

# Kennedy Swing Check Valves

A.W.W.A. C508 was developed in 1976 to set a standard for the manufacture, testing and application of Iron Body Bronze Mounted (IBBM) Check Valves. The valves are designed with an iron body and include either metal-to-metal or composition-to-metal seating.

Kennedy Swing Check Valves are designed and manufactured in conformance with A.W.W.A. C508 and are for use on water, oil and gas lines. Under certain circumstances where it is desirable to have more positive control of the closing of the disc, the valves can be supplied with either lever-and-spring or lever-and-weight. For restricted spacing requirements Kennedy Valve manufactures a Wafer Check Valve that also helps to control water hammer.

## Features



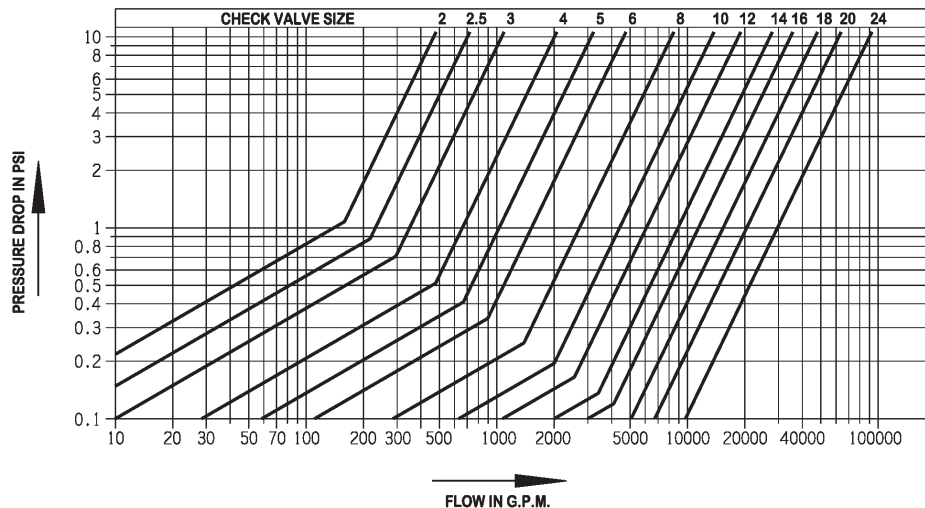
### Swing Check Valve-AWWA

- Stainless steel hinge pin.
- Working parts are removable through the top of the valve.
- Tapped bosses available.
- Available with lever-and-spring or lever-and-weight.
- Double bronze side plug construction.
- Bodies are made of high strength cast iron with reinforced flanges - ANSI B 16.1/125 # flanges.
- May be installed in a vertical line with the flow up.

- |                                  |                |
|----------------------------------|----------------|
| • Figure #1106 Series            | <u>2"-12"</u>  |
| Test Pressure - Seat and Shell   | 400 PSI        |
| Working Pressure - non-shock CWP | 200 PSI        |
| • Figure #106 Series             | <u>14"-24"</u> |
| Test Pressure - Seat and Shell   | 300 PSI        |
| Working Pressure - non-shock CWP | 150 PSI        |

### FLOW VERSUS PRESSURE DROP

Data Representative of Kennedy Figure 1106 and 1106A Swing Check Valves





## KENNEDY CHECK VALVES

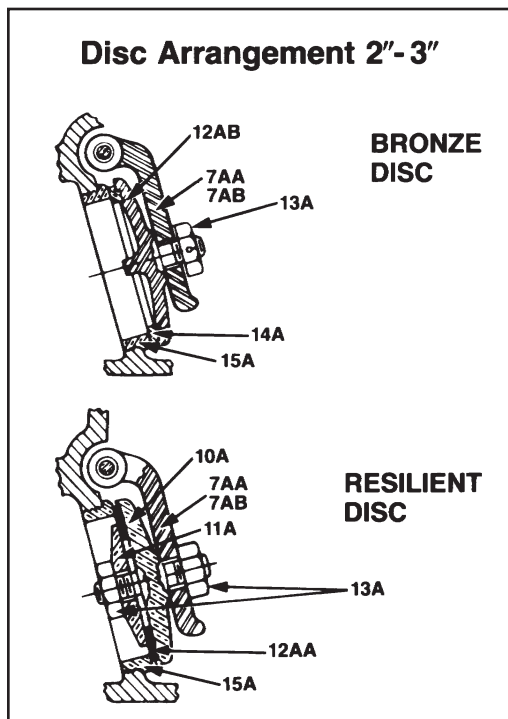
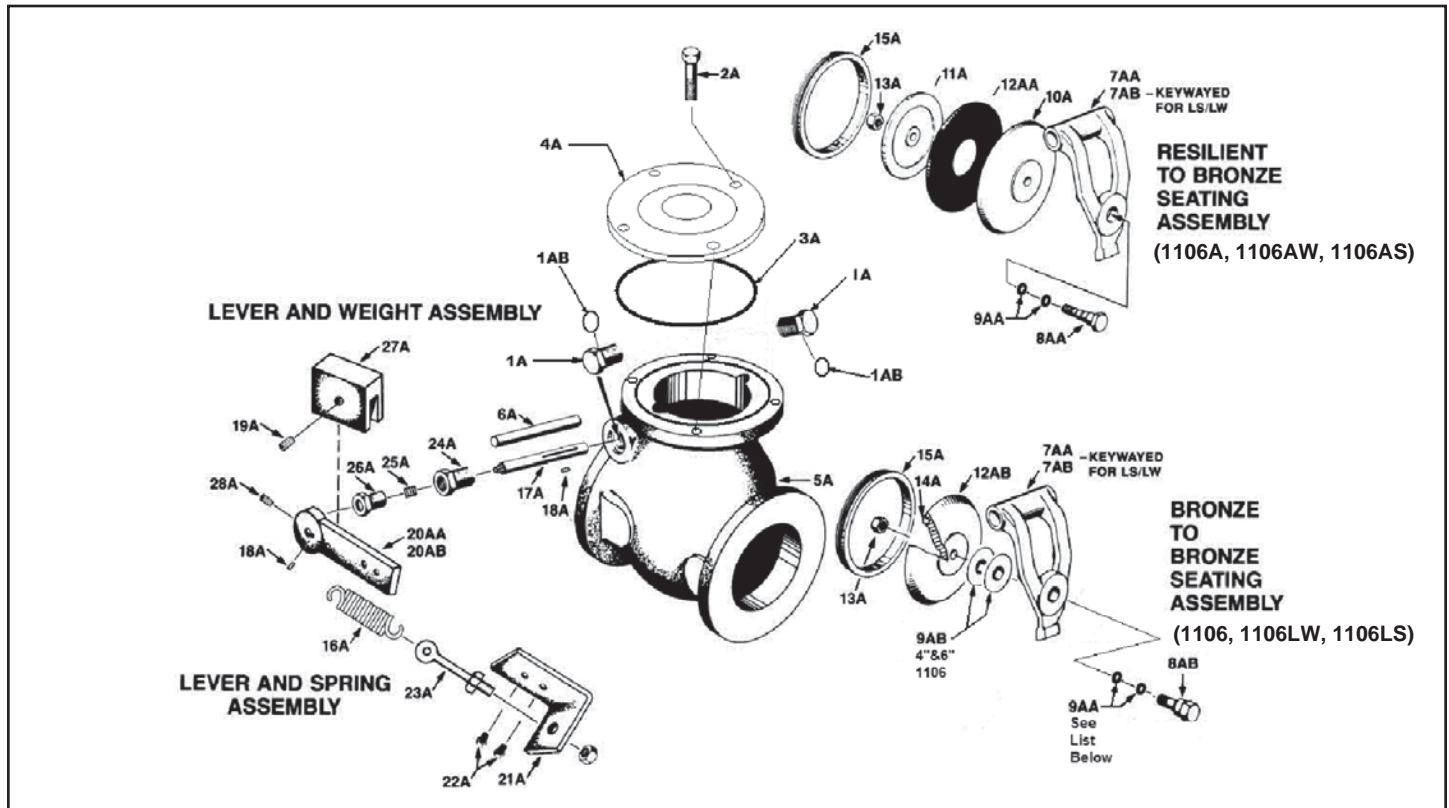
It is generally recommended, that when using Kennedy swing check valves, that you locate the valve at least 5 to 10 pipe diameters down stream from any flow disturbance or obstruction (valve, pump, elbow, reducer, etc.). Turbulence close to the check valve may result in valve "chatter" resulting in premature failure of the check valve.

*As stated in AWWA C508, "Conditions of water hammer, hydraulic pulsation, and excessive operating noise are results of system design rather than valve design and are beyond the scope of this standard and require special design and construction considerations."*

Resilient/Bronze - Figure # 1106A, 1106AW, 1106AS

Bronze/Bronze - Figure # 1106, 1106LW, 1106LS

KENNEDY VALVE



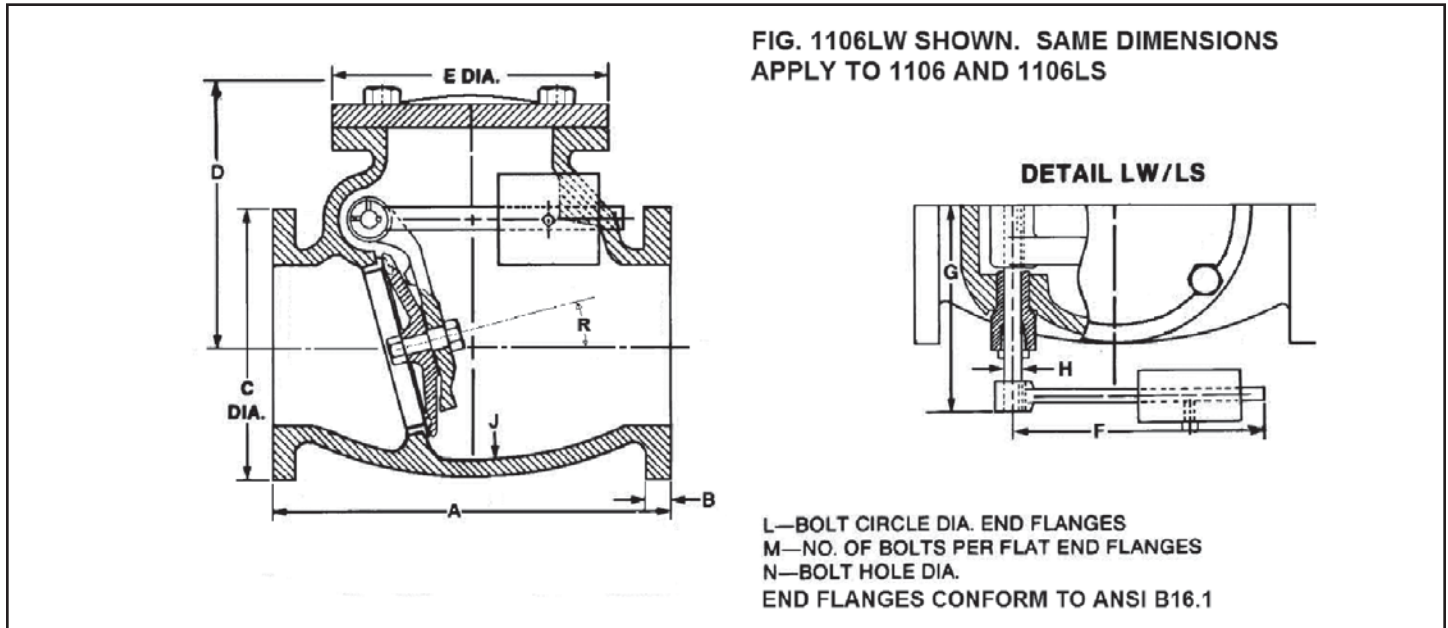
| Part No.     | Qty.            | Description                                  | Material & ASTM Spec.                                       |
|--------------|-----------------|--|---|
| 1A With      | 2               | Side Plug With O-Ring                        | Bronze  |
| 1AB (O-Ring) | 1 for LS/LW     |  |   |
| 2A           | * SEE FOOT NOTE | Cap Bolts                                    | Stainless Steel, ASTM F593C (18-8)                          |
| 3A           | 1               | O-Ring                                       | Syn. Rubber   |
| 4A           | 1               | Cap  | Cast Iron, ASTM A126 Class B                                |
| 5A           | 1               | Body   | Cast Iron, ASTM A126 Class B                                |
| 6A           | 1               | Hinge Pin                                    | SS A-276 (304)  |
| 7AA          | 1               | Hinge  | Bronze (2"-3")<br>D.I. A-536 (4"-12")                       |
| 7AB          | 1               | Hinge w/keyway for LS/LW                     | Bronze (2"-3")<br>Ductile Iron ASTM A536 (4"-12")           |
| 8AA          | 1               | Disc Bolt (4"-12")                           | Bronze (4"-12")   |
| 8AB          | 1               | Disc Bolt (4"-12")                           | Bronze (10"-12")<br>Steel (4"-8")                           |
| 9AA          | 2               | Disc Bolt O-Ring (4"-12" 1106A, 8"-12" 1106) | Syn. Rubber   |
| 9AB          | 2               | Disc Bolt Gasket (4" & 8" 1106)              |   |
| 10A          | 1               | Disc Holder                                  | Bronze (2"-3") ***<br>Cast Iron, ASTM A126 Class B (4"-12") |
| 11A          | 1               | Disc Plate                                   | Bronze  |
| 12AA         | 1               | Disc   | Nitrile (Buna N) Rubber                                     |
| 12AB**       | 1               | Disc   | Bronze (2"-3") ***<br>Cast Iron, ASTM A126 Class B (4"-12") |
| 13A          | 1               | Disc Nut                                     | Stainless Steel, ASTM F593C (18-8)                          |
| 14A**        | 1               | Disc Ring (4"-12") --- (2"-3")***            | Bronze  |
| 15A          | 1               | Seat Ring                                    | Bronze  |
| 16A          | 1               | Spring                                       | Steel   |
| 17A          | 1               | Extended Hinge Pin for LS/LW                 | Stainless Steel, ASTM A-276 (304)                           |
| 18A          | 2               | Key for LS/LW                                | Stainless Steel, ASTM A-276 (304)                           |
| 19A          | 1               | Set Screw                                    | Steel   |
| 20AA         | 1               | Lever Arm for LS                             | Steel   |
| 20AB         | 1               | Lever Arm for LW                             | Steel   |
| 21A          | 1               | Bracket                                      | Steel   |
| 22A          | 2               | Hex Head Bracket Bolt                        | Steel   |
| 23A          | 1               | Eye Bolt w/2 Hex Nuts                        | Steel   |
| 24A          | 1               | Stuffing Box                                 | Bronze  |
| 25A          | -               | Packing                                      | Graphite Filled   |
| 26A          | 1               | Gland  | Bronze  |
| 27A          | 1               | Weight                                       | Cast Iron, ASTM A126 Class B                                |
| 28A          | 1               | Set Screw                                    | Steel   |

\* Qty of cover bolts, 2"-8" = 4 bolts, 10"-12" = 6 bolts.

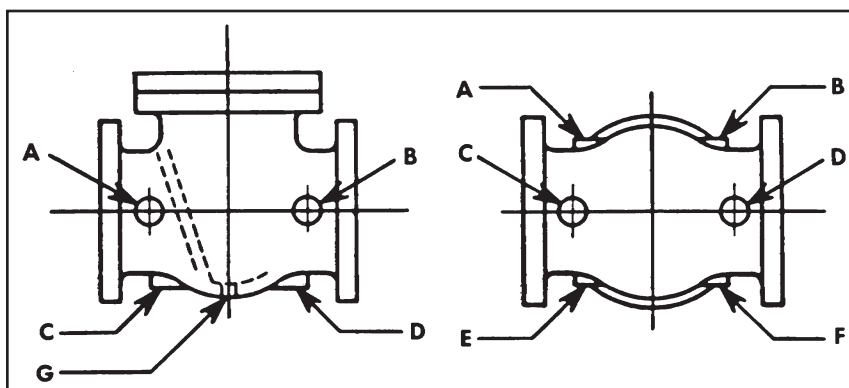
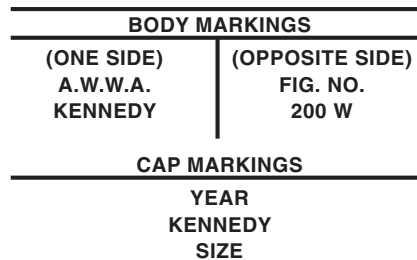
\*\* Denotes that part is available only as part of an assembly.

\*\*\*Cast integral (2"-3").

# Dimensional Data 2"-12" 1106/1106LW/106LS



| SIZE   | *A    |     | B    |    | C     |     | D     |     | E     |     | F     |     | G     |     | H    |    | J    |    | L     |     | M    |     | N    |    | R     |     |
|--------|-------|-----|------|----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|------|----|------|----|-------|-----|------|-----|------|----|-------|-----|
|        | inch  | mm  | inch | mm | inch  | mm  | inch  | mm  | inch  | mm  | inch  | mm  | inch  | mm  | inch | mm | inch | mm | inch  | mm  | inch | mm  | inch | mm | inch  | mm  |
| 2"     | 8.00  | 203 | 0.65 | 17 | 6.00  | 152 | 6.00  | 152 | 6.56  | 167 | 6.50  | 165 | 4.72  | 120 | 0.50 | 13 | 0.34 | 9  | 4.75  | 121 | 4    | 102 | 0.75 | 19 | 10.00 | 254 |
| 2 1/2" | 8.50  | 216 | 0.69 | 18 | 7.00  | 178 | 6.44  | 164 | 6.56  | 167 | 6.50  | 165 | 4.94  | 125 | 0.50 | 13 | 0.41 | 10 | 5.50  | 140 | 4    | 102 | 0.75 | 19 | 8.00  | 203 |
| 3"     | 9.50  | 241 | 0.78 | 20 | 7.50  | 191 | 6.85  | 174 | 6.56  | 167 | 6.50  | 165 | 5.34  | 136 | 0.50 | 13 | 0.44 | 11 | 6.00  | 152 | 4    | 102 | 0.75 | 19 | 8.00  | 203 |
| 4"     | 11.50 | 292 | 1.00 | 25 | 9.00  | 229 | 8.69  | 221 | 9.00  | 229 | 7.75  | 197 | 8.19  | 208 | 0.62 | 16 | 0.41 | 10 | 7.50  | 191 | 8    | 203 | 0.75 | 19 | 12.00 | 305 |
| 6"     | 14.00 | 356 | 1.03 | 26 | 11.00 | 279 | 10.51 | 267 | 11.00 | 279 | 9.75  | 248 | 9.00  | 229 | 0.75 | 19 | 0.43 | 11 | 9.50  | 241 | 8    | 203 | 0.87 | 22 | 15.00 | 381 |
| 8"     | 19.50 | 495 | 1.25 | 32 | 13.50 | 343 | 12.56 | 319 | 13.50 | 343 | 14.13 | 359 | 10.18 | 259 | 0.87 | 22 | 0.75 | 19 | 11.75 | 298 | 8    | 203 | 0.87 | 22 | 15.00 | 381 |
| 10"    | 24.50 | 622 | 1.31 | 33 | 16.00 | 406 | 14.07 | 357 | 16.75 | 425 | 18.00 | 457 | 11.62 | 295 | 1.00 | 25 | 0.81 | 21 | 14.25 | 362 | 12   | 305 | 1.00 | 25 | 15.00 | 381 |
| 12"    | 27.50 | 699 | 1.38 | 35 | 19.00 | 483 | 16.13 | 410 | 19.00 | 483 | 18.00 | 457 | 13.75 | 349 | 1.00 | 25 | 0.87 | 22 | 17.00 | 432 | 12   | 305 | 1.00 | 25 | 15.00 | 381 |



## BOSS AND DRAIN TAPPING SCHEDULE

VALVE SIZE (In.) 2-3 1/2 4-5 6 8,10,12

MAX. SIZE PIPE TAP (NPT) 3/4 1 1 1/4 2

When ordering Check Valves tapped for by-pass or drain, specify exact location and size of tap using letters above for boss designation. These locations of drain and by-pass tappings conform to the Manufacturers Standardization Society (MSS SP-45 current edition).