

SIN-HL

Closed center
rotating hydraulic cylinder

- HIGH-LOW CLAMPING
- up to 70 bar
- central bore for media supply
- stroke control via proximity switch or linear positioning system



Application/customer benefits

- Actuation of power chucks used for high-low clamping of thin-walled components in combination with SMW-AUTOBLOK chucks type KNCS-N, KNCS-NB, HFK-N or TS
- Closed or partial open center mounting applications

Technical features

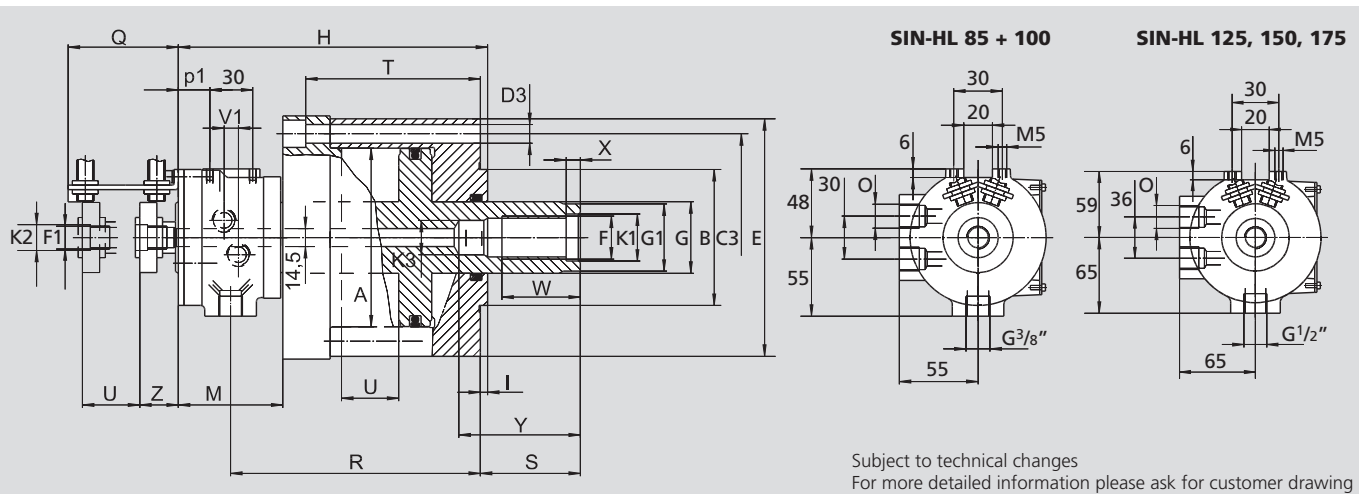
- Symmetric piston areas for high-low clamping
- Pressure range 8–70 bar
- Horizontal or vertical installation
- Safety valves and excess pressure relief valve
- Central bore for coolant, oil or air with thread for rotary union
- Mounting from the rear side with bolts
- Stroke control via proximity switch or linear positioning system
- A 10 µm filter in pressure line is requested
- Use oil HM32 ISO 3448

Standard equipment

Closed center hydraulic cylinder with stroke control and mounting bolts (without proximity switch)

Ordering example

Closed center cylinder
SIN-HL 150 ld. No. 33093812
with rotary union (optional)



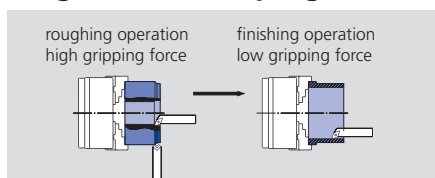
Dimensions and technical data

SMW-AUTOBLOK Type	Id. No.	A	B	C ₃	D ₃	E	F	F ₁	G	G ₁	H	I	K ₁	K ₂	K ₃	M	O	Q
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	inch	mm
SIN-HL 85	33093809	85	80	120	11	140	M24	M16x1.5 LH	32	30 x 10	192	5	25	18	18	75	G3/8"	77
SIN-HL 100	33093810	100	80	120	11	140	M24	M16x1.5 LH	32	30 x 10	192	5	25	18	18	75	G3/8"	77
SIN-HL 125	33093812	125	95	145	13	166	M30	M16x1.5 LH	40	38 x 12	231	5	31	18	24	93	G1/2"	97
SIN-HL 150	33093815	150	95	170	13	192	M36	M16x1.5 LH	50	48 x 12	237	5	37	18	28	97	G1/2"	97
SIN-HL 175	33093817	175	125	195	13	217	M36	M16x1.5 LH	50	48 x 12	259	5	37	18	28	97	G1/2"	97

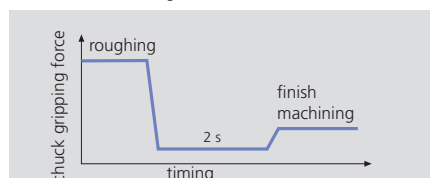
SMW-AUTOBLOK Type	R	S	T	U	V ₁	W	X	Y	Z	p ₁	Piston area	Max. pressure	Draw	Oil*	Max. speed	Weight	Moment of inertia
	mm	max. mm	mm	Stroke mm	mm	mm	mm	mm	mm	mm	cm ²	bar	(at 40 bar) kN	dm ³ /min.	r.p.m.	kg	kg·m ²
SIN-HL 85	149.5	47	95	32	10	40	10	62	27	23	49	70	19	1.5	7000	11	0.016
SIN-HL 100	149.5	47	95	32	10	45	10	62	27	23	70	70	28	1.5	7000	11	0.016
SIN-HL 125	181	70	121	40	12	55	10	75	27	37	110	70	44	1.5	6000	18	0.045
SIN-HL 150	183	70	121	40	12	55	10	75	27	41	157	70	62	1.5	6000	23	0.092
SIN-HL 175	205	72	143	52	12	55	10	75	27	41	220	70	88	1.5	5000	30	0.15

*Total at 30 bar and 50°C

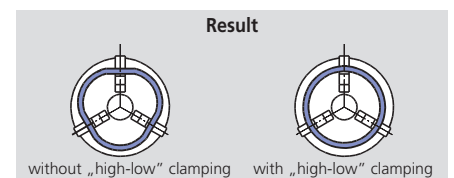
„High-low“ clamping for thin-walled components



For easily deformed 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.



The combination between the SIN-HL cylinder and a SMW-AUTOBLOK „high-low“ suitable chuck allows a monitored reduction in the gripping force. The component remains clamped in the chuck safely, however, the stress of the component can be released.



The result are round components with a minimum of deformation. The „high-low“ cycle is programmable and is finished completely within 2-4 sec.

For additional information please ask our engineers.