

# DM3L/T2A33FTTF1 Series

## 1/2" - 10" Three Way Flanged Ball Valves

### Features & Benefits

- Available in stainless steel or carbon steel
- Body and end are investment cast
- Self-adjusting stem packing
- Available in T-port or L-port
- Available in 3 way or 4 way
- 4 piece ball seats (PTFE + 15% C.F.)
- Blow-out proof stem design
- 100% air tested under water at 100 psi
- Working pressure 150 lbs., PN16
- Temperature range: -20°F to +450°F
- ISO 5211 mounting pad/connection DIN 3337
- End cap type: flange end (ANSI 150)
- Locking device
- Silicone free



### Ordering Schematic

|                          |   |  |                          |                          |   |  |                          |
|--------------------------|---|--|--------------------------|--------------------------|---|--|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                              | <input type="checkbox"/>   | <input type="checkbox"/> |
| Series                   | Material Body   | Trim   | Port                     | Packing                  | Seat  | End Connections  |                          |
| DM3L/T2A                 | 23 Carbon Steel<br>33 Stainless Steel<br>44 Alloy 20<br>55 Monel<br>77 Hastalloy C<br>99 Duplex | 33 Stainless Steel<br>44 Alloy 20<br>55 Monel<br>77 Hastalloy C<br>99 Duplex | F Full Port              | T Teflon Carbon          | T Teflon<br>TM Super Teflon<br>TC Carbon-Super Teflon | F1 Flanged 150<br>F3 Flanged 300<br>S Threaded<br>SW Socket Weld<br>BW Butt Weld |                          |

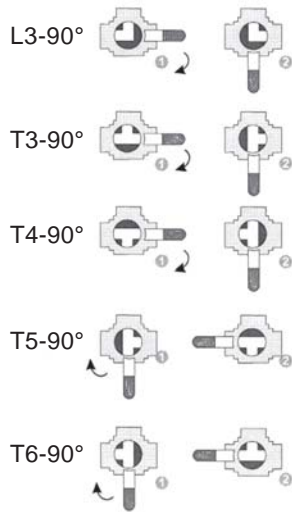
**J-Flow**

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[www.jflowcontrols.com](http://www.jflowcontrols.com)

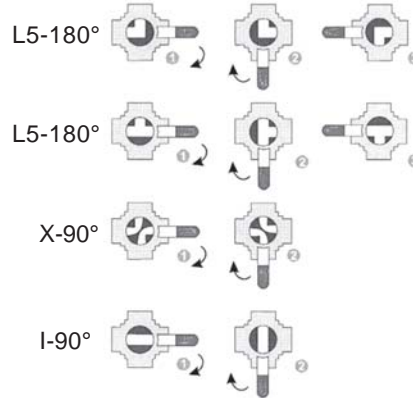
# Engineering

## Port Arrangement

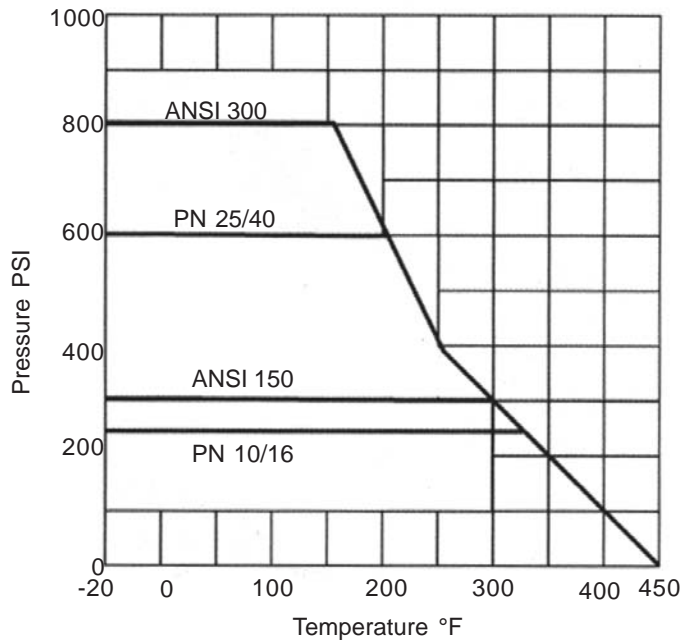
### 3 Way



### 4 Way



## Temperature Chart

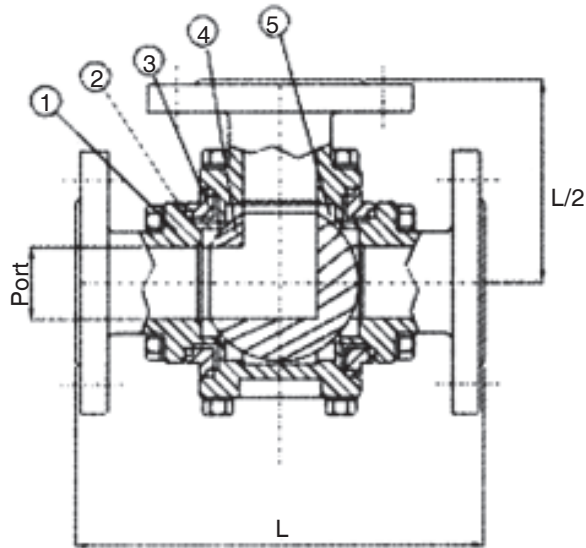
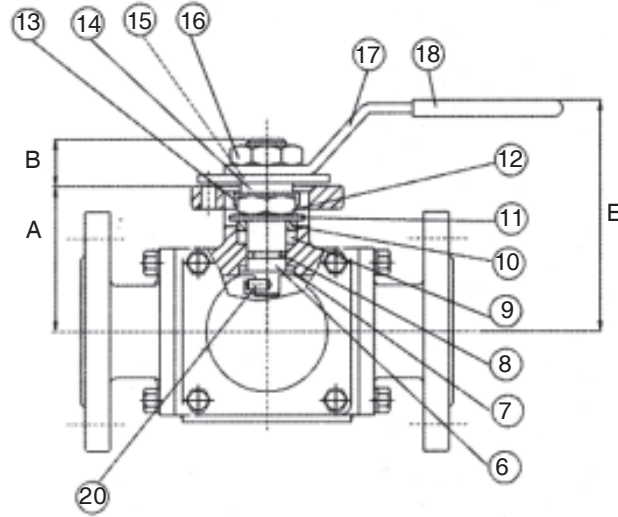
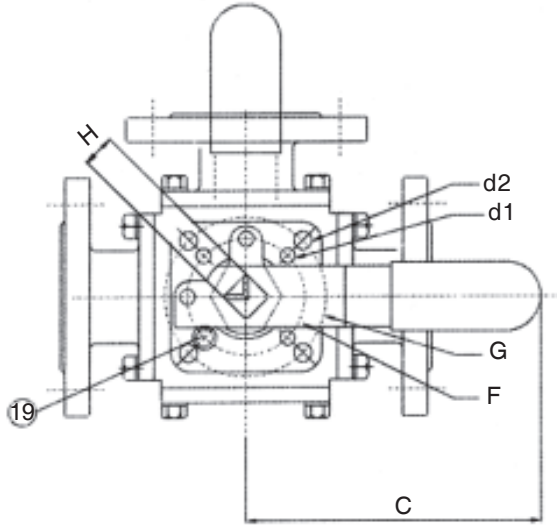


## Temperature Chart

| Size   | CV Factory<br>LL-Port/Side Entry |
|--------|----------------------------------|
| 1/2"   | 9                                |
| 3/4"   | 12                               |
| 1"     | 28                               |
| 1-1/4" | 36                               |
| 1-1/2" | 65                               |
| 2"     | 118                              |
| 2-1/2" | 138                              |
| 3"     | 166                              |
| 4"     | 230                              |
| 6"     | 1089                             |

# Engineering

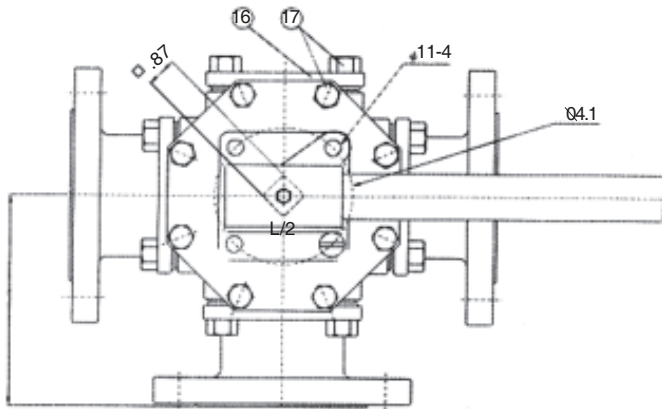
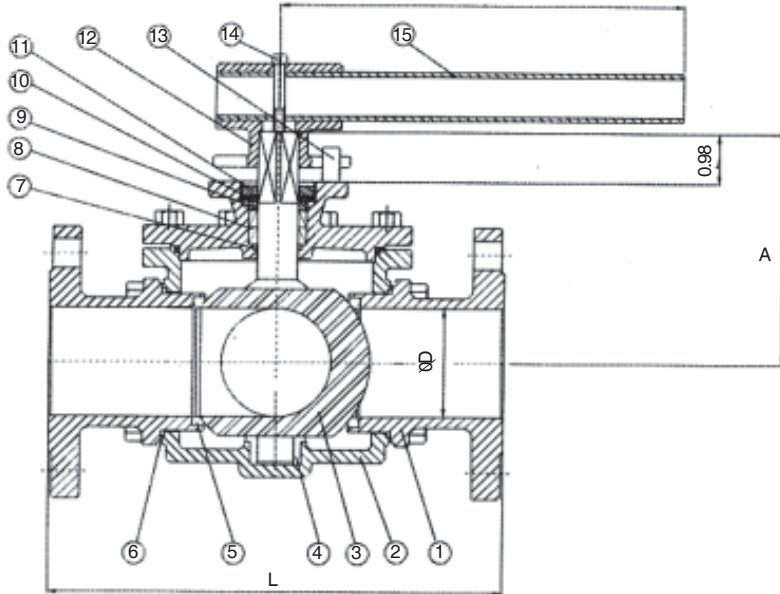
## Dimensions & Material List (1/4"-2")



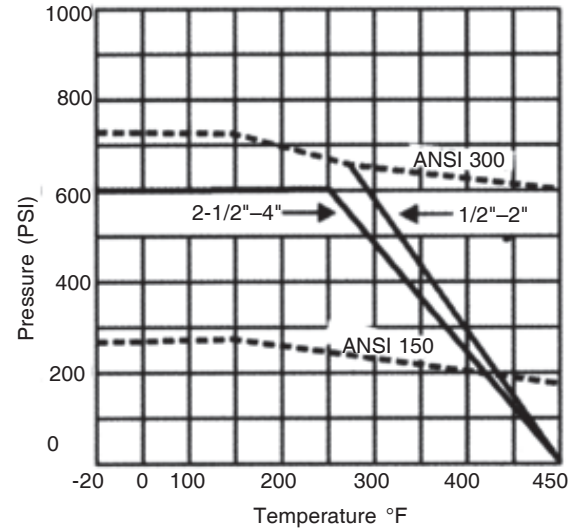
| Materials List |               |                  |               |
|----------------|---------------|------------------|---------------|
| Item           | Part Name     | Materials Option |               |
| 1              | Flanged End   | A351 Gr. CF8M    | A 216 Gr. WCB |
| 2              | Gasket        | PTFE             | —             |
| 3              | Body          | A351 Gr. CF8M    | A 216 Gr. WCB |
| 4              | Ball          | SS 316           | —             |
| 5              | Seats         | RPTFE k+ Carbon  | —             |
| 6              | Thrust Washer | RPTFE            | —             |
| 7              | Stem          | SS 316           | —             |
| 8              | O-Ring        | Viton            | —             |
| 9              | Stem Packing  | PTFE             | —             |
| 10             | Gland         | SS 304           | —             |
| 11             | Disk Washer   | SS 301           | —             |
| 12             | Stem Nut      | SS 304           | —             |
| 13             | Nut Stop      | SS 304           | —             |
| 14             | Spacer Washer | SS 304           | —             |
| 15             | Plater        | SS 304           | —             |
| 16             | Handle Nut    | SS 304           | —             |
| 17             | Handle        | SS 304           | —             |
| 18             | Cover         | Pastisol         | —             |
| 19             | Stop Pin      | SS 304           | —             |

| Size   | A    | B    | C     | d1   | E    | F    | G    | H    | L      |       | Wt     |       |
|--------|------|------|-------|------|------|------|------|------|--------|-------|--------|-------|
|        |      |      |       |      |      |      |      |      | 150lbs | PN16  | 150lbs | PN16  |
| 1/2"   | 1.61 | 0.43 | 5.12  | 0.24 | 2.52 | 1.42 | 1.65 | 0.35 | 6.02   | 6.30  | 1.56   | 1.95  |
| 3/4"   | 1.93 | 0.55 | 6.50  | 0.24 | 3.23 | 1.65 | 1.97 | 0.43 | 6.61   | 6.97  | 2.00   | 2.49  |
| 1"     | 2.17 | 0.55 | 6.50  | 0.24 | 3.50 | 1.65 | 1.97 | 0.43 | 7.48   | 7.48  | 2.68   | 3.36  |
| 1-1/2" | 2.91 | 0.71 | 8.07  | 0.28 | 4.25 | 1.97 | 2.76 | 0.55 | 8.70   | 9.21  | 5.62   | 6.60  |
| 2"     | 3.66 | 0.91 | 12.80 | 0.36 | 5.51 | 2.76 | 4.01 | 0.67 | 10.00  | 10.75 | 9.68   | 10.76 |

## Dimensions & Material List (2-1/2"–4")



## Temperature Chart (2-1/2"–4")



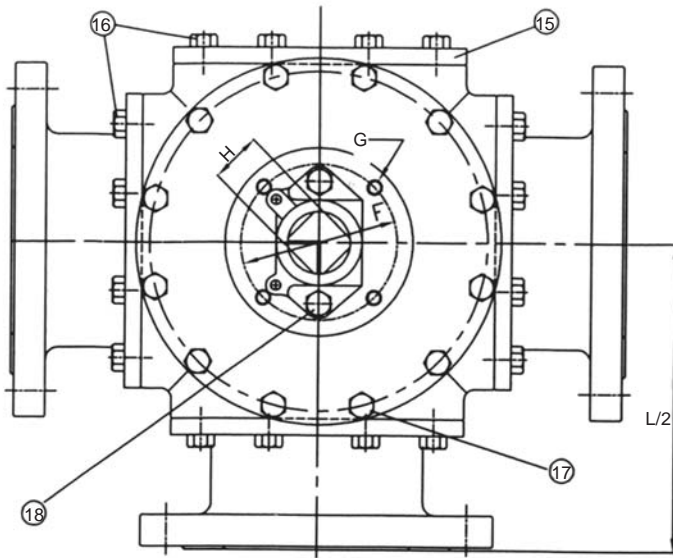
| Size   | A    | C     | D    | L      |        |       | Weight |        |        |
|--------|------|-------|------|--------|--------|-------|--------|--------|--------|
|        |      |       |      | 150lbs | 300lbs | PN16  | 150lbs | 300lbs | PN16   |
| 2-1/2" | 5.67 | 15.75 | 2.44 | 11.81  | 11.81  | 11.81 | 60.76  | 73.39  | 61.95  |
| 3"     | 6.38 | 19.68 | 2.99 | 12.01  | 12.75  | 12.01 | 78.40  | 95.46  | 80.65  |
| 4"     | 7.17 | 23.62 | 3.78 | 14.51  | 15.00  | 14.51 | 141.14 | 168.65 | 132.94 |

| Materials List |                 |                  |
|----------------|-----------------|------------------|
| Item           | Part Name       | Materials Option |
| 1              | Flanged End     | A351 Gr. CF8M    |
| 2              | Body            | A351 Gr. CF8M    |
| 3              | Ball & Stem     | A351 Gr. CF8M    |
| 4              | Housing         | PTFE + Stainless |
| 5              | Seats           | PTFE/RPTFE       |
| 6              | Gasket          | PTFE             |
| 7              | O-Ring          | Viton            |
| 8              | Stem Packing    | PTFE             |
| 9              | Gland Washer    | SS 304           |
| 10             | Disk Washer     | SS 301           |
| 11             | Gland           | SS 304           |
| 12             | Handle Head     | A351 Gr. CF8M    |
| 13             | Stop Pin        | SS 304           |
| 14             | Bolt            | SS 304           |
| 15             | Lever           | Carbon Steel     |
| 16             | Blank End       | A351 Gr. CF8M    |
| 17             | Connection Bolt | SS 304           |

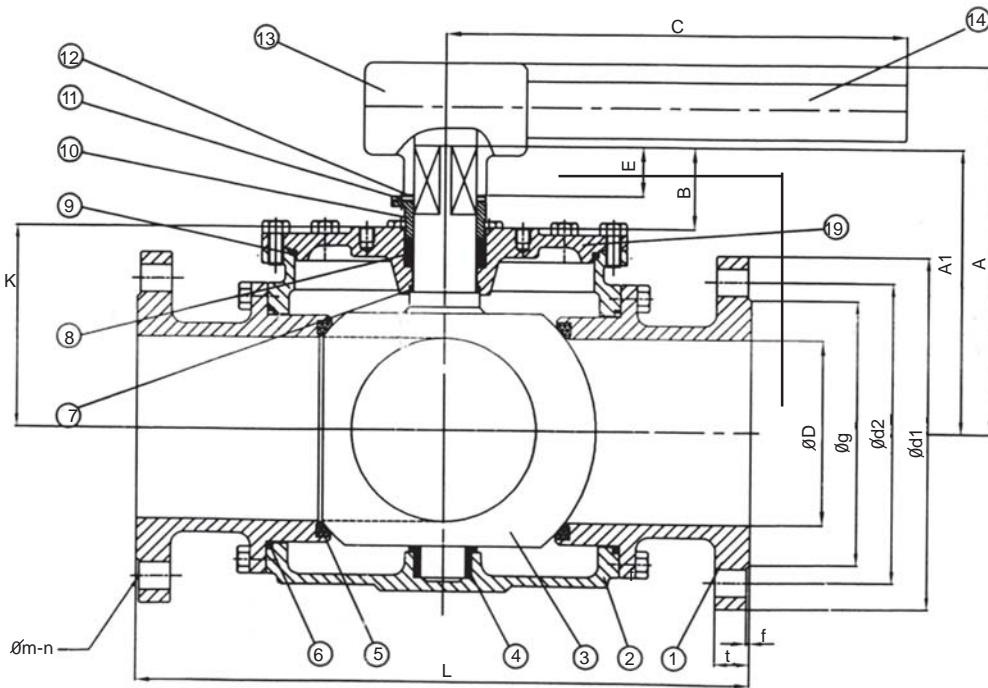
| Technical Specifications |                          |           |               |                         |            |                         |                         |                             |                    |  |
|--------------------------|--------------------------|-----------|---------------|-------------------------|------------|-------------------------|-------------------------|-----------------------------|--------------------|--|
| Size                     | Breakaway Torque (In-lb) | Cv L-Port | Cv T-Port 90° | Cv T-Port Straight Thru | Cv LL-Port | Wt Class 150 3-Way (Lb) | Wt Class 300 3-Way (Lb) | Wt. Extended Weld Ends (Lb) | Wt. SCR Ends (Lbs) |  |
| 2"                       | 518                      | 110       | 100           | 430                     | 95         | 35                      | 44                      | 29                          | 26                 |  |
| 2-1/2"                   | 920                      | 160       | 150           | 670                     | 137        | 58                      | 69                      | 46                          | —                  |  |
| 3"                       | 1725                     | 260       | 260           | 1170                    | 220        | 71                      | 93                      | 63                          | —                  |  |
| 4"                       | 3450                     | 430       | 430           | 2070                    | 366        | 133                     | 155                     | 110                         | —                  |  |
| 6"                       | 5750                     | 980       | 980           | 5000                    | 830        | 318                     | 372                     | 316                         | —                  |  |

# Engineering

## Dimensions & Material List (5" - 10")



| No. | Parts Name       | Materials Option |                   | Qty |
|-----|------------------|------------------|-------------------|-----|
| 1   | Flange End       | A351 Gr. CF8M    | A216 Gr. WCB      | 3   |
| 2   | Body             | A351 Gr. CF8M    | A216 Gr. WCB      | 1   |
| 3   | Ball & Stem      | SS 316           | SS 304            | 1   |
| 4   | Housing          | PTFE + SS        | PTFE + SS         | 1   |
| 5   | Seats            | PTFE             | PTFE              | 4   |
| 6   | Gasket           | PTFE             | PTFE              | 4   |
| 7   | O-Ring           | Viton            | Viton             | 1   |
| 8   | Stem Packing     | PTFE             | PTFE              | 1   |
| 9   | Bonnet Gasket    | PTFE             | PTFE              | 1   |
| 10  | Gland            | A351 Gr. CF8     | A216 Gr. WCB      | 1   |
| 11  | Stop             | SS 304           | SS 304            | 1   |
| 12  | Stop Ring        | SS 304           | SS 304            | 1   |
| 13  | Handle Head      | Ductile Cast     | Ductile Iron      | 1   |
| 14  | Lever            | Carbon Steel     | Carbon Steel      | 1   |
| 15  | Blank End        | A351 Gr. CF8     | A216 Gr. WCB      | 1   |
| 16  | Flange End Bolts | SS 304           | Carbon Steel (B7) | 32  |
| 17  | Bonnet Bolts     | SS 304           | Carbon Steel (B7) | 12  |
| 18  | Gland Bolts      | SS 304           | Carbon Steel (B7) | 2   |
| 19  | Bonnet           | A351 Gr. CF8     | A216 Gr. WCB      | 1   |



| Size | A     | A1    | B    | C     | D    | E    | F     | G | H    | K    | L     | d1    | d2    | g     | m     | t     | f    | n  |
|------|-------|-------|------|-------|------|------|-------|---|------|------|-------|-------|-------|-------|-------|-------|------|----|
| 5"   | 10.94 | 7.95  | 2.40 | 39.45 | 4.92 | 1.42 | 4.921 | — | 1.42 | 5.53 | 16.22 | 10.00 | 8.50  | 7.30  | 0.866 | 0.938 | 0.06 | 8  |
| 6"   | 11.73 | 8.74  | 2.40 | 47.25 | 5.90 | 1.42 | 4.921 | — | 1.42 | 6.28 | 16.85 | 11.00 | 9.50  | 8.50  | 0.866 | 1.00  | 0.06 | 8  |
| 8"   | 13.34 | 10.35 | 2.40 | 59.00 | 7.88 | 1.42 | 4.921 | — | 1.42 | 7.91 | 20.94 | 11.00 | 9.50  | 8.50  | 0.866 | 1.00  | 0.06 | 8  |
| 10"  | 17.44 | 13.50 | 3.58 | 78.80 | 9.84 | 2.05 | 5.51  | — | 1.81 | 9.92 | 26.00 | 16.00 | 14.25 | 12.75 | 1.00  | 1.19  | 0.06 | 12 |