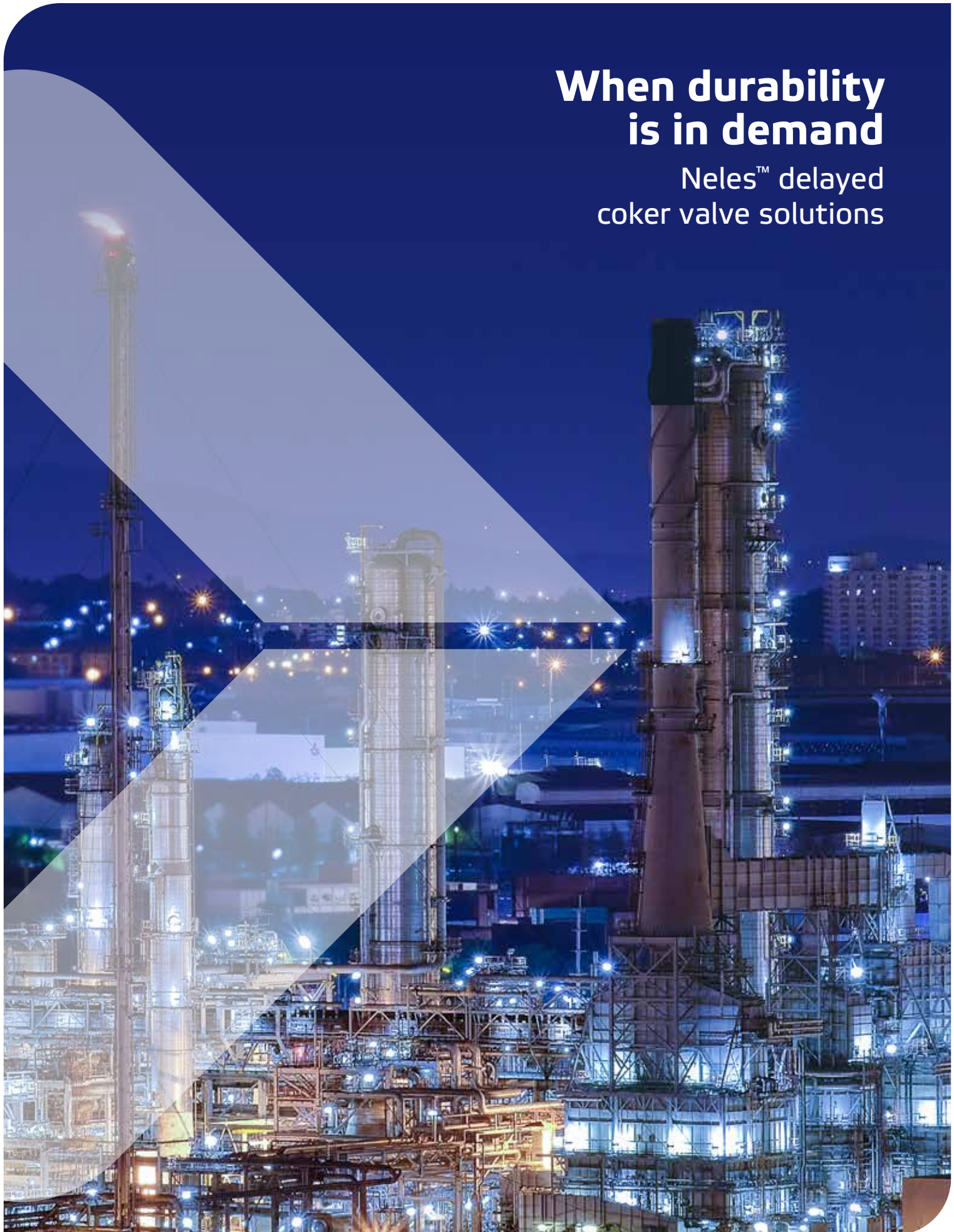


When durability is in demand

Neles™ delayed
coker valve solutions



We provide high-performance valve solutions for the delayed coking process based on more than 30 years of experience. This experience has given rise to innovations that lengthen run-times and reduce costs.



Dedicated to safety and performance

The delayed coking process is a vital part of the production of higher value fuels out of low-value residue. It can be one of the most profitable processes at any refinery, but it is also demanding and dangerous. The valves must be able to handle the very high temperature and inherent coking properties of the fluid.

Built to last

The durability of valve designs is a matter of both profitable performance and ensured safety at refineries. We take no shortcuts when designing and manufacturing valves that ensure safe, long-term continuous cycling in the harshest operating environments and applications. The designs and materials we use have been proven to deliver reliable performance in severe service.

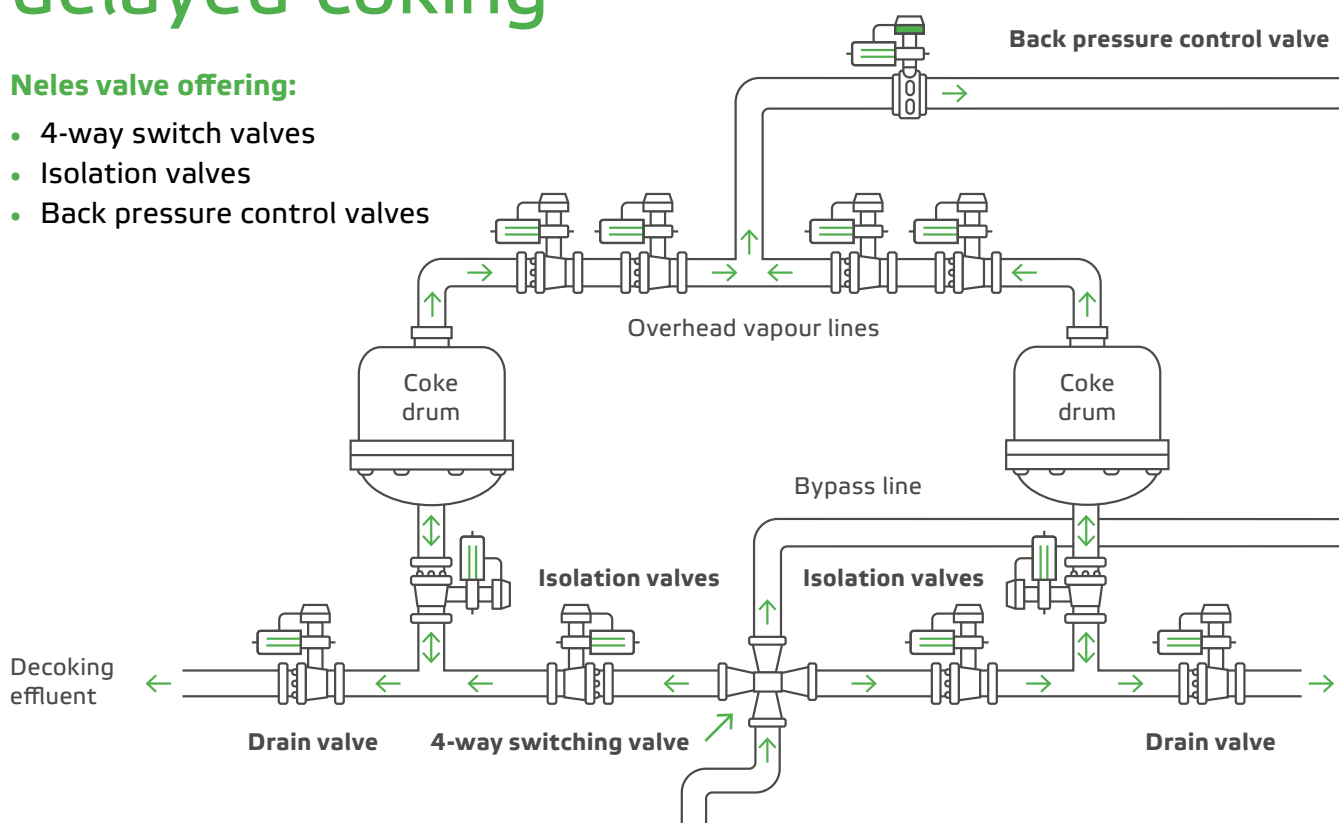
Proven solutions

Proven technology developed based on decades of industry experience has allowed us to create a range of valves that meet your technical requirements and address the two most vital aspects of turning a profit; uptime and service costs. All this is available from a single source that is dedicated to delivering products and services that improve both safety and performance.

Neles solutions for delayed coking

Neles valve offering:

- 4-way switch valves
- Isolation valves
- Back pressure control valves



Neles ball valves for coker applications

Our bi-directional valves ensure full operability regardless of orientation and are equipped with a unique seat design, which prevents over compression of the seat seals due to pressure reversal.

Neles 4-way switch valves

Valve range:

Size: NPS 8" – 18"

ASME Class: 300/600/900

Materials:

Body: C5, C12

Ball: AISI 410 / HCr

Seat <18": Solid cobalt

Seat >18": CA6NM / cobalt



Neles steam purged isolation valves

Valve range:

Size: NPS 8" – 30"

ASME Class: 300/600/900

Materials:

Body: C5, C12

Ball: AISI 410 / CrC

Seat <18": Solid cobalt

Seat >18": CA6NM / cobalt



Durable ball valve design

We supplied the very first coker type ball valve in the early 1980s. Since then, the seat design has been updated to deliver improved performance.

E-ring

The Neles E-ring design has been providing durable performance and maximum service life in the harshest delayed coker conditions since its inception in 1998. These rings are commercially fabricated of a high strength Inconel material that can withstand temperatures up to 650°C (1200°F).

Steam purging

Steam purging is the key to having valves maintain long lasting performance. The steam flow is used to pressurize and flush out critical areas of the valve and prevent the build-up of harmful coke residue.

Coatings

We have a long history of providing the correct seat and ball coatings to maximize service life. Our coating selection for critical coker valves have been proven over many years.

Mechanical lockout

The Neles 4-way switch valve is provided with a removable mechanical lockout. When engaged, the mechanism physically prevents the valve from rotating in to the bypass port.



Neles back pressure control

Our reliable ball and butterfly valves are designed to perform in back pressure control applications. Our unique, high-capacity butterfly valve construction allows for minimal pressure drop in the full open condition and offers a capacity that is approximately 70% higher than typical butterfly valves.



High-capacity control valves

Valve range:

Size: NPS 14" – 36"
ASME Class: 300

Materials:

Body: C5, C12
Disc/Ball: CA6NM
Seat: Seatless
(optional Inconel seat)

Features include:

- Steam purging
- Removable mechanical stop to prevent fully closing
- Seat or seatless options
- Ball or butterfly valve types available

Neles local control panels (LCP)

Our local control panels are designed to customer specified requirements. Offered with optional safety interlocking logic or simple local pushbutton control. These local panels provide instant access to critical switch valve functionality.





Service makes a difference

Optimizing uptime, extending intervals between service shutdowns and minimizing service costs can help ensure the economical performance of your coker valve processes.

Extending service life

Neles valves for delayed coking applications have proven their worth by delivering almost twice the run-time compared to many of its competitors. In many cases Neles coker valves can be run continuously between 7 and 9 years before scheduled service. When typical valves in these same conditions require service on average every 4 years, with the number of valves involved, these savings in services, repairs and spare parts can quickly add up.

Supported by expertise

With over 40 service centers around the globe, the flow control service network is always available to assist our customers wherever they are. We guarantee the availability of reliable OEM parts and local service expertise across the entire valve lifecycle, and even give a full warranty after repairs. The increased level of automation and intelligence in our products also provides the needed data for efficient and timely predictive and preventive maintenance operations that help avoid costly unscheduled shutdowns.

Project knowhow and experience

The value of experience

Our solutions are always engineered to provide improvements in process performance while reducing costs, but the true added value often stems from our expertise in managing projects in their entirety. The experience and knowhow our project engineers bring to the table during the project and commissioning phases can help expedite project completion and enable a speedy and fluent process startup.

In good hands

We help you select the optimal valve solutions for your planned process and provide a clear and defined chain of responsibility from sales to execution and a strong service presence thereafter. Once the project is handed over to our services, we remain dedicated to offering our expertise in terms of both ensure process performance and ultimately improving it through process optimization, predictive maintenance and updates across the product lifecycle.



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

