





An improved valve with a proven history

We took an alternative path. Unlike many valve manufacturers who often strip valves in their quest to reduce manufacturing costs, we have taken a proven double block and bleed plug valve and improved its design.

With the new DuraSeal™, you get the proven advantages of a valve that has been considered the standard of quality since 1951. To improve the valve's integrity, we have incorporated a superior slip design and more durable body. To improve performance and longevity, we have incorporated a more reliable stem seal design.

In short, the new Franklin DuraSeal[™] is made to last - not to make a quick sale.

Reliable double protection mechanical seal

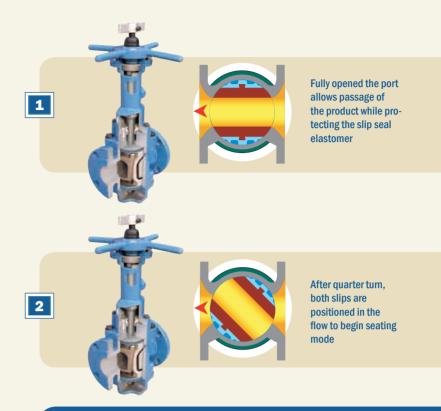
The Franklin DuraSeal™ plug valve seals mechanically. During rotation of the plug there is no abrasion or wear between the sealing surfaces. When the slips reach the closed position they expand firmly into the valve body creating a primary elastomeric and secondary metal-to-metal backup seal. The DuraSeal™ does not require sealant under any circumstance to seal.

Fast Low Torque Operation

The DuraSealTM can be easily automated using hydraulic or pneumatic or electric actuators. Torque requirements are low. In smaller sizes only two and one quarter turns can fully open or close the valve.

Field Repairable/Interchangeable Parts

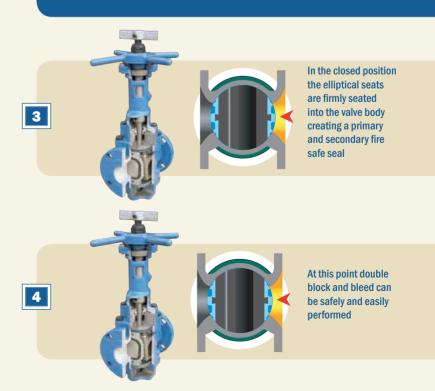
DuraSealTM parts are completely interchangeable with the original 800 Series General Valve Twin SealTM double block and bleed plug valve. DuraSealTM components manufactured from superior materials can upgrade existing TwinSealsTM in the field. The DuraSealTM can be repaired inline after depressurizing and draining the valve without special tools. Simply remove the valve's lower plate or bonnet and replace the slip/seal assemblies from top or bottom of the valve.



Applications

With bubble-tight fire-safe sealing integrity and the ability to double block and bleed from a single valve, the DuraSeal is an excellent choice for applications that require frequent isolation and testing of gas or liquids.

- Product manifolds Measurement units
- · Isolation of processing equipment
- Loading Racks and Tank Isolation





The Franklin DuraSeal™ High Integrity Double Block and Bleed Valve

Full bearing operator (field replaceable)

17-4 SS investment cast packing gland resists corrosion

Nickel Plated Plug.
ASTM A216 Gr.
WCB or WCC
Cast Carbon Steel
(Chrome or Electroless)

Ductile cast slips with vulcanized seal

DuraSeal™ available in wide range of elastomer materials

Lower Plate ASTM A216 Gr. WCB or WCC Cast Carbon Steel Indicator flag displays open close status. 2"-8" 150# available in hand or gear. 10" and larger gear operated only

Easily Automated with Choice of Pneumatic, Hydraulic or electric Actuators

Graph oil type packing

Bonnet ASTM A216 Gr. WCB or WCC Cast Carbon Steel

Body ASTM A216 Gr. WCB or WCC Cast Carbon Steel, chrome or electroless plated nickel



Franklin Valve reserves the right to change trim codes w/o prior notification

MANUAL BLEED



DTR



CUSTOM CONFIGURATIONS

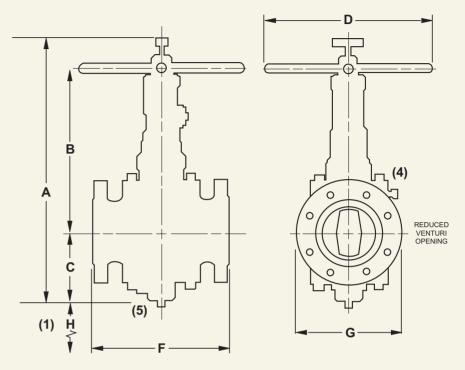


BLEED CONFIGURATIONS



Typical Hand Operated Valve





TYPICAL HAND OPERATED VALVE

| CLASS | SIZE | MODEL | OPER. | A | В | С | D | F | G | Н | WEIGHT(lbs) | (3) | (4) | (5) |
|-------------|------|-------|-------|---------------------------------------|--------------------------------|--------------------------------|----|---------------------------------------|--------------------------------|-------|-------------|---------------|---------|---------|
| ANSI 150 | 2 | D711 | 100 | 17 | 11 | 4 ½ | 10 | 7 | 6 | 3 | 48 | NONE | 3/8 NPT | 1/4 NPT |
| | 3 | D711 | 100 | 17 | 11 | 4 ½ | 10 | 8 | 7 ½ | 3 | 62 | NONE | 3/8 NPT | 1/4 NPT |
| | 4 | D711 | 200 | 27 | 16 | 7 | 20 | 9 | 9 | 4 1/2 | 132 | NONE | 1/2 NPT | 1/4 NPT |
| 130 | 6 | D711 | 200 | 32 ½ | 20 ½ | 9 | 20 | 10 ½ | 11 | 8 | 214 | (4) ¾" 10 UNC | 1/2 NPT | 1/4 NPT |
| | 8 | D711 | 300 | 36 | 22 | 10 ½ | 20 | 11 ½ | 13 ½ | 11 | 388 | (4) ¾" 10 UNC | 1/2 NPT | 1/4 NPT |
| | 2 | D721 | 100 | 17 | 11 | 4 ½ | 10 | 8½ | 6 1/2 | 3 | 54 | NONE | 3/8 NPT | 1/4 NPT |
| ANSI | 3 | D721 | 100 | 17 | 11 | 4 ½ | 10 | 11 ¹ / ₈ | 8 1/4 | 3 | 76 | NONE | 3/8 NPT | 1/4 NPT |
| 300 | 4 | D721 | 200 | 27 | 16 | 7 | 20 | 12 | 10 | 5 | 158 | NONE | 1/2 NPT | 1/4 NPT |
| | 6 | D721 | 300 | 32 ¹ / ₂ | 20 1/2 | 9 | 20 | 15 ⁷ /8 | 12 ¹ / ₂ | 8 | 318 | NONE | 1/2 NPT | 1/4 NPT |
| ANSI 600 | 2 | D741 | 200 | 24 ¹ / ₂ | 15 ¹ / ₂ | 15 ¹ / ₂ | 20 | 11 ¹ / ₂ | 6 1/2 | 2 1/2 | 100 | NONE | 1/2 NPT | 1/4 NPT |
| | 3 | D741 | 200 | 26 | 16 | 16 | 20 | 14 | 8 1/4 | 3 1/2 | 142 | NONE | 1/2 NPT | 1/4 NPT |
| | 4 | D741 | 300 | 29 1/2 | 19 | 19 | 20 | 17 | 10 ³ / ₄ | 4 | 230 | NONE | 1/2 NPT | 1/4 NPT |

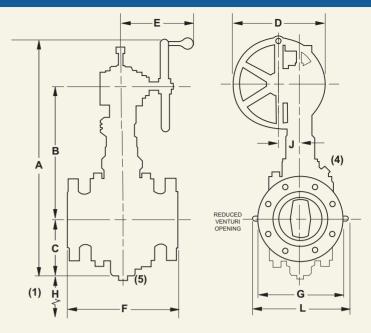
⁽¹⁾ H-Minimum clearance required to replace slips. (3) Number and size tapped holes. Each flange.

⁽⁴⁾ Tapped bleeder hole.(5) Bottom plate drain hole.



Typical Gear Operated Valve





TYPICAL GEAR OPERATED VALVE

| | SIZE | MODEL | OPER. | Α | В | С | D | Е | F | G | Н | J | WEIGHT(lbs) | (3) | (4) | (5) |
|-------------|------|-------|-------|---------------------------------------|--------------------------------|-----------|----|------|---------------------------|---------------------------------------|-------|-------|-------------|---|---------|---------|
| ANSI | 2 | D711 | 101 | 21 | 12 | 4 ½ | 8 | 10 ½ | 7 | 6 | 3 | 1 ½ | 64 | NONE | 3/8 NPT | 1/4 NPT |
| | 3 | D711 | 101 | 21 | 12 | 4 ½ | 8 | 10 ½ | 8 | 7 ½ | 3 | 1 ½ | 76 | NONE | 3/8 NPT | 1/4 NPT |
| | 4 | D711 | 201 | 27 | 15 ½ | 7 | 10 | 11 | 9 | 9 | 4 ½ | 1 3/4 | 140 | NONE | 1/2 NPT | 1/4 NPT |
| | 6 | DA711 | 301 | 36 | 20 ½ | 8 ½ | 14 | 12 ½ | 10 ½ | 11 | 8 | 3 | 264 | (4) ¾" 10 UNC | 1/2 NPT | 1/4 NPT |
| | 8 | D711 | 301 | 39 ½ | 22 | 10 ½ | 14 | 12 ½ | 11 ½ | 13 ½ | 11 | 3 | 436 | (4) ¾" 10 UNC | 1/2 NPT | 1/4 NPT |
| 150 | 10 | D711 | 301 | 42 | 23 | 12 | 14 | 12 ½ | 13 | 16 | 14 | 3 | 532 | (4) ⁷ / ₈ " 9 UNC | 1/2 NPT | 1/4 NPT |
| | 12 | D711 | 401 | 55 ½ | 31 | 14 ½ | 20 | 12 ½ | 14 | 19 | 16 | 3 ½ | 844 | (4) ⁷ / ₈ " 9 UNC | 1/2 NPT | 1/4 NPT |
| | 14 | D711 | 401G | 57 | 32 ½ | 16 | 20 | 12 ½ | 15 | 21 | 19 | 3 ½ | 1074 | (4) 1"- 8 UNC | 1/2 NPT | 1/2 NPT |
| | 16 | D711 | 501 | 67 | 39 | 18 | 20 | 14 ½ | 16 | 23 ½ | 21 | 5 | 1488 | (8) 1" 8 UNC | 1/2 NPT | 1/2 NPT |
| | 20* | D711 | 501 | 64 | 37 | 17 | 20 | 14 ½ | 40 | 27 ½ | 17 | 5 | 3326 | NONE | 1 NPT | 1/4 NPT |
| | 24* | D711 | 501 | 78 ½ | 44 | 24 ½ | 20 | 14 ½ | 48 | 32 | 20 | 5 | 6264 | NONE | 1 NPT | 1 NPT |
| | 2 | D721 | 101 | 21 | 12 | 4 ½ | 8 | 10 ½ | 8 ½ | 6 ½ | 3 | 1 ½ | 78 | NONE | 3/8 NPT | 1/4 NPT |
| | 3 | D721 | 101 | 21 | 12 | 4 ½ | 8 | 10 ½ | 11 ½/8 | 8 1/4 | 3 | 1 ½ | 102 | NONE | 3/8 NPT | 1/4 NPT |
| | 4 | D721 | 201 | 27 | 15 ½ | 7 | 10 | 11 | 12 | 10 | 4 ½ | 1 ¾ | 162 | NONE | 1/2 NPT | 1/4 NPT |
| ANSI | 6 | D721 | 301 | 36 | 20 ½ | 8 ½ | 14 | 12 ½ | 15 ⁷ /8 | 12 ½ | 8 | 3 | 348 | NONE | 1/2 NPT | 1/4 NPT |
| 300 | 8 | D721 | 401 | 49 ½ | 28 | 11 | 20 | 12 ½ | 16 ½ | 15 | 11 | 3 ½ | 666 | (4) ⁷ /8"- 9 UNC | 1/2 NPT | 1/4 NPT |
| | 10 | D721 | 401 | 52 | 29 | 12 ½ | 20 | 12 ½ | 18 | 17 ½ | 13 | 3 ½ | 888 | (4) 1"- 8 UNC | 1/2 NPT | 1/4 NPT |
| | 12 | D721 | 501 | 63 ½ | 36 ½ | 16 ½ | 20 | 14 ½ | 19 ¾ | 20 ½ | 16 | 5 | 1414 | (8) 11/8" 8 UNC | 1/2 NPT | 1/4 NPT |
| | 14 | D721 | 401 | 58 ½ | 34 ½ | 14 ½ | 20 | 14 ½ | 30 | 23 | 15 | 5 | 1990 | NONE | 1/2 NPT | 1/2 NPT |
| ANSI 600 | 2 | D741 | 201 | 24 ¹ / ₂ | 15 ¹ / ₂ | 15 ¹/2 | 20 | 10 ½ | 11 ¹/₂ | 6 1/2 | 2 1/2 | 1 ½ | 100 | NONE | 1/2 NPT | 1/4 NPT |
| | 3 | D741 | 201 | 26 | 16 | 16 | 20 | 10 ½ | 14 | 8 1/4 | 3 1/2 | 1 ½ | 142 | NONE | 1/2 NPT | 1/4 NPT |
| | 4 | D741 | 301 | 29 ¹ / ₂ | 19 | 19 | 20 | 11 | 17 | 10 ³ / ₄ | 4 | 13/4 | 230 | NONE | 1/2 NPT | 1/4 NPT |
| | 6 | D741 | 401 | 45 | 26 | 9 | 20 | 12 ½ | 22 | 14 | 10 | 3 ½ | 696 | NONE | 1/2 NPT | 1/4 NPT |
| | 8 | D741 | 401 | 48 | 27 | 11 | 20 | 13 ½ | 26 | 16 ½ | 12 | 5 | 1102 | NONE | 1/2 NPT | 1/4 NPT |
| | 10 | D741 | 501 | 62 ½ | 36 ½ | 16 | 20 | 14 ½ | 31 | 20 | 8 | 5 | 1974 | NONE | 1/2 NPT | 1/2 NPT |
| | 12 | D741 | 501 | 62 ½ | 38 | 17 | 20 | 14 ½ | 33 | 22 | 10 | 5 | 2532 | NONE | 1/2 NPT | 1/2 NPT |

⁽¹⁾ H-Minimum clearance required to replace slips.(2) Approximate Weights (Lbs.)(3) Number and size tapped holes.

⁽⁶⁾ Dimensions are not certified. Contact the factory for certified drawings.

* Reduced Round Opening



Flow Coefficients (CV) and Franklin Valve DuraSeal Torque & Turns

Flow Coefficients (CV)

| VALVE | CV |
|---------------|-------|
| 2" 150# D711 | 195 |
| 2" 300# D721 | 205 |
| 2" 600# D741 | 290 |
| 3" 150# D711 | 200 |
| 3" 300# D721 | 210 |
| 3" 600# D741 | 300 |
| 4" 150# D711 | 530 |
| 4" 300# D721 | 570 |
| 4" 600# D741 | 850 |
| 6" 150# D711 | 1415 |
| 6" 300# D721 | 1770 |
| 6" 600# D741 | 2265 |
| 8" 150# D711 | 2400 |
| 8" 300# D721 | 3000 |
| 8" 600# D741 | 3600 |
| 10" 150# D711 | 3500 |
| 10" 300# D721 | 3540 |
| 10" 600# D741 | 5100 |
| 12" 150# D711 | 4000 |
| 12" 300# D721 | 4700 |
| 12" 600# D741 | 9200 |
| 14" 150# D711 | 5500 |
| 14" 300# D721 | 6000 |
| 16" 150# D711 | 6600 |
| 16" 300# D721 | 9400 |
| 20" 150# D711 | 15700 |
| 24" 150# D711 | 24000 |

The Cv listing above is in gallons per minute of flow of water at 60 degrees F w/(1) PSI pressure drop across the valve



Franklin Valve DuraSeal Torque & Turns

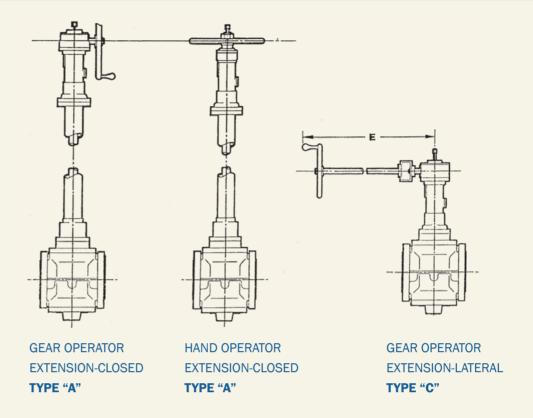
| VALVE | OPERATOR | TORQUE | TURNS | SEATING THRUST | M/KG |
|---------------|----------|--------|-------|----------------|------|
| 2" 150# D711 | 100 HWO | 46 | 1.8 | 1,000 | 6.4 |
| 2" 150# D711 | 101 Gear | 2.4 | 17 | 1,000 | 0.33 |
| 2" 300# D721 | 100 HWO | 30 | 1.8 | 2,618 | 4.14 |
| 2" 300# D721 | 101 Gear | 6 | 17 | 2,618 | 0.83 |
| 2" 600# D741 | 201 Gear | 19 | 13 | 2,618 | 2.6 |
| 3" 150# D711 | 100 HWO | 15 | 2 | 1,605 | 2.1 |
| 3" 150# D711 | 101 Gear | 6 | 16 | 1,605 | 0.83 |
| 3" 150# D711 | 101 Gear | 3 | 17 | 1,605 | 0.83 |
| 3" 300# D721 | 101 Gear | 6 | 16 | 4,202 | 1.9 |
| 3" 300# D721 | 100 HWO | 30 | 1.8 | 4,202 | 4.1 |
| 3" 600# D741 | 201 Gear | 28 | 16 | 8,407 | 3.9 |
| 4" 150# D711 | 200 HWO | 25 | 2.7 | 2,566 | 12.4 |
| 4" 150# D711 | 201 Gear | 7 | 20 | 2,566 | 3.2 |
| 4" 300# D721 | 200 HWO | 25 | 2.7 | 6,713 | 3.5 |
| 4" 300# D721 | 201 Gear | 45 | 10 | 6,713 | 6.2 |
| 4" 600# D741 | 301 Gear | 38 | 18 | 13,437 | 5.3 |
| 6" 150# D711 | 301 Gear | 19 | 18.5 | 5,218 | 2.6 |
| 6" 150# D711 | 200 HWO | 30 | 2.7 | 5,218 | 4.1 |
| 6" 300# D721 | 301 Gear | 60 | 18.5 | 13,666 | 8.3 |
| 6" 600# D741 | 401 Gear | 117 | 29 | 33,412 | 16 |
| 8" 150# D711 | 301 Gear | 41 | 18.5 | 8,893 | 12 |
| 8" 300# D721 | 401 Gear | 105 | 21 | 22,500 | 14.5 |
| 8" 600# D741 | 401 Gear | 125 | 21 | 31,070 | 17.3 |
| 10" 150# D711 | 301 Gear | 66 | 20 | 12,987 | 9.1 |
| 10" 300# D721 | 401 Gear | 138 | 25 | 34,000 | 19 |
| 10" 600# D741 | 501 Gear | 185 | 46 | 85,500 | 25.5 |
| 12" 150# D711 | 401 Gear | 90 | 23 | 18,638 | 13.1 |
| 12" 300# D721 | 501 Gear | 184 | 41 | 49,498 | 13.1 |
| 12" 600# D741 | 501 Gear | 219 | 46 | 120,948 | 30.3 |
| 14" 150# D711 | 401 Gear | 92 | 28 | 22,282 | 12.7 |
| 14" 300# D721 | 501 Gear | 209 | 43 | 57,680 | 28.9 |
| 16" 150# D711 | 501 Gear | 104 | 45 | 25,004 | 14.4 |
| 20" 150# D711 | 501 Gear | 158 | 45.5 | 48,922 | 21.9 |
| 24" 150# D711 | 501 Gear | 167 | 53 | 77,140 | 23 |



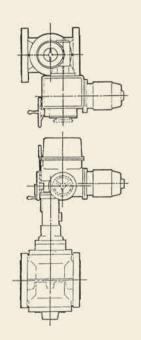
Electric Motor Actuation and Extension Kits

Franklin Valve Extension Kit

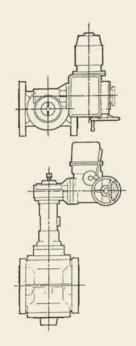
Franklin makes available both vertical and lateral extensions. In ordering, always specify dimensions B or E. Type A extension is suitable for underground burial. Type C extension should be supported if dimension E is over 36".



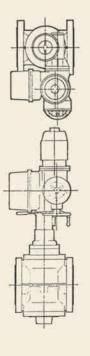
Franklin Electric Motor Actuation







MOTOR
OPERATOR
MOUNTED AT
RIGHT ANGLE
TO PIPE LINE



MOTOR OPERATOR MOUNTED VERTICAL TO PIPE LINE

WHEN ORDERING ELECTRIC MOTOR OPERATORS, SPECIFY THE FOLLOWING DATA:

INSTALLATION

- 1. Mounting style
- 2. Valve installation attitude (for proper location of breathers and drains)

TYPE OF VALVE

- 3. Valve figure number
- 4. Size
- 5. ANSI rating

OPERATING CONDITIONS

- 6. Differential pressure in psi
- 7. Operating time in seconds

ELECTRICAL DATA

- 8. Explosion proof NEMA VII or weatherproof NEMA IV
- 9. Phase, Cycle, Volts controls and motors

SPECIAL FEATURES

- 10. Gear limit switch (2 or 4 train)
- 11. Reversing controller (if separate, it is to be explosion proof NEMA VII, or weatherproof)
- 12. Breather or drains, if desired
- 13. Space heater, if desired
- 14. Control transformer, if desired (specify voltage)
- 15. Other special requirements

FACILITY

Located in Houston, TX Franklin Valve was established in 2005. What started out as a valve repair shop, now features an impressive 25,000 square foot state of the art valve manufacturing facility.

The facility is separated into 3 areas: new manufacturing, fabrication, and quality control.



QUALITY

The Management Team at Franklin Valve is committed to the continued enhancement of product excellence, reliability and service through the dynamics of its Quality Assurance System. The responsibility of this system and its people is to maintain effective controls for monitoring both quality and manufacturing processes and equipment; to provide live feedback concerning the current state; to initiate statistical metrics that validate that state, its reliability levels and the basis for improving our future state. Those statistical metrics are Safety, Quality, Delivery & Cost.

THIS CONCEPT IS USED BUT NOT LIMITED TO THESE FUNCTIONS:

- I. INBOUND RAW MATERIAL INSPECTION
- II. PROCESS / PRODUCT QUALIFICATION
- III. OUTSOURCED PROCESSES
- IV. IN PROCESS ASSEMBLY AND FINAL TESTING

Franklin's systemic approach is the foundation which allows us to confidently maintain the ultimate quality of our finished products to our customers.

