

SG Series

Quarter-turn Gearbox (For Motorised)

Drive valves together with electric actuators, for ball, butterfly and plug valves.

The SG series gearboxes have a base plate that can be mounted at an interchangeable angle, allowing the machining of flanges with a variety of mounting holes.

Torque range: 650Nm~42000Nm

13 sizes. Ratios from: 31:1 to 190:1

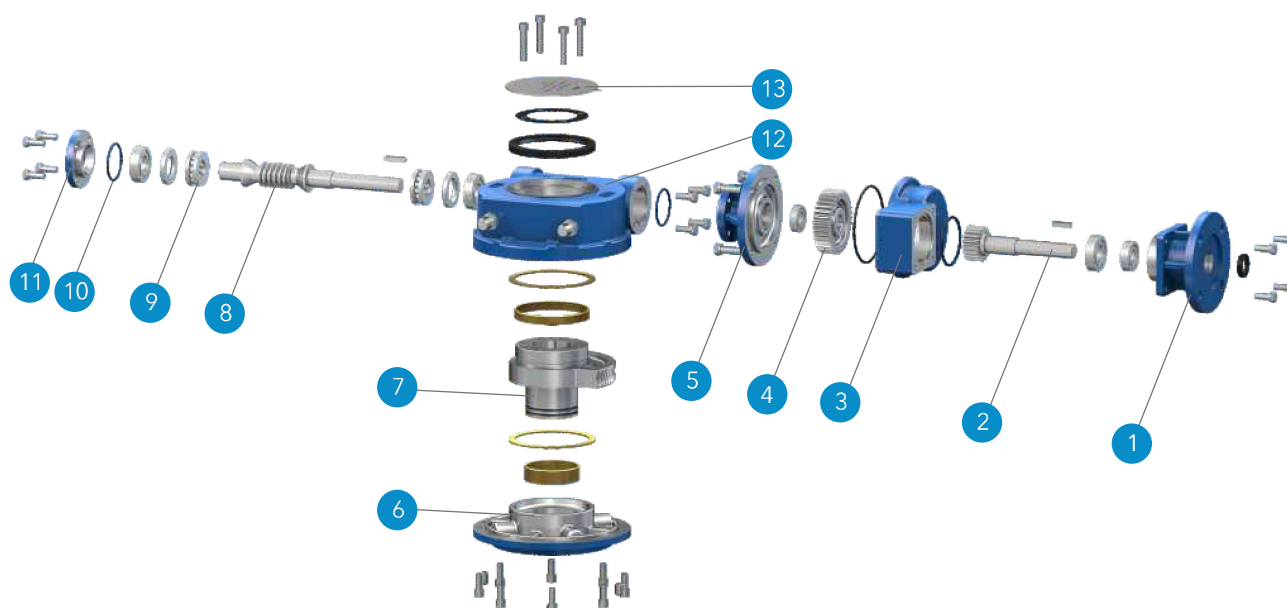


Features:

- Various gear ratio options
- Ductile iron housing
- Carbon steel input shaft
- Ductile iron quadrant
- Travel range: 0°~90° (±5° adjustment)
- IP67
- Standard temperature range: -20°C~120°C

Options:

- Stainless steel input shafts and fasteners
- IP68
- Limit switch
- Corrosive environment painting
- Low temperature: -46°C
- High temperature: +200°C
- Bronze quadrant
- Buried application



Material Specification

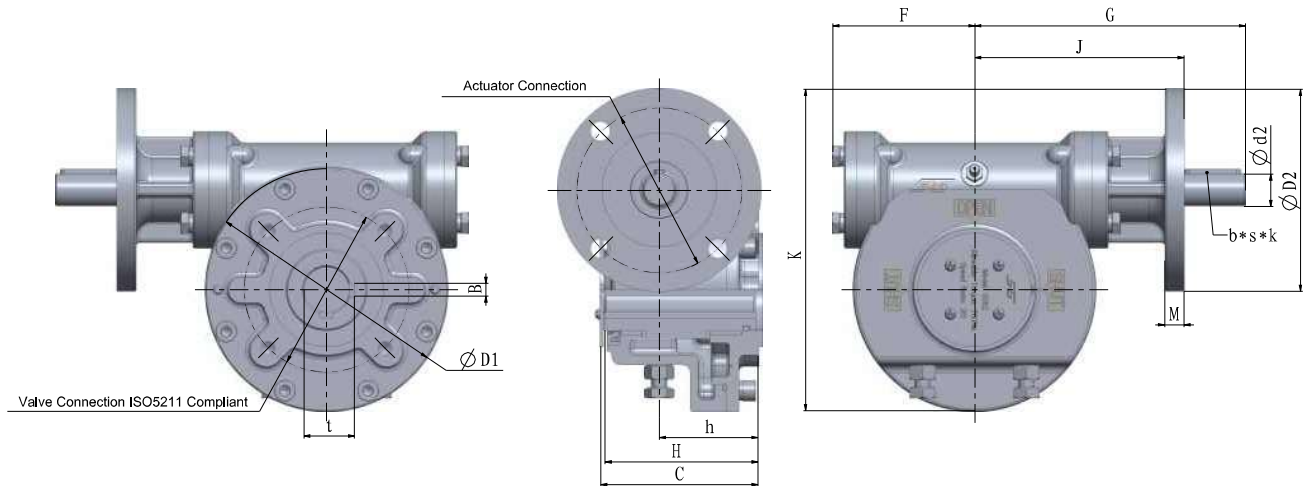
No.	Part name	Material				
		GB	ASTM/AWS	DIN	BS	ISO
1	Input flange	QT450-10	65-45-12		420/12	450-10
2	Input shaft	45	1045	C45E CK45	C45E 080M46	C45E4
3	Reducer gearcase	QT450-10	65-45-12		420/12	450-10
4	Gear	45	1045	C45E CK45	C45E 080M46	C45E4
5	Bracket	QT450-10	65-45-12		420/12	450-10
6	Baseplate	QT450-10	65-45-12		420/12	450-10
7	Quadrant	QT500-7	88-55-06	GGG-50	500/7	500-7
8	Worm	45	1045	C45E CK45	C45E 080M46	C45E4
9	Bearing	Thrust ball bearing				
10	Seals	NBR				
11	End cap	QT450-10	65-45-12		420/12	450-10
12	Gear case	QT450-10	65-45-12		420/12	450-10
13	Position Indicator	1Cr17Mn6Ni5n	★201			X12CrMnNi17-7-5

Note: Due to the company's policy of continuous improvement, Stard-Gears reserves the right to change specification details without prior notice.

Main Technical Specifications

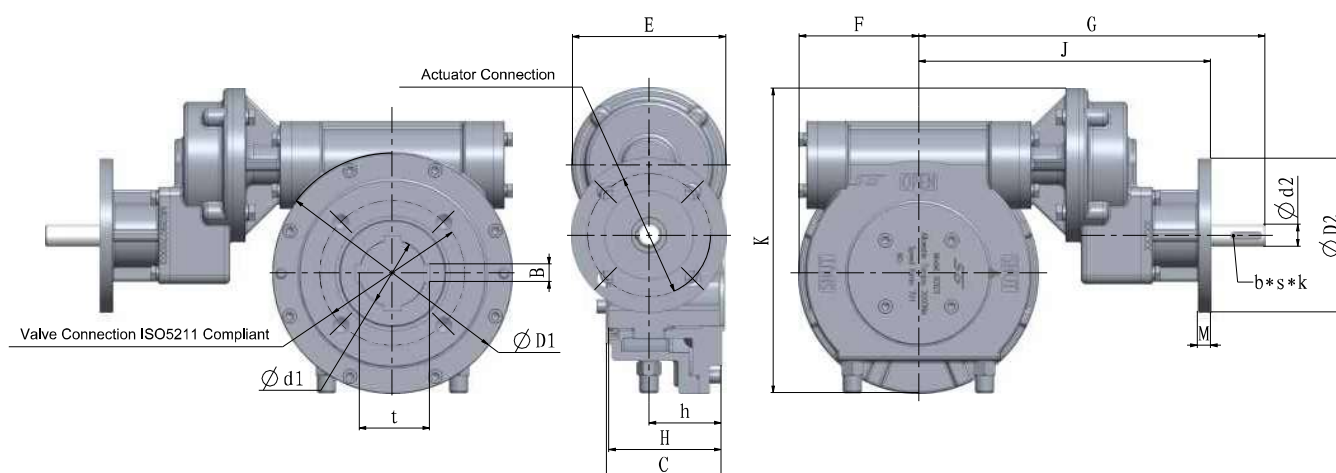
Model	Ratio	Input Torque (Nm)	Output Torque (Nm)	Max Output Torque(Nm)	Efficiency(%)	M.A.(±10%)
SG62	31:1	75	650	700	28	8.7
SG83	45:1	100	1350	1400	30	13.5
SG120	70:1	120	2700	2800	32	22.5
SG123	70:1	150	3000	3000	29	20.0
SG123A	136:1	160	5700	6000	27	35.6
SG143	70:1	180	4000	4200	32	22.2
SG143A	136:1	185	7000	8000	28	37.8
SG200	70:1	400	9000	12000	32	22.5
SG200A	140:1	400	16000	20000	29	40.0
SG237	70:1	600	12000	14000	29	20.0
SG237A	140:1	1000	30000	32000	21	30.0
SG242	60:1	600	10000	12000	28	16.7
SG242A	190:1	1000	30000	42000	22	42.0





SG Series Quarter-turn Gearbox (Motorised Application) Dimensions

Model	Valve Connection					Actuator Connection				Overall dimension							
	Max Stem Diameter	B	t	ØD1	Flange	ØD2	Ød2	b*s*k	Flange	h	H	C	F	G	J	K	M
SG62	Φ30	8	33.3	Φ150	☆F07	Φ125	Φ20	6*6*35	F10	49	82.5	85.2	87.9	167.5	129.5	199	12
	Φ30	8	33.3	Φ150	F10	Φ125	Φ20	6*6*35	F10	49	82.5	85.2	87.9	167.5	129.5	199	12
SG83	Φ40	12	43.3	Φ175	□F10	Φ125	Φ20	6*6*35	F10	62	96	98.7	90.4	170	132	232.5	12
	Φ40	12	43.3	Φ175	F12	Φ125	Φ20	6*6*35	F10	62	96	98.7	90.4	170	132	232.5	12
SG120	Φ50	14	53.8	Φ262	F14	Φ125	Φ25	8*7*35	F10	72	110.5	113.5	131	207	164	313.5	12
	Φ50	14	53.8	Φ262	F16	Φ125	Φ25	8*7*35	F10	72	110.5	113.5	131	207	164	313.5	12
SG123	Φ65	18	69.4	Φ273	F14	Φ125	Φ25	8*7*40	F10	83	129	131.7	136.5	231	181	322	13
	Φ65	18	69.4	Φ273	F14	Φ175	Φ25	8*7*40	F14	83	129	131.7	136.5	231	181	347	13
	Φ65	18	69.4	Φ273	F16	Φ125	Φ25	8*7*40	F10	83	129	131.7	136.5	231	181	322	13
	Φ65	18	69.4	Φ273	F16	Φ175	Φ25	8*7*40	F14	83	129	131.7	136.5	231	181	347	13
SG143	Φ75	20	79.9	Φ310	F16	Φ125	Φ25	8*7*35	F10	76	132	135.5	155	261	209	361	15
	Φ75	20	79.9	Φ310	F25	Φ125	Φ25	8*7*35	F10	76	132	135.5	155	261	209	361	15
SG200	Φ75	20	79.9	Φ445	F25	Φ210	Φ25	8*7*40	F16	106.5	172	175.5	222.5	324	275.5	530	18
	Φ75	20	79.9	Φ445	F30	Φ210	Φ25	8*7*40	F16	106.5	172	175.5	222.5	324	275.5	530	18
SG237	Φ120	32	127.4	Φ495	F25	Φ210	Φ40	12*8*50	F16	92	162	166	247.5	360	304	589.5	20
	Φ120	32	127.4	Φ495	F30	Φ210	Φ40	12*8*50	F16	92	162	166	247.5	360	304	589.5	20
	Φ120	32	127.4	Φ495	F35	Φ210	Φ40	12*8*50	F16	92	162	166	247.5	360	304	589.5	20
SG242	Φ135	36	143.4	Φ516	F30	Φ210	Φ40	12*8*50	F16	114.5	188.5	192	258	385	325	604.5	20
	Φ135	36	143.4	Φ516	F35	Φ210	Φ40	12*8*50	F16	114.5	188.5	192	258	385	325	604.5	20
	Φ135	36	143.4	Φ516	F40	Φ210	Φ40	12*8*50	F16	114.5	188.5	192	258	385	325	604.5	20



SG Series Quarter-turn Gearbox (Motorised Application) Dimensions

Model	Valve Connection					Actuator Connection				Overall dimension								
	Max Stem Diameter	B	t	$\Phi D1$	Flange	$\Phi D2$	$\Phi d2$	b*s*k	Flange	h	H	C	E	F	G	J	K	M
SG123A	$\Phi 65$	18	69.4	$\Phi 273$	F14	$\Phi 125$	$\Phi 25$	8*7*35	F10	83	129	131.7	175	136.5	394.5	332.5	347	15
	$\Phi 65$	18	69.4	$\Phi 273$	F14	$\Phi 175$	$\Phi 25$	8*7*35	F14	83	129	131.7	175	136.5	394.5	332.5	347	15
	$\Phi 65$	18	69.4	$\Phi 273$	F16	$\Phi 125$	$\Phi 25$	8*7*35	F10	83	129	131.7	175	136.5	394.5	332.5	347	15
	$\Phi 65$	18	69.4	$\Phi 273$	F16	$\Phi 175$	$\Phi 25$	8*7*35	F14	83	129	131.7	175	136.5	394.5	332.5	347	15
SG143A	$\Phi 75$	20	79.9	$\Phi 310$	F16	$\Phi 125$	$\Phi 25$	8*7*35	F10	76	132	135.5	175	155	425.5	363.5	386	15
	$\Phi 75$	20	79.9	$\Phi 310$	F16	$\Phi 175$	$\Phi 25$	8*7*35	F14	76	132	135.5	175	155	425.5	363.5	386	15
	$\Phi 75$	20	79.9	$\Phi 310$	F25	$\Phi 125$	$\Phi 25$	8*7*35	F10	76	132	135.5	175	155	425.5	363.5	386	15
	$\Phi 75$	20	79.9	$\Phi 310$	F25	$\Phi 175$	$\Phi 25$	8*7*35	F14	76	132	135.5	175	155	425.5	363.5	386	15
SG200A	$\Phi 75$	20	79.9	$\Phi 445$	F25	$\Phi 210$	$\Phi 30$	8*7*45	F16	106.5	172	175.5	240	222.5	493.5	440.5	545	18
	$\Phi 75$	20	79.9	$\Phi 445$	F30	$\Phi 210$	$\Phi 30$	8*7*45	F16	106.5	172	175.5	240	222.5	493.5	440.5	545	18
SG237A	$\Phi 120$	32	127.4	$\Phi 495$	F25	$\Phi 210$	$\Phi 30$	8*7*45	F16	92	162	166	240	247.5	532	479	604.5	18
	$\Phi 120$	32	127.4	$\Phi 495$	F30	$\Phi 210$	$\Phi 30$	8*7*45	F16	92	162	166	240	247.5	532	479	604.5	18
	$\Phi 120$	32	127.4	$\Phi 495$	F35	$\Phi 210$	$\Phi 30$	8*7*45	F16	92	162	166	240	247.5	532	479	604.5	18
SG242A	$\Phi 135$	36	143.4	$\Phi 516$	F30	$\Phi 210$	$\Phi 40$	12*8*50	F16	114.5	188.5	192	340	258	575	517	699.5	18
	$\Phi 135$	36	143.4	$\Phi 516$	F35	$\Phi 210$	$\Phi 40$	12*8*50	F16	114.5	188.5	192	340	258	575	517	699.5	18
	$\Phi 135$	36	143.4	$\Phi 516$	F40	$\Phi 210$	$\Phi 40$	12*8*50	F16	114.5	188.5	192	340	258	575	517	699.5	18