Leading-Edge Technology Provides State-Of-The-Art Performance.

At Metso, we know that there are few things more critical to valve performance than seat sealing design.

We also know how important innovation and state-of-the-art technology is in the creation of high-performing valve solutions. After all, Metso virtually invented valve sealing technology. Products such as our Bi-Directional Ball Valve and Wafer-Sphere® valves introduced the industry to seating and sealing concepts that revolutionized valve dependability.

We continue that tradition with Xtreme seats, a unique series of materials produced with a proprietary polymer formulation to expand valve performance boundaries for temperature and pressure. No matter how challenging the application, Xtreme advanced sealing technology provides exceptional performance within a broader temperature and pressure performance range.

Testing Confirms Exceptional Performance.

Extensive testing and qualification by Metso Engineering confirms Xtreme material’s industry-leading performance ratings. Tests performed in our state-of-the-art polymer laboratory include:

- Pressure Live Cycle Testing
- Pressure/deflection cycle testing
- Deformation/torque assessments
- Temperature recovery testing
- Mechanical evaluation across full temperature range
- Wear and abrasion assessments
- Processing review – assessment of effects of processing parameters on material performance
- Heat of fusion verification
- FT-IR material analysis

Wafer-Sphere butterfly valve style seat

Ball valve style seat
High-Temperature and Pressure Capabilities.

When combined with our unique, industry-proven seat designs, Metso's new Xtreme seating material broadens the range of temperature and pressure applications. Metso sealing technology provides for applications from -320° to 500°F (-198° to 260°C) and pressures from vacuum to 1480 psi (102 Bar).

Xtreme seat material’s unique design, with low permeability and controlled crystallinity, produces a valve seat with less permanent deformation. This results in longer cycle life, better thermal cycle performance and better pressure cycle capability.

In addition, a broader temperature and pressure range eliminates the need for multiple seat options and lowers cost. With Xtreme seats, you get superior performance and greater value with no additional investment.

---

**Typical Pressure-Temperature Ratings**

![Graph showing typical pressure-temperature ratings for Xtreme, Filled PTFE, and Virgin PTFE.](image)

**Typical Seat Recovery**

Permanent Deflection for 2500 ft•lbs (3390 Nm) maximum load

![Graph showing typical seat recovery for Xtreme, Filled PTFE, and Virgin PTFE.](image)

---

**Xtreme Cost Savings vs. PEEK**

| Application: 2" ANSI Class 300 flanged-end ball valve for 350lb. steam or 500°F (260°C) heat transfer fluid |
| Model: 2" 93001122HBLGG1, 2" 9300312236XTZ1 |
| Seat Material: PEEK, Xtreme |
| Linkage Kit: 1902, 1593 |
| Actuator: VPVL600 SR6, VPVL400 SR6 |

**SAVINGS: 51%**

Cost savings due to the use of smaller actuators. Xtreme requires less torque than PEEK.

---

*Experience the cost savings of Xtreme.*