SNY VALVE

Leading Technology Solutions For Engineering Valve

SNY VALVE (YANCHENG) CO., LTD.

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Automated Valves

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MEET · THE · BEST

Cat.no.: 2023

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COMPANY PROFILE

Automated Valve

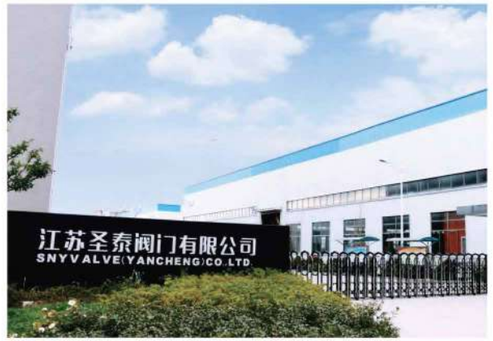
HEADQUARTERS

Established in **2003**
Area: **34,000 ㎡**
Located in Tinghu District, Yancheng City

COMPANY PROFILE

SNY VALVE (YANCHENG) CO., LTD.

SNY is committed to providing global customers with reliable and complete range of solution for engineering valve. Established in 2003 with CNY 150 million registered capital, SNY VALVE is a national high-tech comprehensive enterprise which integrating valve R&D manufacturing and sales. SNY VALVE headquarters is located in Yancheng city with two manufac turing workshops. We have sales centers in Yancheng, Suzhou and Beijing. SNY VALVE covers an area of over 100,000 sq. meters with more than 300 sets of production, test & inspection facilities. SNY VALVE has established long-term cooperative relations with many large enterprises at home and abroad, been approved by many end users and EPC companies, and products export to middle east, Europe, America, etc.



Established in 2006
Area: 58,000 ㎡
Located in Yancheng E&T Development Zone, Yancheng City.

THE SECOND FACTORY

Established in 2023
Area: 53,333 ㎡
Located in Yancheng E&T Development Zone, Yancheng City.

NEW PLAN

Responsible for Global Marketing Promotion and Technical Innovation Located in Suzhou

STARTEGIC DEVELOPMENT CENTER

30+
International **QMS** certifications

115
Authorized patents

HONORS

The company has successively won the honorary titles of "Demonstration Enterprise of Safety Culture Construction in Jiangsu Province", "Excellent Enterprise of Management Innovation in Jiangsu Province", "Excellent Small and Medium-sized Enterprise of Science and Technology in Yancheng City", "Grade A Enterprise of Commercial Credit in Yancheng City", "Three Star Enterprise of Yancheng City", "Science and Technology Innovation Award of Yancheng City" and "Advanced Enterprise of Harmonious Labor Relations in Yancheng City".

QUALIFICATION

SNY VALVE is committed to provide the highest possible quality industrial valves at the most cost effective way to customers worldwide. We have been certified with ISO9001, ISO14001, OHSAS18001, CE/PED, API6D, API602, API600,ABS, CU-TR,TS,and obtained API607 /API 6Fa fire safe approvals.

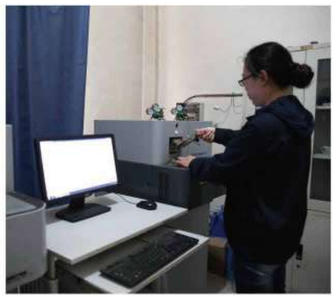
QUALITY CONTROL

SNY VALVE has been certified with ISO 9001 for quality management system.
SNY quality assurance and quality control capabilities arefollowed and implemented based on global standards.

In-house Non-destructive Test Equipment & ASNT Certified Personnel

State-of-the-art Quality Control Test Center

Pressure Test Equipment



Special Testing Equipment for Product Validation

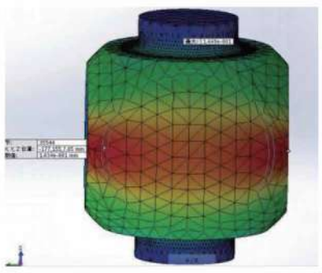
Raw material quality is ensured by a stringent vendor qualification system. By NDT (Radiographic Test, Magnetic Particle Test, Penetrant Test & Ultrasonic Test), Positive Martial Identification (PMI), Tensile Test, and Hardness Test to evaluate samples & small lot production, as well as surveillance audits and sample check to ensure the compliance as per customers' requirements. Valves manufactured at SNY valves are 100% pressure-tested. The product design has been validated through various special testing as per applicable industry standards such as Fire Safe Test, Low Temperature Test,Cryogenic Test, Vacuum Test, Fugitive Emission Test, High Pressure Gas Test, Elevated Temperature Test and so on.

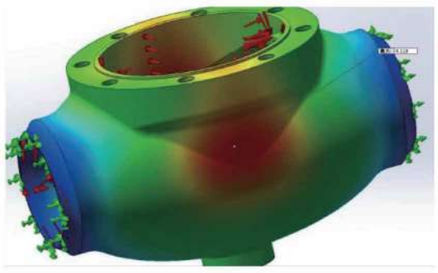
TECHNICAL INNOVATION

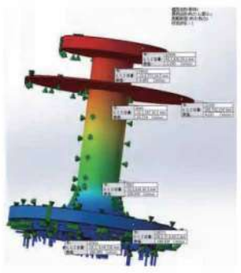
■ R+D+I

Except for cooperation with well-known actuator partner, SNY has complete technical team that includes professional designers and skillful workers to make automated valve solution and improve automated valve. 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.

SNY ‘s technical team utilizes the most advanced computer technology to perfect our automated valve, CAD is widely used to design and review. Additional, SNY take the lead in using 3D modeling in automated valve.







FACTORY MANAGEMENT

SNY VALVE organically integrates the advanced manufacturing equipment and the staffs. By using the most advanced hardware and software, centralizing the production resources, increasing our efficiency and continuously improving the process control, we are able to meet or exceed the different requirement of customers. Company implement 6S management onsite to reduce waste and improve process control.

Advanced management software such as K/3 (ERP) & OA (Collaborative Management Software) play an important role in SNY VALVE. Synchro nized supervision & management are performed through the whole manufacturing process to improve productivity & efficiency.

SNY Business Philosophy

Stable & Reliable Quality

Reasonable Price

On-time Delivery

PRODUCTION FACILITIES

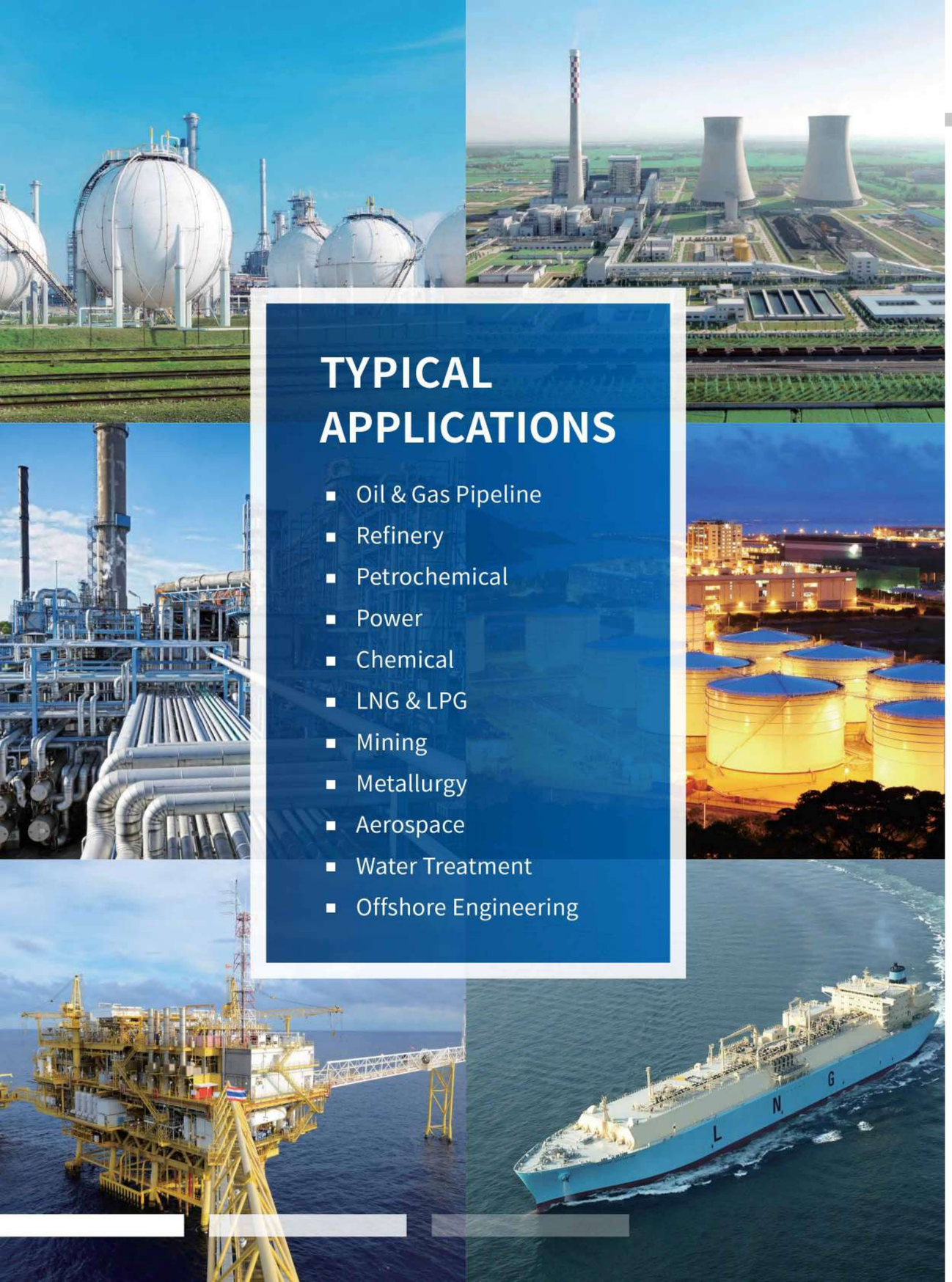
300+ All kinds of advanced production and processing testing equipment.

SNY developed comprehensive and advanced inspection and test facilities to control the quality from rough castings or forgings to final products, which enable us to perform radiographic test, liquid penetrant test, magnetic-particle test, spectrum analysis, Material Positive Identification, impact test, tensile test, hardness test, fire safe test, cryogenic test, vacuum test, low fugitive emission test, high pressure gas test, ultrasonic testing and hydrostatic test.

The latest computer technology has been extensively applied in SNY manufacturing, which includes a large number of numeric control machines (machining center, CNC horizontal and vertical lathe and CNC drilling machine etc.)







Valve Automation Solutions

SNY 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 SNY automation solution includes, besides conventional Remote Operated Valves (ROV), typical products such as:

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

Shut Down Valves（SDV)

- Local & Remote on/off service options
- Manual over ride
  (Handwheel, gear box or hydraulic type)
- Pneumatic actuation
- Air tank for actuator operation alternatively
- Positioner for modulating duty
- Fireproof configuration

Typical 14”900# SDV for oil & gas service

6”900# ESDV ball valve

Emergency Shut Down Valves (ESDV) Quick closing type

- Local & Remote on/off service options
- Manual over ride
  (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

Motor Operated Valves (MOV)

- Local & Remote on/off service options
- Modulating duty
- Manual override
- Compatibility to bus systems
- (Foundation Field Bus, Profibus, Model bus etc)
- Fireproof configuration

24”300# Trunnion Mounted Ball Valve with Electric Actuator

4” 2500# Trunnion Mounted Ball Valve with Hydraulic Actuator

Hydraulically Operated Valves

- Local & Remote on/off servie options
- Hydraulic Power Packs (Individual or central units)
- Emergency operation by hand pump
- Nitrogen Accumulator for emergency operation
- Solar powered electro-hydraulic actuation systems
- Fireproof configuration

Gas over Oil Operated Valves

Local & Remote on / off service
Line gas is used as the actuating medium
Emergency manual operation by means of hand pump

- 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
- Fail close configuration

30” #150 Full Welded Ball Valve with Direct Gas Actuator with Local & Remote Operation and line break system

Automated Trunnion ball valve

Overview

- Design standard: API 6D
- Full port, reduced port
- One, two, three pieces or fully welded body
- Fire safe test certified (API607, API6FA)
- Anti-static, blowout-proof stem
- Double block and bleed
- Sealant injection on stem & seats
- Optional low emission design
- Top flanged to ISO 5211
- Optional double piston effect sealing(DIB)

Product range and configuration

- Size: 2”~60”
- Rating: 150#~2500#
- Body: Carbon steel, stainless steel, alloy
- Trim: A105N+ENP, 13Cr, F304, F316
- Seal type: Soft or metal seat
- Temp: -196~500°C

Operation

- Lever / Gearbox
- Pneumatic Actuator
- Electric Actuator
- Hydraulic Actuator
- Gas – hydraulic Actuator
- Electric – hydraulic Actuator

Available automation solution

- Remote Operated Valves (ROV)
- 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+ENP, 13Cr, F304, F316
- Seal type: Soft or metal seat
- Temp: -196~500°C

Operation

- Lever / Gearbox
- Pneumatic Actuator
- Electric Actuator
- Hydraulic Actuator
- Gas – hydraulic Actuator
- Electric – hydraulic Actuator

Available automation solution

- Remote Operated Valves (ROV)
- 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 Valve Overview

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”~66”
- Rating: 150#~2500#
- Body: Carbon steel, stainless steel, alloy, Duplex SS
- Connection: RF, RTJ, BW
- Temp: -196~650°C

Operation

- Lever / Gearbox
- Pneumatic Actuator
- Electric Actuator
- Hydraulic Actuator
- Gas – hydraulic Actuator
- Electric – hydraulic Actuator

Available automation solution

- Remote Operated Valves (ROV)
- 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 & ASME B16.34
- 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
- Connection: RF, RTJ, BW
- Temp: -196~650°C

Operation

- Lever / Gearbox
- Pneumatic Actuator
- Electric Actuator
- Hydraulic Actuator
- Gas – hydraulic Actuator
- Electric – hydraulic Actuator

Available automation solution

- Remote Operated Valves (ROV)
- 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 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: 200psi(PN10) 232psi(PN16)
- Body: Ductile iron, CS, SS
- Seal Mat: EPDM, NBR, Viton etc.
- Connection: Wafer, Lug, Double flange
- Temp: -40~120°C

Operation

- Lever / Gearbox
- Pneumatic Actuator
- Electric Actuator
- Hydraulic Actuator
- Gas – hydraulic Actuator
- Electric – hydraulic Actuator

Available automation solution

- Remote Operated Valves (ROV)
- Motor Operated Valves (MOV)
- Hydraulically Operated Valves
- Gas Operated Valves

Applicable industry

- Potable & waste water
- Power plant
- Ship building paper mills & general industry
- Throttling flow
- Water, oil & gas

Automated double offset 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
- Hydraulic Actuator
- Gas – hydraulic Actuator
- Electric – hydraulic Actuator

Available automation solution

- Remote Operated Valves (ROV)
- Emergency Shut Down Valves (ESDV)
- Motor Operated Valves (MOV)
- Hydraulically Operated Valves
- Gas Operated Valves

Applicable industry

- Potable & waste water
- Power plant
- Ship building paper mills & general industry
- Throttling flow
- Water, oil & gas

Automated Valve Overview

Automated triple offset 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”~80”
- Rating: 150#~2500#
- Body: CS, SS, Alloy, Duplex SS
- Seal Mat: METAL,LAMINATED
- Connection: Wafer, Lug, Double flange, Butt-Welding
- Temp: -196~650°C

Operation

- Lever / Gearbox
- Pneumatic Actuator
- Electric Actuator
- Hydraulic Actuator
- Gas – hydraulic Actuator
- Electric – hydraulic Actuator

Available automation solution

- Remote Operated Valves (ROV)
- Emergency Shut Down Valves (ESDV)
- Motor Operated Valves (MOV)
- Hydraulically Operated Valves
- Gas Operated Valves

Applicable industry

- Petrochemical & refining plants
- Marine, paper mills & minerals processing
- LNG
- Throttling flow
- Water, oil & gas
- Unsuitable for dry powder media
- Cryogenic or high-temperature modified design

Toruqe Test

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

Torque test is an integral step for every automated valve, SNY 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 SNY asses and calculate the measured torque value, then optimize design structure, improve process level, to reduce the torque value.

Functional 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.

SNY has advanced test-bed and rigorous steps to process pressure test and switch test in according to API598, to ensure automated valve running normally.

Process Control

Installation and Commissioning

SNY carries out professional actuator installation and commissioning in the factory, and each actuator is assembled and accurately adjusted by professional skilled technicians.

Based on professional assurance capabilities, SNY can purchase actuators and accessories separately. Under the guidance of SNY's professional electrical engineers, all accessories can be completely and accurately assembled on the valve to complete the final commissioning. As a result, SNY has better cost and delivery time.

Product Range

	Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"
Casting Gate Valve	150						◆	◆	◆	◆	◆	◆	◆	◆	◆
	300						◆	◆	◆	◆	◆	◆	◆	◆	◆
	600						◆	◆	◆	◆	◆	◆	◆	◆	◆
	900						◆	◆	◆	◆	◆	◆	◆	◆	◆
	1500						◆	◆	◆	◆	◆	◆	◆	◆	◆
	2500						◆	◆	◆	◆	◆	◆	◆	◆	◆
Casting Globe Valve	150						◆	◆	◆	◆	◆	◆	◆	◆	◆
	300						◆	◆	◆	◆	◆	◆	◆	◆	◆
	600						◆	◆	◆	◆	◆	◆	◆	◆	◆
	900						◆	◆	◆	◆	◆	◆	◆	◆	◆
	1500						◆	◆	◆	◆	◆	◆	◆	◆	◆
	2500						◆	◆	◆	◆	◆	◆	◆	◆	
Forged Steel Gate&Globe Valve	150	◆	◆	◆	◆	◆	◆								
	300	◆	◆	◆	◆	◆	◆								
	600	◆	◆	◆	◆	◆	◆								
	900	◆	◆	◆	◆	◆	◆								
	1500	◆	◆	◆	◆	◆	◆								
	2500	◆	◆	◆	◆	◆	◆								
Trunnion Mounted Ball Valve	150						◆	◆	◆	◆	◆	◆	◆	◆	◆
	300						◆	◆	◆	◆	◆	◆	◆	◆	◆
	600						◆	◆	◆	◆	◆	◆	◆	◆	◆
	900						◆	◆	◆	◆	◆	◆	◆	◆	◆
	1500						◆	◆	◆	◆	◆	◆	◆	◆	◆
	2500						◆	◆	◆	◆	◆	◆	◆	◆	◆
Floating Ball Valve	150	◆	◆	◆		◆	◆	◆	◆	◆		◆	◆	◆	
	300	◆	◆	◆		◆	◆	◆	◆	◆		◆	◆	◆	
	600	◆	◆	◆		◆	◆								
	900	◆	◆	◆		◆	◆								
	1500	◆	◆	◆		◆	◆								
	2500	◆	◆	◆		◆									
Concentric Butterfly Valve	150						◆	◆	◆	◆	◆	◆	◆	◆	◆
Double Off-Set Butterfly Valve	150						◆	◆	◆	◆	◆	◆	◆	◆	◆
	300						◆	◆	◆	◆	◆	◆	◆	◆	◆
	600								◆	◆	◆	◆	◆	◆	◆

For rubber seat only

	Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"
Triple Off-Set Butterfly Valve	150						◆	◆	◆	◆	◆	◆	◆	◆	◆
	300						◆	◆	◆	◆	◆	◆	◆	◆	◆
	600								◆	◆		◆	◆	◆	◆
	900											◆	◆	◆	◆
	1500											◆	◆	◆	◆
	2500													◆	◆

Note:

1. Face to face and end to end dimension conform to BS 2080, ANSI B16.10 or ISO 5752, or manufacture'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. Insepction and test in accordance with API 598 or BS EN 12266.
5. Top flange dimensions are in accordance with ISO 5210 or ISO 5211.

Product Range

SNY VALVE

Size	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"	52"	54"	56"	60"	64"	66"	≤72"	≤80"	≤120"
150	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆			
300	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆									
600	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆										
900	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆												
1500	◆	◆	◆	◆	◆	◆	◆	◆														
2500	◆	◆	◆	◆	◆																	
150	◆	◆	◆	◆	◆																	
300	◆	◆	◆	◆	◆																	
600	◆	◆	◆																			
900	◆	◆																				
1500	◆	◆																				
2500	◆	◆																				
150	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆						
300	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆						
600	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆						
900	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆											
1500	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆											
2500	◆	◆	◆	◆																		
150																						
300																						
600																						
900																						
1500																						
2500																						
150	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆							
150	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆			◆	◆	◆	
300	◆	◆	◆	◆	◆																	
600																						

For rubber seat only

Size	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"	52"	54"	56"	60"	64"	66"	≤72"	≤80"	≤120"
150	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆			◆	◆	
300	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆			◆		
600	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆						
900	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆												
1500	◆	◆	◆	◆	◆																	
2500	◆	◆	◆	◆	◆																	

Selection method

Actuator valve features

- Meet the high-frequency opening and closing conditions
- Standard ISO 5210&5211 interfaces
- Low torque advantage
- High strength stem material
- Gate and globe valves are equipped with single/double threaded stems
- Ball/Butterfly valves conform to TSO low fugitive emission design

Determine the actuator size

- Valve torque value
- F Medium force+F Seat sealing force+F Packing friction force+F Residual force
- Total force (torque) = total force (torque) to open, close or adjust the valve
- F medium force (torque) = force (torque) to overcome the pressure of the medium
- F packing friction force (torque)=force (torque) to overcome packing friction
- F seat sealing force (torque) = sealing force (torque) to maintain valve seat sealing
- Residual force (torque) = force (torque) to overcome special structures, such as bearing friction, weight, etc.
- Safety factor
- SNY recommends a safety factor of 1.3
- When the long-term operating temperature is lower than - 29 °C or higher than 100 °C, the recommendedcoefficient is higher than 1.3.

Actuator Selection

- On-site power supply, air pressure, voltage, etc
- Linear type, multi gyration, partial gyration
- Location of the failure
- Opening and closing speed/time
- Hazardous areas: explosion range and protection level
- Cycle life
- Safety factor
- Ambient temperature
- Other requirements
- Air storage tank
- Fire proof requirements
- Partial stroke test

Professional Selection Configuration Table

- Pneumatic & Hydraulic
- Electric drive

PRODUCT WARRANTY

SNY offer the product warranty within 18 months from the date of shipment or 12 months after installation, whichever occurs first.