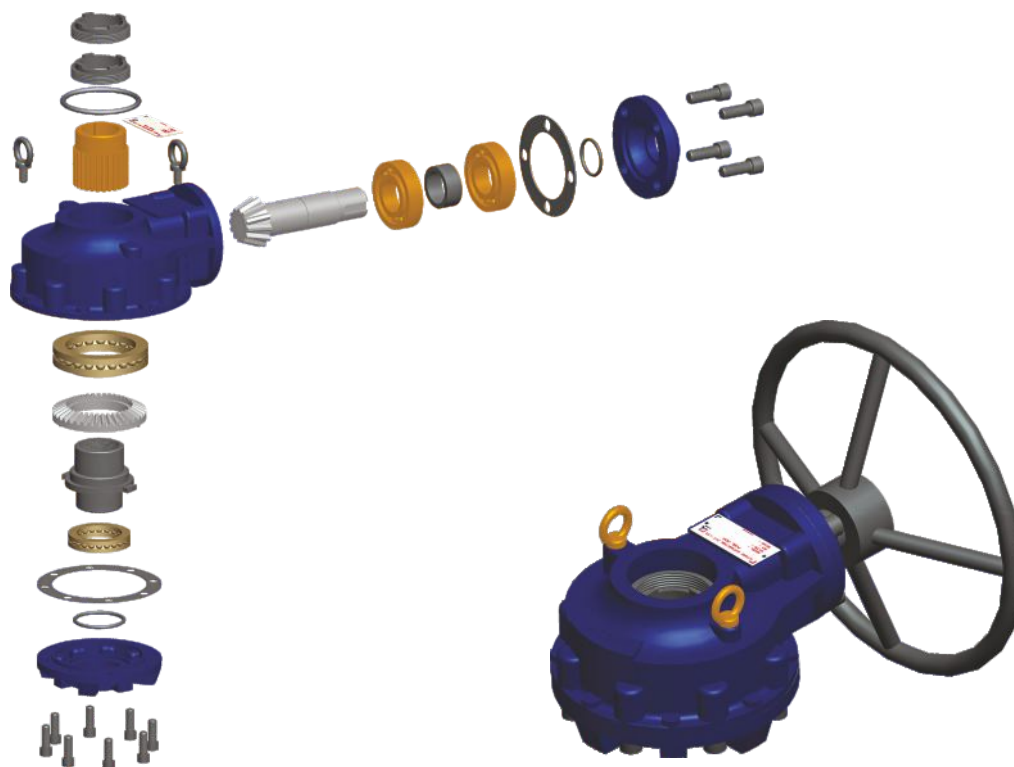




## 519 Series Multi-turn Bevel Gear Operators (MEDIUM THRUST)



### Multi-turn Bevel Gear Operators

Q-Tork 519 series suitable for manual as well as motorized operation

### Application

519 Series operator are multi-turn bevel gear boxes are used in operation of Gate Valve, Globe Valve, Sluice Valve and penstock Valve.

### Features & Benefits

- Ductile Iron - Housing, Base and End cap
- Carbon Steel - Gear and Pinion
- All critical components are heat treated to ensure longer serviceable life
- High Performance bearing
- Environmental friendly high performance grease
- Powder coated Handwheels for smooth and easy operation
- Epoxy Primer Coating
- Removable Stem Adaptor to facilitate spindle machining thereby enabling customer stocking
- Stem Adaptor - Al. Bronze
- Temperature range -30°C to + 120°C
- Light weight with rugged design

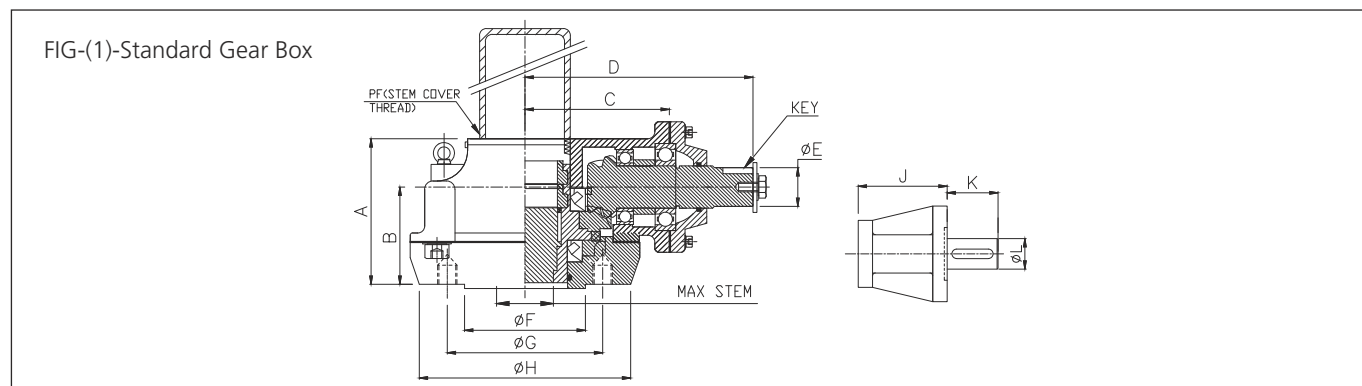
### Optional

- Housing Materials - Carbon Steel, Cast Iron
- Pad Lockable flange
- Submersibility to IP67
- Grease High up to +260°C
- Grease Low up to -45°C

## Material Specification

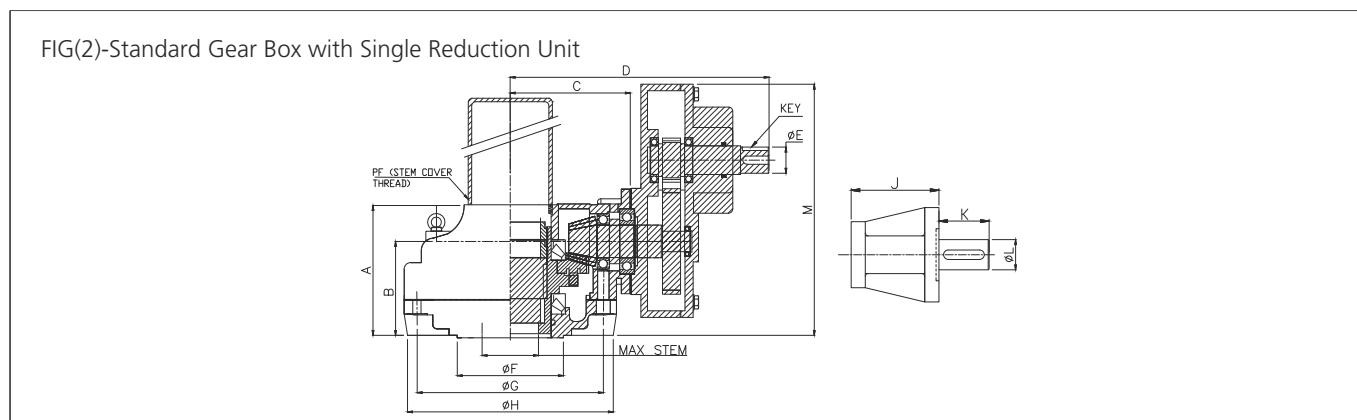
Sr. No	Job Description	Material Description	US Standard	IS Standard
1	Housing	Ductile Iron	A536-65-45-12	SG-450 / 10
2	Base	Ductile Iron	A536-65-45-12	SG-450 / 10
3	Bevel Gear	Carbon Steel	A576-1045	AISI-1045
4	End Cap	Ductile Iron	A536-65-45-12	SG-450 / 10
5	Bevel Pinion	Carbon Steel	A576-1045	AISI-1045
6	Drive Sleeve	Ductile Iron	A536-65-45-12	SG-450 / 10
7	Thrust Tapper Bearing	Standard	—	—
8	O-Ring	Nitrile	—	—
9	Stem Nut	Bronze	B148 C95800	AB-2
10	Wrench Bolt	Alloy Steel	—	10.9 Gr.
11	Gasket	Cellulose fiber 60 Gr.	—	—
12	Ball Bearing	Standard	—	—
13	Dual Lock Nuts	Carbon Steel	A576-1045	AISI-1045
14	Eye Bolt	Carbon Steel	A307 GR.B	—
15	Handwheel	MS PIPE	—	—
16	Reduction Housing	Ductile Iron	A536-65-45-12	SG-450 / 10
17	Reduction Cover	Ductile Iron	A536-65-45-12	SG-450 / 10
18	Gear	Carbon Steel	A322-4140	AISI-4140
19	Pinion	Carbon Steel	A322-4140	AISI-4140
20	Idler Gear	Carbon Steel	A322-4140	AISI-4140

## Dimensional Specifications



Sr. No	Models	A	B	C	D	ØE	Key	Stem Cover Thread	ØF	ØG	ØH	N-H-Dp	J	K	ØL	Actuator Mounting Flange	
1	QTB-220M	95	71	90	164	26	8x7	PF 2"	70	102	125	4-M10-15	65	50	25	F10	
2	QTB-370M	106	76.6	104.5	178.5	26		PF 2 1/2"	70	102	125	4-M10-15	65	50	25	F10	
3	QTB-600M	121	81	119.5	198.5	32	10x8	PF 2 1/2"	85	125	150	4-M12-18	65	50	30	F14	
									100	140	175	4-M16-24					
4	QTB-980M	140	98	130	210	32		PF 3"	100	140	175	4-M16-24	65	50	30	F14	
									130	165	210	4-M20-30					
5	QTB-1500M	160	115	147	231	32		PF 3 1/2"	130	165	210	4-M20-30	85	55	30	F14	
									140	205	250	8-M16-24					
6	QTB-2500M	167	119	167	252	32		PF 4"	200	254	300	8-M16-24	85	55	30	F14	
7	QTB-3500M	196	138	217.5	319	38		PF 5"	230	298	350	8-M20-30	85	60	35	F16	
8	QTB-5200M	240	165.5	248	351	38		12x8	PF 6"	230	298	350	8-M20-30	85	60	35	F16
9	QTB-7800M	253	182.5	286	387	38			PF 6"	260	356	415	8-M30-45	90	60	35	F16
10	QTB-13000M	279	201	321	441	50	16x10	PF 8"	300	406	475	8-M36-54	90	60	45	F16	

## Dimensional Specifications



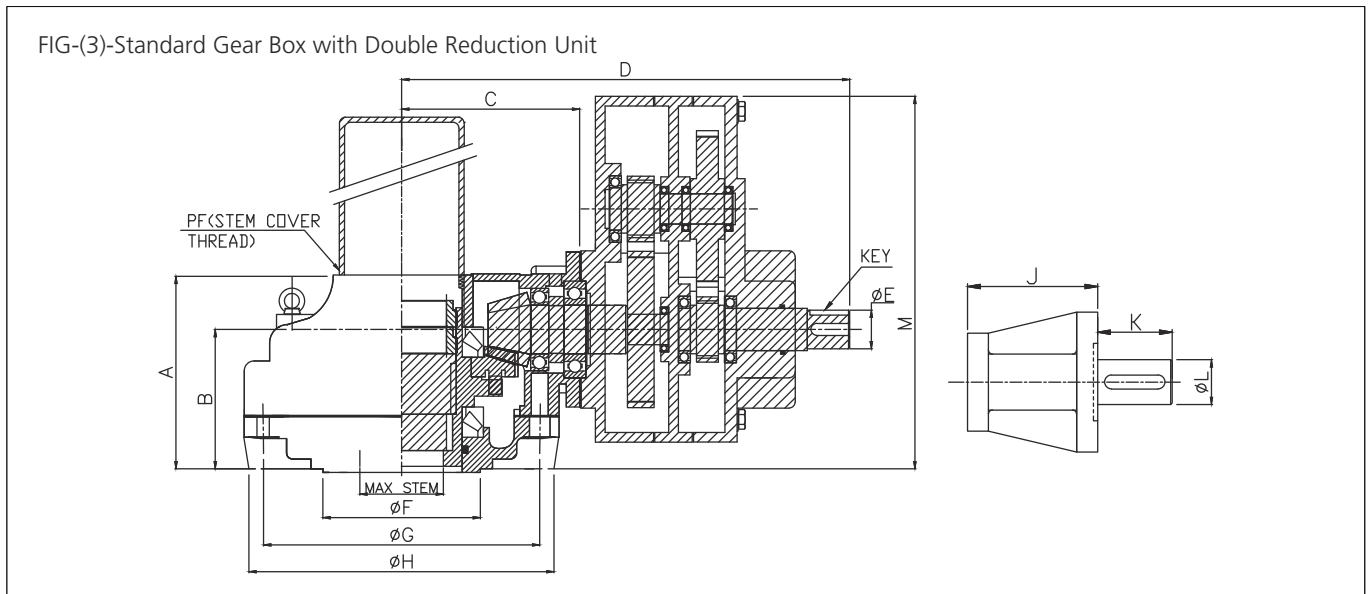
### Spur Reduction Unit:-

Sr. No	Models	A	B	C	D	ØE	Key	Stem Cover Thread	ØF	ØG	ØH	M	N-H-Dp	J	K	ØL	Actuator Mounting Flange
1	QTB-600M-1S1	121	81	119.5	291	32	10x8	PF 2 1/2"	85	125	150	256.5	4-M12-18	65	50	30	F14
									100	140	175		4-M16-24				
2	QTB-980M-1S1	140	98	130	301.5	32		PF 3"	100	140	175	275	4-M16-24	65	50	30	F14
									130	165	210		4-M20-30				
3	QTB-1500M-1S2	160	115	147	317	32	10x8	PF 3 1/2"	130	165	210	308	4-M20-30	85	55	30	F14
									140	205	250		8-M16-24				
4	QTB-2500M-1S2	167	119	167	337	32	10x8	PF 4"	200	254	300	311	4-M16-24	85	55	30	F14
5	QTB-3500M-1S3	196	138	217.5	437	38	12x8	PF 5"	230	298	350	370	8-M20-30	85	60	35	F16
6	QTB-5200M-1S3	240	165.5	248	467	38		PF 6"	230	298	350	390	8-M20-30	85	60	35	F16
7	QTB-7800M-1S4	253	182.5	286	514	38		PF 6"	260	356	415	453	8-M30-45	90	60	35	F16
8	QTB-13000M-1S5	279	201	321	577	50		16x10	PF 8"	300	406	475	529	8-M36-45	90	60	45

### Helical Reduction Unit:-

Sr. No	Models	A	B	C	D	ØE	Key	Stem Cover Thread	ØF	ØG	ØH	M	N-H-Dp	J	K	ØL	Actuator Mounting Flange
1	QTB-600M-1H1	121	81	119.5	291	32	10x8	PF 2 1/2"	85	125	150	256.5	4-M12-18	65	50	30	F14
									100	140	175		4-M16-24				
2	QTB-980M-1H1	140	98	130	301.5	32		PF 3"	100	140	175	275	4-M16-24	65	50	30	F14
									130	165	210		4-M20-30				
3	QTB-1500M-1H2	160	115	147	317	32	10x8	PF 3 1/2"	130	165	210	308	4-M20-30	85	55	30	F14
									140	205	250		8-M16-24				
4	QTB-2500M-1H2	167	119	167	337	32	10x8	PF 4"	200	254	300	311	4-M16-24	85	55	30	F14
5	QTB-3500M-1H3	196	138	217.5	437	38	12x8	PF 5"	230	298	350	370	8-M20-30	85	60	35	F16
6	QTB-5200M-1H3	240	165.5	248	467	38		PF 6"	230	298	350	390	8-M20-30	85	60	35	F16
7	QTB-7800M-1H4	253	182.5	286	514	38		PF 6"	260	356	415	453	8-M30-45	90	60	35	F16
8	QTB-13000M-1H5	279	201	321	577	50		16x10	PF 8"	300	406	475	529	8-M36-45	90	60	45

## Dimensional Specifications



### Spur Reduction Unit:-

Sr. No	Models	A	B	C	D	ØE	Key	Stem Cover Thread	ØF	ØG	ØH	M	N-H-Dp	J	K	ØL	Actuator Mounting Flange
1	QTB-600M-2S1	121	81	119.5	343	32	10x8	PF 2 1/2"	85	125	150	256.5	4-M12-18	65	50	30	F14
2	QTB-980M-2S1	140	98	130	353.5	32		PF 3"	100	140	175	275	4-M16-24	65	50	30	F14
3	QTB-1500M-2S2	160	115	147	370	32	PF 3 1/2"	130	165	210	308	4-M20-30	85	55	30	F14	
4	QTB-2500M-2S2	167	119	167	390	32	PF 4"	200	254	300	311	4-M16-24	85	55	30	F14	
5	QTB-3500M-2S3	196	138	217.5	528	38	12x8	PF 5"	230	298	350	370	8-M20-30	85	60	35	F16
6	QTB-5200M-2S3	240	165.5	248	558	38		PF 6"	230	298	350	390	8-M20-30	85	60	35	F16
7	QTB-7800M-2S4	253	182.5	286	583	38			PF 6"	260	356	415	453	8-M30-45	90	60	35
8	QTB-13000M-2S5	279	201	321	676	50	16x10	PF 8"	300	406	475	529	8-M36-45	90	60	45	F16

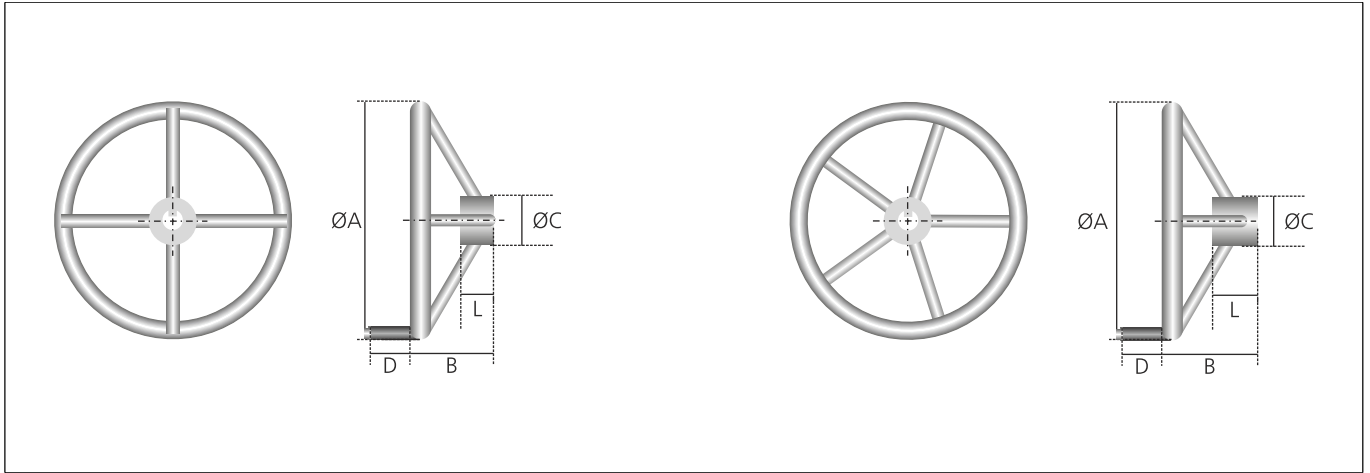
### Helical Reduction Unit:-

Sr. No	Models	A	B	C	D	ØE	Key	Stem Cover Thread	ØF	ØG	ØH	M	N-H-Dp	J	K	ØL	Actuator Mounting Flange
1	QTB-600M-2H1	121	81	119.5	343	32	10x8	PF 2 1/2"	85	125	150	256.5	4-M12-18	65	50	30	F14
2	QTB-980M-2H1	140	98	130	353.5	32		PF 3"	100	140	175	275	4-M16-24	65	50	30	F14
3	QTB-1500M-2H2	160	115	147	370	32	PF 3 1/2"	130	165	210	308	4-M20-30	85	55	30	F14	
4	QTB-2500M-2H2	167	119	167	390	32	PF 4"	200	254	300	311	4-M16-24	85	55	30	F14	
5	QTB-3500M-2H3	196	138	217.5	528	38	12x8	PF 5"	230	298	350	370	8-M20-30	85	60	35	F16
6	QTB-5200M-2H3	240	165.5	248	558	38		PF 6"	230	298	350	390	8-M20-30	85	60	35	F16
7	QTB-7800M-2H4	253	182.5	286	583	38			PF 6"	260	356	415	453	8-M30-45	90	60	35
8	QTB-13000M-2H5	279	201	321	676	50	16x10	PF 8"	300	406	475	529	8-M36-45	90	60	45	F16

## Multi-Turn Bevel Gear Box Selection Data

Sr. No	Models	Max. Torque		Mechanical Advantage +/-10%	Gear Ratio	Max. Thrust		Max. Stem Acceptance	Valve Mounting Flange	Recommended Handwheel Dia (mm)
		Nm	Ft. lbf			KN	lbf			
1	QTB-220M	220	162	2.4	2.5:1	166	37318	20(8X7)	F-10	250
2	QTB-370M	370	273	2.9	3:01	300	67443	32(10X8)	F-10, F-12	300
3	QTB-600M	600	442	3.1	3.25:1	335	75311	38 (12x8)	F-12,F-14	400
	QTB-600M/1S1	600	442	6	6.5:1	335	75311	38 (12x8)	F-12,F-14	400
	QTB-600M/2S1	600	442	11.7	13:1	335	75311	38 (12x8)	F-12,F-14	400
	QTB-600M/1H1	600	442	6	6.5:1	335	75311	38 (12x8)	F-12,F-14	400
	QTB-600M/2H1	600	442	11.7	13:1	335	75311	38 (12x8)	F-12,F-14	400
4	QTB-980M	980	723	3.3	3.5:1	365	82055	45 (14x9)	F-14,F-16	500
	QTB-980M/1S1	980	723	6.3	7:1	365	82055	45 (14x9)	F-14,F-16	500
	QTB-980M/2S1	980	723	12.6	14:1	365	82055	45 (14x9)	F-14,F-16	500
	QTB-980M/1H1	980	723	6.3	7:1	365	82055	45 (14x9)	F-14,F-16	500
	QTB-980M/2H1	980	723	12.6	14:1	365	82055	45 (14x9)	F-14,F-16	500
5	QTB-1500M	1500	1106	3.8	4:1	450	101164	52 (16x10)	F-16, (F-20)	630
	QTB-1500M/1S2	1500	1106	9.3	10.13:1	450	101164	52 (16x10)	F-16, (F-20)	630
	QTB-1500M/2S2	1500	1106	23.7	25.67:1	450	101164	52 (16x10)	F-16, (F-20)	630
	QTB-1500M/1H2	1500	1106	9.3	10.13:1	450	101164	52 (16x10)	F-16, (F-20)	630
	QTB-1500M/2H2	1500	1106	23.7	25.67:1	450	101164	52 (16x10)	F-16, (F-20)	630
6	QTB-2500M	2500	1844	4.8	5:1	680	152870	60 (18x11)	F-25	710
	QTB-2500M/1S2	2500	1844	11.7	12.66:1	680	152870	60 (18x11)	F-25	710
	QTB-2500M/2S2	2500	1844	29.6	32.1:1	680	152870	60 (18x11)	F-25	710
	QTB-2500M/1H2	2500	1844	11.7	12.66:1	680	152870	60 (18x11)	F-25	710
	QTB-2500M/2H2	2500	1844	29.6	32.1:1	680	152870	60 (18x11)	F-25	710
7	QTB-3500M	3500	2581	5.2	5.5:1	735	165235	72 (20x12)	F-30	800
	QTB-3500M/1S3	3500	2581	15.2	16.5:1	735	165235	72 (20x12)	F-30	800
	QTB-3500M/2S3	3500	2581	45.6	49.5:1	735	165235	72 (20x12)	F-30	800
	QTB-3500M/1H3	3500	2581	15.2	16.5:1	735	165235	72 (20x12)	F-30	800
	QTB-3500M/2H3	3500	2581	45.6	49.5:1	735	165235	72 (20x12)	F-30	800
8	QTB-5200M	5200	3835	5.7	6:1	1000	224809	84 (22x14)	F-30	900
	QTB-5200M/1S3	5200	3835	16.6	18:1	1000	224809	84 (22x14)	F-30	900
	QTB-5200M/2S3	5200	3835	49.8	54:1	1000	224809	84 (22x14)	F-30	900
	QTB-5200M/1H3	5200	3835	16.6	18:1	1000	224809	84 (22x14)	F-30	900
	QTB-5200M/2H3	5200	3835	49.8	54:1	1000	224809	84 (22x14)	F-30	900
9	QTB-7800M	7800	5753	6.2	6.5:1	1340	301244	100 (28x16)	F-35	900
	QTB-7800M/1S4	7800	5753	21.1	22.94:1	1340	301244	100 (28x16)	F-35	900
	QTB-7800M/2S4	7800	5753	74	80.31:1	1340	301244	100 (28x16)	F-35	900
	QTB-7800M/1H4	7800	5753	21.1	22.94:1	1340	301244	100 (28x16)	F-35	900
	QTB-7800M/2H4	7800	5753	74	80.31:1	1340	301244	100 (28x16)	F-35	900
10	QTB-13000M	13000	9588	6.7	7:1	3100	696908	115 (32x18)	F-40	1000
	QTB-13000M/1S5	13000	9588	25.8	28:1	3100	696908	115 (32x18)	F-40	1000
	QTB-13000M/2S5	13000	9588	103.2	112:1	3100	696908	115 (32x18)	F-40	1000
	QTB-13000M/1H5	13000	9588	25.8	28:1	3100	696908	115 (32x18)	F-40	1000
	QTB-13000M/2H5	13000	9588	103.2	112:1	3100	696908	115 (32x18)	F-40	1000

## Handwheel Specification: With Keyway/with Hole (pin)



Sr. No	Handwheel Dia-A	Height-B	Bush OD Dia-C	Bush Length-L	No.Of Spokes	Handle Length-
1	250	90	60	35	4	97
2	300	90	70	35	5	
3	400	90	70	35	5	
4	500	90	70	35	5	
5	630	90	70	35	5	
6	710	90	70	35	5	
7	800	130	80	45	6	
8	900	130	80	45	6	
9	900	130	80	45	6	
10	1000	130	90	60	6	

The information & specifications of this literature is believed to be accurate. It is supplied for informative purpose only and shall not be considered as guarantee or certificate for satisfactory result. As a part of continual improvement in its product design, specification and dimension is subject to change without notice. Should there be any question concerning this leaflet, the buyer / user should get in touch with **Q-Tork Automation Pvt. Ltd.** at any of its office locally / worldwide.

### 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



**Works :** Gat No # 1083/1B, Markal, Tal. - Khed, Pune - 412 105. Maharashtra, INDIA.  
 • cellular # +91 99 22 009715 • email # marketing@qtork.com • [www.qtork.com](http://www.qtork.com)

