



SUSIN I-TORK INDIA PRIVATE LIMITED

An ISO 9001 -2015 Certified Company



MANUAL OVERRIDES INTEGRATED WITH LINEAR PISTON ACTUATOR



Scan QR Code to
download E-Catalogue

www.susingroup.com





Susin I-Tork India provides multiple variants of MOR system especially designed for linear pneumatic and hydraulically operated cylinders and diaphragm actuators.

IDD Series (Integrated Direct Drive system):

IDD is mainly designed for low range thrust application and it is a simple integrated mechanism directly mounted with cylinders. IDD use Jack screw mechanism in different diameter of handwheel to produce different thrust values.

IGD Series (Integrated Gear Drive system):

IGD is specially designed for medium and high thrust application of linear operated for both pneumatic and hydraulic operated cylinders and diaphragm actuators. IGD series having two main variants of gear drive system (Worm gear design and Bevel gear design). Worm gear design is generally used for self-locking features and bevel gear is generally used for high thrust requirement. IGD series having different gear ratio and different thrust ranges starts from 75 KN to 2500 KN.

HMOR Series (Hydraulic Manual Override):

Hydraulic Manual override (HMOR) suitable for high thrust applications in a compact space. HMOR range starts from bore diameters of 80mm to 320mm, making it a versatile solution for various valve types. It is especially well-suited for globe control valves due to its high thrust capability, stiffness, precision movement, and superior frequency response.

IDD Series – Jack Screw Mechanism

IDD is mainly designed for low range thrust application and it is a simple integrated mechanism directly mounted with cylinders. IDD use Jack screw mechanism in different diameter of handwheel to produce different thrust values starts from 30 KN to 140 KN.

Key Features:



Compact Design: Space-efficient, requiring minimal installation space in the actuator system.



Easy to Use: Intuitive and straightforward for operators to use for manual adjustments.



Simple Operation: Direct manual control without the need for complex gear mechanisms



Manual Precision: Allows for precise and fine adjustments in actuator positioning.



Versatile: Suitable for smaller pneumatic systems or applications with limited space for complex overrides.



No Power Dependency: Operates independently of the pneumatic system, useful during system failure.



Increased Safety: Provides backup control for safe operation when pneumatic power is unavailable.



Low Maintenance: Fewer moving parts, leading to reduced wear and easier maintenance.



Quick Response: Provides immediate manual control for actuator adjustment in emergencies.



Cost-Effective: Eliminates the need for additional components like gearboxes, reducing costs



Performance Data

Model	Maximum Output Thrust		Turn per mm of Travel	Turn per inch of Travel	Maximum Required Force (Rim pull Force)	
	N	Lbs			N	Lbs
IDD - 030	30897	6946	0.3	8.4	360	81
IDD - 075	79085	17780	0.3	8.4	360	81
IDD - 140	140997	31699	0.3	8.4	360	81

Table No. 1

Notes

1. The specifications provided are subject to modification without prior notice to enhance quality.
2. For higher ranges and higher stroke, kindly reach out to the factory.
3. Maximum recommend Rim pull 360N.
4. We provide chain handwheel design for non-accessible area.
5. For handwheel diameter selection refer page 07 (Table No. 5)

IGD Series - Worm Gear Design

MTG series used worm gear mechanism for medium and high thrust. The ranges starts from 160 KN to 1800 KN with gear ratio of 40:1 to 62:1. This series having rigid ductile iron construction of outer housing and specially heat-treated gear system to use. We provide different reduction system for these MTG series in case of high thrust requirement.

Key Features:



Compact Design: Space-efficient, suitable for small actuator designs.



Low Backlash: Reduced backlash improves precision and performance.



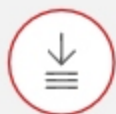
Mounting: Suitable for Side mounting operations. (remove Angle motion)



Maximum Torque Efficiency in low-speed Applications: Ideal for low-speed, high-torque applications.



Self-Locking Capability: Worm gears often have a self-locking feature, preventing back driving..



High Torque Reduction: Provides significant torque reduction with compact design.



Large Gear Ratios: Enables significant speed reduction in a single stage.



Smooth and Quiet Operation: Minimal noise and vibration during operation.



Durability: Can handle heavy loads with reduced wear and tear.



Cost-Effective: Relatively simple and inexpensive compared to other gear types.



Performance Data

MOR Model	Maximum Output Thrust		Turn per mm of Travel	Turn per inch of Travel	Maximum Required Force (Rim pull Force)	
	N	Lbs			N	Lbs
MTG-100	160000	35971	0.3	8.4	360	81
MTG-200	240000	53957	0.3	8.4	360	81
MTG-300	300000	67446	0.3	8.4	360	81
MTG-400	380000	85432	0.3	8.4	360	81
MTG-650	600000	134892	0.3	8.4	360	81
MTG-900	870000	195594	0.3	8.4	360	81
MTG-1800	1800000	404676	0.3	8.4	360	81

Table No. 2

Notes

1. The specifications provided are subject to modification without prior notice to enhance quality.
2. For higher ranges and higher stroke, kindly reach out to the factory.
3. Maximum recommend Rim pull 360N.
4. We provide chain handwheel design for non-accessible area.
5. For handwheel diameter selection refer page 07 (Table 5)

IGD Series - Bevel Gear Design

MAB series used bevel gear mechanism for high thrust. The ranges starts from 75 KN to 2500 KN with gear ratio of 2.5:1 to 7.5:1. This series having rigid ductile iron construction of outer housing and specially heat-treated gear system to use. We provide different reduction system for these MAB series in case of high thrust requirement.

Key Features:



Compact Design: Space-efficient, ideal for tight spaces.



Easy Integration: Compatible with other mechanical components in actuator systems.



Right-Angle Motion Transmission: Efficiently changes the direction of motion at 90 degrees.



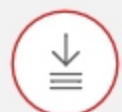
High Torque Capacity: Handles heavy loads and generates significant force.



Efficient Power Transmission: Minimizes energy loss for optimal performance.



Smooth Operation: Provides quiet and precise motion.



Reduced Backlash: Offers precise movement and improved accuracy.



Load Distribution: Even load handling, reducing wear and increasing durability.



Versatile Speed and Torque Control: Adjusts speed and force with gear ratio changes.



Customizable: Various gear types (straight, spiral) for specific needs.



Performance Data

MOR Model	Maximum Output Thrust		Turn per mm of Travel	Turn per inch of Travel	Maximum Required Force (Rim pull Force)	
	N	Lbs			N	Lbs
MAB-075	75000	16862	0.3	8.4	360	81
MAB-100	100000	22482	0.3	8.4	360	81
MAB-150	150000	33723	0.3	8.4	360	81
MAB-200	200000	44964	0.3	8.4	360	81
MAB-300	300000	67446	0.3	8.4	360	81
MAB-350	350000	78687	0.3	8.4	360	81
MAB-400	400000	89928	0.3	8.4	360	81
MAB-500	500000	112410	0.3	8.4	360	81
MAB-800	800000	179856	0.3	8.4	360	81
MAB-1200	1200000	269784	0.3	8.4	360	81

Table No. 3

Notes

1. The specifications provided are subject to modification without prior notice to enhance quality.
2. For higher ranges and higher stroke, kindly reach out to the factory.
3. Maximum recommend Rim pull 360N.
4. We provide chain handwheel design for non-accessible area.
5. For handwheel diameter selection refer page 07 (Table 5)

HMOR – Hand Pump Mechanism

Hydraulic manual override allows for manual operation of the hydraulic system, bypassing automated functions. Empowers users to maintain precise control with minimal effort, ensuring smooth operation even during emergencies. Ensures continued operation and control of machinery when automation is compromised. Also, it is mainly suitable for High thrust applications.

Key Features:



Compact Design: Often integrated within the actuator without requiring excessive space.



Safety: Enhances safety by providing backup in critical applications. Inbuilt safety relief valve provided.



Versatile: Can be used in various environments where pneumatic or electric systems may be unreliable



Durability: Pump is designed for high discharge rate and high efficiency.



Simple Mechanism: Typically involves straightforward hydraulic systems for ease of use



Reliability: Offers reliable manual control even under high pressure or complex conditions.



Precise Control: Pressure regulators to control the pumping pressure based on the requirements.



Emergency Control: Provides manual control in case of pneumatic system failure



Independent Operation: Integrated Dial gages is provided to measure the pressure variation during the operations.



Cost-Effective: A low-cost solution for providing backup functionality.



Performance Data

Model	Bore		Maximum Output Thrust	
	N	Inch	N	Lbs
HMOR - 080	80	3	27143	6102
HMOR - 100	100	4	39443	8868
HMOR - 125	125	5	68000	15288
HMOR - 150	150	6	99526	22375
HMOR - 200	200	8	169646	38140
HMOR - 250	250	10	285005	64075
HMOR - 280	280	11	354984	79808
HMOR - 320	320	13	434294	97638

Table No. 4

Notes

1. The specifications provided are subject to modification without prior notice to enhance quality.
2. For higher ranges and higher stroke, kindly reach out to the factory.
3. For mounting direction changes other than the standard, please consult the factory (standard vertical)

Types of Hand Wheel



Casting Wheel
Ranges from 8" to 16"



Chain Wheel
Ranges from 4" to 20"

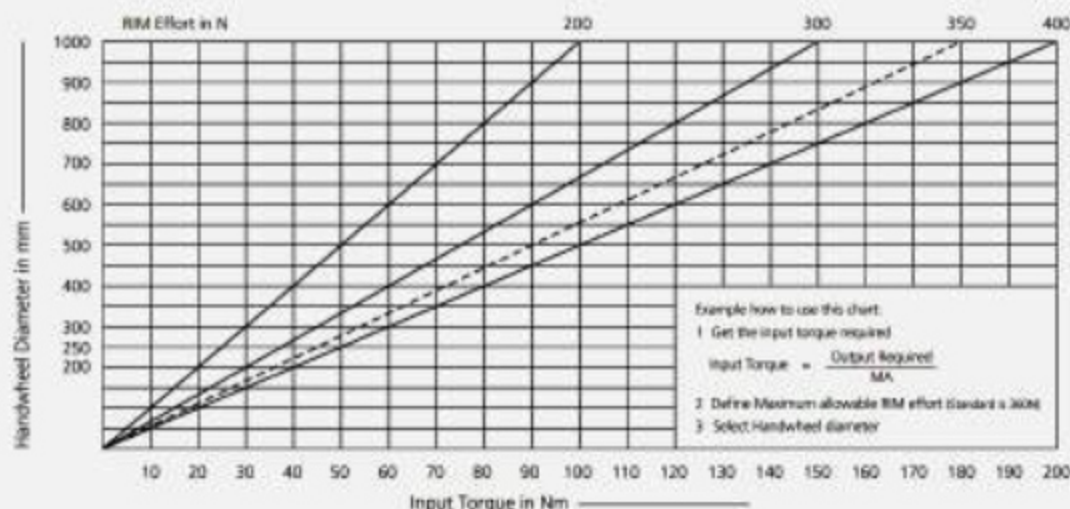
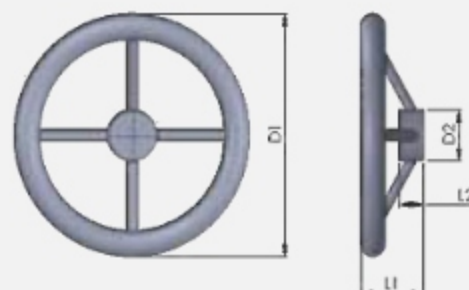


Fabricated Wheel
Ranges from 8" to 40"

Selection Of Handwheel

S.No.	Wheel Od D1	Height L1	Bush Dia D2	Bush Length L2	No. Of Spokes
1	100	80	50	25	3
2	200	80	50	25	3
3	250	90	70	35	3
4	300	90	70	35	5
5	400	90	70	35	5
6	500	100	70	35	5
7	600	100	70	35	5
8	710	100	70	35	5
9	800	130	80	45	6
10	900	130	80	45	6
11	1000	130	90	60	6

Table No. 5



Manual Override Standard Painting

For Gear Boxes

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	Brown Red (Optional)	RAL 3011	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.

Other Products



Electrical Actuators



Pneumatic Actuators
(Rotary types)



Hydraulic Actuators
(Rotary & Linear types)

Global Presence



Manufacturing Facilities

INDIA

SUSIN I-TORK PRIVATE LIMITED
43A9, Vadakku Thottam, Idigarai,
Coimbatore, Tamilnadu
India – 641 022
Email: info@susinitork.in
Website: www.susingroup.com
Tel: +91 63840 63034

KOREA

I-TORK CONTROLS LTD
74-6, Chunui-Dong, Wonmi-Gu,
Bucheon Si, Gyeonggi-Do, South Korea,
Zip: 420-120
Email: we123@itork.com
Website: www.i-tork.com
Tel: +82-2-855-1365
Fax: +82-2-855-1367

GERMANY

KTC CONTROLS
Krähenweg 11, D 22459 Hamburg,
Germany
Email: sales@ktcontrols.com
Tel: +49 (0)40 5717752-0
Fax: +49(0)40 5714752-22

Sales & Support

SINGAPORE

AHF INDUSTRIES – HEAD OFFICE
2, Kallang Pudding #07-12, #06-
05/06,
Mac Tech Building Singapore,
349307
Tel: +65 6748 8108
Fax1: +65 6842 5567
Fax2: +65 6748 8917

QATAR

**SUSIN QATAR TRADING &
CONTRACTING W.L.L.No.**
Arkan Building No.6, 2nd Floor, Office
46, Barwa Commercial Avenue, Abu
Hamour, P.O. Box - 220, Doha – Qatar
Tel: +974-3164 8923
+974-4476 9988
E-mail: sales@susinqatar.com
Website: www.susingroup.com

UNITED ARAB EMIRATES

SUSIN I-TORK ME FZC
Y61, Executive Suite
Post Box No- 122643, Saif Zone
Sharjah, United Arab Emirates
Tel: 971 529407969
Fax: +65 6748 8917

Global Assembly Center

MALAYSIA

SUSIN I-TORK ASIA PACIFIC SDN BHD
No. 1, Jalan Atma 2, Compass @ Kuala Langat, Kawasan Perindustrian
Kota Seri Langat, 42700 Banting, Kuala Langat, Selangor, MALAYSIA.
E-mail: cky@susinitorkap.com
Website: www.susingroup.com
Tel: +603-8024-0940



Scan QR Code to
download E-Catalogue