



**SUSIN I-TORK INDIA PRIVATE LIMITED**

An ISO 9001 -2015 Certified Company

**i-tork**

## MECHANICAL ACTUATORS



## Multiturn Gear Actuator Series

( For linear Valves )



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[www.susinma.com](http://www.susinma.com)

## About

### MTG – Multi turn Gear Actuator Series

Susin Group was founded by Mr. Muthukumar in 1992, as a company specialized in the design, manufacture and installation of Valve Automation Products to Different Industries. In 2006 the company stepped into Marketing to Manufacturing, and to focus more on valve automation Industrial requirements.

We are providing Complete Automation Solution to All kind of Valve Industries where we equipped to Support in Pneumatic, Hydraulic, Electrical & Mechanical Actuators. Susin Produces various range of Critical Products in different Applications.

### OUR GLOBAL PARTNERS



(Korea)



(Germany)



(Singapore)

## APPLICATION

MTG SERIES ACTUATORS are designed to have a side mounted handwheel to perform the manual operation of a linear valves like Gate & Globe valves which is installed with pneumatic actuator.

Our MTG SERIES ACTUATORS has Unique Design features to Provide Higher Efficiency through Worm Gear Constructions. This leads to reduce the Efforts to Operate the Valves.

MTG Series declutchable manual override offers a simple and reliable method for manual operation of linear Valves fitted with Pneumatic actuators

MTG Gear box is of rugged Construction and Suitable for indoor and outdoor use. It is designed for simple and reliable manual positioning of Valves. Self- Locking Worm Gear brings a long life and safe Operations.



## Features

- ⊗ Ductile Casting Iron for both Housing & Cover.
- ⊗ Thrust unit for smooth load transfer on the gears
- ⊗ Epoxy primer coated housing and cover.
- ⊗ Special Lubricants for O-rings and gear
- ⊗ Roller Bearing equipped for Smooth Operations.
- ⊗ Used for high stroke length.
- ⊗ Manual engagement & disengagement at any position.
- ⊗ Self-locking worm gear design.
- ⊗ Extended support for hand wheel Shaft.
- ⊗ Hardened worm and worm gear.
- ⊗ Easy to Operate through Comfort Handwheels.
- ⊗ Rating-IP-67 Protection.
- ⊗ Support with Self- Lubricating Bushes for Worm.
- ⊗ High Thrust Bearings used to withstand heavy Load.



## Engagement Type

- ⊗ Actuator stem is engaged with the gear box by means of Locking pin engaged threaded sleeve, which can be rotated and adjusted to any position for Manual mode connection.

## MOV Flange (Optional)

- ⊗ MTG Worm gear actuator can be Operated through electrical actuators with MOV Flange mounting.

## Technical Specification

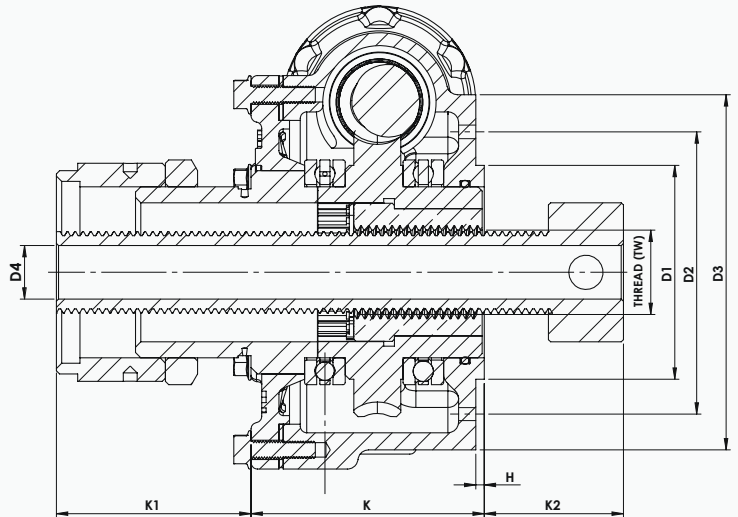
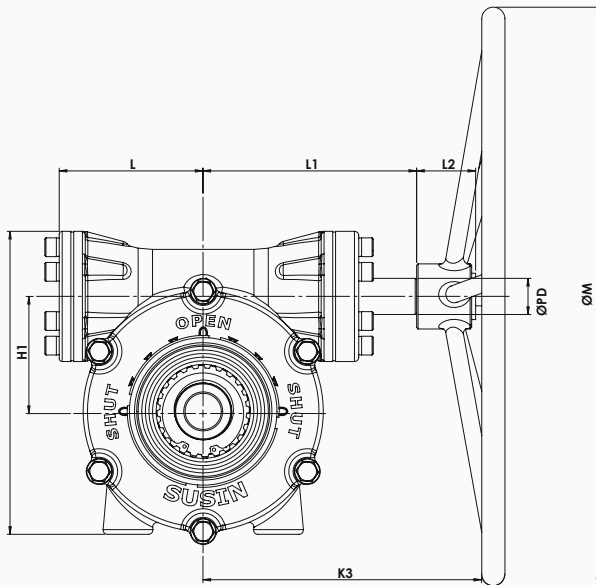
MODEL NO	Input Torque (Nm)	Maximum Output Torque (Nm)	Max Output Thrust			M.A ± 10 %	Gear Ratio	Valve Mounting Specification		Hand Wheel Dia (Ømm)
			N	KN	Lbf			Standard	Option	
MTG-100	56.20	1000	160000	160	35969.4	17.79	40:1	F12	F10	350
MTG-200	99.63	2000	240000	240	53954.2	20.7	44:1	F14	F12	400
MTG-400	182.65	4000	380000	380	85427.4	21.89	48:1	F20	F16	560
MTG-650	287.17	6500	600000	600	134885.4	22.63	52:1	F20	F16	560
MTG-900	369.22	9000	870000	870	195583.8	24.37	56:1	F25	F20	630
MTG-1800	851.48	18000	1800000	1800	404656.2	21.13	62:1	F30	F25	710

Mentioned specifications & dimensions are subject to change without prior notice for quality improvement

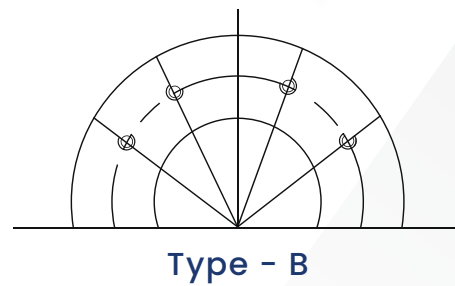
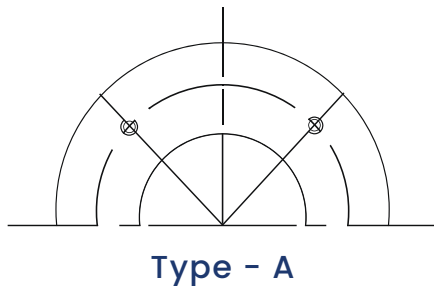
All dimensions are in mm

# Susin I-tork Worm Gear Actuators - For linear Valves

## MTG SERIES



### ISO 5210 FLANGE MOUNTING DETAILS



### Dimension Details

MODEL NO	TYPE	FLANGE	ØD1	BASE PART							H	EXTERNAL PART								INPUT SHAFT PART		
				P. C. D		ØD3	ØD4	THREAD	Keyway	H1		H2	k	K1	K2	K3	L	L1	L2	ØPD	KEY	
				ØD2	N-H-DP																	
MTG - 100	A	F12	85	125	4-M12-18	148	46	TR-2-4 ACME	14x9	2	63.5	165	86	47	65	150	77	102	24	20	8X7	
MTG - 200	A	F14	100	140	4-M16-24	163	60	TR-2.5-3 ACME	18x11	2	82.5	222	99	50	66	230	85	135	38	20	8X7	
MTG - 400	A	F16	130	165	4-M20-30	210	75	TR-3-2 ACME	20x12	2	118	315	128	70	85	260	124	161	38	25	8X6	
MTG - 650	B	F20	160	205	8-M16-24	250	80	TR-3.5-2 ACME	22x14	3	128	315	136	75	105	285	145	178	42	30	10X8	
MTG - 900	B	F25	200	254	8-M16-30	300	95	TR-4-2 ACME	25x14	3	150	410	148	80	115	320	183	202	45	30	10X8	
MTG - 1800	B	F30	230	298	8-M20-30	350	125	TR-5-2 ACME	32x18	3	160	480	158	89	155	355	238	256	45	30	10X8	

Mentioned specifications & dimensions are subject to change without prior notice for quality improvement

All dimensions are in mm

## Exploded View – MTG Series



## Handwheel

- ✓ Various type of casting, fabricated handwheels & chain wheels can be offered by Susin.
- ✓ High quality material has been used for best construction.
- ✓ Hand wheels provide a simple and direct way to manually control valves.
- ✓ **Quick Response** : With hand wheels, you can quickly open or close valves in response to changing conditions & maintenance needs.
- ✓ **Visual Positioning** : Hand wheels have markings or indicators that show the direction of rotation to open/close the valve



**Casting Wheel**  
Ranges from 8" to 16"



**Chain Wheel**  
Ranges from 4" to 20"



**Fabricated Wheel**  
Ranges from 8" to 40"

**Note :** For MTG- Clockwise rotation of handwheel will lift the valve/actuator stem toward upwards & Anticlockwise rotation will move the valve/actuator stem downwards.

## Painting

- ✓ Applicable as per the standard ISO 12944-2
- ✓ We are providing our products in the following standard colors

S NO	COLOR NAME	COLOR CODE	RANGE (micron)
1	Sky Blue (STANDARD)	RAL 5015	150 TO 225
2	Brown Red (OPTIONAL)	RAL 3011	150 TO 225
3	Jet Black (OPTIONAL)	RAL 9005	150 TO 225

We provide special painting for marine applications and we can able to custom build color as per the customer requirement if it is possible



# Material of Construction – MTG Series

S.No	Description	Material				Qty
		Standard	ASTM	Optional	ASTM	
1	Housing	Ductile Iron	A536-65-45-12	WCB -Steel	ASTM A216	1
2	Cover	Ductile Iron	A536-65-45-12	WCB -Steel	ASTM A216	1
3	Worm Wheel	Ductile Iron	A536-80-55-06	Al Bronze	B148-C95800	1
4	Worm Shaft	Carbon Steel	A576-1045	-----	-----	1
5	RH End Cap	Ductile Iron	A536-65-45-12	WCB -Steel	ASTM A216	1
6	LH End Cap	Ductile Iron	A536-65-45-12	WCB -Steel	ASTM A216	1
7	Handwheel	Ductile Iron	A536-65-45-12	Stainless Steel	SS-304	1
8	Thrust Nut	Carbon Steel	A576-1045	Stainless Steel	SS-304	1
9	Thrust Lock Nut	Carbon Steel	A576-1045	Stainless Steel	SS-304	1
10	Thrust Screw	Carbon Steel	A576-1045	Stainless Steel	SS-304	1
11	Cover Gasket	NBR	-----	Viton	D1418	1
12	End Cap Gasket	NBR	-----	Viton	D1418	2
13	Taper Roller Bearing	Special Steel	A295--52100	Special Steel	A295--52100	2
14	Thrust Needle Roller Bearing	Special Steel	A295--52100	Special Steel	A295--52100	2
15	Cover Flange Bolt	Alloy Steel	A322-4135	Stainless Steel	SS-304	5
16	End Cap Hex Bolt	Alloy Steel	A322-4135	Stainless Steel	SS-304	8
17	End Cap Plain Washer	Alloy Steel	A322-4135	Stainless Steel	SS-304	8
18	Handwheel Key	Alloy Steel	A322-4135	Stainless Steel	SS-304	1
19	Handwheel Locking Washer	Alloy Steel	A322-4135	Stainless Steel	SS-304	1
20	Handwheel Locking Bolt	Alloy Steel	A322-4135	Stainless Steel	SS-304	1
21	Grease Nipple	Brass	B584-52100	Brass	B584-52100	1
22	Cover O-Ring	NBR	Buna N	Viton	D1418	1
23	Housing O-Ring	NBR	Buna N	Viton	D1418	1
24	Worm Shaft O-ring	NBR	Buna N	Viton	D1418	1
25	Name Plate	Stainless Steel	SS-304	Stainless Steel	SS-316	1
26	Name Plate Rivet	Stainless Steel	SS-304	Stainless Steel	SS-316	4

## Other Products



**Hydraulic Actuators**  
(Rotary & Linear types)



**Electrical Actuators**  
(Rotary & Linear types)



**Pneumatic Actuators**  
(Rotary & Linear types)

## Susin Group Global Presence



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