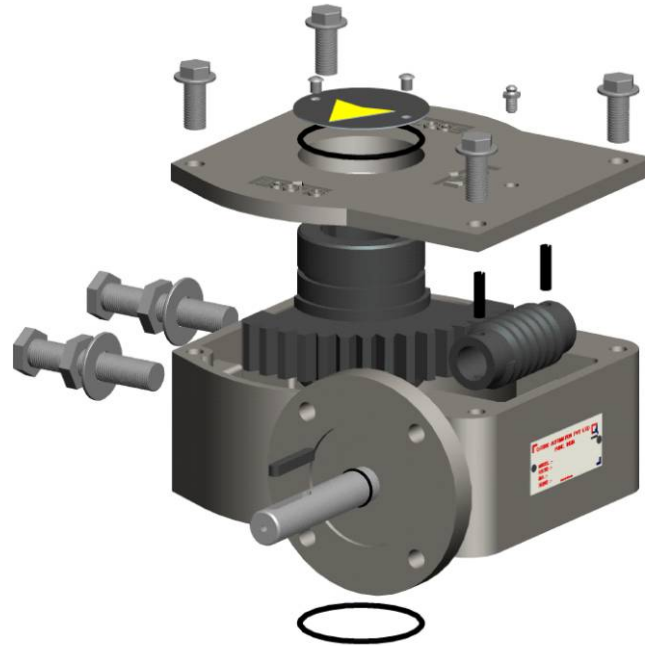




143 Series Quarter-turn Worm Gear Operators for Electrical Actuation



Quarter Turn Worm Gear Operators for Electrical Actuation

Q-Tork 143 series Electrical Quarter turn Worm Gear Operators are designed for motorized application.

Application

143 series Electrical quarter turn worm gear boxes are used in operation of Ball valve, Butterfly valve, Plug valve and also for Dampers.

Features & Benefits

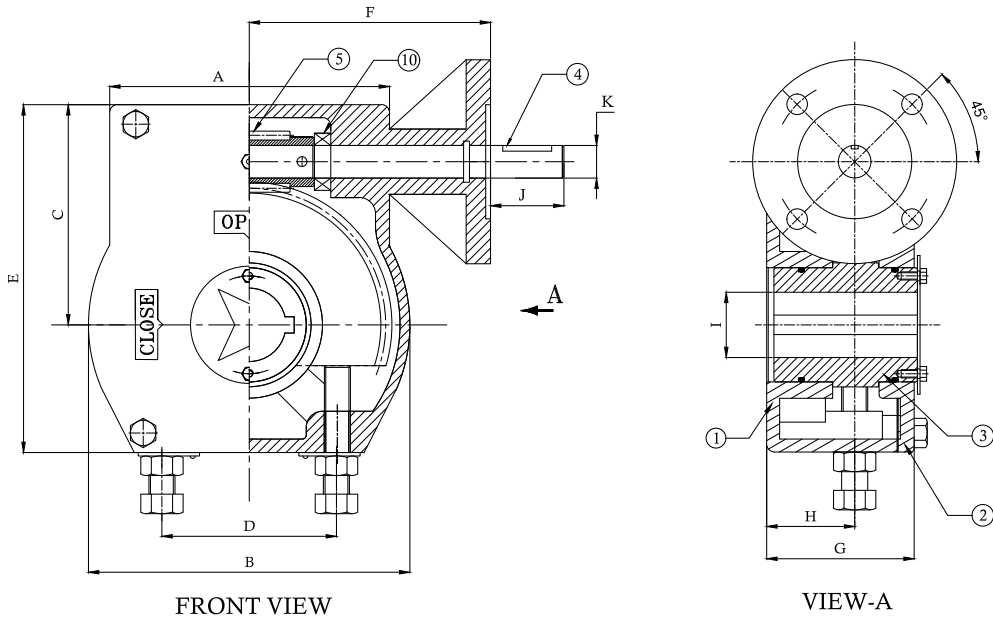
- Graded CI - Housing and Cover
- Alloy Steel - Worm and input Shaft
- All critical components are heat treated to ensure longer serviceable life
- Comprehensive gear ratios with spur reduction unit
- Stroke – 0 to 90° ($\pm 5^\circ$ adjustable)
- High performance axial thrust bearing
- Temperature range -30°C to +120°C
- Light weight with rugged design
- Environmental friendly high performance grease
- Maintenance Free

Optional

- Offering MOC:
 - ▶ Housing / Cover- WCB, LCB, LCC, Ductile Iron, Stainless Steel
 - ▶ Quadrant - Al. Bronze
- Stainless steel - Input shaft
- Submersibility to IP67
- Lubricants in temperature variants can be provided

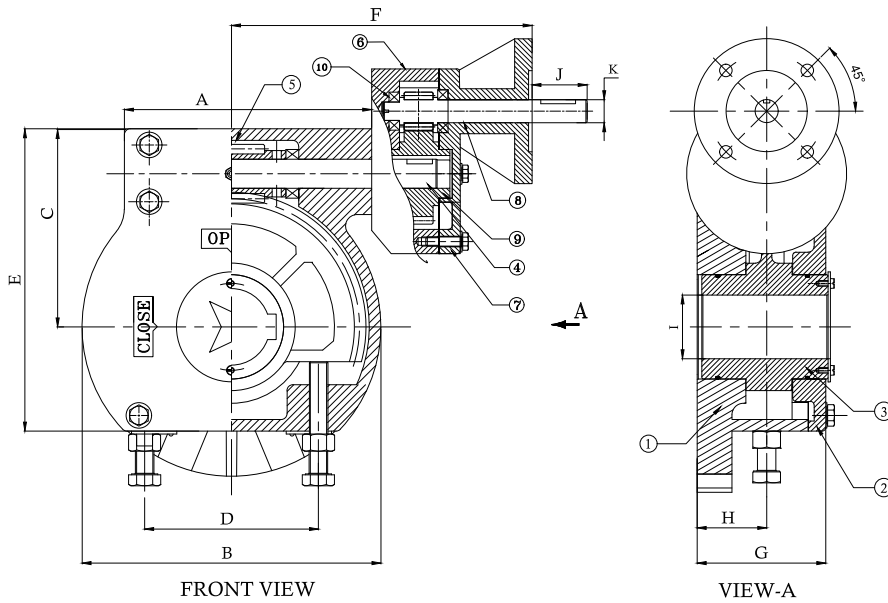
Dimensional Specifications

FIG (1)



Sr. No.	Model	A	B	C	D	E	F	G	H	I	J	K
1	QTE-700	99	116	91	68	134	131	63.5	36	35	45	20
2	QTE-2000	172	197	135	108	213	148	90.5	54	50	45	20
3	QTE-3000	185	296	171	150	261	220	109	62	70	60	25
4	QTE-3600	213	300	195	150	305	199.5	118.5	70.5	85	60	25

FIG (2)



Sr. No.	Model	A	B	C	D	E	F	G	H	I	J	K
5	QTE-4000/ER1	213.5	258	171	146	261	259.5	111	60	85	47.5	20
6	QTE-6000/ER2	253.5	350	202	146	312	284	146.5	91.5	95	49.5	20
7	QTE-7500/ER2	257	304	220	170	329	264.5	146.5	89.5	95	49.5	20
8	QTE-10000/ER3	283	374	239	185	349	404	155.5	87	95	50	25
9	QTE-15000/ER3	305	410	267.5	234	405	417.5	162	95	110	50	25
10	QTE-20000/ER3	373	526	329.5	280	491.5	448	187	112.5	130	50	25
11	QTE-30000/ER5	424	604	399	360	584	550	207	112.5	150	50	30
12	QTE-45000/ER5	504	706	450	380	657	622	210	112.5	150	50	30

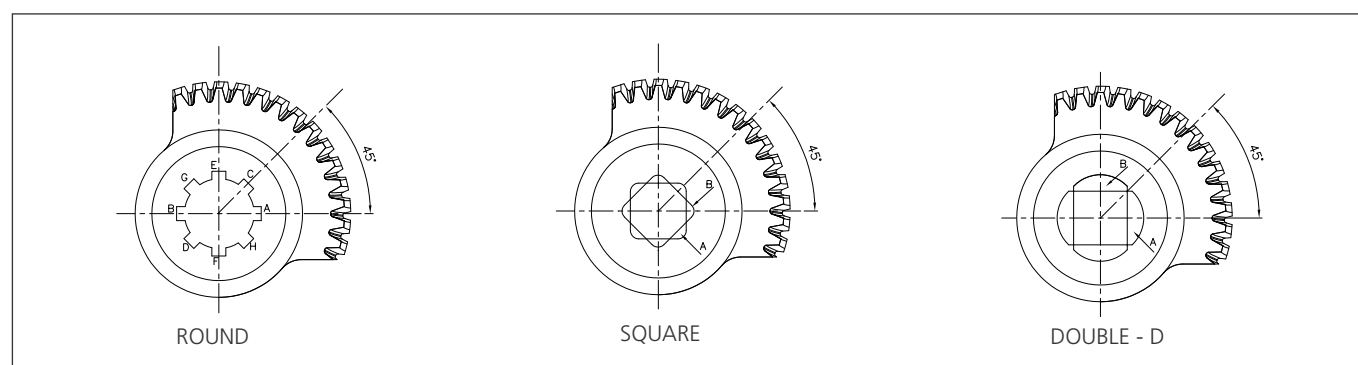
Material Specifications

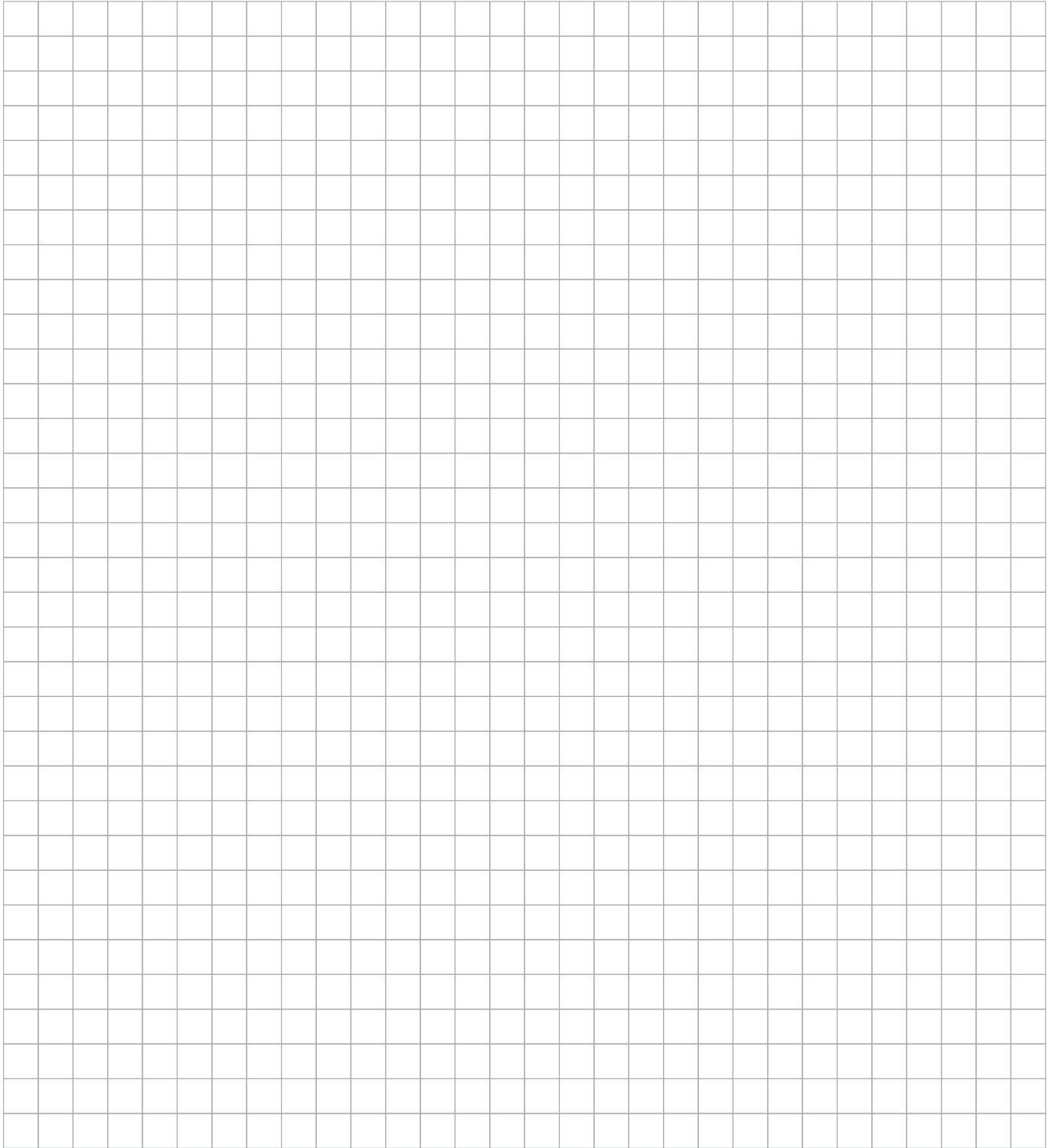
Sr. No	Job Description	Material Description	Standards
1	Housing	Cast Iron-FG 220	IS 210 / ASTM A48 35B / 40B / GG-20
2	Cover	Cast Iron-FG 220	IS 210 / ASTM A48 35B / 40B / GG-20
3	Worm Wheel	SG Iron-500/7	IS 1865 / ASTM A536 80-55-06 / GGG-50
4	Input Shaft	En19	45C8 / SAE 1040 / CK45 / C55 / SAE-4140 / 42CrMo4
5	Worm	20MnCr5	45C8 / SAE 1040 / CK45 / 20MnCr1
6	Spur Housing	Cast Iron-FG 220	IS 210 / ASTM A48 35B / 40B / GG-20
7	Spur Cover	Cast Iron-FG 220	IS 210 / ASTM A48 35B / 40B / GG-20
8	Spur Pinion	En19	C55 / SAE 4140 / 42CrMo4
9	Spur Gear	En19	C55 / SAE 4140 / 42CrMo4
		SG Iron-500/7	IS 1865 / ASTM A536 80-55-06 / GGG-50
10	Bearing	Standard	----

Electrical Gear Box Selection Data

Sr. No.	Model	Output Torque		Mechanical Advantage +/-10 %	Gear Ratio	Turns to Close	ISO 5211 Valve Mounting	ISO 5211 Actuator Mounting	Max Stem Acceptance Dia (mm)	Approx. unit weight (Kg)
		Nm	Ft-Lbf							
1	QTE-700	700	516	11.5	46:1	11.5	F07, F10, F12	F10	35	7.5
2	QTE-2000	2000	1475	18	67:1	16.75	F10, F12, F14, F16	F10	50	21
3	QTE-3000	3000	2212.5	20.4	74:1	18.5	F14, F16, F25	F10	70	35
4	QTE-3600	3600	2655	22	87:1	21.75	F16, F25	F10	85	40
5	QTE-4000/ER1	4000	2950	44	177:1	44.25	F12, F14, F16, F25	F10	85	44
6	QTE-6000/ER2	6000	4425	60	256:1	48	F16, F25, F30	F10	95	73
7	QTE-7500/ER2	7500	5531	73	260:1	65	F16, F25, F30	F10	95	77
8	QTE-10000/ER3	10000	7375	82	360:1	90	F25, F30	F10, F14	95	114
9	QTE-15000/ER3	15000	11062.5	110	378:1	94.5	F25, F30	F10, F14	110	134
10	QTE-20000/ER3	20000	14750	125	408:1	102	F25, F30, F35	F10, F14	130	179
11	QTE-30000/ER5	30000	22125	190	608:1	152	F25, F30, F35	F14	150	296
12	QTE-45000/ER5	45000	33187.5	289	1184:1	296	F30, F35, F40	F14	150	393

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





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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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