





### QT - Series (Quarter Turn Worm Gear Boxes)

The 'QT' series Quarter Turn Worm Gear Boxes are High Performance Gear Boxes used to operate Butterfly, Ball, Plug Valves & Dampers Manually.

#### **PRODUCT DESCRIPTION:**

- High Performance Gear Boxes by Robust Construction & Compact Design
- Meeting QUALITY, PERFORMANCE and DELIVERY.
- Torque range from 245 Nm to 73575 Nm.
- Output Travel 0° to 90° (±5°)
- Self-locking Mechanism (Worm & Worm Wheel)
- Standard Version : Clockwise Input = Clockwise Output to Close
- ♦ IP-67 Enclosure
- Working Temperature -20°C to +120°C
- Graded Cast Iron Housing and Worm Wheel in Ductile Iron
- High Tensile Fasteners
- High performance Bearings
- Sturdy Hand wheel with Black Powder coating for Easy and Smooth Operation
- Semi-Glossy Black Epoxy Paint as Standard
- Gear Boxes lubricated with Multi-purpose Grease
- Gear Box Mounting as per ISO 5211 Std.

#### **FEATURES:**

- Housing, Cover and Worm Wheel material also available in Ductile Iron/Carbon Steel/Stainless Steel/Nickel Aluminium Bronze material or as required as optional.
- Worm and Shaft are also available in Stainless Steel, Aluminium Bronze (AB1/AB2) material as optional.
- Fasteners and Hand wheel also available in Stainless Steel as optional.
- Grease Nipple, Padlock Arrangement and Chain Wheel Arrangement also available as optional.
- Buried Service Gear Boxes with Extension Shaft Arrangement also available.
- IP-68 Enclosure available against requirement.
- Limit Switch Box Fitment Mounting also available.
- Gear Boxes for Low Temperature and High Temperature applications also available.
- Half Turn (180°) and Mulit-Turn (360°) operational gear boxes also available.
- RL Version Optional.

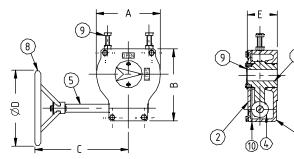
#### **TESTING FACILITIES:**

- Test Rig to measure the Performance Factor (P.F)
- Endurance test Setup

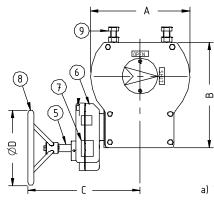
#### PERFECT ACTUATORS & CONTROLS PVT. LTD.

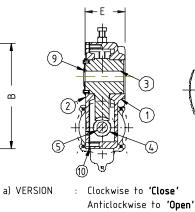
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# a) Standard Gear Box



# b) Gear Box with Secondary Gear Attachment





(1)

b) IP enclosure : IP - 67

SI. No.	Description	Material*					
01	Housing	CI FG-220					
02	Cover	CI FG-220					
03	Wormwheel	SGI 600/3					
04	Worm	EN-8					
05	Shaft	EN - 8					
06	SG Casing	CI FG-220					
07	SG Gears	EN - 8					
08	Hand Wheel	MS Fab					
09	Fasteners	8.8 Grade					
10	Gasket	AF-111/RTV Sealant					

#### Note - a)\* Material optional as required b) Performance Factor achieved after 10 cycles c) All dimension are in mm & indicative

# ROUND with KEYWAY SQUARE D-D

View Seen From Top at 'Close' Position

MODEL	RATIO	TURNS TO CLOSE 90°	PERFOMANCE FACTOR ±10%	MAX. OUTPUT TORQUE		DIA. OF DRIVE BORE MAX.	MOUNTING FLANGE AS PER ISO:5211		HANDWHEEL ØD	Aprx. Wgt.	А	В	C	E
				Nm	Kgm	(mm)	Min.	Max.	(mm) (	( Kg. )				
QT-25	30 : 1	7.5	8	245	25	20	F05	F07	200	2.0	77.0	102.0	168.0	55.0
QT-35	32 : 1	8	10	343 440	35	30	F07	F10	250	3.2	88.0	116.0	208.0	57.0
QT-45	32 : 1	8			45	30					91.0	118.0	210.0	57.0
QT-50	40:1	10	11	490	50	36		F12	300	4.0	104.0	137.0	226.0	59.0
QT-70	50 : 1	12.5	13	690	70	36	F10	E1/	400	5.2	125.0	149.0	266.0	65.0
OT 100	40:1	10	- 11	981	100	45.5		F14	450	8	127.0	158.0	264.0	73.0
QT-100	40:1	10				45.5	F16	F16			150.0	176.0	264.0	83.0
	56 : 1	14	14	1470	150	45.5	F10	F14		10.5	170.0	189.0	315.0	81.0
QT-150	56 : 1	14				45.5	F16	F16		11	170.0	200.0	315.0	91.0
	56 : 1	14				60	F25	F25		14	170.0	189.0	315.0	88.0
QT-190	56 : 1	14	13	10/0		57.5	F12	F16		16	190.0	255.0	345.0	93.0
u i - 190	56 : 1	14	13	1860	190	60	F25	F25		19.5	266.0	276.0	345.0	101.0
07.225	52 : 1	13	10	2208		57.5	F12	F16		16.5	189.0	222.0	347.0	93.0
QT-225	52 : 1	13	12	2200	225	60	F25	F25	600	20.5	266.0	275.0	347.0	101.0
OT 200	58 : 1	14.5	45	2745	280	57.5	F12	F16		20	210.0	240.0	362.0	105.0
QT-280	58 : 1	14.5	15			60	F25	F25		23	266.0	288.0	362.0	105.0
	60 : 1	15		2226	0.00	68	F12	F16	- 700	22	230.0	249.0	374.0	104.0
QT-330	60 : 1	15	16	3236	330	75	F25	F25		26	266.0	303.0	374.0	107.5
QT-400	56 : 1	14	44	3924	400	75	F16	F16		28	268.0	255.0	364.0	110.0
u1-400	56 : 1	14	14			75	F25	F25			268.0	305.0	364.0	110.0
07.22000	150 : 1	37.5	20	3236	330	68	F12	F16	600	26	230.0	249.0	365.0	104.0
QT-330SG	150 : 1	37.5	30			75	F25	F25		29	266.0	303.0	365.0	107.5
QT-400SG	168 : 1	42	32	3924	400	75	F16	F16		31	268.0	255.0	355.0	110.0
	168 : 1	42				75	F25	F25		35	268.0	305.0	355.0	110.0
I QT-500SG 🛏	252 : 1	63	50	4905	500	65	F16	F16		34	265.0	288.0	366.0	112.0
	252 : 1	63				80	F25	F25		37	265.0	323.0	366.0	112.0
0T-650SG	264 : 1	66	60	6376	650	80	F16	F16	-	46	280.0	280.0	363.0	107.0
	264 : 1	66				80	F25	F25		49	280.0	320.0	363.0	130.0
QT-850SGP	318 : 1	79.5	75	8338	850	80	F16	125	650	64	330.0	315.0	439.0	127.0
QT-1100SGP	336 : 1	84	80	10790	1100	90	F25 F30	F30		82	355.0	340.0	414.0	129.0
QT-1500SGD	504 : 1	126	100	14715	1500	100	F23	1.20		95	345.0	425.0	445.0	165.0
QT-2400SG	522 : 1	130.5	115	23540	2400	115		F35	750	137	430.0	518.0	462.0	159.0
QT-3500SG	1056 : 1	264	210	34335	3500	150	- F30 -			210	484.0	547.0	492.0	162.0
QT-5000SGC -	960 : 1	240	200	49050 500	5000	160		F40	800	400	548.0	928.0	692.0	212.0
	1500 : 1	375	320		1000	160					548.0	928.0	692.0	212.0
QT-7500SGC -	1325 : 1	331.25	310	73575	7500	200	F40	F48		450	600.0	1060.0	725.0	210.0
	1908 : 1	477	415		0001	200					600.0	1060.0	725.0	210.0

