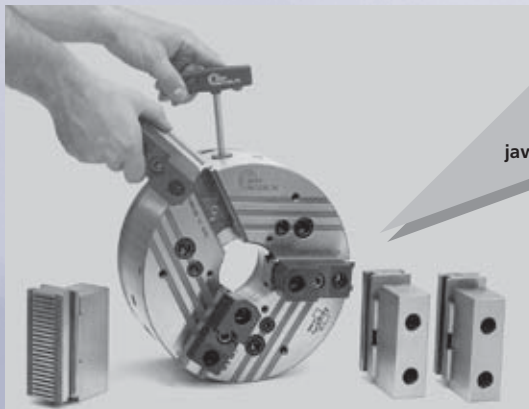


Fast changeover, fast payback: The quick jaw change chuck KNCS-NB / KNCS-NBX can use all existing top jaws

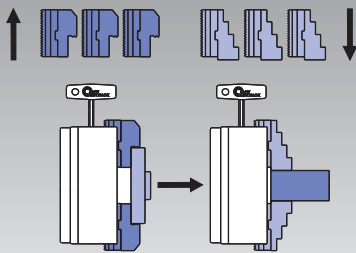


KNCS-NB/KNCS-NBX:
can use
existing
jaws

KNCS®-NB LARGE THROUGH HOLE
KNCS®-NBX EXTRA LARGE THROUGH HOLE

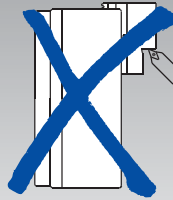
Minimal set-up times

Jaw change in less than 1 minute



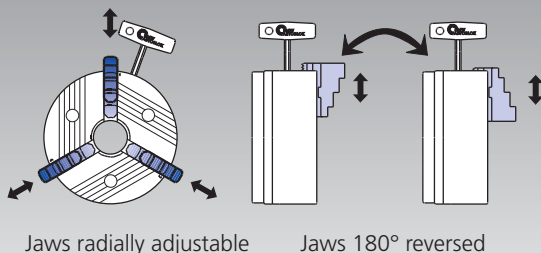
High repeatability when changing jaws

No reboring of already machined jaws necessary, because runout < 0.02 mm (KNCS-NB 210)



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

Flexibility jaws can be radially adjusted and are reversible = **less jaw sets**

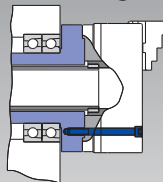


Jaws radially adjustable

Jaws 180° reversed

Standardized mounting

direct mounting



Recess and bolt circle to DIN 55026

Unique **wedge bar drive for high speed**. Minimum loss of gripping force because of tangentially supported wedge bars. Minimum increase of gripping force (**hysteresis**) after quick spindle stop. **High efficiency** of the wedge bar drive ensures highest concentricity and **repeatability**. Suitable for **high-low clamping**.

Original SMW-AUTOBLOK patented quick **jaw change**. **Jaw change accuracy** with unique **jaw safety interlock**.

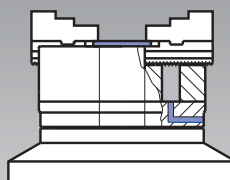
Profitability

Example set-up times/costs

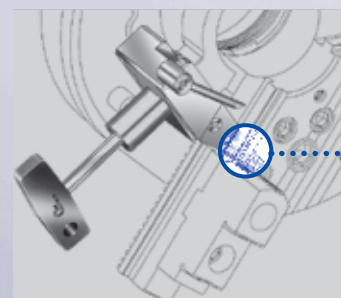
	Conventional chuck	KNCS-NB
Jaw change	10 min	1 min
Reboring of jaws	20 min	0 min
Ø jaw changes/day	2	2
Working days/year	230	230
Machine costs/hour	\$ 60.-	\$ 60.-
Total costs per year	\$ 13800.-	\$ 460.-
Profit*		\$ 13340.-

* If jaws are changed more often, the profitability is increased accordingly.

Vertical application



Version for vertical application with cover and drain holes for coolant available.



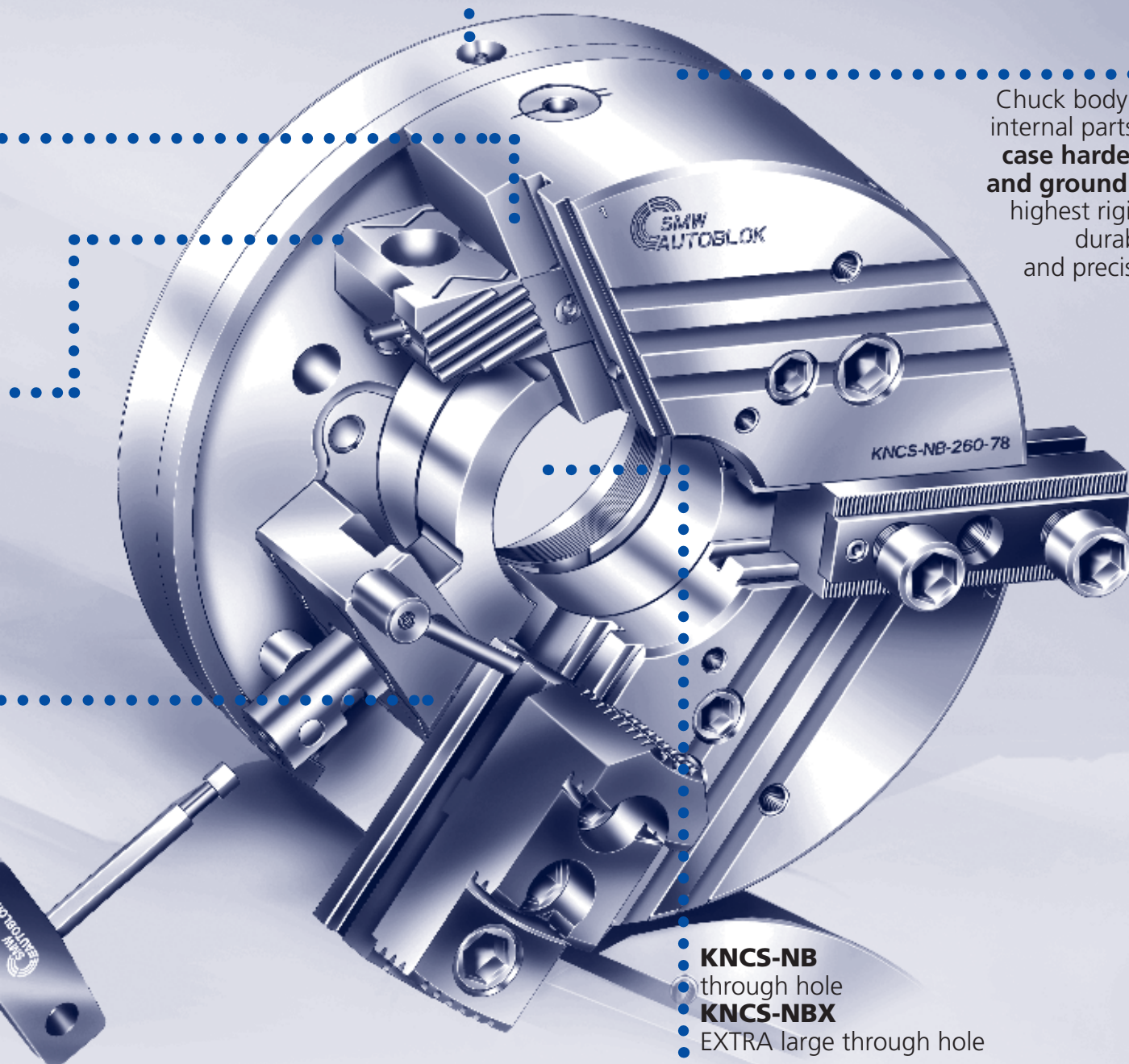
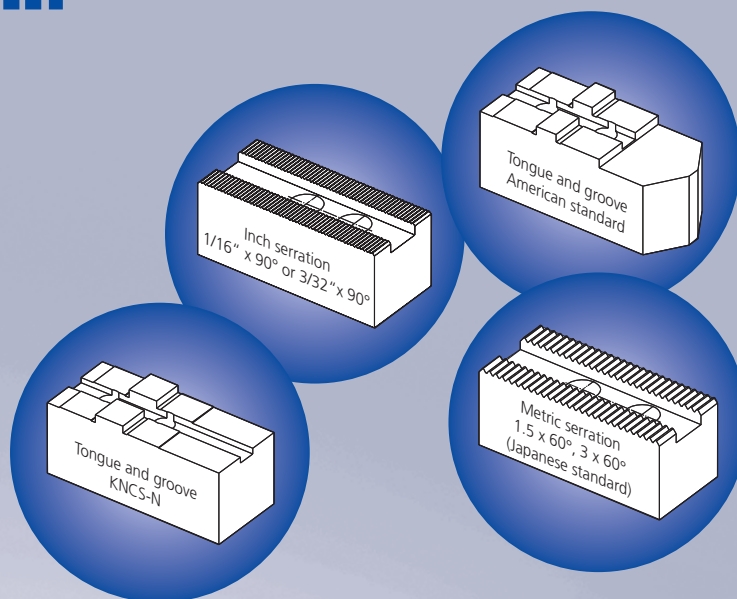
Serration is not fully engaged – jaw safety interlock active.

Less costs by using all existing jaws from:

- Autoblok
- Berg
- Buck
- Forkardt
- Gamet
- Howa
- Kitagawa
- Logansport
- Mario Pinto
- Matsumoto
- Pratt Burnerd
- Röhme
- Rotomors
- Schunk
- SMW-Autoblok
- Woodworth

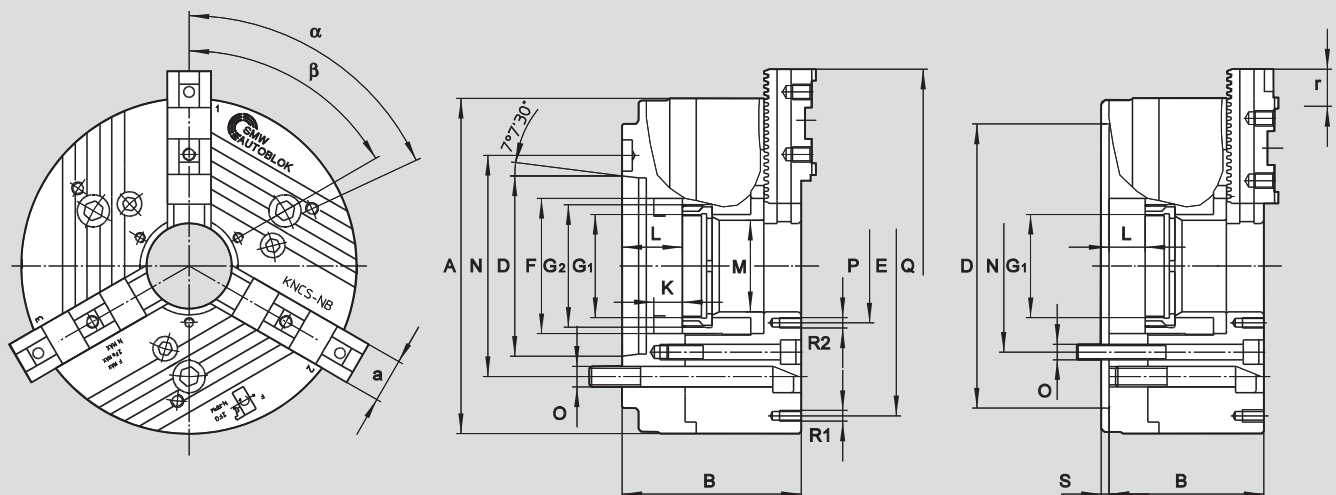
If your jaw type is not here - please ask!

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



Chuck body and internal parts are **case hardened and ground**. For highest rigidity, durability and precision.

- **KNCS-NB** through hole
- **KNCS-NBX**
- EXTRA large through hole



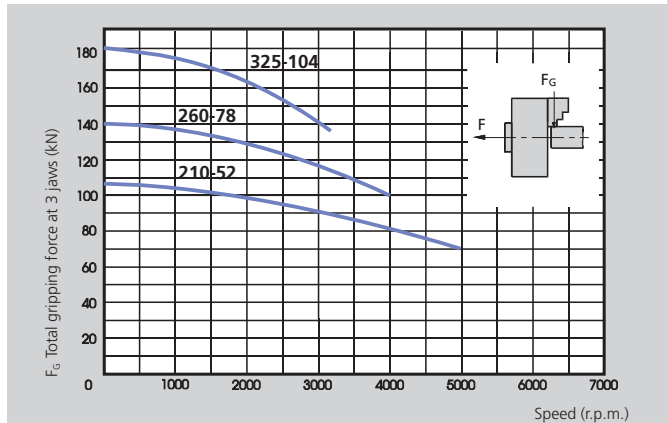
Subject to technical changes
Dimensions and position of base jaws are depending on top jaw type
For more detailed information please ask for customer drawing

SMW-AUTOBLOK Type		KNCS-NB 210-52			KNCS-NB 225-66			KNCS-NB 260-78				KNCS-NB 275-86			KNCS-NB 325-104			
Mounting	Size	Z170	A6	A8	Z170	A6	A8	Z170	Z220	A6	A8	Z220	A6*	A8	Z220	Z300	A8	A11
	A	215			225			260				275			324			
	B	105	122	124	105	122	124	120	120	137	139	120	144	139	130	130	149	151
H6	D	170	106.39	139.73	170	106.39	139.73	170	220	106.39	139.73	220	106.39	139.73	220	300	139.73	196.88
	E	168			180			210				210			268			
	F	85			95			111				122			144			
Threaded ring/depth	G1	M60 x 1.5/16			M75 x 1.5/16			M90 x 2/20				M95 x 2/20			M115 x 2/22			
Piston thread/depth	G2	M75 x 2/19			M85 x 2/19			M102 x 2/23				M110 x 2/23			M132 x 2/25			
Piston stroke	K	22			22			25				25			25			
max.	L	25	42	44	25	42	44	28	28	45	47	28	52	47	28	28	47	49
	M	52			66			78				86			104			
Fixing bolt circle	N	133.4	133.4	171.4	133.4	133.4	171.4	133.4	171.4	133.4	171.4	171.4	133.4	171.4	171.4	235	171.4	235
Fixing bolt	O	M12	M12	M16	M12	M12	M16	M12	M16	M12	M16	M16	M12	M16	M16	M20	M16	M20
	P	72			82			95				105			130			
	Q	261			271			318				322			376			
Thread/thread depth	R1	M10/12			M10/12			M10/12				M10/18			M10/12			
Thread/thread depth	R2	M6/10			M6/10			M8/14				M8/14			M10/12			
	S	6			6			6				6			6			
Base jaw tooth pitch	a	28			28			35				35			50			
Base jaw offset	r	28.3			33			33				38.5			49.5			
Base jaw offset	teeth	6			7			6				7			9			
	α°	60			60			60				60			60			
	β°	60			60			60				60			60			
Stroke per jaw at piston stroke K max.	mm	6.0			6.0			7.0				7.0			7.0			
max. actuating force 3-jaw chuck	kN	53			53			70				70			95			
max. total gripping force 3-jaw chuck	kN	100			100			135				135			180			
max. speed 3-jaw chuck	r.p.m	5000			5000			4000				4000			3300			
Weight without jaws	kg	24	26	26	26	29	29	40	40	43	43	48	53	50.7	65	65	68	68
Moment of inertia	kg·m ²	0.11			0.21			0.38				0.41			0.85			
rec. closed center cylinder	Type	SIN-S 125/150			SIN-S 125/150			SIN-S 150/175				SIN-S 150/175			SIN-S 150/175/200			
rec. open center cylinder	Type	VNK 130-52			VNK 150-67			VNK 170-77				VNK 225-95			VNK 250-110			

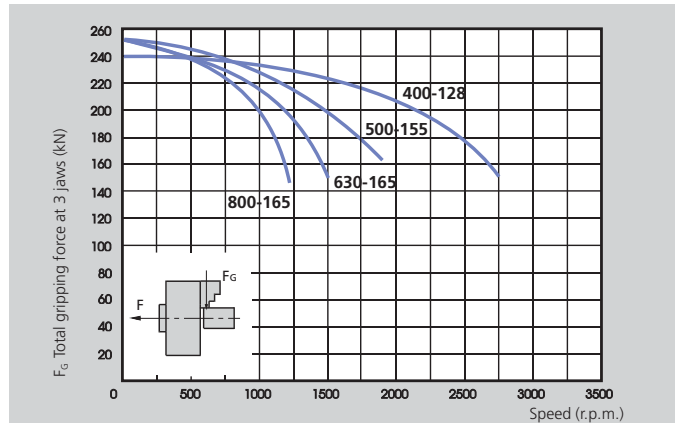
* Indirect mounting by reducing flange

Main dimensions and technical data

For highest 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:

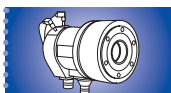
When using taller/heavier jaws and/or clamping on a bigger diameter reduce draw pull/rotating speed accordingly.

SMW-AUTOBLOK Type		KNCS-NB 340-117			KNCS-NB 400-128				KNCS-NB 500-155				KNCS-NB 630-165			KNCS-NB 800-165		
Mounting	Size	Z300	A8*	A11	Z300	Z380	A11	A15	Z300	Z380	A11	A15	Z380	A11*	A15	Z520	A15*	A20
	A		340			400				500				630			800	
	B	130	160	151	140	140	161	163	174	174	195	197	174	214	197	174	214	199
H6	D	300	139.73	196.88	300	380	196.88	285.77	300	380	196.88	285.77	380	196.88	285.77	520	285.77	412.8
	E		270			330				420				420/585			420/585/750	
	F		160			180				207				217			217	
Threaded ring/depth	G1	M125 x 2/22			M138 x 2/22				M165 x 2/25				M175 x 2/25			M175 x 2/25		
Piston thread/depth	G2	M146 x 2/25			M160 x 2/25				M185 x 2/28				M195 x 2/28			M195 x 2/28		
Piston stroke	K	25			32				42				42			42		
max.	L	28	58	49	32	32	53	55	42	42	63	65	42	82	65	42	82	67
	M	117			128				155				165			165		
Fixing bolt circle	N	235	171.4	235	235	330.2	235	330.2	235	330.2	235	330.2	330.2	235*	330.2	463.6	330.2*	463.6
Fixing bolt	O	M20	M16	M20	M20	M24	M20	M24	M20	M24	M20	M24	M24	M20*	M24	M24	M24*	M24
	P	140			152				180				195			195		
	Q	380			455				554				650			817		
Thread/thread depth	R1	M10/16			M12/18				M16/25				M16/25			M16/25		
Thread/thread depth	R2	M10/16			M12/18				M12/18				M12/18			M12/18		
	S	6			8				8				8			8		
	a	50			50				62				75			75		
Base jaw tooth pitch	mm	5.5			5.5				7				7			7		
Base jaw offset	r	49.5			60.5				77				91			91		
Base jaw offset	teeth	9			11				11				13			13		
	α°	60/35			60/35				20/9x40				20/9x40			20/9x40		
	β°	60/35			60/35				20/9x40				20/9x40			20/9x40		
Stroke per jaw at piston stroke K max.	mm	7.0		25	8.0		32		10.0		42		10.0		42	10.0		42
max. actuating force 3-jaw chuck	kN	95			115				120				120			120		
max. total gripping force 3-jaw chuck	kN	180			240				250				250			250		
max. speed 3-jaw chuck	r.p.m	3300			2750				1800				1500			1200		
Weight without jaws	kg	77	88.5	82.5	111	111	116	116	225	225	231	231	390	411	398	620	660	635
Moment of inertia	kg·m ²	1.24			2.5				6.5				18			27		
rec. closed center cylinder	Type	SIN-S 150/175/200			SIN-S 175/200				SIN-S 175/200				SIN-S 175/200			SIN-S 175/200		
rec. open center cylinder	Type	VNK 320-127			VNK 320-127				VSG 450-165				VSG 450-165			VSG 450-165		

* Indirect mounting by reducing flange



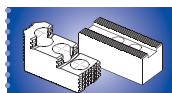
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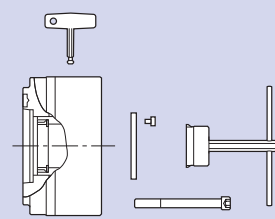
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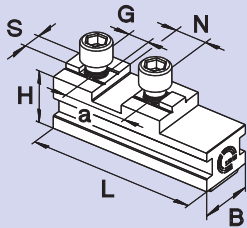


Size Spindle mounting	KNCS-NB 210-52	KNCS-NB 225-66	KNCS-NB 260-78	KNCS-NB 275-86	KNCS-NB 325-104	KNCS-NB 340-117	KNCS-NB 400-128	KNCS-NB 500-155	KNCS-NB 630-165	KNCS-NB 800-165
Centering rim small			Z170 064645		Z220 064695		Z300 064303	Z300 064306		
Centering rim large	Z170 064334	Z170 069790	Z220 064646	Z220 069660	Z300 064715	Z300 069665	Z380 063950	Z380 064307	Z380 064548	Z520 064579
A 05										
A 06	064610	069791	064669	069661						
A 08	064611	069792	064670	069662	064716 064723	069666 069667				
A 11							064304	064308	064577	
A 15							064305	064309	064549	064615
A 20										064616

Supply range:

Chuck + disengaging key + mounting bolts + mounting key + set of coverplates without base jaws, without top jaws

Base jaw type

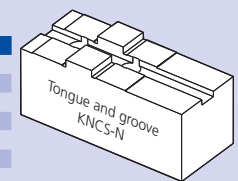


GBK-B

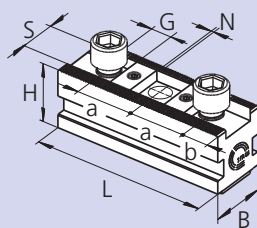
KNCS-N standard tongue & groove

KNCS-NB	210-52/225-66	260-78/275-86	325-104/340-117	400-128	500-155	630-165	800-165
Id. No.	138494	039624	039626	039629	035565	035902	064604
B	28	35	50	50	62	75	75
H	32	40	45.8	45.8	57	57	57
L	85	104	115	125	160	200	287
N	20	20	20	26	30	30	30
S	10	12	12	12	18	18	18
G (metric)	M8	M12	M12	M12	M16	M16	M16
a	40	40	40	54	60	60	60

Existing top jaw



Base jaw type

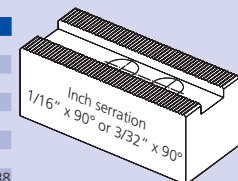


GBK-BD

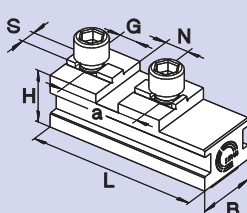
Inch serrated (for SMW-AUTOBLOK standard jaws)

KNCS-NB	210-52/225-66	260-78/275-86	325-104/340-117	400-128	500-155	630-165	800-165
Id. No.	036292	035704	036167	036293	036294	036295	036296
B	28	35	50	50	62	75	75
H	32	40	45.8	45.8	61	61	61
L	85	104	115	125	160	200	287
N	1/16" x 90°	1/16" x 90°	1/16" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
S (ridge)	17	21	21	25.5	25.5	25.5	25.5
G	M12	M16	M16	M20	M20	M20	M20
a	2 x 23	30/28	30/28	2 x 38	38/49/38	38/38/52/38	3x38/60, 7/2x38
b	11	14	14	17	17	18	17.5

Existing top jaw



Base jaw type

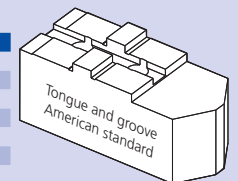


GBK-BA

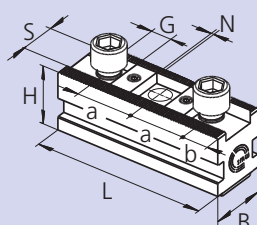
American standard tongue & groove

KNCS-NB	210-52/225-66	260-78/275-86	325-104/340-117	400-128	500-155	630-165	800-165
Id. No.	-	-	039628	039631	060561	060562	064590
B	-	-	50	50	62	75	75
H	-	-	45.8	45.8	57	57	57
L	-	-	120	146	168	203	287
N	-	-	19.02	19.02	19.02	19.02	19.02
S	-	-	12.7	12.7	12.7	12.7	12.7
G (inch)	-	-	5/8-11	3/4-10	3/4-10	3/4-10	3/4-10
a	-	-	63.5	76.2	76.2	76.2	76.2

Existing top jaw



Base jaw type

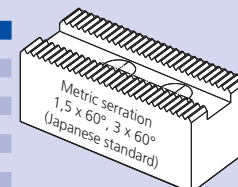


GBK-BM

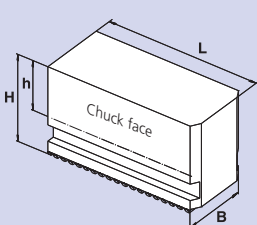
Metric serration

KNCS-NB	210-52/225-66	260-78/275-86	325-104/340-117	400-128	500-155	630-165	800-165
Id. No.	035566	035567	035568	035569	035570	035917	036708
B	28	35	50	50	62	75	75
H	32	40	45.8	45.8	61	61	61
L	85	104	115	125	160	200	287
N	1.5 x 60°	1.5 x 60°	1.5 x 60°	1.5 x 60°	3 x 60°	3 x 60°	3 x 60°
S	14	16	21	22	25	25	25
G (metric)	M12	M12	M16	M20	M20	M20	M20
a	2 x 25	2 x 30	2 x 30	2 x 43	50/ 60	60/60/70, 5/60	4 x 60
b	11	11	14	17	17	17	17.5

Existing top jaw



Jaw type



UVB-B

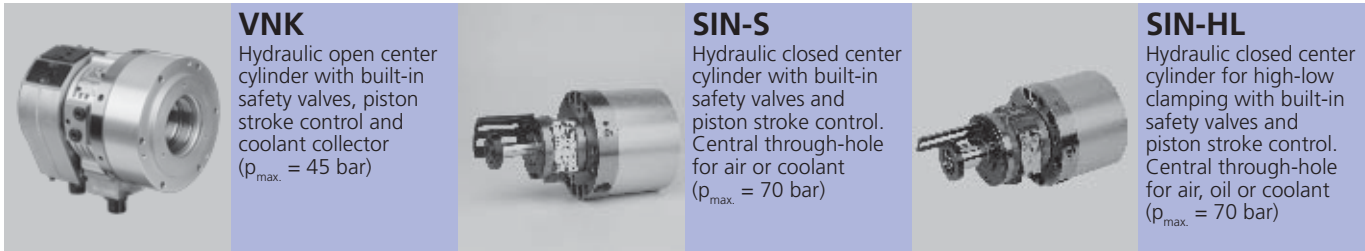
Soft wide monoblock jaws

KNCS-NB	210/225	260/275	325/340	400	500	630/800
Jaw type	UVB-B 210	UVB-B 250	UVB-B 315	UVB-B 400	UVB-B 500	UVB-B 630
Id. No.	534337	238910	238911	238740	238912	5301060
B	28	35	50	50	62	75
H	80	110	115	125	160	160
h	55	81	81	91	113	105
L	85	109.5	120	148	175	230
kg/set	5.1	5.9	11.9	17.6	32	61.5

- Recommended actuating cylinders
- Examples for assembly
- High-low clamping for thin-walled components

KNCS®-NB
KNCS®-NBX
 QUICK JAW CHANGE

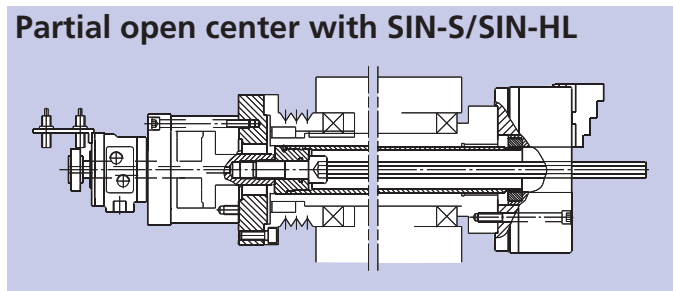
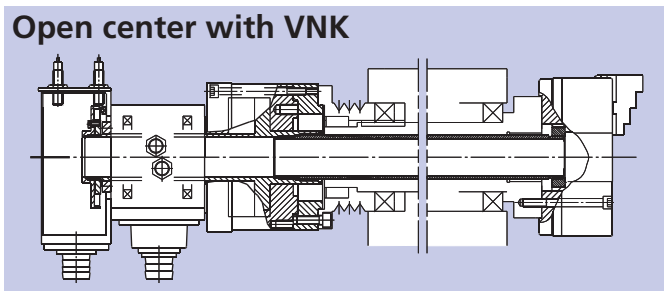
Actuating cylinders with and without through-hole



Type		VNK 130/52	VNK 170/77	VNK 225/95	VNK 320/127	VSG 450/165	SIN-S 125	SIN-S 150	SIN-S 175	SIN-S 200	SIN-HL 100	SIN-HL 125	SIN-HL 150	SIN-HL 175
Draw pull max	kN	58	76	100	123	138	71	108	150	196	49	77	108	154
$n_{max.}$	r.p.m.	6300	5000	4000	3200	2000	6000	6000	5000	4000	7000	6000	6000	5000
Through-hole	mm	52.5	77	95.5	127.5	165	—	—	—	—	—	—	—	—

For more information see page 225

Examples for assembly



High-low clamping for thin-walled components

