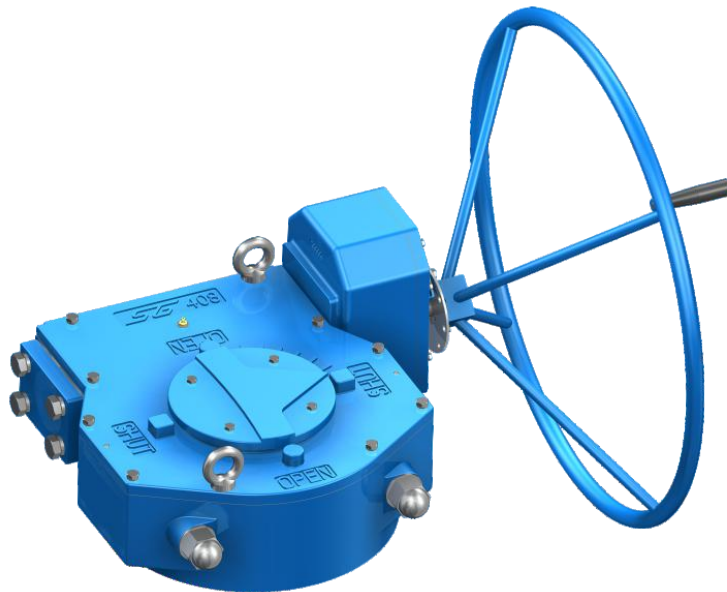


Vtek

Controls™

SERIES VMG

Manual Gear Operator



● Design Features

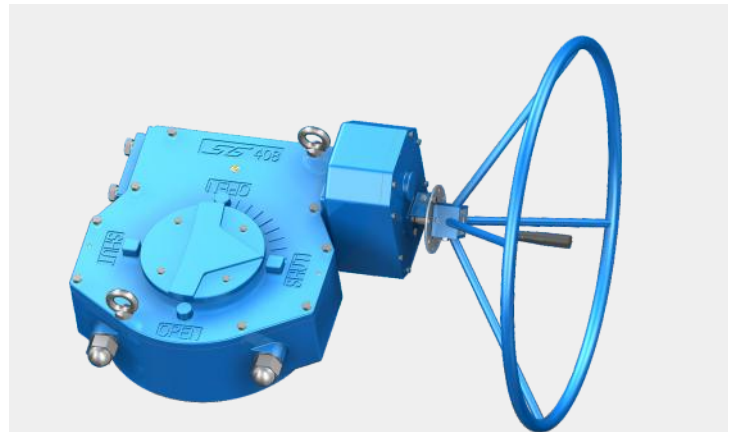
- Ductile Iron housing
- Protected Steel Input Shaft
- Models up to 150000 Nm Output Torque
- Rugged Construction
- Ductile Iron Worm Gear
- NBR Sealing Materials
- Working Temperatures: -20C -120 C
- 0-90 Deg Rotation (+/- 5 Deg Adjustable)
- Designed with Locking Handwheel
- IP68 Protection

SERIES VMG

Partial-turn gear operators

This series consists of 15 models varying from 42:1 to 3525:1 in terms of gear ratio and from 720NM to 150000NM in terms of torque. The torque difference between every two adjacent models is small, helping to save a lot of costs customers when selecting a specific product.

It is suitable for use on 90° rotary butterfly valves, ball valves, plug valves, dampers, and more.



Texture of material

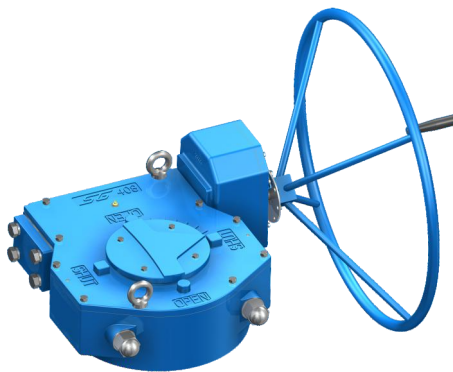
Part name	GB	ASTM/AWS	BS	ISO
Hand wheel	Q235A	A570 Gr.A	S235JR	Fe 360A
Secondary reduction gearbox cover	QT450-10	65-45-12	420/12	450-10
Seal up	NBR			
Input shaft	45	1045	C45E 080M40	SM45C
Gear wheel	45	1045	C45E 080M40	SM45C
Secondary reducer box	QT450-10	65-45-12	420/12	450-10
Housing	QT450-10	65-45-12	420/12	450-10
Bearing	One-way thrust ball bearing			
Worm	45	1045	C45E 080M40	SM45C
Left end cover	QT450-10	65-45-12	420/12	450-10
Indieator	HT250	No.35 No.40		250
Cover	QT450-10	65-45-12	420/12	450-10
Worm gear	QT500-7	88-55-06	500/7	500-7

Note:Vtek Controls reserves the right to change product designs without notice.

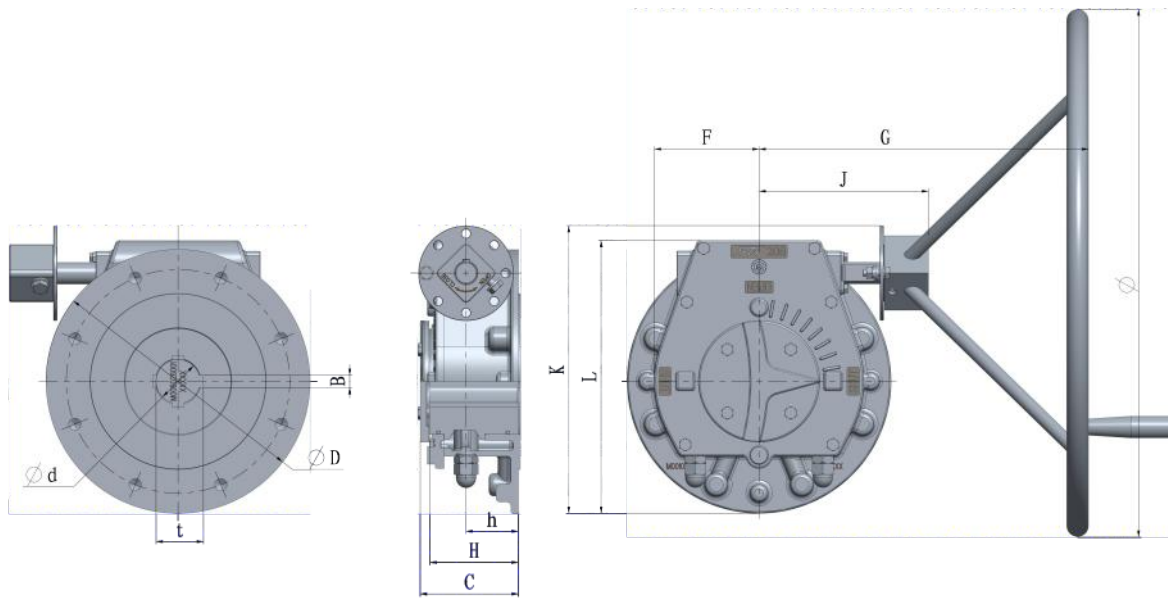
Parameters:

● VMG Performance

Model	Gear Ratio	Input In-lbs / Nm	Output In lbs / Nm	Efficiency %	M.A +/- 10%
VMGS007	42:1	708 / 80	6373 / 720	21	9.0
VMGS008	50:1	974 / 110	10621 / 1200	22	10.9
VMGS108	72:1	1150 / 130	17702 / 2000	21	15.4
VMGS158	70:1	1328 / 150	22128 / 2500	24	16.7
VMGS208	68:1	1859 / 210	29208 / 3300	23	15.7
VMGS218	78:1	1828 / 206	39608 / 4475	28	21.7
VMGS238	175:1	1505 / 170	55319 / 6250	21	36.8
VMGS308	275:1	1328 / 150	86740 / 9800	24	65.3
VMGS358	532:1	1505 / 170	1593189 / 18000	20	105.9
VMGS408	700:1	1682 / 190	283232 / 32000	24	168.4
VMGS448	1233:1	1460 / 165	371742 / 42000	21	254.5
VMGS508	1254:1	1682 / 190	531060 / 60000	25	315.8
VMGS608	1855:1	1682 / 190	708080 / 80000	23	421.1
VMGS708	2292:1	1682 / 190	885100 / 100000	23	526.3
VMGS808	3525:1	1682 / 190	1327650 / 150000	22	789.5



Dimensions:



● VMG Series Single Stage Dimension Parameter Table

mm

Model	ΦD	Flange	Bolt Circle	dmax	B	t	h	H	C	F	G	J	K	L	Φ
VMG-S007	Φ150	F10	102	Φ38	10	41.3	39	82	91.5	78.8	241	164	198.5	176	Φ465
	Φ150	F12	125	Φ38	10	41.3	39	82	91.5	78.8	241	164	198.5	176	Φ465
VMG-S008	Φ150	☆F10	102	Φ45	14	48.8	41.5	77.5	86.5	77.5	244	167	210	184	Φ465
	Φ150	F12	125	Φ45	14	48.8	41.5	77.5	86.5	77.5	244	167	210	184	Φ465
	Φ175	F14	140	Φ45	14	48.8	46.5	82.5	91.5	77.5	244	167	219	192.5	Φ465
VMG-S108	Φ210	F16	165	Φ45	14	48.8	50.5	86.5	95.5	77.5	244	167	236.5	210	Φ465
	Φ175	F14	140	Φ54	16	58.3	46	82	91	87.5	351	169	233	212	Φ600
	Φ210	F16	165	Φ54	16	58.3	51.5	86	95	87.5	351	169	249	228	Φ600
VMG-S158	Φ210	☆F12	125	Φ60	18	64.4	51	100	109.5	115	379	197	275.5	262	Φ600
	Φ210	F14	140	Φ60	18	64.4	51	100	109.5	115	379	197	275.5	262	Φ600
	Φ210	F16	165	Φ60	18	64.4	51	100	109.5	115	379	197	275.5	262	Φ600
VMG-S208	Φ210	☆F14	140	Φ85	22	90.4	59.5	100.5	111.5	119	396.5	191.5	298	281	Φ750
	Φ210	F16	165	Φ85	22	90.4	59.5	100.5	111.5	119	396.5	191.5	298	281	Φ750
	Φ300	F25	254	Φ85	22	90.4	59.5	100.5	111.5	119	396.5	191.5	310	237	Φ750
VMG-S218	Φ210	☆F14	140	Φ85	22	90.4	59	100.5	115	135	410	205	312.75	296.75	Φ750
	Φ210	F16	165	Φ85	22	90.4	59	100.5	115	135	410	205	312.75	296.75	Φ750
	Φ300	F25	254	Φ85	22	90.4	59	100.5	115	135	410	205	339.75	323.75	Φ750

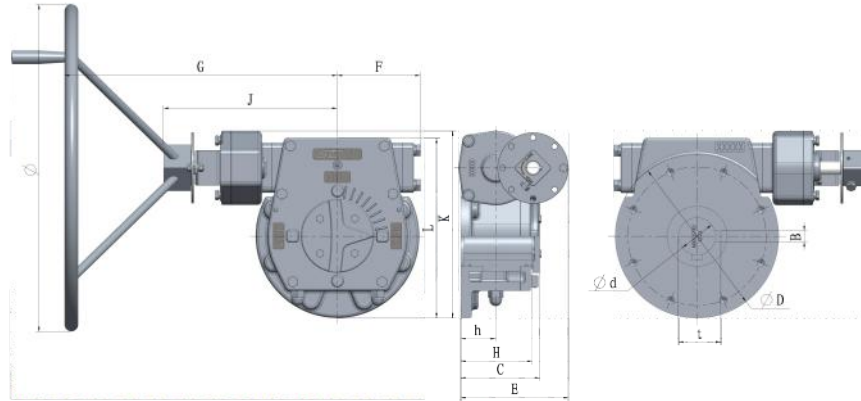
Note: "☆" Unable to machine Convex/Concave positioning steps.

VMG-S007 Stock 27 mm Female Star Drive - ISO5211 / F12

VMG-S008 Stock 36 mm Female Star Drive - ISO5211 / F14

VMG-S108 Stock 46 mm Female Star Drive - ISO5211 / F16

Dimensions:

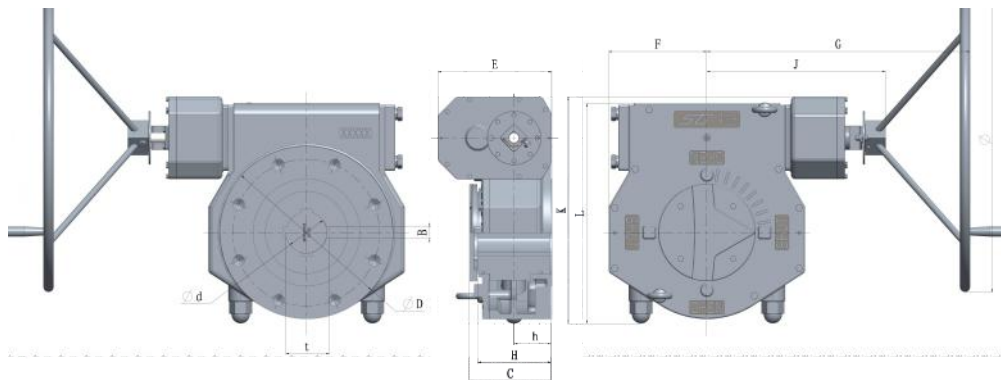


● VMG Series Multistage Dimension Parameter Table

mm

Model	ΦD	Flange	dmax	B	t	h	H	C	E	F	G	J	K	L	Φ
VMGS238	Φ300	☆F14	Φ83	22	88.4	61	128	142	194.5	152.4	501	319	330	343	Φ600
		F16 F25													
VMGS308	Φ340	☆F16	Φ100	28	106.4	74.5	151	165	229.5	173.25	544	339	413.5	391.5	Φ750
		F25													
		F30													

Note: "☆" Unable to machine Convex/Concave positioning steps.



● VMG Series Multistage Dimension Parameter Table

mm

Model	ΦD	Flange	Bolt Circle	dmax	B	t	h	H	C	E	F	G	J	K	L	Φ
VMG-S358	Φ350	F25	254	Φ120	32	127.4	88	180	192	262	192.8	602.3	396.3	442.3	424	Φ750
	Φ350	F30	298	Φ120	32	127.4	88	180	192	262	192.8	602.3	396.3	442.3	424	Φ750
VMG-S408	Φ415	☆F25	254	Φ150	36	158.4	90	178	198	276	238	638	433	551	535	Φ750
	Φ415	F30	298	Φ150	36	158.4	90	178	198	276	238	638	433	551	535	Φ750
	Φ415	F35	356	Φ150	36	158.4	90	178	198	276	238	638	433	551	535	Φ750
	Φ475	F40	F40	Φ150	36	158.4	119.5	207.5	227.5	276	232.4	638	433	567.5	551.5	Φ750
VMG-S448	Φ415	F30	F30	Φ150	36	158.4	84	178	192	353	239	671	466	575	537	Φ750
	Φ475	F40	406	Φ150	36	158.4	106	207.5	214	353	239	671	466	586.5	548.5	Φ750
VMG-S508	Φ475	☆F35	356	Φ220	50	231.4	120.5	241.5	255.5	369	300.3	718.8	513.8	675.7	653.7	Φ750
	Φ475	F40	406	Φ220	50	231.4	120.5	241.5	255.5	369	300.3	718.8	513.8	675.7	653.7	Φ750
VMG-S608	Φ560	☆F40	406	Φ240	56	252.4	135	271	286	520	345.55	788	583	813.7	758.7	Φ750
	Φ560	F48	483	Φ240	56	252.4	135	271	286	520	345.55	788	583	813.7	758.7	Φ750
VMG-S708	Φ560	☆F40	406	Φ240	56	252.4	140	281	296	520	395.8	839.3	634.3	902.7	853.7	Φ750
	Φ560	F48	483	Φ240	56	252.4	140	281	296	520	395.8	839.3	634.3	902.7	853.7	Φ750
VMG-S808	Φ686	☆F48	483	Φ280	63	292.4	143	313	331	393	470	927	722	1074	1042	Φ750
	Φ686	F60	603	Φ280	63	292.4	143	313	331	393	470	927	722	1074	1042	Φ750

Note: "☆" Unable to machine Convex/Concave positioning steps.

Install:

● Instructions for Installation and Operation

Connect the bottom flange of the gear operator to the upper flange of the valve and slide the valve shaft into the hole on the worm gear. Tighten the flange bolt. The valve can be closed by turning the hand-wheel clockwise and opened by turning the hand-wheel counterclockwise. On the upper face of the gear operator, a position indicator and a position marking are mounted, through which the position of switch can be directly observed. The gear operator is also equipped with a mechanical limit screw, which can be adjusted and function to limit the position at the switch extreme position.

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Vtek
Controls

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