

86C-500 SERIES

ALLOY 20 3-PIECE FULL PORT
CLASS 600 SCH. 40 BUTT WELD BALL VALVE



STANDARD COMPLIANCE

- Valve Design: ASME B16.34, Class 600, NACE MR0175 (2000) & MR0103 (2003), API 608
- End Connections: Butt-Weld per ASME B16.25

- Valve Marking: ASME B16.34
- Production Testing: ASME B16.34

FEATURES

- 3-piece construction w/ enclosed fasteners
- Full port
- Stainless steel trim & hardware
- Swing-out center section
- Pressure balanced solid ball
- Compression controlled spiral wound gaskets
- Anti-blowout one piece bottom entry stem
- Statically grounded ball, stem, & body
- Two-position locking
- Adjustable multi-piece PTFE "V" style packing

- Fully machined ISO 5211 mounting
- Cast bosses on the center-section and end caps for bleed & drain ports
- Fire safe "by design" (requires -24 suffix)
- Vacuum service to 29 in of Hg.
- CE Marking, 1-1/2" and larger (add "-CE" suffix)
- 250 psig saturated steam

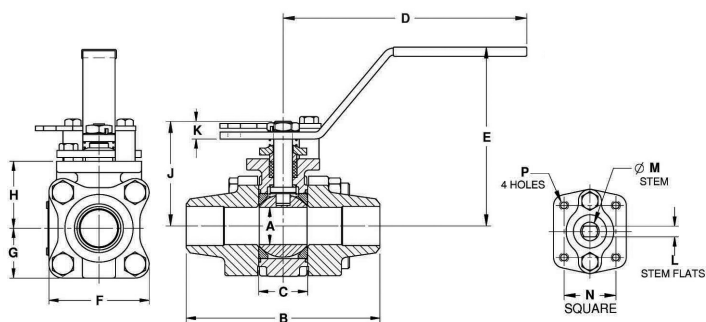
VARIATIONS AVAILABLE

- 86C-300 Schedule 5 Butt-Weld
- 86C-400 Schedule 10 Butt-Weld
- 86C-600 Schedule 80 Butt-Weld

OPTIONS AVAILABLE

(MORE INFORMATION IN SECTION J)

- Minimum quantities apply
- To specify an option, replace the "01" standard suffix with the suffix of the option.
- To specify multiple options, replace the "01" suffix with the desired suffixes in the numerical order shown below. NOTE: Not all suffixes can be combined together.



STANDARD MATERIAL LIST

| | PART | MATERIAL |
|----|---------------------------|--------------------------------|
| 1 | Body | ASTM A351-CN7M |
| 2 | End Caps | ASTM A351-CN7M |
| 3 | Ball | ASTM (UNS N08020) or ASTM-CN7M |
| 4 | Stem | ASTM B473 (UNS N08020) |
| 5 | Seat | Multi-Seal |
| 6 | Packing | PTFE |
| 7 | Stem Bearing | PEEK/PTFE |
| 8 | Body Gasket | PTFE Spiral Wound |
| 9 | Body Bolts | ASTM A193-Gr.B8M3 |
| 10 | Body Nuts | ASTM A194-Gr.8 |
| 11 | Stop Bolts | 18-8 Stainless Steel |
| 12 | Gland Bolts | ASTM A193-Gr.B8 |
| 13 | Handle Nut/Screw | 300 Series Stainless Steel |
| 14 | Packing Gland | ASTM A276-316SS |
| 15 | Gland Plate | 300 Series Stainless Steel |
| 16 | Lever Handle | 300 Series Stainless Steel |
| 17 | Lock Plate | 300 Series Stainless Steel |
| 18 | Stops | 300 Series Stainless Steel |
| 19 | Internal Grounding Spring | 300 Series Stainless Steel |
| 20 | External Grounding Spring | 300 Series Stainless Steel |

| (SUFFIX) | OPTION | SIZES |
|----------|--|--------------|
| -01 | Standard Configuration | All |
| -04 | 2-1/4" Stem Extension (Carbon Steel, Zinc Plated) | All |
| -14 | Vented Ball | All |
| -15 | Stainless Steel Locking Round Handle | All |
| -21 | UHMWPE Seats w/ Graphite Seals | All |
| -24 | Graphite Packing, Spiral Wound Graphite Body Seal, PTFE/PEEK Bearing (Fire Safe by Design) | All |
| -38 | Peek Seats, Graphite Stem Packing & Gaskets | All |
| -49 | No Lubrication. Assembled Dry | All |
| -57 | Cleaned for Oxygen Service | All |
| -62 | Center Section Only | All |
| -66 | FNPT x Buttweld | All |
| -69 | Drilled & Tapped Purge & Drains | All |
| -70 | 4" Extended Bonnet | All |
| -76 | Live Loaded (Lever Operated) | All |
| -77 | Live Loaded (Actuated) | All |
| -90 | Double Packed 4" Extended Bonnet | All |
| -9P | Double Packed 4" Extended Bonnet w/ Monitoring Port | All |
| -CE | CE Marking | 1-1/2" to 2" |
| -EF | Graphite Packing (API 641 Compliant) | 3/4" to 2" |
| -EP | Garlock EVSP Stem Packing w/ Spiral Wound Graphite Gasket (Fire Safe by Design) | All |
| -KF | PCTFE Stem Bearing | All |
| -SR | Spring Return Handle | 1/2" to 1" |
| -ZP1 | Fugitive Emissions Packing (Viton) | All |
| -ZP2 | Fugitive Emissions Packing (Buna-N) | All |
| -ZP3 | Fugitive Emissions Packing (Kalrez) | All |

Pressure/Temperature Ratings - Page M-21, Graph No. 27

DIMENSIONS

| PART NO. | SIZE | A | B | C | D | E | F | G | H | J | K | L | M | N | P | WT. |
|------------|--------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|---------|------|
| 86C-503-01 | 1/2" | 0.50 | 3.80 | 0.89 | 5.12 | 3.02 | 2.02 | 1.01 | 1.39 | 1.97 | 0.23 | 0.245 | 0.375 | 1.00 | 10-24 | 2.3 |
| 86C-504-01 | 3/4" | 0.75 | 4.66 | 1.10 | 5.53 | 3.40 | 2.40 | 1.20 | 1.65 | 2.35 | 0.24 | 0.312 | 0.500 | 1.392 | 1/4-20 | 4.0 |
| 86C-505-01 | 1" | 1.00 | 5.19 | 1.31 | 6.53 | 4.80 | 2.67 | 1.34 | 1.80 | 2.80 | 0.48 | 0.287 | 0.500 | 1.392 | 1/4-20 | 5.7 |
| 86C-507-01 | 1-1/2" | 1.50 | 5.96 | 1.97 | 6.65 | 4.70 | 3.84 | 1.92 | 2.49 | 3.89 | 0.72 | 0.412 | 0.625 | 1.949 | 5/16-18 | 14.4 |
| 86C-508-01 | 2" | 2.00 | 6.84 | 2.56 | 8.40 | 5.47 | 4.56 | 2.46 | 3.17 | 4.74 | 0.80 | 0.477 | 0.750 | 1.949 | 5/16-18 | 24.4 |

REV. 17SEP19