

NELES

A photograph of two industrial workers in safety gear (hard hats, safety glasses, and high-visibility jackets) working on a complex piece of machinery. The machinery is primarily blue and green, with various pipes, valves, and gauges. One worker is on the left, looking towards the right, while the other is on the right, looking down at a clipboard. The background shows a blurred industrial setting with metal railings and other equipment.

A solution for
each and every
process challenge

Neles™ flow control solutions



To help you optimize your process performance and reliability, Neles approaches each process and application as a specific challenge. Our control, on-off and ESD valves, accessories, intelligent devices and software products are engineered to meet these challenges.

Designed to perform

The selection of the right valves and accessories in demanding and often critical applications in oil and gas, pulp and paper or energy industry applications is often a matter of both business performance and the efficiency, safety and reliability of process itself.

Our Neles valves and all related products and services are always created with the customer's process and business in mind. We design and deliver solutions that enhance performance and ensure process safety and reliability. They provide innovative, fundamentally simple construction, operation and maintenance features to optimize process performance at the lowest cost.

Each Neles device and solution is based on our extensive industry experience and knowhow. Our dedicated people, from sales to services, are committed to delivering the results our customers expect from us, and more.

Nelprof™ - Valve sizing and selection software

- Digital tool for control, on/off and safety valve sizing and selection
- Allows you to select the right valve and valve actuator for your application
- With inbuilt expert system that guides you through the selection process with notes and warnings
- Enables analysis and comparison of control valve performance before installation
- Helps to choose the right valve size and type with optimal actuator to reduce process variability and ensure the best process performance
- On/off module that enables the selection of all intelligent Neles metal and soft-seated on/off and emergency valve assemblies
- The SIL module is the first safety integrity level tool on the market, enabling safety integrity level evaluation for the whole valve assembly, including valve, actuator, positioner and pneumatic components when needed

Reliable performance requires more than just high-quality valves. All valve solutions delivered by Neles are thoroughly tested and supported by dedicated services designed to ensure optimal life cycle performance.

Testing capabilities

Neles has an extensive quality assurance program covering all manufacturing activities. All components or valve units are tested before delivery. For modulating control valves the testing includes control performance for the verification of every delivered valve unit.

Basic testing includes hydrostatic, seat leakage and functional testing. Advanced computer-based test rigs have been provided for these valve testing activities. A special feature in Neles test facilities is our high-pressure gas test and top-of-range industrial cryogenic laboratory.

Ensuring process safety and reliability

In addition to our robust and reliable valves, we offer a range of products and services designed to ensure the desired performance of critical valves across their entire life cycle. For instance, the Neles ValvGuard™ intelligent safety solenoid and PST system helps monitor and ensure the full functionality of critical, yet often idle, emergency shutdown (ESD) and venting valves.

Simplifying service solutions

We are committed to helping energy and hydrocarbon, and pulp and paper customers improve process performance and reduce operating costs. Our leading edge technological solutions and skilled customer support personnel get the job done with a goal of making your work life easier.

Our services encompass the entire product life cycle, from with the time of installation all the way through to planned replacement.

At every step, our goal is to reduce your cost of doing business and enhancing your overall profitability.

We apply a vast amount of industry, process, application and product knowledge into every customer relationship. Our technicians work in partnership with you to develop programs and provide services that meet your specific requirements.



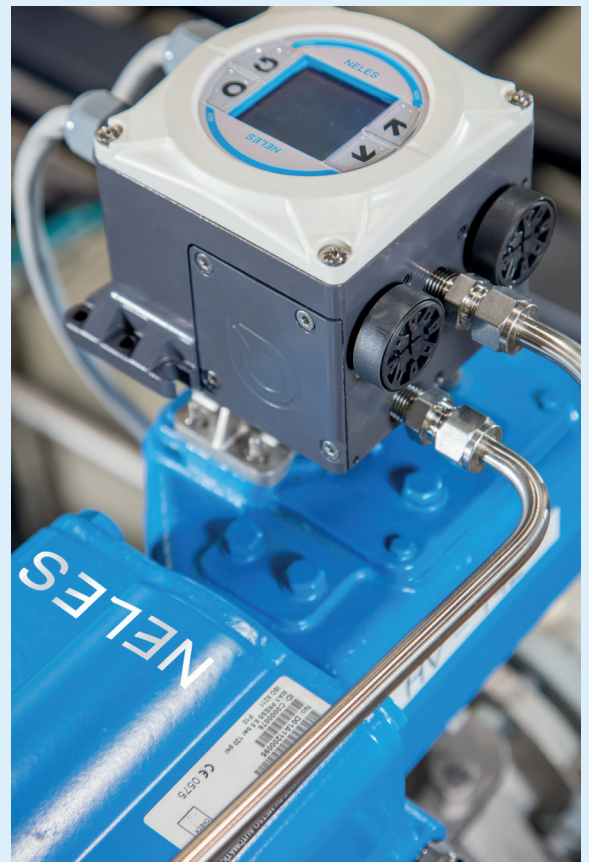


Neles offers a unique range of reliable and easy-to-use solutions to control your valves.

Valve controls

With the help of our products you can fulfill end user requirements for control, emergency shutdown and on/off valve applications. Neles products will ensure the best possible valve performance and compliance with environmental regulations.

Our offering ranges from limit switches to high performance intelligent valve controllers such as the Neles NDX™ and ND9000™, with third generation diagnostics. Our competitive valve control solutions allow you to get the best possible performance from your valves.



Control valves

Product	Series	Design	Sizes	Pressure classes	Temp. range	Body materials	Tightness class	Service
V-port segment valves 	Series RA, RE	Wafer, flanged Options: Reduced Cv trims, Q-Trims	DN 25-800 / 1"-32"	ASME 150 - 600, PN10 - 100	-52 ... +425 °C / -60 ... +797 °F	CF8M, WCB, CG8M, Titanium, Hastelloy C, SMO	Class IV ~ VI 10xISO Rate D, Rate D	General, Demanding / Erosive, Severe, Fire safe, Low emission
Finetrol™ eccentric plug valves 	Series FC, FG & FL	Flanged, eccentric rotary plug valve Options: Reduced Cv trims, Q-Trims, Cryogenic	DN 25-300 / 1"-12"	PN 10-100 / ASME 150-600	-200 to +450 °C / -320 to +842 °F	CF8M, WCC	Class IV ~ VI	General, Severe, SIL, Fire safe, Low emission
Triple eccentric disc valves 	Series L12, L6, LW & LG, L1 & L2	Wafer, lugged, double flanged Options: Heat traced, S-Disc, Cryogenic, live-loaded packing	DN80 - 2200 (3" - 88")	ASME 150 - 600 / PN10 - 100	-200 to +650 °C / -320 to +1200 °F	CF8M, WCB, CG8M, LCC, 5A	Up to ISO Rate A, API 598 & Class VI	General, Moderate SIL, Fire safe, Low emission
Neles RotaryGlobe™ 	Series ZX	Flanged, Rotary globe control valve Options: Balanced anti-cavitation and low noise, different CV and LIN /EQ% trims	1/2"-4" / DN 15"-100"	ASME 150-1500 / PN 10-100	-80 ... +425 °C / -110 ... +797 °F	CF8M, WCC	Class III ~ IV	General, severe, Fire safe, Low emission
Top entry rotary valves 	Series T5	Reduced port, flanged, weldends Options: Q-Trim, Q2-Trim, different Cv-trims, Cryogenic	DN 25-400 / 1"-16"	PN 10-100 / ASME 150-600	-200 ... +600 °C / -320 ... +1110 °F	CF8M, WCB	Class V ~ VI	Heavy duty
Series E ceramic valves 	Series E2 & E6	Reduced port, wafer, lugged Options: Different Cv-trims	DN 25-200 / 1"-8"	PN 10-40 / ASME 150-300	-40 ... +425 °C / -40 ... +800 °F	Stainless steel / Magnesia, partially stabilized Zirconia (Mg-PS2) Metal Matrix Composite (MMC)	ISO rate D, Class V	Erosive applications

Globe control valves

Product	Series	Design	Sizes	Pressure classes	Temp. range	Body materials	Tightness class	Trim material
Series GU globe control valves 	Series GU Globe unbalanced, top guided type	Single seated, Top guided Flanged, Butt & Socket weld	DN15 – 150 (½" – 6")	ASME 150 – 2500 / PN10 – 320 / JIS 10K – 20K	-200 to +593 °C / -320 to +1053 °F	WCB, CF8M	ANSI Class IV ~ VI	SS410, SS420, SS316, SS316 + Alloy 6, etc.
Series GB globe control valves 	Series GB Globe balanced, single seated, cage-guided	High capacity and heavy duty balanced, cage guided Flanged, Butt & Socket weld	DN50 – 600 (2" – 24")	ASME 150 – 2500 / PN10 – 320 / JIS 10K – 20K	-200 to +593 °C / -320 to +1053 °F	WCB, CF8M	ANSI Class IV ~ V	SS410, SS420, SS316, SS316 + Alloy 6, etc.
Series GM globe control valves 	Series GM Globe Omega trim, multi-stage type	Flanged, Butt & Socket weld	DN50 – 600 (2" – 24")	ASME 150 – 2500 / PN10 – 320 / JIS 10K – 20K	-200 to +593 °C / -320 to +1053 °F	WCB, CF8M	ANSI Class IV ~ VI	SS420, SS316 + Alloy 6, etc.
Series A globe control valves 	Series AU, AB, AM Angle pattern valves	Angle, top-guided, cage-guided, Tendril™, Omega™ trim, flanged, butt & socket welded	Sizes: DN15 – 1200 (½" – 48")	ASME 150 – 2500 / PN10 – 320	-200 to +593 °C / -320 to +1053 °F	WCB, CF8M	ANSI Class IV ~ VI	SS410, SS420, SS316, SS316 + Alloy 6, etc.
Series GW globe control valves 	Series GW Globe 3-Way, diverting/mixing type	Flanged, Butt & Socket weld	DN25 – 250 (1" – 10")	ASME 150 – 600 / PN10 – 100	-29 to +425 °C / -20 to +797 °F	WCB, CF8M	ANSI Class II ~ IV	SS410, SS316, SS316 + Alloy 6, etc.



On-off valves

Product	Series	Design	Sizes	Pressure classes	Temp. range	Body materials	Tightness class	Service
Series X ball valves 	Series XA, XB, XC, XU, XT Seat supported Series XG, XM, XH Trunnion mounted	Full or reduced port, metal and soft seats Options: Steam jacket, Cryogenic and high temperature, Catalyst handling, Coal gasification, Polymer service, Oxygen service, Q-Trim, Q2-Trim	DN25 - 600 (1" - 24") For larger sizes, see bulletin	ASME 150 - 900 / PN 10 -160	-200 to +600 °C / -320 to +1110 °F	CF8M, WCB See other body materials from bulletin	ANSI Class IV ~ VI	General
	Bulletin: 1X22, 1X23, 1X26, 1X27, 1XH20							
Series M ball valves 	Series M1, M2 Seat supported and trunnion mounted	Full bore, Metal and soft seats Options: Black and green liquor applications	DN 25-600 1"-24"	PN 10-40 / ASME 150-300	-50 ... +250 °C / -60 ... + 480 °F	CF8M, CG8M	ISO rate D metal seats, Bubble tight with soft seats	General in P&P industry
	Bulletin: 1M120, 1M220							
Series D ball valve 	Series D2C, D2D, D1F	Full or reduced port, Stemball construction Options: Steam jacket, Cryogenic and high temperature, Catalyst handling, Q-Trim, Q2-Tri	D1F: DN 50-600 2"-28" D2: DN700 - 900 (28" - 36")	PN 10-100 / ASME 150-600	-200 ... +600 °C / -320 ... +1110 °F	CF8M, WCB See other body materials from bulletin	Class V ~ VI	Demanding application
	Bulletin: 1D21							
High performance triple eccentric disc valves 	Series L12, L6, LW & LG, L1 & L2	Wafer, lugged, double flanged Options: High tightness, Erosion resistant version, Cryogenic and high temperature, High cycling	DN80 - 2200 (3" - 88")	ASME 150 - 600 / PN10 - 100	-200 to +650 °C / -320 to +1200 °F	CF8M, WCB, CG8M, LCC, 5A	Up to ISO Rate A, API 598 & Class VI	General, Moderate SIL, Fire safe, Low emission
	Bulletin: 2L121, 2L1220, 2LW20, 2L621							
V-port segmented ball valves 	Series RE	Flanged	DN 300-800 / 12"-32"	PN 10-40 / ASME 150-300	-52... +315 °C / -60... +599 °F	CF8M, WCB, CG8M Titanium, Hastelloy C, SMO	ISO 5208 Rate D with metal seat. Rate C with soft seat	General
	Bulletin: 3R27							

ESD valves


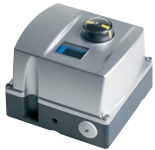
Product	Series	Design	Sizes	Pressure classes	Temp. range	Body materials	Tightness class	Service
Series X ball valves 	Series XA, XB, XC, XU, XT Seat supported,	Full or reduced bore, Metal seats Options: Cryogenic, high temperature	Sizes: DN25 - 600 (1" - 24") For larger sizes, see bulletin	PN 10-160 / ASME 150-900	-200 ... +600 °C / -330 ... +1110 °F	CF8M, WCB See other body materials from bulletin	Class IV ~ VI	High MTBF, SIL 3 certified
	Bulletin: 1X22, 1X23, 1X26, 1X27, 1XH20, 9VG921, CB058							
Series D ball valves 	Series D2C, D2D, D1F	Full or reduced port, Stemball construction Options: Cryogenic, high temperature	D1F: DN 50-700 / 2"-28" D2: DN700 - 900 (28" - 36")	PN 10-100 / ASME 150-600	-200 ... +600 °C / -330 ... +1110 °F	CF8M, WCB, LCC	Class V ~ VI	High MTBF, SIL 3 certified
	Bulletin: 1D21, 9VG921, CB058							
Top entry rotary valves 	Series T5	Reduced or full port, flanged, weldends Options: Cryogenic, high temperature	DN 25-400 / 1"-16"	PN 10-40 / ASME 150-600	-200 ... +600 °C / -320 ... +1110 °F	CF8M, WCB See other body materials from bulletin	Class IV ~ VI	High MTBF, SIL 3 certified
	Bulletin: 1T520, 9VG921, CB058							
High performance triple eccentric disc valves 	Series L6, LW & LG, L1 & L2	Wafer, lugged, double flanged Options: High tightness, Cryogenic, high temp.	DN80 - 2200 (3" - 88")	ASME 150-2500, PN 10-400	-200 to +650 °C / -320 to +1200 °F	CF8M, WCB, CG8M, LCC, 5A	Up to ISO Rate A, API 598 & Class VI	High MTBF, SIL 3 certified
	Bulletin: 2L121, 2L621, 2LW2, 9VG921, CB058							

Engineered valve solutions



Product	Size and pressure range	Body materials	Temperature range	Application
<p>Type BH lever valves</p> 	NPS 8–NPS 64 ASME 150–300 (PN10–40)	Carbon Steel	-29 ... +280 °C / -20 ... +536 °F	Valve opens at precise pressure differential without use of separate monitoring. Air separation, chemical plants, cement and steel, industry, safety valve
Bulletin: 2BH20				
<p>Series BWX cryogenic butterfly valves</p> 	NPS 4–NPS 24 / DN 100–DN 600 ASME 600 / PN63	Stainless Steel Special material	-200 to +470 °C / -320 to +880 °F	Cryogenic and high temperature LNG applications, air separation, nitrogen, helium and hydrogen
Bulletin: 2BWX20				

Smart products


Intelligent valve controllers

Product	Series	Design	Supply power	Supply pressure	Temp. range	Communi- cation
Neles NDX™ 	Series NDX1510 Compact Series NDX1511 / NDX2511 Standard Series NDX1512 / NDX2512 Explosion Proof	Intelligent valve controller	Taken from the 4 ... 20 mA, control signal	1.4 – 8.0 bar / 20 – 115 psi	-40 ... +85 °C / -40 ... +185 °F	HART
	Bulletin: 7NDX21, CB058					
Neles ND9000™ 	Series ND9100 Standard Series ND9200 Explosion proof Series ND9300 Stainless steel enclosure intrinsically safe and explosion proof Series ND9400 Stainless steel intrinsically safe	Intelligent valve controller	Taken from the 4 ... 20 mA, control signal or fieldbus powered	1.4-8 bar / 20-115 psi	-53 ... +85 °C / -63 ... +185 °F	HART, Profibus PA, Foundation Fieldbus
	Bulletin: 7ND9021, CB058					

Neles ValvGuard

Product	Series	Design	Input	Supply pressure	Temp. range	Communi- cation
Neles ValvGuard™ VG9000 	Series VG9200 Standard epoxy coated anodised aluminium alloy enclosure, intrinsically safe and explosion proof Series VG9300 Full 316 stainless steel enclosure, intrinsically safe and explosion proof	Intelligent safety solenoid for Foundation Fieldbus and HART. TÜV SIL 3 approved partial stroke testing system for emergency shutdown valves.	Foundation Fieldbus + 0/24 VDC, 4/20 mA, 0/24 VDC with RCI9H2	3.0-7.5 bar / 44-109 psi	-40 ... +85 °C / -40 ... +185 °F	Foundation Fieldbus, HART
	Bulletin: 9VG921, CB058					
Neles ValvGuard™ VG9PST 	Series VG9200 Standard epoxy coated anodised aluminium alloy enclosure, intrinsically safe and explosion proof Series VG9300 Full 316 stainless steel enclosure, intrinsically safe and explosion proof	Partial stroke testing device used with external solenoid valve.	8-20 mA	3.0-7.5 bar / 44-109 psi	-40 ... +85 °C / -40 ... +185 °F	HART
	Bulletin: 9VG921, CB058					



Neles Axiom

Product	Series	Design	Switch type	Temp. range	Communi- cation
Axiom™ 	Series AN, AX	On/off valve controller with integral solenoid for rotary valves / actuators. General purpose, nonincendive, intrinsically safe, explosion proof. Available with Wireless Link	Inductive proximity, VCT	-40 ... +80 °C / -40 ... +176 °F	Foundation Fieldbus, HART
	Bulletin: 7AN20, 7AM21, 7AX21, CB058				



Pneumatic actuators

Product	Series	Design	Action	Pressure input	Output	Temp. range
Series B1 	Series B1C & B1J	Pneumatic rotary cylinder actuator Options: Manual and hydraulic overdrives, lockout devices, high-cycle, fire protection	B1C-double acting, B1J-spring return	2.8-10 bar / 40-140 psi	Torque: 28-100000 Nm / 21-73800 ft-lbs	-55 ... 120 °C / -67 ... +250 °F
Quadra-Powr™ X 	Series QPX	Spring-diaphragm rotary actuator Options: Mechanical lockout, 100 % adjustable stop, wet conditions (Tropicalization) kit, fusible plug	Spring return	1.3-7 bar / 20-100 psi	Torque: 15 to 796 Nm / 11 to 587 lb-ft	-29 ... +66 °C / -20 ... +150 °F
Series N1 	Series N1	Pneumatic or hydraulic rotary cylinder actuator, scotch yoke type Options: Manual and hydraulic overdrives, fire protection	Double acting, spring return	3-14 bar / 44-203 psi	Torque : 26-808600 Nm / 19-596392 lb-ft	-60 ... +125 °C / -76 ... +257 °F
VD 	Series VD	Pneumatic diaphragm actuator for linear valves Options: Handwheel for manual operation, volume tank	Spring return	3.0-4.2 bar / 44-60 psi	Thrust: 1890-22800 N / 424-5125 lb.f	-55 ... +85 °C / -67 ... +185 °F
VB 	Series VBC & VBD/R	Pneumatic cylinder actuator for linear valves Options: Handwheel for manual operation, Volume tank or built-in volume chamber	VBC-double acting, VBD/R-spring return	2.8-10 bar / 40-140 psi	Thrust: 16823-78160 N / 3781-17571 lb.f	-55 ... +120 °C / -67 ... +250 °F
VC 	Series VC	Pneumatic cylinder actuator for linear valves Options: Handwheel for manual operation, volume tank or built-in volume chamber	Double acting	2.0- 10 bar / 29 - 145 psi	Thrust: 27480-264860 N / 6177-59542 lb.f	-30 ... +85 °C / -22 ... +185 °F





Electric actuators

Product	Series	Design	Action	Output	Temperature range
V-series actuators 	V-series	Electric actuator	Control configurations from on/off, to automatic cycling and analog modulating	Torque: 17 to 339 Nm / 12 to 250 lb-ft	-40 ... +66 °C / -40 ... +150 °F
	Bulletin: V201-2, CB058				
ADC-series actuators 	ADC-series	Electric actuator	Both on/off and modulating control with optional Li Ion battery back-up	Torque: 17 to 339 Nm / 12 to 250 lb-ft	-40 ... +66 °C / -40 ... +150 °F
	Bulletin: V200-1, CB058				




Analog positioners

Product	Series	Design	Input	Split range	Temperature range	Vibration effect
Pneumatic positioner 	NP700	Pneumatic positioner	0,2-1 bar, 20-200 kPa, 3-15 psi	0,2-0,6 bar, 0,6 bar-1 bar, 3-9 psig, 9-15 psig	-40 ... +90 °C / -40 ... +200 °F	< 1%
	Bulletin: 7NENP20, CB058					
Electro-pneumatic positioner 	NE700	Electropneumatic positioner	4-20 mA, 0-20 mA	4-12 mA, 12-20 mA	-25 ... +120 °C / -15 ... +248 °F	< 1%
	Bulletin: 7NENP20, CB058					

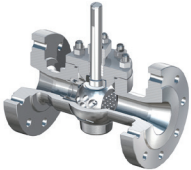
Limit switches

Product	Series	Design	Switch type	Temp. range	Communication
 <p>Quartz™</p>	Series QX, QN, QG	Valve position feedback for rotary valves / actuators. General purpose, nonincendive, intrinsically safe, explosion proof	Solid state proximity, reed, mechanical micro, VCT	-40 ... +80 °C / -40 ... +176 °F	Foundation Fieldbus, AS-Interface
 <p>Eclipse™</p>	Series EN, EG	Valve position feedback for rotary valves / actuators. General purpose, nonincendive, intrinsically safe	Solid state proximity, VCT	-40 ... +80 °C / -40 ... +176 °F	DeviceNet, AS-Interface
 <p>Prism™</p>	Series PI	On/off valve controller with integral solenoid for sanitary diaphragm and angle valves. General purpose, nonincendive, intrinsically safe. Available with Wireless Link	Solid state proximity sensors	-20 ... +60 °C / -4 ... +140 °F	DeviceNet, AS-Interface
 <p>Hawkeye™</p>	Series HK, HX	Valve position feedback for linear valves / actuators. General purpose, nonincendive, intrinsically safe, explosion proof.	SST solid state sensors	-40 ... +80 °C / -40 ... +176 °F	

Application specific products

Product	Series	Design	Sizes	Pressure classes	Temp. range	Body materials	Service
 <p>Capping valve</p>	Series PZ	Capping valve Options: Pressure switches for safety interlocks, Water flushing for ball surface	DN 500 -750 / 20"-30"	PN 16 & ASME 150	max. +200 °C / +390 °F	CF8M	For digester chip fill
 <p>nelesACE™ basis weight control valve</p>	nelesACE	V-port segment valve together with, high resolution stepping motor	DN 50-500 / 2"-20"	PN 25/40, ASME 150/300	-40 ... +250 °C / -40 ... +480 °F	CF8M	Basis weight control unit
 <p>Pocket feeder valve</p>	Series M1, M2	Pocket feeder construction	DN 150-200 / 6"-8"	PN 10-40 ASME 150, 300	-50 ... +250 °C / -60 ... +480 °F	CF8M	For separator service

Valve options

Product	Design	Sizes	Pressure classes	Materials	Options
Q-Ball™ 	Low noise and anti-cavitation trim for ball, segment and eccentric plug valves	DN 50 ... 900 / 2" ... 36"	ASME 150-1500, PN 10-100	CF8M, WCB	Q2 trim for extended aerodynamic noise attenuation for gas service Diffuser
Bulletin: 8Q20, 8Q220					

Product	Design	Sizes	Pressure classes	Cv-range	Materials	Options
S-Disc™ 	Flow balancing trim for triple eccentric disc valves	DN 80 ... 1500 / 3" ... 60"	ASME 150-600 PN10-100	150-43800	CF8M, WCB, CG8M, LCC, 254SMO, 5A	
Bulletin: 2SL120						
A-plate 	Noise attenuator plate for noise reduction.	DN 25-1000 / 1"-40"	ASME 150, 300, 600, PN 10 ... 100	7-4480	CF8M, WCB	Option 1: threaded directly into a Finetrol™ or T5 valve body. Option 2: wafer style. Can be mounted between flanges.
Bulletin: 8ATT20						
Q2-plate 	2 stage noise attenuation plate for gas applications	DN 50-600 2"-24"	ASME 150, 300, 600, PN 10 ... 100	22-13108	Stainless steel	Wafer style. Mounted between flanges.
Bulletin: 8Q220						

neles flow control solutions

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

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