Actuated Valve

Complete Solutions for Industrial Valves

NEWAY VALVE

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NEWAY VALVE

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Cat.no.: E-CPS
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Cat.no.: E-GGC
Cat.no.: E-TMBV
Cat.no.: E-FBV
Cat.no.: E-TOV
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As a global leader of valve manufacturing, Neway (SSE:603699) is dedicated to the production, research, and development of industrial valves. Neway is committed to providing complete valve solutions to all industries through advanced engineering and innovation.

Neway’s product line includes Ball, Gate, Globe, Check, Butterfly, Nuclear, Control, Subsea, Safety valves. Our high quality standards and innovative ability are recognized by many global end users and EPCs. Neway valves are utilized in a wide variety of industries and working conditions such as Gas, Oil, Refining, Chemical, Coal Chemical, Offshore, FPSO, Air Separation, LNG, Nuclear Power, Power Generation, and Pipeline Transmission applications.

Neway is dedicated to the pursuit of “Zero Defect”. We maintain a quality management system that encompasses our entire operation from order entry, to final inspection. Through Neway’s continuous efforts, our products have achieved industrial certificates including ISO 9001, API Q1, API 6A, API 6D, CE/PED, ASME N & NPT, TA-Luft, ABS, CU-TR, and Fire-Safe approvals.

Neway has developed a sophisticated multi-plant management system operating one valve assembly plant, one API6A valve plant, three foundries, and one R&D center. Our newest assembly plant was expanded in 2013, and it now covers 35,000 square meters.

Advanced software (ANSYS, FE-Safe, CF-Design, Siemens PLM and NX) is applied here at Neway for the Research & Development of products. We use SAP to control the traceability and status of all products during the manufacturing process. In order to ensure the safety, eco-friendliness, and reliability of our products, we use the most advanced fire-safe, cryogenic, high pressure, and fugitive emission test equipment.

As part of Neway’s global strategy, to provide better service to our customers, we have established our overseas subsidiaries in North America, Brazil, Netherlands, Italy, Singapore, and Dubai along with over 80 agents and distributors worldwide.

Neway recognizes the importance of valve quality for the safety and protection of personnel, health, and property. It is our quality commitment to focus our resources to provide our customers with first class products at a competitive price, designed, manufactured, inspected and tested in accordance with our customers specifications and complying with all international standards. Current industrial standards do not always take into consideration the likelihood and consequences of possible deterioration in service, related to specific service fluids or the external environments in which they operate. Therefore we request that our customers communicate with our engineering department. Our valve optimization program continuously strives to provide valves that withstand deterioration in service, and ensure safety over the valves expected lifetime.

High Quality, High Value

Neway is dedicated to the pursuit of “Zero Defect”. We maintain a quality management system that encompasses our entire operation from order entry, to final inspection. Through Neway’s continuous efforts, our products have achieved industrial certificates including ISO 9001, API Q1, API 6A, API 6D, CE/PED, ASME N & NPT, TA-Luft, ABS, CU-TR, and Fire-Safe approvals.
Neway automation consist of Quarter Turn Valves (ball & butterfly valves) and Multi-turn Valves (gate & globe valves) with pneumatic, electric, electro-hydraulic, gas hydraulic and gas over oil actuators for both on-off and modulating duties. The Neway automation solution includes, besides conventional Remote Operated Valves (ROV), typical products such as:

- Shut Down Valves
- Emergency Shut Down Valves (ESDV)
- Motor Operated Valves (MOV)
- Hydraulically Operated Valves
- Gas Over Oil Operated Valves

**Shut Down Valves**

Local & Remote on / off service

Options:

- Manual override (Handwheel, gear box or hydraulic type)
- Pneumatic actuation
- Air tank for actuator operation in case of air supply failure
- Positioner for modulating duty
- Fireproof configuration

**Emergency Shut Down Valves (ESDV)**

Local & Remote on / off service

Quick closing type

Options:

- Manual override (Hand wheel, gear box or hydraulic type)
- Partial Stroking System
- Air tank for actuator operation in case of air supply failure
- Gas or Nitrogen as actuating medium
- Line Break (Mechanical or Electronic type) Systems
- High Pilot Closing
- Low Pilot Closing
- Fireproof configuration

**Motor Operated Valves (MOV)**

Local & Remote on / off service

Options:

- Modulating duty
- Manual override
- Compatibility to bus systems like Foundation Field Bus, Profibus, Model bus etc.
- Fireproof configuration

**Gas Over Oil Operated Valves**

Local & Remote on / off service

Options:

- Direct Gas Actuator
- Remote operation by momentary signals from satellite
- Hydraulic actuation by means of Gas Over Oil Systems
- Torque limiting device
- Remote opening prevention against differential pressure
- Gas storage tank for remote emergency operation in case of gas supply failure
- Line Break Systems
- High Pilot Closing
- Low Pilot Closing
- Fail close configuration

**Neway reserves the right to change design, materials or specifications without notice and is free of obligation to furnish or install such changes on products previously sold.**
## Product Range

### Neway Automated Valve

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### Casting Gate Valve

- 1/2" 2" 1-1/2" 3/4" 1" 1-1/4" 2-1/2" 3" 4" 5" 6" 8" 10" 12"
- ≤72" ≤120" ≤80" 66" 64" 60" 56" 54" 52" 48" Size

### Casting Globe Valve

- 1/2" 2" 1-1/2" 3/4" 1" 1-1/4" 2-1/2" 3" 4" 5" 6" 8" 10" 12" 14" 16" 18" 20" 24" 26" 28" 30" 32" 36" 40" 42" 48" 52" 54" 56" 60" 64" 72" 80" 96"

### Forged Steel Gate&Globe Valve

### Trunnion Mounted Ball Valve

### Floating Ball Valve

### Concentric Butterfly Valve

### Double Off-Set Butterfly Valve

### Triple Off-Set Butterfly Valve

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**Note:**
1. Face to face and end to end dimension conform to BS 2086, ANSI B16.10 or ISO 5752, or manufacturer’s standard.
2. End flange dimension conform to ANSI B16.5 or ANSI B16.47.
3. BW end dimension conform to ANSI B16.25.
4. Inspection and test in accordance with API 598 or BS EN 12266.
5. Top flange dimensions are in accordance with ISO 5210 or ISO 5211.
Automated Valve Overview

### Automated Trunnion Ball Valve
- **Overview**
  - Design standard: BS5351, API6D
  - Full port, reduced port
  - One, two, three piece or fully welded body
  - Fire safety test certified (API607, API6FA)
  - Anti-static, blowout-proof stem
  - Double block and bleed
  - Sealed injection on stem & seats
  - Optional low emission design
  - Top flanged to ISO 5211
  - Optional double piston effect sealing

- **Product range and configuration**
  - Size: 2"~60"
  - Rating: 150#~2500#
  - Body: Carbon steel, stainless steel, alloy
  - Trim: A105N/EN1, 13Cr, F304, F316
  - Seal type: Soft or metal seat
  - Temp: -196~500°C

- **Operation**
  - Lever / Gearbox
  - Pneumatic Actuator
  - Electric Actuator

- **Available automation solution**
  - Remote Operated Valves
  - Emergency Shut Down Valves (ESDV)
  - Motor Operated Valves (MOV)
  - Hydraulically Operated Valves
  - Gas Operated Valves

- **Applicable industry**
  - Oil & natural gas transmission lines
  - Process control in oil, gas, chemical & petrochemical application
  - Easier maintenance
  - Shut off media
  - Unsuitable for throttling
  - Water, oil & gas
  - Unsuitable for dry powder media

### Automated Floating Ball Valve
- **Overview**
  - Design standard: BS5351, API6D
  - Full port, reduced port
  - One, two, three piece bodies
  - Fire safety test certified (API607)
  - Anti-static, blowout-proof stem
  - Optional low emission design
  - Top flanged to ISO 5211
  - Optional locking device

- **Product range and configuration**
  - Size: 1/2"~10"
  - Rating: 150#~2500#
  - Body: Carbon steel, stainless steel, alloy
  - Trim: A105N/EN1, 13Cr, F304, F316
  - Seal type: Soft or metal seat
  - Temp: -196~500°C

- **Operation**
  - Lever / Gearbox
  - Pneumatic Actuator
  - Electric Actuator

- **Available automation solution**
  - Remote Operated Valves
  - Emergency Shut Down Valves (ESDV)
  - Motor Operated Valves (MOV)
  - Hydraulically Operated Valves
  - Gas Operated Valves

- **Applicable industry**
  - LNG
  - Industrial/gas manufacturing
  - Gas storage
  - Process control in oil, gas, chemical & petrochemical application
  - Shut off media
  - Unsuitable for throttling
  - Water, oil & gas
  - Unsuitable for dry powder media

### Automated Cast Gate Valve
- **Overview**
  - Design standard: API600 & ASME B16.34
  - Bolted bonnet
  - Optional pressure seal bonnet
  - Outside screw & yoke
  - Top flange to ISO5210
  - Flexible wedge
  - Optional bellows seal
  - API598 certified
  - Low emission test certified

- **Product range and configuration**
  - Size: 2"~24"
  - Rating: 150#~2500#
  - Body: Carbon steel, stainless steel, alloy, Duplex SS
  - Trim: A105N/EN1, 13Cr, F304, F316
  - Seal type: Soft or metal seat
  - Temp: -196~650°C

- **Operation**
  - Lever / Gearbox
  - Pneumatic Actuator
  - Electric Actuator

- **Available automation solution**
  - Remote Operated Valves
  - Motor Operated Valves (MOV)
  - Hydraulically Operated Valves
  - Gas Operated Valves

- **Applicable industry**
  - Petrochemical & refinery plants
  - LNG
  - Marine, paper mill & minerals processing
  - Power plant
  - Cryogenic or high-temperature process modified design
  - Chemical industries

### Automated Cast Globe Valve
- **Overview**
  - Design standard: BS1873 & API 623 & ASMEB16.34
  - Bolted bonnet
  - Optional pressure seal bonnet
  - Top flange to ISO5210
  - Plug disc with optional needle disc
  - Optional bellows seal
  - Optional low emission design

- **Product range and configuration**
  - Size: 2"~24"
  - Rating: 150#~2500#
  - Body: Carbon steel, stainless steel, alloy, Duplex SS
  - Trim: A105N/EN1, 13Cr, F304, F316
  - Seal type: Soft or metal seat
  - Temp: -196~650°C

- **Operation**
  - Lever / Gearbox
  - Pneumatic Actuator
  - Electric Actuator

- **Available automation solution**
  - Remote Operated Valves
  - Motor Operated Valves (MOV)
  - Hydraulically Operated Valves
  - Gas Operated Valves

- **Applicable industry**
  - Petrochemical & refinery plants
  - LNG
  - Marine, paper mill & minerals processing
  - Power plant
  - Cryogenic or high-temperature process modified design
  - Chemical industries
## Automated Valve Overview

### Automated Forged Gate & Globe Valve
- **Overview**
  - Design standard: API602 & B16.34
  - Bolted or welded bonnet
  - Standard and full-bore body seat openings
  - Top flange to ISO5210
  - Solid wedge (gate)
  - Optional bellows seal
  - Optional needle disc (globe)
- **Product range and configuration**
  - Size: 1/2"~3"
  - Rating: 150#~2500#
  - Body: A105, F11, F22, F5, F316
  - Connection: NPT, SW, RF, RTJ, BW
  - Temp: -196~650 °C
- **Operation**
  - Lever / Gearbox
  - Pneumatic Actuator
  - Electric Actuator

### Automated Concentric Butterfly Valve
- **Overview**
  - Design standard: API609
  - Concentric disc
  - Double directional sealing
  - Self-cleaning seat
  - Blow-out proof stem
  - Top flange to ISO5211
- **Product range and configuration**
  - Size: 2"~24"
  - Rating: 200psig (PN10) 232psig (PN16)
  - Body: Ductile iron, CS, SS
  - Seal Mat: EPDM, NBR, Viton
  - Connection: Wafer, Lug, Double flange
  - Temp: -40~120 °C
- **Operation**
  - Lever / Gearbox
  - Pneumatic Actuator
  - Electric Actuator

### Automated Double Off-set Butterfly Valve
- **Overview**
  - Design standard: API609
  - Offset disc
  - Zero leakage
  - Soft seat, low torque
  - Blow-out proof stem
  - Top flange to ISO5211
- **Product range and configuration**
  - Size: 3"~120"
  - Rating: 150#, 300#, 600#
  - Body: CS, SS, Alloy, Duplex SS
  - Seal Mat: EPDM, NBR, PTFE, Viton
  - Connection: Wafer, Lug, Double flange
  - Temp: -40~120 °C
- **Operation**
  - Lever / Gearbox
  - Pneumatic Actuator
  - Electric Actuator

### Automated Triple Off-set Butterfly Valve
- **Overview**
  - Design standard: API609
  - Offset disc
  - Zero leakage
  - Low friction closing
  - Blow-out proof stem
  - Top flange to ISO5211
- **Product range and configuration**
  - Size: 3"~18"
  - Rating: 150#-2500#
  - Body: CS, SS, Alloy, Duplex SS
  - Seal Mat: METALLAMINATED
  - Connection: Wafer, Lug, Double flange, Butt-Welding
  - Temp: -196~650 °C
- **Operation**
  - Lever / Gearbox
  - Pneumatic Actuator
  - Electric Actuator

## Available automation solution
- Remote Operated Valves
- Emergency Shut Down Valves (ESDV)
- Motor Operated Valves (MOV)
- Hydraulically Operated Valves
- Gas Operated Valves

## Applicable industry
- Petrochemical & refinery plants
- LNG
- Marine, paper mills & minerals processing
- Power plant
- Cryogenic or high-temperature modified design
- Chemical industries

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Torque Test

Torque test is an integral step for every automated valve. Neway has professional torque tools, like torque wrench, torque transducer, to measure the torque value accurately, thus optimal and safe actuator is selected accordingly. What’s more, in usual Neway assess and calculate the measured torque value, then optimize design structure, improve process level, to reduce the torque value.

NEWAY workshop possesses advanced apparatus and follows stringent quality control procedures in order to ensure the quality of each produced valves.

Function Test

Functional test is the most important procedure before automated valves leave the factory, which further guarantees the integrity and quality of the automated valves. Neway has advanced test-bed and rigorous steps to process pressure test and switch test in according to API598, to ensure automated valve running normally.

Design Review

Except for cooperation with well-known actuator partner, Neway has own professional technical team to make and submit accurate automated valve solution to our client. Our technical team has ability to select appropriate actuator’s type and model, even includes designing diagram schedule, selecting pneumatic accessories like soleniod valve, filter regulator and limit switch. Neway’s technical team utilizes the most advanced computer technology to perfect our automated valve, AutoCAD is widely used to design and review. Additional, Neway take the lead in using 3D modelling in automated valve.

Assembly and Commissioning

Neway carries out professional actuator mounting and commissioning. In plant, skilful workers assemble the actuator on the valve and take commissioning by every automated valve. Meanwhile, comparing to our valve competitor, Neway can purchase pneumatic actuator and accessories separately, and assemble them on a pneumatic automated valve, like adjusting layout, bending pipe. Thus better cost and delivery Neway have.

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Selection table for reference

V. Pneumatic & Hydraulic table

- Electric table

Actuator Sizing

- Valve torque value
  - $F(T)_{total} = F_{process} + F_{seat} + F_{packing} + F_{miscellaneous}$
  - $F(T)_{total}$: total force or torque required to open, close, or throttle valve
  - $F_{process}$: force or torque to overcome unbalanced process pressure
  - $F_{packing}$: force or torque to overcome packing friction
  - $F_{seat}$: force or torque to provide correct seat load
  - $F_{miscellaneous}$: force or torque to overcome special design factors, weight, etc.

Safety factor

- Safety factor that Neway recommended is 1.3
  - Safety factor exceeds 1.3 where the long-term medium temperature is below -29°C and above 100°C.

Neway enjoys a close and long-standing association with well-known international actuator manufacturers, including ROTORK, EMERSON and so on. All Neway valves can be easily mounted with various types of actuators, including pneumatic, Electric, Hydraulic, Gas-Hydraulic, Electric-Hydraulic. No matter which brand of actuator or which type of actuator, Neway can provide the right combination of valve and actuator.

Below is well-known brand of actuator that cooperate with Neway.

### Electric actuator:
- ROTORK
- AUMA
- BERNARD
- BIFFI
- EIM

### Pneumatic actuator:
- BETTIS
- ROTORK
- BIFFI
- LEDEEN
- FLOWBUS

### Hydraulic actuator:
- ROTORK
- BETTIS
- FAHLKE
- LEDEEN
- BIFFI

### Electric-Hydraulic actuator:
- FAHLKE
- ROTORK
- BETTIS
- LEDEEN
- BIFFI

### Gas-Hydraulic actuator:
- SHAFER
- FAHLKE
- LEDEEN
- BIFFI
- ZHONGHUAN

Neway Actuated Valve Character

- Competence in high frequency of on/off working condition
- Standard ISO5210 & 5211 top works
- Competitive torque - BTO RTO ETO BTC RTC ETC and MAST
- High strength stem material 17-4PH, XM-19, FS1, INCONEL 718
- Single-threaded/double-threaded stem for gate and globe valve
- Compliance with TSO fugitive emission for ball and butterfly valve

Selection table for reference

- Pneumatic & Hydraulic table
- Electric table
NEWAY Head Office
Total area: 2,295 sqm
Office area: 6,885 sqm
Founded in 2014

Neway Manufacturing Base
Main products: Ball Valve, Gate Valve, Globe Valve, Check Valve,
Forged Steel Valve, Butterfly Valve
Building area: 250,000 sqm
Work shop: 140,061 sqm
Established in 2006 and expanded in 2013

NEWAY Foundry (Suzhou)
Main products: Sand Casting
Building area: 112,905 sqm
Work shop: 98,000 sqm
Founded in 2008 and expanded in 2015

NEWAY Foundry (Dafeng)
Main products: Lost wax investment casting
Building area: 48,000 sqm
Work shop: 12,000 sqm
Founded in 2004

NEWAY Foundry (Dafeng)
Main products: Lost wax investment casting
Building area: 40,000 sqm
Work shop: 20,000 sqm
Founded in 2008

Seller will replace without charge or refund the purchase price of products provided by Seller which prove to be defective in material or workmanship, provided in each case that the product is properly installed and is used in the service for which Seller recommends it and that written claim, specifying the alleged defect, is presented to the Seller within 18 months from the date of shipment or 12 months after installation, whichever occurs first. Seller shall in no event bear any labor, equipment, engineering or other costs incurred in connection with repair of replacement. The warranty stated in this paragraph is in lieu of all other warranties, either expressed or implied. With respect to warranties, this paragraph states Buyer’s exclusive remedy and seller’s exclusive liability.