

## QUARTER TURN WORM GEAR BOXES (QT - SERIES)

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 100000 Nm.
- ◆ Output Travel - 0° to 90° (±5°)
- ◆ Self-locking Mechanism (Worm & Worm Wheel)
- ◆ Standard Version LR : 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 Bearing
- ◆ Sturdy Hand wheel 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.
- ◆ Types of Stem Cavity Processed: Round with keyway, Square, Double Dee Orientation.

### 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 Multi-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.

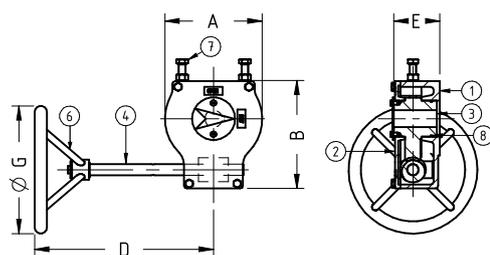
(An ISO 9001 : 2015 & ISO 45001 : 2018 Certified Company)

B-137/493, INDUSTRIAL ESTATE, GOKUL ROAD. HUBLI - 580 030. INDIA

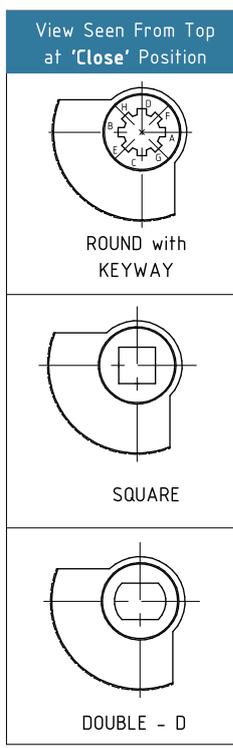
PHONE : 0836 - 2335971, 2210619. FAX : (0836) 2331698

E-Mail : sales@pacplindia.com, info@pacplindia.com. Website : www.pacplindia.com

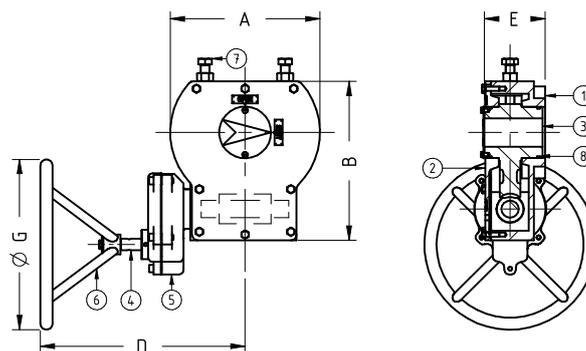
## a) Standard Gear Box



Sl. No.	Description	Material *
1	Housing	CI FG-220
2	Cover	CI FG-220
3	Worm wheel	SGI 600/3
4	Input Shaft	EN-8D
5	Spur Gear Unit	CI FG-220
6	Handwheel	MS. Fab.
7	Fasteners	8.8 Gr.
8	O-Ring	Nitrile
9	Grease	Multipurpose



## b) Gear Box with Secondary Gear Attachment



⇒ VERSION (LR): Clockwise to 'CLOSE'  
Anticlockwise to 'OPEN'  
⇒ IP Enclosure : IP-67

Note - a) \*Material optional as required  
b) Performance Factor achieved after few cycles.  
c) All dimensions are in mm & indicative  
d) Input Shaft and Drive Bore keyway as per IS:2048

MODEL	RATIO	TURNS TO CLOSE 90°	PERFORMANCE FACTOR ±10%	MAXIMUM OUTPUT TORQUE		DIAMETER OF DRIVE BORE in mm	MOUNTING FLANGE AS PER ISO-5211		Handwheel Ø G mm	Aprox. Weight ( Kg )	A	B	D	E											
				Nm	Kgm		Max.	Min.							Max.										
QT-25	30 : 1	7.5	8	245	25	20	F-05	F-07	200	2.0	75	100	165	54											
QT-35	32 : 1	8.0	10	343	35	30	F-07	F-10	250	3.2	85	120	200	55											
QT-45	32 : 1	8.0		440	45										30.0										
QT-50	40 : 1	10.0	11	490	50	36.0	F-10	F-12	300	4.0	104	140	220	60											
QT-70	50 : 1	12.5	13	690	70										400	5.2	150	265	65						
QT-100	40 : 1	10.0	11	981	100	45.5	F-10	F-14	450	8.0	125	165	250	70											
	40 : 1	10.0													11	981	100	45.5	F-16	F-16	9.0	170	185	310	80
QT-150	56 : 1	14.0	14	1470	150	60.0	F-10	F-14	450	10.5	170	200	310	90											
	56 : 1	14.0													11	1470	150	60.0	F-16	F-16	11.0	265	275	312	100
	56 : 1	14.0													14	1470	150	60.0	F-25	F-25	14.0	265	275	312	100
QT-190	57 : 1	14.0	12	1860	190	57.5	F-12	F-16	600	16.0	185	220	340	90											
	57 : 1	14.0													12	1860	190	57.5	F-12	F-16	19.5	265	275	350	90
QT-225	52 : 1	13.0	12	2208	225	60.0	F-12	F-16	600	16.5	188	220	350	90											
	52 : 1	13.0													12	2208	225	60.0	F-25	F-25	20.5	265	275	355	100
QT-280	58 : 1	14.5	15	2745	280	57.5	F-12	F-16	600	20.0	205	235	355	100											
	58 : 1	14.5													15	2745	280	57.5	F-12	F-16	23.0	265	285	355	105
QT-330	60 : 1	15.0	16	3236	330	68.0	F-12	F-16	700	22.0	260	250	365	100											
	60 : 1	15.0													16	3236	330	68.0	F-12	F-16	26.0	260	300	365	105
QT-400	56 : 1	14.0	14	3924	400	75.0	F-16	F-25	700	28.0	260	250	365	105											
QT-330SG	150 : 1	37.5	30	3236	330	68.0	F-12	F-16	600	26.0	260	250	350	100											
	150 : 1	37.5													30	3236	330	68.0	F-12	F-16	29.0	265	300	350	105
QT-400SG	168 : 1	42.0	32	3924	400	75.0	F-16	F-25	600	31.0	260	295	350	105											
	168 : 1	42.0													32	3924	400	75.0	F-16	F-25	34.0	260	280	350	105
QT-500SG	252 : 1	63.0	50	4905	500	65.0	F-16	F-25	650	37.0	265	320	355	105											
	252 : 1	63.0													50	4905	500	65.0	F-16	F-25	46.0	275	280	360	105
QT-650SG	264 : 1	66.0	60	6376	650	80.0	F-16	F-25	650	52	275	310	360	120											
	264 : 1	66.0													60	6376	650	80.0	F-16	F-25	64.0	325	340	435	120
QT-850SGP	318 : 1	79.5	75	8338	850	90.0	F-16	F-25	650	82.0	345	388	425	130 (F25) 152 (F30)											
QT-1100SGP	336 : 1	84.0	80	10790	1100	90.0	F-25	F-30	650	95.0	345	415	465	160											
QT-1500SGD	504 : 1	126.0													80	10790	1100	90.0	F-25	F-30	650	95.0	345	415	465
QT-2400SGA1	522 : 1	130.5	115	23540	2400	115.0	F-25	F-35	750	137.0	430	515	475	170											
QT-3500SGB2	1056 : 1	264.0	210	34335	3500	150.0	F-25	F-40	750	210.0	480	540	515	185											
QT-5000SGC	960 : 1	240.0	200	49050	5000	160.0	F-30	F-40	800	400.0	550	730	730	210											
	1500 : 1	375.0	320												49050	5000	160.0	F-30	F-40	800	400.0	550	730	730	210
QT-7500SGC	1325 : 1	331.25	310	73575	7500	170.0	F-30	F-48	800	450.0	600	800	760	220											
	1908 : 1	477.0	415												73575	7500	170.0	F-30	F-48	800	450.0	600	800	760	220
QT-10KSGC	1450 : 1	362.5	390	100000	10194	200.0	F-30	F-48	800	650.0	685	830	870	270											

**Important Note:**

- 1) We have endeavoured in this publication to make the content as accurate as possible, being given as general information. It is not taken as binding unless specifically confirmed in writing.
- 2) Due to PAC's continual commitment to engineering, Product specifications and data presented in this publication are subject to change without prior notice.
- 3) All Dimensions are in "mm".