

# NELES

Jamesbury™ Xtreme™

## Advanced sealing technology





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

# Leading-edge technology provides state-of-the-art performance

We also know how important innovation and state-of-the-art technology is in the creation of high-performing valve solutions. After all, Neles 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 material 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.



Ball valve style seat



Wafer-Sphere butterfly valve style seat

## Testing confirms exceptional performance

Extensive testing and qualification by Neles engineering confirms Xtreme material's industry-leading performance ratings. Tests performed in our advanced polymer laboratory include:

- Life cycle testing
- Pressure-temperature performance testing
- Operating torque assessment
- Mechanical evaluation across full temperature range
- Wear and abrasion assessments
- Oxygen service compatibility testing
- FDA food grade service compatibility review
- Steam service testing

# Extending pressure and temperature capabilities

When combined with our unique, industry-proven seat designs, the Xtreme seating material broadens the range of temperature and pressure applications. Xtreme sealing technology provides for applications from -320° to 500°F (-196° to 260°C) and pressures from vacuum to 1480 psi (102 Bar) with chemical compatibility similar to PTFE.

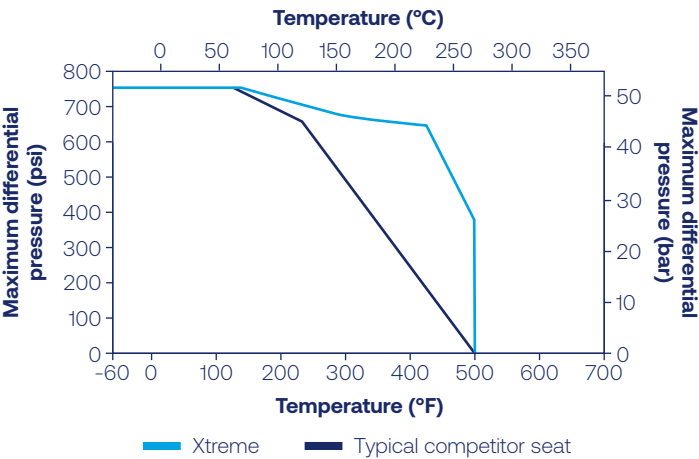
Xtreme seat material’s unique design and higher density produces a valve seat with lower permeability and less permanent deformation. This results in longer cycle life, better thermal cycle performance and better pressure cycle capability. Lower permeability improves performance in polymerizing service.

The 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.

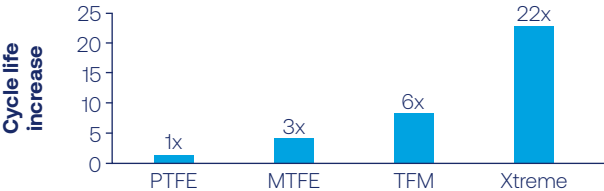
## Savings: 51%

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

Pressure-temperature capability improvement

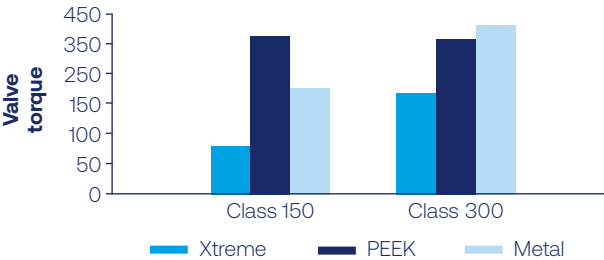


Seat material cycle life comparison vs PTFE



Cycle life of Xtreme under the same conditions is 22 times greater than virgin PTFE, and more than 3 times greater than virgin TFM.

Valve operating torque at full rated pressure



Operating torque and required actuator size is much lower than PEEK or metal seats.

# Find out more. Get in touch.

To find out more about Neles flow control solutions for process industries, please get in touch or read more online at [neles.com](http://neles.com)

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