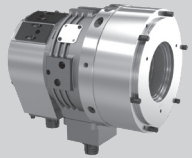


- Recommended actuating cylinders
- Examples for assembly
- High-low clamping for thin-walled components

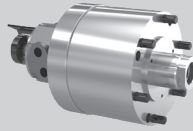
Actuating cylinders with and without through-hole

VNK-T2



Hydraulic open center cylinder with built-in safety valves, piston stroke control and coolant collector (pmax. = 45 bar)

SIN-S



Hydraulic closed center cylinder with built-in safety valves and piston stroke control. Central through-hole for air or coolant (pmax. = 70 bar)

SIN-HL



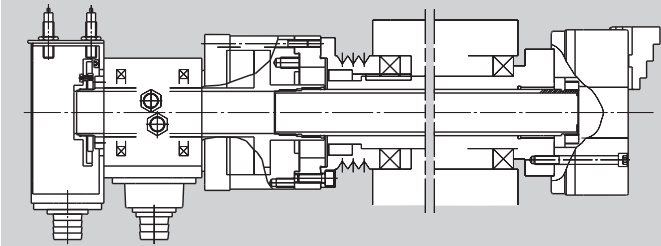
Hydraulic closed center cylinder for high-low clamping with built-in safety valves and piston stroke control. Central through-hole for air, oil or coolant (pmax. = 70 bar)

SMW-AUTOBLOK Type		VNK-T2 130/52	VNK-T2 170/77	VNK-T2 225/95	VNK-T2 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	-	-	-	-	-	-	-	-

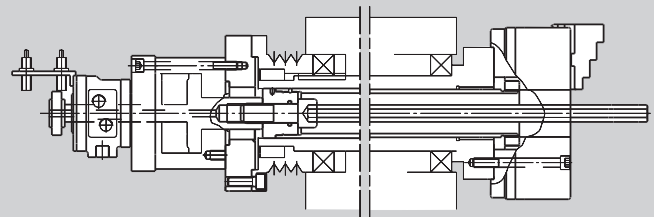
For more technical information see general catalog page 327.

Examples for assembly

Open center with VNK-T2

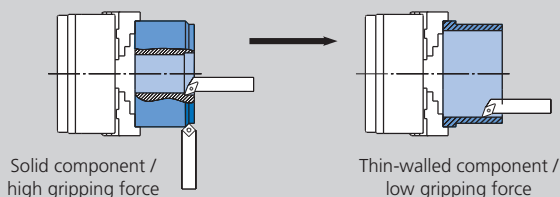


Partial open center with SIN-S / SIN-HL



High-low clamping for thin-walled components

Principle

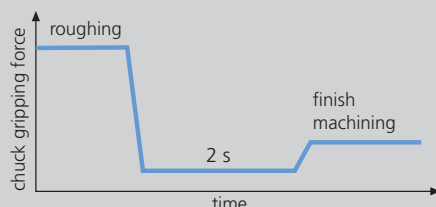


For easily deformable components SMW-AUTOBLOK offers "high-low" clamping.

The gripping force of the chuck can be reduced from a large amount of gripping force used in roughing, to a smaller amount of gripping force for a finishing cut without unclamping the component.

The SMW-AUTOBLOK closed center cylinder type SIN-HL and a modification of the machine hydraulic are necessary.

Function



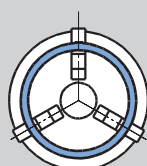
In combination with a SMW-AUTOBLOK "high-low" hydraulic cylinder SIN-HL and suitable machine hydraulics, the KNCS-NB / KNCS-NBX wedge bar system allows a monitored reduction of gripping force.

The component remains clamped in the chuck, however, the stress of the component can be released. The "high-low" cycle is programmable and is finished completely within 2 - 4 sec.

Result



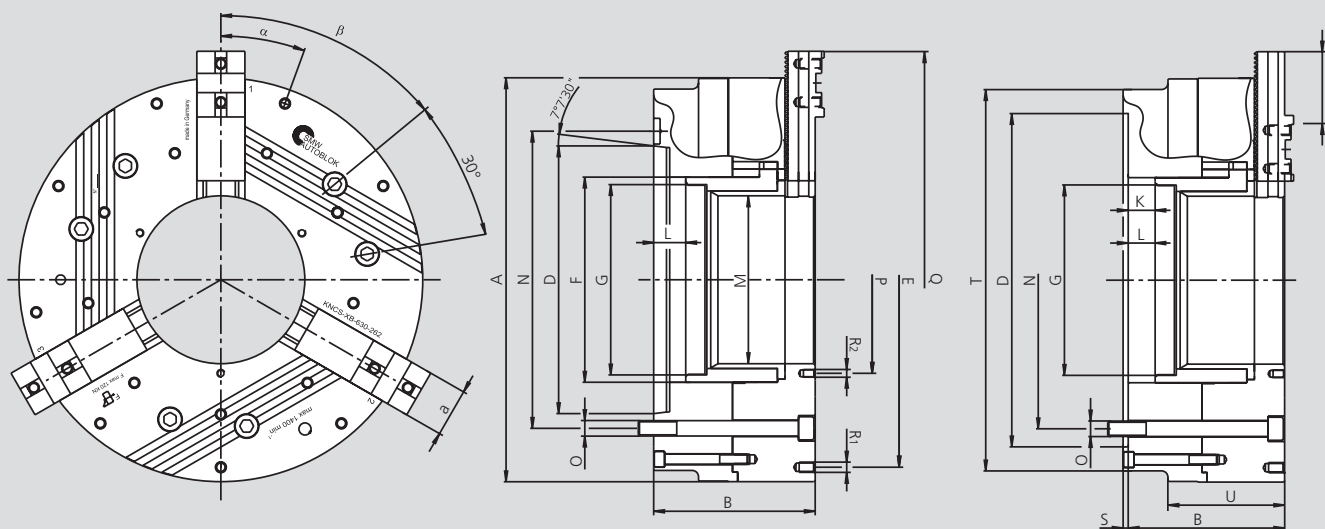
Without "high-low" clamping



With "high-low" clamping

The result are round components with a minimum of deformation.

For additional information please ask our engineers.



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

SMW-AUTOBLOK Type		KNCS-NBX 425-170			KNCS-NBX 530-210			KNCS-NBX 630-262			KNCS-NBX 800-262			KNCS-NBX 1000-262		
Mounting	Size	Z380	A11	A15	Z380	A11	A15	Z520	A15	A20	Z520	A15	A20	Z520	A15*	A20
	A		425			530			630			800			1000	
	B	197	237	220	244	284	267	244	284*	269	244	284*	269	244	284*	269
	D H6	380	196.88	285.77	380	196.88	285.77	520	285.77	412.77	520	285.77	412.77	520	285.77	412.77
	E		330.2			420			420 / 585			420 / 585 / 750			420 / 585 / 750 / 915	
	F		222			262			320			320			320	
Piston thread / depth	G		M202 x 2 / 25			M240 x 2 / 28			M297 x 2 / 33			M297 x 2 / 33			M297 x 2 / 33	
Piston stroke	K		32			42			42			42			42	
Max.	L	32	72	55	42	82	55	42	82	67	42	82	67	42	82	67
	M		170			210			262			262			262	
Fixing bolt circle	N	330.2	235.0	330.2	330.2	235.0	330.2	463.6	330.2*	463.6	463.6	330.2*	463.6	463.6	330.2*	463.6
Fixing bolt	O	M24	M20	M24	M24	M20	M24	M24	M24*	M24	M24	M24*	M24	M24	M24*	M24
	P		195			235			292			292			292	
	Q		487			598			745			915			1107	
Thread / thread depth	R1		M12 / 16			M16 / 25			M16 / 25			M16 / 25			M16 / 25	
Thread / thread depth	R2		M12 / 16			M16 / 25			M12 / 18			M12 / 18			M12 / 18	
	S		8			8			8			8			8	
	T		412			490			595			600			600	
	U		137			167			182			182			182	
	a		50			62			75			75			75	
Base jaw tooth pitch	-		5.5			7			7			7			7	
Base jaw offset	r		49.5			70			119			133			133	
Number of jaws	teeth		9			10			17			19			19	
α	deg.		15° / 12 x 30°			20° / 9 x 40°			20° / 9 x 40°			20° / 9 x 40°			20° / 9 x 40°	
β	deg.		60			60			60			60			60	
Stroke per jaw at piston stroke K max.	mm	8		32	10		42	10		42	10		42	10		42
Max. actuating force 3-jaw chuck	kN		115			120			120			120			120	
Max. total gripping force 3-jaw chuck	kN		240			250			250			250			250	
Max. speed 3-jaw chuck	r.p.m.		2500			1500			1400			1000			850	
Weight without jaws	kg		164			320			395			635			985	
Moment of inertia	kg·m²		4.3			13			23			54			125	
Rec. closed center cylinder	Type		SIN-S 175 / 200			SIN-S 175 / 200			SIN-S 175 / 200			SIN-S 175 / 200			SIN-S 175 / 200	
Rec. open center cylinder	Type		VSG 450-165			VSG 550-205			VSG 550-205			VSG 550-205			VSG 550-205	

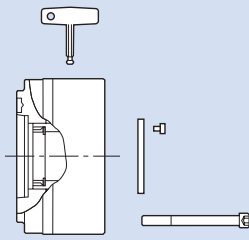
* Indirect mounting by reducing flange.



JAWS-CATALOG

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■ Ordering review



Spindle mounting	Size	KNCS-NBX 425-170	KNCS-NBX 530-210	KNCS-NBX 630-262	KNCS-NBX 800-262	KNCS-NBX 1000-262
Centering rim large		Z380	Z380	Z520	Z520	Z520
A 11		160080	160090	069760	069770	069780
A 15		160081	160091			
A 20		160082	160092	069768	069778	069788
				069769	069779	069789

Supply range

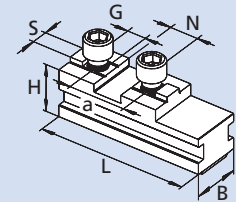
Chuck + disengaging key + mounting bolts + mounting key + set of coverplates, without base jaws, without top jaws

Base jaw type

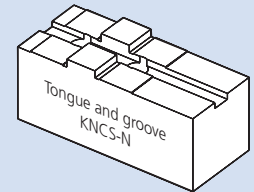
GBK-B

TONGUE & GROOVE KNCS-N standard

Existing top jaw



KNCS-NBX	425-170	530-210	630-262	800-262	1000-262
Id. No.	039629	035565	035902	064604	069806
B	50	62	75	75	75
H	45.8	57	57	57	57
L	125	160	200	286	384
N	26	30	30	30 (2x)	30 (3x)
S	12	18	18	18	18
G (metric)	M12	M16	M16	M16	M16
a	54	60	60	2 x 60	60

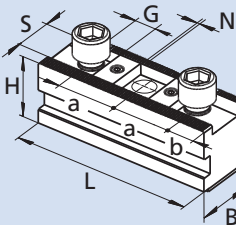


Base jaw type

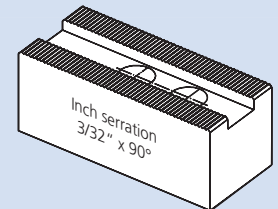
GBK-BD

INCH SERRATED (for SMW-AUTOBLOK standard jaws)

Existing top jaw



KNCS-NBX	425-170	530-210	630-262	800-262	1000-262
Id. No.	036293	036294	036295	036296	-
B	50	62	75	75	-
H	45.8	61	61	61	-
L	125	160	200	287	-
N	3/32" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°	-
S (ridge)	25.5	25.5	25.5	25.5	-
G	M20	M20	M20	M20	-
a	2 x 38	38 / 49 / 38	38 / 38 / 52 / 38	38 / 38 / 60.7 / 2 x 38	-
b	17	17	18	17.5	-

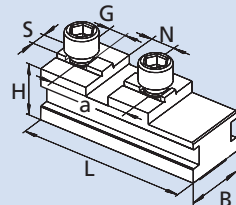


Base jaw type

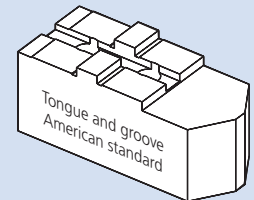
GBK-BA

TONGUE & GROOVE American standard

Existing top jaw



KNCS-NBX	425-170	530-210	630-262	800-262	1000-262
Id. No.	039631	060561	060562	064590	069807
B	50	62	75	75	75
H	45.8	57	57	57	57
L	146	168	203	286	384
N	19.02	19.02	19.02	19.02 / (2x)	19.02 / (3x)
S	12.7	12.7	12.7	12.7	12.7
G (inch)	3/4-10	3/4-10	3/4-10	3/4-10	3/4-10 / (4x)
a	76.2	76.2	76.2	2 x 76.2	76.2 / (3x)

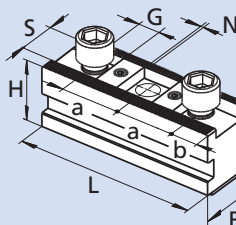


Base jaw type

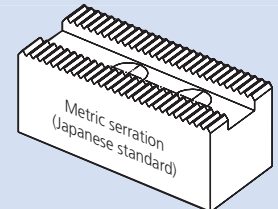
GBK-BM

METRIC SERRATION

Existing top jaw



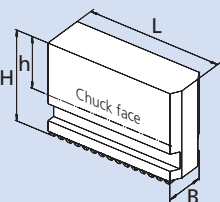
KNCS-NBX	425-170	530-210	630-262	800-262	1000-262
Id. No.	035569	035570	035917	036708	-
B	50	62	75	75	-
H	45.8	61	61	61	-
L	125	160	200	287	-
N	1.5 x 60°	3 x 60°	3 x 60°	3 x 60°	-
S	22	25	25	25	-
G (metric)	M20	M20	M20	M20	-
a	2 x 43	50 / 60	60 / 60 / 70.5 / 60	4 x 60	-
b	17	17	17	17.5	-



Jaw type

UVB-B

Soft wide monoblock jaws



KNCS-NBX	425	530	630 / 800 / 1000
Jaw type	UVB-B 400	UVB-B 500	UVB-B 630
Id. No.	238740	238912	5301060
B	50	62	75
H	125	160	160
h	60	105	105
L	148	175	230
kg / set	20.7	38.8	61.5

JAWS-CATALOG

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