

Manual Override Gear Operators

- Q-Tork 612 series Manual Override (MOR) are designed and used for manually overriding pneumatic actuators mainly for industrial application
- The compact robust designed product has optimum ratio to reduce efforts during its operation

Application

- 612 series MOR are widely used for its reliability where their are double acting and spring return pneumatic actuators
- All MOR are mounted between the valve and actuator

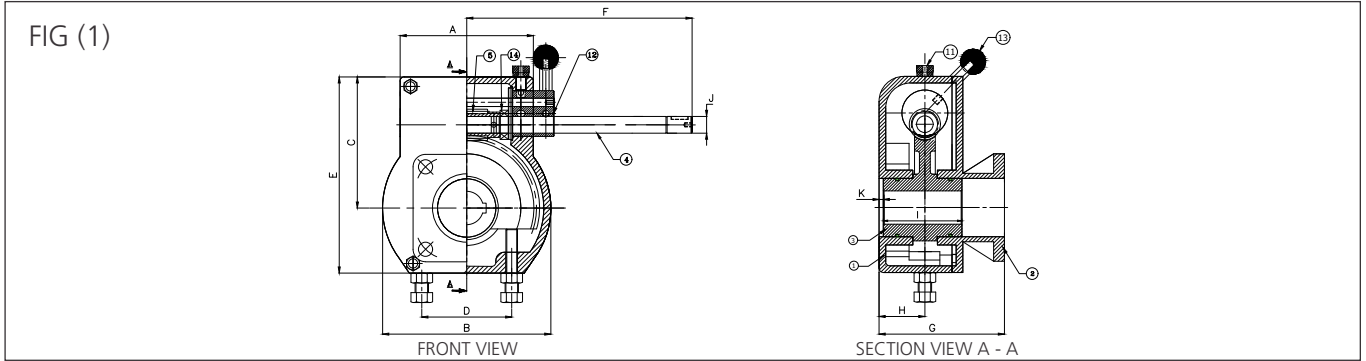
Features and Benefits

- Graded CI housing and cover
- High performance axial bearing
- Light weight with rugged design
- Maintenance free
- Temperature range -30°C to +120°C
- Epoxy primer coated housing and cover
- Environmental friendly high performance grease
- Alloy steel-worm & input shaft
- Powder coated handwheel

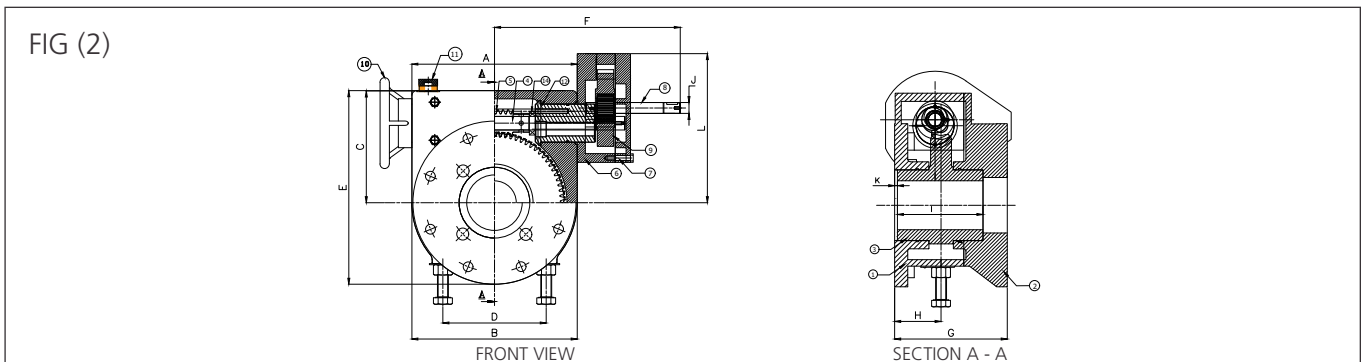
Optional

- Offering MOC:
 - ▶ Housing/ Cover- WCB, LCB, LCC, Ductile Iron, Stainless Steel
 - ▶ Quadrant - Al. Bronze
- Submersibility to IP-67
- Stainless steel - shaft, handwheel and hardware
- Lubricants in temperature variants can be provided.

Dimensional Specifications

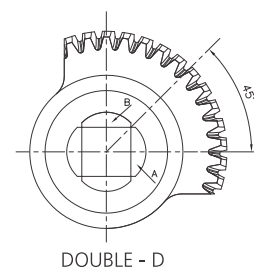
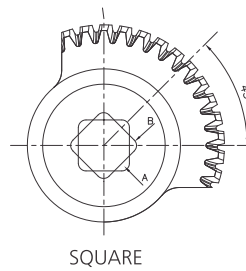
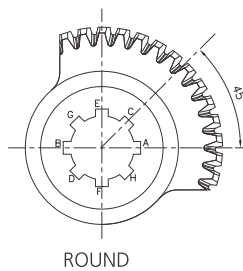


Sr. No.	MODELS	A	B	C	D	E	F	G	H	I	J	K
1	QTM-100	89	72	66	40	93	119	86.5	32	47.5	10	2
2	QTM-250	106	98	81	44	121	215	86	28.5	50	12	2
3	QTM-450	115	132	97.5	70	142.5	165	123	41	73	15	2
4	QTM-750	117	125	109	70	165	185.5	123	45	72.5	17	2
5	QTM-1000	154	180	120.5	95	185.5	190	148.5	59	112.5	20	4
6	QTM-1500	160	202	157.5	108	235.5	230	150.5	55	94.5	20	5
7	QTM-2500	204	218	165	108	250	237	171	66	122	20	6
8	QTM-3500	185	296	203	150	351	265	195	78	128	20	7



Sr. No.	MODELS	A	B	C	D	E	F	G	H	I	J	K	L
9	QTM-5000 / MR1	304	304	206	190	356	341.5	207	85.3	156	20	6	274
10	QTM-7500 / MR2	304	326	235	190	385	341.5	225	89.3	167	20	4	340
11	QTM-10000 / MR2	362	367	367	210	440	370	242	98	198.5	20	6	362.5
12	QTM-15000 / MR3	400	403	282	228	483.5	389.5	243	108	211	20	6.5	400
13	QTM-35000 / MR4	460	510	360	300	597	554.5	337	123	292	25	8	438

Standard Stem Shape and Orientation as seen from top view worm wheel at close position



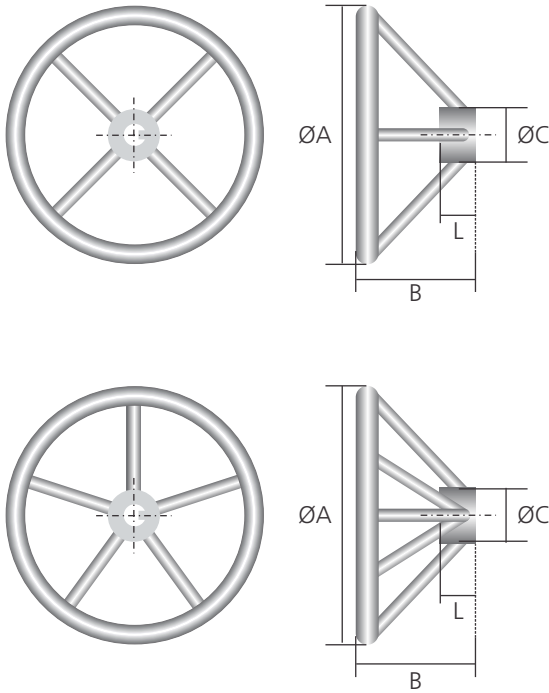
Material Specifications

Sr. No.	Job Description	Material Description	Standards
1	Housing	Cast Iron-FG 220	IS 210 / ASTM A48 35B/40B / GG-20
2	Cover	Cast Iron-FG 220	IS 210 / ASTM A48 35B/40B / GG-20
3	Worm Wheel	SG Iron-500/7	IS 1865 / ASTM A536 80-55-06 / GGG-50
4	Worm	EN8 / 20MnCr5	45C8 / SAE 1040 / CK45
5	Input Shaft	EN8/ EN19	45C8 / SAE 1040 / CK45/ C55 / SAE-4140 / 42CrMo4
6	Thrust Bearing	Standard	----
7	Eccentric Bush	MS	----
8	Spur Housing	Cast Iron-FG 220	IS 210 / ASTM A48 35B/40B / GG-20
9	Spur Cover	Cast Iron-FG 220	IS 210 / ASTM A48 35B/40B / GG-20
10	Spur Gear	EN19	C55 / SAE 4140 / 42CrMo4
11	Spur Pinion	EN19	C55 / SAE 4140 / 42CrMo4
12	Selector assembly	MS	----
13	Lever	MS	----
14	Clutch & Declutch hand wheel	MS	----

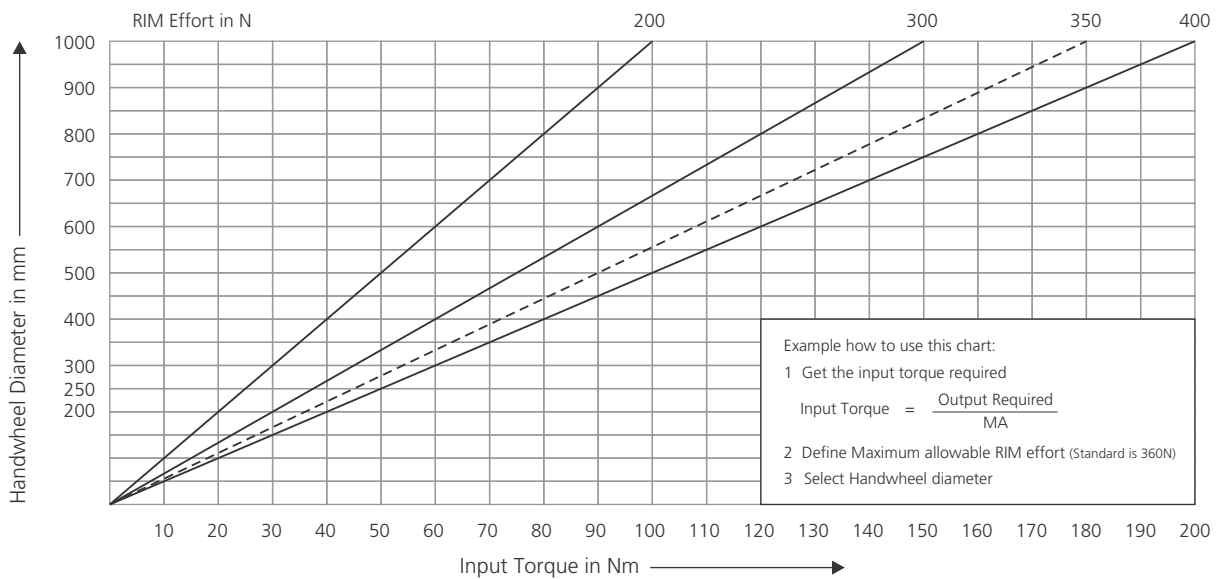
Manual Overrides Gear Box Selection Data

Sr. No	QTM Model	Output Torque		Mechanical Advantages +/-10%	Gear Ratio	Turns To Close	ISO 5211 Valve Mounting	ISO 5211 Actuator Mounting	Max Stem Acceptance Dia (mm)	Approx. Unit Weight (Kgs)	Recommended Hand Wheel Dia. (mm)
		Nm	Ft-Lbf								
1	QTM-100	100	73.8	8	36:1	9	F04, F05	F04, F05	20	3.2	70
2	QTM-250	250	184.4	9	38:1	9.5	F05, F07	F05, F07	22	4.2	200
3	QTM-450	450	331.9	10	43:1	10.75	F07, F10	F07, F10	30	8	300
4	QTM-750	750	553.2	11.5	46:1	11.5	F07, F10, F12	F07, F10, F12	40	9.7	400
5	QTM-1000	1000	737.6	12.5	48:1	12	F10, F12, F14	F10, F12, F14	50	15	500
6	QTM-1500	1500	1106.3	18	67:1	16.75	F10, F12, F14, F16	F10, F12, F14	50	22	500
7	QTM-2500	2500	1843.9	17.5	60:1	15	F12, F14, F16	F12, F14, F16	65	39	850
8	QTM-3500	3500	2581.5	23.5	80:1	20	F14, F16, F25	F16, F25	80	58	850
9	QTM-5000/MR1	5000	3687.8	56.7	231:1	57.75	F16, F25	F16, F25	90	95	500
10	QTM-7500/MR2	7500	5531.7	74	340:1	85	F16, F25	F16, F25	100	115	600
11	QTM-10000/MR2	10000	7375.6	85	390:1	97.5	F25, F30	F25, F30	120	130	700
12	QTM-15000/MR3	15000	11063.4	94	408:1	102	F25, F30	F25, F30, F35	140	160	750
13	QTM-35000/MR4	35000	25814.7	300	1440:1	360	F30, F35	F30, F35	160	380	750

Handwheel Specification: For Keyway / Pin-hole



Sr. No	Hand-wheel Dia A	Height B	Bush OD Dia C	Bush Length L	No. of Spokes
1	70	30	20	30	3
2	200	80	25	25	4
		50	35	35	3
3	250	80	40	30	4
			30	25	
4	300	100	40	30 / 25	4
		75	45	50	3
5	350	110	40	30	4
		100	30	25	
6	400	130	50	30	4
7	450	145	50	30	4
8	500	110	65	30	4
9	550	120	65	30	4
10	600	130	65	30	5
11	650	140	65	30	5
12	700	150	65	30	5
13	750	160	65	30	5
				50	5
14	850	160	65	30	5
15	900	160	65	30	5
16	1000	165	65	50	5



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Q-Tork Automation Pvt. Ltd.

Manufacturers of:

- Quarter-turn Worm Gear Operators • Manual Override Gear Operators
- Quarter-turn Worm Gear Operators for Electrical Actuation • Multi-turn Bevel Gear Operators
- Quarter-turn Worm Gear Operators with Spline Bush • Multi-turn Worm Gear Operator with Spline Bush



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