

Open center power chucks



BH-D

INCH
serration

High precision power chucks
Ø 130 - 450 mm

- LARGE THROUGH HOLE
- 2, 3 and 4 jaws

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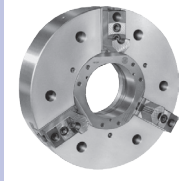
BH-M

METRIC
serration

High precision power chucks
Ø 130 - 450 mm

- LARGE THROUGH HOLE
- 2, 3 and 4 jaws

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BH-D big diameters

INCH
serration

High precision power chucks
Ø 500 - 800 mm

- LARGE THROUGH HOLE
- 3 jaws

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BHD-FC

INCH
serration

High precision power chucks
Ø 165 - 630 mm

- LARGE THROUGH HOLE
- Centrifugal force compensation
- 3 jaws

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BHM-FC

METRIC
serration



AG-2G-C

Tongue & groove

High precision power chucks
Ø 225 mm

- LARGE THROUGH HOLE
- Centrifugal force compensation
- 3 jaws
- **proofline® chucks** = fully sealed – low maintenance

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AG-2G-M

METRIC
serration



BP-D

INCH
serration

High precision power chucks
Ø 220 - 320 mm

- LARGE THROUGH HOLE
- 3 jaws
- **proofline® chucks** = fully sealed – low maintenance

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BP-M

METRIC
serration



BP-C

Tongue & groove

High precision power chucks
Ø 220 - 320 mm

- LARGE THROUGH HOLE
- 3 jaws
- **proofline® chucks** = fully sealed – low maintenance

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BB-D

INCH
serration

High precision power chucks
Ø 140 - 315 mm

- EXTRA LARGE THROUGH HOLE
- 3 jaws

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BB-M

METRIC
serration



HFKN-D

INCH
serration

High precision power chucks
Ø 110 - 500 mm

- Wedge-bar design
- LARGE THROUGH HOLE
- 3 jaws

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HFKN-M

METRIC
serration

BH-D

INCH
serration

High precision power chucks Ø 130 - 450 mm

- LARGE THROUGH HOLE
- 2, 3 and 4 jaws

Application/customer benefits

- For open center or partial open center clamping
- Large through-hole

BH-D: Master jaws with INCH serration (1/16"×90°) (400 and 450 3/32"×90°)

Technical features

- Gripping force transmission via wedge hook
- Case hardened body to assure greatest precision and long chuck life
- 2 jaw version from diameter 130 to 315
- 3 jaw version available in all diameters
- 4 jaw chuck available starting from diameter 165 mm

Standard equipment

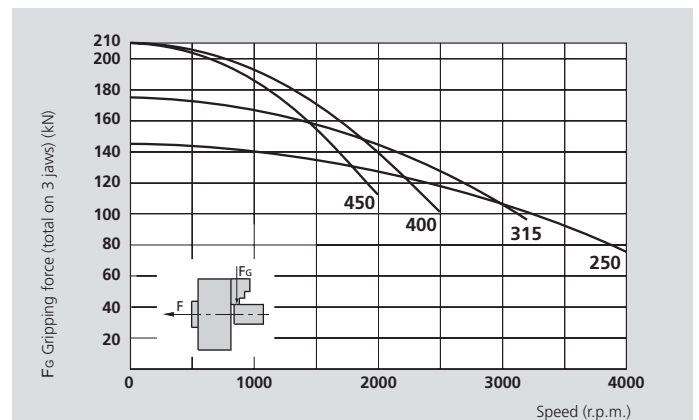
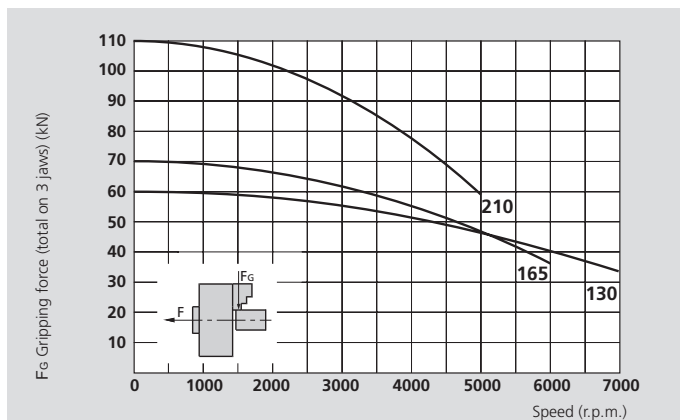
2, 3 or 4 jaw chuck
1 set T-nuts with bolts
1 set soft top jaws
Mounting bolts
Grease gun

Ordering example

2 jaw chuck BH-D 210/A6
or
3 jaw chuck BH-D 250/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.

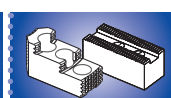
Technical data

SMW-AUTOBLOK Type		BH-D 130		BH-D 165			BH-D 210			BH-D 250			BH-D 315			BH-D 400		BH-D 450	
Number of jaws		2	3	2	3	4	2	3	4	2	3	4	2	3	4	3	4	3	4
Through-hole	mm	32		46			52			66			95			118		118	
Radial jaw stroke	mm	3.2		3.2			4			5			5			6.5		6.5	
Axial piston stroke	mm	15		15			19			24			24			31		31	
Max. draw pull*	kN	15	22	17	25	25	25	38	38	34	50	50	40	60	60	70	70	70	70
Max. gripping force*	kN	42	60	48	70	70	72	110	110	98	145	145	115	175	175	210	210	210	210
Max. speed	r.p.m.	7000	7000	6000	6000	5000	5000	5000	4300	4000	4000	3400	3200	3200	2700	2500	2000	2000	1700
Weight (without top jaws)	kg	5		9.5			19			30			46			86		135	
Moment of inertia	kg·m²	0.012		0.036			0.12			0.27			0.62			2		3.5	
Recommended actuating cylinders		SIN-S 85/100		SIN-S 100			SIN-S 100/125			SIN-S 125/150			SIN-S 125/150			SIN-S 150/175			
		VNK-T2 70-37		VNK-T2 102-46			VNK-T2 130-52			VNK-T2 150-67			VNK-T2 225-95			VNK-T2 320-127			

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



SMW-AUTOBLOK
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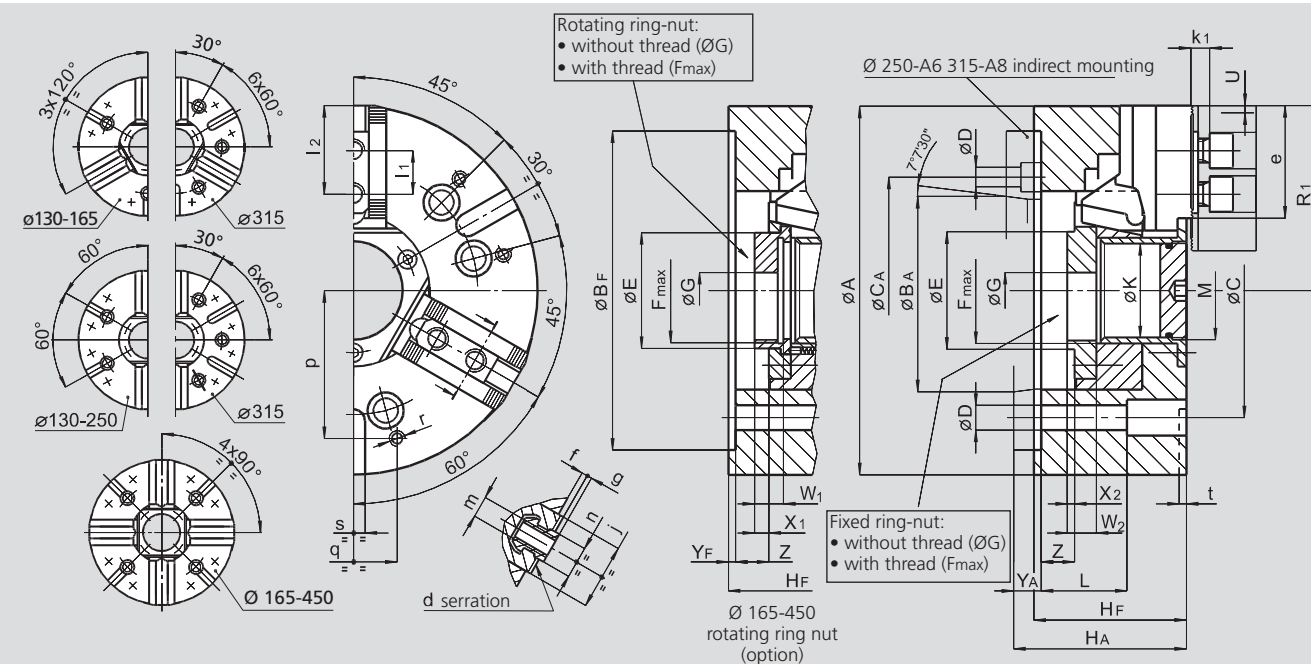
SMW-AUTOBLOK
392



SMW-AUTOBLOK
259

- LARGE THROUGH HOLE
- 2, 3 and 4 jaws

INCH
serration



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

SMW-AUTOBLOK Type			BH-D 130		BH-D 165		BH-D 210		BH-D 250			BH-D 315			BH-D 400		BH-D 450	
Mounting			Z115	A4	Z140	A5	Z170	A6	Z220	A6	A8	Z300	A8	A11	Z300	A11	Z300	A11
	A	mm	130		165		210		254			315			390		450	
	Bf/BA H6	mm	115	63.513	140	82.563	170	106.375	220	106.375	139.719	300	139.719	196.869	300	196.869	300	196.869
	C	mm	82.6		104.8		133.4		171.4	-	171.4	235	-	235	235		235	
	CA	mm	-	-	-	-	-	-	-	133.4	-	-	171.4	-	-	-	-	-
	D	mm	11.5		11.5		13.5		17	13.5	17	17	17	21	21		21	
	E	mm	43.5		(*)		67		78			111			143		143	
	Fmax	mm	M38 x 1.5		(**)		M60 x 1.5		M72 x 1.5			M102 x 2			M130 x 2		M130 x 2	
	G	mm	16		20		20		25			25			70		70	
	Hf/HA	mm	67	75	77	87	92	104	105	124	119	111	136	127	128	143	128	143
	K	mm	32		46		52		66			95			118		118	
	L	mm	51		61		66		59			33			101		101	
	M	mm	M35 x 1.5		M48 x 1.5		M54 x 1.5		M68 x 2			M98 x 2			M120 x 2		M120 x 2	
Chuck open	R1	mm	66.5		84.5		105.5		127.5			158			195		225	
Jaw stroke	U	mm	3.2		3.2		4		5			5			6.5		6.5	
	W1/W2	mm	-14		18/16		20/18		20/20			23/23			33/35		33/35	
	X1/X2	mm	-6		11/5		11/5		11/6			12/7			19/17		19/17	
	Yf/YA	mm	5	13	5	15	5	17	5	24	19	5	30	21	6	21	6	21
max./min.	Z	mm	15/0		15/0		19/0		24/0			24/0			31/0		31/0	
Serration	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⁾		3/32" x 90°	
	e	mm	39		49.5		66		77.5			93			116.5		146.5	
	f	mm	2		3		3		4			4			5		5	
	g	mm	2.5		2.5		2.5		3.5			3.5			3.5		3.5	
	j	mm	30		33		38		45			45			62		62	
	k1	mm	10		10		11		12			12			14		14	
	l1	mm	16		16.5		23		30			30			34		34	
max./min.	l2	mm	32/23		41/24		56/33		62/43			78/43			90/49		120/49	
	m	mm	M8		M10		M12		M16			M16			M20		M20	
	n h8	mm	12		14		17		21			21			25.5		25.5	
	p	mm	52		65		80		102			100			150		150	
	q	mm	30		36		45		60			60			80		80	
	r	mm	M6		M8		M8		M10			M10			M12		M12	
	s H12	mm	12		16		16		16			20			20		20	
	t	mm	5		5		5		5			5			5		5	

- * E fixed ring nut Ø 60
E rotating ring nut Ø 56
** F_{max} fixed ring nut M55 x 2
F_{max} rotating ring nut M50 x 1.5
(1) serration 1/16 x 90° on request

BH-M

METRIC
serration

High precision power chucks Ø 130 - 450 mm

- LARGE THROUGH HOLE
- 2, 3 and 4 jaws

Application/customer benefits

- For open center or partial open center clamping
- Large through-hole

BH-M: Master jaws with METRIC serration (1.5 mm x 60°)
(Suitable for Japanese chucks top jaws)

Technical features

- Gripping force transmission via wedge hook
- Case hardened body to assure greatest precision and long chuck life
- 2 jaw version from diameter 130 to 315
- 3 jaw version available in all diameters
- 4 jaw chuck available starting from diameter 165 mm

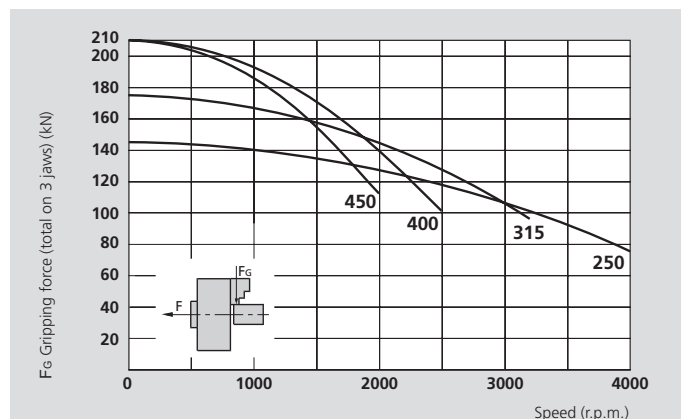
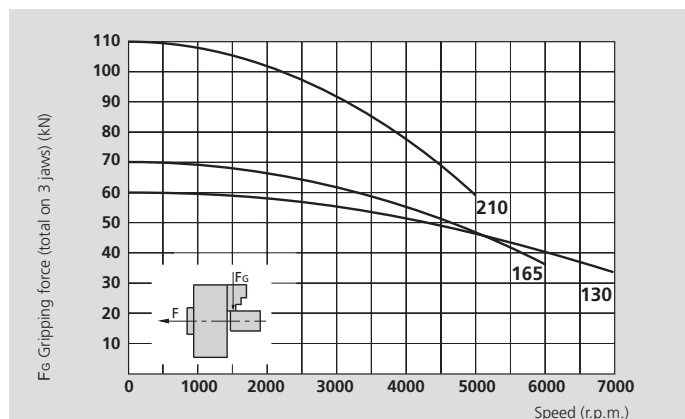
Standard equipment

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

Ordering example

2 jaw chuck BH-M 210/A6
or
3 jaw chuck BH-M 250/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.

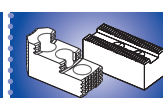
Technical data

SMW-AUTOBLOK Type		BH-M 130		BH-M 165			BH-M 210			BH-M 250			BH-M 315			BH-M 400		BH-M 450	
Number of jaws		2	3	2	3	4	2	3	4	2	3	4	2	3	4	3	4	3	4
Through-hole	mm	32		46			52			66			95			118		118	
Radial jaw stroke	mm	3.2		3.2			4			5			5			6.5		6.5	
Axial piston stroke	mm	15		15			19			24			24			31		31	
Max. draw pull*	kN	15	22	17	25	25	25	38	38	34	50	50	40	60	60	70	70	70	70
Max. gripping force*	kN	42	60	48	70	70	72	110	110	98	145	145	115	175	175	210	210	210	210
Max. speed	r.p.m.	7000	7000	6000	6000	5000	5000	5000	4300	4000	4000	3400	3200	3200	2700	2500	2000	2000	1700
Weight (without top jaws)	kg	5		9.5			19			30			46			86		135	
Moment of inertia	kg·m²	0.012		0.036			0.12			0.27			0.62			2		3.5	
Recommended actuating cylinders																			
		SIN-S 85/100		SIN-S 100			SIN-S 100/125			SIN-S 125/150			SIN-S 125/150			SIN-S 150/175			
		VNK-T2 70-37		VNK-T2 102-46			VNK-T2 130-52			VNK-T2 150-67			VNK-T2 225-95			VNK-T2 320-127			

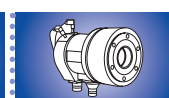
* For internal clamping reduce the draw pull by 30 %.



SMW-AUTOBLOK
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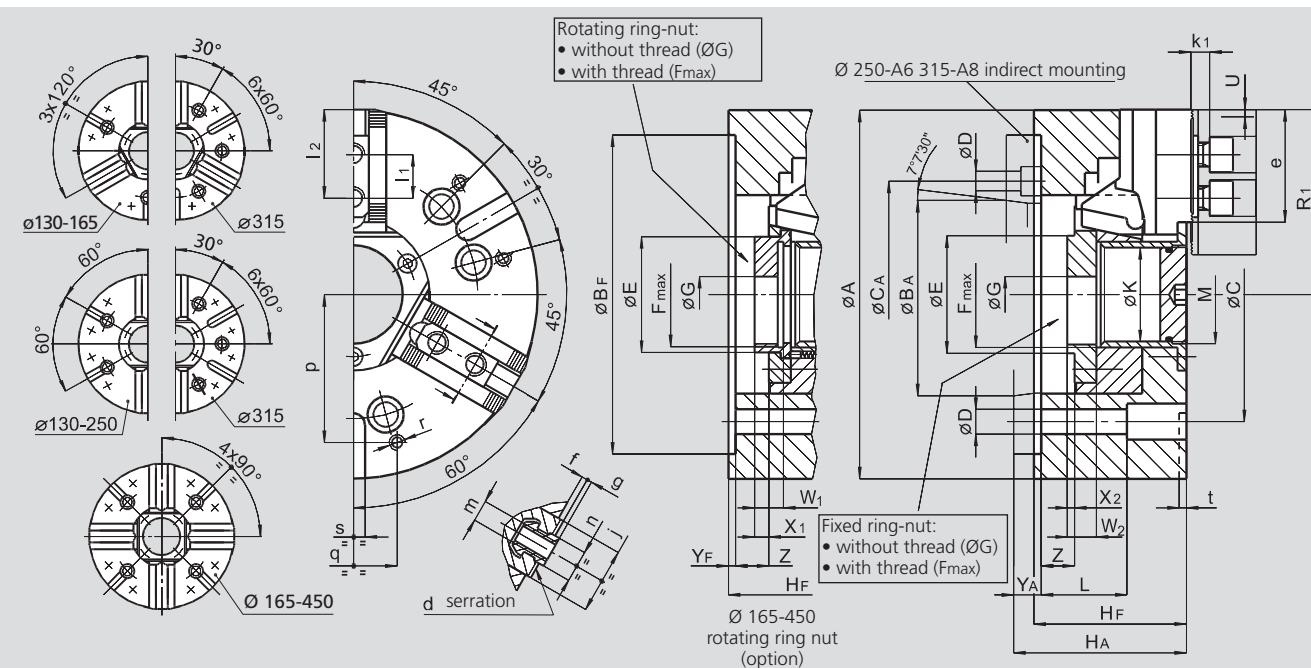
SMW-AUTOBLOK
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SMW-AUTOBLOK
259

- LARGE THROUGH HOLE
- 2, 3 and 4 jaws

METRIC
serration



Subject to technical changes.

For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			BH-M 130		BH-M 165		BH-M 210		BH-M 250			BH-M 315			BH-M 400		BH-M 450	
Mounting			Z115	A4	Z140	A5	Z170	A6	Z220	A6	A8	Z300	A8	A11	Z300	A11	Z300	A11
	A	mm	130		165		210		254			315			390		450	
	Bf/BA H6	mm	115	63.513	140	82.563	170	106.375	220	106.375	139.719	300	139.719	196.869	300	196.869	300	196.869
	C	mm	82.6		104.8		133.4		171.4	-	171.4	235	-	235	235		235	
	CA	mm	-	-	-	-	-	-	-	133.4	-	-	171.4	-	-	-	-	-
	D	mm	11.5		11.5		13.5		17	13.5	17	17	17	21	21		21	
	E	mm	43.5		(*)		67		81			111			143		143	
	Fmax	mm	M38 x 1.5		(**)		M60 x 2		M75 x 2			M100 x 2			M130 x 2		M130 x 2	
	G	mm	16		20		20		25			25			70		70	
	Hf/HA	mm	67	75	77	87	92	104	105	124	119	111	136	127	128	143	128	143
	K	mm	32		46		52		66			95			118		118	
	L	mm	51		61		66		59			33			101		101	
	M	mm	M35 x 1.5		M48 x 1.5		M54 x 1.5		M68 x 2			M98 x 2			M120 x 2		M120 x 2	
Chuck open	R1	mm	66.5		84.5		105.5		127.5			158			195		225	
Jaw stroke	U	mm	3.2		3.2		4		5			5			6.5		6.5	
	W1/W2	mm	-14		18/16		20/18		33/38			33/40			33/35		33/35	
	X1/X2	mm	-6		11/5		11/5		24/24			24/24			19/17		19/17	
	Yf/YA	mm	5	13	5	15	5	17	5	24	19	5	30	21	6	21	6	21
max./min.	Z	mm	15/0		15/0		19/0		24/0			24/0			31/0		31/0	
Serration	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°		1.5 x 60°	
	e	mm	39		49.5		66		77.5			93			116.5		146.5	
	f	mm	2		3		3		4			4			5		5	
	g	mm	2.5		2.5		2.5		3.5			3.5			3.5		3.5	
	j	mm	30		33		38		45			45			62		62	
	k1	mm	10		10		11		12			12			14		14	
	l1	mm	16		20		25		30			30			34		34	
max./min.	l2	mm	32/23		41/24		56/33		62/43			78/43			90/49		120/49	
	m	mm	M8		M10		M12		M12			M16			M20		M20	
	n h8	mm	12		12		14		16			21			22		22	
	p	mm	52		65		80		102			100			150		150	
	q	mm	30		36		45		60			60			80		80	
	r	mm	M6		M8		M8		M10			M10			M12		M12	
	s H12	mm	12		16		16		16			20			20		20	
	t	mm	5		5		5		5			5			5		5	

* E fixed ring nut Ø 60

E rotating ring nut Ø 56

** Fmax fixed ring nut M55 x 2

Fmax rotating ring nut M50 x 1.5

BH-D

big diameters

INCH
serration

High precision power chucks Ø 500 - 800 mm

- LARGE THROUGH HOLE
- 3 jaws

Application/customer benefits

- For open center or partial open center clamping
- Large through-hole

BH-D: Master jaws with INCH serration 3/32" x 90°

Technical features

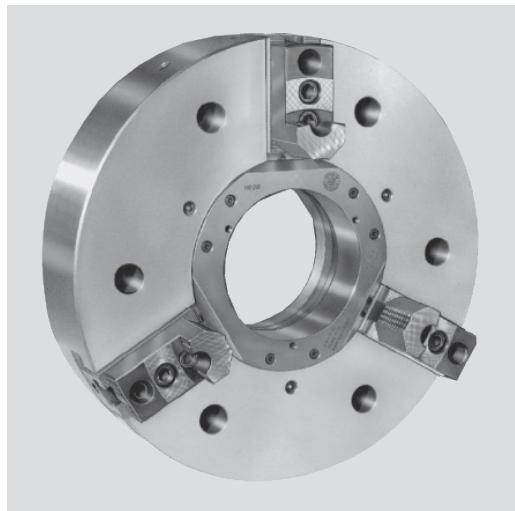
- Gripping force transmission via wedge hook

Standard equipment

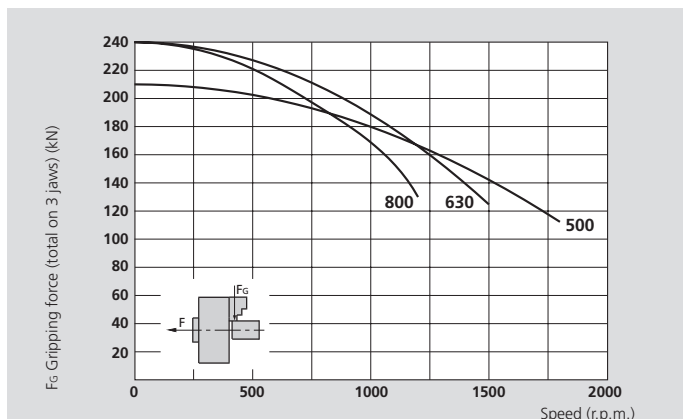
3 jaw chuck
1 set T-nuts with bolts
1 set soft top jaws
Blank ring-nut
Mounting bolts
Grease gun

Ordering example

3 jaw chuck BH-D 500/A15
or
3 jaw chuck BH-D 800/Z520



Actual gripping force diagram



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.

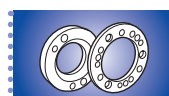
⚠ Safety advice/danger of damage:

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

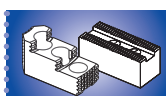
Technical data

SMW-AUTOBLOK Type		BH-D 500	BH-D 630	BH-D 800
Number of jaws		3	3	3
Through-hole	mm	180	230	230
Radial jaw stroke	mm	6.5	9	9
Axial piston stroke	mm	31	34	34
Max. draw pull*	kN	70	100	100
Max. gripping force*	kN	210	240	240
Max. speed	r.p.m.	1800	1500	1200
Weight (without top jaws)	kg	140	280	530
Moment of inertia	kg·m ²	5	16	47
Recommended actuating cylinders		SIN-S 150/200 VSG 450-165	SIN-S 150/200 VSG 550-205	SIN-S 150/200 VSG 550-205

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



SMW-AUTOBLOK
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SMW-AUTOBLOK
392

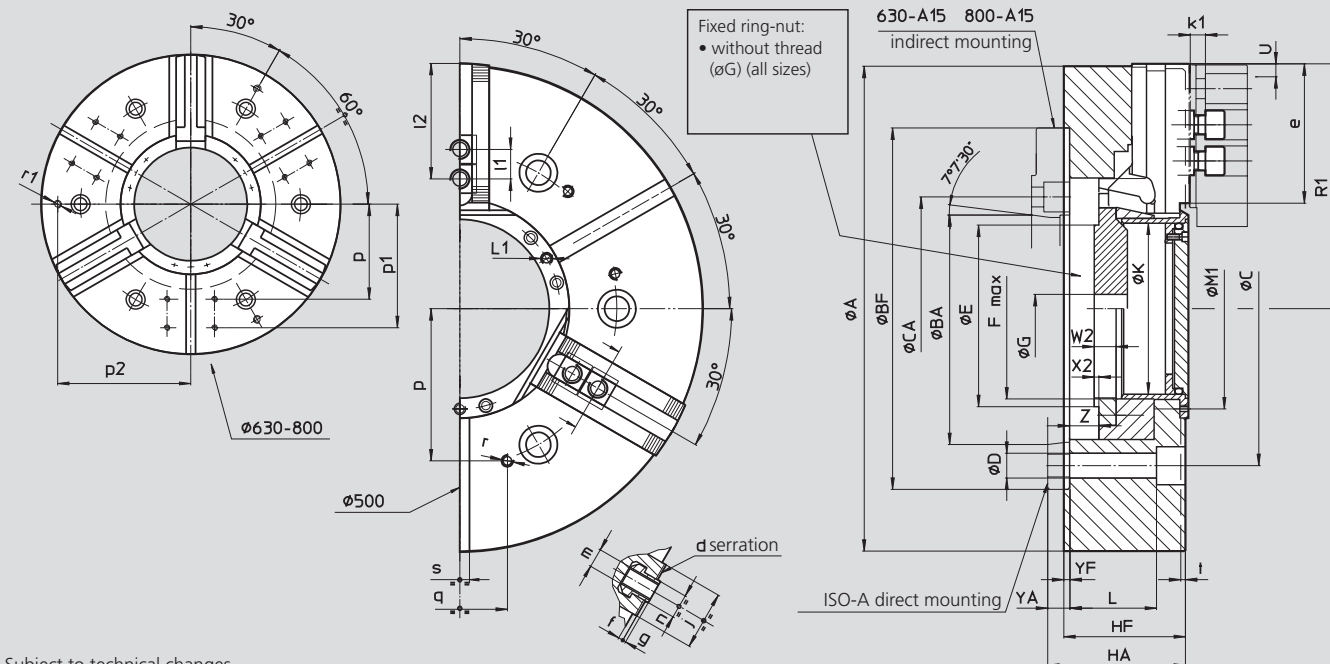


SMW-AUTOBLOK
259

High precision power chucks Ø 500 - 800 mm

- LARGE THROUGH HOLE
- 3 jaws

BH-D
big diameters
INCH
serration



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

SMW-AUTOBLOK Type			BH-D 500		BH-D 630			BH-D 800		
Mounting			Z380	A15	Z520	A15	A20	Z520	A15	A20
	A	mm	510		630			800		
	Bf/BA H6	mm	380	285.775	520	285.775	412.775	520	285.775	412.775
	C	mm	330.2		463.6	-	463.6	463.6	-	463.6
	CA	mm	-	-	-	330.2	-	-	330.2	-
	D	mm	26		26			26		
	E	mm	206		260			260		
	Fmax	mm	M190 x 3 (*)		M250 x 3 (*)			M250 x 3 (*)		
	G	mm	30		30			30		
	Hf/HA	mm	128	145	150	184	169	150	184	169
	K	mm	180		230			230		
	L	mm	91		99			99		
	L1	mm	M8/9		M8/16			M8/16		
	M1	mm	211		270			270		
Chuck open	R1	mm	257.5		314			399		
Jaw stroke	U	mm	6.5		9			9		
	W2	mm	23		23			23		
	X2	mm	5		5			5		
	Yf/YA	mm	6	23	6	40	25	6	40	25
max./min.	Z	mm	31/0		34/0			34/0		
BH-D serration	d	inch	3/32" x 90°		3/32" x 90°			3/32" x 90°		
	e	mm	146.5		152			237		
	f	mm	5		10			10		
	g	mm	3.5		3.5			3.5		
	j	mm	62		62			62		
	k1	mm	16		16			16		
	l1	mm	38		38			38		
max./min.	l2	mm	121/53		127/53			212/53		
	m	mm	M20		M20			M20		
	n h8	mm	25.5		25.5			25.5		
	p	mm	160		200			200		
	p1	mm	-		260			260		
	p2	mm	-		280			280		
	q	mm	100		100			100		
	r	mm	M12/22		M12/22			M12/22		
	r1	mm	-		M16/28			M16/28		
	s H12	mm	20		20			20		
	t	mm	5		5			5		

* max possible thread on blank ring-nut.

BHD-FC

INCH
serration

BHM-FC

METRIC
serration

High precision power chucks Ø 165 - 630 mm

- centrifugal force compensation
- LARGE THROUGH HOLE
- 3 jaws

Application/customer benefits

- For open center or partial open center clamping
- Large through-hole
- Compensation of centrifugal force for high speed
- Clamping of easily deformed parts with low gripping force, maintained to high speed

BHD-FC: Master jaws with INCH serration (1/16" x 90°, 3/32" x 90°)

BHM-FC: Master jaws with METRIC serration (1.5 mm x 60°) (Ø 165-400 mm)
(suitable for Japanese jaws)

Technical features

- Gripping force transmission via wedge hook
- Centrifugal force compensation by means of counter balance weights for minimum loss of gripping force at high speed
- Case hardened body (up to Ø 315) to assure greatest precision and long chuck life

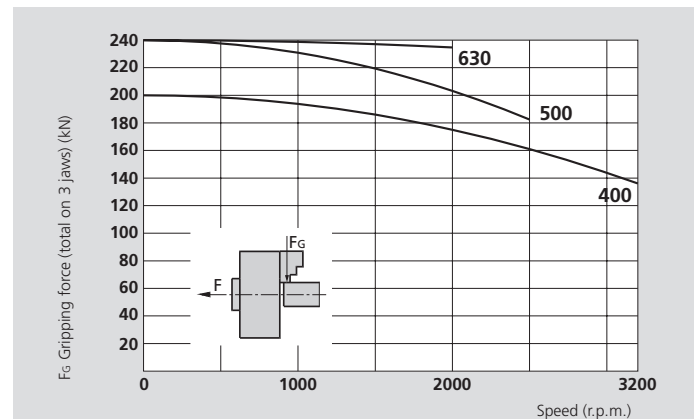
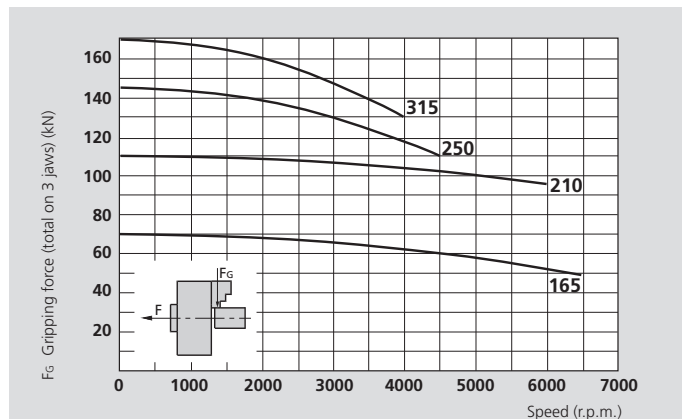
Standard equipment

3 jaws chuck
1 set T-nuts with bolts
1 set soft top jaws
Mounting bolts, grease gun

Ordering example

3 jaw chuck BHD-FC 210/A6
or
3 jaw chuck BHM-FC 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.

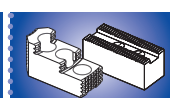
Technical data

SMW-AUTOBLOK Type		BHD-FC 165 BHM-FC 165	BHD-FC 210 BHM-FC 210	BHD-FC 250 BHM-FC 250	BHD-FC 315 BHM-FC 315	BHD-FC 400 BHM-FC 400	BHD-FC 500 -	BHD-FC 630 -
Number of jaws		3	3	3	3	3	3	3
Through-hole	mm	45	52	66	95	118	125	165
Radial jaw stroke	mm	3.2	4	5	5	6.5	9	9
Axial piston stroke	mm	15	19	24	24	31	34	34
Max. draw pull*	kN	25	38	50	60	70	100	100
Max. gripping force**	kN	70	110	145	170	200	240	240
Max. speed	r.p.m.	6500	6000	4500	4000	3200	2500	2000
Weight (without top jaws)	kg	11	21	32	50	95	160	335
Moment of inertia	kg·m ²	0.042	0.13	0.29	0.67	2	5.2	18
Recommended actuating cylinders	SIN-S	100	100/125	125/150	125/150	150/175	150/175/200	175/200
	VNK-T2/VSG	102-46	130-52	150-67	225-95	320-127	320-127	450/165

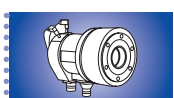
* For internal clamping reduce the draw pull by 30 %.



SMW-AUTOBLOK
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SMW-AUTOBLOK
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SMW-AUTOBLOK
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High precision power chucks Ø 165 - 630 mm

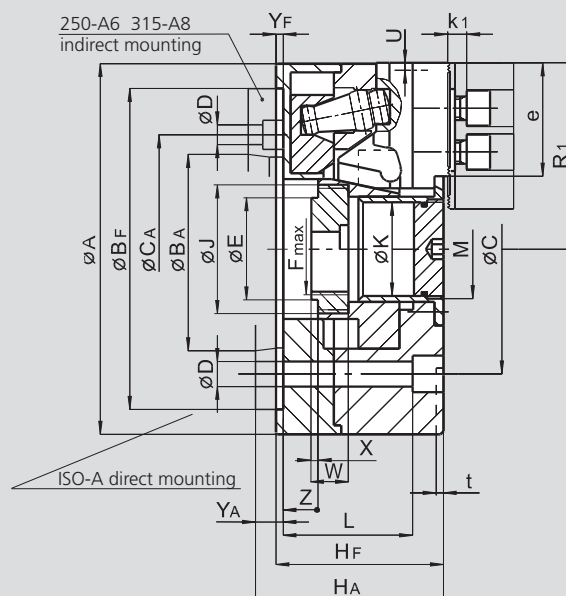
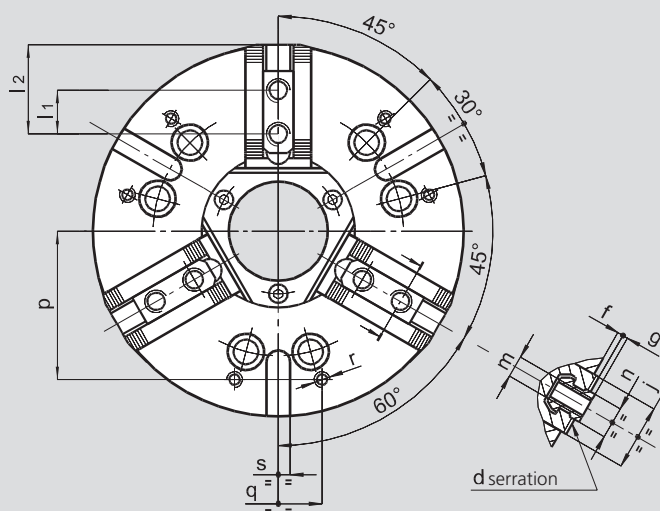
- centrifugal force compensation
- LARGE THROUGH HOLE
- 3 jaws

BHD-FC

INCH
serration

BHM-FC

METRIC
serration



Subject to technical changes.

For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			BHD-FC 165 BHM-FC 165		BHD-FC 210 BHM-FC 210		BHD-FC 250 BHM-FC 250			BHD-FC 315 BHM-FC 315			BHD-FC 400 BHM-FC 400		BHD-FC 500 -		BHD-FC 630 -	
Mounting			Z140	A5	Z170	A6	Z220	A6	A8	Z300	A8	A11	Z300	A11	Z380	A15	Z380	A15
	A	mm	168		210		250			315			390		510		630	
	Bf/BA H6	mm	140	82.563	170	106.375	220	106.375	139.719	300	139.719	196.869	300	196.869	380	285.775	380	285.775
	C	mm	104.8		133.4		171.4	-	171.4	235	-	235	235		330.2		330.2	
	CA	mm	-	-	-	-	-	133.4	-	-	171.4	-	-		-		-	
	D	mm	11.5		13.5		17	13.5	17	21	17	21	21		25		25	
	E	mm	58		67		78			111			140		148		198	
	F/Fmax	mm	M52 x 1.5		M60 x 1.5		M72 x 1.5			M105 x 2			M130 x 2		M135 x 2		M175 x 2	
	J	mm	M60 x 1.5		M72 x 1.5		M88 x 1.5			M120 x 2			M145 x 2		M160 x 2		M195 x 2	
	Hf/HA	mm	90	100	100	112	115	134	129	120	145	136	143	158	160	177	160	177
	K	mm	45		52		66			95			118		125		165	
	L	mm	72		74		89			72			115		129		129	
	M	mm	M47 x 1.5		M54 x 1.5		M68 x 2			M98 x 2			M120 x 2		-		-	
Chuck open	R1	mm	84		105.5		127.5			158			195		255		315	
Jaw stroke	U	mm	3.2		4		5			5			6.5		9		9	
	W	mm	23		24		26			28			46		25		30	
	X	mm	5		4		6			6			17		3		5	
	Yf/YA	mm	5	15	5	17	5	24	19	5	30	21	6	21	6	23	6	23
max./min.	Z	mm	15/0		19/0		24/0			24/0			31/0		37/3		37/3	
BHD-FC ser.	d	inch	1/16" x 90°		1/16" x 90°		1/16" x 90°			1/16" x 90°			3/32" x 90°		3/32" x 90°		3/32" x 90°	
BHM-FC ser.	d	mm	1.5 x 60°		1.5 x 60°		1.5 x 60°			1.5 x 60 °			1.5 x 60 °		-		-	
	e	mm	49.5		66		77.5			93			116.5		152		192	
	f	mm	5		4		4			4			5		10		10	
	g	mm	2.5		2.5		3.5			3.5			3.5		3.5		3.5	
	j	mm	30		36		45			45			62		62		62	
	k1	mm	10		11		12			12			14		16		16	
BHD-FC	l1	mm	16.5		23		30			30			34		38		38	
BHM-FC	l1	mm	20		25		30			30			34		-		-	
max./min.	l2	mm	41/23		56/33		62/43			78/43			90/49		129/53		167/53	
BHD-FC	m	mm	M10		M12		M16			M16			M20		M20		M20	
BHM-FC	m	mm	M10		M12		M12			M16			M20		-		-	
BHD-FC	n h8	mm	14		17		21			21			25.5		25.5		25.5	
BHM-FC	n h8	mm	12		14		16			21			22		-		-	
	p	mm	65		80		102			125			150		160		200	
	q	mm	36		45		60			100			80		100		100	
	r	mm	M8		M8		M10			M10			M12		M12		M12	
	s H9	mm	16		16		16			20			20		20		20	
	t	mm	4.5		5		5			5			5		5		5	

AG-2G-C

Self centering
Tongue & groove

AG-2G-M

Self centering
Metric serration

High precision power chucks Ø 225 mm

- EXTRA LARGE THROUGH HOLE
- Centrifugal force compensation
- 3 jaws
- proofline® chucks = fully sealed – low maintenance

Application/customer benefits

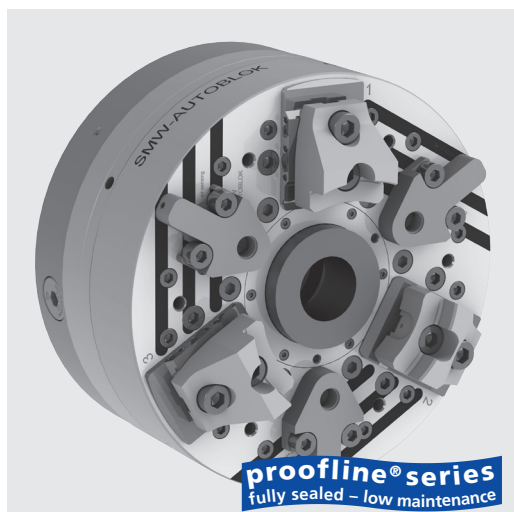
- For Workpieces with high demand for concentricity and parallelism
- Fully sealed and low maintenance = suitable for large batch production
- Ideal for dry machining or high pressure coolant

Technical features

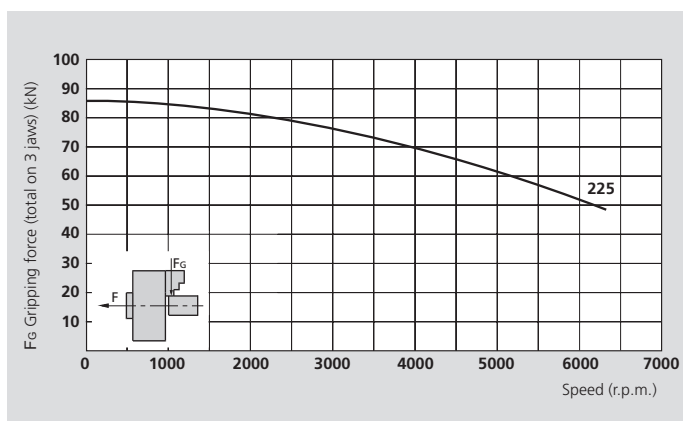
- High radial and axial clamping accuracy
- Fully sealed / Oil bath lubricated
- Centrifugal force compensation
- Gripforce can be regulated in process
- **proofline® chucks** = fully sealed – low maintenance

Standard equipment

3 jaw chuck with mounting bolts
Oil



Actual gripping force diagrams

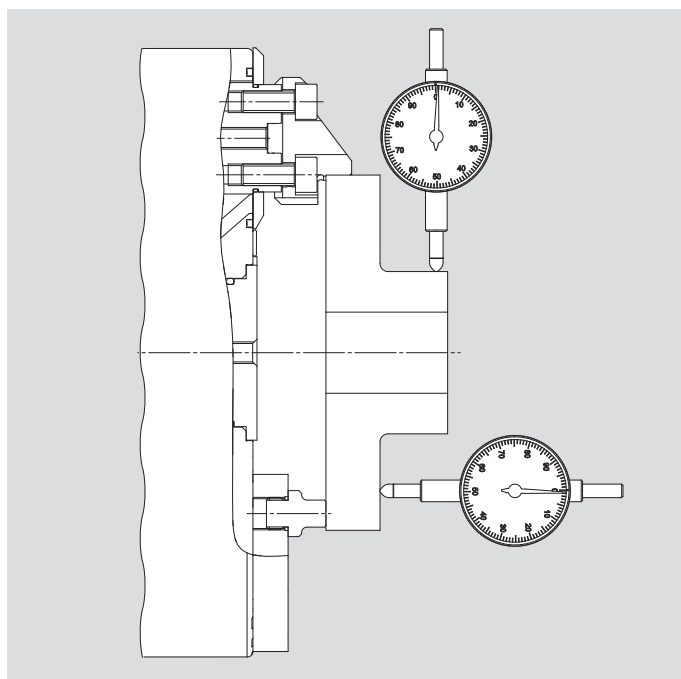


The data in the diagrams refer to 3-jaw-chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K67 grease. The static and dynamic gripping forces have been measured using standard soft top jaws, placed in a position not exceeding the outer diameter of the chuck, with a weight of 0.84 kg/set.

⚠ Safety advice/danger of damage:

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

High radial and axial clamping accuracy

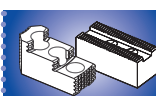


Technical data

SMW-AUTOBLOK Type		AG-2G-C 225	AG-2G-M 225
Number of jaws		3	3
Radial jaw stroke	mm	6	6
Axial piston stroke	mm	12.2	12.2
Max. draw pull	kN	52	52
Max. gripping force	kN	80	80
Max. speed	r.p.m.	6300	6300
Weight (without top jaws)	kg	27.5	27.5
Moment of inertia	kg·m ²	0.18	0.18
Recommended actuating cylinders		SIN-S 125/150	SIN-S 125/150
		VNK-T2 130-52/150-67	VNK-T2 130-52/150-67



SMW-AUTOBLOK
390



SMW-AUTOBLOK
91

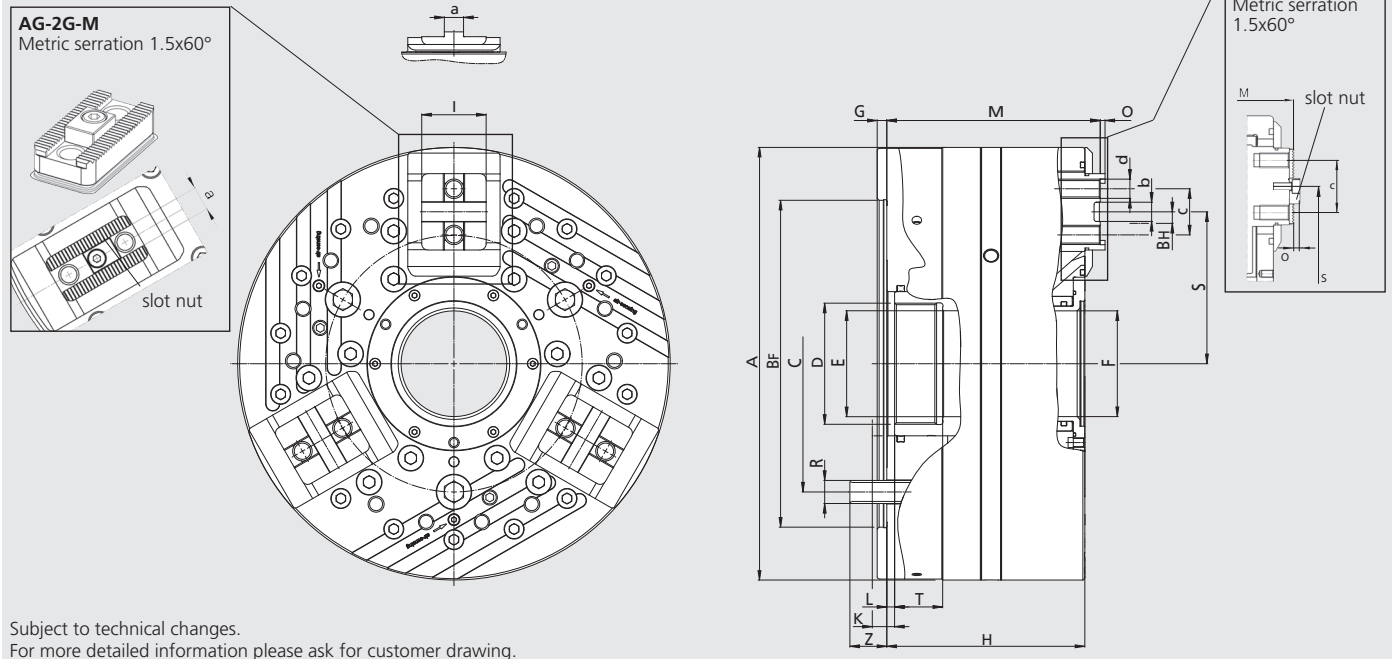


SMW-AUTOBLOK
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Main dimensions and technical data

Self centering
Tongue & grooveSelf centering
Metric serration

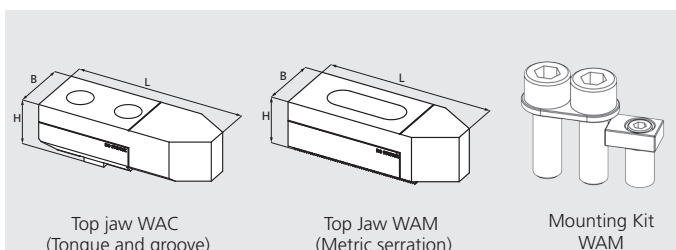
Chuck in open position = right end position



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

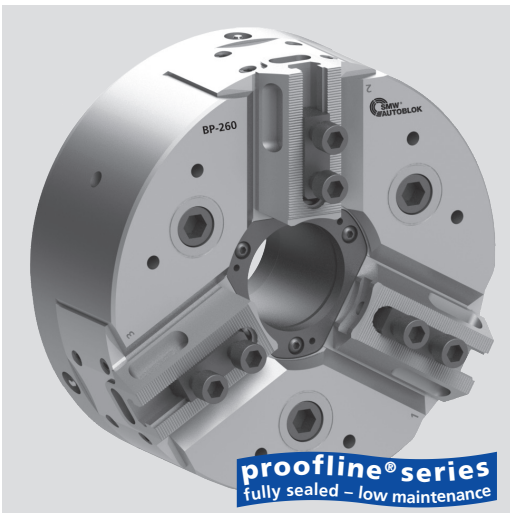
SMW-AUTOBLOK Type			AG-2G-C 225	AG-2G-M 225
Id. No.			161700	161701
Mounting			Z170	Z170
	A	mm	225	225
	B _F	mm	170	170
	C	mm	133.4	133.4
	D		M63x1.5	M63x1.5
	E	mm	55.1	55.1
Through hole	F	mm	55	55
	H	mm	103	103
	I	mm	33.5	33.5
Piston stroke	K	mm	12.2	12.2
Piston position min.	L	mm	-4.35	-4.35
Piston position max.	L	mm	+7.85	+7.85
	M	mm	111	111.4
	N		5	5
	O	mm	2.5	2.1
	R		M12 (3x120°)	M12 (3x120°)
max.	S	mm	79	79
min.	S	mm	73	73
	T	mm	25	25
	Z	mm	19.2	19.2
	a	mm	10	10
	b	mm	10	-
	c	mm	24	24

Top jaws for AG-2G



SMW-AUTOBLOK Type	AG-2G-C 225	AG-2G-M 225
Jaw type	WAC	WAM
Id. No. / set	on request	on request
Mounting Kit (only WAM) / set		
Length L		
Width B		
Height H		
kg / set		

BP-D	BP-M	High precision power chucks Ø 220 - 320 mm
INCH serration	METRIC serration	■ LARGE THROUGH HOLE ■ 3 jaws ■ proofline® chucks = fully sealed – low maintenance



Application/customer benefits

- General use on standard lathes due to the through hole, but with advantage of minimum maintenance and use also in extreme environments
- Longer life at high precision due to less wear
- Fully sealed, ideal for dry machining of castings and forgings or if high pressure coolant is used

BP-D: Master jaws with INCH serration (1/16" x 90°)
BP-M: Master jaws with METRIC serration (1.5 mm x 60°) (suitable for Japanese jaws)

Technical features

- Constant gripping force with permanent grease lubrication
- Large through hole compatible with the standard machines
- Chuck body and internal parts case hardened
- **Proofline® chucks** = fully sealed - low maintenance

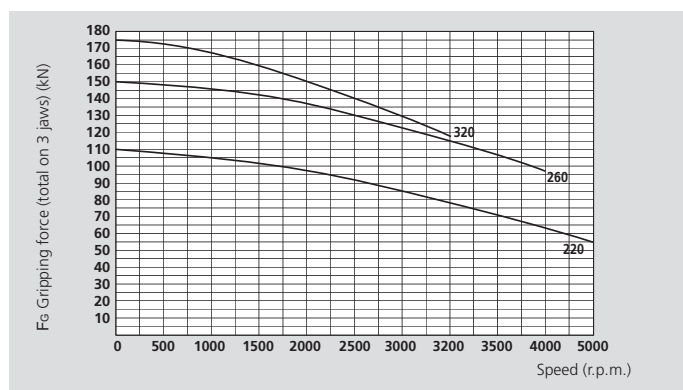
Standard equipment

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

Ordering example

3 jaw chuck BP-D 220/Z170
 or
 3 jaw chuck BP-M 220/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.

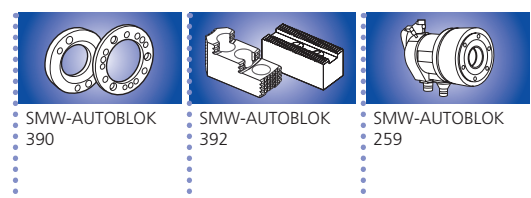
⚠ Safety advice/danger of damage:

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

Technical data

SMW-AUTOBLOK Type		BP-D 220 BP-M 220	BP-D 260 BP-M 260	BP-D 320 BP-M 320
Number of jaws		3	3	3
Through-hole	mm	52	66	95
Radial jaw stroke	mm	4	5	5
Axial piston stroke	mm	16	19	19
Max. draw pull*	kN	44	60	68
Max. gripping force*	kN	110	150	175
Max. speed	r.p.m.	5000	4000	3200
Weight (without top jaws)	kg	23	36	60
Moment of inertia	kg-m²	0.14	0.34	0.85
Recommended actuating cylinders		SIN-S 100/125 VNK-T2 130-52	SIN-S 125/150 VNK-T2 150-67	SIN-S 125/150 VNK-T2 225-95

* For internal clamping reduce the draw pull by 30 %



High precision power chucks Ø 220 - 320 mm

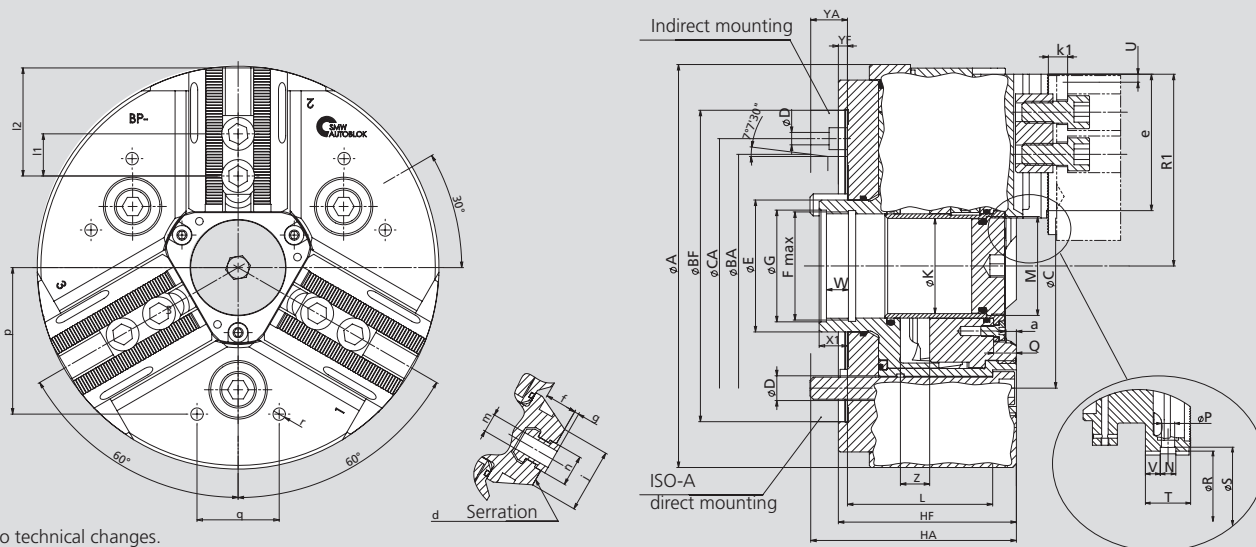
- LARGE THROUGH HOLE
- 3 jaws
- proofline® chucks = fully sealed – low maintenance

BP-D

INCH
serration

BP-M

METRIC
serration

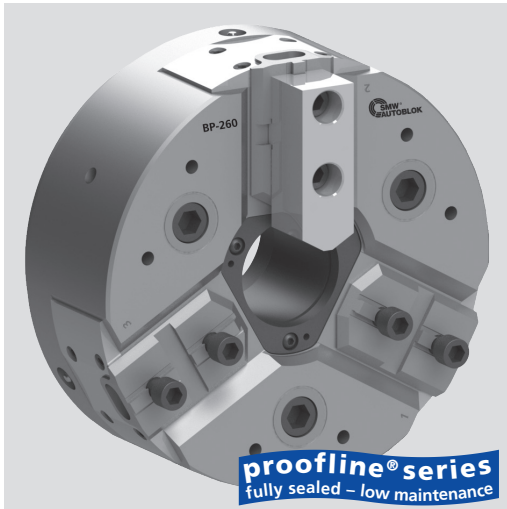


Subject to technical changes.

For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			BP-D 220 BP-M 220		BP-D 260 BP-M 260			BP-D 320 BP-M 320		
Mounting			Z170	A6	Z220	A6	A8	Z300	A8	A11
	A	mm	220		262			320		
	Bf/BA H6	mm	170	106.375	220	106.375	139.719	300	139.719	196.869
	C	mm	133.4		171.4			235		
	CA	mm	-	-	-	133.4	-	-	171.4	-
	D	mm	13.5		17	13.5	17	21		
	E	mm	72		88			115		
	Fmax	mm	M60 x 1.5		M75 x 2			M102 x 2		
	G	mm	61		76			102.5		
	Hf/HA	mm	97.5	109.5	114	149	128	114	149	130
	K	mm	52		66			95		
	L	mm	79.5		92			88		
	M	mm	M54 x 1.5		M68 x 2			M98 x 2		
	N H8	mm	8		10			10		
	P	mm	6.5		8.5			8.5		
	Q	mm	12.5		16.5			16.5		
	R H7	mm	59		76			108		
Chuck open	R1	mm	109		131			159		
	S	mm	63		81			113		
	T	mm	23.5		22			29		
Jaw stroke	U	mm	4.3		5			5		
	V	mm	7.75		6			9.5		
	W	mm	12		14			16.5		
	X1	mm	15.5		22			21		
	Yf/YA	mm	5	17	5	40	19	5	40	21
max./min.	Z	mm	16 / 0		19 / 0			19 / 0		
	a	mm	5.7		9.7			9.7		
BP-D Serration	d	inch	1/16" x 90°		1/16" x 90°			1/16" x 90°		
BP-M Serration	d	mm	1.5x60°		1.5x60°			1.5x60°		
	e	mm	74.5		89			100.5		
	f	mm	17.5		12			19		
	g	mm	2.5		2.5			3.5		
	j	mm	34		35.22			35		
	k1	mm	10.5		12			12		
BP-D/BP-M	l1	mm	23 / 25		30			30		
max./min.	l2	mm	55.5 / 33		67 / 43			78 / 43		
BP-D/ BP-M	m	mm	M12		M12			M16		
BP-D	n h8	mm	17		17			21		
BP-M	n h8	mm	14		16			21		
	p	mm	80		102			100		
	q	mm	45		60			60		
	r	mm	M8		M10			M10		

- **LARGE THROUGH HOLE**
- **3 jaws**
- **proofline® chucks = fully sealed – low maintenance**



Application/customer benefits

- General use on standard lathes due to the through hole, but with advantage of minimum maintenance and use also in extreme environments
- Longer life at high precision due to less wear
- Fully sealed, ideal for dry machining of castings and forgings or if high pressure coolant is used

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

Technical features

- Constant gripping force with permanent grease lubrication
- Large through hole compatible with the standard machines
- 3 jaw version available in all diameters
- **Proofline® chucks** = fully sealed - low maintenance

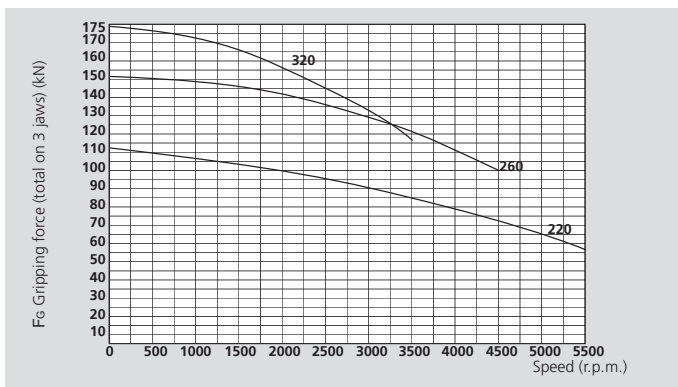
Standard equipment

3 jaw chuck
Mounting bolts

Ordering example

3 jaw chuck BP-C 220/Z170

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.

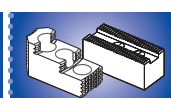
Technical data

SMW-AUTOBLOK Type		BP-C 220	BP-C 260	BP-C 320
Number of jaws		3	3	3
Through-hole	mm	52	66	95
Radial jaw stroke	mm	4	5	5
Axial piston stroke	mm	16	19	19
Max. draw pull*	kN	44	60	68
Max. gripping force*	kN	110	150	175
Max. speed	r.p.m.	5500	4500	3500
Weight (without top jaws)	kg	22	35	59
Moment of inertia	kg·m ²	0.14	0.34	0.85
Recommended actuating cylinders		SIN-S 100/125 VNK-T2 130-52	SIN-S 125/150 VNK-T2 150-67	SIN-S 125/150 VNK-T2 225-95

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



SMW-AUTOBLOK
390



SMW-AUTOBLOK
392



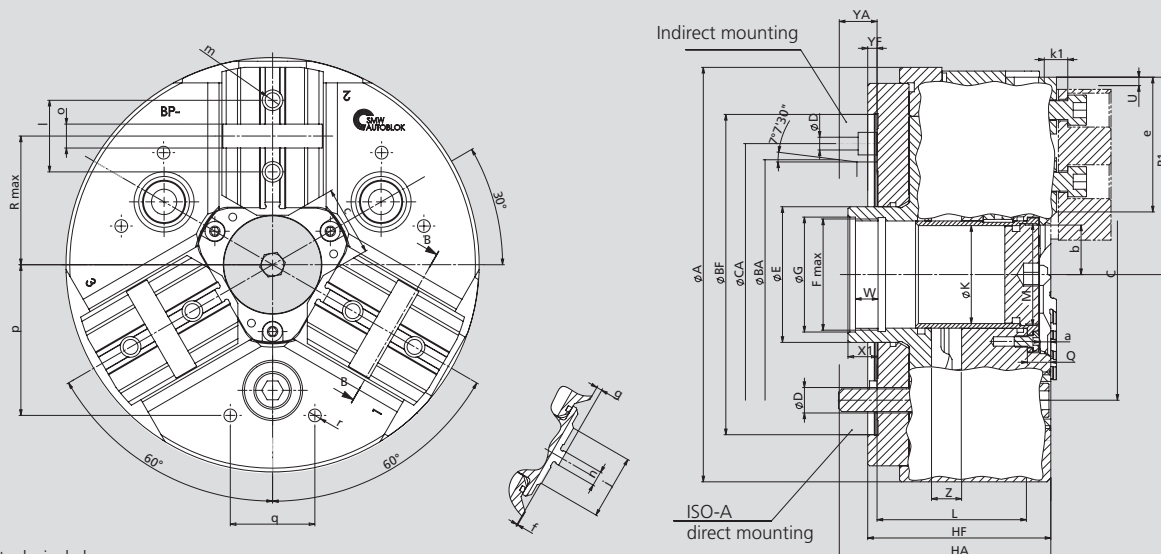
SMW-AUTOBLOK
259

High precision power chucks Ø 220 - 320 mm

BP-C

- LARGE THROUGH HOLE
- 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			BP-C 220		BP-C 260			BP-C 320		
Mounting			Z170	A6	Z220	A6	A8	Z300	A8	A11
	A	mm	220		262			320		
	Bf/BA H6	mm	170	106.375	220	106.375	139.719	300	139.719	196.869
	C	mm	133.4		171.4			235		
	CA	mm	-	-	-	133.4	-	-	171.4	-
	D	mm	13.5		17	13.5	17	21		
	E	mm	72		88			115		
	Fmax	mm	M60 x 1.5		M75 x 2			M102 x 2		
	G	mm	61		76			102.5		
	Hf/HA	mm	97.5	109.5	114	149	128	114	149	130
	K	mm	52		66			95		
	L	mm	79.5		92			88		
	M	mm	M54 x 1.5		M68 x 2			M98 x 2		
	Q	mm	12.5		16.5			16.5		
Chuck open	R1	mm	109		131			159		
max.	R	mm	72.5		89			115		
Jaw stroke	U	mm	4.3		5			5		
	W	mm	12		14			16.5		
	X1	mm	15.5		22			25		
max./min.	Yf/YA	mm	5	17	5	40	19	5	40	21
	Z	mm	16 / 0		19 / 0			19 / 0		
	a	mm	5.7		9.7			9.7		
min.	b	mm	26.5		36			48		
min.	c	mm	37		52			70		
	e	mm	74.5		82			98		
	f	mm	0		3			4		
	g	mm	3		0			-1		
	j	mm	34		46			58		
	k1	mm	9		13.5			15.5		
	l	mm	38		44.4			54		
	m	mm	M10		M12			M16		
	n h7	mm	7.94		7.94			12.7		
	o H7	mm	12.68		12.68			19.03		
	p	mm	80		102			100		
	q	mm	45		60			60		
	r	mm	M8		M10			M10		

BB-D	BB-M	High precision power chucks Ø 140 - 315 mm
INCH serration	METRIC serration	- EXTRA LARGE THROUGH HOLE 3 jaws



Application/customer benefits

- For open center or partial open center clamping
- For machines with very large spindle bore

- BB-D:** Master jaws with INCH serration (1/16" x 90°)
- BB-M:** Master jaws with METRIC serration (1.5 mm x 60°)
(Suitable for Japanese chucks top jaws)

Technical features

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

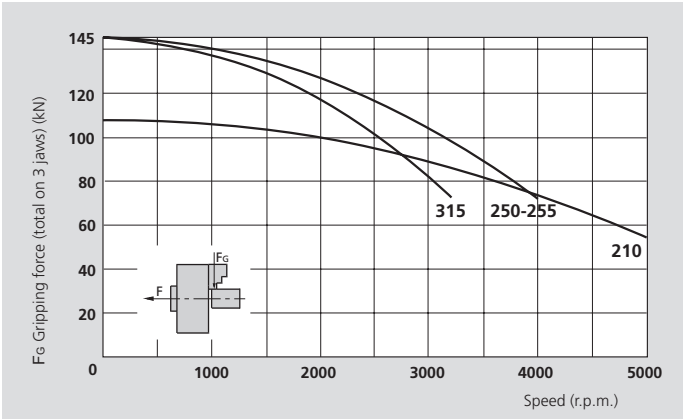
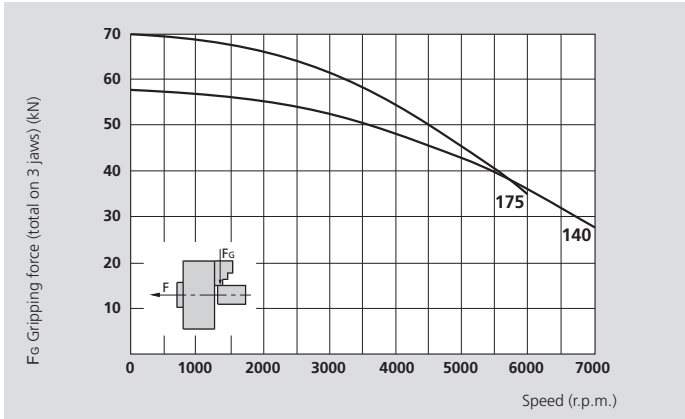
Standard equipment

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

Ordering example

- 3 jaw chuck BB-D 175/A6
- or
- 3 jaw chuck BB-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		BB-D 140 BB-M 140	BB-D 175 BB-M 175	BB-D 210 BB-M 210	BB-D 250 BB-M 250	BB-D 255 BB-M 255	BB-D 315 BB-M 315
Number of jaws		3	3	3	3	3	3
Through-hole	mm	39	56	66	78	82	122
Radial jaw stroke	mm	3.2	3.2	4	5	5	5
Axial piston stroke	mm	15	15	19	24	24	24
Max. draw pull*	kN	22	25	38	50	50	50
Max. gripping force*	kN	58	70	108	145	145	145
Max. speed	r.p.m.	7000	6000	5000	4000	4000	3200
Weight (without top jaws)	kg	6	11.5	19.5	30	33	44
Moment of inertia	kg·m²	0.016	0.05	0.12	0.27	0.32	0.62
Recommended actuating cylinders		SIN-S 85/100 VNK-T2 70-37	SIN-S 100 VNK-T2 130-52	SIN-S 100/125 VNK-T2 150-67	SIN-S 125/150 VNK-T2 170-77	SIN-S 125/150 VNK-T2 176-82	SIN-S 125/150 VNK-T2 320-127

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



High precision power chucks Ø 140 - 315 mm

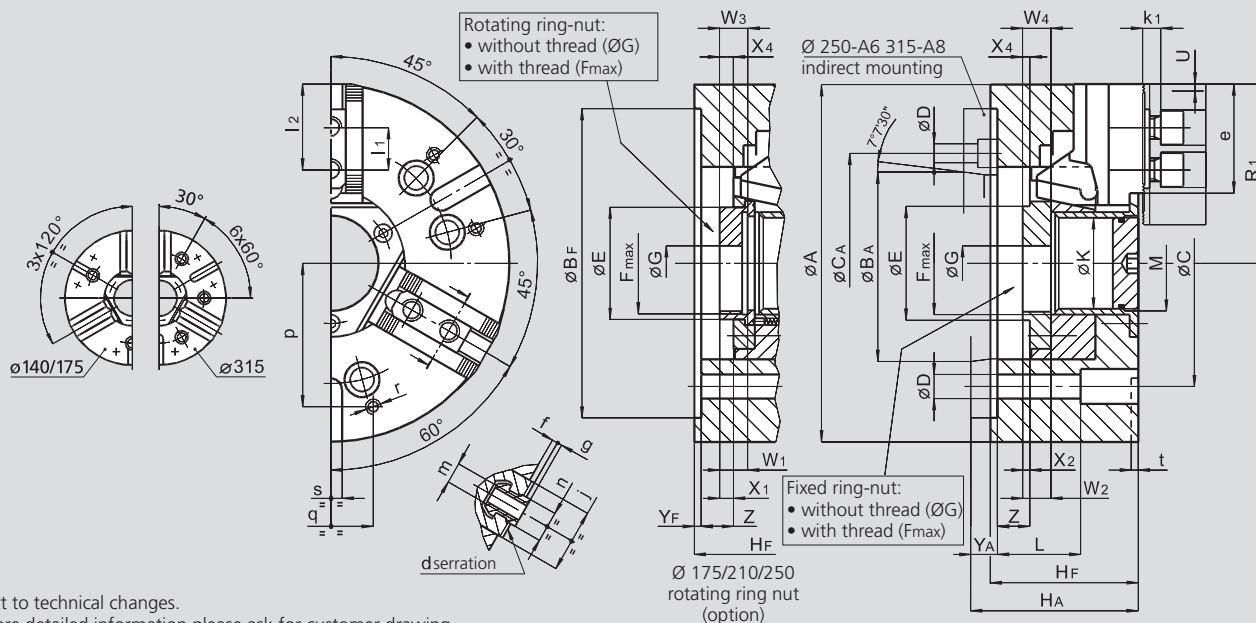
BB-D

INCH
serration

BB-M

METRIC
serration

- EXTRA LARGE THROUGH HOLE
- 3 jaws



Subject to technical changes.

For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			BB-D 140 BB-M 140		BB-D 175 BB-M 175		BB-D 210 BB-M 210		BB-D 250 BB-M 250			BB-D 255 BB-M 255			BB-D 315 BB-M 315		
Mounting			Z130	A5	Z160	A6	Z170	A6	Z220	A6	A8	Z220	A6	A8	Z300	A8	A11
	A	mm	140		175		210		254			255			315		
	BF/BA H6	mm	130	82.563	160	106.375	170	106.375	220	106.375	139.719	220	106.375	139.719	300	139.719	196.869
	C	mm	104.8		133.4		133.4		171.4		171.4	171.4	-	171.4	235	-	235
	CA	mm	-	-	-	-	-	-	-	133.4	-	-	133.4	-	-	171.4	-
	D	mm	11.5		13.5		13.5		13.5	17		17	13.5	17	17	17	21
	E	mm	53		71		78		92			95			143		
	Fmax	mm	M45 x 1.5		M62 x 1.5		M72 x 1.5		M85 x 2			M90 x 2			M135 x 2		
	G	mm	16		20		20		25			20			70		
	HF/HA	mm	67	77	82	94	92	104	105	124	119	105	124	119	118	143	134
	K	mm	39		56		66		78			82			122		
	L	mm	46		54		66		79			79			72		
	M	mm	M42 x 1.5		M58 x 1.5		M68 x 2		M80 x 2			M84 x 2			M125 x 2		
Chuck open	R1	mm	70		89		106		128			130.5			157.5		
Jaw stroke	U	mm	3.2		3.2		4		5			5			5		
	(1) W1/W2	mm	-14		18/16		20/18		20/20			20/20			-23		
	(2) W3/W4	mm	-14		28/35		30/35		33/38			33/38			-23		
BB-D	X1/X2	mm	-6		11/5		12/5		11/6			9/4			-5		
BB-M	X1/X2 (X4)	mm	-6 (6)		11/5 (22)		12/5 (22)		11/11 (23)			9/4 (23)			-5 (5)		
	YF/YA	mm	5	15	5	17	5	17	5	24	19	5	24	19	5	30	21
max./min.	Z	mm	15/0		15/0		19/0		24/0			24/0			24/0		
BB-D serration	d	inch	1/16" x 90°		1/16" x 90°		1/16" x 90°		1/16" x 90°			1/16" x 90°			1/16" x 90°		
BB-M serration	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	39		49.5		59		73			72.5			77.5		
	f	mm	2		3		3		4			4			4		
	g	mm	2.5		2.5		2.5		3.5			3.5			3.5		
	j	mm	30		33		38		45			45			45		
	k1	mm	10		10		11		12			12			12		
BB-D	l1	mm	16		16.5		23		30			30			30		
BB-M	l1	mm	16		20		25		30			30			30		
max./min.	l2	mm	32/23		41/24		49/33		57/43			57/43			62/43		
BB-D	m	mm	M8		M10		M12		M16			M16			M16		
BB-D	n h8	mm	12		14		17		21			21			21		
BB-M	m	mm	M8		M10		M12		M12			M12			M16		
BB-M	n h8	mm	12		12		14		16			16			21		
	p	mm	52		65		80		102			102			100		
	q	mm	30		36		45		60			60			60		
	r	mm	M6		M8		M8		M10			M10			M10		
	s H12	mm	12		16		16		16			16			20		
	t	mm	5		5		5		5			5			5		

(1) Rotating ring-nut with thread
Fixed ring-nut with thread

W₁=BBD-BBM
W₂=BBD-BBM

(2) Blank rotating ring-nut without thread
Fixed ring-nut blank without thread

W₃=BBD-BBM
W₄=BBD-BBM

Technology at the highest level: The SMW-AUTOBLOK

HFKN

Easy lubrication
even on vertical machines
with 3 radial built-in
grease nipples.

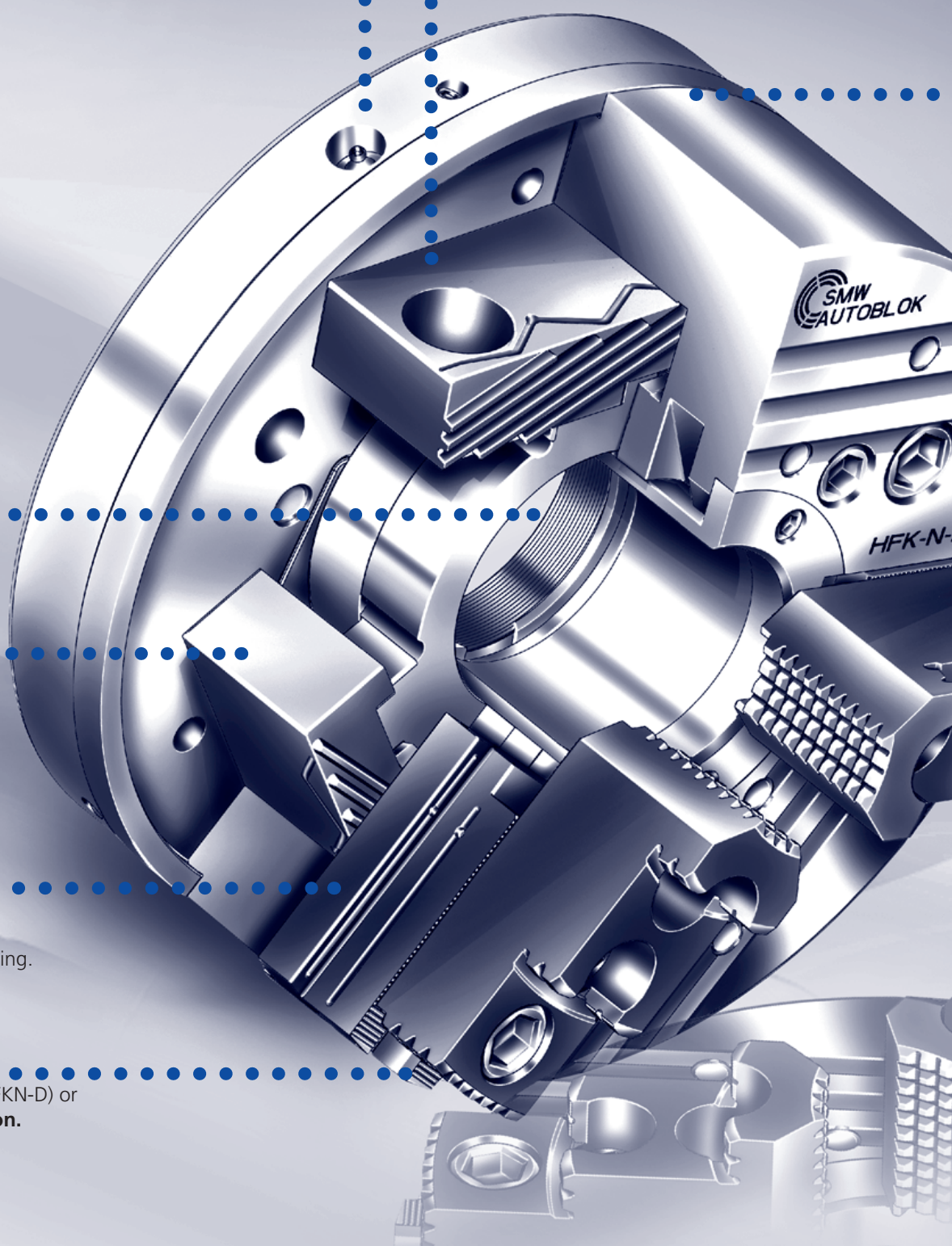
- Wedge bar drive,
- minimum loss in gripping force
- even at high speeds because of
- tangentially supported wedge bars.
- Minimum increase of gripping force
- (**hysteresis**) after quick spindle stop.

Large through hole
for full use of
spindle bore.

High **efficiency** of
the wedge bar drive
ensures highest
concentricity and
repeatability.

Extra long, symmetrical
jaw guides.
Ideal for O.D. or I.D. gripping.

Master jaws with **inch** (HFKN-D) or
metric (HFKN-M) **serration**.

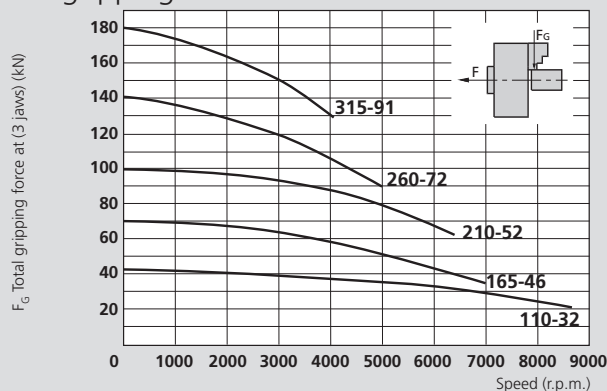


wedge bar drive

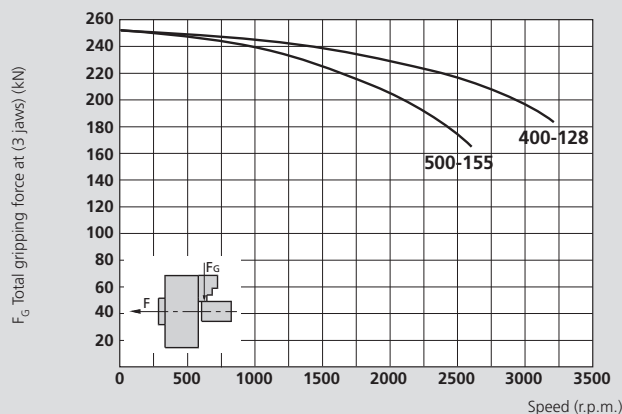
Chuck body and internal parts are **case hardened and ground**.

For highest rigidity, durability and precision.

For high speeds
Flat gripping force curve



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.

Clamping glossary

Case hardening: The surface of the components is hardened (60 HRC) to a depth of about 1 mm (0.04"). The core shows a high tensile strength and toughness. Compared to partial inductive hardened and nitrided parts the rigidity and the resistance against wear is greatly increased.

Hysteresis: At high speeds the chuck body "grows" due to centrifugal force. The draw pull of the clamping cylinder causes an increase in gripping force which cannot be decreased at a quick spindle stop (or change in speed). This can cause deformation at easily deformed parts. SMW-AUTOBLOK chucks with wedge bar drive have a very low hysteresis.

Wedge bar drive: The chuck is driven by tangentially mounted wedge bars. This design allows highest repeatability and rigidity. These chucks have very low loss in gripping force due to centrifugal force. The design does not require counterbalance weights which allows highest speeds without vibration.

Inch serration: The connection inbetween top jaws and master jaws is done through serration, T-nuts and bolts according to DIN 6353 (serration 90°, pitch in inches). This is standard on European chucks. HFKN chucks can be supplied either with inch serration or metric serration.

Metric serration: The connection inbetween top jaws and master jaws is done through serration, T-nuts and bolts according to ISO 9401 (serration 60°, pitch in mm). This is standard on Japanese chucks.

Efficiency: Efficiency is the ratio between the calculated theoretical gripping force (disregarding friction) and the actual (measured) gripping force.

HFKN-D

INCH
serration

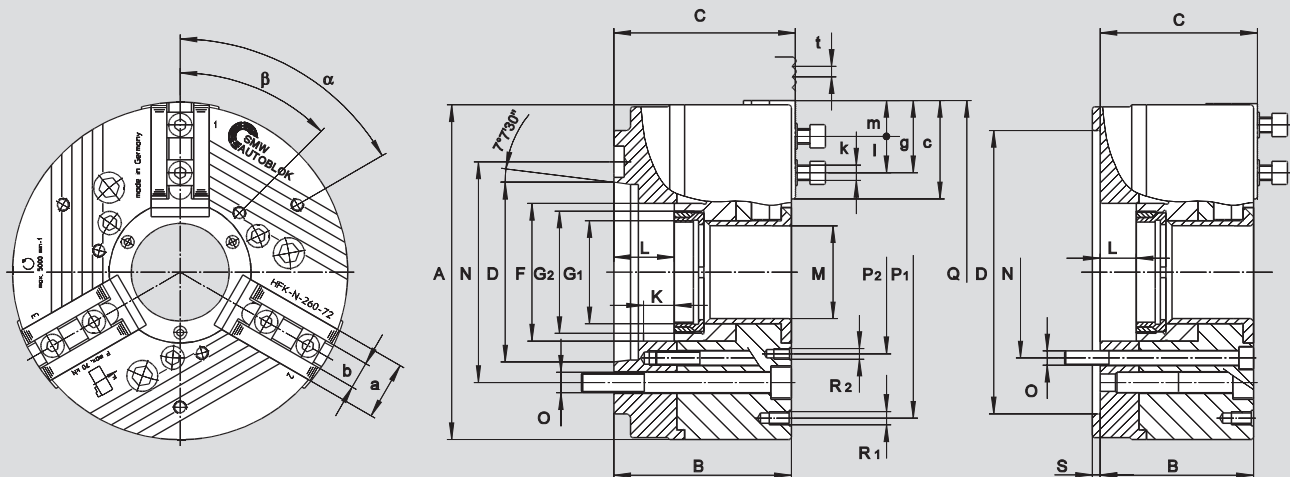
HFKN-M

METRIC
serration

HFKN-C

Tongue & groove

Main dimensions and technical data



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

Type HFKN-D Type HFKN-M Type HFKN-C	110-32 - 110-32	165-46 165-46 -	210-52 210-52 -	260-72 260-72 -	315-91 315-91 -	400-128 400-128 -	500-155 500-155 -
Mounting	Z100 A4	Z140 A5 A6	Z170 A6 A8	Z170 Z220 A6 A8	Z220 Z300 A8 A11	Z300 Z380 A11 A15	Z380 A11 A15
	A 115	165	215	260	315	400	500
	B 64 75	90 105 107	102 119 121	119 119 136 138	127 127 146 148	143 143 164 166	157 178 180
	C 68.1 77.5	92.5 107.5 109.5	105 122 124	122 122 139 141	130 130 149 151	148 148 169 171	162 183 185
	D H6 100 63.51	140 82.57 106.39	170 106.39 139.73	170 220 106.39 139.73	220 300 139.73 196.88	300 380 196.88 285.77	380 196.88 285.77
	F 46	67	85	107	134	180	207
Threaded ring/depth	G1 *	*	M60 x 1.5/16	M80 x 2/20	M100 x 2/22	M138 x 2/22	M165 x 2/25
Piston thread/depth	G2 M38 x 1.5/15	M60 x 1.5/18	M75 x 2/19	M95 x 2/23	M120 x 2/25	M160 x 2/25	M185 x 2/28
Piston stroke	K 9	15	19	23	23	30	32
max.	L 10.5 21.5	15 30 32	19 36 38	23 23 40 42	23 23 42 44	32 32 53 55	33 54 56
	M 32	46	52	72	91	128	155
Fixing bolt circle	N 82.6	104.8 104.8 133.4	133.4 133.4 171.4	133.4 171.4 133.4 171.4	171.4 235 171.4 235	235 330.2 235 330.2	330.2 235 330.2
Fixing bolt	O M10	M10 M10 M12	M12 M12 M16	M12 M16 M12 M16	M16 M20 M16 M20	M20 M24 M20 M24	M24 M20 M24
	P1 100	120	168	210	268	330	430
	P2 65	90	110	130	155	200	220
	Q 118	167	219	264	319	408	508
Thread/thread depth	R1 M6/12	M8/16	M10/20	M10/20	M10/20	M12/18	M16/25
Thread/thread depth	R2 M6/12	M8/16	M10/20	M10/20	M10/20	M12/18	M12/18
	S 6	6	6	6	6	8	8
	a 20	32	40	45	50	60	60
	b f7 8 (g6)	14	17	21	21	25.5	25.5
	c 34	47.5	69	75	92.5	115	150
	g 25	39	58.5	65.5	74	100	136
Bolt ISO 4762 12.9	k M6	M10	M12	M16	M16	M20	M20
	l 12	16	22	28	30	35	35
	m 2	5	6	8	8	10	10
HFKN-D inch serration	t 1/16" 90°	1/16" 90°	1/16" 90°	1/16" 90°	1/16" 90°	3/32" 90°	3/32" 90°
HFKN-M metric serration	t 1.5 x 60°	1.5 x 60°	1.5 x 60°	1.5 x 60°	1.5 x 60°	3 x 60°	3 x 60°
HFKN-C tongue & groove	S08 N08						
	α° 60	40	60	60	60	60	60
	β° 60	60	60	45	45	60	60

Stroke per jaw	mm	2.4	4	5.0	6.1	6.1	8.0	8.0
max. actuating force	kN	20	35	53	70	95	125	125
max. total gripping force	kN	40	70	100	140	190	250	250
max. speed	r.p.m.	8500**	7000**	6300	5000	4200	3200	2600
Weight (without jaws)	kg	4.4 4.7	14 15 15	24 26 26	40 40 43 43	63 63 66 66	111 111 116 116	225 231 231
Moment of inertia	kg·m ²	0.007	0.06	0.11	0.38	0.85	2.5	6.5

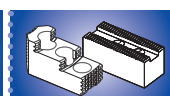
rec. closed center cylinder	Type	SIN-S 85	SIN-S 100/125	SIN-S 125/150	SIN-S 150/175	SIN-S 150/175/200	SIN-S 175/200	SIN-S 175/200
rec. open center cylinder	Type	VNK-T2 70-37	VNK-T2 102-46	VNK-T2 130-52	VNK-T2 170-77	VNK-T2 225-95	VNK-T2 320-127	VSG 450-165

* HFKN 110-32 and HFKN 165-46 available with fixed piston thread only

** higher speed with special top jaws only



SMW-AUTOBLOK
390



SMW-AUTOBLOK
102



SMW-AUTOBLOK
259

HFKN-C

HFKN-D

HFKN-M

Ordering review

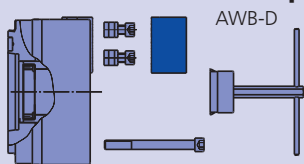
Tongue & groove

INCH
serration

METRIC
serration

Ordering review HFKN-D (inch serration)

HFKN-D with soft top jaws AWB-D

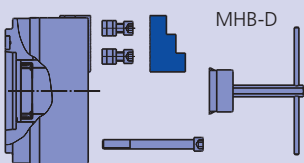


Supply range:

- Chuck + mounting bolts
- Soft top jaws AWB-D
- 1 set (= 6 pieces) T-nuts with bolts
- Key

Size Spindle mounting	HFKN-D 110-32	HFKN-D 165-46	HFKN-D 210-52	HFKN-D 260-72	HFKN-D 315-91	HFKN-D 400-128	HFKN-D 500-155
Centering rim small	-	-	-	Z 170 090316	Z 220 090320	Z 300 090324	Z 300 090328
Centering rim large	Z 100 065354	Z 140 090310	Z 170 090313	Z 220 090317	Z 300 090321	Z 380 090325	Z 380 090329
A 04	065355	-	-	-	-	-	-
A 05	-	090311	-	-	-	-	-
A 06	-	090312	090314	090318	-	-	-
A 08	-	-	090315	090319	090322	-	-
A 11	-	-	-	-	090323	090326	090330
A 15	-	-	-	-	-	090327	090331

HFKN-D with hardened reversible top jaws MHB-D



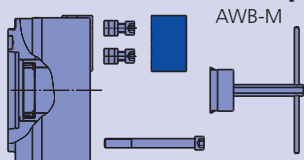
Supply range:

- Chuck + mounting bolts
- Hardened ground reversible top jaws MHB-D
- 1 set (= 6 pieces) T-nuts with bolts
- Key

Size Spindle mounting	HFKN-D 110-32	HFKN-D 165-46	HFKN-D 210-52	HFKN-D 260-72	HFKN-D 315-91	HFKN-D 400-128	HFKN-D 500-155
Centering rim small	-	-	-	Z 170 090338	Z 220 090342	Z 300 090346	Z 300 090350
Centering rim large	Z 100 065356	Z 140 090332	Z 170 090335	Z 220 090339	Z 300 090343	Z 380 090347	Z 380 090351
A 04	065357	-	-	-	-	-	-
A 05	-	090333	-	-	-	-	-
A 06	-	090334	090336	090340	-	-	-
A 08	-	-	090337	090341	090344	-	-
A 11	-	-	-	-	090345	090348	090352
A 15	-	-	-	-	-	090349	090353

Ordering review HFKN-M/-C (metric serration) / size 110 with tongue and groove

HFKN-M with soft top jaws AWB-M

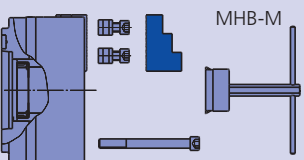


Supply range:

- Chuck + mounting bolts
- Soft top jaws AWB-M
- 1 set (= 6 pieces) T-nuts with bolts
- Key

Size Spindle mounting	HFKN-C 110-32	HFKN-M 165-46	HFKN-M 210-52	HFKN-M 260-72	HFKN-M 315-91	HFKN-M 400-128	HFKN-M 500-155
Centering rim small	-	-	-	Z 170 090360	Z 220 090364	Z 300 090368	Z 300 090372
Centering rim large	Z 100 065466	Z 140 090354	Z 170 090357	Z 220 090361	Z 300 090365	Z 380 090369	Z 380 090373
A 04	065467	-	-	-	-	-	-
A 05	-	090355	-	-	-	-	-
A 06	-	090356	090358	090362	-	-	-
A 08	-	-	090359	090363	090366	-	-
A 11	-	-	-	-	090367	090370	090374
A 15	-	-	-	-	-	090371	090375

HFKN-M with hardened reversible top jaws MHB-M



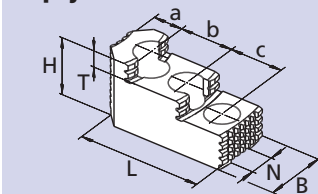
Supply range:

- Chuck + mounting bolts
- Hardened ground reversible top jaws MHB-M
- 1 set (= 6 pieces) T-nuts with bolts
- Key

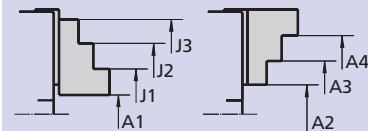
Size Spindle mounting		HFKN-M 165-46	HFKN-M 210-52	HFKN-M 260-72	HFKN-M 315-91	HFKN-M 400-128	HFKN-M 500-155
Centering rim small		-	-	Z 170 090382	Z 220 090386	Z 300 090390	Z 300 090394
Centering rim large		Z 140 090376	Z 170 090379	Z 220 090383	Z 300 090387	Z 380 090391	Z 380 090395
A 04		-	-	-	-	-	-
A 05		090377	-	-	-	-	-
A 06		090378	090380	090384	-	-	-
A 08		-	090381	090385	090388	-	-
A 11		-	-	-	090389	090392	090396
A 15		-	-	-	-	090393	090397

HFKN-D	HFKN-M	HFKN-C	
INCH serration	METRIC serration	Tongue & groove	JAWS

MHB-D (Inch serration) Hardened reversible top jaws

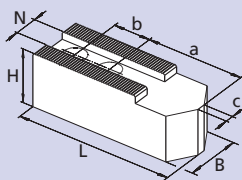


Clamping ranges



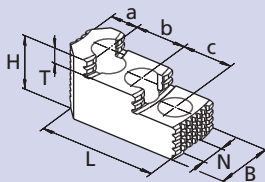
Chuck	HFKN-D 110	HFKN-D 165	HFKN-D 210	HFKN-D 260	HFKN-D 315	HFKN-D 400	HFKN-D 500
Jaw type	MHB-D	MHB-D	MHB-D	MHB-D	MHB-D	MHB-D	MHB-D
Id. No.	007076	12081636	12082036	12083036	12083036	12084546	12084546
Serration	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	3/32" x 90°	3/32" x 90°
B	20	34	40	45	45	60	60
H	31	39	45	56	56	75	75
L	48	65	82	105	105	140	140
T	7	10	10.5	13.5	13.5	32	19
N	8	14	17	21	21	25.5	25.5
a	9.5	18	19	26	26	38	38
b	12	16	23	30	30	38	38
c	12	16	23	30	30	38	38
kg/set	0.35	0.9	1.71	2.85	2.85	7.5	7.5
A1	5-59	15-75	10-100	15-115	50-170	40-205	80-320
A2	15-70	-	-	-	-	-	-
A3	46-100	62-120	62-150	100-205	115-265	160-330	220-450
A4	70-125	110-175	140-230	185-285	200-350	260-420	320-560
J1	49-102	65-125	65-150	75-165	90-225	120-285	180-410
J2	72-126	115-175	135-230	150-250	160-310	220-385	280-510
J3	101-155	145-210	180-265	225-325	235-380	330-480	370-670

AWB-D (Inch serration) Soft top jaws

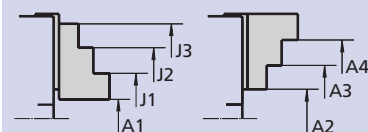


Chuck	HFKN-D 110	HFKN-D 165	HFKN-D 210	HFKN-D 260	HFKN-D 315	HFKN-D 400	HFKN-D 500
Jaw type	AWB-D	AWB-D	AWB-D	AWB-D	AWB-D	AWB-D	AWB-D
Id. No.	038258	035954	081616	081618	081618	081620	081620
Serration	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	3/32" x 90°	3/32" x 90°
B	20	40	40	50	50	60	60
H	30	40	40	50	50	60	60
L	55	80	90	120	120	140	140
N	8	14	17	21	21	25.5	25.5
a	30	43	53	70	70	80	80
b	12	22	22	28	28	35	35
c	0	4	4	6	6	-	-
kg/set	0.55	2.0	2.7	5.1	5.1	9.65	9.65

MHB-M (Metric serration) Hardened reversible top jaws

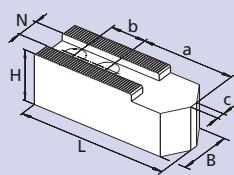


Clamping ranges



Chuck		HFKN-M 165	HFKN-M 210	HFKN-M 260	HFKN-M 315	HFKN-M 400	HFKN-M 500
Jaw type		MHB-M	MHB-M	MHB-M	MHB-M	MHB-M	MHB-M
Id. No.		12081627	12082127	12082627	12083037	auf Anfrage	auf Anfrage
Serration		1.5 x 60°	1.5 x 60°	1.5 x 60°	1.5 x 60°	3 x 60°	3 x 60°
B		34	40	45	45	55	55
H		39	45	56	56	73	73
L		67	86	100	105	145	145
T		10	10.5	15.5	13.5	32	32
N		12	14	16	21	25.5	25.5
a		14	19	23	26	46	46
b		20	25	30	30	38	38
c		20	25	30	30	38	38
kg/set		0.9	1.8	2.55	2.85	6.7	6.7
A1		15-75	10-100	15-115	50-170	40-190	80-320
A2		-	-	-	-	85-235	125-365
A3		62-120	62-150	100-205	115-265	-	-
A4		110-175	140-230	185-285	200-350	270-420	320-560
J1		65-125	65-150	75-165	90-225	150-300	180-420
J2		115-175	135-230	150-250	160-310	-	-
J3		145-210	180-265	225-325	235-380	330-480	370-610

AWB-M (Metric serration) Soft top jaws



Chuck	HFKN-C 110*	HFKN-M 165	HFKN-M 210	HFKN-M 260	HFKN-M 315	HFKN-M 400	HFKN-M 500
Jaw type	WBR	AWB-M	AWB-M	AWB-M	AWB-M	AWB-M	AWB-M
Id. No.	013843	081719	081720	081722	035957	036791	036791
Serration	S08 N08	1.5 x 60°	1.5 x 60°	1.5 x 60°	1.5 x 60°	3 x 60°	3 x 60°
B	20	30	35	40	50	60	60
H	25	32	40	40	50	60	60
L	53	82	102	125	120	140	140
N	S08 N08	12	14	16	21	25.5	25.5
a	30.5	47	57	65	70	80	80
b	15	20	25	30	30	35	35
c	0	4	4	6	6	-	-
kg/set	0.45	1.4	2.5	3.95	5.1	9.65	-

* size 110 with tongue & groove



■ T-NUTS ■ GREASE		HFKN-C		HFKN-D		HFKN-M		
		Tongue & groove		INCH serration		METRIC serration		
NST T-nuts suitable for HFKN-D	Chuck	HFKN-D 110	HFKN-D 165	HFKN-D 210	HFKN-D 260	HFKN-D 315	HFKN-D 400	HFKN-D 500
	T-nut type		NST	NST	NST	NST	NST	NST
	Id. No.		035958	034245	034197	034197	014812	014812
	N		14	17	21	21	25.5	25.5
	H		18.5	20.5	26.5	26.5	29	29
	h		6.5	7.5	10	10	11	11
	Cyl.-screw ISO 4762-12.9		M10 x 20	M12 x 25	M16 x 35	M16 x 35	M20 x 40	M20 x 40
Torque Md max. (Nm)			50	70	150	150	300	300
NSTE T-nuts suitable for HFKN-D	Chuck	HFKN-D 110	HFKN-D 165	HFKN-D 210	HFKN-D 260	HFKN-D 315	HFKN-D 400	HFKN-D 500
	T-nut type		NSTE	NSTE	NSTE	NSTE	NSTE	NSTE
	Id. No.	038265	73061650	73062150	73063050	73063050	081817	081817
	N	8	14	17	21	21	25.5	25.5
	H	13.5	18.5	20.5	26.5	26.5	29	29
	h	5.0	6.5	7.5	10	10	11	11
	Cyl.-screw ISO 4762-12.9	M6 x 20	M10 x 20	M12 x 25	M16 x 35	M16 x 35	M20 x 40	M20 x 40
Torque Md max. (Nm)		16	50	70	150	150	300	300
NSTE T-nuts suitable for HFKN-M	Chuck	HFKN-M 110	HFKN-M 165	HFKN-M 210	HFKN-M 260	HFKN-M 315	HFKN-M 400	HFKN-M 500
	T-nut type		NSTE-M	NSTE-M	NSTE-M	NSTE-M	NSTE-M	NSTE-M
	Id. No.		73061602	73062101	73062501	73063050	081817	081817
	N		12	14	16	21	25.5	25.5
	H		18.5	20.5	26.5	26.5	29	29
	h		6.5	7.5	10	10	11	11
	Cyl.-screw ISO 4762-12.9		M10 x 20	M12 x 25	M12 x 35	M16 x 35	M20 x 40	M20 x 40
Torque Md max. (Nm)			50	70	70	150	300	300

**Important for maintenance and safe operation,
to be ordered with the chuck**

Grease K05®

Special grease for
manual and power chucks



Cartridge 14 Oz. (DIN 1284)
Grease content 500 g
Id. No. 016440



Can 1000 g
Id. No. 011881

- High adhesion
- High resistance against coolant
- High load bearing capacity
- Low friction coefficient
- High gripping force
- Avoids tribocorrosion

Grease gun

Grease gun (DIN 1283) for
cartridges 14 Oz. (DIN 1284).

■ Also refillable from grease can 1000 g.



Lubrication set Id. No. 083726

Supply range

- Grease gun
- 1 Adapter flexible for high pressure grease nipple
- 1 Adapter for cone grease nipple

