ IL-D: MODULE 2 serrated master jaws (pitch 6.28 mm)
(Ø 1000 - 1600 mm)

Technical features

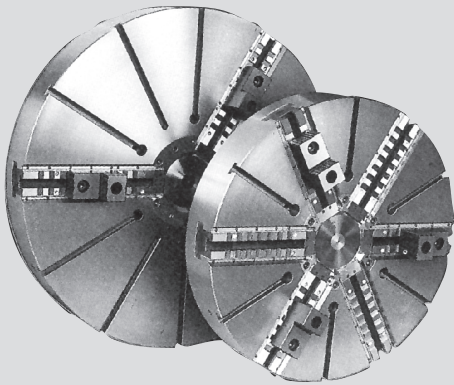
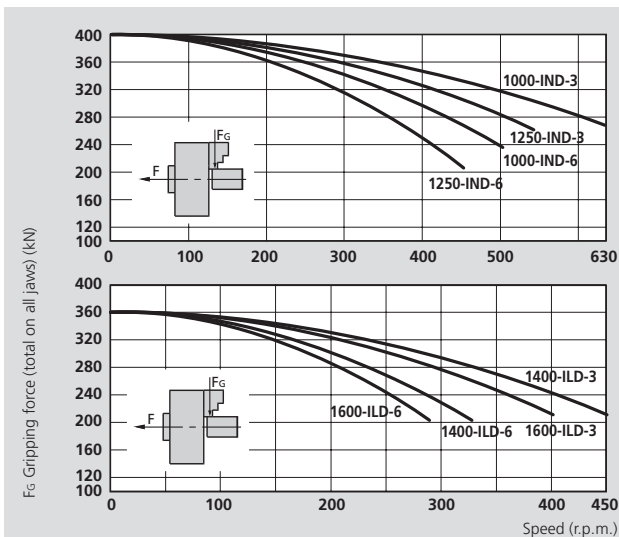
- Gripping force transmission via wedge hook
- Front protection of the slide ways against swarf and chips penetration

Standard equipment

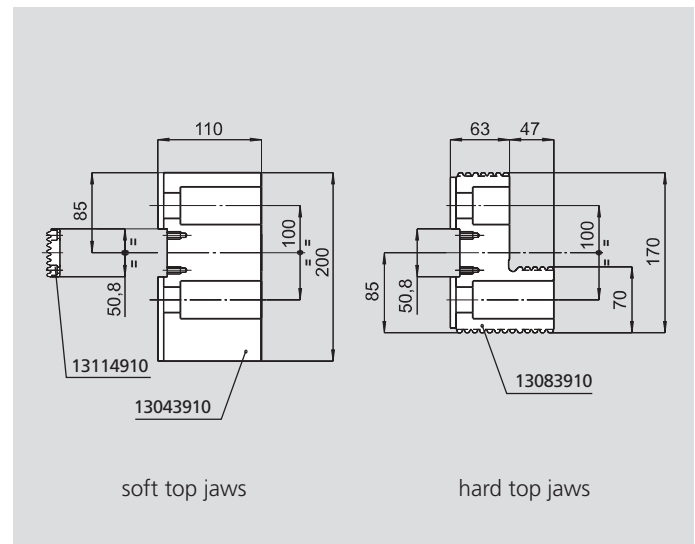
3 or 6 jaws chuck
1 set T-nuts with bolts
1 set soft top jaws with cross keys
Mounting bolts
Grease gun

Ordering example

3 jaw chuck IL-D 1600/Z720
or
6 jaw chuck IL-D 1600/Z720

**Actual gripping force diagrams**

The data in the diagram refer to 3-6 jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 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.

Soft and hard top jaws for IN-D and IL-D**△ 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		IN-D 1000		IN-D 1250		IL-D 1400		IL-D 1600	
Number of jaws		3	6	3	6	3	6	3	6
Radial jaw stroke	mm	15		15		24		24	
Axial piston stroke	mm	57		57		60		60	
Max. draw pull*	kN	180		180		200		200	
Max. gripping force*	kN	400		400		360		360	
Max. speed	r.p.m.	630	500	500	450	450	320	400	280
Weight (without top jaws)	kg	600		800		1200		1600	
Moment of inertia	kg-m ²	68		145		347		562	
Hard top jaw (piece)	Id. No.	13083910		13083910		13083910		13083910	
Soft top jaw (piece)	Id. No.	13043910		13043910		13043910		13043910	
Recommended actuating cylinders	Type	SIN-S 250		SIN-S 250		SIN-S 250		SIN-S 250	

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



SMW-AUTOBLOK
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High precision power chucks Ø 1000 - 1600 mm

- Closed center
- LONG JAW STROKE
- 3 and 6 jaws (all diameters)

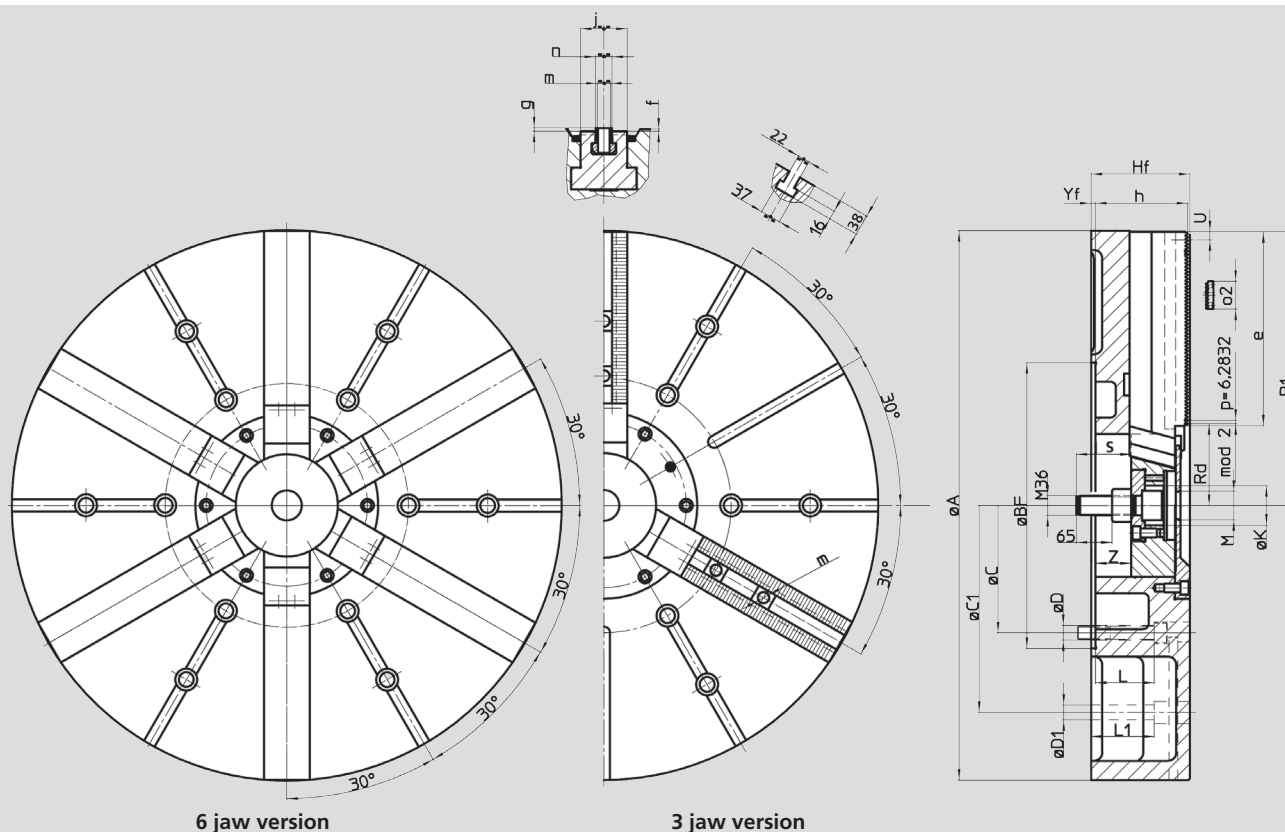
IN-D

MODULE 2 serration

IL-D

Long jaw stroke
MODULE 2 serration

1



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			IN-D 1000		IN-D 1250		IL-D 1400	IL-D 1600
Mounting			Z520	A20	Z520	A20	Z720	Z720
	A	mm	1005		1250		1400	1600
	Bf H6	mm	520		520		720	720
	C	mm	463.6		463.6		647.6	647.6
	C1	mm	700*		700*		1110	1110
	D	mm	27		27		33	33
	D1	mm	27*		27*		27	27
	Hf	mm	184		184		222	222
	K	mm	72		72		72	72
	L	mm	108		108		179	179
	L1	mm	116*		116*		154	154
	M	mm	M52 x 1.5		M52 x 1.5		M52 x 1.5	M52 x 1.5
Chuck open	R1	mm	498		623		696	796
Chuck open	Rd	mm	148.5		148.5		179.5	179.5
Radial stroke	U	mm	15		15		24	24
	S	mm	100		100		100	100
	Yf	mm	8		8		8	8
max.	Z	mm	65		65		82	82
min.	Z	mm	8		8		22	22
	e	mm	353		478		519	619
	f	mm	8		8		8	8
	g	mm	4		4		4	4
	h	mm	168		168		206	206
	j	mm	85		85		110	110
	m	mm	M24		M24		M24	M24
	n h8	mm	30		30		30	30
	o2 h6	mm	50.8		50.8		50.8	50.8

* on request only

IN-D

MODULE 2 serration

IL-DLong jaw stroke
MODULE 2 serration**High precision power chucks Ø 1000 - 1600 mm**

- Closed center
- **LONG JAW STROKE**
- **4 jaws (all diameters)**

Application/customer benefits

- Clamping of large square and irregular shaped parts, using 2 or 4 jaws self centering
- Suitable for vertical machines thanks to the front protection of the slide ways

IN-D/IL-D: MODULE 2 serrated master jaws (pitch 6.28 mm)
(Ø 1000 und 1600 mm)

Technical features

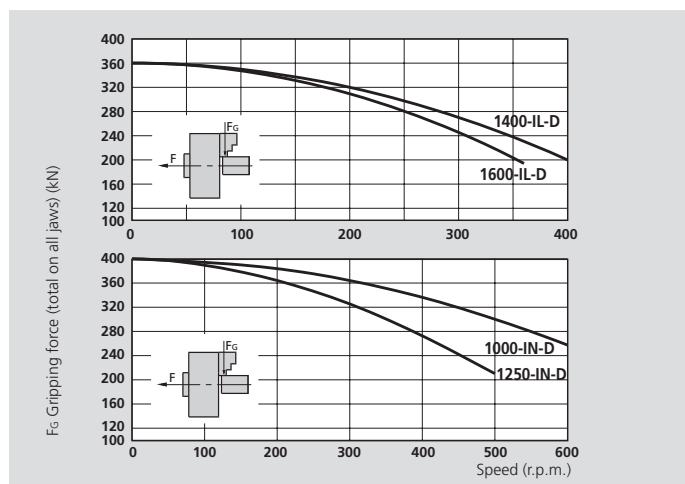
- Gripping force transmission via wedge hook
- Protection from contamination with seals along the master jaw profiles
- Possibility to use jaw boxes for manual clamping mounted on the T-slots between the master jaws

Standard equipment

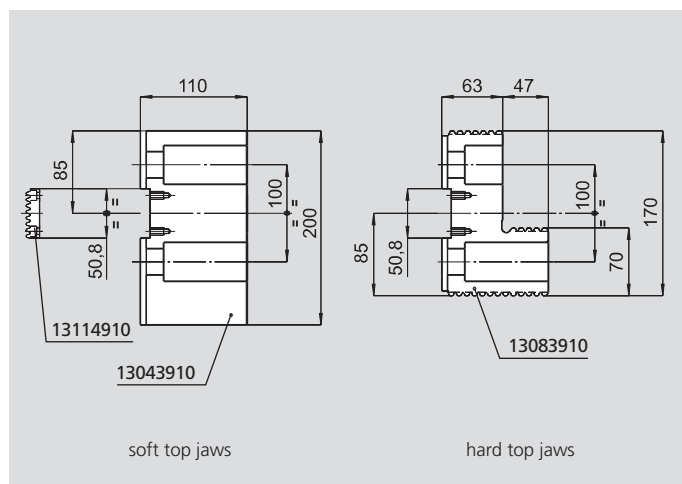
4 jaws chuck
1 set T-nuts with bolts
1 set soft top jaws with cross keys
Mounting bolts
Grease gun

Ordering example

4 jaw chuck IN-D 1600/Z720

Actual gripping force diagrams

The data in the diagram refer to 4-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 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.

Soft and hard top jaws for IN-D and IL-D**△ 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		IN-D 1000	IN-D 1250	IL-D 1400	IL-D 1600
Radial jaw stroke	mm	15	15	24	24
Axial piston stroke	mm	57	57	60	60
Max. draw pull*	kN	180	180	200	200
Max. gripping force*	kN	400	400	360	360
Max. speed	r.p.m.	600	500	400	360
Weight (without top jaws)	kg	660	900	1425	1765
Moment of inertia	kg·m ²	84	178	347	562
Hard top jaw (piece)	Id. No.	13083910	13083910	13083910	13083910
Soft top jaw (piece)	Id. No.	13043910	13043910	13043910	13043910
Recommended actuating cylinders	Type	SIN-S 250	SIN-S 250	SIN-S 250	SIN-S 250

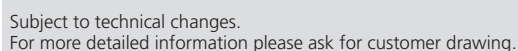
* For internal clamping reduce the draw pull by 30 %.



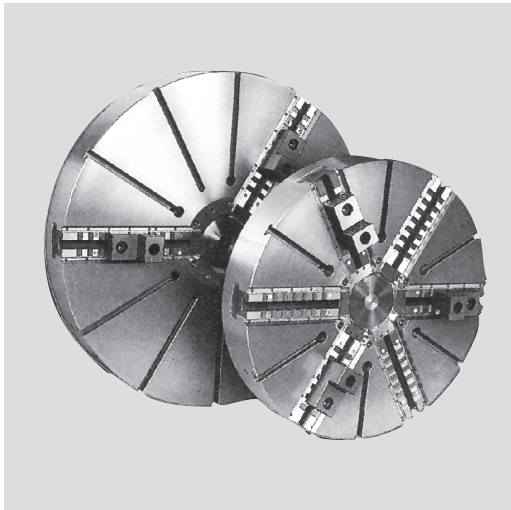
SMW-AUTOBLOK
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IL-D

- ## Long jaw stroke MODULE 2 serration

SMW-AUTOBLOK 71

- Radial setting of jaws
- Closed center
- 3 and 6 jaws (all diameters)



Application/customer benefits

- Chucking operations of very large components
- Suitable for vertical machines thanks to the front protection of the slide ways

IR-C: manual radial setting of master jaws, tongue & groove (type "American Standard") (all diameters)

Technical features

- Gripping force transmission via wedge hook
- Front protection of the slide ways against swarf and chips penetration
- IR-C chucks with manual radial setting of master jaws for the workpiece centering

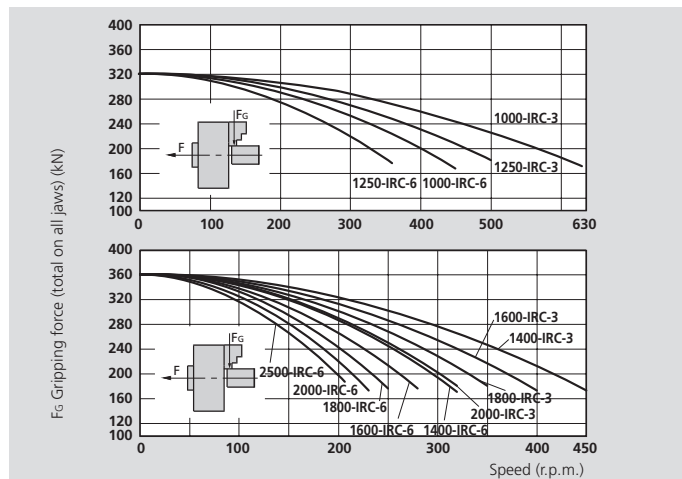
Standard equipment

3 or 6 jaws chuck
1 set soft top jaws
mounting bolts and grease gun

Ordering example

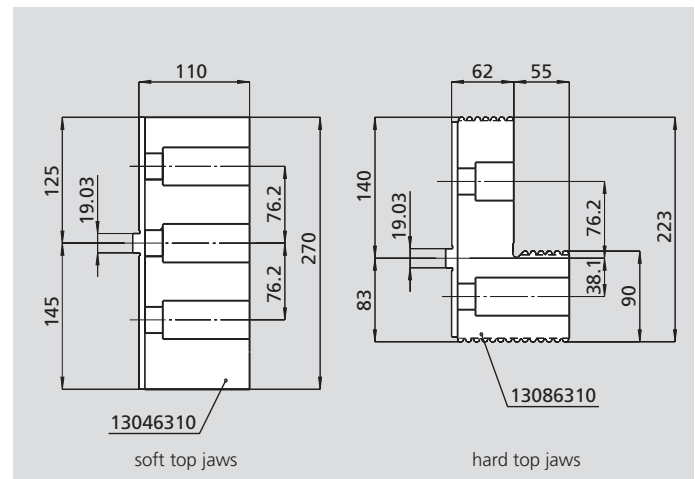
6 jaw chuck IR-C 1600/Z720

Actual gripping force diagrams



The data in the diagram refer to 3-6 jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 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.

Soft and hard top jaws for IR-C



△ 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		IR-C 1000		IR-C 1250		IR-C 1400		IR-C 1600		IR-C 1800		IR-C 2000		IR-C 2500	
Number of jaws		3	6	3	6	3	6	3	6	3	6	3	6	6	
Radial jaw stroke + (manual setting)	mm	23 + (30)		23 + (30)		24 + (40)		24 + (40)		24 + (40)		24 + (40)		30 + (40)	
Axial piston stroke	mm	57		57		60		60		60		60		60	
Max. draw pull*	kN	180		180		200		200		200		200		270	
Max. gripping force*	kN	320		320		360		360		360		360		380	
Max. speed	r.p.m.	630	450	500	360	450	320	400	280	350	250	320	230	200	
Weight (without top jaws)	kg	600		800		1200		1600		1800		2500		5100	
Moment of inertia	kg·m ²	68		145		280		500		750		1250		3860	
Hard top jaw (piece)	Id. No.	13086310		13086310		13086310		13086310		13086310		13086310		13086310	
Soft top jaw (piece)	Id. No.	13046310		13046310		13046310		13046310		13046310		13046310		13046310	
Recommended actuating cylinders	Type	SIN-S 250		SIN-S 250		SIN-S 250		SIN-S 250		SIN-S 250		SIN-S 250		SIN-S 250	

* For internal clamping reduce the draw pull by 30 %

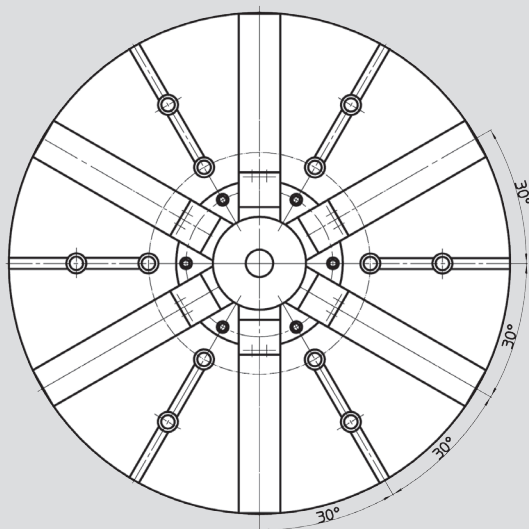


High precision power chucks Ø 1000 - 2500 mm

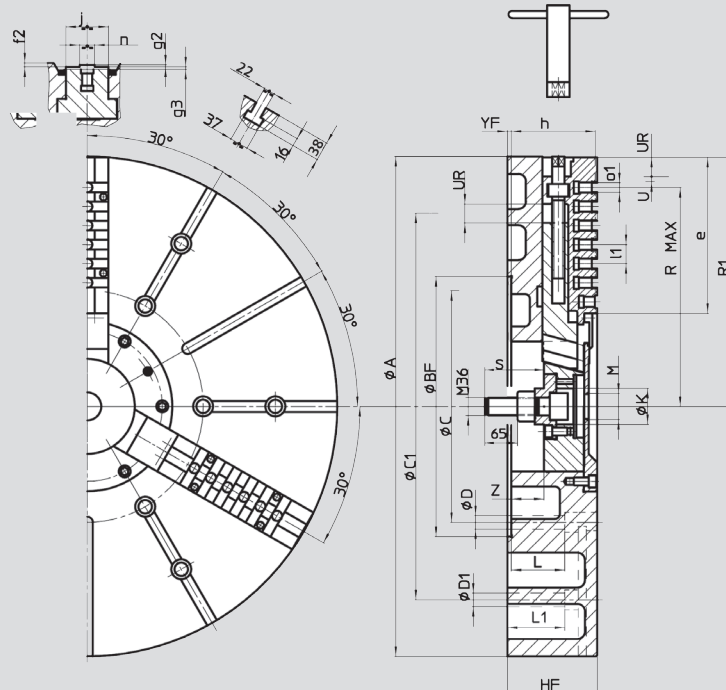
IR-C

- Radial setting of jaws
- Closed center
- 3 and 6 jaws (all diameters)

Tongue & groove



6 jaw version



3 jaw version

Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			IR-C 1000		IR-C 1250		IR-C 1400	IR-C 1600	IR-C 1800	IR-C 2000	IR-C 2500
Mounting			Z520	A20	Z520	A20	Z720	Z720	Z720	Z720	Z720
	A	mm	1005		1250		1400	1600	1800	2000	2500
	B_F H6	mm	520		520		720	720	720	720	720
	C	mm	463.6		463.6		647.6	647.6	647.6	647.6	647.6
	C1	mm	700		700		1110	1110	1110	1110	1640
	D	mm	27		27		33	33	33	33	33
	D1	mm	27		27		27	27	27	27	27
	H_F	mm	184		184		222	222	222	240	280
	K	mm	72		72		72	72	72	72	72
	L	mm	121		121		159	159	159	177	182
	L1	mm	97		97		130	130	130	148	205
	M	mm	M52 x 1.5		M52 x 1.5		M52 x 1.5	M52 x 1.5	M52 x 1.5	M52 x 1.5	-
Chuck open	R1	mm	502		623		696	796	896	996	1248
Chuck open	R_{max}	mm	457		563		657	738	838	914	1176
	S	mm	100		100		100	100	100	100	30
Radial stroke	U	mm	23		23		24	24	24	24	40
Setting stroke	U_R	mm	30		30		40	40	40	40	15
	Y_F	mm	8		8		8	8	8	8	8
max.	Z	mm	59		59		82	82	82	100	-
min.	Z	mm	2		2		22	22	22	40	-
	e	mm	295		416		446	546	639	739	959
	f2	mm	8		8		8	8	8	8	8
	g2	mm	4		4		4	4	4	4	4
	g3	mm	7		7		7	7	7	7	7
	h	mm	168		168		206	206	206	224	261
	j	mm	85		85		110	110	110	110	110
	l1	mm	38.1		38.1		38.1	38.1	38.1	38.1	38.1
	m	mm	M24		M24		M24	M24	M24	M24	M24
	n h8	mm	30		30		30	30	30	30	30
	o1 H7	mm	19.03		19.03		19.03	19.03	19.03	19.03	19.03
Number of „o1“ cross grooves			6		9		10	12	14	16	21
Number of „m“ threads			7		10		11	13	15	17	21

- Radial setting of jaws
- Closed center
- 4 jaws (all diameters)

Application/customer benefits

- Clamping of large square and irregular parts using 2 or 4 jaws self centering
- Suitable for vertical machines thanks to the front protection of the slide ways
- Manual radial setting of master jaws
- Tongue & groove (type "American Standard")

Technical features

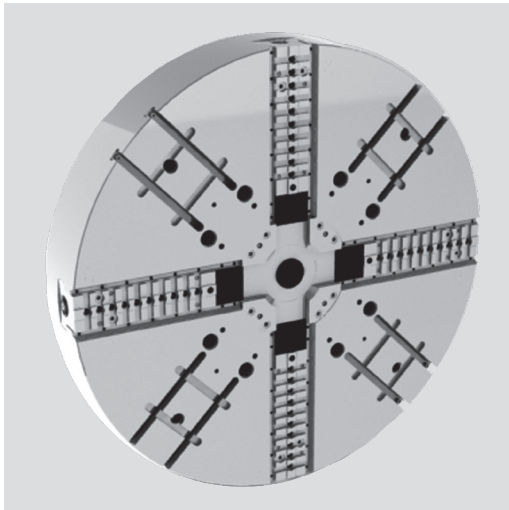
- Gripping force transmission via wedge hook
- Manual radial setting of master jaws for workpiece centering
- Protection from contamination with seals along the master jaw profiles
- Possibility to use jaw boxes for manual clamping mounted on the T-slots between the master jaws

Standard equipment

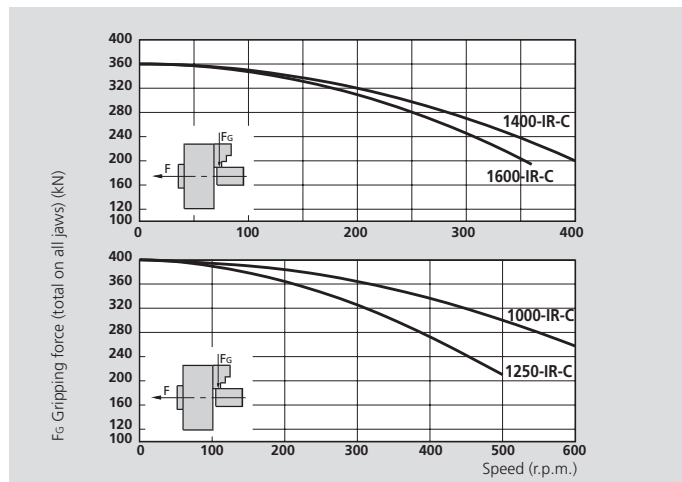
4 jaw chuck
1 set of soft top jaws
Mounting bolts
Grease gun

Ordering example

4 jaw chuck IR-C 1600/Z720

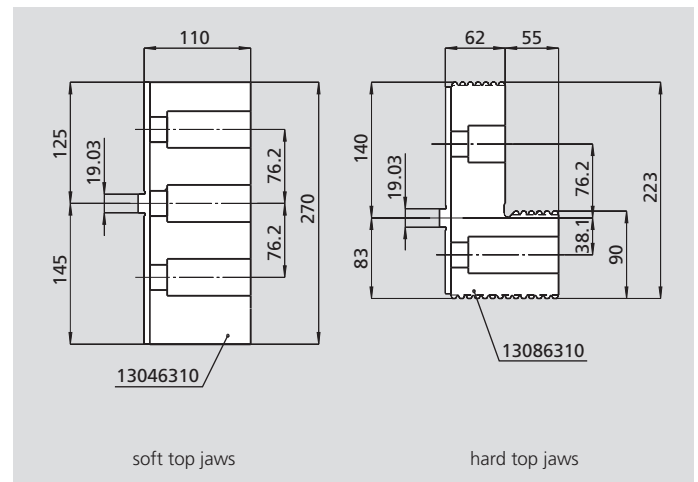


Actual gripping force diagrams



The data in the diagram refer to 4-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 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.

Soft and hard top jaws for IR-C



△ 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		IR-C 1000	IR-C 1250	IR-C 1400	IR-C 1600	IR-C 2000
Radial jaw stroke + (manual setting)	mm	23 + (30)	23 + (30)	24 + (40)	24 + (40)	24 + (40)
Axial piston stroke	mm	57	57	60	60	60
Max. draw pull*	kN	180	180	200	200	200
Max. gripping force*	kN	320	320	360	360	360
Max. speed	r.p.m.	550	450	380	340	280
Weight (without top jaws)	kg	660	900	1425	1765	2730
Moment of inertia	kg·m ²	84	178	347	562	1360
Hard top jaw (piece)	Id. No.	13086310	13086310	13086310	13086310	13086310
Soft top jaw (piece)	Id. No.	13046310	13046310	13046310	13046310	13046310
Recommended actuating cylinders	Type	SIN-S 250	SIN-S 250	SIN-S 250	SIN-S 250	SIN-S 250

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

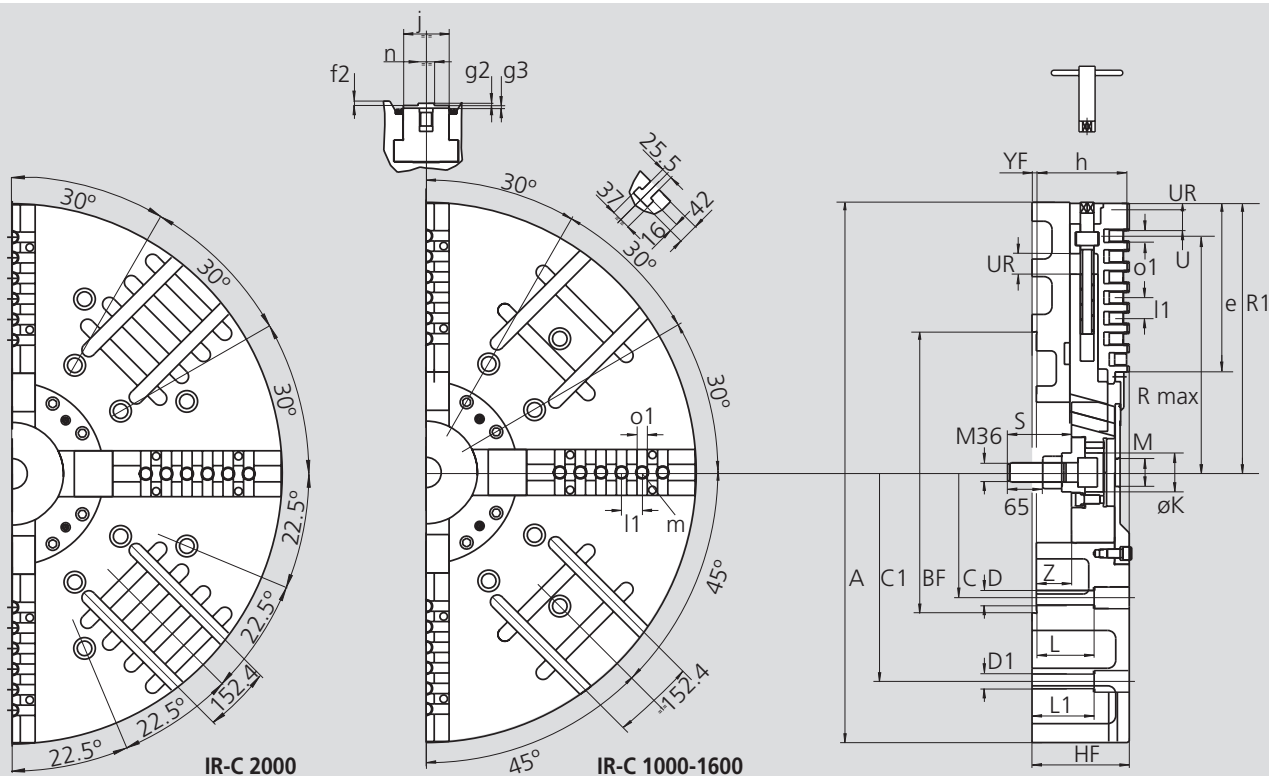


SMW-AUTOBLOK
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- Radial setting of jaws
- Closed center
- 4 jaws (all diameters)

Tongue & groove

1



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			IR-C 1000		IR-C 1250		IR-C 1400		IR-C 1600		IR-C 2000	
Mounting			Z520	A20	Z520	A20	Z720		Z720		Z720	
	A	mm	1005		1250		1400		1600		2000	
	Bf H6	mm	520		520		720		720		720	
	C	mm	463.6		463.6		647.6		647.6		647.6	
	C1	mm	700		700		1110		1110		1110	
	D	mm	27		27		33		33		33	
	D1	mm	27		27		27		27		27	
	Hf	mm	200		200		240		240		260	
	K	mm	72.5		72.5		72.5		72.5		72.5	
	L	mm	137		137		177		177		197	
	L1	mm	145		145		177		177		205	
	M	mm	M52 x 1.5		M52 x 1.5		M52 x 1.5		M52 x 1.5		M52 x 1.5	
Chuck open	R1	mm	502		623		696		796		996	
Chuck open	Rmax	mm	457		563		651		738		914	
Radial stroke	U	mm	23		23		24		24		24	
Setting stroke	UR	mm	30		30		40		40		40	
	S	mm	118		118		118		118		118	
	Yf	mm	8		8		8		8		8	
max.	Z	mm	75		75		100		100		120	
min.	Z	mm	18		18		40		40		40	
	e	mm	295		416		446		539		739	
	f1	mm	-		-		-		-		-	
	f2	mm	8		8		8		8		8	
	g2	mm	4		4		4		4		4	
	g3	mm	7		7		7		7		7	
	h	mm	184		184		224		224		244	
	j	mm	85		85		110		110		110	
	l1	mm	38.1		38.1		38.1		38.1		38.1	
	m	mm	M24		M24		M24		M24		M24	
	n h8	mm	30		30		30		30		30	
	o1 H7	mm	19.03		19.03		19.03		19.03		19.03	
Number of „o1“ cross grooves			6		9		10		12		16	
Number of „m“ threads			7		9		11		13		17	

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

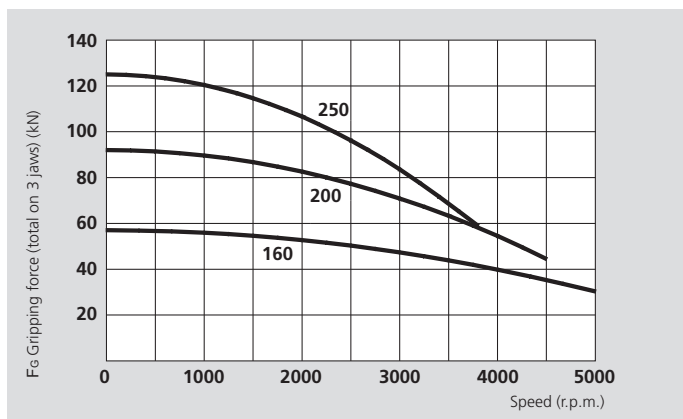
Standard equipment

3 jaw chuck
Mounting bolts
Grease gun

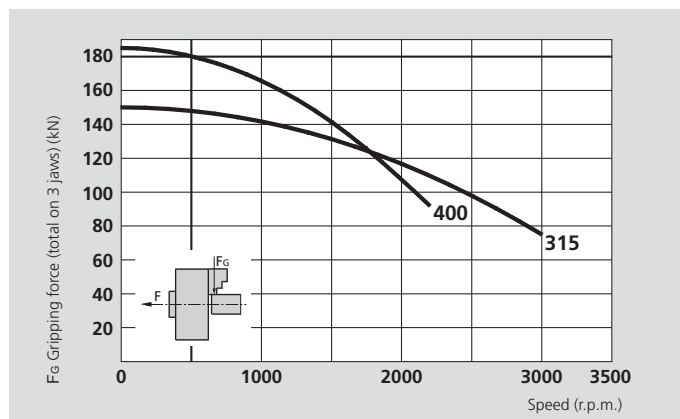
Ordering example

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

Actual gripping force diagrams



The data in the diagram refer to 3-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 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

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



SMW-AUTOBLOK
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SMW-AUTOBLOK
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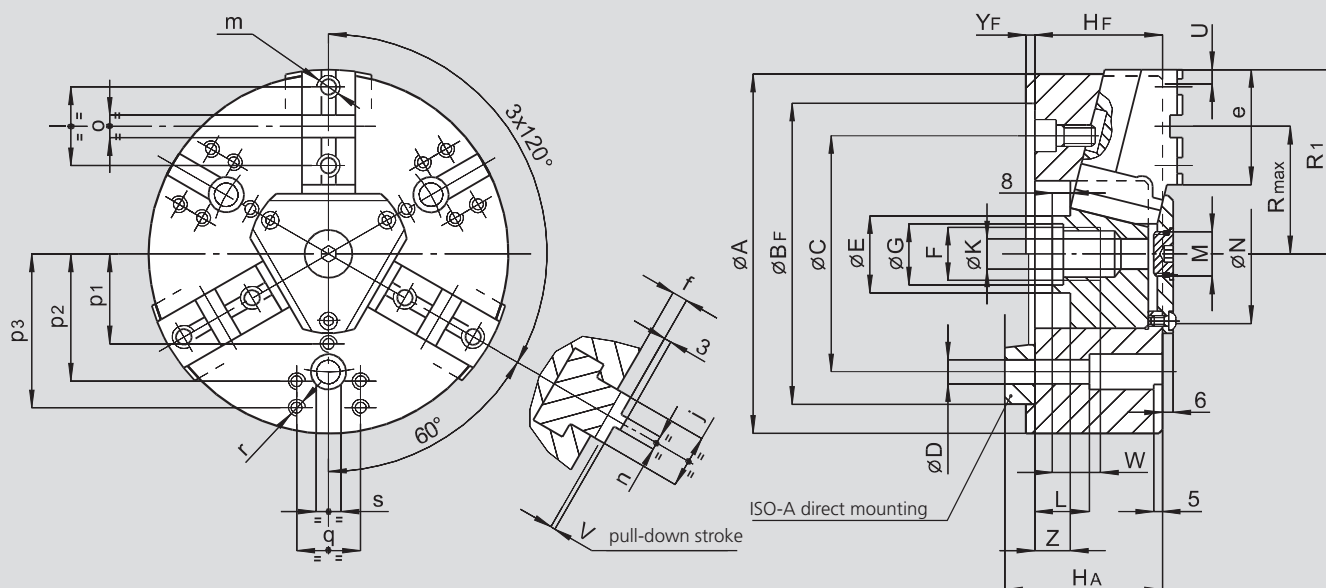
SMW-AUTOBLOK
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High precision pull-down chucks Ø 160 - 400 mm

- pull-down effect of inclined master jaws
- tongue & groove master jaws
- 3 jaws

RAN

Tongue & groove



Subject to technical changes.

For more detailed information please ask for customer drawing.

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	
	N	mm	75		90		105		112		145	
Chuck open	R1	mm	85		104		128		155		198	
	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	

CL-C

Tongue & groove

CL-DINCH
serration**High precision power chucks Ø 80 - 315 mm**

- LONG STROKE
- Closed center
- 2 jaws

Application/customer benefits

- Gripping or handling of irregular shaped pieces, for example on special machines
- Suitable for vertical machines

CL-C: Tongue & groove master jaws DIN standard (Ø 80-160 mm)**CL-D:** Master jaws with INCH serration (1/16" x 90°) (Ø 200-315 mm)**Technical features**

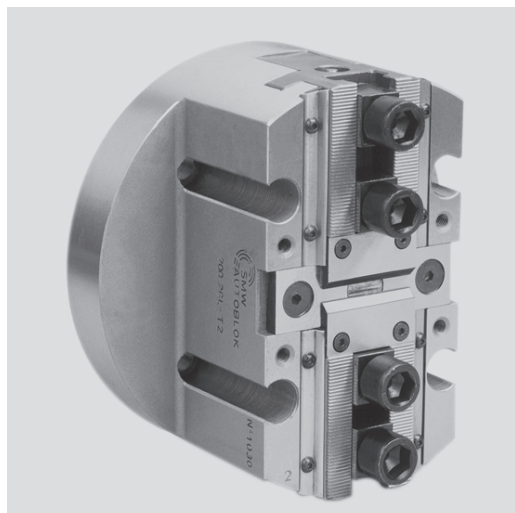
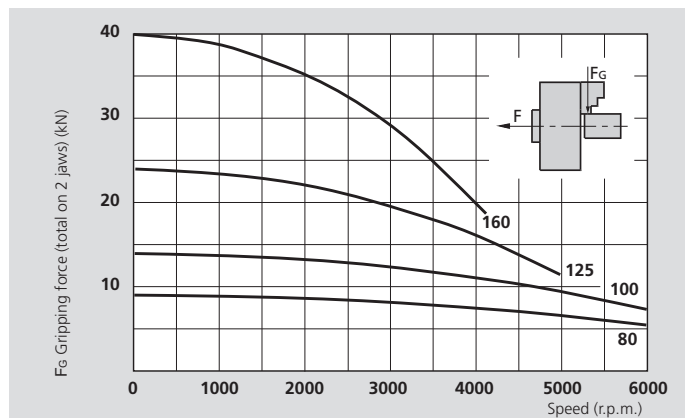
- Extra long stroke per jaw
- Gripping force transmission via wedge hook
- Sealed against swarf and chips

Standard equipment

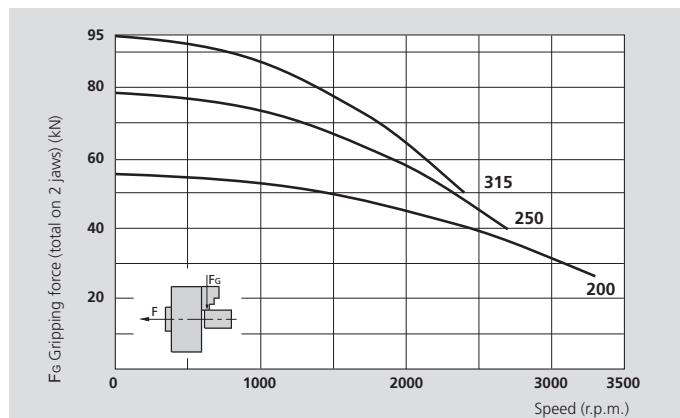
2 jaw chuck
4 T-nuts with bolts (Ø 200-315 mm)
Grease gun
Without top jaws

Ordering example

2 jaw chuck CL-D 250/A8
or
2 jaw chuck CL-C 100/Z92

**Actual gripping force diagrams**

The data in the diagram refer to 2-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 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.

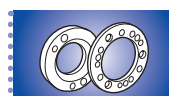
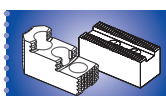
**△ Safety advice/danger of damage:**

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

Technical data

SMW-AUTOBLOK Type		CL-C 80	CL-C 100	CL-C 125	CL-C 160	CL-D 200	CL-D 250	CL-D 315
Number of jaws		2	2	2	2	2	2	2
Radial jaw stroke	mm	4.4	5.5	8	10	12	13	14
Axial piston stroke	mm	11	14	20	25	30	32	35
Max. draw pull*	kN	6	9	15	25	35	50	60
Max. gripping force*	kN	9	14	24	40	55	78	95
Max. speed	r.p.m.	6000	6000	5000	4100	3300	2700	2400
Weight (without top jaws)	kg	1.5	2.5	5	10	14	24	38
Moment of inertia	kg·m ²	0.0012	0.003	0.010	0.03	0.065	0.18	0.41

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

SMW-AUTOBLOK
390SMW-AUTOBLOK
392SMW-AUTOBLOK
259

High precision power chucks Ø 80 - 315 mm

- LONG STROKE
- Closed center
- 2 jaws

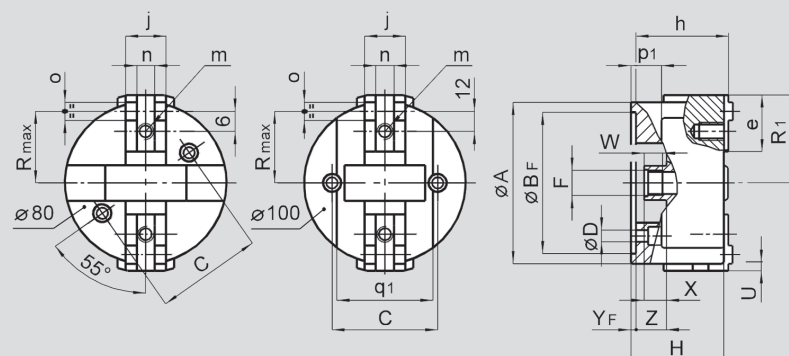
CL-C

Tongue & groove

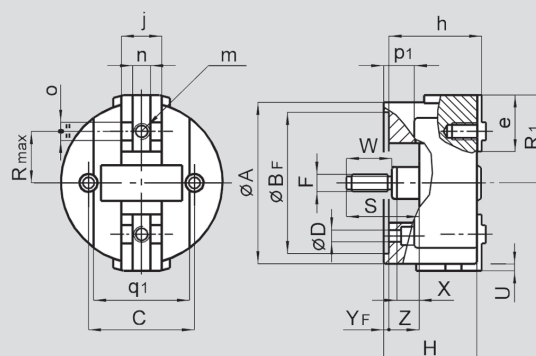
CL-D

INCH
serration

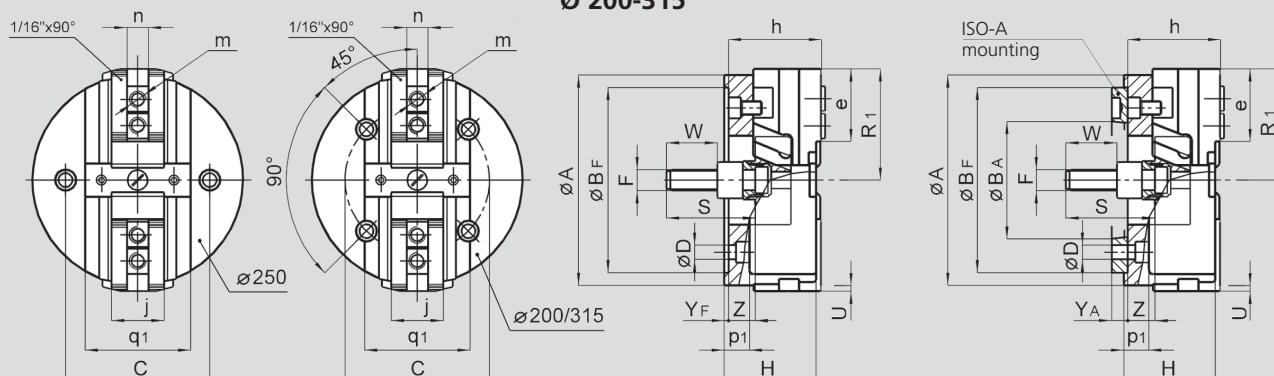
Ø 80-100



Ø 125-160



Ø 200-315



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			CL-C 80		CL-C 100		CL-C 125		CL-C 160		CL-D 200		CL-D 250		CL-D 315	
			Tongue & groove													
			Inch serration													
Mounting			Z74	-	Z92	-	Z115	-	Z140	A5	Z170	A6	Z220	A8	Z220	A8
	A	mm	80		100		125		160		200		250		315	
	BF H6	mm	74	-	92	-	115	-	140		170		220		220	
	BA	mm	-	-	-	-	-	-	-	82.563	-	106.375	-	139.719	-	139.719
	C	mm	60		75		92		104.8		133.4		171.4		171.4	
	D	mm	9	-	11	-	13.5	-	12	12	13.5	13.5	17	17	17	17
	F	mm	M16 x 1.5		M18 x 1.5		M16		M16		M20		M24		M24	
	HF/HA	mm	45	-	54	-	76	-	92	102	103	115	109	123	114	128
Chuck open	R1	mm	40		50		68		87		108		132		165	
	Rmax	mm	32.4		43		38		51		-		-		-	
	S	mm	-		-		49		109		97		105		105	
Jaw stroke	U	mm	4.4		5.5		8		10		12		13		14	
	W	mm	12		16		40		52		55		60		60	
	X	mm	14		11		6		22		8		10		10	
	YF/YA	mm	4	-	4	-	4	-	5	15	5	17	5	19	5	19
min./max.	Z	mm	11/0		14/0		26/6		30/5		30/0		32/0		37/2	
	e	mm	24.5		32		46		56		70		86		120	
	h	mm	45		54		76		91		104		110		115	
	j	mm	20		22		30		40		50		62		62	
	m	mm	M8		M10		M12		M16		M16		M20		M20	
	n h8	mm	8		8		14		18		21		25.5		25.5	
	o	mm	8		8		16		18		-		-		-	
	p1	mm	-		22		30		30		31		33		36	
	q1	mm	-		60		75		95		110		125		140	

