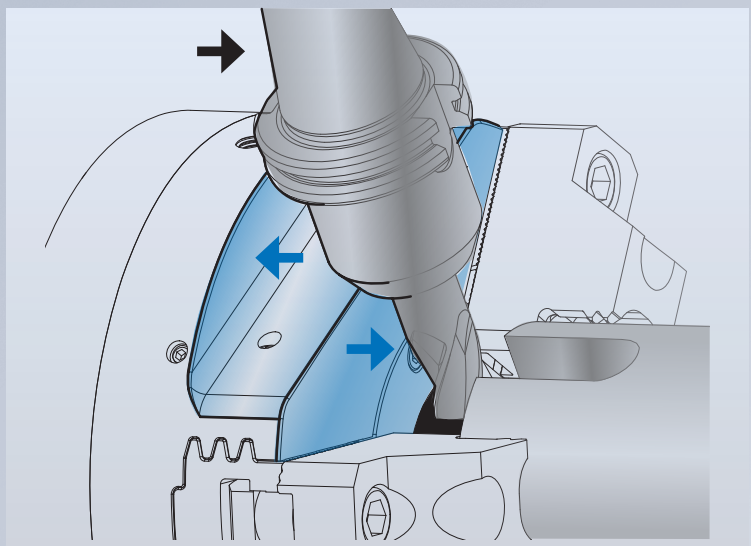
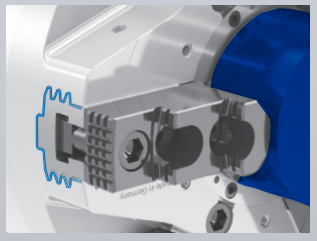
HFKS-2G High precision premium power chuck



Weight-optimised chuck body
for a wide range of workpieces

External clamping(OD)

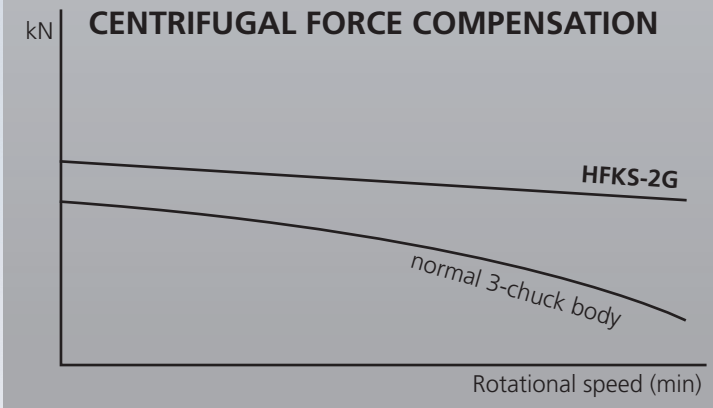


Internal clamping (ID)



Multiguide jaw guides

The innovative multi guide of the HFKS2G is ideal for OD and ID clamping. The symmetrical guiding length both on OD and ID clamping guarantees same performance, grip force and accuracy.



Weight-optimised chuck body
with flats for best accessibility

Direct pressure lubrication system

Long symmetrical
Multiguide jaw guides ideal for
External or internal clamping

Serration optional
Inch or metric

Clamping glossary

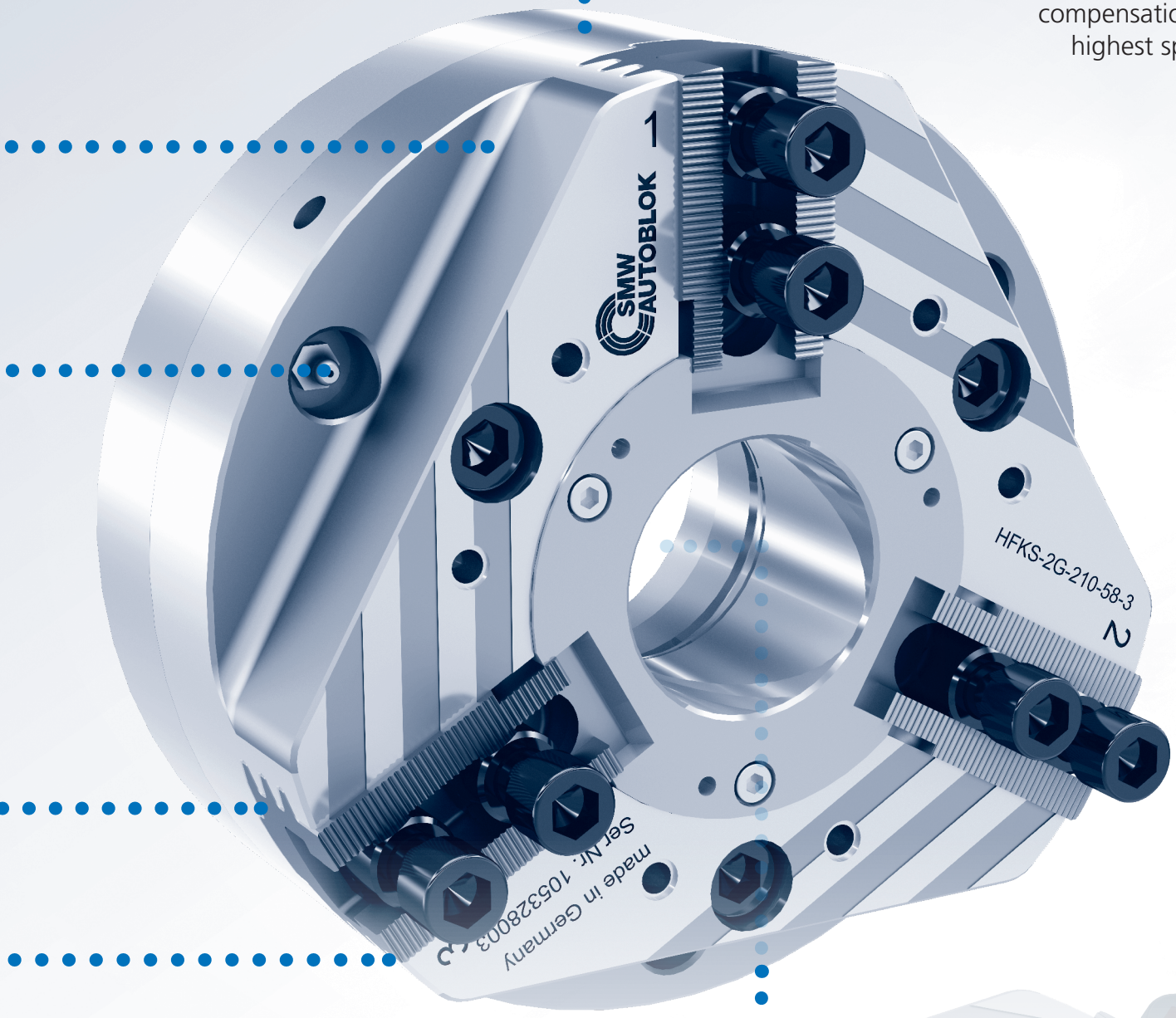
Multiguide: The guideways for the master jaws in the chuck body are divided into several individual profiles. This improves the load bearing capability as well as the rigidity against working loads. It increases the overall accuracy and the service life of the chuck.

Weight optimized chuck body: The outer geometry of the chuck body has flats in between the base jaws. This improves the radial accessibility with live tools and reduces the inertia and weight. The machine can accelerate and decelerate quicker and more energy efficient, and the machine spindle can carry higher work piece weights.

Centrifugal compensation: The rotation of a chuck results in centrifugal forces that act onto the master jaws and the top jaws. It reduces the static grip force, and thus reduces the dynamic chip removal. The centrifugal force compensation system of the HFKS-2G reduces this effect, and thus improves the dynamic chip removal, the safety and the roundness of the work pieces.

Pressure lubrication system: In a pressure lubrication system all loaded areas are directly lubricated via direct channels. Used lubricant is directly replaced by new lubricant. Compared to open lubrication systems it reduced the amount of lubricant needed, increases the lubrication intervals and avoids tribo corrosion.

Centrifugal force compensation for highest speeds



Large through hole, full use of the machine spindle

HFKS-2G

INCH / METRIC
SERRATION

High precision power chuck

- Weight reduced chuck body and large through-hole
- Centrifugal force compensation
- Direct lubrication system



Application/customer benefits

- Universal use for turning and milling
- Flats on the chuck body for best accessibility with live tools and to reduce weight and inertia
- Wedge hook mechanism combined with a multi jaw guide guarantee maximum precision and sensitivity for the workpiece clamping
- Also suitable for large batch production, with heavy duty cutting or clamping of easy deformed workpieces
- Centrifugal force compensation for highest speed
- Constant clamping forces due to the direct lubrication system
- Maximum durability due to case hardened chuck components
- Wide range of standard top jaws

Technical features

- Centrifugal force compensation
- Multi jaw guides
- Direct lubrication system
- Large through-hole
- Wedge hook mechanism

Standard equipment

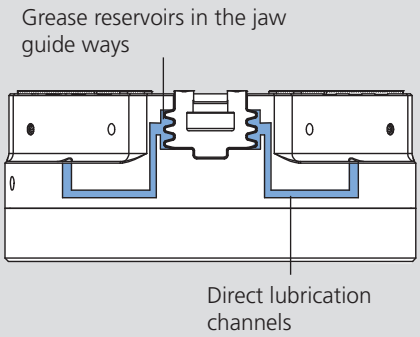
3-jaw chuck,
6 pcs. T-nuts and screws,
1 set of soft top jaws

Ordering example

3-jaw chuck HFKS-2G-D-210-58-3-Z170

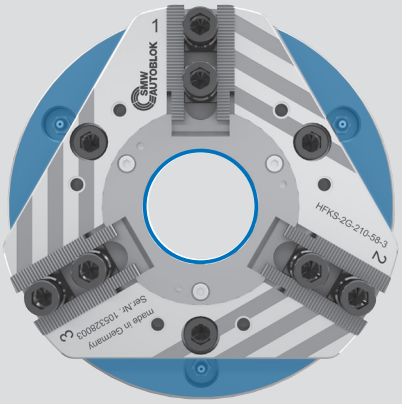
Product features

Direct lubrication system



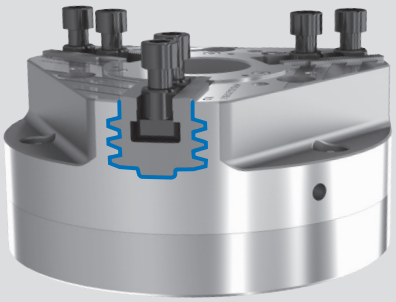
Direct lubrication system: Additional lubrication channels and grease reservoirs integrated in the jaw guide ways ensure constant clamping force.

Weight optimized chuck body with large through-hole



Flats on the chuck body for best accessibility with live tools and weight reduction. Large through-hole.

Multi jaw guide



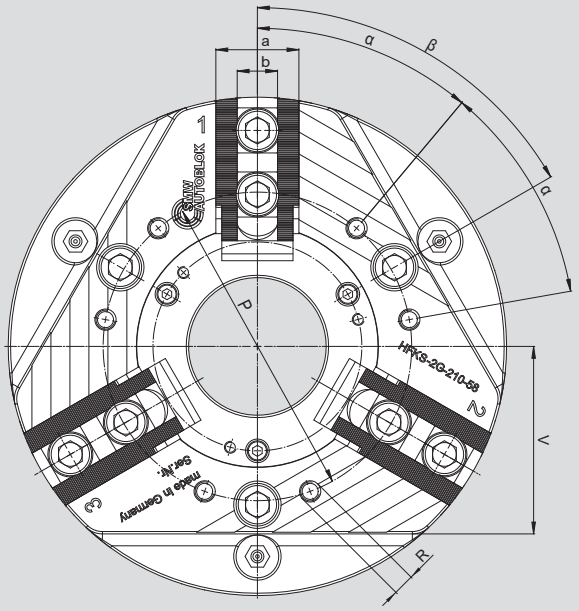
Wedge hook mechanism combined with a multi jaw guide and centrifugal force compensation for maximum precision and sensitivity (also for easy deformed workpieces). Ideal also for I. D. gripping and for milling.

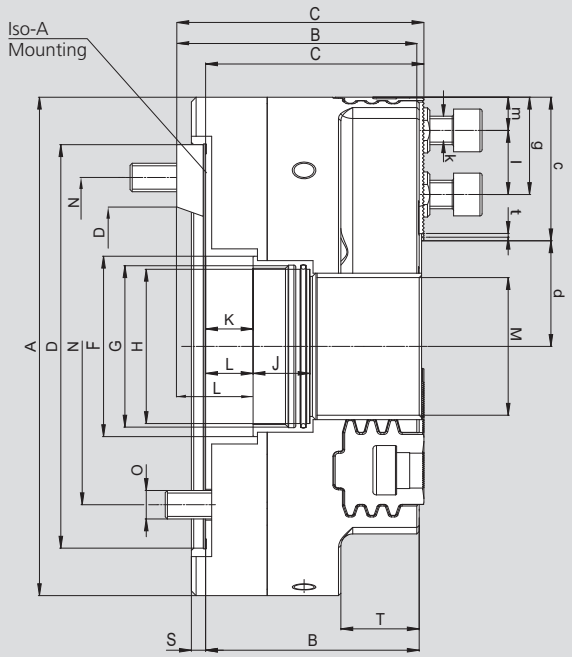
High precision power chuck

- Weight reduced chuck body and large through-hole
- Centrifugal force compensation
- Direct lubrication system

HFKS-2G

INCH / METRIC SERRATION





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

SMW-AUTOBLOK Type HFKS-2G		165-46		210-58		255-72		320-88		320-88	
Mounting		**Z140**	**A05**	**Z170**	**A06**	**Z220**	**A08**	**Z220**	**A08**	**Z300**	**A11**
Outside diameter	**A**	165		210		255		320		320	
	B	90	105	90	107	98	117	98	117	98	119
	C	92.5	107.5	92	109	100	119	100	119	100	121
	D H6	140	82.57	170	106.39	220	139.73	220	139.73	300	196.88
	F	60		76		90		110		110	
Piston thread / depth	**G**	M54 x 1.5 / 18		M68 x 2 / 18		M82 x 2 / 24		M100 x 2 / 24		M100 x 2 / 24	
	H H6	52		65		77		93		93	
	J	24		24		34		34		34	
Piston stroke	**K**	17		20		20		20		20	
Max.	**L**	17	32	20	37	20	39	20	39	20	41
Through-hole	**M**	46		58		72		88		88	
Bolt circle	**N**	104.8		133.4		171.4		171.4		235	
Fixing bolt	**O**	M10		M12		M16		M16		M20	
	P	115		130		150		170		170	
Thread / thread depth	**R**	M6 / 11		M8 / 15		M8 / 15		M8 / 15		M8 / 15	
	S	6		6		6		6		6	
	T	33		33		42		42		42	
	V	65		79		100		100*		100*	
	a	35		35		45		45		45	
Groove width inch serration	**b** H7	14**		17		21		21		21	
Groove width metric serration	**b** H7	12		14		16		21		21	
	c	46.5		59.5		72.5		99.5		99.5	
Max.	**d**	37		45.5		53.5		60.5		60.5	
Max. / min.	**g**	21 / 34		50 / 25		62 / 35		82 / 35		82 / 35	
Bolt ISO 4762 12.9 inch serration	**k**	M10		M12		M16		M16		M16	
Bolt ISO 4762 12.9 metric serration	**k**	M10		M12		M12		M16		M16	
Min.	**l**	16****		19		19		25		25	
Min.	**m**	5		6		10		10		10	
Inch serration	**t**	1/16" x 90°		1/16" x 90°		1/16" x 90°		1/16" x 90°		1/16" x 90°	
Metric serration	**t**	1.5 x 60°		1.5 x 60°		1.5 x 60°		1.5 x 60°		1.5 x 60°	
	α	42.5°***		40°		40°		30° / 60°		30° / 60°	
	β	60°		60°		60°		60°		60°	

Stroke per jaw	mm	4.5	5.25	5.25	5.25	5.25
Max. actuating force	kN	27	45	70	70	70
Max. total gripping force	kN	60	100	150	150	150
Max. speed	r.p.m.	7000	6300	4500	4000	4000
Weight (without jaws)	kg	11	18.1	29.5	44.5	43.5
Moment of inertia	kg·m²	0.04	0.12	0.26	0.60	0.58

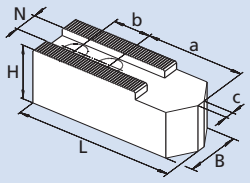
* Attention: Flat on distance V = 70 mm wide, then under 11.5°
** Optionally available with groove 17
*** Only 1 thread between each 2 jaws
**** Thread spacing 20 mm (double T-nut) used in metric serration

HFKS-2G

INCH / METRIC SERRATION

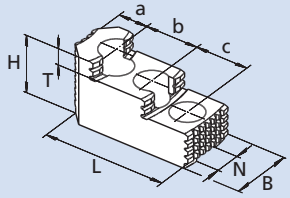
■ **Jaws***

AWB-D (INCH SERRATION) Soft top jaws



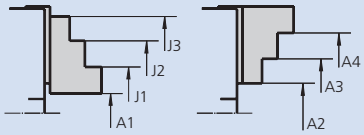
Chuck	HFKS-2G-D 165	HFKS-2G-D 210	HFKS-2G-D 255	HFKS-2G-D 320
Jaw type	AWB-D	AWB-D	AWB-D	AWB-D
Id. No.	035954	081616	081618	081618
Serration	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
B	40	40	50	50
H	40	40	50	50
L	80	90	120	120
N	14	17	21	21
a	43	53	70	70
b	22	22	28	28
c	4	4	6	6
kg / set	2.0	2.7	5.1	5.1

MHB-D* (INCH SERRATION) Hard, reversible top jaws

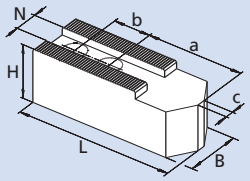


Chuck	HFKS-2G-D 165	HFKS-2G-D 210	HFKS-2G-D 255	HFKS-2G-D 320
Jaw type	MHB-D	MHB-D	MHB-D	MHB-D
Id. No.	12081636	12082036	12083036	12083036
Serration	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
B	34	40	45	45
H	39	45	56	56
L	65	82	105	105
T	10	10.5	13.5	13.5
N	14	17	21	21
a	18	19	26	26
b	16	23	30	30
c	16	23	30	30
kg / set	0.9	1.71	2.85	2.85
A1	23-83	26-105	16-110	35-162
A2	-	-	-	-
A3	70-128	78-155	93-193	85-257
A4	118-183	156-235	178-273	170-342
J1	73-133	81-155	68-153	75-217
J2	123-183	151-235	149-237	130-302
J3	153-219	196-270	218-313	205-372

Clamping ranges

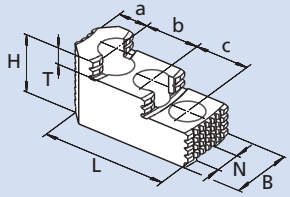


AWB-M (METRIC SERRATION) Soft top jaws



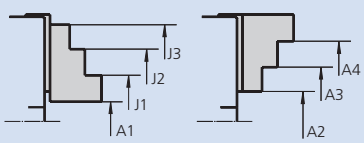
Chuck	HFKS-2G-M 165	HFKS-2G-M 210	HFKS-2G-M 255	HFKS-2G-M 320
Jaw type	AWB-M	AWB-M	AWB-M	AWB-M
Id. No.	081719	081720	081722	236517
Serration	1.5 x 60°	1.5 x 60°	1.5 x 60°	1.5 x 90°
B	30	35	40	50
H	32	40	42	50
L	82	102	125	145
N	12	14	16	21
a	47	57	65	85
b	20	25	30	30
c	4	4	6	10
kg / set	1.4	2.7	3.95	6.83

MHB-M* (METRIC SERRATION) Hard, reversible top jaws



Chuck	HFKS-2G-M 165	HFKS-2G-M 210	HFKS-2G-M 255	HFKS-2G-M 320
Jaw type	MHB-M	MHB-M	MHB-M	MHB-M
Id. No.	12081627	12082127	12082627	12083037
Serration	1.5 x 60°	1.5 x 60°	1.5 x 60°	1.5 x 60°
B	34	40	45	45
H	39	45	56	56
L	67	86	100	105
T	10	10.5	15.5	13.5
N	12	14	16	21
a	14	19	23	26
b	20	25	30	30
c	20	25	30	30
kg / set	0.9	1.8	2.55	2.85
A1	23-83	26-105	16-110	35-162
A2	-	-	-	-
A3	70-128	78-155	93-193	85-257
A4	118-183	156-235	178-273	170-342
J1	73-133	81-155	68-153	75-217
J2	123-183	151-235	149-237	130-302
J3	153-219	196-270	218-313	205-372

Clamping ranges



*Attention: The values are calculated theoretical values only. SMW-AUTOBLOK is recommending not to clamp any diameters, that are larger than the chuck O.D.



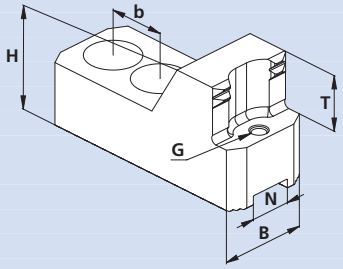
JAWS-CATALOG

Request or download: www.smw-autoblok.de

HFKS-2G

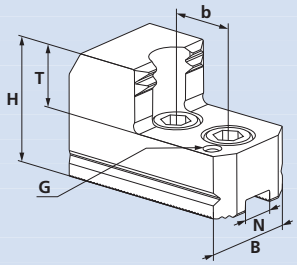
INCH / METRIC SERRATION

GG-D (INCH SERRATION)
Hard roughing jaws



Type	Id. No.	External clamping	Internal clamping	B	H	T	G	N	Serration	b	kg / Set	SMW-AUTOBLOK Chuck
GG-D 010	090732	30-56	-	35	45	20	M6	14	1/16" x 90°	16.5	1.77	
GG-D 011	090733	64-90	167-193								1.26	HFKS-2G-D 165
GG-D 012	090734	102-128	129-155								1.13	
GG-D 013	090735	137-163	94-120								1.08	
GG-D 030	081057	27-77	-	35	50	25	M6	17	1/16" x 90°	22	1.87	
GG-D 031	081058	53-103	212-262								1.55	
GG-D 032	081059	88-138	177-227	40	45	20					1.24	HFKS-2G-D 210
GG-D 033	081060	112-162	133-183	40	45	20					1.29	
GG-D 034	090811	143-193	102-152	40	50	25					1.73	
GG-D 035	090812	-	82-132	40	50	25					2.06	
GG-D 050	081065	30-84	-	45	59	28	M8	21	1/16" x 90°	29**	3.38	
GG-D 051	081066	77-131	237-291	45							2.57	
GG-D 052	081067	105-159	209-263	60							3.14	
GG-D 053	081068	148-202	166-220	60							2.75	HFKS-2G-D 255
GG-D 054	090817	189-243	125-179	60							3.85	
GG-D 055	090818	-	85-139	60							4.74	
GG-D 056	090819	-	75-129	45	46	15					3.06	
GG-D 060	081069	41-135	-	45	59	28	M8	21	1/16" x 90°	29**	3.76	
GG-D 061	081070	93-187	277-371	60							4.61	
GG-D 062	080552	139-233	231-325	60							3.65	HFKS-2G-D 320
GG-D 063	081071	201-295	169-263	60							3.80	
GG-D 064	090820	262-356	108-202	60	51	20					4.48	

GG-M (METRIC SERRATION)
Hard roughing jaws



Type	Id. No.	External clamping	Internal clamping	B	H	T	G	N	Serration	b	kg / Set	SMW-AUTOBLOK Chuck
GG-M 010	5311500	36-62	-	35	45	20	M5	12	1.5 x 60°	20	1.63	
GG-M 020	5311501	56-82	-				M6				4.16	
GG-M 030	5317820	82-108	154-180				M6				1.29	
GG-M 040	5317821	108-134	128-154				M6				1.42	HFKS-2G-M 165
GG-M 050	5317822	132-158	104-130				M6				1.29	
GG-M 060	5318113	154-180	114-140				M6				1.39	
GG-M 070	5317971	-	65-91	40	42		M6				1.34	
GG-M 080	5311502	42-92	-	35	50	25	M5	14	1.5 x 60°	25	2.00	
GG-M 090	5317465	81-131	189-239	40			M6				1.86	
GG-M 100	5317466	120-170	150-200	40			M6				1.74	HFKS-2G-M 210
GG-M 110	5317467	162-212	108-158	40			M6				2.34	
GG-M 120	5317468	200-250	70-120	40			M6				2.34	
GG-M 130	5317469	31-85	-	45	59	28	M8	16	1.5 x 60°	30	4.02	
GG-M 140	5317470	66-120	-								3.27	
GG-M 150	5317471	104-158	213-267	60							3.65	HFKS-2G-M 255
GG-M 160	5317472	140-194	176-230	60							2.55	
GG-M 170	5317473	172-226	112-166	50							3.61	
GG-M 180	5317474	207-261	109-163	50							3.71	
GG-M 200	5311504	25-119	-	45	59	28	M5	21	1.5 x 60°	30	4.73	
GG-M 210	5317477	95-189	-				M8				3.70	
GG-M 220	5317478	163-257	223-317				M8				3.32	HFKS-2G-M 320
GG-M 230	5317479	227-321	145-239	50		20	M8				4.67	
GG-M 240	5317480	-	92-186	50		22	M8				5.24	

* Attention: The values are calculated theoretical values only. SMW-AUTOBLOK is recommending not to clamp any diameters, that are larger than the chuck O.D.

** Can be used with double T-nuts hole spacing 28 mm and 30 mm

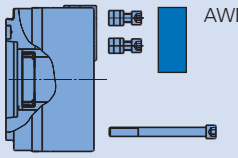
HFKS-2G

INCH / METRIC
SERRATION

■ Ordering review

Order review HFKS-2G-D (inch serration)

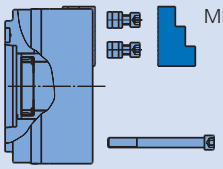
HFKS-2G-D with soft top jaws AWB-D



Supply range:
- Chuck + mounting bolts
- Soft top jaws AWB-D
- 1 set (= 6 pcs.) T-nuts with bolts

Size / Spindle mounting	HFKS-2G-D 165-46	HFKS-2G-D 210-58	HFKS-2G-D 255-72	HFKS-2G-D 320-88
Centering rim	-	-	-	Z 220
small	-	-	-	163749
Centering rim	Z140	Z 170	Z 220	Z 300
large	163741	163745	163747	163750
A 05	163744	-	-	-
A 06	-	163746	-	-
A 08	-	-	163748	163751
A 11	-	-	-	163752

HFKS-2G-D with hardened reversible top jaws MHB-D

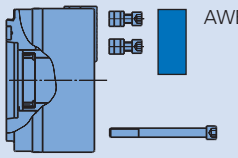


Supply range:
- Chuck + mounting bolts
- Hardened ground reversible top jaws MHB-D
- 1 set (= 6 pcs.) T-nuts with bolts

Size / Spindle mounting	HFKS-2G-D 165-46	HFKS-2G-D 210-58	HFKS-2G-D 255-72	HFKS-2G-D 320-88
Centering rim	-	-	-	Z220
small	-	-	-	162884
Centering rim	Z140	Z170	Z220	Z300
large	163740	162880	162882	162885
A 05	163743	-	-	-
A 06	-	162881	-	-
A 08	-	-	162883	162886
A 11	-	-	-	162887

Order review HFKS-2G-M (metric serration)

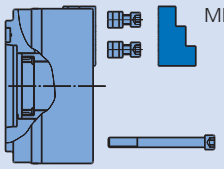
HFKS-2G-M with soft top jaws AWB-M



Supply range:
- Chuck + mounting bolts
- Soft top jaws AWB-M
- 1 set (= 6 pcs.) T-nuts with bolts

Size / Spindle mounting	HFKS-2G-M 165-46	HFKS-2G-M 210-58	HFKS-2G-M 255-72	HFKS-2G-M 320-88
Centering rim	-	-	-	Z 220
small	-	-	-	162749
Centering rim	Z140	Z 170	Z 220	Z 300
large	163755	162734	162739	162763
A 05	163758	-	-	-
A 06	-	162737	-	-
A 08	-	-	162748	162598
A 11	-	-	-	162776

HFKS-2G-M with hardened reversible top jaws MHB-M



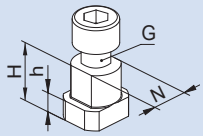
Supply range:
- Chuck + mounting bolts
- Hardened ground reversible top jaws MHB-M
- 1 set (= 6 pcs.) T-nuts with bolts

Size / Spindle mounting	HFKS-2G-M 165-46	HFKS-2G-M 210-58	HFKS-2G-M 255-72	HFKS-2G-M 320-88
Centering rim	-	-	-	Z220
small	-	-	-	162762
Centering rim	Z140	Z170	Z220	Z300
large	163754	162735	162747	162764
A 05	163757	-	-	-
A 06	-	162738	-	-
A 08	-	-	162746	162599
A 11	-	-	-	162777

HFKS-2G

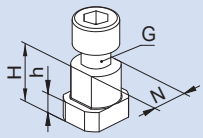
INCH / METRIC SERRATION

NST
T-nuts suitable for HFKS-2G-D



Chuck	HFKS-2G-D 165	HFKS-2G-D 210	HFKS-2G-D 255	HFKS-2G-D 320
T-nut type	NST14-3	NST17	NST21	NST21
Id. No.	163134	016021	014788	014788
N	14	17	21	21
H	20	23	27	27
h	7.5	7.5	10	10
Cyl.-screw ISO 4762-12.9	M10 x 25	M12 x 30	M16 x 35	M16 x 35
Torque Md max. (Nm)	40	60	150	150

NST / NSTE-M
T-nuts suitable for HFKS-2G-M



Chuck	HFKS-2G-M 165	HFKS-2G-M 210	HFKS-2G-M 255	HFKS-2G-M 320
T-nut type	NSTE-M120	NST17/14	NST21/16	NST21-6
Id. No.	73061602*	036976	162744	034197
N	12	14	16	21
H	18.5	20.5	26.5	26.5
h	6.5	-	10	10
Cyl.-screw ISO 4762-12.9	M10 x 20	M12 x 25	M12 x 30	M16 x 30
Torque Md max. (Nm)	40	60	60	150

* Double T-nut thread spacing 20 mm

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

Interflon Grease 2/3

Special grease for manual and power chucks

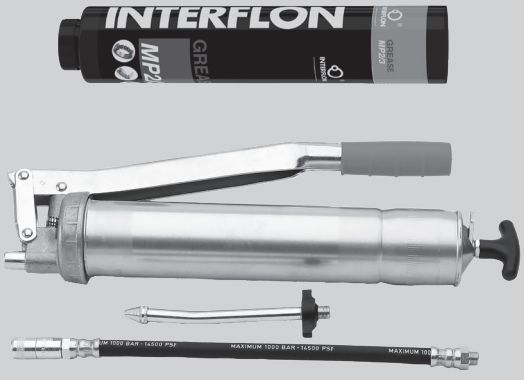


Cartridge 14 Oz. (DIN 1284)
Grease content 400ml
Id. No. 205087

- Ideal for high speed applications
- High adhesion
- High resistance against coolant
- High load bearing capacity
- Low friction coefficient
- Avoids tribocorrosion

Grease gun

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



Lubrication set Id. No. 083726
Supply range
- Grease gun
- 1 Adapter flexible for high pressure grease fitting
- 1 Adapter for cone grease fitting