



**ORION**  
**Valves**

A FARINA COMPANY



# ORION STEEL VALVES

**ESTABLISHED IN 1951**



## Company Profile

**ORION S.p.A.** is a valve manufacturer located in Trieste - Italy. It covers a site of about 47.000 sq.m, of which 20.000 sq.m are sheltered.

With more than 68 years of experience in Oil & Gas application for most critical services, **Orion** factory presents its product line of Steel Valves incorporating new and revised designs, specially engineered to meet specific demands and requirements of the petroleum and chemical industries.

## Range of products

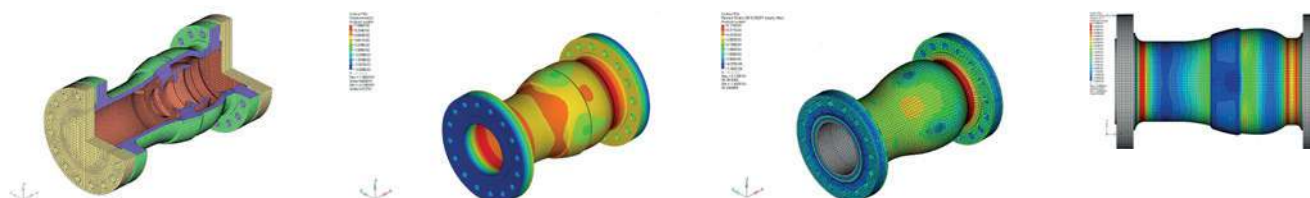
- Gate, Globe, Check and Rising Stem Ball valves.
- Bolted bonnet or pressure seal bonnet.
- Acc. to API 6A (PSL 1, 2, 3) - API 6D, API 6D SS - API 594 - API 600 - ASME - BS design Std.
- From size 2" to 100", Class ASME 150# to 2500#, Class 3000 Psi to Class 20000 Psi, up to 100 tons valve weight.
- In carbon, alloy, stainless, duplex, superduplex, hastelloy, titanium materials, copper alloys.
- Cast, Forged, Fabricated valves.

## Applications

Cryogenic service (to -196 Celsius), H2S service, Lethal service, High Pressure service, Corrosive and Abrasive service, Oxygen service, Hydrogen service and others.

Cast and forged material is selected in order to satisfy service and process requirements, both for upstream, flow lines and downstream applications.

Throughout its history, **Orion** has built and maintained its premier industry position through superior product design, large and flexible production capacity, strong distribution and commitment to customer service.



## Facilities and Equipment

- Large machining units for valves up to 100 tons.
- State of the art laboratory for valve testing simulating all service conditions in terms of temperature and pressure.
- Fugitive Emission detection.
- Cryogenic Testing.
- U.T. Cleaning.
- Robot Cladding Equipments.

**ENGINEERED VALVES** AND MAIN FLEXIBILITY TO SATISFY CUSTOMER PROCESS REQUIREMENT ARE OUR **STRENGTH**

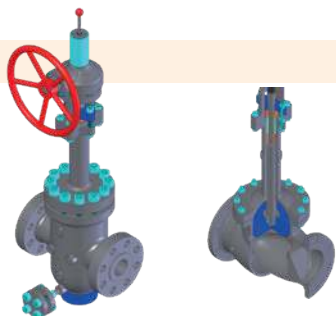
THE **HIGHEST TECHNOLOGY LEVEL** IN PRODUCT DEVELOPMENT MEETS A **LONG EXPERIENCE IN VALVES INDUSTRY** FOR ALL APPLICATIONS SUCH AS: LNG, **REFINING**, UPSTREAM, FLOW LINES, **SEAWATER INJECTIONS**

MODERN VALVE **TEST LABORATORY** IN HOUSE

# ORION STEEL VALVES

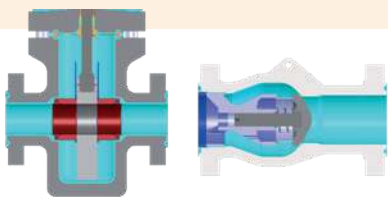
## Special Technical Features

On the top of the standard service valve production, Orion Steel Valves supplies a range of valves dedicated to specific process requirements.



### CRYOGENIC SERVICE VALVES

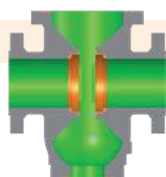
These valves are suitable for low temperature or cryogenic operating conditions, with a particular selection of materials suitable for low temperatures and the extended bonnet design in order to keep the stem packing protected from cryogenic fluid. (Design standards i.e. BS6364, MESC SPE 77-200, ...)



### INTERNAL CLADDING

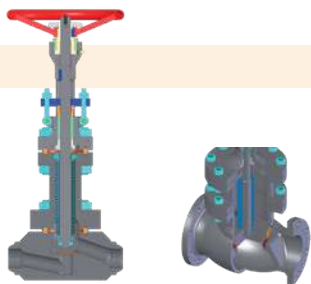
Valves internally clad are the alternative offered by ORION in aggressive service conditions. We can use valves made of carbon steel with the entire internal surfaces lined with INCONEL®, HASTELLOY® alloys or other weldable steels or CRAs.

The latest technologies for weld depositing are available in ORION to provide a controlled layer of metal, able to improve the corrosive and erosive resistance of the valve parts.



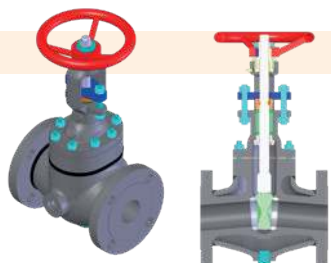
### INTERNAL LINING

The entire production range of ORION valves is also available with an internal lining of polymeric products, like FBE lining. The exposed surfaces (floating seat pockets and gasket seating areas) are overlaid with a stainless steel or CRA which ensures a long lasting performance of the valve and a total protection of the wetted surfaces.



### BELLOW SEALED VALVES

ORION offers bellow sealed valves for lethal, toxic and highly flammable services in order to reach the total absence of emissions. The bellow creates a physical barrier that isolates the fluid from the external environment. Traditional stem packing arrangement is still kept in place as a second contingency barrier and to maintain fire safe design.



### JACKETED VALVES

To keep the valve operating temperature under control, a jacketed execution is available. The valve is enclosed into a cast steel or fabricated jacket, creating an interstice all around the body. A heating fluid is forced to flow through this interstice and keeps the valve at a controlled temperature, in order to keep the process fluid's viscosity low and avoid accumulation of material in the body. Usually sulphur and polymers application require this particular feature. The use of a jacket requires an increased flange size dimension, usually to the next size.



### BURIED SERVICE VALVES

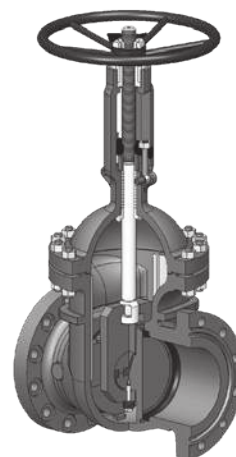
Extended drain, vent and injection piping is supplied for valves built for buried under-ground service.

### POST - INDICATOR VALVES (PIV)

Similarly to buried valves, this kind of equipment has a stem extension with an open-close indicator directly positioned above ground, close to the handwheel, in order to easily check the opening status of the valve.

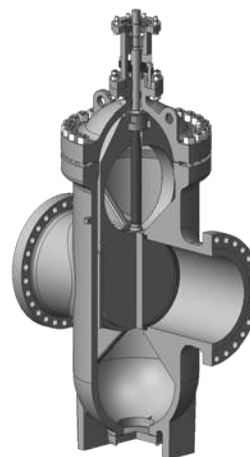
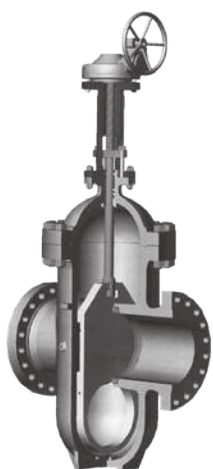
# ORION STEEL VALVES

## Products



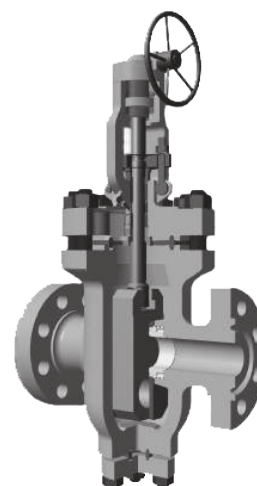
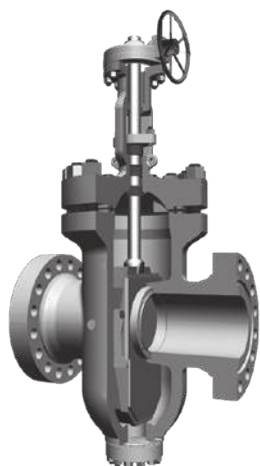
GATE VALVES	Pressure Rating	Nominal Size
	from 150 to 600	from 2" to 66"
	class 900	from 2" to 60"
	class 1500	from 2" to 48"
	class 2500	from 2" to 30"

DOUBLE BLOCK & BLEED VALVES	Pressure Rating	Nominal Size
	from 150 to 600	from 2" to 60"
	class 900	from 2" to 48"
	class 1500	from 2" to 36"
	class 2500	from 2" to 24"



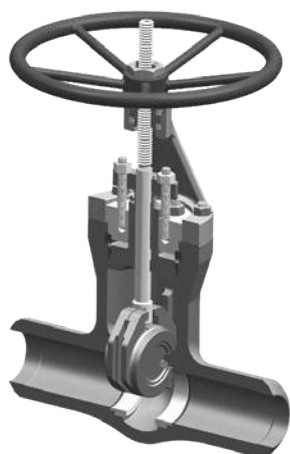
SINGLE DISC GATE VALVES	Pressure Rating	Nominal Size
	from 150 to 600	from 2" to 60"
	class 900	from 2" to 48"
	class 1500	from 2" to 30"
	class 2500	from 2" to 24"

TH. CO. NON RISING STEM VALVES	Pressure Rating	Nominal Size
	from 150 to 600	from 2" to 60"
	class 900	from 2" to 48"
	class 1500	from 2" to 30"
	class 2500	from 2" to 24"



EXPANDING GATE VALVES	Pressure Rating	Nominal Size
	from 150 to 600	from 2" to 60"
	class 900	from 2" to 48"
	class 1500	from 2" to 36"
	class 2500	from 2" to 24"

API 6 A GATE VALVES	Pressure Rating	Nominal Size
	from 2000 to 3000	from 1-13/16" - 20"
	class 5000	from 1-13/16" - 20"
	class 10.000	from 1-13/16" - 20"
	class 15.000	from 1-13/16" - 20"



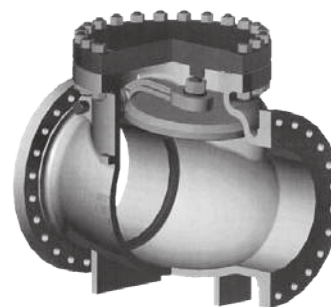
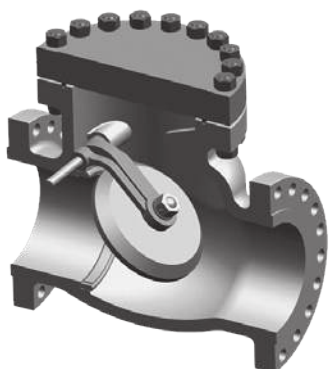
P.S SEAL BONNET GATE VALVES	Pressure Rating	Nominal Size
	class 600	from 2" to 66"
	class 900	from 2" to 60"
	class 1500	from 2" to 48"
	class 2500	from 2" to 30"

GLOBE VALVES	Pressure Rating	Nominal Size
	from 150 to 600	from 2" to 42"
	class 900	from 2" to 36"
	class 1500	from 2" to 30"
	class 2500	from 2" to 24"



ANGLE GLOBE VALVES	Pressure Rating	Nominal Size
	from 150 to 600	from 2" to 42"
	class 900	from 2" to 36"
	class 1500	from 2" to 30"
	class 2500	from 2" to 24"

P.S. SEAL BONNET GLOBE VALVES	Pressure Rating	Nominal Size
	class 600	from 2" to 42"
	class 900	from 2" to 36"
	class 1500	from 2" to 30"
	class 2500	from 2" to 20"

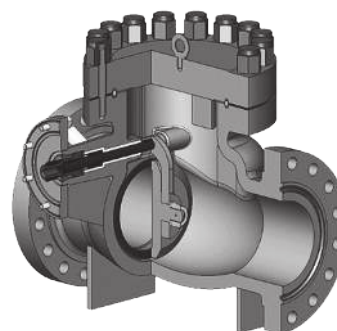
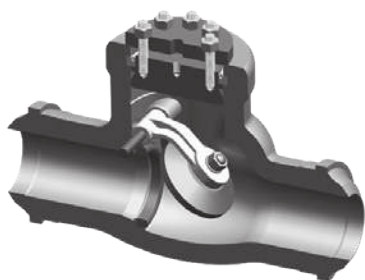


**SWING CHECK VALVES**

Pressure Rating	Nominal Size
from 150 to 600	from 2" to 66"
class 900	from 2" to 60"
class 1500	from 2" to 48"
class 2500	from 2" to 30"

**SWING CHECK FULL OPENING VALVES**

Pressure Rating	Nominal Size
from 150 to 600	from 2" to 66"
class 900	from 2" to 60"
class 1500	from 2" to 48"
class 2500	from 2" to 30"

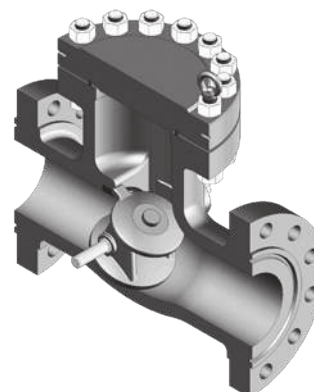
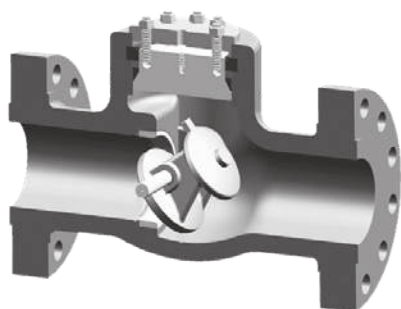


**PS. SEAL COVER CHECK VALVES**

Pressure Rating	Nominal Size
class 600	from 2" to 66"
class 900	from 2" to 60"
class 1500	from 2" to 48"
class 2500	from 2" to 30"

**SWING CHECK SUB SEA VALVES**

Pressure Rating	Nominal Size
from 150 to 600	from 2" to 60"
class 900	from 2" to 52"
class 1500	from 2" to 42"
class 2500	from 2" to 24"

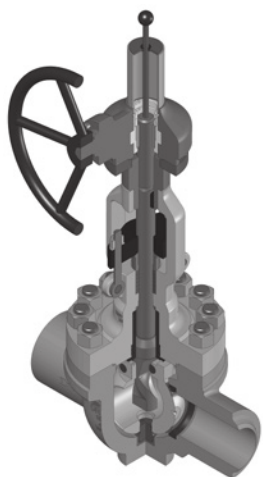


**P. SEAL TILTING DISC VALVES**

Pressure Rating	Nominal Size
from 150 to 600	from 2" to 66"
class 900	from 2" to 60"
class 1500	from 2" to 48"
class 2500	from 2" to 30"

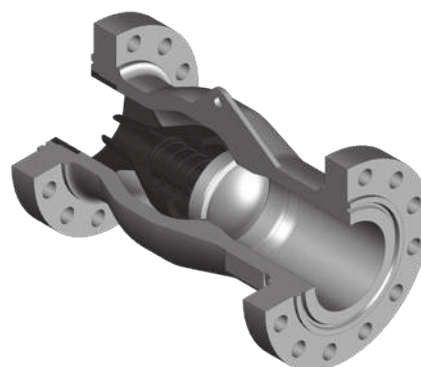
**TILTING DISC CHECK VALVES**

Pressure Rating	Nominal Size
from 150 to 600	from 2" to 66"
class 900	from 2" to 60"
class 1500	from 2" to 48"
class 2500	from 2" to 30"



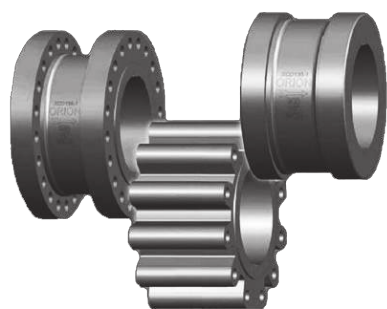
### RISING STEM BALL VALVES

Pressure Rating	Nominal Size
from 150 to 600	from 2" to 24"
class 900	from 2" to 20"
class 1500	from 2" to 16"
class 2500	from 2" to 12"



### AXIAL CHECK VALVES

Pressure Rating	Nominal Size
from 150 to 600	from 2" to 60"
class 900	from 2" to 52"
class 1500	from 2" to 42"
class 2500	from 2" to 24"



### DUAL PLATE CHECK VALVES

Pressure Rating	Nominal Size
from 150 to 600	from 2" to 48"
class 900	from 2" to 24"
class 1500	from 2" to 24"
class 2500	from 2" to 12"

## Certifications

**API 600 - API 6A**  
**API 6D - API 6DSS**  
**API 594**  
**ISO 9001**  
**ISO 14001**

**OHSAS 18001**  
**ATEX**  
**PED**  
**SIL 2**



## Reference List

### MAJOR OIL COMPANIES

ADNOC: ABU DHABI NATIONAL OIL COMPANY  
SAUDI ARAMCO  
BRITISH PETROLEUM  
CONOCOPHILLIPS  
ENEL  
ENI S.P.A  
KNPC, KOC, KSC  
PETROLEUM DEVELOPMENT OMAN  
PDVSA - PETRÓLEOS DE VENEZUELA S.A.  
PETROBRAS  
PETROSA  
SHELL GLOBAL SOLUTIONS  
STATOIL PETROLEUM AS  
TOTAL  
TÜPRAS - TÜRKİYE PETROL RAFINERİLERİ A.Ş.  
WOODSIDE ENERGY LTD  
ECOPETROL  
ENEGAS  
EXXONMOBIL  
NCOC  
PEMEX  
SABIC  
TRANSCANADA  
ENPPI  
TATWEER PETROLEUM  
BAPCO

### MAIN ENGINEERING AND CONSTRUCTION COMPANIES

AKER SOLUTION  
BECHTEL CORPORATION  
CHIYODA CORPORATION  
DAELIM  
FLUOR CORPORATION  
HUNDAI HEAVY INDUSTRIES CO., LTD  
JGC CORPORATION  
KBR INC.  
SAIPEM  
SAMSUNG ENGINEERING CO., LTD  
SK ENGINEERING & CONSTRUCTION  
TECHNIP  
TECHINT COMPAGNIA TECNICA INTERNAZIONALE S.P.A.  
TECNICAS REUNIDAS S.A.  
PETROFAC  
NPCC  
MCDERMOTT  
TECNIMONT  
ZAMIL

