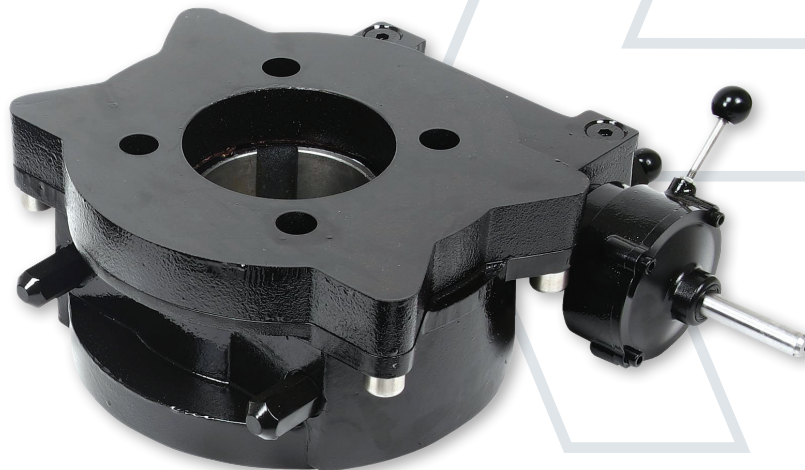


# rotork®

## Gears



### ILGD-C Series Gear Operators

The Rotork Gears ILGD-C gear operators are designed to provide a means of manually overriding pneumatic valve actuators in power and process applications. These gear operators employ a declutchable design for use with double-acting actuators. To ensure long life, the housing is sealed to IP68 and the input shaft is made from stainless steel.

#### Application

The Rotork Gears series ILGD-C operators are used in all industries where reliable manual operation of double acting actuators is required. All units mount between the valve and actuator and may be supplied with an ISO drive shaft.

As an option, a 3/2 bleed valve can be fitted to automatically evacuate air from the actuator when the manual override lever is engaged.

### ILGD-C Series

#### Cast Iron Housing Declutchable Gear Operators

#### Features

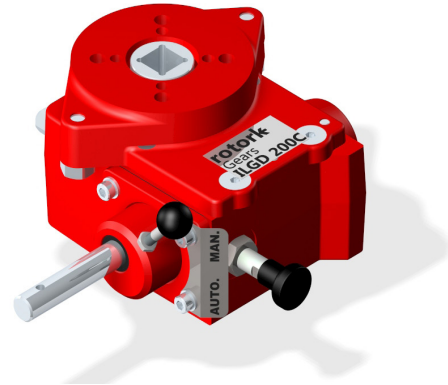
- SS input shaft
- Cast iron housing
- Rugged construction
- Axial needle bearings
- SS Fasteners
- Low profile design
- Planetary input reducer
- Removable top adaptor plate for easy customisation and assembly
- IP68 enclosure rating
- -4 to +250 °F temp range
- Travel  $\pm 5^\circ$  adjustable
- Torque range to 154,600 lbf.in.
- Blank coupling (for male or female drive actuators)

#### Options

- Padlockable plunger
- 3/2 Relief bleed off valve
- Ductile iron housing
- Coupling machined to customer's specification

## ILGD-C Series

Type	Ratio	Torque (lbf. inch)		M.A. ±15%	Weight (lb)
		Output	Input		
ILGD 100C	40	1330	115	11	11
ILGD 200C	35	2210	230	9.5	17
ILGD 600C	46	6640	530	12.4	39
ILGD 900C	43	12832	1105	11.6	53
ILGD 1500C	57	22000	1420	15.4	75
ILGD 2400C	68	30000	1665	18	118
ILGD 5000C	104	66000	2640	25	208
ILGD 8000C	312	72000	1062	68	220
ILGD 16000C	468	150460	1240	121	239



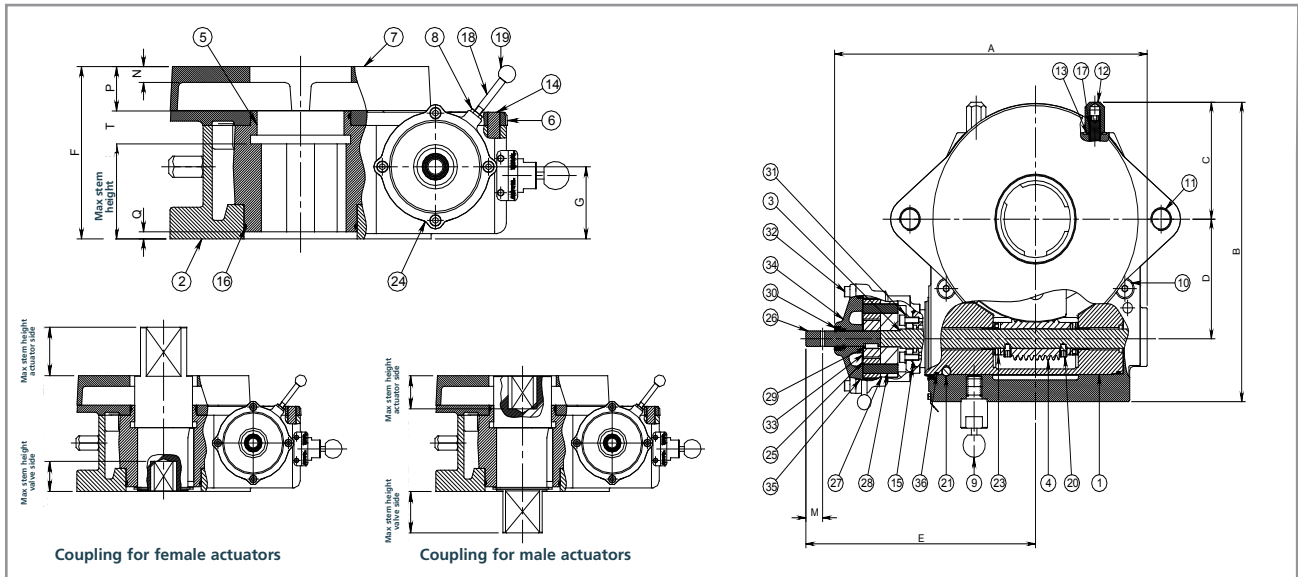
Note: Because of the company's policy of continuous improvement, Rotork Gears reserves the right to change specification details without prior notice. The static safety factor is 1.5. The published M.A. is achieved after a few cycles.

### Material specification for Rotork ILGD-C Series Gear Operators

No.	Description	Material	Notes
1	Eccentric rack	Cast Iron	GG25 / ASTM A48-40
2	Body	Cast Iron	GG25 / ASTM A48-40
3	Worm shaft	Carbon Steel	-
4	Worm	Hardened Steel	-
5	Quadrant	Ductile Iron	GGG40 / ASTM D60-40-18
6	Coverplate	Cast Iron	GG25 / ASTM A48-40
7	Adaptor Plate	Cast Iron	GG25 / ASTM A48-40
8	Hex nut	Stainless Steel	DIN 934
9	Latchbolt + nut	Stainless Steel / Plastic	-
10	Countersunk Screw	Stainless Steel	8.8 / DIN 799
11	Hex socket head cap screw	Stainless Steel	8.8 / DIN 912
12	Hex nut	Stainless Steel	DIN 934
13	Copperring	Copper	DIN 7603A
14	Dowel pin	Steel	DIN 7603A
15	O-ring*	NBR	70
16	O-ring	NBR	70
17	Set screw	Steel	12.9 / DIN 915
18	Stud	Stainless Steel	DIN 938
19	Ball knob	Plastic	PF/ Fs 31
20	Set screw	Steel	8.8 / DIN 916
21	Dowel pin*	Steel	DIN 7603A
22	Grease	CLX2	-
23	Thrust bearing	Hardened Steel	-
24	Input reducer housing*	Ductile Iron	GGG40 / ASTM D60-40-18
25	Planet gear*	Hardened Steel	-
26	Input shaft*	Protected Steel	-
27	Planet carrier*	Steel	-
28	Dowel pin*	Steel	DIN 7603A
29	Key*	Steel	-
30	Oil-seal	NBR	70
31	Spring lock washers	Steel zinc plated	DIN 125A
32	Hex socket head cap screw	Stainless Steel	8.8 / DIN 912
33	Sungear*	Hardened Steel	-
34	Input reducer cover*	Ductile Iron	GGG40 / ASTM D60-40-18
35	O-ring*	NBR	70
36	O-ring	NBR	70

NOTE: Ductile Iron housing is optional. The ILGD-C range of gearboxes is not designed to accept side loading. Parts list may vary with gearbox type. Parts marked \* are for gearboxes with an input reducer only.

## Gearbox ILGD-C Series



Type	Maximum coupling connections for female actuators					Maximum coupling connections for male actuators				
	Valve /Actuator	Ø	∏	DD	Max. stem height	Valve /Actuator	Ø	∏	DD	Max. stem height
ILGD 100C	Bore valve side	0,50 key 0,13	0,50	0,5 x Ø0,63	1,57	Stem valve side	0,98 key 0,25	0,67	0,67 x Ø0,98	1,97
	Stem actuator side	1,10 key 0,13	0,87	0,87 x Ø1,10	2,20	Bore actuator side	0,70 key 0,19	0,59	0,55 x Ø0,71	1,57
ILGD 200C	Bore valve side	0,71 key 0,19	0,67	0,59 x Ø0,75	1,97	Stem valve side	1,27 key 0,25	0,67	0,59 x Ø0,75	2,53
	Stem actuator side	1,38 key 0,38	1,06	1,00 x Ø1,38	2,76	Bore actuator side	0,83 key 0,25	0,75	0,63 x Ø0,90	1,97
ILGD 600C	Bore valve side	1,00 key 0,25	1,00	0,75 x Ø1,00	3,62	Stem valve side	1,78 key 0,50	1,38	1,30 x Ø1,78	2,36
	Stem actuator side	1,85 key 0,50	1,42	1,30 x Ø1,85	2,36	Bore actuator side	1,00 key 0,25	1,00	0,63 x Ø1,25	3,70
ILGD 900C	Bore valve side	1,15 key 0,31	1,10	1,06 x Ø1,43	2,60	Stem valve side	2,22 key 0,63	1,61	1,57 x Ø2,22	4,25
	Stem actuator side	2,24 key 0,63	1,81	1,57 x Ø2,24	4,49	Bore actuator side	1,34 key 0,38	1,25	1,06 x Ø1,43	2,60
ILGD 1500C	Bore valve side	1,25 key 0,38	1,10	1,06 x Ø1,43	2,60	Stem valve side	2,36 key 0,63	1,80	1,77 x Ø2,36	4,72
	Stem actuator side	2,56 key 0,75	1,81	1,18 x Ø2,56	5,12	Bore actuator side	1,50 key 0,38	1,38	1,06 x Ø1,43	2,95
ILGD 2400C	Bore valve side	1,50 key 0,38	1,10	1,42 x Ø1,90	3,82	Stem valve side	2,95 key 0,75	2,20	2,17 x Ø2,95	5,91
	Stem actuator side	3,07 key 0,88	1,81	2,17 x Ø3,07	6,14	Bore actuator side	1,75 key 0,50	1,57	1,42 x Ø1,90	2,36
ILGD 5000C	Bore valve side	1,85 key 0,50	1,77	1,42 x Ø1,90	4,63	Stem valve side	3,54 key 1,00	2,68	2,56 x Ø3,54	7,09
	Stem actuator side	3,94 key 1,00	3,15	2,76 x Ø3,94	7,87	Bore actuator side	2,36 key 0,63	1,97	1,81 x Ø2,37	3,15
ILGD 8000C	Bore valve side	1,85 key 0,50	1,77	1,42 x Ø1,90	4,63	Stem valve side	3,54 key 1,00	2,68	2,56 x Ø3,54	7,09
	Stem actuator side	3,94 key 1,00	3,15	2,76 x Ø3,94	7,87	Bore actuator side	2,36 key 0,63	1,97	1,81 x Ø2,37	3,15
ILGD 16000C	Bore valve side	Per application				Stem valve side	Per application			
	Stem actuator side					Bore actuator side				

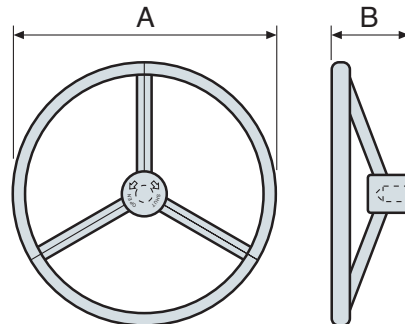
Type	A	B	C	D	E	F	G	ØK	M	N	P	Q	Valve Connection	Act. Connection
ILGD 100C	6,18	5,94	2,05	1,67	5,41	3,35	1,34	0,47	0,55	0,18	0,53	0,20	F05/F07	FA05/FA07 F05/F07
ILGD 200C	6,52	6,71	2,62	2,09	6,21	4,06	1,65	0,59	0,55	0,28	0,75	0,20	F05/F07	FA05/FA07 F05/F07
ILGD 600C	8,25	6,68	4,15	2,54	7,44	4,92	2,01	0,59	0,55	0,32	0,87	0,24	F07/F10/F12	FA07/FA10/FA12 F07/F10/F12
ILGD 900C	9,55	9,67	3,90	3,33	7,48	5,55	2,22	0,79	0,94	0,32	1,06	0,28	F10/F12	FA10/FA12 F10/F12
ILGD 1500C	10,49	11,56	4,96	4,23	9,07	5,75	2,17	0,79	0,94	0,47	1,36	0,28	F10/F12/F14/F16	FA12/FA14/FA16 F12/F14/F16
ILGD 2400C	11,79	13,17	5,14	5,00	9,61	6,34	2,44	0,98	1,10	0,39	1,28	0,32	F12/F14/F16	FA14/FA16 F14/F16
ILGD 5000C	13,23	15,28	5,96	6,10	10,85	7,72	2,83	0,98	1,10	0,71	1,99	0,32	F16/F25	FA16/FA25 F16/F25
ILGD 8000C	17,64	15,28	5,96	6,10	12,96	7,72	2,83	0,79	0,94	0,71	1,99	0,32	F16/F25	FA16/FA25 F16/F25
ILGD 16000C	15,68	17,36	6,75	7,48	13,63	7,20	2,71	0,79	0,94	0,79	1,93	0,16	F25/F30	FA25/FA30 F25/F30

All dimensions in inches.

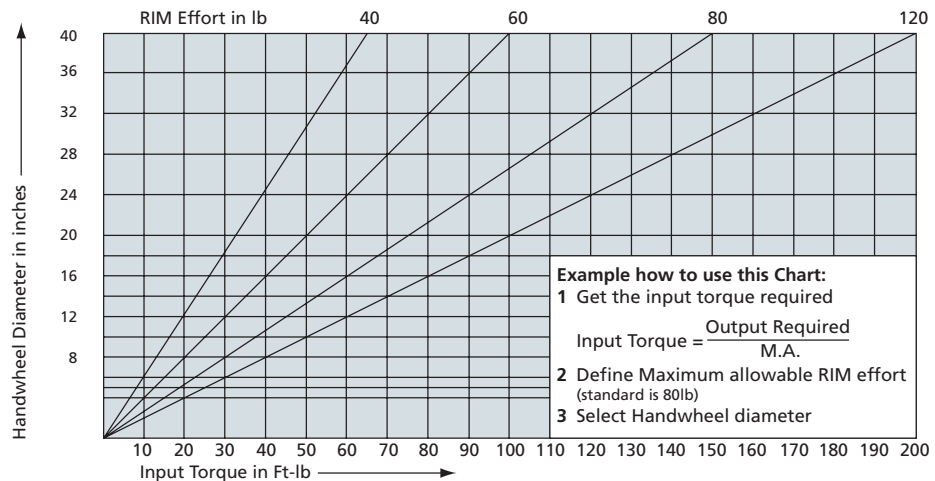
### Dimensions

Type	A	B
SG200	Ø8"	3,15"
SG250	Ø10"	4,33"
SG300	Ø12"	4,53"
SG350	Ø14"	4,72"
SG400	Ø16"	5,12"
SG450	Ø18"	5,91"
SG500	Ø20"	5,91"
SG600	Ø24"	5,91"
SG700	Ø28"	5,91"
SG800	Ø32"	5,91"
SG900	Ø36"	6,30"
SG1000	Ø40"	6,30"

### Handwheel Selection Chart



SG series handwheel



**Rotork Gears UK**  
 9 Brown Lane West  
 Holbeck, Leeds LS12 6BH  
 England  
 tel +44 (0)113 256 7922  
 email sales@rotorkgears.com

**Rotork Gears BV**  
 Nijverheidstraat 25  
 7581 PV Losser  
 P.O. Box 98, 7580 AB Losser  
 The Netherlands  
 tel +31 (0)53 - 5388677  
 fax +31 (0)53 - 5383939  
 email info@rotorkgears.nl

**Rotork Gears India**  
 165/166, Bommasandra  
 Jigani Link Road  
 Kiadb Industrial Area, Anekal  
 Thaluk  
 Jigani Hobli, Bangalore 562106  
 India  
 tel +91 80 3098 1600  
 fax +91 80 3098 1610  
 email sales@rotork.co.in

**Rotork Gears Americas**  
 1811 Brittmoore  
 Houston, Texas 77043, USA  
 tel +1 713 9837381  
 fax +1 713 8568022  
 email gears@rotorkgears.com

**Rotork Gears Shanghai**  
 No. 260 Lian Cao Road  
 Xin Mei Urban Industrial Park  
 Min Hang District  
 Shang Hai 201108  
 China  
 tel 0086 21 33236200  
 fax 0086 21 64348388  
 email info@rotorkgears.com.cn

**Rotork Valvekits**  
 Brookside Way  
 Nunn Park  
 Huthwaite  
 Nottinghamshire NG17 2NL  
 England  
 tel +44 (0)1623 440211  
 fax +44 (0)1623 440214  
 email sales@rotorkvalvekits.com

**Rotork Valvekits Americas**  
 Rotork Tulsa, Inc.  
 4433 West 49th Street, Suite D  
 Tulsa, OK 74107, USA  
 tel +1 (918) 259-8100  
 fax +1 (918) 259-9167  
 email usasales@rotorkvalvekits.com

**Rotork Gears S.R.L.**  
 Viale Europa 17  
 20090 Cusago (MI)  
 Italy  
 tel +39 0290 16711  
 fax +39 0290 390368  
 email rg srl.sales@rotork.com

**Roto Hammer Industries**  
 Rotork Tulsa, Inc.  
 4433 West 49th Street, Suite D  
 Tulsa, OK 74107, USA  
 tel +1 (918) 446-3500  
 fax +1 (918) 446-6218  
 email sales@rotohammer.com

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