

Neles
Flow control solutions



A solution
for each and
every process
challenge



Neles Flow control solutions

To help you optimize your process performance and reliability, Metso 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. They provide innovative, fundamentally simple construction, operation and maintenance features to optimize process performance at the lowest cost.

Designed to make the big difference

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. Metso's 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. Each Metso 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.

Testing capabilities

Metso 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 Metso test facilities is our high-pressure gas test and top-of-range industrial cryogenic laboratory.

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 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. Metso applies 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.

Nelprof®

Nelprof control-, on/off- and safety valve sizing and selection software allows you to select the right valve for your application. Nelprof has an inbuilt expert system that guides you through the selection process with notes and warnings. You can analyze and compare control valve performance before installation and choose the right valve size and type to reduce process variability and ensure the best process performance. On/off module enables the selection of all intelligent Metso metal- and soft-seated on/ off- and emergency valves. The SIL module is the first safety integrity level tool on the market. It enables safety integrity level evaluation

for the whole valve assembly, including valve, actuator, positioner and one to several pneumatic components when needed.

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.

Valve Controls

Metso offers a unique range of reliable and easy-to-use solutions to control your valves. With the help of Metso's products you can fulfill end user requirements for control, emergency shutdown and on/off valve applications. Metso's products will ensure best possible valve performance and compliance with environmental regulations. Metso's offering ranges from limit switches to high performance intelligent valve controllers such as the Neles NDX & ND9000, with third generation diagnostics. Our competitive valve control solutions allow you to get the best possible performance from your valves (Brochure reference: CB058 & CB059).

Control valves


| | Series | Design | Size range | Pressure classes | Temp. range | Standard body materials | Leakage rate | Service | Options | Bulletin reference |
|---|----------------------------------|--------------------------------------|-------------------------|-------------------------------|---------------------------------------|---|---|-----------------------------|---|--|
| V-port segment valves | | | | | | | | | | |
|  | RA, RE | Wafer, flanged | DN 25 - 800 / 1" - 32 | PN 10 - 40 / ASME 150 - 300 | -50 ... +425 °C / -58 ... +797 °F | CF8M, WCB, CG8M Titanium, Hastelloy C | Class IV, 10x ISO Rate D/class IV, optionally ISO rate D/class V (min. 20 bar Δp) | General, Demanding/ Erosive | Reduced Cv trims, Q-Trims | 3R21, 3R24, 7ND9021 |
| Finetrol eccentric plug valves | | | | | | | | | | |
|  | FC, FL | Flanged, eccentric rotary plug valve | DN 25 - 250 / 1" - 10" | PN 10 - 100 / ASME 150 - 600 | -200 ... +425 °C / -320 ... +797 °F | CF8M, WCC | Class IV Class VI | General, severe | Reduced Cv trims, Q-Trims, Cryogenic | 5FT20, 5FT22, 7ND9021 |
| High performance triple eccentric disc valves | | | | | | | | | | |
|  | L12, L6, LW & LG, L1 & L2 BW BWX | Wafer, lugged, double flanged | DN 80 - 2000 / 3" - 80" | ASME 150 - 2500, PN 10 - 400 | -200 ... +1400 °C / -320 ... +2500 °F | CF8M, WCB, CG8M, LCC, 254SMO, 5A | Class III - VI | General, severe | Heat traced, S-Disc, Cryogenic, live-loaded packing | 2L121, 2L1220, 2LW20, 2L621, 2BW20, 2BW20, 7ND9021 |
| Neles RotaryGlobe | | | | | | | | | | |
|  | ZX | Flanged, Rotary globe control valve | 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 | Balanced anti-cavitation and low noise, different CV and LIN/ EQ% trims | 1RG20, 7ND9021 |
| Top 5 top entry rotary valves | | | | | | | | | | |
|  | T5 | Reduced port, flanged, weldends | DN 25 - 400 / 1" - 16" | PN 10 - 100 / ASME 150 - 600 | -200 ... +600 °C / -320 ... +1110 °F | CF8M, WCB | Class V - VI | Heavy duty | Q-Trim, Q2-Trim, different Cv-trims, Cryogenic | 1T520, 7ND9021 |
| E series ceramic valves | | | | | | | | | | |
|  | E2 & E6 | Reduced port, wafer, lugged | 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) | ISO rate D, Class V | Erosive applications | Different Cv-trims | 1E220, 7ND9021 |


Globe control valves


| | Series | Design | Size range* | Pressure classes* | Temp. range | Standard body materials | Leakage rate | Trim material | Bulletin reference |
|---|--------|--|-------------|-------------------|--------------------------------------|-------------------------|---------------------|---|--------------------|
| Series GU, globe unbalanced, top guided type | | | | | | | | | |
|  | GU | Single seated, Top guided- Flanged, Butt & Socket weld | 1/2"-6" | ASME 150 - 600 | -196 ... +593 °C / -321 ... +1053 °F | WCB, CF8M | ANSI Class IV ~ VI | 410 SS, 316 SS, 630 SS, Alloy steel, Hard facing | 4GV21 |
| Series GB, globe balanced, cage guided type | | | | | | | | | |
|  | GB | High capacity and heavy duty balanced, cage guided Flanged, Butt & Socket weld | 2"-24" | ASME 150 - 2500 | -196 ... +593 °C / -321 ... +1053 °F | WCB, CF8M | ANSI Class III ~ V | 410 SS, 316 SS, 630 SS, Alloy steel, Hard facing | 4GV25 |
| Series GM, globe Omega trim, multi-stage type | | | | | | | | | |
|  | GM | Flanged, Butt weld & Socket weld | 2"-24" | ASME 150 - 2500 | -196 ... +593 °C / -321 ... +1053 °F | WCB, CF8M | ANSI Class III ~ VI | 420 SS, 630 SS, Solid Carbide Tungsten, Inconel, Alloy steel, Hard facing | 4GV20 |
| Series AU / AB / AM, angle pattern valves | | | | | | | | | |
|  | A | Flanged, Butt & Socket weld | 1"-48" | ASME 150 - 2500 | -196 ... +593 °C / -321 ... +1053 °F | WCB, CF8M | ANSI Class IV ~ VI | 410 SS, 316 SS, 630 SS, Alloy steel, Hard facing | 4GV23 |
| Series GW, globe 3-Way, diverting / mixing type | | | | | | | | | |
|  | GW | Flanged, Butt & Socket weld | 1"-10" | ASME 150 - 600 | -196 ... +593 °C / -321 ... +1053 °F | WCB, CF8M | ANSI Class II ~ IV | 410 SS, 316 SS, 630 SS, Alloy steel, Hard facing | 4GV24 |


* Consult factory for sizes & pressure classes outside the standard range.

On-off valves

| | Series | Design | Size range | Pressure classes | Temperature range | Standard body materials | Leakage rate | Service | Options |
|---|--|--|------------------------|------------------------------|--------------------------------------|-------------------------|---------------|---------|--|
| X series ball valves | | | | | | | | | |
|  | XA, XB, XC, XU, XT - seat supported, XG, XM, XH - trunnion mounted | Full or reduced bore, Metal and soft seats | DN 25 - 600 / 1" - 24" | PN 10 - 160 / ASME 150 - 900 | -200 ... +600 °C / -330 ... +1110 °F | CF8M, WCB, C5 | Class V or VI | General | Steam jacket, Cryogenic & high temperature, Catalyst handling, Coal gasification, Polymer service, Oxygen service, Q-Trim, Q2-Trim |
| | Bulletin reference: 1X22, 1X23, 1X26, 1X27, 1XH20, 6B20, CB058 | | | | | | | | |

| | Series | Design | Size range | Pressure classes | Temperature range | Standard body materials | Leakage rate | Service | Options |
|--|---|---------------------------------|------------------------|-----------------------------|-------------------------------|-------------------------|--|-------------------------|-------------------------------------|
| M series ball valves | | | | | | | | | |
|  | M1, M2 - seat supported and trunnion mounted | Full bore, Metal and soft seats | DN 25 - 400 / 1" - 16" | 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 | Black and green liquor applications |
| | Bulletin reference: 1M120, 1M220, 6B20, CB058 | | | | | | | | |

| | Series | Design | Size range | Pressure classes | Temperature range | Standard body materials | Leakage rate | Service | Options |
|---|---------------------------------------|---|---|------------------------------|--------------------------------------|-------------------------|--------------|-----------------------|--|
| D series ball valve | | | | | | | | | |
|  | D2C, D2D, D1F | Full or reduced port, Stemball construction | D1F: DN50 - 600 2" - 28" D2: DN100 - 900 4" - 36" | PN 10 - 100 / ASME 150 - 600 | -200 ... +600 °C / -320 ... +1110 °F | CF8M, WCB, LCC | Class V - VI | Demanding application | Steam jacket, Cryogenic & high temperature, Catalyst handling, Q-Trim, Q2-Trim |
| | Bulletin reference: 1D21, 6B20, CB058 | | | | | | | | |

| | Series | Design | Size range | Pressure classes | Temperature range | Standard body materials | Leakage rate | Service | Options |
|---|---|---|-------------------------|------------------------------|---------------------------------------|----------------------------------|---------------------------------|-------------------|--|
| High performance triple eccentric disc valves | | | | | | | | | |
|  | L12, L6, LW & LG, L1 & L2 BW BWX | Wafer, lugged, double flanged, weld-end | DN 80 - 2000 / 3" - 80" | ASME 150 - 2500, PN 10 - 400 | -200 ... +1000 °C / -320 ... +1800 °F | CF8M, WCB, CG8M, LCC, 254SMO, 5A | ISO Rate A, ISO Rate B, API 598 | General, moderate | High tightness, Erosion resistant version, Cryogenic & high temperature, High cycling, Top entry |
| | Bulletin reference: 2L121, 2L1220, 2LW20, 2L621, 2BW20, 2BWX20, 6B20, CB058 | | | | | | | | |


ESD valves


| | Series | Design | Size range | Pressure classes | Temperature range | Standard body materials | Leakage rate | Service | Options |
|---|--|---|--|------------------------------|---------------------------------------|----------------------------------|---------------------------------|----------------------------|---------------------------------------|
| X series ball valves | | | | | | | | | |
|  | XA, XB, XC, XU, XT - seat supported, XG, XM, XH - trunnion mounted | Full or reduced bore, Metal seats | DN 25 - 600 / 1" - 24" | PN 10 - 160 / ASME 150 - 900 | -200 ... +600 °C / -330 ... +1110 °F | CF8M, WCB, C5 | Class V - VI | High MTBF, SIL 3 certified | Cryogenic, high temperature |
| Bulletin reference: 1X22, 1X23, 1X26, 1X27, 1XH20, 9VG921, CB058 | | | | | | | | | |
| D series ball valves | | | | | | | | | |
|  | D2C, D2D, D1F | Full or reduced port, Stemball construction | D1F DN 50 - 700 / 2" - 28", D2 DN 100 - 900 / 4" - 36" | PN 10 - 100 / ASME 150 - 600 | -196 ... +600 °C / -320 ... +1110 °F | CF8M, WCB, LCC | Class V - VI | High MTBF, SIL 3 certified | Cryogenic, high temperature |
| Bulletin reference: 1D21, 9VG921, CB058 | | | | | | | | | |
| Top entry rotary valves | | | | | | | | | |
|  | T5 | Reduced or full port, flanged, weldends | DN 25 - 400 / 1" - 16" | PN 10 - 40 / ASME 150 - 600 | -200 ... +600 °C / -320 ... +1110 °F | CF8M, WCB | Class V - VI | High MTBF, SIL 3 certified | Cryogenic, high temperature |
| Bulletin reference: 1T520, 9VG921, CB058 | | | | | | | | | |
| High performance triple eccentric disc valves | | | | | | | | | |
|  | L6, LW & LG, L1 & L2 BWX | Wafer, lugged, double flanged | DN 80 - 2000 / 3" - 80" | ASME 150 - 2500, PN 10 - 400 | -200 ... +1000 °C / -320 ... +1800 °F | CF8M, WCB, CG8M, LCC, 254SMO, 5A | ISO Rate A, ISO Rate B, API 598 | High MTBF SIL 3 certified | High tightness, Cryogenic, high temp. |
| Bulletin reference: 2L121, 2L621, 2LW20, 2BW20, 2BWX20, 9VG921, CB058 | | | | | | | | | |


Engineered valve solutions


| | Size and pressure range | Materials | Temperature range | Application |
|---|---|---|---|---|
| Type BH Lever valves | | | | |
|  | NPS 8 - NPS 100 CL 150 | Carbon Steel | -29 ... +250 °C / -20 ... +482 °F | Valve opens at precise pressure differential without use of separate monitoring. Air separation, chemical plants, cement and steel, industry, safety valve |
| Type BWX Cryogenic butterfly valves | | | | |
|  | NPS 4 - NPS 24 / DN 100 - DN 600 ASME Class 150, 300, 600 PN10 / 16 / 25 / 40 / 63 | Stainless Steel Special material | -270 ... +200 °C / -454 ... +392 °F | Cryogenic and LNG applications, air separation, nitrogen, helium and hydrogen |
| Bulletin reference: 2BWX20 | | | | |
| Type BO High performance butterfly valves for pressure swing adsorption plants | | | | |
|  | NPS 3 - NPS 40 CL 150 | Ductile iron steel | -10 ... +200 °C / 14 ... +392 °F | Pressure swing adsorption plants for low pressure oxygen and nitrogen in up to 2 million cycles with opening and closing time <1 s |
| Bulletin reference: 2BO20 | | | | |
| Type BN Soft seated butterfly valves | | | | |
|  | NPS 3 - NPS 300 CL 150 | Carbon Steel Stainless Steel Duplex SS | -16 ... +200 °C / -10 ... +400 °F | Standard butterfly valves with: EPDM, VITON, PTFE and metal seating for general application |
| Type BW Engineered metal seated butterfly valves | | | | |
|  | NPS 3 - NPS 100 CL 150, 300, 600, 900, 1500, 2500 | Carbon Steel Stainless Steel Duplex SS Special Materials | -270 ... +850 °C / -454 ... +1562 °F | High pressure/temperature applications in power plants, ethylene plants, refineries, aero engines, chemical plants, slurries, polymerizing fluids, styrene, acrylic acid, natural gas |
| Bulletin reference: 2BW20 | | | | |


Smart products

| Series | Type | Supply power | Supply pressure | Temperature range | Communication | |
|---|------------------------------------|------------------------------|--|------------------------------|----------------------------------|------|
| Neles NDX | | | | | | |
|  | NDX - standard, intrinsically safe | 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 reference: 7NDX20, CB059 | | | | | | |



| Series | Type | Input | Supply power | Supply pressure | Temperature range | Communication | |
|---|---|------------------------------|------------------------|--|----------------------------|----------------------------------|--|
| Neles ND9100, ND9200, ND9300 & ND9400 | | | | | | | |
|  | ND9100 - standard, ND9400 - stainless steel intrinsically safe ND9200 - explosion proof ND9300 - stainless steel enclosure intrinsically safe and explosion proof | Intelligent valve controller | 4 - 20 mA or 0 - 100 % | Taken from the 4...20 mA, control signal or fieldbus powered | 1.4 - 8 bar / 20 - 115 psi | -40 ... +85 °C / -40 ... +185 °F | HART, Profibus PA, FOUNDATION fieldbus |
| Bulletin reference: 7ND9021, CB058 | | | | | | | |



| Series | Type | Input | Supply pressure | Temperature range | Communication | |
|---|--|---|--|------------------------------|----------------------------------|---------------------------|
| Neles ValvGuard™ VG9000 | | | | | | |
|  | VG9200 - standard epoxy coated anodised aluminium alloy enclosure, intrinsically safe and explosion proof 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: FF + 0/24 VDC HART: 0/24 VDC with RCI9H or 4 - 20 mA | 3.0 - 7.5 bar / 44 - 109 psi | -40 ... +85 °C / -40 ... +185 °F | FOUNDATION fieldbus, HART |
| Bulletin reference: 9VG921, CB058 | | | | | | |

| Series | Type | Input | Supply pressure | Temperature range | Communication | |
|---|--|--|-----------------|------------------------------|----------------------------------|------|
| Neles ValvGuard™ VG9PST | | | | | | |
|  | VG9200 - standard epoxy coated anodised aluminium alloy enclosure, intrinsically safe and explosion proof VG9300 - full 316 stainless steel enclosure, intrinsically safe and explosion proof | Partial stroke testing device used with additional solenoid valve. | 8 - 20 mA | 3.0 - 7.5 bar / 44 - 109 psi | -40 ... +85 °C / -40 ... +185 °F | HART |
| Bulletin reference: 9VG921, CB058 | | | | | | |



| Series | Service | Switch type | Temperature range | Communication | |
|---|---------|---|--------------------------|----------------------------------|--|
| Axiom™ | | | | | |
|  | AN, AX | Noincendive, intrinsically safe and explosion proof; integrated solenoid; AN series available with Wireless Link. | Inductive proximity, VCT | -40 ... +80 °C / -40 ... +176 °F | FOUNDATION fieldbus, AS-i, HART, DeviceNet |
| Bulletin reference: CB058, 7AN21, 7AX21 | | | | | |

Pneumatic actuators



| | Series | Type | Action | Pressure input | Torque output | Temperature range | Options | Bulletin reference |
|---|---------------|------------------------------------|--|-----------------------------|-----------------------------------|-----------------------------------|---|--------------------|
| B1 series | | | | | | | | |
|  | B1C & B1J | Pneumatic rotary cylinder actuator | B1C - double action, B1J - spring return | 2.8 - 10 bar / 40 - 140 psi | 28 - 100000 Nm, 21 - 73800 ft-lbs | -55 ... +120 °C / -67 ... +250 °F | Manual and hydraulic overdrives, lockout devices, high-cycle, Fire protection | 6B20, CB058 |
| Quadra-Powr X | | | | | | | | |
|  | Quadra-Powr X | Spring-diaphragm rotary actuator | Spring return | 1.3 - 7 bar / 20 - 100 psi | 15 to 796 Nm / 11 to 587 lb-ft | -29 ... +66 °C / -20 ... +150 °F | Mechanical lockout, 100 % adjustable stop, Wet conditions (Tropicalization) kit, Fusible plug | QPX21 |

| | Series | Type | Action | Pressure input | Thrust output | Temperature range | Options | Bulletin reference |
|---|--------|--|---------------|---------------------------------|--------------------------------------|------------------------------------|--|--------------------|
| Series VD | | | | | | | | |
|  | VD | Pneumatic diaphragm actuator for linear valves | Spring return | 3.0 - 4.2 bar / 44 - 60 psi | 1890 - 22800 N / 424 - 5125 lb.f | -53 ... +85 °C / -63.4 ... +185 °F | Handwheel for manual operation Volume tank | 6VD20 |
| Series VC | | | | | | | | |
|  | VC | Pneumatic cylinder actuator for linear valves | Double acting | 4.0 - 10 bar / 60 psi - 145 psi | 27480 - 264860 N / 6177 - 59542 lb.f | -53 ... +85 °C / -63.4 ... +185 °F | Handwheel for manual operation Volume tank or built-in volume chamber | 6CA20 |

Electric actuators

| | Series | Type | Service | Torque output | Temperature range | Bulletin reference |
|---|------------|-------------------|--|--------------------------------|----------------------------------|--------------------|
| V-series actuators | | | | | | |
|  | V-series | Electric actuator | Control configurations from on/off, to automatic cycling and analog modulating | 17 to 339 Nm / 12 to 250 lb-ft | -40 ... +66 °C / -40 ... +150 °F | A200-1, CB058 |
| ADC-series actuators | | | | | | |
|  | ADC series | Electric actuator | Both on/off and modulating control | 17 to 339 Nm / 12 to 250 lb-ft | -40 ... +55 °C / -40 ... +130 °F | A201-1, CB058 |




Analog positioners

| | Series | Type | Input | Split range | Ambient temperature | Vibration effect | Bulletin reference |
|---|--------|-----------------------------|---|--|-------------------------------------|------------------|--------------------|
| Pneumatic positioner | | | | | | | |
|  | NP 700 | 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% | 7NENP20 |
| Electropneumatic positioner | | | | | | | |
|  | NE 700 | Electropneumatic positioner | 4 - 20 mA, 0 - 20 mA | 4 - 12 mA, 12 - 20 mA | -25 ... +85 °C / -15 ... +185 °F | < 1% | 7NENP20 |

Limit switches

| | Series | Service | Switch type | Temperature range | Communication | Bulletin reference |
|---|------------------|--|--|-------------------------------------|--------------------------------|------------------------|
| Quartz™ | | | | | | |
|  | QX, QN, QG | Explosion proof, intrinsically safe, general purpose | Solid state proximity, reed, mechanical micro, VCT | -40 ... +80 °C / -40 ... +176 °F | FOUNDATION field- bus, AS-I | CB058, 7QZ22 |
| Eclipse™ | | | | | | |
|  | EN, EG | Intrinsically safe, general purpose | Solid state proximity, VCT | -40 ... +80 °C / -40 ... +176 °F | DeviceNet, AS-I | CB058, 7ECL21 |
| Prism® | | | | | | |
|  | PI | Designed for corrosive process environments, attaches directly to sanitary diaphragm and angle valves. Available with Wireless Link. | Solid state proximity sensors | -20 ... +60 °C / -4 ... +140 °F | DeviceNet, AS-I | CB058, 7PI21 |
| Hawkeye® | | | | | | |
|  | HK, HX | For corrosive and hazardous process environments | SST solid state sensors | -40 ... +80 °C / -40 ... +176 °F | | CB058, 7HK21, 7HX21 |

Application based products

| | Series | Design | Size range | Pressure classes | Temperature range | Body materials | Service | Options | Bulletin reference |
|---|--------|--|-------------------------|--------------------------|-----------------------------------|----------------|---------------------------|--|--------------------|
| Capping valve | | | | | | | | | |
|  | PZ | Capping valve | DN 500 -750 / 20" - 30" | PN 16 & ASME 150 | max. +200 °C / +390 °F | CF8M | For digester chip fill | Pressure switches for safety interlocks, Water flushing for ball surface | 8PZ20 |
| nelesACE basis weight control valve | | | | | | | | | |
|  | | 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 | | 8ACE21 |
| Pocket feeder valve | | | | | | | | | |
|  | 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 | | 8PF20 |

Valve options

| Type | Size range | 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 reference: 8Q20, 8Q220, CB041, CB049 | | | | | | |
| Type | Size range | Pressure classes | Cv-range | Materials | | |
| 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 reference: 2SL120 | | | | | | |
| Type | Size range | Pressure classes | Cv-range | Materials | Options | |
| 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. Option2 wafer style. Can be mounted between flanges. |
| Bulletin reference: 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 reference: 8Q220, CB049 | | | | | | |



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