

# Chainwheel Operators

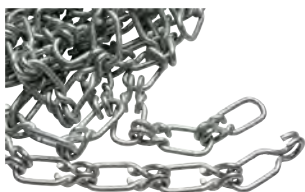
Chainwheel operators are designed to operate valves installed in inaccessible places. Chainwheels easily attach to the handwheel of valves ranging from 2"-36" in diameter. Available in aluminum (ARG Series) for gear operators on butterfly valves and other quarter turn products, and cast iron (CIRG Series) for handwheels on multi-turn valves.

## Standard Components:

- Chainwheel
- Guide arm and cap
- Zinc plated carbon steel attachment set for clamping to the valve handwheel
- Attachment instructions for installing the chainwheel to the handwheel of the valve



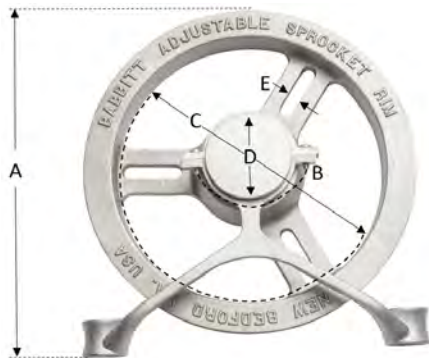
## Chain



Weldless chain is designed for use on standard chainwheels. Weldless chain is sometimes referred to as single loop lock link chain. Available in hot dipped galvanized, stainless steel, and brass.

# TECHNICAL DATA

CHAINWHEEL DIMENSIONS IN INCHES (CM)							
Wheel Size #	1	1-1/2	2	2-1/2	3	3-1/2	4
A – Overall height In	6-3/8 (16.19)	7-3/4 (19.69)	10-1/2 (26.67)	12-1/2 (31.75)	15-1/2 (39.37)	18-1/2 (46.99)	21-1/2 (54.61)
B – Inner Bolt Circle	2-1/2 (6.35)	3-1/2 (8.89)	4-1/2 (11.43)	5-1/2 (13.97)	8-1/2 (21.59)	11-1/2 (29.21)	11-1/2 (29.21)
C – Outer Bolt Circle	3-1/2 (8.89)	5 (12.70)	6-5/8 (16.83)	9-1/4 (23.50)	12-3/8 (31.43)	15-1/2 (39.37)	17-3/4 (49.05)
D – Hub Opening (Diameter)	7/8 (2.22)	7/8 (2.22)	2-1/8 (5.40)	2-1/8 (5.40)	2-1/8 (5.40)	3 (7.62)	3 (7.62)
E – Slot Size (Width)	3/8 (.95)	3/8 (.95)	3/8 (.95)	7/16 (1.11)	7/16 (1.11)	7/16 (1.11)	5/8 (1.59)
F – Rear Opening	1-1/2 (3.81)	1-7/8 (4.76)	3-1/8 (7.94)	3-1/2 (8.89)	3-1/2 (8.89)	4-7/8 (12.38)	4-7/8 (12.38)
G – Hub Depth (Shoulder to Rear)	1-1/2 (3.81)	1-7/16 (3.65)	1-3/8 (3.49)	1-3/4 (4.45)	1-7/8 (4.76)	1-7/8 (4.76)	1-7/8 (4.76)
H – Rim Thickness	1-1/8 (2.86)	1-1/8 (2.86)	1-1/8 (2.86)	1-1/4 (3.18)	1-1/4 (3.18)	1-1/4 (3.18)	1-1/2 (3.81)
I – Overall Depth	2-1/4 (5.72)	2-3/8 (6.03)	2-3/8 (6.03)	2-5/8 (6.67)	3-1/8 (7.94)	3-1/8 (7.94)	3-1/8 (7.94)



SELECTION OF CHAINWHEEL OPERATORS						
Part #	Valve Handwheel Outside Diameter Range, Inches (cm)*	Chain Operator Number	Wheel Outside Diameter, Inches (cm)	Uses Chain Trade Size	Weight of Standard Wheel, Pounds	
CIRG1.0 ARG1.0	4-1/4 to 5-3/4 (10.80 – 14.61)	1	5-3/4 (14.61)	1/0	4	
CIRG1.5 ARG1.5	6 to 7-1/2 (15.24 – 19.05)	1-1/2	7-1/2 (19.05)	1/0	5	
CIRG2.0 ARG2.0	7-3/4 to 9 (19.69 – 22.86)	2	9 (22.86)	1/0	10	
CIRG2.5 ARG2.5	9-1/4 to 12-1/2 (23.50 – 31.75)	2-1/2	12 (30.48)	4/0	15	
CIRG3.0 ARG3.0	12-3/4 to 15-1/2 (32.39 – 39.37)	3	15-1/2 (39.37)	4/0	18	
CIRG3.5 ARG3.5	15-3/4 to 19 (40.01 – 48.26)	3-1/2	18-1/2 (46.99)	4/0	28	
CIRG4.0 ARG4.0	19-1/4 to 22 (48.90 – 55.88)	4	21-1/2 (54.61)	5/0	37	

\* For larger handwheel size consult factory.

The information presented on this sheet is correct at the time of publication. Milwaukee Valve reserves the right to change design, and/or material specifications without notice. For the Installation, Operation and Maintenance Manual (IOM) see the engineering section on our website. For the most current information access [www.milwaukeevalve.com](http://www.milwaukeevalve.com)

### HIGH PERFORMANCE BUTTERFLY VALVE CHAINWHEEL GUIDE

VALVE SIZE	HANDWHEEL SIZE (INCHES)	CHAINWHEEL NUMBER	CHAIN SIZE	MASTERLINK
2.5"-4"	6	ARG1.5	R1/0 - C -746	R1/0-ML-746
5"-6"	9	ARG2.0	R1/0 - C -746	R1/0-ML-746
8"-10"	12	ARG2.5	R4/0 - C -746	R4/0-ML-746
10" 150 WAFER	12	ARG2.5	R4/0 - C -746	R4/0-ML-746
10" 300 & 12" 150	12	ARG2.5	R4/0 - C -746	R4/0-ML-746
12" 300 & 14" 150	12	ARG2.5	R4/0 - C -746	R4/0-ML-746
14" 300 & 16" 150	20	ARG4.0	R5/0 - C -746	R4/0-ML-746
16" 300 & 18" 150	20	ARG4.0	R5/0 - C -746	R4/0-ML-746
20" 150	16	ARG3.5	R4/0 - C -746	R4/0-ML-746
24" 150	16	ARG3.5	R4/0 - C -746	R4/0-ML-746
Hand wheel size is 16" on the 20" and 24" due to multiple reduction gear operator				

**"C", "M" AND "H" SERIES BUTTERFLY VALVE CHAINWHEEL GUIDE**

<b>VALVE SIZE</b>	<b>HANDWHEEL SIZE (INCHES)</b>	<b>CHAINWHEEL NUMBER</b>	<b>CHAIN SIZE</b>	<b>MASTERLINK</b>
2	6	ARG 1.5	R1-0 - C -746	R1-0-ML-746
2.5	6	ARG 1.5	R1-0 - C -746	R1-0-ML-746
3	6	ARG 1.5	R1-0 - C -746	R1-0-ML-746
4	6	ARG 1.5	R1-0 - C -746	R1-0-ML-746
5	6	ARG 1.5	R1-0 - C -746	R1-0-ML-746
6	6	ARG 1.5	R1-0 - C -746	R1-0-ML-746
8	9	ARG 2.0	R1-0 - C -746	R1-0-ML-746
10	9	ARG 2.0	R1-0 - C -746	R1-0-ML-746
12	9	ARG 2.0	R1-0 - C -746	R1-0-ML-746
14	9	ARG 2.0	R1-0 - C -746	R1-0-ML-746
16	9	ARG 2.0	R1-0 - C -746	R1-0-ML-746
18	12	ARG 2.5	R4-0 - C -746	R4-0-ML-746
20	12	ARG 2.5	R4-0 - C -746	R4-0-ML-746
24	16	ARG 3.5	R4-0 - C -746	R4-0-ML-746
30	15	ARG 3.5	R4-0 - C -746	R4-0-ML-746
36	15	ARG 3.5	R4-0 - C -746	R4-0-ML-746
42	15	ARG 3.5	R4-0 - C -746	R4-0-ML-746
48	17.5	ARG 3.5	R4-0 - C -746	R4-0-ML-746

## CAST IRON CHAINWHEEL GUIDE

### GATE VALVES

VALVE SIZE	CLASS 125 CAST IRON GATE 2885	HANDWHEEL SIZE (INCHES)	CHAIN SIZE	MASTERLINK	CLASS 250 CAST IRON GATE 2894	HANDWHEEL SIZE (INCHES)	CHAIN SIZE	MASTERLINK
2	CIRG 1.5	7	R1-0 - C -746	R1-0-ML-746	CIRC 2.0	8	R1-0 - C -746	R1-0-ML-746
2.5	CIRG 1.5	7	R1-0 - C -746	R1-0-ML-746	CIRC 2.0	8	R1-0 - C -746	R1-0-ML-746
3	CIRC 2.0	8	R1-0 - C -746	R1-0-ML-746	CIRG 2.5	10	R4-0 - C -746	R4-0-ML-746
4	CIRG 2.5	10	R4-0 - C -746	R4-0-ML-746	CIRG 2.5	12	R4-0 - C -746	R4-0-ML-746
5	CIRG 2.5	12	R4-0 - C -746	R4-0-ML-746	CIRG 2.5	12	R4-0 - C -746	R4-0-ML-746
6	CIRG 2.5	12	R4-0 - C -746	R4-0-ML-746	CIRG 3.0	14	R4-0 - C -746	R4-0-ML-746
8	CIRG 3.0	14	R4-0 - C -746	R4-0-ML-746	CIRG 3.5	16	R4-0 - C -746	R4-0-ML-746
10	CIRG 3.5	16	R4-0 - C -746	R4-0-ML-746	CIRG 3.5	18	R4-0 - C -746	R4-0-ML-746
12	CIRG 3.5	18	R4-0 - C -746	R4-0-ML-746	CIRG 4.0	20	R5-0 - C -746	R4-0-ML-746
14	CIRG 4.0	20	R5-0 - C -746	R4-0-ML-746				
16	CIRG 4.0	22	R5-0 - C -746	R4-0-ML-746				
18	CIRG 4.5	24	R5-0 - C -746	R4-0-ML-746				
20	CIRG 4.5	24	R5-0 - C -746	R4-0-ML-746				
24	CIRG 5.0	30	R5-0 - C -746	R4-0-ML-746				

### GLOBE VALVES

VALVE SIZE	CLASS 125 CAST IRON GLOBE 2981	HANDWHEEL SIZE (INCHES)	CHAIN SIZE	MASTERLINK	CLASS 250 CAST IRON GLOBE 2983	HANDWHEEL SIZE (INCHES)	CHAIN SIZE	MASTERLINK
2	CIRG 1.5	7	R1-0 - C -746	R1-0-ML-746				
2.5	CIRG 1.5	7	R1-0 - C -746	R1-0-ML-746	CIRC 2.0	8	R1-0 - C -746	R1-0-ML-746
3	CIRC 2.0	8	R1-0 - C -746	R1-0-ML-746	CIRG 2.5	10	R4-0 - C -746	R4-0-ML-746
4	CIRG 2.5	10	R4-0 - C -746	R4-0-ML-746	CIRG 2.5	12	R4-0 - C -746	R4-0-ML-746
5	CIRG 2.5	12	R4-0 - C -746	R4-0-ML-746				
6	CIRG 2.5	12	R4-0 - C -746	R4-0-ML-746	CIRG 2.5	12	R4-0 - C -746	R4-0-ML-746
8	CIRG 3.0	14	R4-0 - C -746	R4-0-ML-746				
10	CIRG 3.5	16	R4-0 - C -746	R4-0-ML-746				

**NEW CAST STEEL CHAIN WHEEL SIZING GUIDE : 2-2022**

SIZE	HW SIZE	CLASS 150 CAST STEEL GATE 1550	HW SIZE	CLASS 150 CAST STEEL GLOBE 1560	HW SIZE	CLASS 300 CAST STEEL GATE 3050	HW SIZE	CLASS 300 CAST STEEL GLOBE 3060	HW SIZE	CLASS 600 CAST STEEL GATE 6050	HW SIZE	CLASS 600 CAST STEEL GLOBE 6060
2	7.87	CIRG 2.0	7.87	CIRG 2.0	7.87	CIRG 2.0	7.87	CIRG 2.0	9.84	CIRG 2.5	9.84	CIRG 2.5
2.5	7.87	CIRG 2.0	9.84	CIRC 2.5	9.84	CIRG 2.5	9.84	CIRG 2.5	9.84	CIRG 2.5	9.84	CIRG 2.5
3	9.84	CIRC 2.5	9.84	CIRC 2.5	9.84	CIRC 2.5	9.84	CIRG 2.5	11.81	CIRG 2.5	13.78	CIRG 2.5
4	9.84	CIRG 2.5	11.81	CIRG 2.5	11.81	CIRG 2.5	13.78	CIRG 3.0	13.78	CIRG 3.0	15.75	CIRG 3.5
5	11.81	CIRG 2.5	13.78	CIRG 3.0	13.78	CIRG 3.0	15.75	CIRG 3.5	17.72	CIRG 4.0	15.78	CIRG 4.0
6	11.81	CIRG 2.5	13.78	CIRG 3.0	13.78	CIRG 3.0	15.75	CIRG 3.5	19.69	CIRG 4.0	19.69	CIRG 4.0
8	13.78	CIRG 3.0	15.75	CIRG 3.5	17.72	CIRG 4.0	19.69	CIRG 4.0	22.05	CIRG 4.0		
10	17.72	CIRG 4.0			19.69	CIRG 4.0			28.35	CIRG 5.0		
12	19.69	CIRG 4.0			22.05	CIRG 4.0			31.5	CIRG-5-SP4		
14	22.05	CIRG 4.0			25.20	CIRG 4.5						
16	25.20	CIRG 4.5			18.11	CIRG 3.5**						
18	28.35	CIRG 4.5			24.02	CIRG 4.5**						
20	24.02	CIRG 4.5**			24.02	CIRG 4.5**						
24	24.02	CIRG 4.5**			24.02	CIRG 4.5**						

\*\* NOTE: BEVEL GEAR OPERATOR

CHAINWHEEL #	CHAIN SIZE	MASTER LINK
CIRG 2.0	R1/0 - C -746	R1/0 - ML-747
CIRC 2.5	R4/0 - C -746	R4/0 - ML-746
CIRG 3.0	R4/0 - C -746	R4/0 - ML-746
CIRG 3.5	R4/0 - C -746	R4/0 - ML-746
CIRG 4.0	R5/0 - C -746	R4/0 - ML-746
CIRG 4.5	R5/0 - C -746	R4/0 - ML-746
CIRG 5.0	R5/0 - C -746	R4/0 - ML-746