

# KNCS-matic

QUICK JAW CHANGE  
3-JAW-CHUCK

■ Automated quick jaw change



## Application/customer benefits

- Ready for automated jaw change utilizing handling robot systems
- High repeatability when changing jaws
- High speed
- Proofline: fully sealed - low maintenance

## Technical features

- Large through hole
- High flexibility: jaws radially adjustable / reversible
- High centering accuracy

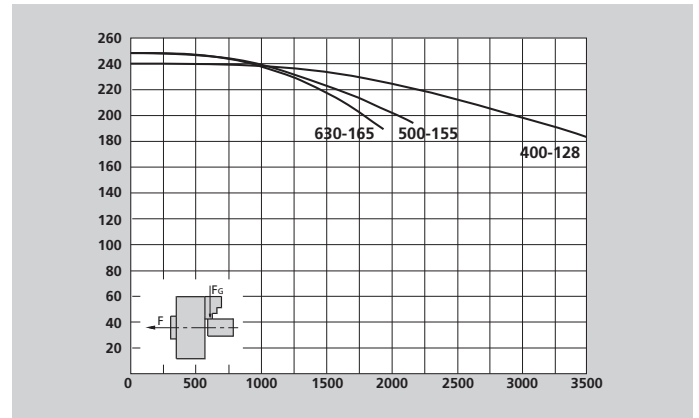
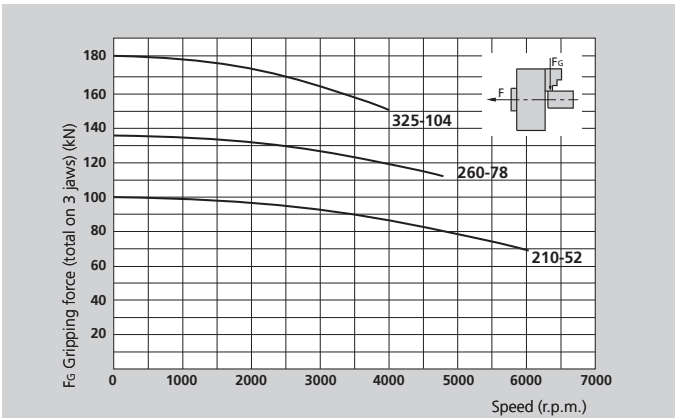
## Standard equipment

3-jaw chuck with disengaging pin  
Mounting key  
Set of coverplates

## Ordering example

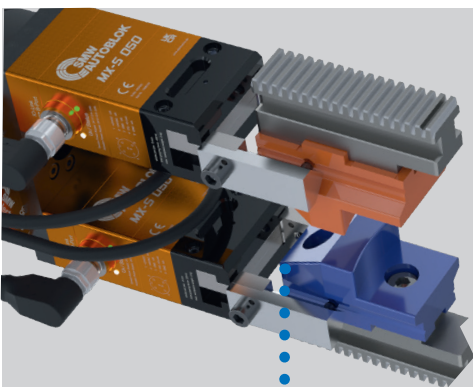
3-jaw chuck KNCS-matic

## Actual gripping force diagram



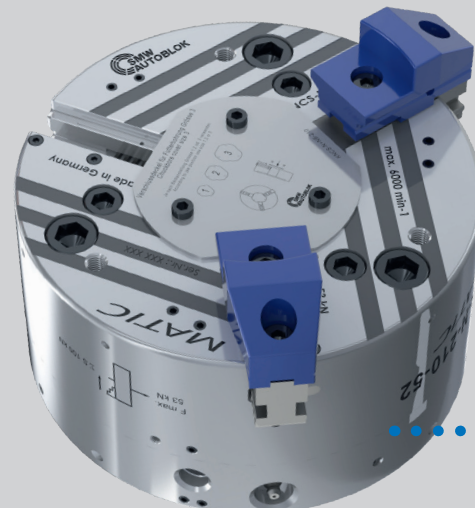
The data in the diagram refers to 3-jaw chucks, newly maintained according to their service manuals using SMW-AUTOBLOK K05 grease. The static and dynamic gripping forces have been measured using standard soft top jaws, placed in a position not exceeding the outer diameter of the chuck.

## Automated quick jaw change



2 x MX-S 050\*  
Gripper unit

360° Rotation



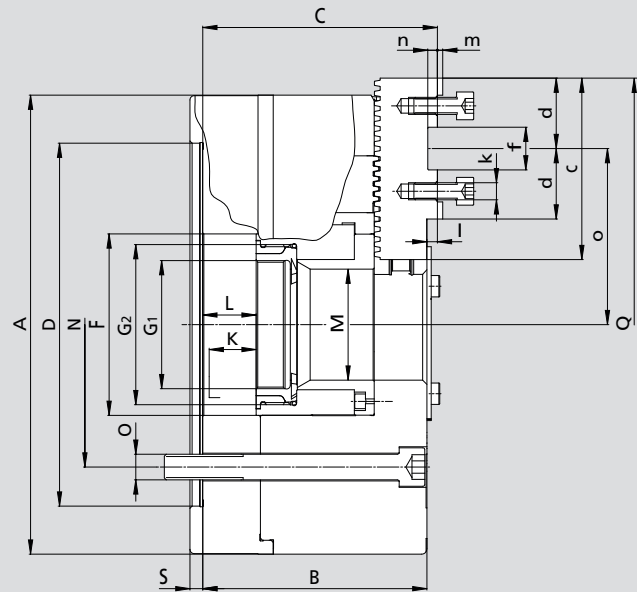
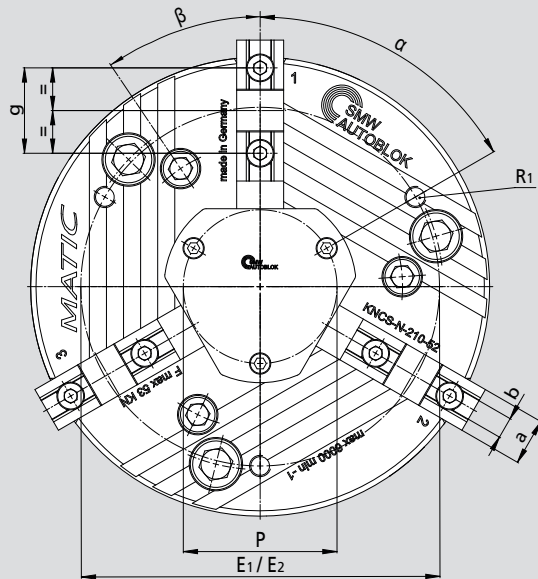
KNCS-matic chuck for  
automated quick jaw change  
by robot

\* MX-S see „Grippers“ Catalogue at [www.smw-autoblok.com](http://www.smw-autoblok.com)

### Main dimensions and technical data

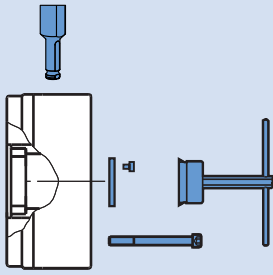
\* ATTENTION!  
Use base jaws always together with the chuck cover plates!

Jaw position: open position for external clamping  
Base jaw position „O“



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

SMW-AUTOBLOK Type KNCS-matic		210-52		260-78		325-104		400-128		500-155		630-165	
Mounting	Size	Z170	Z170	Z220	Z300	Z380	Z380	Z380	Z380	Z380	Z380	Z380	Z380
	<b>A</b>	215	260		324	400	500	630					
	<b>B</b>	105	120		129.9	140	174	174					
	<b>C</b>	109.9	128.3		139.2	149.2	184	184					
	<b>D</b> H6	170	170	220	300	380	380	380					
Circle for fixtures etc.	<b>E1</b>	168	210		268	330	420	420					
Circle for fixtures etc.	<b>E2</b>	-	-		-	-	-	585					
	<b>F</b>	85	111		144	180	207	217					
Rotating ring nut / depth	<b>G1</b>	M60 x 1.5 / 16	M90 x 2.0 / 20		M115 x 2.0 / 22	M138 x 2.0 / 22	M165 x 2.0 / 25	M175 x 2.0 / 25					
Piston thread / depth	<b>G2</b>	M75 x 2.0 / 19	M102 x 2.0 / 23		M132 x 2.0 / 25	M160 x 2.0 / 25	M185 x 2.0 / 28	M195 x 2.0 / 28					
Piston stroke	<b>K</b>	25	28		28	32	42	42					
max.	<b>L</b>	25	28		28	32	42	42					
	<b>M</b>	52	78		104	128	155	165					
Mounting screw circle	<b>N</b>	133.4	133.4	171.4	235	330.2	330.2	330.2					
Mounting screw	<b>O</b>	M12	M12	M16	M20	M24	M24	M24					
Circle for coverplates	<b>P</b>	72	95		130	152	180	195					
	<b>Q</b>	261	307		385	452	552	643					
Thread / Thread depth	<b>R</b>	M10 / 12 (3x)	M10 / 18 (3x)		M10 / 16 (6x)	M12 / 18 (9x)	M16 / 25 (9x)	M16 / 25 (18x)					
	<b>S</b>	6	6		6	8	8	8					
	<b>a</b>	22	26		32	32	45	45					
	<b>b</b> f7	10	12		12	12	18	18					
	<b>c</b>	85	104		115	125	160	200					
	<b>d</b>	33	36		36	43	50	50					
	<b>f</b> H7	20	20		20	26	30	30					
	<b>g</b>	40	40		40	54	60	60					
Thread / Thread depth	<b>k</b>	M8 / 13	M12 / 17		M12 / 17	M12 / 17	M16 / 34	M16 / 34					
	<b>l</b>	4.9	8.3		9.3	9.3	10	10					
	<b>m</b>	2.5	3		3	3	4	4					
	<b>n</b>	4.5	5.5		6	7	9	9					
max. / min.	<b>o</b>	96.6 / 68.3	116.6 / 83.6		155.7 / 106.2	182.3 / 121.8	225 / 141	270.5 / 179.5					
Base jaw tooth pitch	-	4.7	5.5		5.5	5.5	7	7					
Number of teeth	teeth	6	6		9	11	12	13					
<b>α</b>	deg.	60	60		60 / 85	20 / 60 / 100	20 / 60 / 100	20 / 60 / 100					
<b>β</b> Mounting screw circle	deg.	34	55		40	40	40	40					
Stroke per jaw at piston stroke <b>K</b> max.	mm	7.0 / 25	8.0 / 28		8.0 / 28	8.0 / 32	10.0 / 42	10.0 / 42					
max. actuating force	kN	53	70		95	115	120	120					
max. total gripping force	kN	100	135		180	240	250	250					
max. speed	r.p.m.	6000	4700		4000	3500	2200	1700					
Weight without jaws	kg	24	43		65	115	225	390					
Moment of inertia	kg·m <sup>2</sup>	0.11	0.38		1.20	2.50	6.50	18.0					
Recommended closed center cylinder	Type	SIN-S 125/150	SIN-S 150/175		SIN-S 150/175/200	SIN-S 175/200	SIN-S 175/200	SIN-S 175/200					
Recommended open center cylinder	Type	VNK-T2 130-52	VNK-T2 170-77		VNK-T2 250-110	VNK-T2 320-127	VSG 450-165	VSG 450-165					



### Supply range:

Chuck + disengaging pin + mounting screws + mounting key + 1 set of coverplates

Spindle mounting	Size	KNCS-matic 210-52 - Z170	KNCS-matic 260-78 - Z170	KNCS-matic 260-78 - Z220	KNCS-matic 325-104 - Z300	KNCS-matic 400-128 - Z380	KNCS-matic 500-155 - Z380	KNCS-matic 630-165 - Z380
Id.-No.		162080	162242	162255	162183	162155	162355	162200



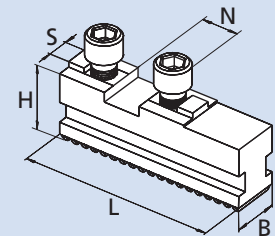
### Attention!

Operate KNCS-matic chuck only with chuck cover plate set!

## GBK

### Hardened base jaws

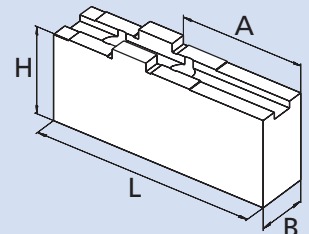
KNCS-matic	210	260	325	400	500	630
Jaw type	GBK 200	GBK 250	GBK 315	GBK 400	GBK 500	GBK 630
Id.-No.	012440	012441	012442	012443	012444	012445
B	22	26	32	32	45	45
H	29.5	37	43	43	57	57
L	85	104	115	125	160	200
N	20	20	20	26	30	300
S	10	12	12	12	18	18
kg/set	1.0	1.8	2.7	3.0	7.1	9.0



## WAK

### Soft top jaws

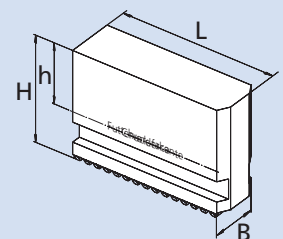
KNCS-matic	210	260	325	400	500	630
Jaw type	WAK 200-10	WAK 250-10	WAK 250-10	WAK 400-10	WAK 500-10	WAK 500-10
Id.-No.	012492	012493	012493	012494	012495	012495
B	22	30	30	35	50	50
H	42	50	50	54	75.5	75.5
L	105	125	125	145	180	180
A	50	70	70	74	100	100
kg/set	2.0	3.6	3.6	5.8	13.7	13.7



## UVB

### Soft monoblock jaws

KNCS-matic	210	260	325	400	500	630
Jaw type	UVB 200	UVB 250	UVB 315	UVB 400	UVB 500	UVB 630
Id.-No.	012448	012449	012450	012451	012452	012453
B	22	26	32	32	45	45
H	70	90	100	100	134	134
h	45	61	66	66	87	87
L	83	108	119	146.5	175	230
kg/set	2.7	5.5	8.2	10.1	23	30.4



### Attention!

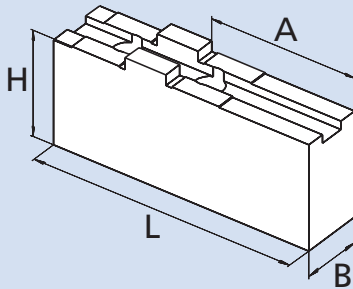
Modify soft monoblock jaws type UVB for the use of the chuck cover plates!

- Soft top jaws wide version
- Accessories

QUICK JAW CHANGE

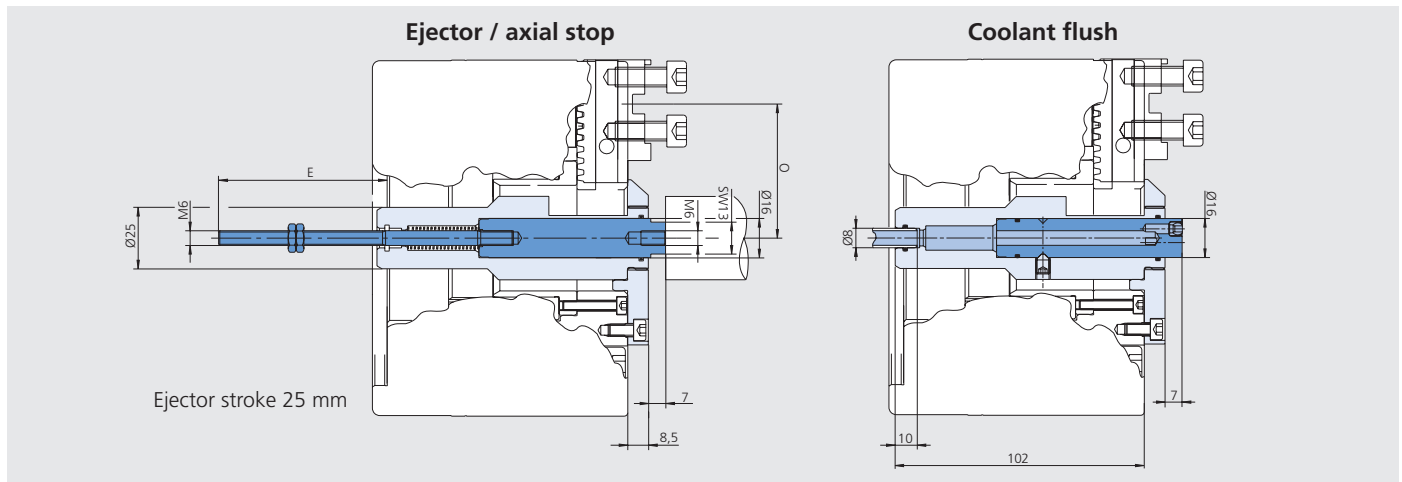
## WAKS

Soft top jaws wide version



Type	Id. No.	B	H	L	A	kg/set	SMW-AUTOBLOK Chuck type
WAKS 200-10	080934	30	51	100	57	2.9	KNCS-matic 210-52
WAKS 200-20	080935	30	66	100	45	3.4	
WAKS 200-30	012497	40	36	70	27	1.9	
WAKS 200-31	080936	40	56	90	43	3.9	
WAKS 200-32	036733	40	76	95	52	5.8	KNCS-matic 260-78 325-104
WAKS 250-10	080937	40	55	125	70	3.9	
WAKS 250-11	080938	40	75	125	70	7.5	
WAKS 250-12	080939	40	95	125	70	9.6	
WAKS 250-13	080940	40	115	125	70	11.5	
WAKS 250-20	012498	60	55	90	44	6.2	
WAKS 250-21	080942	60	55	110	60	7.6	
WAKS 250-22	080943	60	75	90	44	9.4	
WAKS 250-23	080944	60	75	110	60	11.5	
WAKS 250-30	012499	80	55	90	44	8.5	
WAKS 250-31	080945	80	75	110	60	14.1	KNCS-matic 400-128
WAKS 400-10	080946	40	54	110	54	4.9	
WAKS 400-11	080947	40	54	145	89	6.7	
WAKS 400-12	080948	40	94	145	89	11.1	
WAKS 400-13	080949	40	114	145	89	13.5	
WAKS 400-14	080950	40	146	145	89	16.9	
WAKS 400-20	080951	60	54	110	54	7.6	
WAKS 400-21	080952	60	74	110	54	10.3	
WAKS 400-22	080953	60	94	110	54	14.1	
WAKS 400-30	012500	80	64	100	44	11.0	KNCS-matic 500-155 630-165
WAKS 500-10	080954	60	73	155	90	13.8	
WAKS 500-12	080956	60	113	155	90	19.5	
WAKS 500-20	080957	80	73	155	90	15.5	
WAKS 500-21	080958	80	93	155	90	26.3	
WAKS 500-30	012501	90	73	130	65	16.4	
WAKS 500-31	012502	100	73	150	85	20.0	

## Accessories for KNCS-matic chucks



## Technical data

SMW-AUTOBLOK Type			KNCS-matic 210-52	KNCS-matic 260-78	KNCS-matic 325-104	KNCS-matic 400-128	KNCS-matic 500-155	KNCS-matic 630-165
Ejector	E	mm	61.5	46.5	-	-	-	-
Ejector	min./max. O	mm	68.3 / 77.8	88.6 / 105.1	-	-	-	-
Ejector / axial flush		Id. No.	174142	274140	-	-	-	-
Coolant flush basic kit	min./max. O	mm	68.3 / 77.8	88.6 / 105.1	-	-	-	-
Coolant flush basic kit		Id. No.	175002	274141	-	-	-	-
Coolant flush premium kit	min./max. O	mm	68.3 / 96.6	89.1 / 116.6	-	-	-	-
Coolant flush premium kit		Id. No.	176022	274142	-	-	-	-