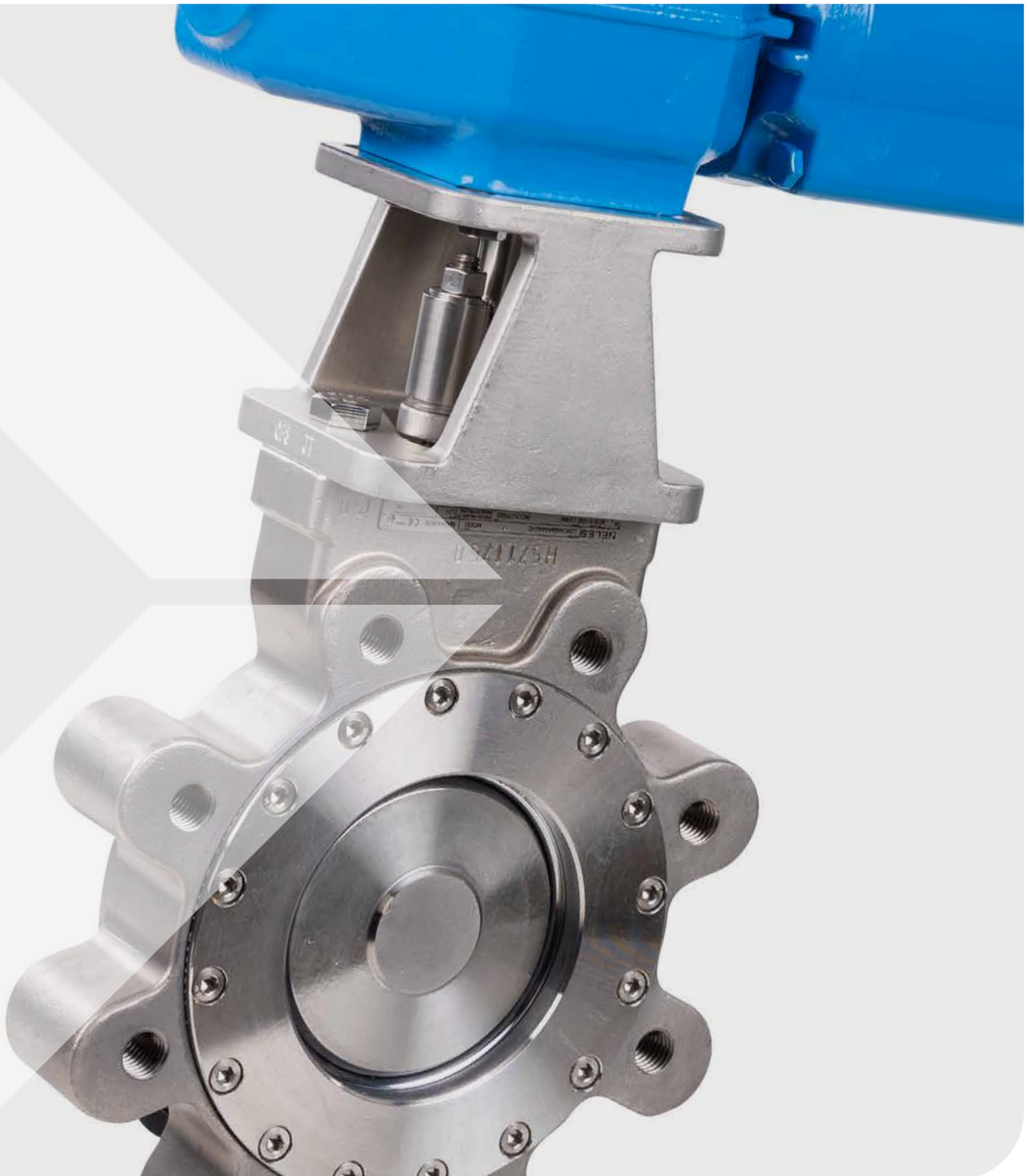


Absolutely zero leakage

Neles™ Neldisc™ metal seated butterfly valves



Breakthrough in butterfly valve technology

Neles Neldisc™ metal seated triple offset butterfly valves provide zero leak bi-directional tight shutoff. This is achieved utilizing a true all-metal construction which requires less torque, enables less wear, longer cycle life and tighter shutoff. A two-piece shaft construction provides the ability to achieve higher flow capacities. All this is achieved with a low component count for ease of maintenance.



Optimized disc sealing profile for ensured tightness.

Zero leak bi-directional tight shutoff capabilities

An optimized disc sealing profile provides a more uniform contact along the whole circumference of the seat allowing the new offering to fulfill even the most demanding tightness requirements.

Versatility and reliability with true metal-to-metal sealing

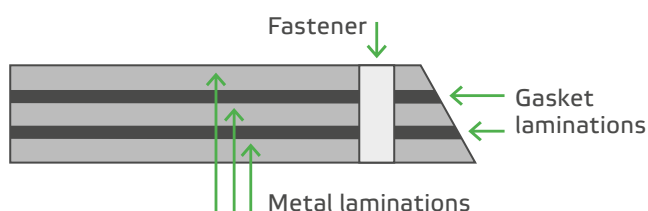
True all metal hard-coated seat ring with no resilient parts allows for the ability to handle abrasive media, dirty service, high velocity, extreme temperature fluctuations and LNG applications. The risk of galvanic corrosion in certain applications due to the presence of graphite is eliminated.

No fasteners are present in the flow path, eliminating the potential for components and/or material to come loose and

travel downstream and damage equipment. True metal-to-metal construction also provides better performance in the applications where there are vibrations, and allows faster stroking times compared to a typical triple offset solution.

The seat ring conforms and self aligns to the disc providing repeatable bi-directional sealing performance. The floating seat can move within the seat cavity to accommodate changes in pressures and temperatures. A precise contact between seat and disc generates a reliable performance of the materials. No sliding wear on components.

Structural comparison



Typical triple offset seat



Valmet all metal design

Low torque requirement

Neldisc is a combination of torque seated and position seated designs. An initial torque is applied to position the disc for tight shutoff. This position maintains reliable and repeatable shutoff. The result is low torque, which results in smaller automated packages, less actuator air consumption, less weight, less cost and easier installation (i.e., piping supports). A lowered torque requirement also reduces wear and improves longevity.



On average, 30% less torque required for Neldisc vs. typical laminated designs.



Neles shaft construction provides high flow capacity.

Optimized for efficient flow

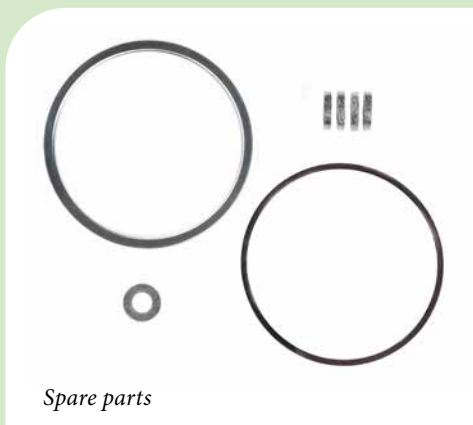
Neldisc butterfly valves have been designed to provide high flow capacity to help reduce energy consumption. In many cases the required flow capacity can be achieved even when sizing down. This design also provides a better control range of 10%-80%. These valves can also be provided with a through shaft option for severe isolation applications.

On average, 75% higher Cv vs. typical one-piece shaft design at 100% opening.

Ease of maintenance

Robust, yet non complex design of single disc and seat for ease of maintenance. Interchangeable seat can be replaced without disassembling the disc and shaft.

15% of the total part types required compared to competing solutions.



Spare parts



Trim components

Minimized fugitive emissions

Emission certified packing designs available for all applications, no special construction needed. Minimizing fugitive emissions is crucial to ensure not only health and safety of personnel but also the cost-efficiency and energy-efficiency of the whole plant. At the same time, environmental impact is minimized.

Available packing designs include graphite packing (shown here) and PTFE V-ring packing options.





Valmet's professionals
around the world work close
to our customers and are
committed to moving our
customers' performance
forward – every day.

Valmet Flow Control Oy

Vanha Porvoontie 229
01380 Vantaa, Finland
flowcontrol@valmet.com
+358 10 417 5000
valmet.com/flowcontrol

