

## Quarter-Turn Worm Gear Operator

The G731 gear-operator is designed for use on FNW resilient seated butterfly valves. The ISO pads match the FNW valves per size for direct mount. The ISO standard configuration also allows mounting the G731 to other valve manufacturers using the same dimensions.

**Features:**

- ISO 5211 Mounting Pad Configuration
- Adjustable Open & Close Stops
- Ductile Iron Gear
- Nickel Plated Shaft



### ISO Mounts and Ratios Per FNW Resilient Seated Butterfly Valve Sizes

| Valve Size | 2    | 2-1/2 | 3    | 4    | 6    | 8    | 10   | 12   | 14   | 16   | 18   | 20   | 24   |
|------------|------|-------|------|------|------|------|------|------|------|------|------|------|------|
| ISO Code   | F07  | F07   | F07  | F07  | F07  | F07  | F10  | F10  | F10  | F14  | F14  | F16  | F16  |
| Gear Ratio | 24:1 | 24:1  | 24:1 | 24:1 | 24:1 | 30:1 | 30:1 | 50:1 | 50:1 | 50:1 | 50:1 | 80:1 | 80:1 |

### Figure Number Matrix

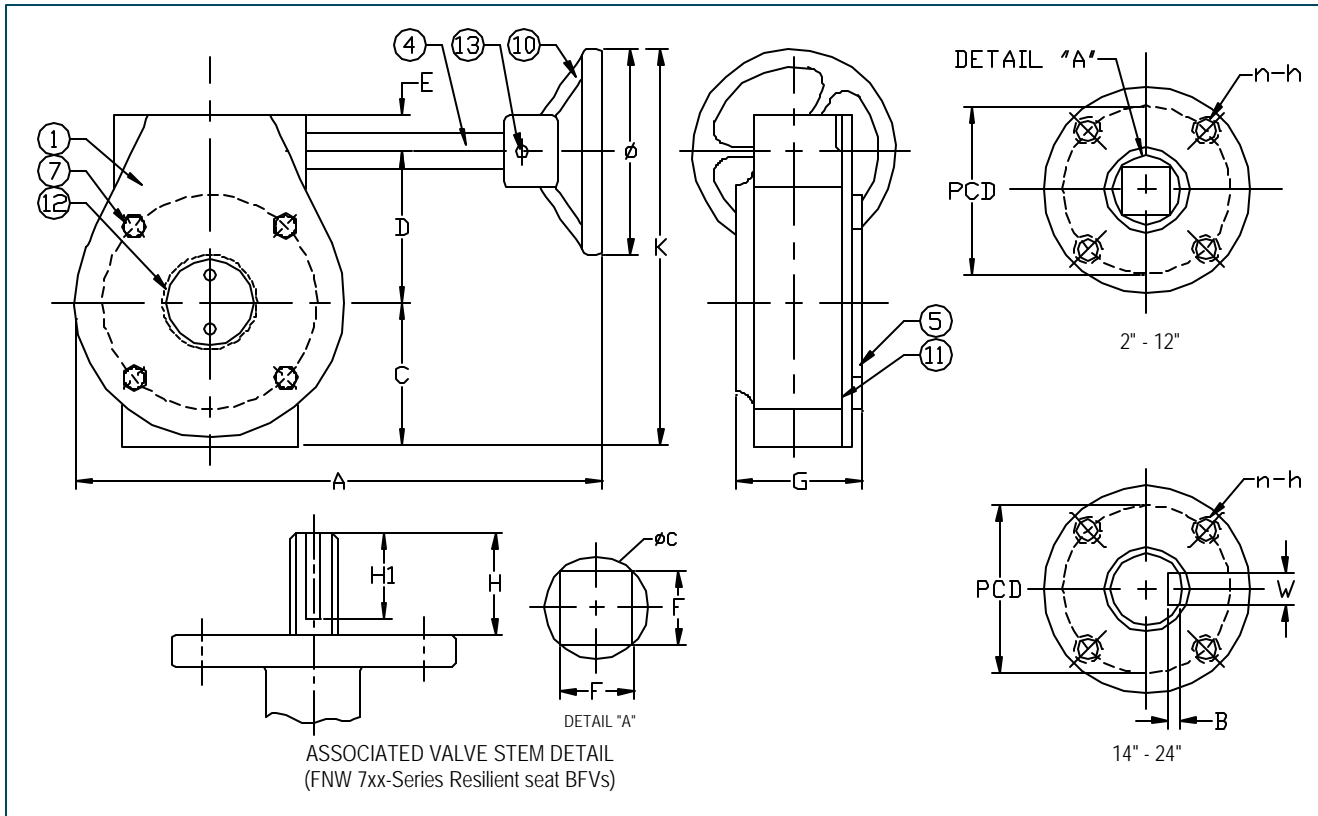
| FNW G 7 3 1 Size |         |
|------------------|---------|
| SIZE CODES       |         |
| 2 = K            | 12 = 12 |
| 2-1/2 = L        | 14 = 14 |
| 3 = M            | 16 = 16 |
| 4 = P            | 18 = 18 |
| 6 = U            | 20 = 20 |
| 8 = X            | 24 = 24 |
| 10 = 10          |         |

For other valve materials or configurations, contact FNW Valve at (503) 287-8383 for sales assistance.

### Standard Materials

| REF.NO. | DESCRIPTION     | MATERIAL           | QTY | REMARKS       |
|---------|-----------------|--------------------|-----|---------------|
| 1       | Case            | ASTM A126 Cl. B    | 1   |               |
| 2       | Gear            | ASTM A536 65-45-12 | 1   | Not Shown     |
| 3       | Worm            | Steel              | 1   | Not Shown     |
| 4       | Shaft           | Steel              | 1   | Nickel Plated |
| 5       | Cover           | ASTM A126 Cl. B    | 1   |               |
| 6       | Shaft Pin       | Steel              | 1   | Not Shown     |
| 7       | Cover Screw     | Steel              | 4   |               |
| 8       | Stop Screw      | Steel (2 per stop) | 4   | Not Shown     |
| 10      | Hand Wheel      | ASTM A126 Cl. B    | 1   |               |
| 11      | Cover Gasket    | Fiber Paper        | 1   |               |
| 12      | Gear Top O-ring | Rubber             | 1   |               |
| 13      | Hand Wheel Pin  | Steel              | 1   |               |

## Quarter-Turn Worm Gear Operator



### Dimensions (Inches)

| VALVE SIZE | RATIO | A     | G    | C    | D    | E    | K     | Ø     | n-h   | PCD  | B    | W    | H    | F    | ØC   | H1   |
|------------|-------|-------|------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|
| 2          | 24:1  | 8.74  | 2.83 | 2.13 | 1.77 | 1.10 | 6.85  | 5.79  | 4-M8  | 2.76 | -    | -    | 0.60 | 0.43 | 0.55 | -    |
| 2-1/2      | 24:1  | 8.74  | 2.83 | 2.13 | 1.77 | 1.10 | 6.85  | 5.79  | 4-M8  | 2.76 | -    | -    | 0.60 | 0.43 | 0.55 | -    |
| 3          | 24:1  | 8.74  | 2.83 | 2.13 | 1.77 | 1.10 | 6.85  | 5.79  | 4-M8  | 2.76 | -    | -    | 0.60 | 0.55 | 0.63 | -    |
| 4          | 24:1  | 8.74  | 2.83 | 2.13 | 1.77 | 1.10 | 6.85  | 5.79  | 4-M8  | 2.76 | -    | -    | 0.70 | 0.55 | 0.63 | -    |
| 6          | 24:1  | 8.74  | 2.83 | 2.13 | 1.77 | 1.10 | 6.85  | 5.79  | 4-M8  | 2.76 | -    | -    | 0.75 | 0.67 | 0.87 | -    |
| 8          | 30:1  | 10.51 | 3.31 | 2.99 | 2.60 | 1.34 | 11.50 | 11.81 | 4-M8  | 2.76 | -    | -    | 0.81 | 0.67 | 0.87 | -    |
| 10         | 30:1  | 10.51 | 3.31 | 2.99 | 2.60 | 1.34 | 11.50 | 11.81 | 4-M10 | 4.02 | -    | -    | 0.81 | 0.87 | 1.10 | -    |
| 12         | 50:1  | 10.51 | 3.31 | 2.99 | 2.60 | 1.34 | 11.50 | 11.81 | 4-M10 | 4.02 | -    | -    | 0.95 | 0.87 | 1.10 | -    |
| 14         | 50:1  | 13.62 | 3.49 | 3.09 | 3.05 | 1.54 | 12.15 | 11.81 | 4-M10 | 4.02 | 0.20 | 0.39 | 2.76 | -    | 1.10 | 2.36 |
| 16         | 50:1  | 13.62 | 3.49 | 3.09 | 3.05 | 1.54 | 12.15 | 11.81 | 4-M16 | 5.51 | 0.20 | 0.39 | 2.95 | -    | 1.26 | 2.36 |
| 18         | 50:1  | 13.62 | 3.49 | 3.09 | 3.05 | 1.54 | 12.15 | 15.55 | 4-M16 | 5.51 | 0.20 | 0.47 | 2.95 | -    | 1.50 | 2.36 |
| 20         | 80:1  | 17.32 | 4.33 | 5.12 | 5.31 | 1.57 | 18.31 | 15.55 | 4-M20 | 6.50 | 0.20 | 0.47 | 3.54 | -    | 1.77 | 2.76 |
| 24         | 80:1  | 17.32 | 4.33 | 5.12 | 5.31 | 1.57 | 18.31 | 15.55 | 4-M20 | 6.50 | 0.20 | 0.55 | 3.74 | -    | 2.17 | 2.76 |