



ateb

alexandria trading engineering bureau
مكتب أسكندرية للتجارة الهندسية



OIL AND GAS VALVES

ISSUE 1

“
ATTENTIVE
TRANSPARENT
ERUDITE
BOUNDLESS

Alexandria

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" THE SECRET TO SUCCESS IS TO KNOW SOMETHING NOBODY ELSE KNOWS ."

Aristotle Onassis

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ATEB COMPANY

ATEB is a Trading and Engineering Company providing technical equipment and consulting in various sectors such as Water, Waste water, Industrial and Oil & Gas fields in cooperation with a group of Suppliers who we represent in Egypt through sole agency and official distribution agreements.

"ATEB delivers quality products combined with outstanding service. We are committed to revitalizing our domestic and international partnerships with a passion for quality and restoring customer dedication"

BECAUSE AT ATEB WE BELIEVE THAT

"Quality is never an accident; it is always the result of intelligent effort", we go all in where no one else goes to get you all that you need from our partners all over the globe and we make sure that you are getting:

- The most suitable product for your specific need.
- The best price you can get in the Middle East.
- The right support and guidance throughout your whole project life cycle.

INDUSTRIES SERVED

1- Oil

- Handling and treatment of crude oil and refined products
- Transportation: Oil pipelines and pumping station
- Refineries
- Tank farms

2- Gas

- Transportation
- Gas storage tanks
- Process plants

3- Off-shore

- 4- Petrochemical plants
- 5- Power generation

OUR CUSTOMERS

Ezz Steel Group
Suez Steel Co.
Zahret Sinai Gypsum Co.
Misr National Steel Co.
Delta Steel Inc.
Nile Sugar Co.
Nobaria Sugar Co.
Delta Sugar Co.
Alexandria Sugar /co.
SIIC Egypt
Dakahlia Sugar Co.
Helwan Cement Co.
National Cement Co.
Titan Cement Egypt
Amreyah Cement Co.
TORA Cement Co.
Lecico Egypt
GEMMA – Ceramics & Porcelain
Alexandria Water Company
Red Sea Water & Waste Water
Gharbia Sanitary and drinking water
Alexandria Sanitary and Drainage Co.
Islamia Paper Co.
Suez Co. for Fertilizer Production
Veolia Water
NLSUPERVISION
COLAS RAIL
Abou Zaabal Co. For Engineering Industries
Suez Gulf Power Plant
Suez Canal Authority
Emisal Salts
Toshiba Elaraby
Misr Spinning & Weaving
Hammam Industries & Co.
National Co. for Maize Products
Wadi El Nil Mills
Egyptian Copper Works
Egyptian Steel Co.
FARAGALLA
Arab Aluminum
Port Saied Power Generation
ALEX FIBER
Italcementi Group
El Alamy Group
CEMEX Egypt

Egyptian Co. for Air Systems
Egyptian Co. for Electrical Insulators
Lord International
TRENCO
ECAP
CORC
Alexandria Petroleum Co.
ARPC
Egyptian Petrochemicals Co.
Arab Contractors Co.
Horse Engineering Works Alex .Co
Cairomatic
El Nasr Casting Co.
Alexandria Co. for seed processing and derivatives.
Ocean Foods
Pasta Regina
Volta Egypt Air Solutions
Asec Automation
El Bardi Paper Mill – Fine
Suez Oil Processing Co.
Egypt Aluminium Company
Alkan Textiles
Arab Polvara Co.
West Delta Power Generation
AbuQir Fertilizers
Middle Delta Power Generation
Delta Fertilizers
SEMADCO
MOBCO
Venus International Co.
ARABIAN MILLING & FOOD IND. CO.
Bait Food
Nag Hamady Fiber Board Co.
Beyti Co.
Sendian – Fine
Kobusch for Packing Materials
ASEC Engineering
Misr Chemical Industries
ABCO UNITED for Plastics & Chemicals Co.
Saint Stefano Constructions
National Paper Co.
International Crane Factory
Alexandria Carbon Black
Shouman Co.

BUTTERFLY VALVES WITH SOFT SEALING

1-1



SERIES 600 // BUTTERFLY VALVES WITH SOFT SEALING

DN: 32 - 200 (1" ¼ - 8")
PN: 6, 10, 16
Class: 150

Version of body:

- B = wafer
- T = lug

Material of body:

- Cast iron 0.6025 (GG25) epoxy coated

Material of disc:

- Brass 2.0402
- Aluminium bronze 2.0966
- Stainless steel 1.4308 (CF8)
- Ductile iron 0.7040 epoxy coated (GGG40)
- Stainless steel 1.4408 (CF8M)

Material of seat:

- NBR
- EPDM

Max. working pressure: 16 bar

Temperature range:

(depending on version)
from - 10°C to + 125°C

Application:

Potable water,
air-conditioning,
heating systems, gas.

SERIES 900 // BUTTERFLY VALVES WITH SOFT SEALING

1-2



DN: 32 - 1600 (1" ¼ - 64")
PN: 6, 10, 16 (to DN 800)
PN: 6, 10 (from DN 900)
Class: 150

Version of body:

- B = wafer (from DN 700 double flanged)
- T = lug

Material of body:

- Ductile iron 0.7040 (GGG40) epoxy coated
- Carbon steel 1.0446 (A216 WCB)
- Stainless steel 1.4408 (CF8M)
- Low carbon content steel 1.1156 (LCC)

Material of disc:

- Brass 2.0402
- Aluminium bronze 2.0966
- Stainless steel 1.4308 (CF8)
- Ductile iron 0.7040 (GGG40) epoxy coated
- Stainless steel 1.4408 (CF8M) + HALAR coating
- HASTELLOY
- Stainless steel 1.4539 (Uranus B6)
- Titanium and others

Material of seat:

- NBR
- EPDM
- Carboxylic NBR
- Viton (FPM)
- Silicone steam (MVQ)
- Silicone (VMQ)
- Epichlorohydrin (for version gas)
- HYPALON (CSM)

Max. working pressure: 16 bar

Temperature range:

(depending on version)
from - 30°C to + 150°C

Application:

Water, chemicals, gas, heating
systems, ventilating, air-conditioning

SERIES 500 // BUTTERFLY VALVES FOR CHEMICAL INDUSTRY



DN: 50 - 200 (2" - 8")
PN: 6, 10, 16
Class: 150

Version of body:
• B = wafer

Material of body:
• Ductile iron 0.7043 (GGG40.3) + epoxy coating

Material of disc:
• Stainless steel 1.4469 coated by PTFE

Material of seat:
• PTFE

Max. working pressure: 10 bar

Temperature range:
(depending on version)
from - 40°C to + 200°C

Application:
Chemical industry,
aggressive media

"SUCCESS USUALLY
COMES TO THOSE WHO
ARE TOO BUSY TO BE
LOOKING FOR IT."

HENRY DAVID THOREAU

HIGH PERFORMANCE BUTTERFLY VALVES

2-1

SERIES 2E-5 // DOUBLE OFFSET

2-2

**SERIES 3E // TRIPLE OFFSET
BUTTERFLY VALVES**

DN: 50 - 600 (2" - 24")

PN: 10 - 50

Class: 150 - 300

Version of body:

- B = wafer
- T = lug

Material of body:

- Stainless steel 1.4408 (CF8M)
- Carbon steel 1.0619 (A216 WCB)
- Low carbon content steel 1.1156 (LCC)
- Special alloys (Duplex etc.)

Material of disc:

- Stainless steel 1.4404 (ASI 316L)
- Stainless steel 1.4408 (CF8M)
- Stainless steel 1.4021 (AISI 420)
- Special alloys (Duplex etc.)

DN: 80 - 400 (3" - 16")

PN: 10 - 40

Class: 150 - 300

Version of body:

- B = wafer
- T = lug

Material of body:

- Stainless steel 1.4408 (CF8M)
- Carbon steel 1.0446, 1.0619, 1.0625 (A216 WCB)
- Low carbon content steel 1.1156 (LCC)
- Special alloys (Duplex etc.)

2-1

Material of sealing:

- PTFE reinforced by 25% glass fibre
- Metal/metal
- PTFE + INCONEL (version FIRE SAFE)

Max. working pressure: 50 bar**Temperature range:**

- (depending on version)
- from - 50°C to + 200°C (version with PTFE)
- from - 100°C to + 500°C (version without PTFE)

Application:

Steam, condensate, oil, chemical industry, vacuum

2-2

Material of sealing:

lameral - Stainless steel 1.4401 (AISI 316) + Graphite / solid

Max. working pressure: 40 bar**Temperature range:**

- (depending on version)
- from - 100°C to + 500°C

Application:

Chemical industry, oil, gas, steam, vacuum

KNIFE GATE VALVES

3-1



DN: 50 - 1200 (2" - 48")
PN: 10 (PN 16 on request)
Class: 150 (on request)

Material of body (monoblock):

- Cast iron 0.6025 (GG25)
- Stainless steel 1.4408 (CF8M)

Material of knife:

- Stainless steel 1.4306 (AISI 304L) / 1.4404 (AISI 316L)

Material of sealing:

EPDM / NBR / metal-metal /other

Temperature range:

(depending on version)
from - 50°C to + 200°C

Max. working pressure:

DN 50 – DN 250: 10 bar
DN 300 – DN 400: 6 bar
DN 450 – DN 600: 4 bar
DN 700 – DN 1200: 2 bar

Application:

Clean or slightly polluted liquids,
highly polluted liquids, slurry or solids,
pulp and paper, etc.

3-2



DN: 50 - 1200 (2" - 48")
PN: 10 (PN 16 on request)
Class: 150 (on request)

Material of body (two-piece):

- Cast iron 0.6025 (GG25)
- Stainless steel 1.4408 (CF8M)

Material of knife:

- Stainless steel 1.4306 (AISI 304L) / 1.4404 (AISI 316L)

Material of sealing:

EPDM / NBR / metal-metal /other

Temperature range:

(depending on version)
from - 50°C to + 200°C

Max. working pressure:

DN 50 – DN 250: 10 bar
DN 300 – DN 400: 6 bar
DN 450 – DN 600: 4 bar
DN 700 – DN 1200: 2 bar

Application:

Large solids, very thick fluids,
sludge and highly concentrated
slurry, viscous fluids

CHECK VALVES

4-1

SERIES 800_DUCTILE IRON &

4-2

STEEL DESIGNS// CHECK VALVES

DN: 50 - 300 (2" - 12")
PN: 10, 16

Version of body:

B = wafer

Material of body:

• Ductile iron 0.7040
(GGG40) + epoxy coating

Material of disc:

Stainless steel 1.4301(AISI 304)

Material of sealing:

NBR, EPDM

DN: 40 - 300 (1 ½" - 12")
PN: 10, 16
Class: 150

Material of body:

• Ductile iron 0.7040 (GGG40)
• Carbon steel 1.0446, 1.0619, 1.0625 (A216 WCB)
• Stainless steel 1.4408 (CF8M)

Material of disc:

• Carbon steel 1.0446, 1.0619, 1.0625 (A216 WCB)
• Stainless steel 1.4408 (CF8M)

4-1

Max. working pressure: 16 bar

Temperature range:

(depending on version)
from - 10°C to + 80°C
(version with NBR)
from - 25°C to + 125°C
(version with EPDM)

Application:

Water, heating systems, oils

4-2

Material of sealing:

EPDM / NBR / VITON / PTFE

Max. working pressure: 16 bar

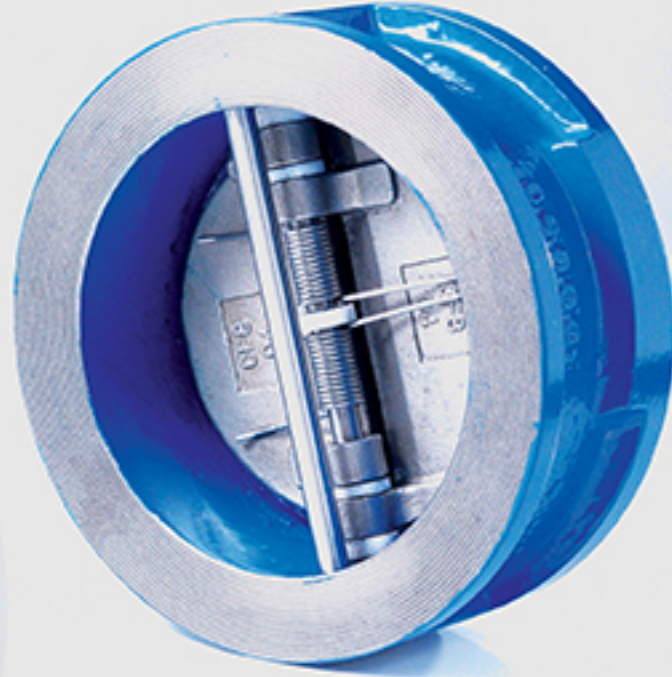
Temperature range:

(depending on version)
from - 25°C to + 200°C

Application:

Waste water, sewage,
thick and viscous liquids,
potable water

SERIES 700 // DUAL PLATE CHECK VALVES



DN: 50 - 1200 (2" - 48")
PN: 10, 16

Material of body:
Ductile iron 0.7040 (GGG40)

Material of disc:
Stainless steel 1.4301 (AISI 304)

Material of sealing:
EPDM

Max. working pressure:
16 bar

Temperature range:
from - 25 °C to + 125 °C

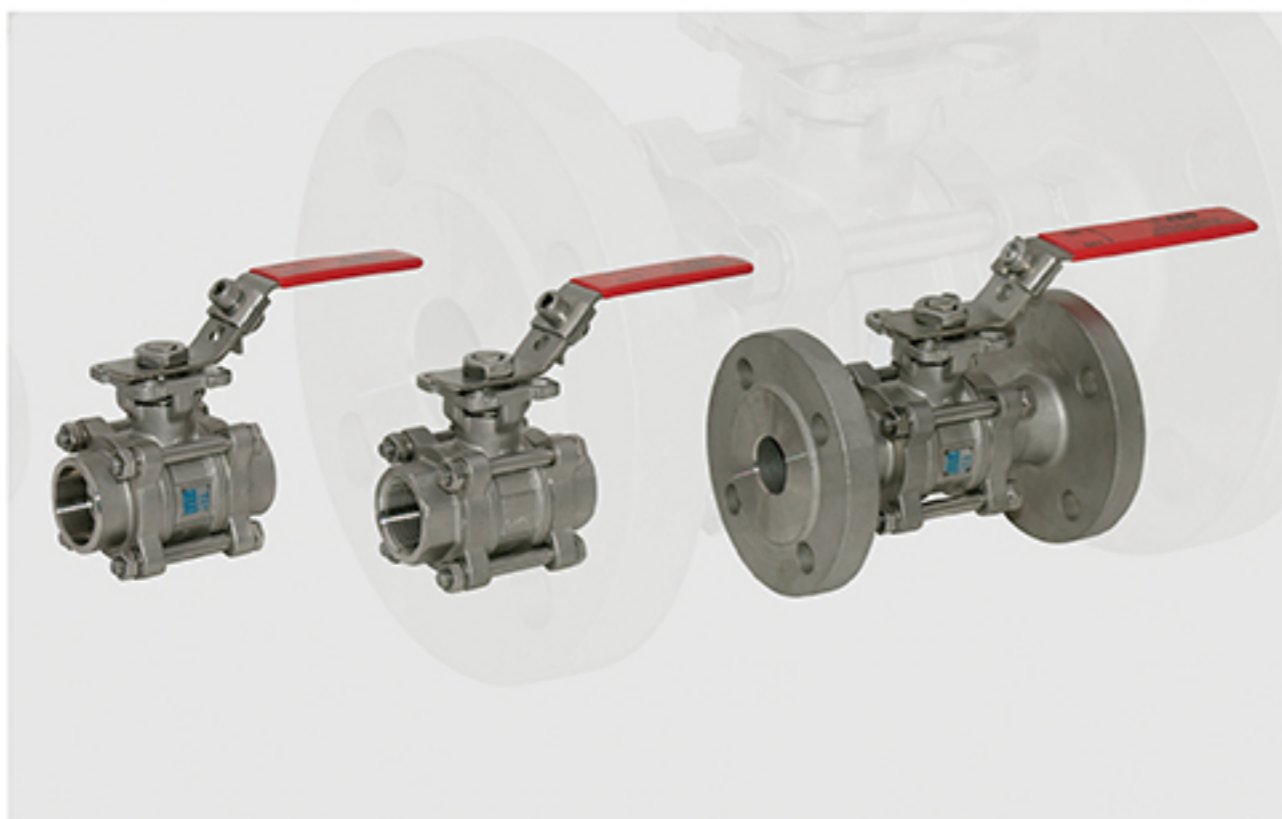
Application:
Waste water, sewage,
thick and viscous liquids,
potable water

"WE BECOME WHAT WE
THINK ABOUT MOST OF
THE TIME, AND THAT'S
THE STRANGEST SECRET."

EARL NIGHTINGALE

BALL VALVES

5-1



DN: 8 - 150 (1/8" - 6")
PN: up to 63

Material of body:
 Stainless steel 1.4408 (CF8M)

Handle:
 Stainless steel 1.4301
 (AISI 304), plastic coating

Seat: PTFE

Ball:
 Stainless steel 1.4408 (CF8M)

Max. working pressure:
 depending on version, up to 63 bar

Temperature range:
 from - 29°C to + 200°C
 (upon request -50°C)

Application:
 Hot water, gas,
 natural gas, air

"WHENEVER YOU FIND
 YOURSELF ON THE SIDE
 OF THE MAJORITY,
 IT IS TIME TO PAUSE
 AND REFLECT."

MARK TWAIN

Y-STRAINERS

7-1



DN: 15- 300 (½" - 12")
PN: 10, 16

Material of body: Cast iron 0.6025 (GG25)

Material of sieve: Stainless steel 1.4301 (AISI 304)

Material of gasket: Stainless steel 1.4301 (AISI 304) + graphite

Temperature range: from 0 °C to + 100 °C

Application:

for capturing of mechanical impurities,
which contains transported medium
(non-aggressive liquids)

"MOTIVATION IS WHAT GETS
YOU STARTED. HABIT IS
WHAT KEEPS YOU GOING."

JIM RYUN

1- GATE AND GLOBE VALVES



Construction:

- 1- Bolted bonnet
- 2- Pressure seal
- 3- Cryogenic

Design:

API600, API6D, ASME B16.34, BS6364

Face to face dimensions:

ASME B16.10

Flanged ends:

ASME B16.5 (up to 24")
ASME B16.47 (above 26")

Butt weld ends:

ASME B16.25

Pressure test:

API 598, API6D

Product range:

from 150 Lbs. Up to 4500Lbs.

Sizes:

1/2" up to 60"

Material:

- Cast steel (E.g. A216 WCB)
- Forged steel (E.g. A105)
- Stainless steel (E.g. AISI 304& 316)

Connection:

Flanged (RF, FF, RTJ), Butt Weld (BW) and threaded (NPT)

Operation:

- Manual (hand wheel or gear box).
- Actuated (electric, pneumatic or hydraulic).
- Optional outside (lever and counter weight for check valves).

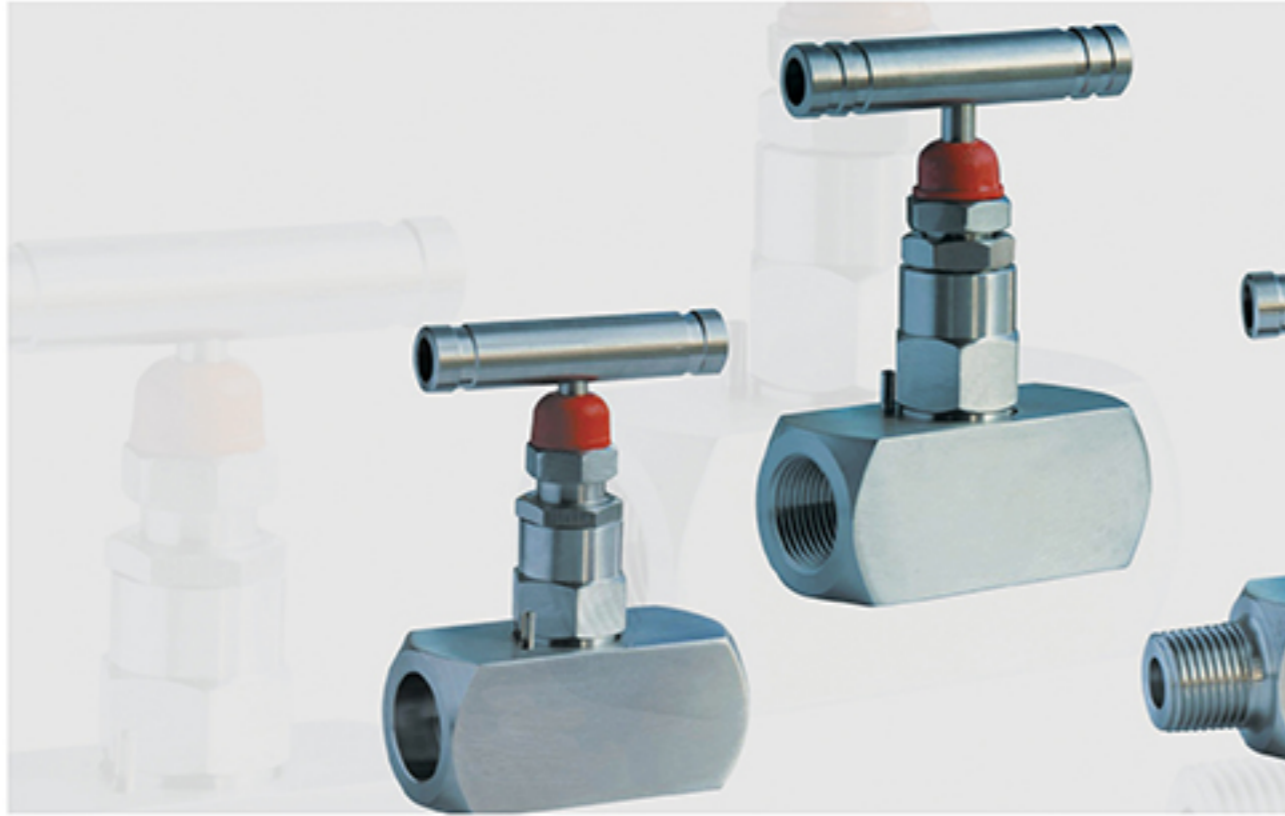
Gate:

- API600, ASME B16.34
- OS&Y, Rising stem
- Solid, flexible and parallel slide wedge

Globe:

- BS1868, BS1873, BS6364, ASME B16.34
- Rising Hand wheel
- Body in "T" or "Y" shape
- Option: Globe, Stop-Check
- Option: Angle globe, Y-Globe

2- NEEDLE VALVES



Size:
Starting from 1/4"

Pressure rating:
up to 700 bar

Construction:
Not rotating trim, In line mounting

Seats:
Sot seated / Metal seated

Ends:
threaded, welded

Material:

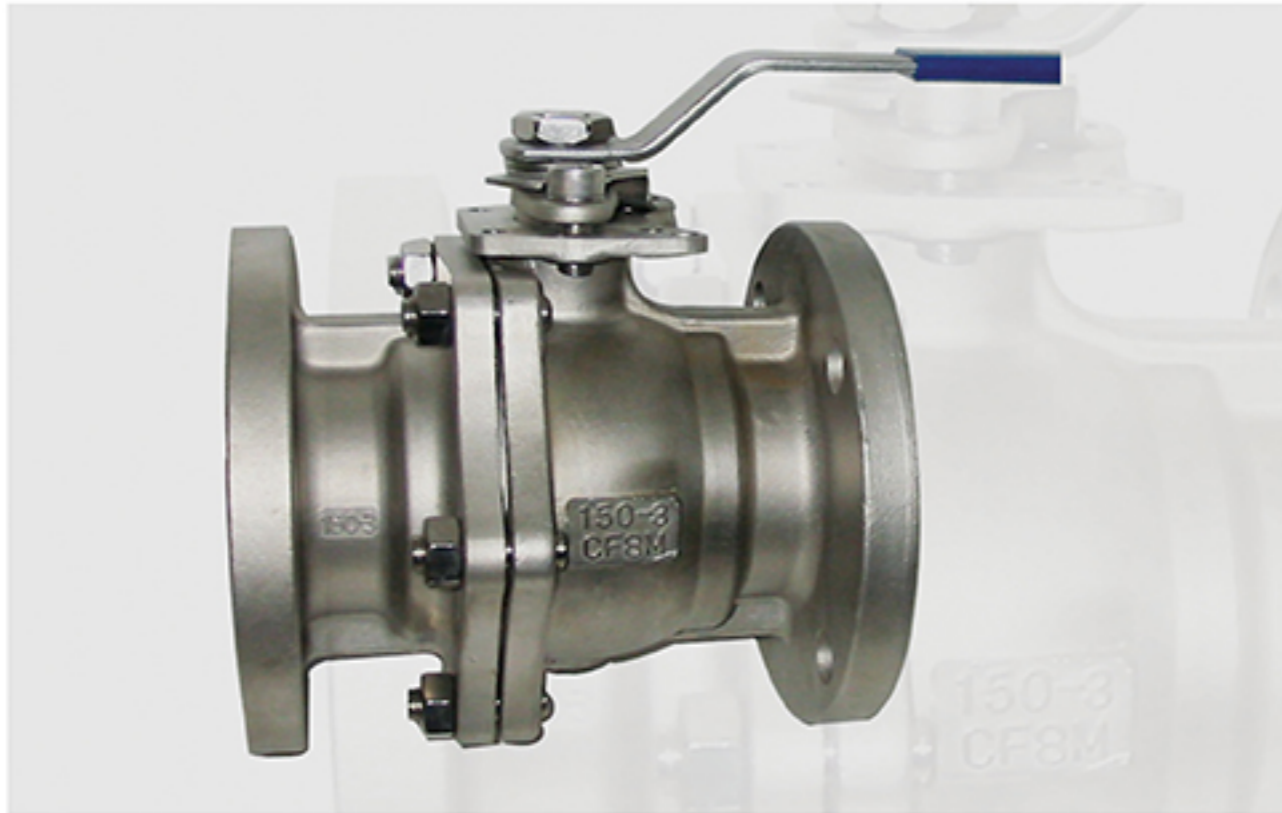
- Cast steel (E.g. A216 WCB)
- Forged steel (E.g. A105)
- Stainless steel (E.g. AISI 316)
- Duplex, Monel

Applications:
Isolation of one or more pressure instruments (gauges, switches, transmitters)
For insulated lines mounting

THE BEST PREPARATION
FOR TOMORROW IS DOING
YOUR **BEST TODAY.**

H. JACKSON BROWN, JR.

1- BALL VALVES


Size:

1/2" ÷ 56"

Class:

150, 300, 600, 900, 1500, 2500

Construction:

- One piece body end entry (reduced bore)
- One piece body top entry
- Two pieces body side entry
- Three pieces body side entry

Ball mounting:

(Floating & trunnion)

Seats:

Sot seated / Metal seated

Bore:

Full bore / Reduced bore

Ends:

RF / RTJ / BW / Hub connectors

Operation:

Manual (lever, gear) Actuated (electric, hydraulic, pneumatic, gas over oil)

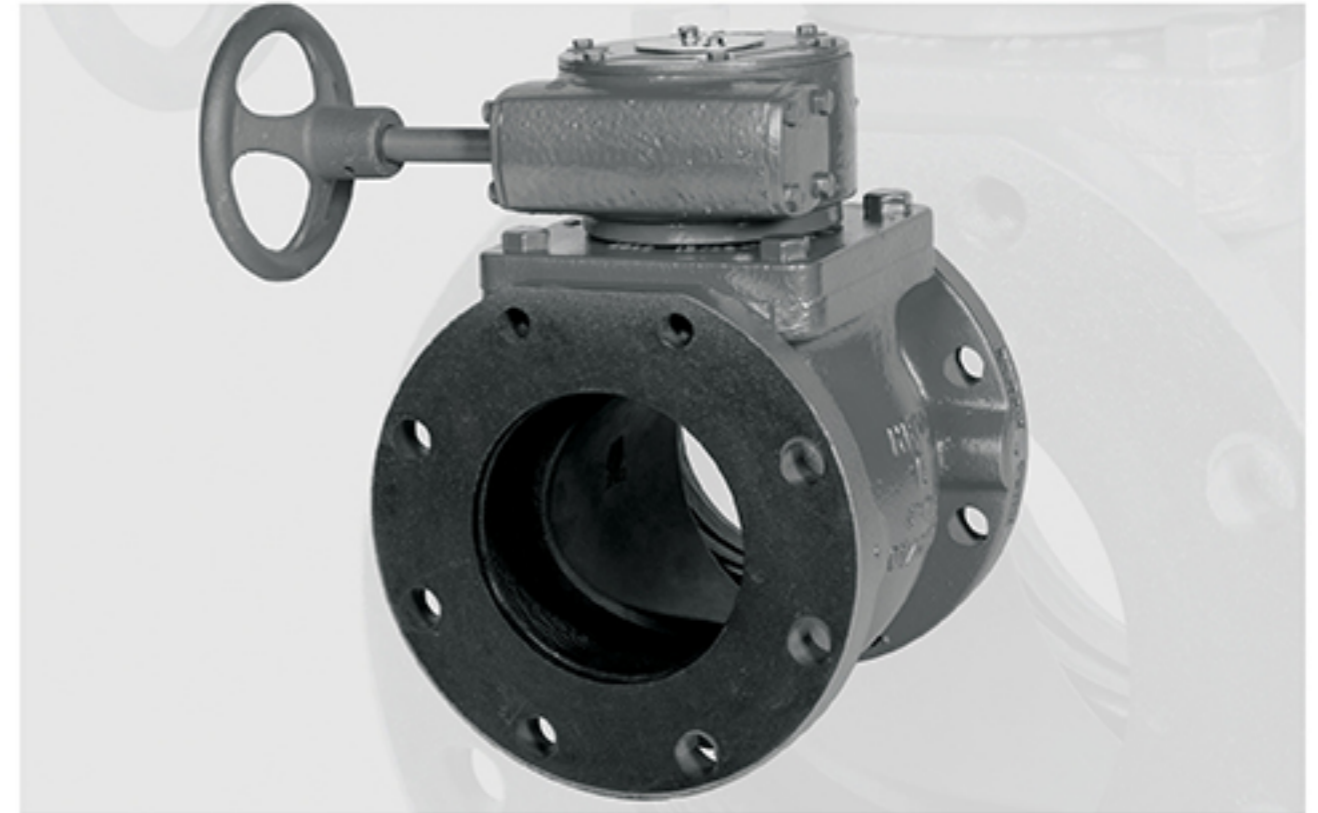
Material:

- Cast steel (E.g. A216 WCB)
- Forged steel (E.g. A105)
- Stainless steel (E.g. AISI 304 & 316)

Standards:

API6D; API6FA/607;
ASME B31.4; 16.34 & B16.10

2- PLUG VALVES


Construction:

- Bore: Full & Reduced
- Seat: Rubber & Metal to metal
- Lubricated & Non lubricated
- Double Block, Bleed, Dual expanding & Lower trunnion.

Design:

API599, API6D, API607, ASME B16.34

Face to face dimensions:

ASME B16.10

Flanged ends:

ASME B16.5

Butt weld ends:

ASME B16.25

Pressure test:

API 598, API6D

Product range:

from 150 Lbs. Up to 2500Lbs.

Sizes:

1" up to 24"

Ends:

Flanged (RF, FF, RTJ) or Butt Weld (BW)

Operation:

Manual (hand wheel or gear box)

CHECK VALVES

**Construction:**

- 1- Bolted bonnet
- 2- Pressure seal
- 3- Cryogenic

Design:

API600, API6D, ASME B16.34, BS6364

Face to face dimensions:

ASME B16.10

Flanged ends:

ASME B16.5 (up to 24")
ASME B16.47 (above 26")

Butt weld ends:

ASME B16.25

Pressure test:

API 598, API6D

Product range:

from 150 Lbs. Up to 4500Lbs.

Sizes:

1/2" up to 60"

Material:

- Cast steel (E.g. A216 WCB)
- Forged steel (E.g. A105)
- Stainless steel (E.g. AISI 304& 316)

Connection:

Flanged (RF, FF, RTJ), Butt Weld (BW) and threaded (NPT)

Operation:

- Manual (hand wheel or gear box).
- Actuated (electric, pneumatic or hydraulic).
- Optional outside (lever and counter weight for check valves).

Check:

BS1868, ASME B16.34
Swing Check, piston check or Tilting disc



SAFETY VALVES

**Size:**

up to 16"×20"

Temperature:

up to 500 C

Material:

Body: Bronze, carbon steel and stainless steel

Seat: Metal-metal (E.g Stellite), PTFE, Viton

Design:

Material: EN /ASTM /ASME

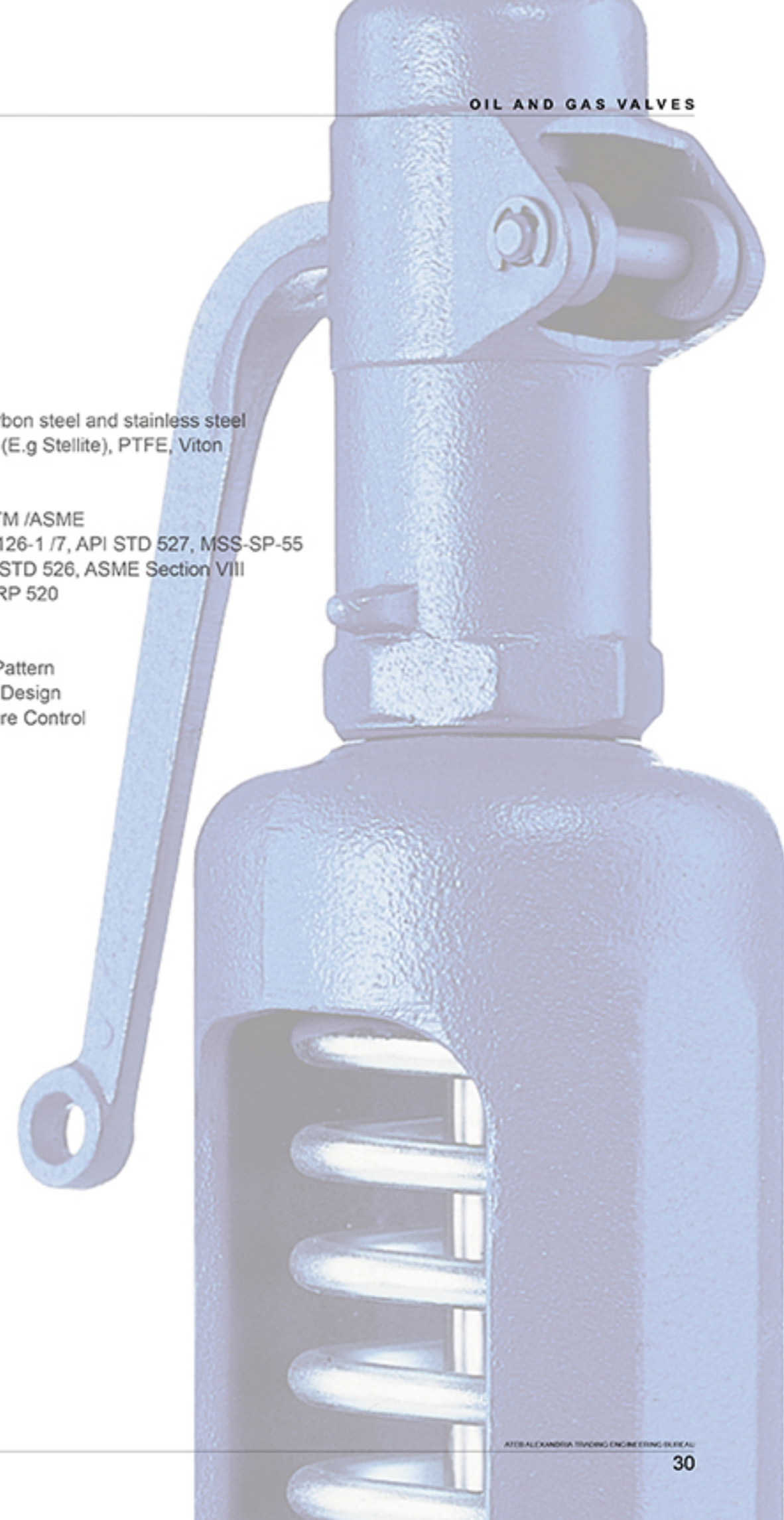
Inspection: EN-4126-1 /7, API STD 527, MSS-SP-55

Design/Size: API STD 526, ASME Section VIII

Calculation: API RP 520

Features:

- Globe or Angle Pattern
- Proven Reliable Design
- Accurate Pressure Control



1- AIR TORQUE PNEUMATIC ACTUATOR

The design in full compliance with all the international standards is also covered by international patents.

The 4th Generation Upgrade series offers the widest and most complete actuator range with huge options availability.

The 4th Generation Upgrade line counts a combination of:

- 17 different model sizes both in double acting and spring return
- 6 different protection levels
- 3 different working temperature executions (from -55°C/-67°F up to +150°C/+302°F)
- Multiple choice of ISO flange and drive shaft connection for each actuator size.

Product range:

Double acting from:

13.2NM to 9173NM at 5.5bar

Spring return from:

8.1NM to 4068NM with 12 springs

- **Operating media:**
Dry or lubricated air.
- **Supply pressure :**
The maximum supply pressure is up to 8bar (116PSI),
The minimum supply pressure is 2.5 bar (36PSI).
- **Working temperature :**
Standard actuator -40°C to 80°C
High temperature actuator -15°C to 150°C,
Extreme low temperature actuator -55°C to 80°C



2- ELECTRIC ACTUATORS

Bernard Controls is an international company which specializes in the design and Manufacture of electric actuators and employs an innovative development program to bring constant improvement to its product range.

BERNARD CONTROLS designs & manufactures electric actuators & control systems for industrial valves' automation :

- 1- ¼ turn Operated Valves ; Butterfly Valves , Ball Valve , Plug Valves.
Up to DN 2400 @ all pressure .
- 2- Multi-turn Operated Valves ; Gate Valves , Knife Valve , Globe Valves.
Up to DN 2400 @ all pressure .
- 3- Penstocks and Dampers

- Bernard Controls appreciates the importance on Quality at all stages of the production process, and has put in place and maintains a Quality Management System in accordance with ISO 9001-2000 (certification no.: QUAL/1997/8657b).

The quality of Bernard products has been approved and recognized by a number of international certifying bodies, including ABS, CSA, NEMA, ATEX, IEEE, LCIE, Germanischer Lloyd, GOST Russia, INERIS and others .

Compliance with EC Directives :

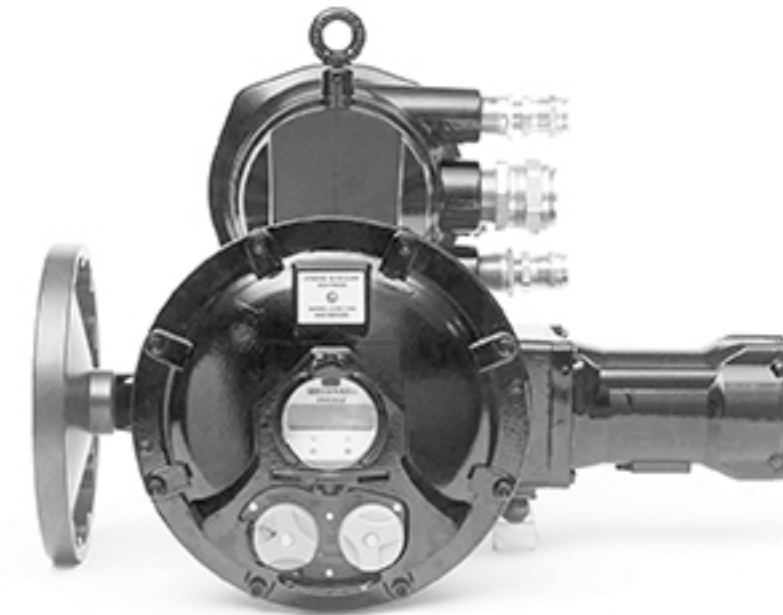
Weatherproof version actuators comply with:

- Directive 89/336/EEC, as amended by 93/68/EEC: Electromagnetic compatibility.
- Directive 73/23/EEC, as amended by 93/68/EEC: Low voltage.

The following harmonized standards:

- EN 61000-6-4: Generic emissions standard for industrial environments.
- EN 61000-6-2: Generic immunity standard for industrial environments.
- EN 60034-1: Rotating electrical machines.
- EN 60529: Degrees of protection provided by enclosures (IP ratings code).

- Bernard Controls manufactures a complete range of electric actuators for the automation of On/Off and modulating valves and damper applications for all industrial sectors such as :
 - Oil and Gas.
 - Thermal and Nuclear Power Plants.
 - Potable Water and Waste Water Treatment.
 - HVAC Systems.
 - Industrial Applications (Cement – Paper – Food ..etc)
 - Naval



1- SOLENOID VALVES



High- quality valves for industrial applications. Control and transfer Of power by using compressed air.

We use the solenoid valves with the single acting and either with The double acting pneumatic actuators.

Namur designed is available.

Material available:
brass, bronze, stainless steel
Single way, 3/2 and 5/2
designs are available

Medium:
water, steam, chemicals
can be handled.

2- SWITCH BOXES



Limit switch box designed for safe and hazardous areas, provides a visual and electrical remote position feedback on automated valves.

Easy wiring through the terminal PCB board.

Material:
stainless steel, plastic and aluminum

Explosion proof.
Protection:
ip 66,67 and 68

Temperature:
Standard operating temperature
-20°C +80°C Lower
and higher temperature options
available on request

3- ELECTRO PNEUMATIC POSITIONERS



- Simple installation and automatic commissioning (self-adjustment of zero and span)
- Tight closing" function (ensures maximum positioning pressure on the valve seat)
- Numerous functions can be activated by simple configuring (e. g. characteristic curves and limits)
- Only one device version for linear and part-turn actuators
- Low air consumption

Input current range 0 to 20 mA or 4 to 20 mA.
Positioner with feedback signal 4 to 30 mA is also available.

The SIPART PS2 positioner is used, for example, in the following industries:

- Chemical/petrochemical
- Power stations
- Paper and glass
- Water, waste water
- Food and pharmaceuticals
- Offshore plant

