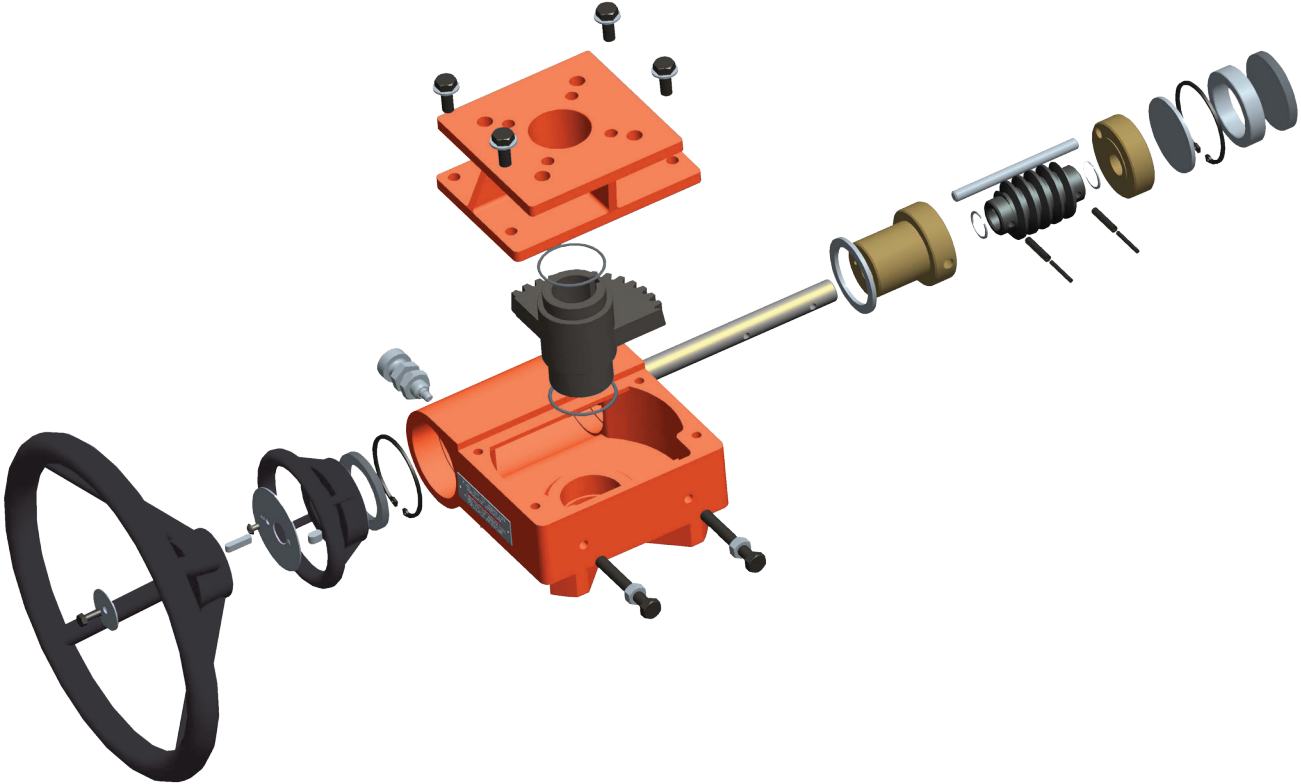


# Bettis MOR-Series

De-clutchable Quarter-turn Manual Overrides for Pneumatic Actuation



# Performance Specifications Bettis MOR-Series

## De-clutchable Quarter-turn Manual Overrides for Pneumatic Actuation

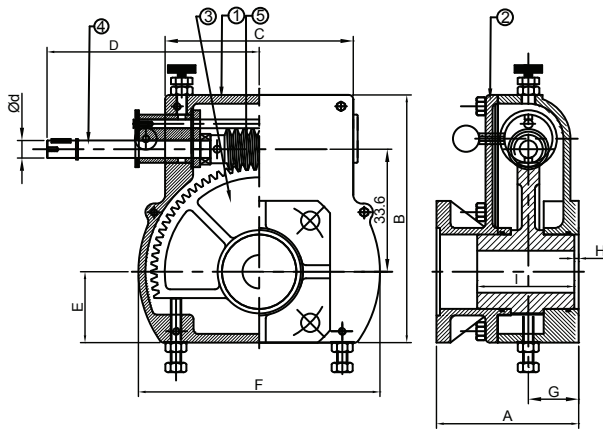


FIGURE 1

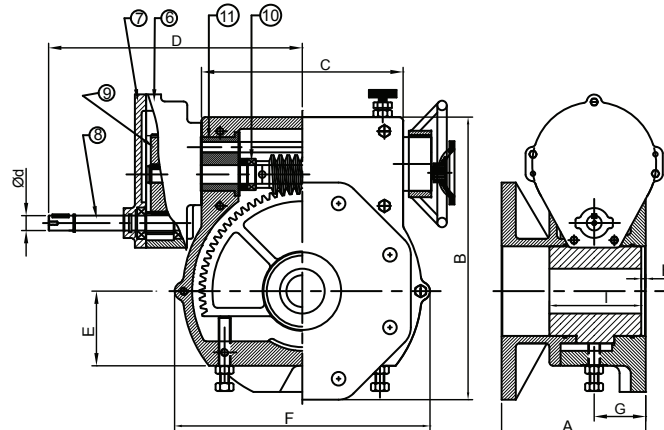
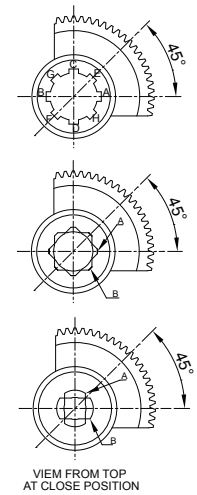


FIGURE 2

SR.	Description	Material	USA Standard	IS Standard
1	Housing	Cast Iron	ASTM A48-83 30A	IS 210 FG200
2	Cover	Cast Iron	ASTM A48-83 30A	IS 210 FG200
3	Worm Wheel	Ductile Iron	ASTM A70-50 05	SGI 500/7
4	Input Shaft	Carbon Steel	ASTM A576 1045	45C8
5	Worm	Carbon Steel	ASTM A576 1045	45C8
6	Spur Housing	Cast Iron	ASTM A48-83 30A	IS 210 FG200
7	Spur Cover	Cast Iron	ASTM A48-83 30A	IS 210 FG200
8	Spur Pinion	Carbon Steel	ASTM A322 4140	40Cr4Mo3
9	Spur Gear	Carbon Steel	ASTM A322 4140	40Cr4Mo3
10	Thrust Bearing	Special Steel	ASTM A295 52100	-
11	Eccentric Bush	Ductile Iron	ASTM A65-45 12	SGI 400/12
12	Handwheel (Pipe)	Carbon Steel	ASTM A53	IS 2062 Gr B
13	'O' Ring	Buna n	-	Nitrile

Model	Rated Output Torque (lb-in)	Mech. Advant. ±10%	Ratio	Turns To Close	Valve Mounting ISO 5211	Max. Drive Bore	Approx. Unit Weight (lbs)	Actuator Mtg. Flange ISO 5211	Recommended Handwheel (inch)	A	B	C	D	E	F	G	H	I	Ød
MOR 0.5	2212.69	9	38:1	9.5	F05, F07	0.98	11.02	F05, F07	Ø6.89	3.27	4.76	3.86	4.96	1.57	3.86	1.12	0.20	1.89	0.47
MOR 1	5752.98	9	38:1	9.5	F07, F10, F12	1.18	19.84	F07, F10, F12	Ø9.84	4.45	7.13	5.75	6.50	2.52	5.75	1.59	0.18	2.97	0.55
MOR 1.5	8850.75	14.5	60:1	15	F10, F12, F14	1.57	37.48	F12, F14	Ø13.78	5.71	7.56	5.91	7.48	2.01	7.28	2.01	0.24	3.54	0.63
MOR 2	13276.12	17	70:1	17.5	F10, F12, F14	1.97	55.12	F10, F12, F14	Ø15.75	5.91	8.82	5.94	9.06	2.64	8.23	1.73	0.12	3.58	0.63
MOR 2.5	22126.86	17	80:1	20	F12, F14, F16	2.36	68.34	F12, F14, F16	Ø19.69	6.40	11.14	8.46	7.40	3.19	10.87	2.26	0.35	4.21	0.79
MOR 3.5	30977.61	22	90:1	22.5	F16, F25	3.15	132.28	F16	Ø19.69	7.28	13.11	10.63	10.43	3.94	13.46	2.72	0.24	4.96	0.79
								F25	7.60										
MOR 5	44253.73	50	264:1	66	F16, F25	3.15	154.32	F16	Ø23.62	7.28	14.92	10.63	12.80	3.94	13.46	2.72	0.39	5.35	0.79
								F25	7.60										
MOR 7.5	66380.59	70	348:1	87	F25, F30	3.94	231.49	F25, F30	Ø23.62	8.94	17.99	12.32	13.70	3.94	15.75	3.01	0.39	6.85	0.79
MOR 10	88507.46	85	405:1	101.25	F25, F30	3.94	275.58	F25, F30	Ø29.53	8.94	17.99	12.32	17.13	3.94	15.75	3.01	0.39	6.85	0.79
MOR 15	132761.19	95	460:1	115	F25, F30	4.33	396.83	F25, F30	Ø29.53	9.25	20.65	13.03	17.48	5.22	19.21	3.46	0.39	8.19	0.79
MOR 35	309776.10	260	1282:1	320.5	F25, F30, F35	6.30	698.87	F30, F35	Ø29.53	14.25	23.41	17.36	20.94	5.75	21.61	4.69	0.47	12.99	0.79



**Note:**

Refer to Figure (1) for Models up to "MOR 3.5"  
 Refer to Figure (2) for Models above "MOR 3.5"

**World Area Configuration Centers (WACC) offer sales support, service, inventory and commissioning to our global customers. Choose the WACC or sales office nearest you:**

***NORTH & SOUTH AMERICA***

19200 Northwest Freeway  
Houston, TX 77065  
T +1 281 477 4100  
F +1 281 477 2809

Av. Hollingsworth,  
325, Iporanga Sorocaba,  
SP 18087-105  
Brazil  
T +55 15 3238 3788  
F +55 15 3228 3300

***ASIA PACIFIC***

No. 9 Gul Road  
#01-02 Singapore 629361  
T +65 6777 8211  
F +65 6268 0028

No.1 Lai Yuan Road  
Wuqing Development Area  
Tianjin 301700  
P.R.China  
T +86 22 8212 3300  
F +86 22 8212 3308

***MIDDLE EAST & AFRICA***

P. O. Box 17033  
Dubai  
United Arab Emirates  
T +971 4 811 8100  
F +971 4 886 5465

P. O. Box 10305  
Jubail 31961  
Saudi Arabia  
T +966 3 340 8650  
F +966 3 340 8790

24 Angus Crescent  
Longmeadow Business Estate  
East P.O. Box 6908; Greenstone; 1616  
Modderfontein, Extension 5  
South Africa  
T +27 11 451 3700  
F +27 11 451 3800

***EUROPE***

Berenyi u. 72- 100  
Videoton Industry Park,  
Building #230  
Székesfehérvár 8000  
Hungary  
T +36 22 530 950  
F +36 22 543 700

For complete list of sales and manufacturing sites, please visit  
[www.emerson.com/actuationtechnologieslocations](http://www.emerson.com/actuationtechnologieslocations)  
Or contact us at [gears@emerson.com](mailto:gears@emerson.com)

[www.emerson.com/bettis](http://www.emerson.com/bettis)

©2017 Emerson. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. Bettis™ is a mark of one of the Emerson family of companies. All other marks are property of their respective owners.

The contents of this publication are presented for information purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.