

# DeZURIK MG MANUAL GEAR ACTUATOR SIZING

For

- **BHP High Performance Butterfly Valves**
- **PEC Eccentric Plug Valves**
- **VPB V-Port Ball Valves**
- **RCV Rotary Control Valves**
- **BOS-US Resilient Seated Butterfly Valves**



# BHP High-Performance Butterfly Valves

## Handwheel & Chainwheel Actuators

### ASME Class 150 (PN 10/16) PTFE (TT, TI, RT, RI) Seat

Valve Size	Actuator Code Handwheel	Shutoff Pressure psi (kPa)	Actuator Code Chainwheel	Shutoff Pressure psi (kPa)
2-8" (50-200mm)	MG-7-HD8	285 (1960)	MG-7-CW8	285 (1960)
10" (250mm)	MG-1012-HD8	285 (1960)	MG-1012-CW8	285 (1960)
12" (300mm)	MG-1012-HD8	175 (1210)	MG-1012-CW8	250 (1720)
	MG-1012-HD12	285 (1960)	MG-1216-CW20	285 (1960)
14" (350mm)	MG-1012-HD8	100 (690)	MG-1012-CW8	150 (1030)
	MG-1012-HD12	225 (1550)		150 (1030)
	MG-1216-HD16	285 (1960)	MG-1216-CW20	285 (1960)
16" (400mm)	MG-1012-HD8	50 (340)	MG-1012-CW8	75 (520)
	MG-1012-HD12	125 (860)		75 (520)
	MG-1216-HD16	200 (1380)	MG-1216-CW20	285 (1960)
	MG-1216-HD24	285 (1960)		285 (1960)
18" (450mm)	MG-1216-HD16	125 (860)	MG-1216-CW20	250 (1720)
	MG-1216-HD24	250 (1720)		250 (1720)
	MG-16-HD30	285 (1960)	MG-16-CW30	285 (1960)
20" (500mm)	MG-1216-HD16	25 (170)	MG-1216-CW20	100 (690)
	MG-1216-HD24	100 (690)		100 (690)
	MG-16-HD30	150 (1030)	MG-16-CW30	225 (1550)

### ASME Class 150 (PN 10/16) METAL (S2) Seat

Valve Size	Actuator Code Handwheel	Shutoff Pressure psi (kPa)	Actuator Code Chainwheel	Shutoff Pressure psi (kPa)
2-6" (50-150mm)	MG-7-HD8	285 (1960)	MG-7-CW8	285 (1960)
8" (200mm)	MG-1012-HD8	285 (1960)	MG-1012-CW8	285 (1960)
10" (250mm)	MG-1012-HD12	285 (1960)	MG-1012-CW12	285 (1960)
12" (300mm)	MG-1216-HD16	285 (1960)	MG-1216-CW20	285 (1960)
14" (350mm)	MG-1216-HD24	285 (1960)	MG-1216-CW20	285 (1960)
16" (400mm)	MG-1216-HD24	285 (1960)	MG-1216-CW30	285 (1960)
18-20" (450-500mm)	MG-16-HD30	285 (1960)	MG-16-CW30	285 (1960)

### ASME Class 150 (PN 10/16) Dual Seat (TTS2, TIS2 or RTS2, RIS2) Fyre-Block (TTS2 & FB or RTS2 & FB)

Valve Size	Actuator Code Handwheel	Shutoff Pressure psi (kPa)	Actuator Code Chainwheel	Shutoff Pressure psi (kPa)
2-8" (50-200mm)	MG-7-HD8	285 (1960)	MG-7-CW8	285 (1960)
10-12" (250-300mm)	MG-1012-HD12	285 (1960)	MG-1012-CW12	285 (1960)
14-16" (350-400mm)	MG-1216-HD24	285 (1960)	MG-1216-CW20	285 (1960)
18-20" (450-500mm)	MG-16-HD30	285 (1960)	MG-16-CW30	285 (1960)

**Note:** Chainwheel actuators are available at standard and 180° mounting positions.

# BHP High-Performance Butterfly Valves

## Handwheel & Chainwheel Actuators

### ASME Class 300 (PN 25/40) PTFE (TT, TI, RT, RI) Seat

Valve Size	Actuator Code Handwheel	Shutoff Pressure psi (kPa)	Actuator Code Chainwheel	Shutoff Pressure psi (kPa)
2-6" (50-100mm)	MG-7-HD8	740 (5090)	MG-7-CW8	740 (5090)
8 & 10" (200 & 250mm)	MG-1012-HD8	740 (5090)	MG-1012-CW8	740 (5090)
12" (300mm)	MG-1216-HD16	740 (5090)	MG-1216-CW20	740 (5090)
14 & 16" (350 & 400mm)	MG-1216-HD24	740 (5090)	MG-1216-CW20	740 (5090)
18" (450mm)	MG-16-HD30	740 (5090)	MG-16-CW30	740 (5090)
20" (500mm)	MG-64-HD30	740 (5090)	MG-64-CW30	740 (5090)

### ASME Class 300 (PN 25/40) METAL (S2) Seat

Valve Size	Actuator Code Handwheel	Shutoff Pressure psi (kPa)	Actuator Code Chainwheel	Shutoff Pressure psi (kPa)
2-4" (50-100mm)	MG-7-HD8	740 (5090)	MG-7-CW8	740 (5090)
6" (150mm)	MG-1012-HD8	740 (5090)	MG-1012-CW8	740 (5090)
8" (200mm)	MG-1216-HD12	740 (5090)	MG-1216-CW12	740 (5090)
10&12" (250-300mm)	MG-1216-HD24	740 (5090)	MG-1216-CW20	740 (5090)

### ASME Class 300 (PN 25/40) Dual Seat (TTS2, TIS2 or RTS2, RIS2) Fyre-Block (TTS2 & FB or RTS2 & FB)

Valve Size	Actuator Code Handwheel	Shutoff Pressure psi (kPa)	Actuator Code Chainwheel	Shutoff Pressure psi (kPa)
2-4" (50-100mm)	MG-7-HD8	740 (5090)	MG-7-CW8	740 (5090)
6 & 8" (150 & 200mm)	MG-1012-HD8	740 (5090)	MG-1012-CW8	740 (5090)
10 & 12" (250 & 300mm)	MG-1216-HD24	740 (5090)	MG-1216-CW20	740 (5090)

**Note:** Chainwheel actuators are available at standard and 180° mounting positions.

# VPB V-Port Ball Valves

## Handwheel Actuators

ASME Class 150 (All Seats) (PN 10/16)  
ASME Class 300 (RT Seats) (PN 10/16)

Valve Size	Actuator Code	Shutoff Pressure psi (kPa)
1-4" (25-100mm)	MG-7-HD8	285 (1960)
6 & 8" (150 & 200mm)	MG-1012-HD8	285 (1960)
10" (250mm)	MG-1012-HD12	285 (1960)
12-16" (300-400mm)	MG-1216-HD24	285 (1960)
18" (450mm)	MG-16-HD30	285 (1960)
20" (500mm)	MG-16-HD30 MG-64-HD30	150 (1030) 200 (1380)

## Chainwheel Actuators

ASME Class 150 (All Seats) (PN 10/16)  
ASME Class 300 (RT Seats) (PN 10/16)

Valve Size	Actuator Code	Shutoff Pressure psi (kPa)
1-4" (25-100mm)	MG-7-CW8	285 (1960)
6 & 8" (150 & 200mm)	MG-1012-CW8	285 (1960)
10" (250mm)	MG-1012-CW12	285 (1960)
12-16" (300-400mm)	MG-1216-CW20	285 (1960)
18" (450mm)	MG-16-CW30	285 (1960)
20" (500mm)	MG-16-CW30 MG-64-CW30	150 (1030) 200 (1380)

## Handwheel Actuators

ASME Class 300 Solid Seat  
(S3S, S3SI, S3R, HRCI)

Valve Size	Actuator Code Handwheel	Shutoff Pressure psi (kPa)
1-4" (25-100mm)	MG-7-HD8	740 (5100)
6" (150mm)	MG-1012-HD12	700 (4830)
8" (200mm)	MG-1012-HD12	550 (3800)
10" (250mm)	MG-1216-HD24	500 (3450)
12" (300mm)	MG-1216-HD24	350 (2410)

## Chainwheel Actuators

ASME Class 300 Solid Seat  
(S3S, S3SI, S3R, HRCI)

Valve Size	Actuator Code Handwheel	Shutoff Pressure psi (kPa)
1-4" (25-100mm)	MG-7-CW8	740 (5100)
6" (150mm)	MG-1012-CW8	740 (5100)
8" (200mm)	MG-1012-CW12	740 (5100)
10" (250mm)	MG-1216-CW16	500 (3450)
12" (300mm)	MG-1216-CW20	350 (2410)

## Handwheel Actuators

ASME Class 300 Flex Metal Seat  
(S6N, S5C)

Valve Size	Actuator Code Handwheel	Shutoff Pressure psi (kPa)
1-4" (25-100mm)	MG-7-HD8	740 (5100)
6" (150mm)	MG-1012-HD8	740 (5100)
	MG-1012-HD12	740 (5100)
8" (200mm)	MG-1012-HD12	740 (5100)
10" (250mm)	MG-1216-HD16	450 (3100)
	MG-1216-HD24	740 (5100)
12" (300mm)	MG-1216-HD24	650 (4480)

## Chainwheel Actuators

ASME Class 300 Flex Metal Seat  
(S6N, S5C)

Valve Size	Actuator Code Handwheel	Shutoff Pressure psi (kPa)
1-4" (25-100mm)	MG-7-CW8	740 (5100)
6" (150mm)	MG-1012-CW8	740 (5100)
8" (200mm)	MG-1012-CW8	740 (5100)
10" (250mm)	MG-1012-CW12	600 (4140)
	MG-1216-CW20	740 (5100)
12" (300mm)	MG-1216-CW20	675 (4650)

**Note:** On 1-16" (25-400mm) VPB valves, handwheel and chainwheel actuators are available at standard, 90°, 180° and 270° mounting positions. On 18 & 20" (450 & 500mm) valves, only standard and 180° positions are available.

# RCV Rotary Control Valves

## Handwheel Actuators ASME Class 150/300 (PN 10/16)

Valve Size	Actuator Code	Shutoff Pressure psi (kPa)
1–4" (25–100mm)	MG-7-HD8	740 (5100)
6" (150mm)	MG-1012-HD12	740 (5100)
8" (200mm)	MG-1012-HD12 MG-1216-HD24	350 (2400) 740 (5100)
10" (250mm)	MG-1216-HD24 MG-16-HD30	500 (3450) 740 (5100)
12" (300mm)	MG-16-HD30 MG-64-HD30	350 (2400) 500 (3450)

**Note:** TN and HC bodies are rated at 285 psi (1960 kPa). Contact DeZURIK for actuator sizing.

## Chainwheel Actuators ASME Class 150/300 (PN 25/40)

Valve Size	Actuator Code	Shutoff Pressure psi (kPa)
1–4" (25–100mm)	MG-7-CW8	740 (5100)
6" (150mm)	MG-1012-CW12	740 (5100)
8" (200mm)	MG-1012-CW12 MG-1216-CW20	350 (2400) 740 (5100)
10" (250mm)	MG-1216-CW20 MG-16-CW30	500 (3450) 740 (5100)
12" (300mm)	MG-16-CW30 MG-64-CW30	350 (2400) 500 (3450)

**Note:** TN and HC bodies are rated at 285 psi (1960 kPa). Contact DeZURIK for actuator sizing.

**Note:** On 1–4" (25–100mm) RCV valves, actuators are available at standard, 90°, 180° and 270° mounting positions. On 6–12" (150–300mm) valves, actuators are available at standard and 180° mounting positions.

# PEC Eccentric Plug Valves

## Handwheel Actuators ASME Class 125-Iron (PN10)

Valve Size	Actuator Code	Shutoff Pressure psi (kPa)
.5–3" (15–80mm)	MG-7-HD8	175 (1210)

## Chainwheel Actuators ASME Class 125-Iron (PN10)

Valve Size	Actuator Code	Shutoff Pressure psi (kPa)
.5–3" (15–80mm)	MG-7-CW8	175 (1210)

## ASME Class 150-Steel (PN10/16)

Valve Size	Actuator Code	Shutoff Pressure psi (kPa)
.5–3" (15–80mm)	MG-7-HD8	285 (1960)

## ASME Class 150-Steel (PN10/16)

Valve Size	Actuator Code	Shutoff Pressure psi (kPa)
.5–3" (15–80mm)	MG-7-CW8	285 (1960)

# BOS - US Resilient Seated Butterfly Valves

## Handwheel Actuators

Valve Size	Order Code	Maximum Pressure Differential psi (kPa)
2-6" (50-150mm)	MG-7-HD8*	250 (1720)
8" (200mm)	MG-1012-HD8*	250 (1720)
10" (250mm)	MG-1012-HD12	250 (1720)
12" (300mm)	MG-1012-HD12	100 (690)
	MG-1216-HD16	250 (1720)
14" (350mm)	MG-1216-HD20	250 (1720)
16" (400mm)	MG-1216-HD24	150 (1030)
	MG-16-HD30	250 (1720)
18" (450mm)	MG-16-HD30	150 (1030)
	MG-1250-HD28	250 (1720)
20" (500mm)	MG-16-HD30	75 (515)
	MG-1250-HD28	250 (1720)

## Chainwheel Actuators

Valve Size	Order Code	Maximum Pressure Differential psi (kPa)
2-6" (50-150mm)	MG-7-CW8	250 (1720)
8" (200mm)	MG-1012-CW8	250 (1720)
10" (250mm)	MG-1012-CW8	250 (1720)
12" (300mm)	MG-1012-CW12	100 (690)
	MG-1216-CW12	250 (1720)
14" (350mm)	MG-1216-CW20	250 (1720)
16" (400mm)	MG-1216-CW20	150 (1030)
	MG-16-CW24	250 (1720)
18" (450mm)	MG-16-CW24	150 (1030)
	MG-1250-CW30	250 (1720)
20" (500mm)	MG-16-CW24	75 (520)
	MG-1250-CW30	250 (1720)

\* If ordered with a dial indicating floorstand FSDIR or FSDIU, use HD12 in place of HD8

**Note:** Actuator comes with 18-8 Stainless Steel Bolting.  
316 Stainless Steel Bolting is not available.

## Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:

**Web Site:** [DeZURIK.com](http://DeZURIK.com) **E-Mail:** [info@DeZURIK.com](mailto:info@DeZURIK.com)



250 Riverside Ave. N. Sartell, Minnesota 56377 • Phone: 320-259-2000 • Fax: 320-259-2227

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