



## DE-CLUTCHABLE / MANUAL OVER-RIDE WORM GEAR BOXES(MOS-SERIES)

The 'MOS' series are De-clutchable Quarter Turn Worm Gear Boxes are used to operate Pneumatically Actuated Valves.

### PRODUCT DESCRIPTION:

- ◆ High Performance Gear Boxes by Robust Construction & Compact Design.
- ◆ Meeting QUALITY, PERFORMANCE and DELIVERY.
- ◆ Torque range from 250 Nm to 9800 Nm.
- ◆ Output Travel - 0° to 90° (±5°).
- ◆ Self-locking Mechanism (Worm & Worm Wheel).
- ◆ Standard Version LR : Clockwise Input = Clockwise Output to Close
- ◆ IP-54 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 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 as material as optional.
- ◆ Fasteners and Hand wheel also available in Stainless Steel as optional.
- ◆ Gear Boxes for Low Temperature and High Temperature applications also available against requirement.
- ◆ IP-65/ IP-67 Enclosure Optional.
- ◆ RL - Version Optional

### TESTING FACILITIES:

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

## PERFECT ACTUATORS & CONTROLS PVT. LTD.

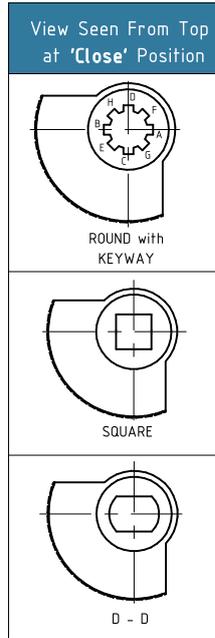
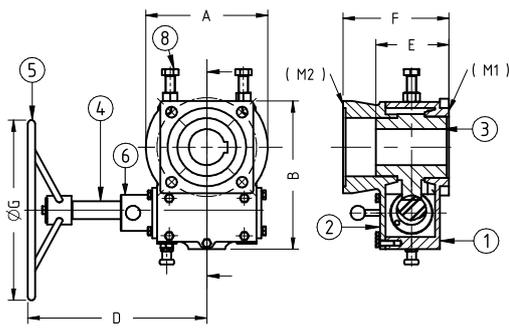
(An ISO 9001 : 2015 & ISO 45001 : 2018 Certified Company)

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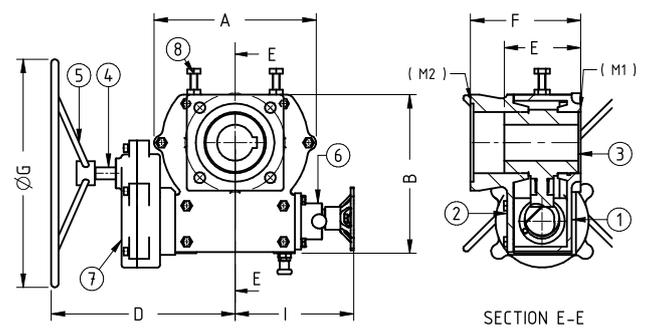
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## a) Standard Gear Box



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	Handwheel	MS Fab.
6	Cams	EN-8D
7	Spur Gear Unit	CI FG-220
8	Fasteners	8.8 Gr.
9	Grease	Multipurpose

## b) Gear Box with Secondary Gear Attachment



⇒ VERSION (LR) : Clockwise to 'CLOSE'  
Anticlockwise to 'OPEN'  
⇒ IP Enclosure : IP-54

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

# - Max. Stem size for F05 Mounting Base - ( M2 ) is  $\Phi 19.0\text{mm}$   
# - Max. Stem size for F07 Mounting Base - ( M2 ) is  $\Phi 25.0\text{mm}$

MODEL	RATIO	TURNS TO CLOSE 90 °	PERFORMANCE FACTOR ±10%	OUTPUT TORQUE ( Nm )	DIAMETER OF DRIVE BORE ( mm )	GEAR BOX BASE AS PER ISO:5211 (M1)		PNEUMATIC ACTUATOR BASE AS PER ISO:5211 (M2)		HAND WHEEL $\varnothing G$ (mm)	Approx. Weight. ( Kg )	A	B	D	E	F	I
						Min.	Max.	Min.	Max.								
MOS-01	40 : 1	10	10	250	25	F05	F07	F05	F07	200	4	84	112.5	208	58	94.5	NA
MOS-02	35 : 1	8.75	8	450	28	F07	F10	F07	F10		7	98	129	197	85	113	
MOS-03	40 : 1	10	10	600	36	F10	F12	F10	F12	250	11.0	110	143	230	89	119	
MOS-04				890	40					450	12	128	168	225	89	129	
MOS-04A	45 : 1	11.25	11	1610	52	F12	F14	F12	F14	500	18	156	193	291	97	152	
MOS-05	48 : 1	12	11.5	1900						70	F14	F16	F14	F16	600	20	
MOS-06				3600	600	28	202	245	364						121	175	
MOS-06A	54 : 1	13.5	13	5000	90	F16	F25	F16	F25	700	36	268	264	386	126.5	181.5	
MOS-07				7600											700	55	
MOS-08	64 : 1	16	16	9800	115	F25	F30	F25	F30	700	75	330	350	395	154	215	
MOS-05SGM	110.4 : 1	27.6	23	1900	52	F12	F16	F12	F16	600	24	168	205	350	104	160	
MOS-06SGM				3600	70						F14	F14	F16	31	202	245	352
MOS-06ASGM	216 : 1	54	44	5000	90	F16	F25	F16	F25	700	44	268	264	372	126.5	181.5	
MOS-07SGM				7600											700	65	290
MOS-08SGM	256 : 1	64	62	9800	115	F25	F30	F25	F30	700	85	330	346	398	154	215	250
	384 : 1	96	81											400			

### 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".