

# Figure B517 100% Full Port Flow Round Port Eccentric Plug Valves MJ or Flanged for Buried Service

## Description

The GA Industries Figure B517 Eccentric Plug Valve is a rugged, field-proven valve that will provide many decades of trouble-free service. Its flow efficient round port provides lower head loss, 100% full flow and better solids handling ability than traditional plug valves. In addition, the epoxy coated ductile iron body and cover provide superior strength and long-term corrosion resistance while the spherically seating rubber coated plug provides drop tight shutoff in both directions.

Figure B517 buried service eccentric plug valves are available with a 2" direct nut for quarter turn wrench operation or a grease packed and sealed buried service worm gear operator with 2" nut.

Data Sheet 517.02H



## Standard Features

- Internal and external epoxy coated, high strength ductile iron body and cover
- Flow efficient round port, out-performs rectangular port plug valves
- Bi-directional zero leakage seating up to full rated pressure
- Upper and lower grit excluders for extended bearing life
- Type 316 stainless steel external fasteners, including packing studs and nuts

## Standard Materials

- Body and Cover Ductile Iron, ASTM A536 Grade 65-45-12
- Body Seat Weld Overlaid 95% Pure Nickel
- Plug Coating Buna-N Rubber
- Shaft Bearings Stainless Steel, Type 316, Self Lubricating
- External Fasteners Type 316 Stainless Steel

## Corrosion Protection

- Standard: Internal and External PPG/Amerlok 400 2-Part Epoxy, Minimum 6 mil DFT

## Approvals & Certifications

- Fully complies with AWWA Standard C517

## Options and Accessories

- Option BC Aluminum Bronze Cover Instead of Standard Ductile Iron

## Ordering Data

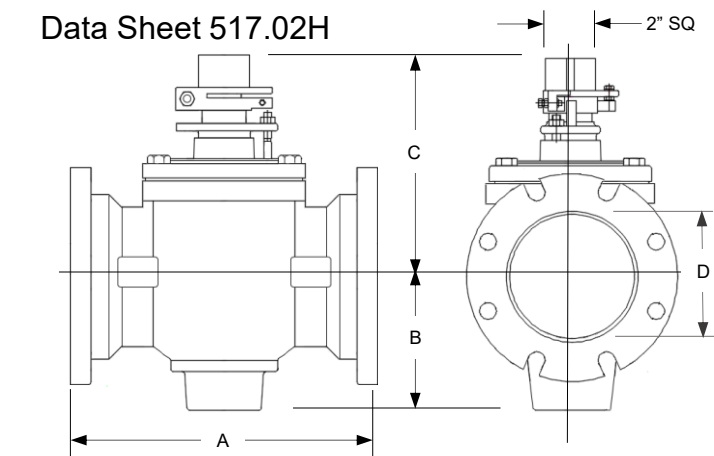
- Figure Number B517
- Size
- Connection (Mechanical Joint or Class 125 flanged)
- Operation (Direct Nut or Worm Gear)

| Non-Shock Working Water Pressure up to 180F (82C) |                             |                                      |            |                        |                                      |            |
|---------------------------------------------------|-----------------------------|--------------------------------------|------------|------------------------|--------------------------------------|------------|
| Figure Number                                     | B517                        |                                      |            |                        |                                      |            |
| Connections                                       | ANSI A21.1 Mechanical Joint |                                      |            | ANSI Class 125 Flanged |                                      |            |
| Operation                                         | Direct Nut*                 | Buried Service Worm Gear with 2" Nut |            | Direct Nut*            | Buried Service Worm Gear with 2" Nut |            |
| Size                                              | 3" to 8"                    | 3" to 12"                            | 14" to 20" | 3" to 8"               | 3" to 12"                            | 14" to 20" |
| Max Working Pressure                              | 175 PSI                     |                                      | 150 PSI    | 175 PSI                |                                      | 150 PSI    |
| Hydro Test                                        | 265 PSI                     |                                      | 225 PSI    | 265 PSI                |                                      | 225 PSI    |

\* Quarter turn wrench/lever operated

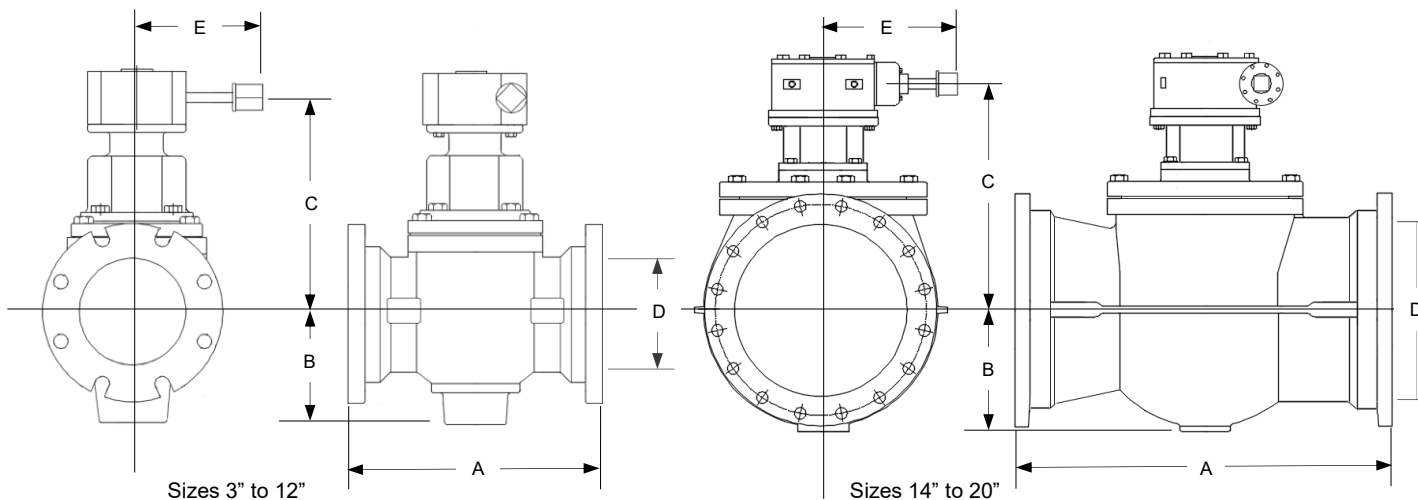
# Figure B517 100% Full Port Flow Round Port Eccentric Plug Valves MJ or Flanged for Buried Service

Data Sheet 517.02H



Direct Nut Installation Dimensions

| SIZE     |     | 3"  | 4"  | 6"  | 8"  |
|----------|-----|-----|-----|-----|-----|
| A        | MJ  | 11½ | 14¼ | 15¾ | 17⅞ |
|          | FLG | 8   | 9   | 10½ | 11½ |
| B        |     | 4⅝  | 6   | 6¾  | 9⅝  |
| C        |     | 8⅝  | 10  | 10¾ | 14  |
| D (Dia.) |     | 3   | 4   | 6   | 8   |
| WGT      | MJ  | 56  | 90  | 136 | 247 |
|          | FLG | 46  | 83  | 125 | 229 |



Worm Gear Installation Dimensions

| SIZE     |     | 3"  | 4"  | 6"  | 8"  | 10" | 12" | 14" | 16"  | 18"  | 20"  |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| A        | MJ  | 11½ | 14¼ | 15¾ | 17⅞ | 19⅞ | 20¾ | 25  | 29   | 38   | 44   |
|          | FLG | 8   | 9   | 10½ | 11½ | 13  | 14  | 17  | 17¾  | 30   | 36   |
| B        |     | 4½  | 6   | 6¾  | 9½  | 10½ | 11  | 10⅞ | 13   | 13⅝  | 15¼  |
| C        |     | 11¾ | 13½ | 14⅝ | 18⅞ | 20¾ | 22¼ | 25½ | 27⅝  | 27⅝  | 29¼  |
| D (Dia.) |     | 3   | 4   | 6   | 8   | 10  | 12  | 14  | 16   | 18   | 20   |
| E        |     | 8¾  | 8¾  | 8¾  | 9⅞  | 9⅞  | 9⅞  | 16⅞ | 16⅞  | 16⅞  | 16⅞  |
| WGT      | MJ  | 83  | 122 | 166 | 322 | 451 | 524 | 827 | 1106 | 1417 | 2095 |
|          | FLG | 73  | 115 | 155 | 304 | 394 | 487 | 757 | 952  | 1254 | 2004 |

- Worm gear actuator can be rotated in 90-degree increments about valve centerline
- Dimensions in inches, weight in pounds and are approximate, if critical request certified drawings

Flow Coefficients

| SIZE           | 3"   | 4"   | 6"   | 8"   | 10"  | 12"  | 14"  | 16"   | 18"   | 20"   |
|----------------|------|------|------|------|------|------|------|-------|-------|-------|
| C <sub>v</sub> | 882  | 1166 | 1997 | 3371 | 4870 | 7643 | 8220 | 11300 | 12400 | 17500 |
| K              | 0.09 | 0.17 | 0.29 | 0.32 | 0.38 | 0.37 | 0.51 | 0.46  | 0.61  | 0.46  |