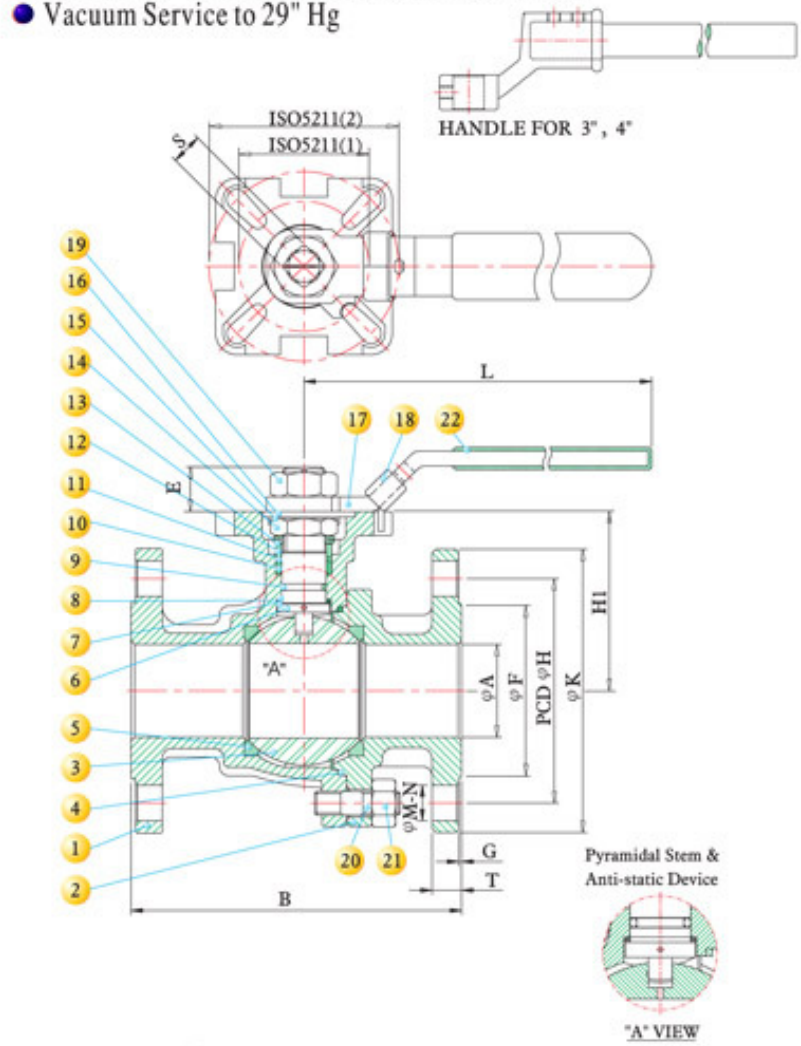


## DESIGN FEATURES:

- Steam rating: 150 psi WSP
- Blow-out-proof stem design
- Anti-Static Device
- Adjustable Stem Packing
- Locking Device
- ME-PTFE SEAT KITS: REPLACES PTFE, RPTFE AND FPA  
 LOW DEFORMATION UNDER LOAD  
 LOW PERMEATION
- Temperature Rating: -45.5°C (-50°F) to 246°C (475°F)
- FULL ISO-5211 PAD FOR DIRECT MOUNT AUTOMATION
- ANSI B16.5 B16.10 and B16.34 Full Compliance
- TEST STANDARD: API 598
- API 607 5<sup>th</sup> Edition FIRE SAFE APPROVAL
- Vacuum Service to 29" Hg

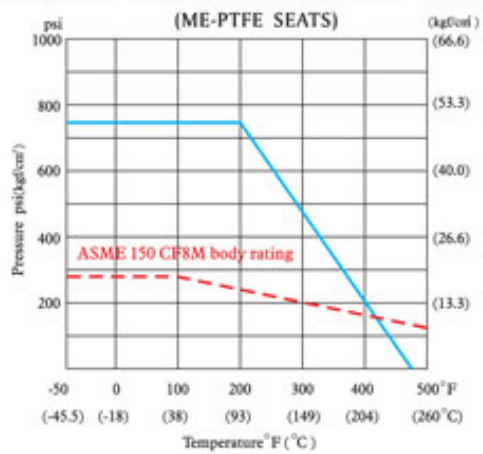
## SERIES 190



## MATERIALS LIST

| NO. | PART NAME          | MATERIAL           | QTY  |
|-----|--------------------|--------------------|------|
| 1   | BODY               | ASTM A351 Gr. CF8M | 1    |
| 2   | CAP                | ASTM A351 Gr. CF8M | 1    |
| 3   | BALL               | ASTM A351 Gr. CF8M | 1    |
| 4   | GASKET             | GRAFOIL            | 1    |
| 5   | SEAT               | ME-PTFE            | 2    |
| 6   | STEM               | ASTM A276 Gr.316   | 1    |
| 7   | THRUST WASHER      | ME-PTFE            | 1    |
| 8   | STEM BUSHING       | 50%SS. + 50%PTFE   | 1    |
| 9   | O-RING             | VITON              | 1    |
| 10  | PACKING            | GRAFOIL            | 1    |
| 11  | STEM BEARING       | 50%SS.S. + 50%PTFE | 1    |
| 12  | RING               | SS304              | 1    |
| 13  | BELLEVEILLE WASHER | SS410              | 2    |
| 14  | STEM NUT           | SS304              | 1    |
| 15  | STOP WASHER        | SS304              | 1    |
| 16  | STOPPER            | SS304              | 1    |
| 17  | HANDLE             | SS304              | 1    |
| 18  | LOCKING PLATE      | SS304              | 1    |
| 19  | HANDLE NUT         | SS304              | 1    |
| 20  | STUD BOLT          | SS304              | 4-12 |
| 21  | SET NUT            | SS304              | 4-12 |
| 22  | HANDLE SLEEVE      | VINYL GRIP         | 1    |

## PRESSURE TEMPERATURE RATINGS



## DIMENSIONS

| SIZE   | A    |      | B     |      | E     |      | F    |      | G     |      | H    |      | K     |      | L     |       | M     |      | N    | S    |      | T    |      | H1   |      | ISO 5211 | Cv Factor | Weight |       |       |
|--------|------|------|-------|------|-------|------|------|------|-------|------|------|------|-------|------|-------|-------|-------|------|------|------|------|------|------|------|------|----------|-----------|--------|-------|-------|
|        | inch | mm   | inch  | mm   | inch  | mm   | inch | mm   | inch  | mm   | inch | mm   | inch  | mm   | inch  | mm    | inch  | mm   |      | inch | mm   | inch | mm   | inch | mm   |          |           | Kg     | Lb    |       |
| 1"     | 25   | 0.98 | 25.0  | 5.00 | 127.0 | 0.45 | 11.5 | 2.00 | 50.8  | 0.06 | 1.6  | 3.12 | 79.2  | 4.25 | 107.9 | 6.42  | 163.0 | 0.62 | 15.7 | 4    | 0.43 | 11   | 0.44 | 11.1 | 2.31 | 58.8     | F04/F05   | 110    | 2.90  | 6.39  |
| 1 1/2" | 40   | 1.50 | 38.0  | 6.50 | 165.1 | 0.63 | 16.0 | 2.88 | 73.1  | 0.06 | 1.6  | 3.88 | 98.5  | 5.00 | 127.0 | 9.13  | 232.0 | 0.62 | 15.7 | 4    | 0.67 | 17   | 0.56 | 14.2 | 3.50 | 89.1     | F07/F10   | 270    | 6.70  | 14.76 |
| 2"     | 50   | 1.97 | 50.0  | 7.00 | 177.8 | 0.74 | 19.0 | 3.62 | 91.9  | 0.06 | 1.6  | 4.75 | 120.6 | 6.00 | 152.4 | 9.13  | 232.0 | 0.75 | 19.0 | 4    | 0.67 | 17   | 0.62 | 15.7 | 3.80 | 96.5     | F07/F10   | 500    | 9.50  | 20.93 |
| 3"     | 80   | 3.15 | 80.0  | 8.00 | 203.2 | 0.74 | 19.0 | 5.00 | 127.0 | 0.06 | 1.6  | 6.00 | 152.4 | 7.50 | 190.5 | 12.87 | 327.0 | 0.75 | 19.0 | 4    | 0.87 | 22   | 0.75 | 19.0 | 5.22 | 132.5    | F10/F12   | 1150   | 20.90 | 46.04 |
| 4"     | 100  | 3.94 | 100.0 | 9.00 | 228.6 | 0.94 | 24.0 | 6.19 | 157.2 | 0.06 | 1.6  | 7.50 | 190.5 | 9.00 | 228.6 | 12.87 | 327.0 | 0.75 | 19.0 | 8    | 0.87 | 22   | 0.94 | 23.8 | 6.18 | 157.0    | F10/F12   | 2120   | 33.00 | 72.69 |