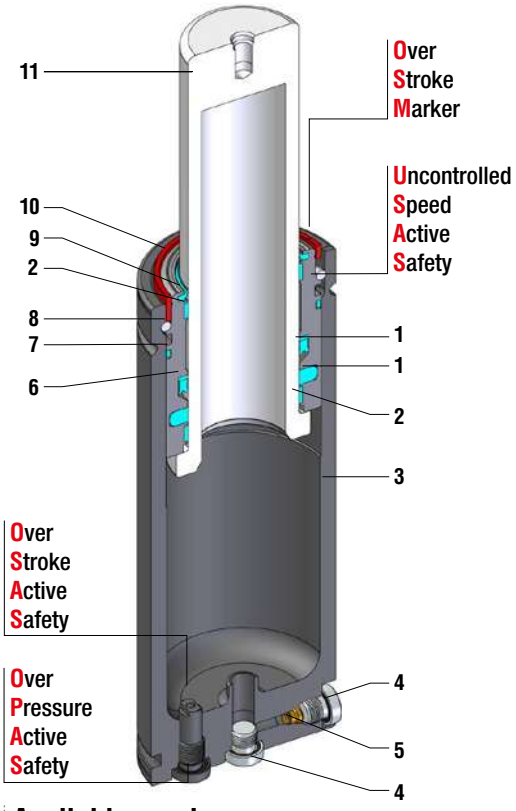
GSSH series

ISO	VDI	BMW
FCA	VW	

ISO standard, high force - ISO Standard, erhöhte Kraft
Standard ISO, force majorée - ISO standard, fuerza potenciada - Norma ISO, força permitida



1	Rod seal
2	Guide ring
3	Body
4	Plug
5	Valve
6	Back-up ring
7	Dual ring
8	Retaining ring
9	Rod wiper
10	Bush
11	Rod (nitrited superfinished)

SEALING	ROD SEAL
DESIGN	BUSH - BODY DESIGN

Available versions

Standard code

Self contained

Add "-W" to standard code

Self contained

+

Secondary wiper

Add "-N" to standard code

Linkable

Add "-N-W" to standard code

Linkable

+

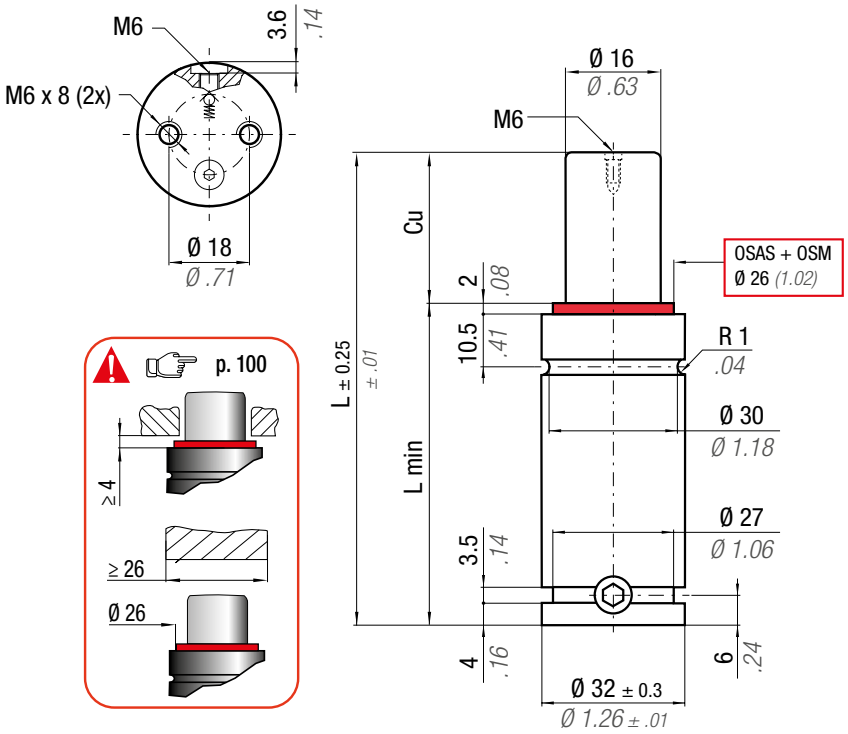
Secondary wiper

Add "-E" to standard code

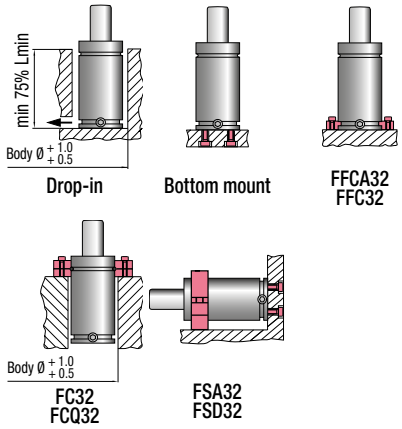
Easy Manifold

Order Callout Example:
GSSH2400-50
GSSH2400-50-W
GSSH2400-50-N
GSSH2400-50-N-W
GSSH2400-50-E

Model	Body Ø		Stroke Cu		Initial force F0		OSAS	USAS	OPAS	SKUDO
	mm	inch	mm	inch	daN	lb				
GSSH300	32	1.26	10 - 125	0.39 - 4.92	300	674	✓	✓	✓	-
GSSH500	38	1.50	10 - 125	0.39 - 4.92	470	1057	✓	✓	✓	-
GSSHF500	M 38 X 1.5	M 38 X 1.5	10 - 125	0.39 - 4.92	470	1057	✓	✓	✓	-
GSSH700	45	1.77	10 - 160	0.51 - 6.30	680	1529	✓	✓	✓	-
GSSH1000	50	1.97	13 - 300	0.51 - 11.81	920	2383	✓	✓	✓	-
GSSH1500	63	2.48	13 - 300	0.51 - 11.81	1530	3440	✓	✓	✓	-
GSSH2400	75	2.95	25 - 300	0.98 - 11.81	2385	5362	✓	✓	✓	-
GSSH4200	95	3.74	25 - 300	0.98 - 11.81	4240	9532	✓	✓	✓	-
GSSH6600	120	4.72	25 - 300	0.98 - 11.81	6630	14905	✓	✓	✓	-
GSSH9500	150	5.91	25 - 300	0.98 - 11.81	9540	21446	✓	✓	✓	-
GSSH18500	195	7.68	25 - 300	0.98 - 11.81	18400	41365	✓	✓	✓	-



Fixings



OSAS + OSM = OVER STROKE ACTIVE SAFETY + OVER STROKE MARKER

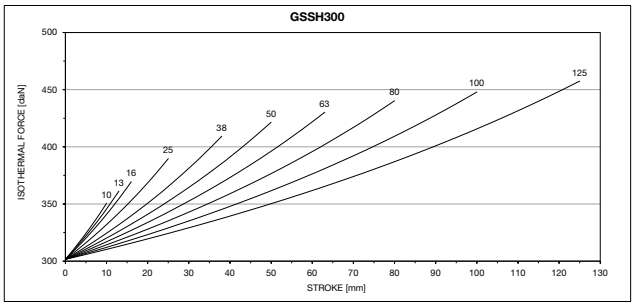
*** $F1_i$ =** Isothermal end force at 100% Cu p. 16

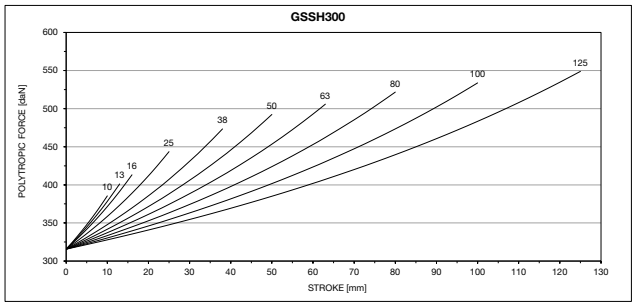
**** $F1_p$ =** Polytrophic end force at 100% Cu

N_2	°F 32 - 176 / °C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
		± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	2.01 cm² *0.312 in²*	~ 30 ÷ 100 (at 20°C)	1.8 m/s	GSRK-39BMRV00350C

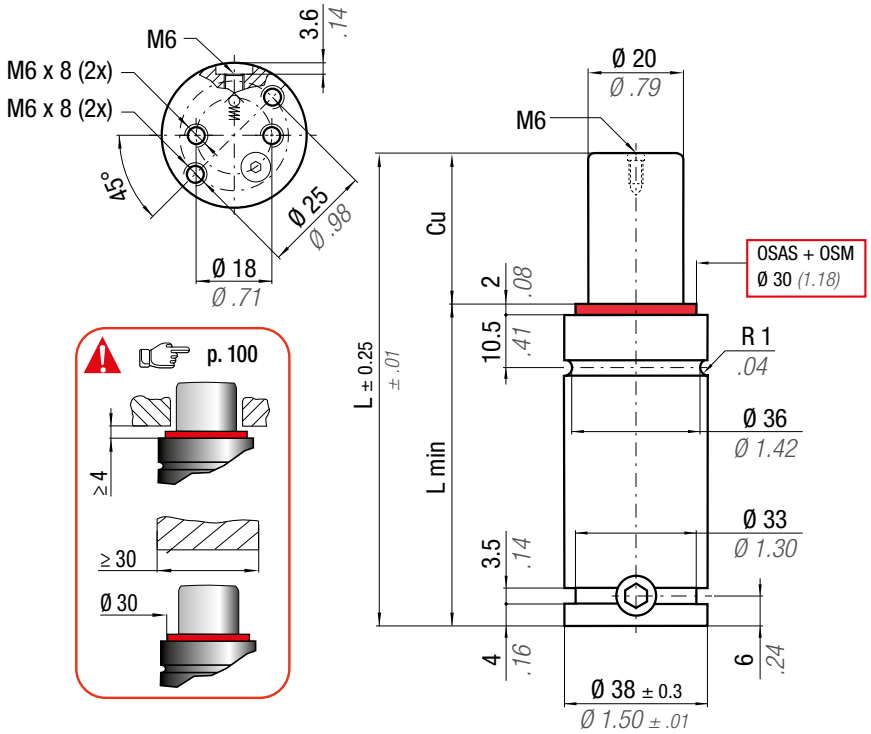
CALLOUT	Cu		L		L min		F0 Initial force		$F1_i$ * End force		$F1_p$ ** End force		V0				PED 2014/68/EU
	mm	*inch*	mm	*inch*	mm	*inch*	daN	*lb*	daN	*lb*	daN	*lb*	cm³	*in³*	~Kg	~lb	
GSSH300-10	10	*0.39*	70	*2.76*	60	*2.36*	300 ± 5%	*674*	350	*787*	385	*865*	17.0	*1.04*	0.22	*0.49*	✓
GSSH300-13	13	*0.51*	75.7	*2.98*	62.7	*2.47*			361	*811*	400	*900*	19.0	*1.16*	0.23	*0.51*	✓
GSSH300-16	16	*0.63*	82	*3.23*	66	*2.60*			369	*829*	412	*927*	21.0	*1.28*	0.24	*0.53*	✓
GSSH300-25	25	*0.98*	100	*3.94*	75	*2.95*			389	*875*	443	*995*	26.0	*1.59*	0.26	*0.57*	✓
GSSH300-38	38	*1.50*	126	*4.96*	88	*3.46*			409	*919*	473	*1062*	34.0	*2.07*	0.31	*0.68*	✓
GSSH300-50	50	*1.97*	150	*5.91*	100	*3.94*	150 bar *2175 psi*		421	*947*	492	*1105*	41.0	*2.50*	0.35	*0.77*	✓
GSSH300-63	63	*2.48*	176.5	*6.95*	113.5	*4.47*			430	*966*	505	*1136*	49.0	*2.99*	0.39	*0.86*	✓
GSSH300-80	80	*3.15*	210	*8.27*	130	*5.12*	+ 20 °C *+68 °F*		440	*989*	521	*1171*	59.0	*3.60*	0.44	*0.97*	✓
GSSH300-100	100	*3.94*	250	*9.84*	150	*5.91*			448	*1006*	533	*1199*	71.0	*4.33*	0.51	*1.12*	✓
GSSH300-125	125	*4.92*	300	*11.81*	175	*6.89*			454	*1022*	544	*1223*	86.0	*5.25*	0.59	*1.30*	✓

Order Callout Example:
GSSH300-50
GSSH300-50-N
GSSH300-50-CP

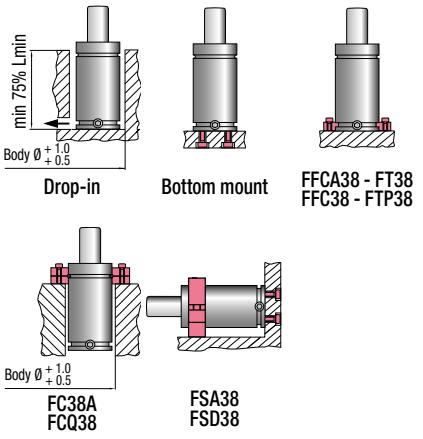




GSSH 500



Fixings



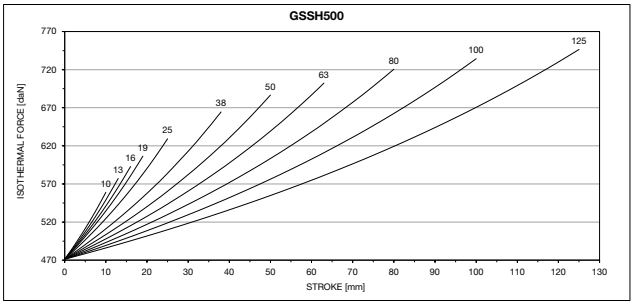
OSAS + OSM = OVER STROKE ACTIVE SAFETY + OVER STROKE MARKER

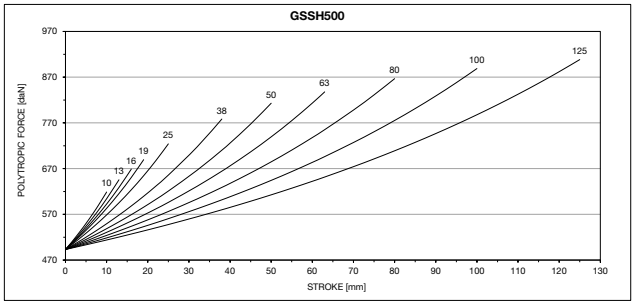
*** $F1_i$ =** Isothermal end force at 100% Cu p. 16 **** $F1_p$ =** Polytrophic end force at 100% Cu

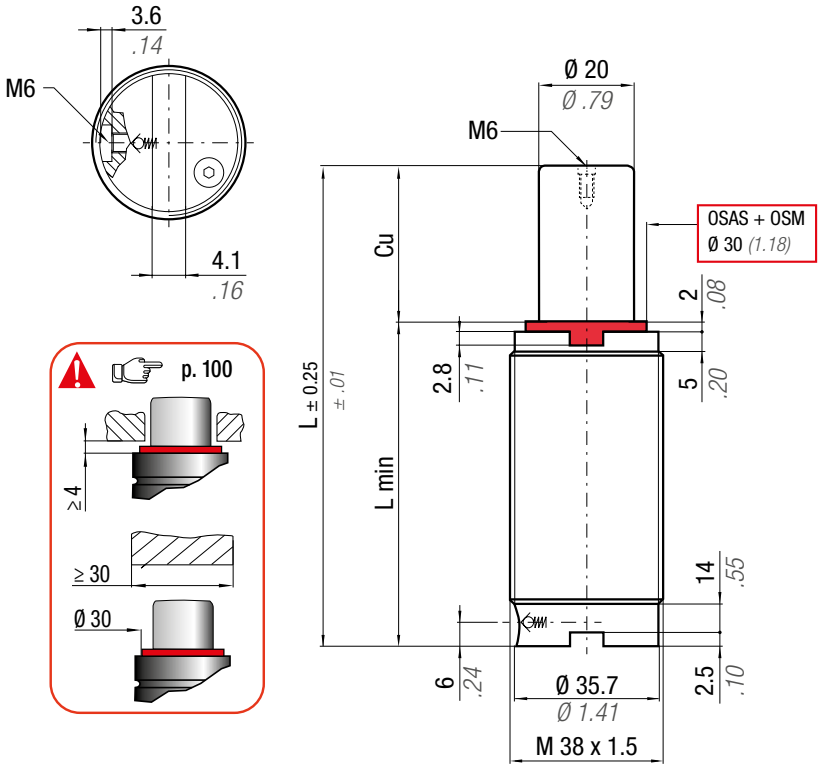
N_2	°F 32 - 176 / °C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
		± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	3.14 cm² *0.487 in²*	~ 30 - 100 (at 20°C)	1.8 m/s	GSRK-39BMRV00500C

CALLOUT	Cu mm	Cu inch	L mm	L inch	L min mm	L min inch	Fo Initial force daN	Fo lb	$F1_i$ * End force daN	$F1_i$ * lb	$F1_p$ ** End force daN	$F1_p$ ** lb	Vo cm³	Vo in³	~Kg	~lb	PED 2014/68/EU
GSSH500-10	10	0.39	70	2.76	60	2.36	470 ± 5%	1057	559	1257	619	1391	24.0	1.46	0.32	0.71	✓
GSSH500-13	13	0.51	75.7	2.98	62.7	2.47			578	1300	647	1455	26.0	1.59	0.33	0.73	✓
GSSH500-16	16	0.63	82	3.23	66	2.60			593	1333	669	1504	29.0	1.77	0.34	0.75	✓
GSSH500-19	19	0.75	88	3.46	69	2.72			606	1363	690	1550	31.0	1.89	0.36	0.79	✓
GSSH500-25	25	0.98	100	3.94	75	2.95			629	1415	724	1628	36.0	2.20	0.39	0.86	✓
GSSH500-38	38	1.50	126	4.96	88	3.46	150 bar *2175 psi*		664	1494	778	1750	48.0	2.93	0.45	0.99	✓
GSSH500-50	50	1.97	150	5.91	100	3.94			687	1544	813	1828	58.0	3.54	0.50	1.10	✓
GSSH500-63	63	2.48	176.5	6.95	113.5	4.47	+ 20 °C *+68 °F*		702	1579	838	1883	70.0	4.27	0.57	1.26	✓
GSSH500-80	80	3.15	210	8.27	130	5.12			721	1620	867	1948	84.0	5.12	0.64	1.41	✓
GSSH500-100	100	3.94	250	9.84	150	5.91			734	1651	889	1998	101.0	6.16	0.74	1.63	✓
GSSH500-125	125	4.92	300	11.81	175	6.89			746	1678	908	2042	123.0	7.50	0.86	1.90	✓

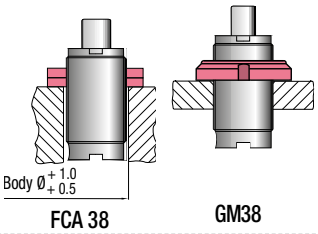
Order Callout Example:
GSSH500-50
GSSH500-50-N
GSSH500-50-CP







Fixings



OSAS + OSM = OVER STROKE ACTIVE SAFETY + OVER STROKE MARKER

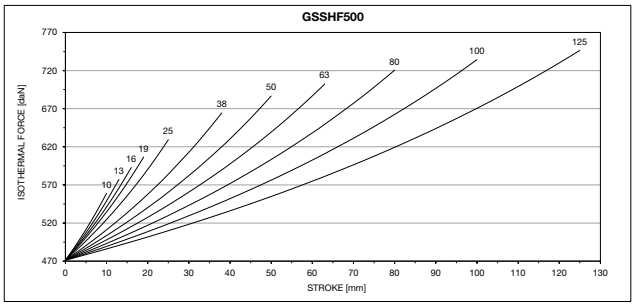
*** $F1_i$ =** Isothermal end force at 100% Cu p. 16

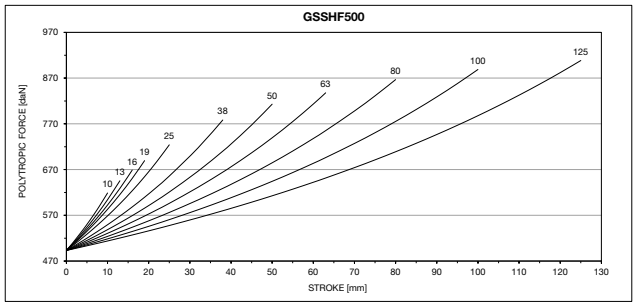
**** $F1_p$ =** Polytrophic end force at 100% Cu

N_2	°F 32 - 176 / °C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
		± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	3.14 cm² *0.487 in²*	~ 30 ÷ 100 (at 20°C)	1.8 m/s	GSRK-39BMRV00500B

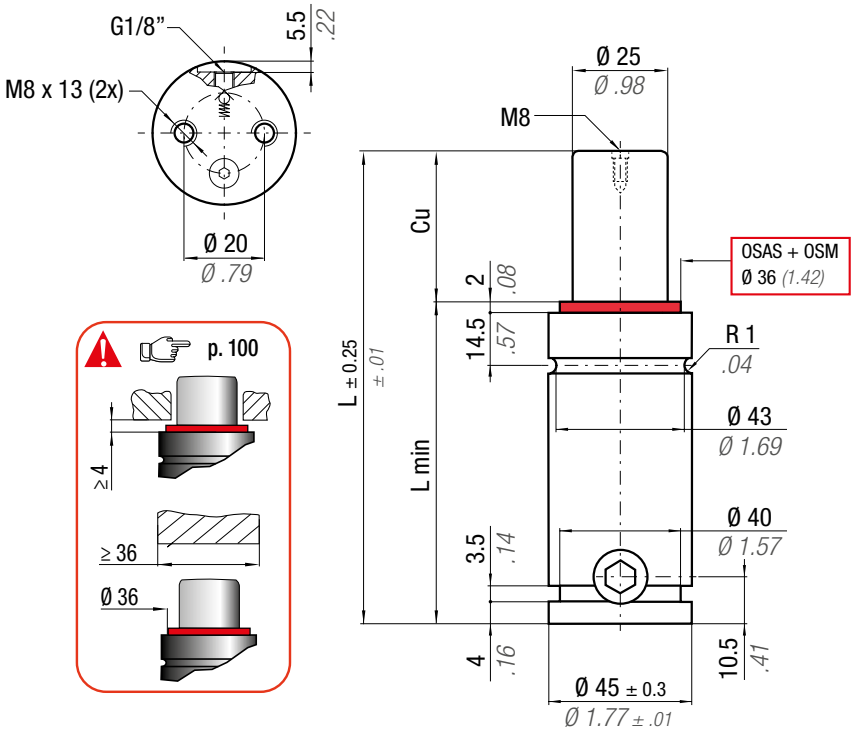
CALLOUT	Cu		L		L min		F0 Initial force		$F1_i$ * End force		$F1_p$ ** End force		V0				PED 2014/68/EU
	mm	*inch*	mm	*inch*	mm	*inch*	daN	*lb*	daN	*lb*	daN	*lb*	cm³	*in³*	~Kg	~lb	
GSSHF500-10	10	*0.39*	70	*2.76*	60	*2.36*			559	*1257*	619	*1391*	24.0	*1.46*	0.31	*0.68*	✓
GSSHF500-13	13	*0.51*	75.7	*2.98*	62.7	*2.47*			578	*1300*	647	*1455*	26.0	*1.59*	0.32	*0.71*	✓
GSSHF500-16	16	*0.63*	82	*3.23*	66	*2.60*			593	*1333*	669	*1504*	29.0	*1.77*	0.34	*0.75*	✓
GSSHF500-19	19	*0.75*	88	*3.46*	69	*2.72*	470 *1057* ± 5%		606	*1363*	690	*1550*	31.0	*1.89*	0.35	*0.77*	✓
GSSHF500-25	25	*0.98*	100	*3.94*	75	*2.95*			629	*1415*	724	*1628*	36.0	*2.20*	0.38	*0.84*	✓
GSSHF500-38	38	*1.50*	126	*4.96*	88	*3.46*	150 bar *2175 psi*		664	*1494*	778	*1750*	48.0	*2.93*	0.44	*0.97*	✓
GSSHF500-50	50	*1.97*	150	*5.91*	100	*3.94*			687	*1544*	813	*1828*	58.0	*3.54*	0.50	*1.10*	✓
GSSHF500-63	63	*2.48*	176.5	*6.95*	113.5	*4.47*	+ 20 °C *+68 °F*		702	*1579*	838	*1883*	70.0	*4.27*	0.56	*1.23*	✓
GSSHF500-80	80	*3.15*	210	*8.27*	130	*5.12*			721	*1620*	867	*1948*	84.0	*5.12*	0.64	*1.41*	✓
GSSHF500-100	100	*3.94*	250	*9.84*	150	*5.91*			734	*1651*	889	*1998*	101.0	*6.16*	0.73	*1.61*	✓
GSSHF500-125	125	*4.92*	300	*11.81*	175	*6.89*			746	*1678*	908	*2042*	123.0	*7.50*	0.85	*1.87*	✓

Order Callout Example:
GSSHF500-50
GSSHF500-50-N
GSSHF500-50-CP

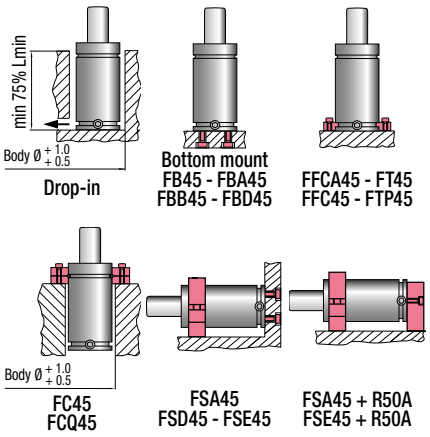




GSSH 700



Fixings



OSAS + OSM = OVER STROKE ACTIVE SAFETY + OVER STROKE MARKER

*** $F1_i$ =** Isothermal end force at 100% Cu p. 16

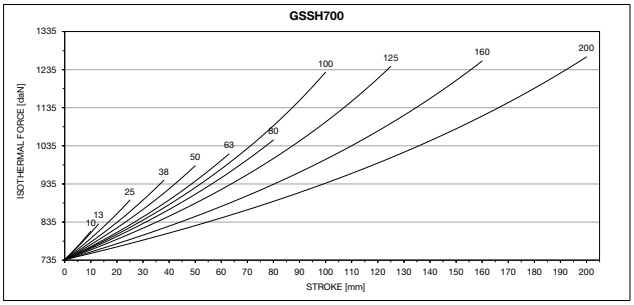
**** $F1_p$ =** Polytrophic end force at 100% Cu

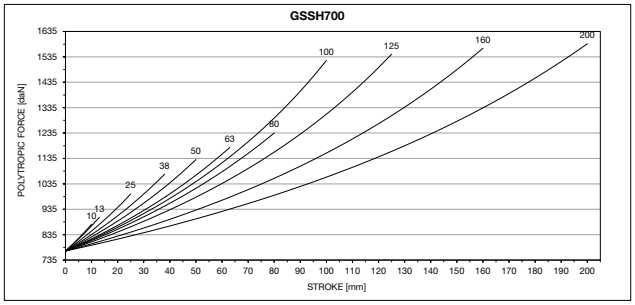
N2	°F 32 - 176	°C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
			± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	4.91 cm² *0.761 in²*	~ 20 ÷ 100 (at 20°C)	1.8 m/s	See Tab below

CALLOUT	Cu		L		L min		F0 Initial force		$F1_i$ * End force		$F1_p$ ** End force		V0				PED 2014/68/EU
	mm	*inch*	mm	*inch*	mm	*inch*	daN	*lb*	daN	*lb*	daN	*lb*	cm³	*in³*	~Kg	*~lb*	
GSSH700-10	10	*0.39*	105	*4.13*	95	*3.74*			811	*1823*	876	*1969*	63.0	*3.84*	0.90	*1.98*	✓
GSSH700-13	13	*0.50*	110.7	*4.35*	97.7	*3.85*			830	*1866*	904	*2032*	67.0	*4.09*	0.91	*2.01*	✓
GSSH700-25	25	*0.98*	135	*5.31*	110	*4.33*	740	*1664*	893	*2008*	995	*2237*	82.0	*5.00*	1.00	*2.20*	✓
GSSH700-38	38	*1.50*	161	*6.34*	123	*4.84*	± 5%		945	*2124*	1073	*2412*	99.0	*6.04*	1.09	*2.40*	✓
GSSH700-50	50	*1.97*	185	*7.28*	135	*5.31*			983	*2210*	1131	*2543*	114.0	*6.95*	1.17	*2.58*	✓
GSSH700-63	63	*2.48*	211.5	*8.33*	148.5	*5.85*	150 bar *2175 psi*		1014	*2280*	1179	*2650*	131.0	*7.99*	1.26	*2.78*	✓
GSSH700-80	80	*3.15*	245	*9.65*	165	*6.50*			1050	*2360*	1235	*2776*	152.0	*9.27*	1.37	*3.02*	✓
GSSH700-100	100	*3.94*	285	*11.22*	185	*7.28*	+ 20 °C *+68 °F*		1228	*2761*	1520	*3418*	140.0	*8.54*	1.51	*3.33*	✓
GSSH700-125	125	*4.92*	335	*13.19*	210	*8.27*			1244	*2796*	1546	*3475*	172.0	*10.49*	1.67	*3.68*	✓
GSSH700-160	160	*6.30*	405	*15.94*	245	*9.65*			1258	*2827*	1569	*3527*	217.0	*13.24*	1.91	*4.21*	✓

Order Callout Example:
GSSH700-50
GSSH700-50-N
GSSH700-50-CP

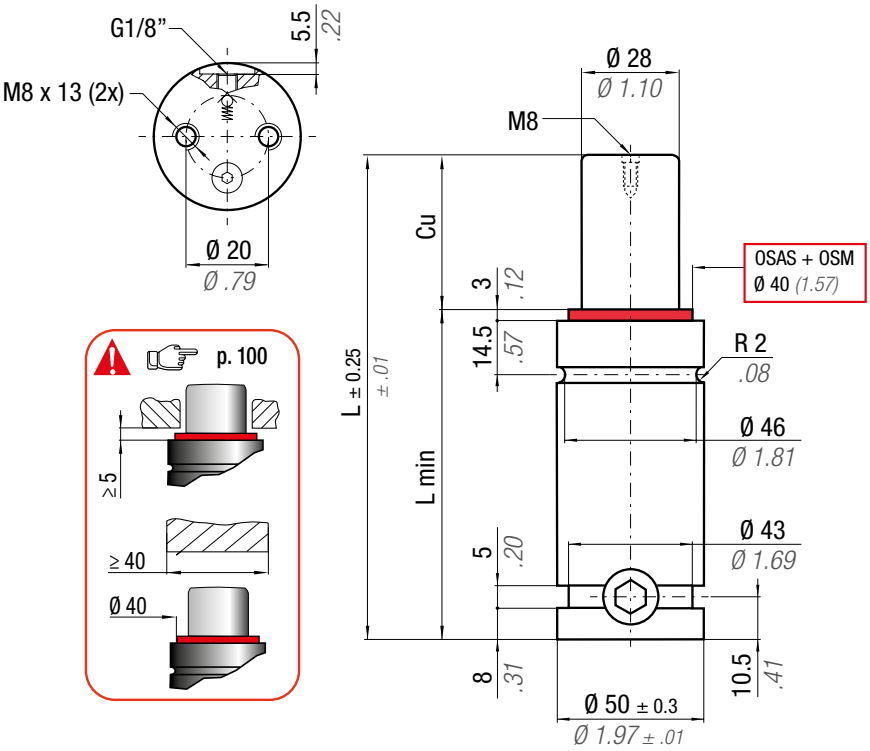
Model (Cu)	Rev.	Maintenance kit
GSSH700 (010 ÷ 080)	C	GSRK-39BMRV00750B
GSSH700 (100 ÷ 160)	C	GSRK-39BMH00700C
GSSH700 (010 ÷ 160)	D	GSRK-39BMH00700D



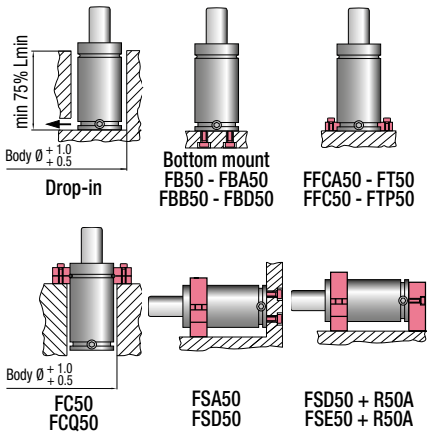


ISO 11901 - 4	VDI 3003 Blatt 4	B2 4008 (BMW)
39D 838 (VW)	075.90.65 (FCA)	

GSSH 1000



Fixings



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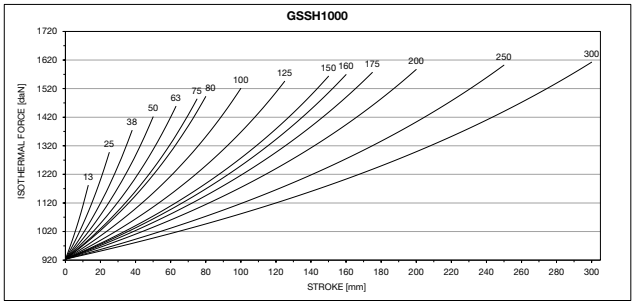
**** $F1_p$ =** Polytrophic end force at 100% Cu

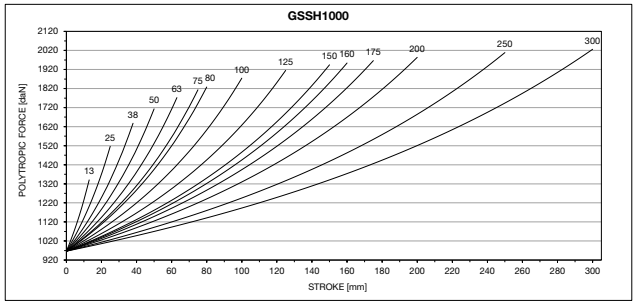
N2	°F 32 - 176 / °C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
		± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	6.15 cm² *0.953 in²*	~ 15 ÷ 100 (at 20°C)	1.8 m/s	See Tab below

CALLOUT	Cu		L		L min		F0 Initial force		$F1_i$ * End force		$F1_p$ ** End force		V0		~Kg	~lb	PED 2014/68/EU
	mm	inch	mm	inch	mm	inch	daN	lb	daN	lb	daN	lb	cm³	in³			
GSSH1000-13	13	0.50	120.7	4.74	107.7	4.24			1181	2655	1340	3012	43.0	2.62	1.21	2.67	✓
GSSH1000-25	25	0.98	145	5.71	120	4.72			1297	2916	1517	3410	62.0	3.78	1.32	2.91	✓
GSSH1000-38	38	1.50	171	6.73	133	5.24			1374	3089	1638	3682	83.0	5.06	1.43	3.15	✓
GSSH1000-50	50	1.97	195	7.68	145	5.71			1421	3195	1713	3851	101.0	6.16	1.53	3.37	✓
GSSH1000-63	63	2.48	221	8.74	158	6.22	920 *2068* ± 5%		1458	3278	1772	3984	122.0	7.44	1.64	3.62	✓
GSSH1000-75	75	2.95	245	9.65	170	6.69			1483	3334	1814	4078	141.0	8.60	1.74	3.84	✓
GSSH1000-80	80	3.15	255	10.04	175	6.89			1492	3354	1828	4110	149.0	9.09	1.78	3.92	✓
GSSH1000-100	100	3.94	295	11.61	195	7.68	150 bar *2175 psi*		1521	3419	1874	4214	180.0	10.98	1.96	4.32	✓
GSSH1000-125	125	4.92	345	13.58	220	8.66			1546	3475	1915	4305	219.0	13.36	2.17	4.78	✓
GSSH1000-150	150	5.91	395	15.55	245	9.65			1563	3515	1944	4371	258.0	15.74	2.38	5.25	✓
GSSH1000-160	160	6.30	415	16.34	255	10.04	+ 20 °C *+68 °F*		1569	3528	1954	4393	274.0	16.71	2.46	5.42	✓
GSSH1000-175	175	6.89	445	17.52	270	10.63			1577	3545	1966	4421	298.0	18.18	2.59	5.71	✓
GSSH1000-200	200	7.87	495	19.49	295	11.61			1587	3568	1984	4459	337.0	20.56	2.79	6.15	✓
GSSH1000-250	250	9.84	595	23.43	345	13.58			1602	3602	2009	4515	416.0	25.38	3.21	7.08	✓
GSSH1000-300	300	11.81	695	27.36	395	15.55			1613	3625	2026	4554	494.0	30.13	3.63	8.00	✓

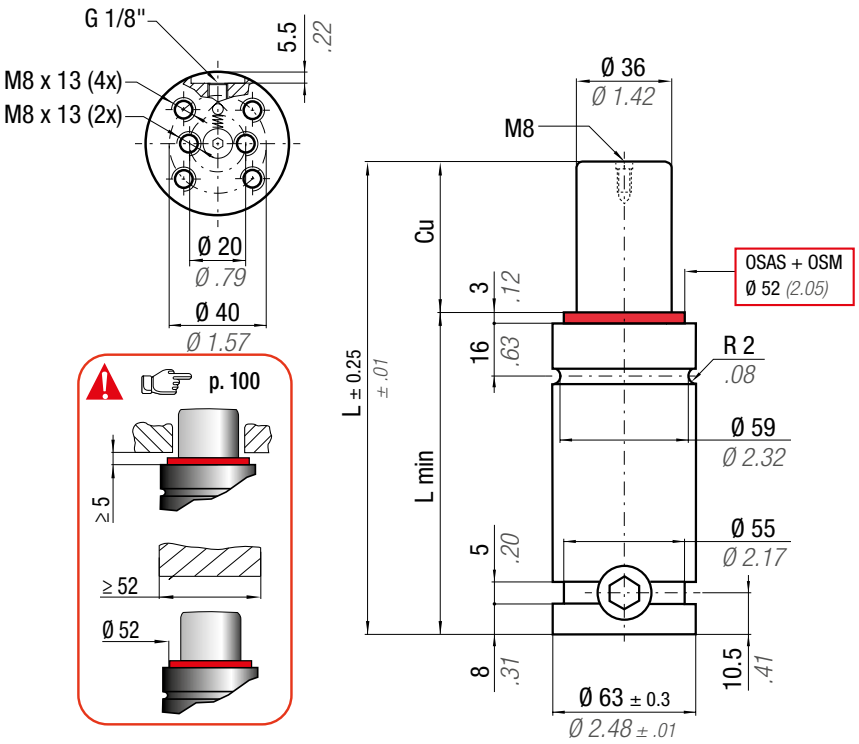
Order Callout Example:
GSSH1000-50
GSSH1000-50-N
GSSH1000-50-CP

Model (Cu)	Rev.	Maintenance kit
GSSH1000 (013 ÷ 080)	C	GSRK-39BMRV01000B
GSSH1000 (100 ÷ 300)	C	GSRK-39BMH01000D
GSSH1000 (013 ÷ 300)	D	GSRK-39BMH01000D

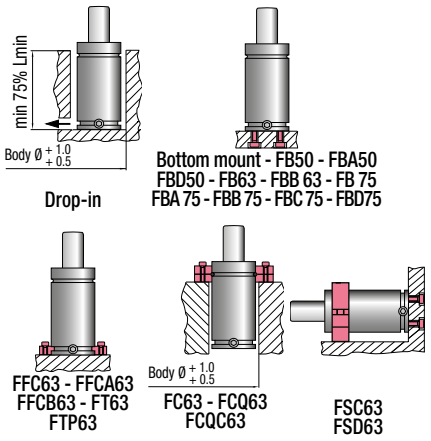




GSSH 1500



Fixings



OSAS + OSM = OVER STROKE ACTIVE SAFETY + OVER STROKE MARKER

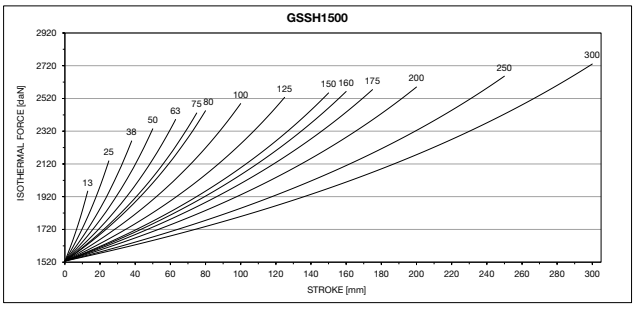
*** $F1_i$ =** Isothermal end force at 100% Cu p. 16

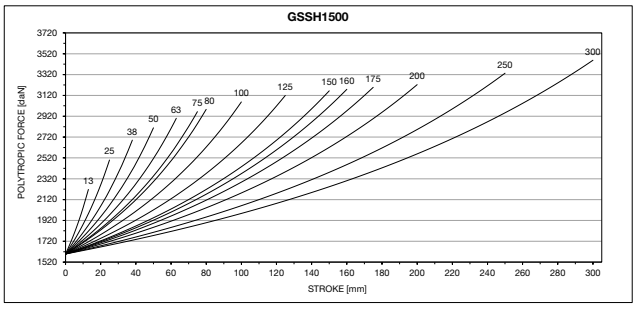
**** $F1_p$ =** Polytrophic end force at 100% Cu

N2	°F 32 - 176	°C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
			± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	10.17 cm² *1.576 in²*	~ 15 ÷ 100 (at 20°C)	1.8 m/s	GSRK-39BMH01500C-CU-13-80 GSRK-39BMH01500CH-CU-100-300

CALLOUT	Cu		L		L min		Fo Initial force		$F1_i$ * End force		$F1_p$ ** End force		Vo				PED 2014/68/EU
	mm	*inch*	mm	*inch*	mm	*inch*	daN	*lb*	daN	*lb*	daN	*lb*	cm³	*in³*	~Kg	~lb	
GSSH1500-13	13	*0.51*	120.7	*4.75*	107.7	*4.24*			1954	*4393*	2217	*4984*	71.0	*4.33*	1.98	*4.37*	✓
GSSH1500-25	25	*0.98*	145	*5.71*	120	*4.72*			2139	*4809*	2500	*5620*	103.0	*6.28*	2.13	*4.70*	✓
GSSH1500-38	38	*1.50*	171	*6.73*	133	*5.24*			2261	*5083*	2691	*6050*	138.0	*8.42*	2.29	*5.05*	✓
GSSH1500-50	50	*1.97*	195	*7.68*	145	*5.71*			2335	*5249*	2809	*6315*	170.0	*10.37*	2.44	*5.38*	✓
GSSH1500-63	63	*2.48*	221	*8.70*	158	*6.22*	1530 *3440*		2392	*5377*	2900	*6519*	204.0	*12.44*	2.60	*5.73*	✓
GSSH1500-75	75	*2.95*	245	*9.65*	170	*6.69*	± 5%		2431	*5465*	2964	*6663*	236.0	*14.40*	2.75	*6.06*	✓
GSSH1500-80	80	*3.15*	255	*10.04*	175	*6.89*			2445	*5497*	2986	*6713*	249.0	*15.19*	2.81	*6.19*	✓
GSSH1500-100	100	*3.94*	295	*11.61*	195	*7.68*	150 bar		2489	*5595*	3057	*6872*	302.0	*18.42*	3.03	*6.68*	✓
GSSH1500-125	125	*4.92*	345	*13.58*	220	*8.66*	*2175 psi*		2527	*5681*	3119	*7012*	369.0	*22.51*	3.34	*7.36*	✓
GSSH1500-150	150	*5.91*	395	*15.55*	245	*9.65*			2554	*5742*	3164	*7113*	435.0	*26.54*	3.64	*8.02*	✓
GSSH1500-160	160	*6.30*	415	*16.34*	255	*10.04*	+ 20 °C *+68 °F*		2563	*5762*	3178	*7144*	462.0	*28.18*	3.77	*8.31*	✓
GSSH1500-175	175	*6.89*	445	*17.52*	270	*10.63*			2574	*5787*	3197	*7187*	501.0	*30.56*	3.95	*8.71*	✓
GSSH1500-200	200	*7.87*	495	*19.49*	295	*11.61*			2590	*5823*	3223	*7246*	568.0	*34.65*	4.26	*9.39*	✓
GSSH1500-250	250	*9.84*	595	*23.43*	345	*13.58*			2656	*5971*	3333	*7493*	684.0	*41.72*	4.99	*11.00*	✓
GSSH1500-300	300	*11.81*	695	*27.36*	395	*15.55*			2731	*6140*	3458	*7774*	790.0	*48.19*	5.81	*12.81*	✓

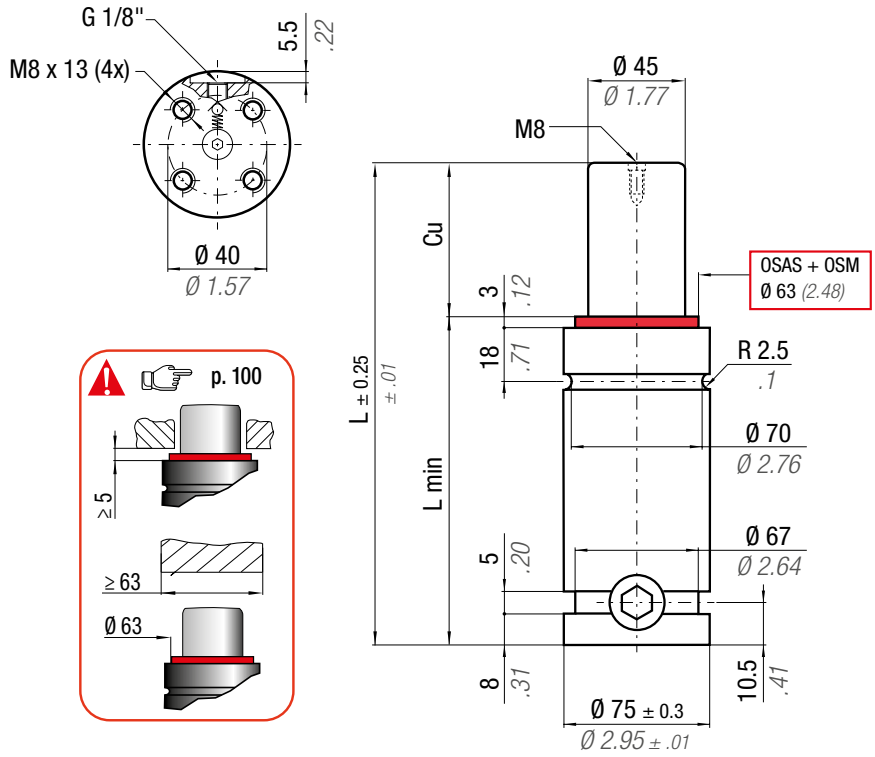
Order Callout Example:
GSSH1500-50
GSSH1500-50-N
GSSH1500-50-CP



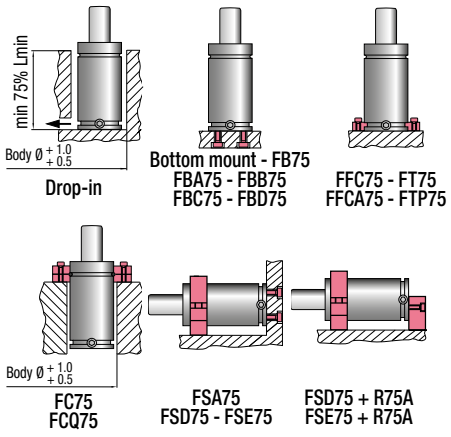


ISO 11901 - 4	VDI 3003 Blatt 4	B2 4008 (BMW)
39D 838 (VW)	075.90.65 (FCA)	

GSSH 2400



Fixings



OSAS + OSM = OVER STROKE ACTIVE SAFETY + OVER STROKE MARKER

*** $F1_i$ =** Isothermal end force at 100% Cu p. 16

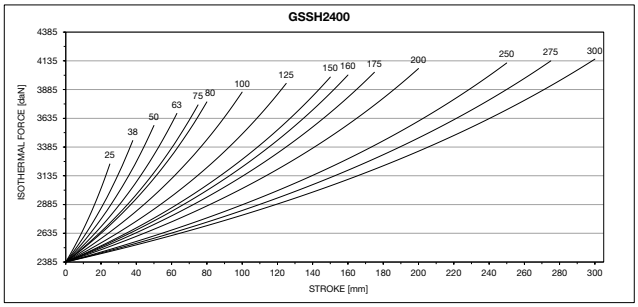
**** $F1_p$ =** Polytrophic end force at 100% Cu

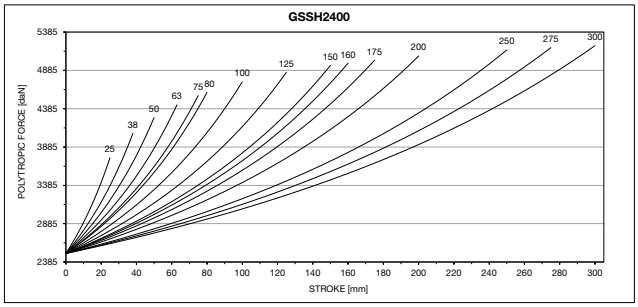
N2	°F 32 - 176 / °C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
		± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	15.9 cm² *2.465 in²*	~ 15 ÷ 100 (at 20°C)	1.8 m/s	See Tab below

CALLOUT	Cu		L		L min		F0 Initial force		$F1_i$ * End force		$F1_p$ ** End force		V0		~Kg	~lb	PED 2014/68/EU
	mm	*inch*	mm	*inch*	mm	*inch*	daN	*lb*	daN	*lb*	daN	*lb*	cm³	*in³*			
GSSH2400-25	25	*0.98*	160	*6.30*	135	*5.31*			3238	*7279*	3745	*8419*	176.0	*10.74*	3.34	*7.36*	✓
GSSH2400-38	38	*1.50*	186	*7.32*	148	*5.83*			3442	*7738*	4062	*9132*	228.0	*13.91*	3.55	*7.83*	✓
GSSH2400-50	50	*1.97*	210	*8.27*	160	*6.30*			3573	*8032*	4269	*9597*	276.0	*16.84*	3.75	*8.27*	✓
GSSH2400-63	63	*2.48*	236	*9.31*	173	*6.81*			3678	*8268*	4436	*9973*	329.0	*20.07*	3.96	*8.73*	✓
GSSH2400-75	75	*2.95*	260	*10.24*	185	*7.28*	2385 *5362* ± 5%		3752	*8435*	4555	*10240*	377.0	*23.00*	4.15	*9.15*	✓
GSSH2400-80	80	*3.15*	270	*10.63*	190	*7.48*			3778	*8493*	4597	*10334*	397.0	*24.22*	4.23	*9.33*	✓
GSSH2400-100	100	*3.94*	310	*12.20*	210	*8.27*			3863	*8684*	4735	*10645*	478.0	*29.16*	4.51	*9.94*	✓
GSSH2400-125	125	*4.92*	360	*14.17*	235	*9.25*	150 bar *2175 psi*		3939	*8855*	4859	*10923*	578.0	*35.26*	4.91	*10.82*	✓
GSSH2400-150	150	*5.91*	410	*16.14*	260	*10.24*			3994	*8979*	4949	*11126*	679.0	*41.42*	5.32	*11.73*	✓
GSSH2400-160	160	*6.30*	430	*16.93*	270	*10.63*			4012	*9019*	4979	*11193*	719.0	*43.86*	5.49	*12.10*	✓
GSSH2400-175	175	*6.89*	460	*18.11*	285	*11.22*	+ 20 °C *+68 °F*		4036	*9073*	5018	*11281*	779.0	*47.52*	5.73	*12.63*	✓
GSSH2400-200	200	*7.87*	510	*20.08*	310	*12.20*			4068	*9145*	5072	*11403*	880.0	*53.68*	6.14	*13.54*	✓
GSSH2400-250	250	*9.84*	610	*24.02*	360	*14.17*			4116	*9253*	5152	*11582*	1081.0	*65.94*	6.95	*15.32*	✓
GSSH2400-275	275	*10.83*	660	*25.98*	385	*15.16*			4135	*9296*	5182	*11650*	1182.0	*72.10*	7.36	*16.23*	✓
GSSH2400-300	300	*11.81*	710	*27.95*	410	*16.14*			4150	*9330*	5208	*11707*	1283.0	*78.26*	7.77	*17.13*	✓

Order Callout Example:
GSSH2400-50
GSSH2400-50-N
GSSH2400-50-CP

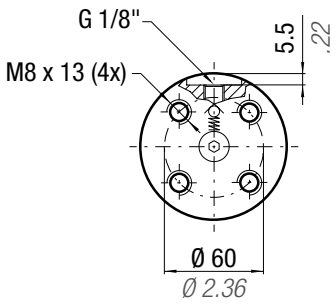
Model (Cu)	Rev.	Maintenance kit
GSSH2400 (025 ÷ 080)	C	GSRK-39BMRV02400B
GSSH2400 (025 ÷ 080)	D	GSRK-39BMH02400D
GSSH2400 (100 ÷ 300)	C - D	GSRK-39BMH02400DH

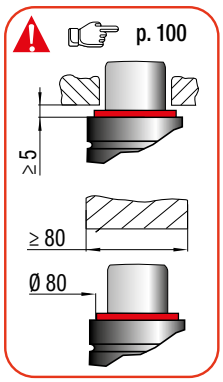


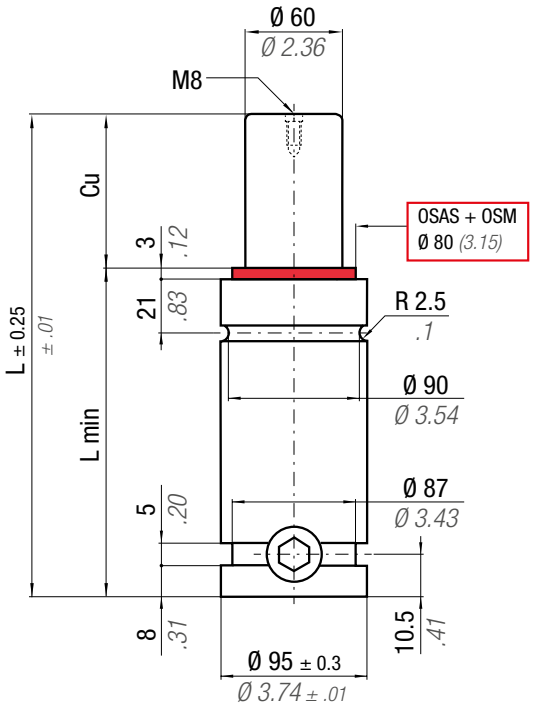


GSSH 4200

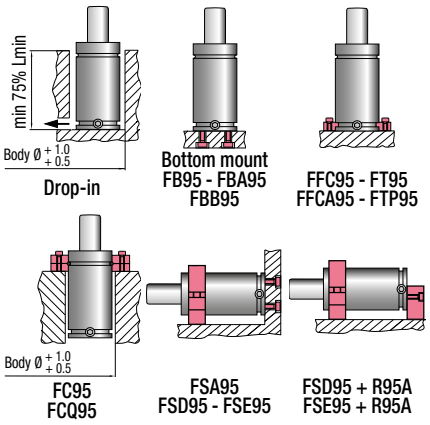
ISO 11901 - 4	VDI 3003 Blatt 4	B2 4008 (BMW)
39D 838 (VW)	075.90.65 (FCA)	







Fixings



OSAS + OSM = OVER STROKE ACTIVE SAFETY + OVER STROKE MARKER

*** $F1_i$ =** Isothermal end force at 100% Cu p. 16

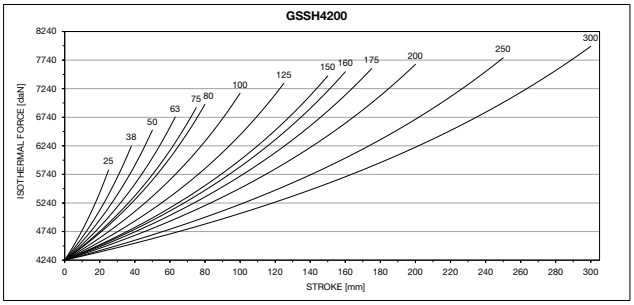
**** $F1_p$ =** Polytrophic end force at 100% Cu

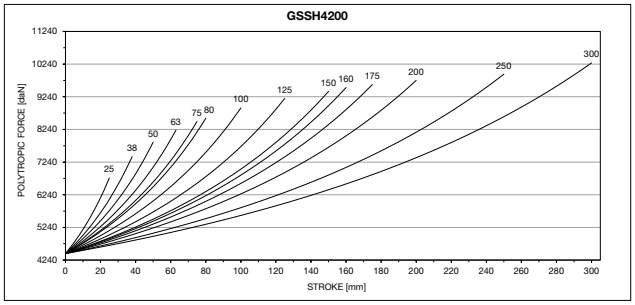
N_2	°F 32 - 176 / °C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
		± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	28.27 cm² *4.382 in²*	~ 15 ÷ 100 (at 20°C)	1.8 m/s	See Tab below

CALLOUT	Cu		L		L min		Fo Initial force		$F1_i$ * End force		$F1_p$ ** End force		Vo				PED 2014/68/EU
	mm	inch	mm	inch	mm	inch	daN	lb	daN	lb	daN	lb	cm³	in³	~Kg	~lb	
GSSH4200-25	25	0.98	170	6.69	145	5.71			5817	13077	6753	15181	303.0	18.48	5.76	12.70	✓
GSSH4200-38	38	1.50	196	7.72	158	6.22			6236	14019	7407	16652	388.0	23.67	6.12	13.49	✓
GSSH4200-50	50	1.97	220	8.66	170	6.69			6515	14646	7850	17648	467.0	28.49	6.45	14.22	✓
GSSH4200-63	63	2.48	246	9.70	183	7.20			6744	15161	8217	18473	552.0	33.67	6.80	14.99	✓
GSSH4200-75	75	2.95	270	10.63	195	7.68	4240 *9532* ± 5%		6908	15530	8484	19073	631.0	38.49	7.13	15.72	✓
GSSH4200-80	80	3.15	280	11.02	200	7.87			6967	15662	8581	19291	663.0	40.44	7.27	16.03	✓
GSSH4200-100	100	3.94	320	12.60	220	8.66			7160	16097	8898	20003	794.0	48.43	7.76	17.11	✓
GSSH4200-125	125	4.92	370	14.57	245	9.65	150 bar *2175 psi*		7336	16491	9188	20656	958.0	58.44	8.45	18.63	✓
GSSH4200-150	150	5.91	420	16.54	270	10.63			7465	16781	9403	21140	1122.0	68.44	9.13	20.13	✓
GSSH4200-160	160	6.30	440	17.32	280	11.02			7507	16877	9475	21300	1187.0	72.41	9.40	20.72	✓
GSSH4200-175	175	6.89	470	18.50	295	11.61	+ 20 °C *+68 °F*		7564	17004	9569	21512	1285.0	78.39	9.82	21.65	✓
GSSH4200-200	200	7.87	520	20.47	320	12.60			7642	17179	9701	21808	1449.0	88.39	10.50	23.15	✓
GSSH4200-250	250	9.84	620	24.41	370	14.57			7758	17440	9897	22248	1776.0	108.34	11.87	26.17	✓
GSSH4200-300	300	11.81	720	28.35	420	16.54			7839	17623	10035	22560	2104.0	128.34	13.24	29.19	✓

Order Callout Example:
GSSH4200-50
GSSH4200-50-N
GSSH4200-50-CP

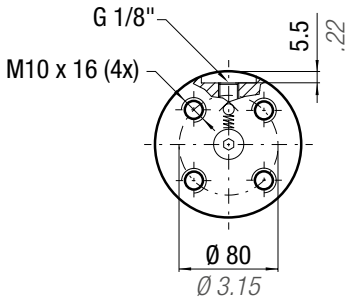
Model (Cu)	Rev.	Maintenance kit
GSSH4200 (025 ÷ 080)	C	GSRK-39BMRV04200B
GSSH4200 (025 ÷ 080)	D	GSRK-39BMH04200D
GSSH4200 (100 ÷ 300)	C - D	GSRK-39BMH04200DH

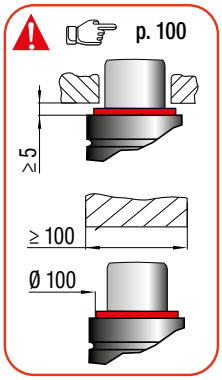


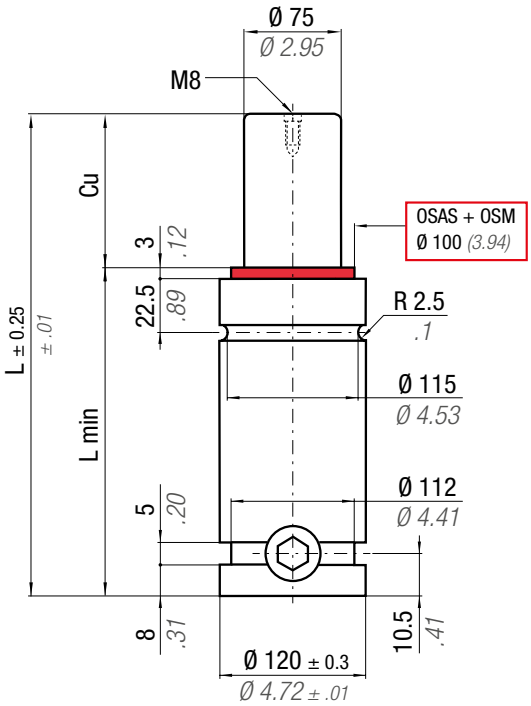


ISO 11901 - 4	VDI 3003 Blatt 4	B2 4008 (BMW)
39D 838 (VW)	075.90.65 (FCA)	

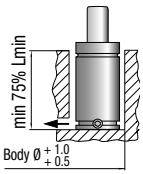
GSSH 6600



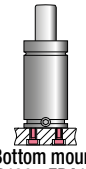




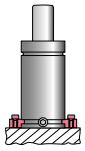
Fixings



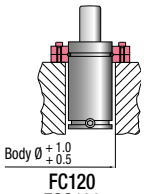
Drop-in



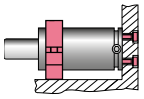
Bottom mount
FB120 - FBA120
FBB120



FFC120-FT120
FFCA120-FTP120



FC120
FCQ120



FSA120
FSD120

OSAS + OSM = OVER STROKE ACTIVE SAFETY + OVER STROKE MARKER

*** $F1_i$ =** Isothermal end force at 100% Cu p. 16

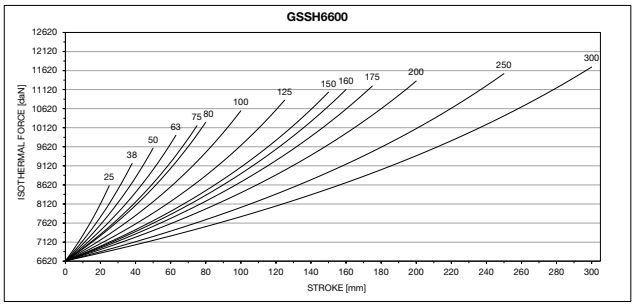
**** $F1_p$ =** Polytrophic end force at 100% Cu

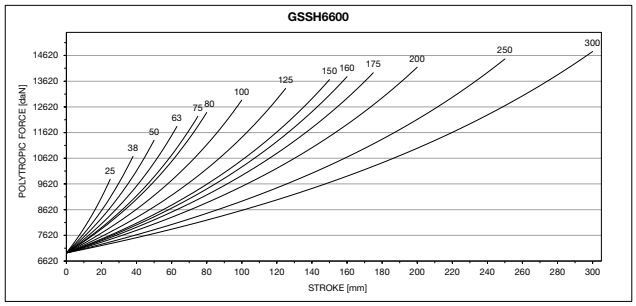
N_2	°F 32 - 176 / °C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
		± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	44.18 cm² *6.848 in²*	~ 15 ÷ 100 (at 20°C)	1.8 m/s	See Tab below

CALLOUT	Cu		L		L min		F0 Initial force		$F1_i$ * End force		$F1_p$ ** End force		V0				PED 2014/68/EU
	mm	*inch*	mm	*inch*	mm	*inch*	daN	*lb*	daN	*lb*	daN	*lb*	cm³	*in³*	~Kg	~lb	
GSSH6600-25	25	*0.98*	190	*7.48*	165	*6.50*	6630 *14904* ± 5% 150 bar *2175 psi* + 20 °C *+68 °F*		8601	*19336*	9806	*22045*	561.0	*34.22*	10.35	*22.82*	✓
GSSH6600-38	38	*1.50*	216	*8.50*	178	*7.01*			9183	*20644*	10696	*24046*	700.0	*42.70*	10.89	*24.01*	✓
GSSH6600-50	50	*1.97*	240	*9.45*	190	*7.48*			9585	*21548*	11323	*25455*	828.0	*50.51*	11.37	*25.07*	✓
GSSH6600-63	63	*2.48*	266	*10.47*	203	*7.99*			9924	*22310*	11857	*26656*	967.0	*58.99*	11.93	*26.30*	✓
GSSH6600-75	75	*2.95*	290	*11.42*	215	*8.46*			10174	*22872*	12255	*27550*	1095.0	*66.80*	12.39	*27.32*	✓
GSSH6600-80	80	*3.15*	300	*11.81*	220	*8.66*			10264	*23074*	12400	*27876*	1149.0	*70.09*	12.60	*27.78*	✓
GSSH6600-100	100	*3.94*	340	*13.39*	240	*9.45*			10565	*23751*	12885	*28967*	1362.0	*83.08*	13.30	*29.32*	✓
GSSH6600-125	125	*4.92*	390	*15.35*	265	*10.43*			10844	*24378*	13339	*29987*	1629.0	*99.37*	14.33	*31.59*	✓
GSSH6600-150	150	*5.91*	440	*17.32*	290	*11.42*			11053	*24848*	13681	*30756*	1864.0	*113.70*	15.35	*33.84*	✓
GSSH6600-160	160	*6.30*	460	*18.11*	300	*11.81*			11123	*25005*	13975	*31417*	2003.0	*122.18*	15.75	*34.72*	✓
GSSH6600-175	175	*6.89*	490	*19.29*	315	*12.40*			11215	*25212*	13948	*31356*	2164.0	*132.00*	16.36	*36.07*	✓
GSSH6600-200	200	*7.87*	540	*21.26*	340	*13.39*			11345	*25505*	14163	*31840*	2431.0	*148.29*	17.38	*38.32*	✓
GSSH6600-250	250	*9.84*	640	*25.20*	390	*15.35*			11540	*25943*	14486	*32566*	2965.0	*180.87*	19.42	*42.81*	✓
GSSH6600-300	300	*11.81*	740	*29.13*	440	*17.32*			11713	*26332*	14775	*33216*	3485.0	*212.59*	21.57	*47.55*	✓

Order Callout Example:
GSSH6600-50
GSSH6600-50-N
GSSH6600-50-CP

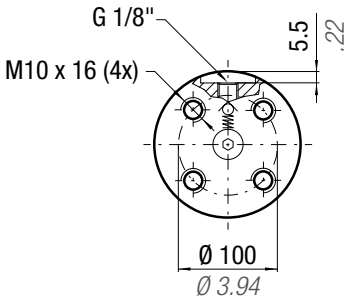
Model (Cu)	Rev.	Maintenance kit
GSSH6600 (025 ÷ 080)	C	GSRK-39BMRV06600B
GSSH6600 (025 ÷ 080)	D	GSRK-39BMH06600D
GSSH6600 (100 ÷ 300)	C - D	GSRK-39BMH06600DH

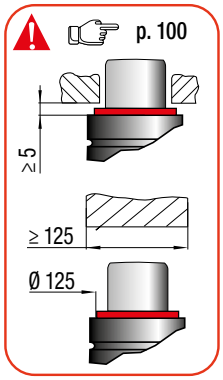


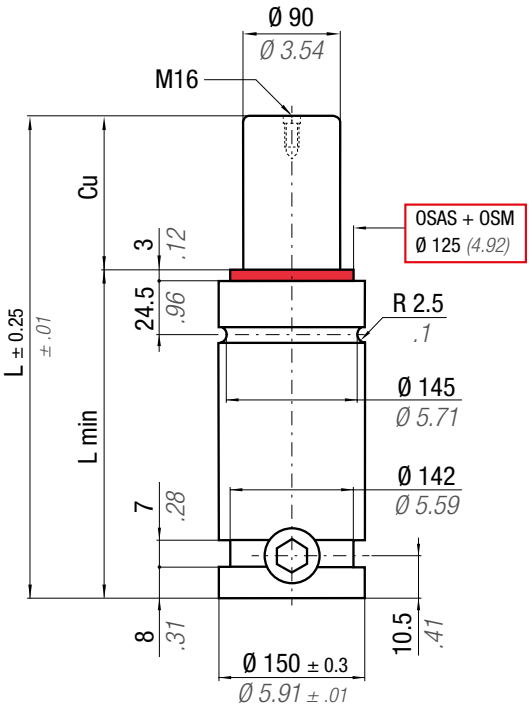


GSSH 9500

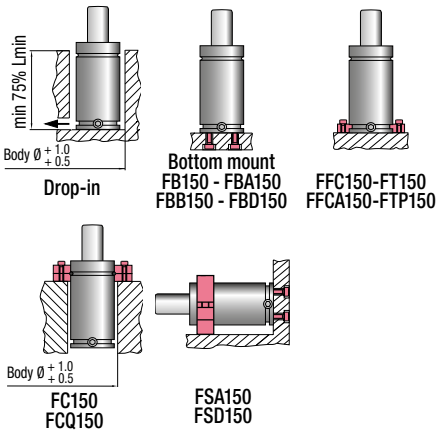
ISO 11901 - 4	VDI 3003 Blatt 4	B2 4008 (BMW)
39D 838 (VW)	075.90.65 (FCA)	







Fixings



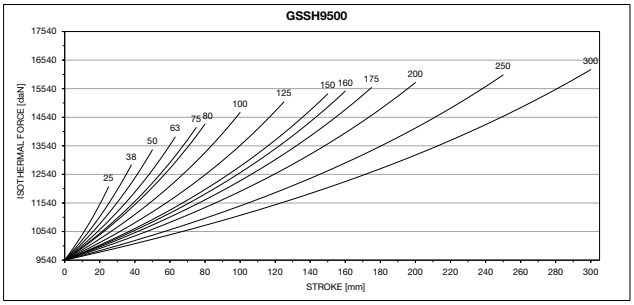
OSAS + OSM = OVER STROKE ACTIVE SAFETY + OVER STROKE MARKER

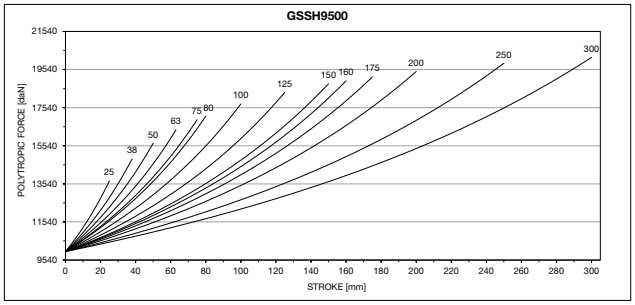
*** $F1_i$ =** Isothermal end force at 100% Cu p. 16 **** $F1_p$ =** Polytrophic end force at 100% Cu

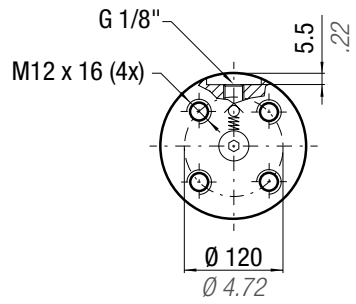
N2	°F 32 - 176	°C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
			± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	63.62 cm² *9.861 in²*	~ 15 ÷ 80 (at 20°C)	1.8 m/s	GSRK-39BMH09500C

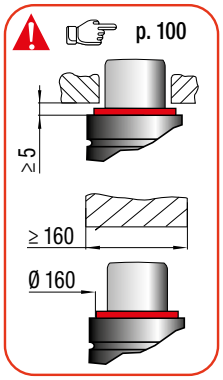
CALLOUT	Cu		L		L min		F0 Initial force		$F1_i$ * End force		$F1_p$ ** End force		V0				PED 2014/68/EU
	mm	inch	mm	inch	mm	inch	daN	lb	daN	lb	daN	lb	cm³	in³	~Kg	~lb	
GSSH9500-25	25	0.98	205	8.07	180	7.09			12101	27204	13691	30779	879.0	53.62	18.00	39.68	✓
GSSH9500-38	38	1.50	231	9.09	193	7.60			12866	28925	14853	33390	1089.0	66.43	18.82	41.49	✓
GSSH9500-50	50	1.97	255	10.04	205	8.07			13398	30121	15673	35235	1282.0	78.20	19.58	43.17	✓
GSSH9500-63	63	2.48	281	11.06	218	8.58			13848	31132	16376	36815	1492.0	91.01	20.41	45.00	✓
GSSH9500-75	75	2.95	305	12.01	230	9.06	9540	21446	14181	31881	16901	37995	1685.0	102.79	21.17	46.67	✓
GSSH9500-80	80	3.15	315	12.40	235	9.25	± 5%		14302	32152	17092	38425	1766.0	107.73	21.49	47.38	✓
GSSH9500-100	100	3.94	355	13.98	255	10.04			14705	33058	17735	39869	2088.0	127.37	22.76	50.18	✓
GSSH9500-125	125	4.92	405	15.94	280	11.02	150 bar		15080	33901	18337	41224	2491.0	151.95	24.35	53.68	✓
GSSH9500-150	150	5.91	455	17.91	305	12.01	*2175 psi*		15361	34534	18793	42249	2894.0	176.53	25.94	57.19	✓
GSSH9500-160	160	6.30	475	18.70	315	12.40	+ 20 °C	*+68 °F*	15455	34745	18946	42593	3055.0	186.36	26.58	58.60	✓
GSSH9500-175	175	6.89	505	19.88	330	12.99			15581	35027	19150	43052	3297.0	201.12	27.53	60.69	✓
GSSH9500-200	200	7.87	555	21.85	355	13.98			15756	35421	19437	43697	3700.0	225.70	29.12	64.20	✓
GSSH9500-250	250	9.84	655	25.79	405	15.94			16020	36014	19870	44670	4506.0	274.87	32.30	71.21	✓
GSSH9500-300	300	11.81	755	29.72	455	17.91			16208	36437	20181	45368	5312.0	324.03	35.47	78.20	✓

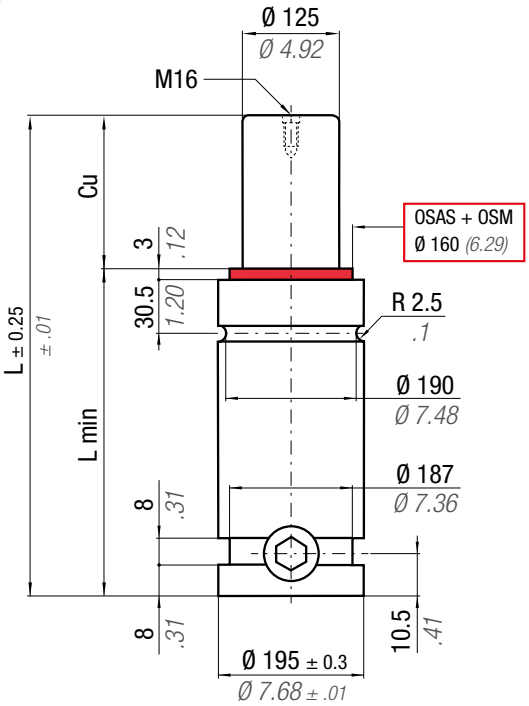
Order Callout Example:
GSSH9500-50
GSSH9500-50-N
GSSH9500-50-CP



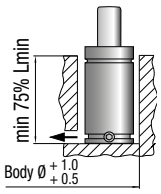






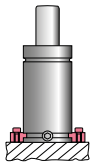


Fixings

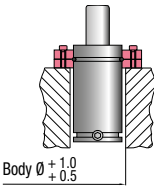


Drop-in

Bottom mount
FB195 - FBA 95
FBB195



FFC195-FT195
FFCA195



FC195
FCQ195

OSAS + OSM = OVER STROKE ACTIVE SAFETY + OVER STROKE MARKER

* $F1_i$ = Isothermal end force at 100% Cu p. 16

** $F1_p$ = Polytrophic end force at 100% Cu

N_2	°F 32 - 176 / °C 0 - 80	ΔP	P max	P min	S	SPM	Max Speed	Maintenance kit
		± 0.33 %/°C	150 bar *2175 psi*	20 bar *290 psi*	122.7 cm² *19.019 in²*	~ 10 ÷ 70 (at 20°C)	1.8 m/s	GSRK-39BMH18500C

CALLOUT	Cu		L		L min		F0 Initial force		$F1_i$ * End force		$F1_p$ ** End force		V0		~Kg	~lb	PED 2014/68/EU
	mm	*inch*	mm	*inch*	mm	*inch*	daN	*lb*	daN	*lb*	daN	*lb*	cm³	*in³*			
GSSH18500-25	25	*0.98*	210	*8.27*	185	*7.28*	18400 *41363* ± 5% 150 bar *2175 psi* + 20 °C *+68 °F*		24062	*54094*	27495	*61811*	1522.0	*92.84*	31.06	*68.48*	✓
GSSH18500-38	38	*1.50*	236	*9.29*	198	*7.80*			25812	*58028*	30182	*67852*	1886.0	*115.05*	32.53	*71.72*	✓
GSSH18500-50	50	*1.97*	260	*10.24*	210	*8.27*			27045	*60800*	32111	*72188*	2221.0	*135.48*	33.89	*74.71*	✓
GSSH18500-63	63	*2.50*	286	*11.30*	223	*8.80*			28022	*62996*	33660	*75671*	2599.0	*158.54*	35.36	*77.96*	✓
GSSH18500-80	80	*3.15*	320	*12.60*	240	*9.45*			29171	*65579*	35505	*79818*	3060.0	*186.66*	37.28	*82.19*	✓
GSSH18500-100	100	*3.94*	360	*14.17*	260	*10.24*			30132	*67739*	37066	*83328*	3619.0	*220.76*	39.54	*87.17*	✓
GSSH18500-125	125	*4.92*	410	*16.14*	285	*11.22*			30132	*67739*	38544	*86650*	4318.0	*263.40*	42.37	*93.41*	✓
GSSH18500-160	160	*6.30*	480	*18.90*	320	*12.60*			31942	*71808*	40050	*90036*	5297.0	*323.12*	46.33	*102.14*	✓
GSSH18500-200	200	*7.87*	560	*22.05*	360	*14.17*			32675	*73456*	41276	*92792*	6415.0	*391.32*	50.85	*112.11*	✓
GSSH18500-250	250	*9.84*	660	*25.98*	410	*16.14*			33321	*74909*	42363	*95236*	7813.0	*476.59*	56.51	*124.58*	✓
GSSH18500-300	300	*11.81*	760	*29.92*	460	*18.11*			33582	*75495*	42805	*96229*	9282.0	*566.20*	62.16	*137.04*	✓

Order Callout Example:
GSSH18500-50
GSSH18500-50-N
GSSH18500-50-CP