

DN 08 à 200

PN 100 / PN 16
Passage Standard ou intégral
Brides tournantes
Platine ISO



Série en acier inoxydable
Stainless steel series

Size 1/4" to 8"

PN 100 / PN 16
Reduced or full bore
Rotating ends system
ISO top flange



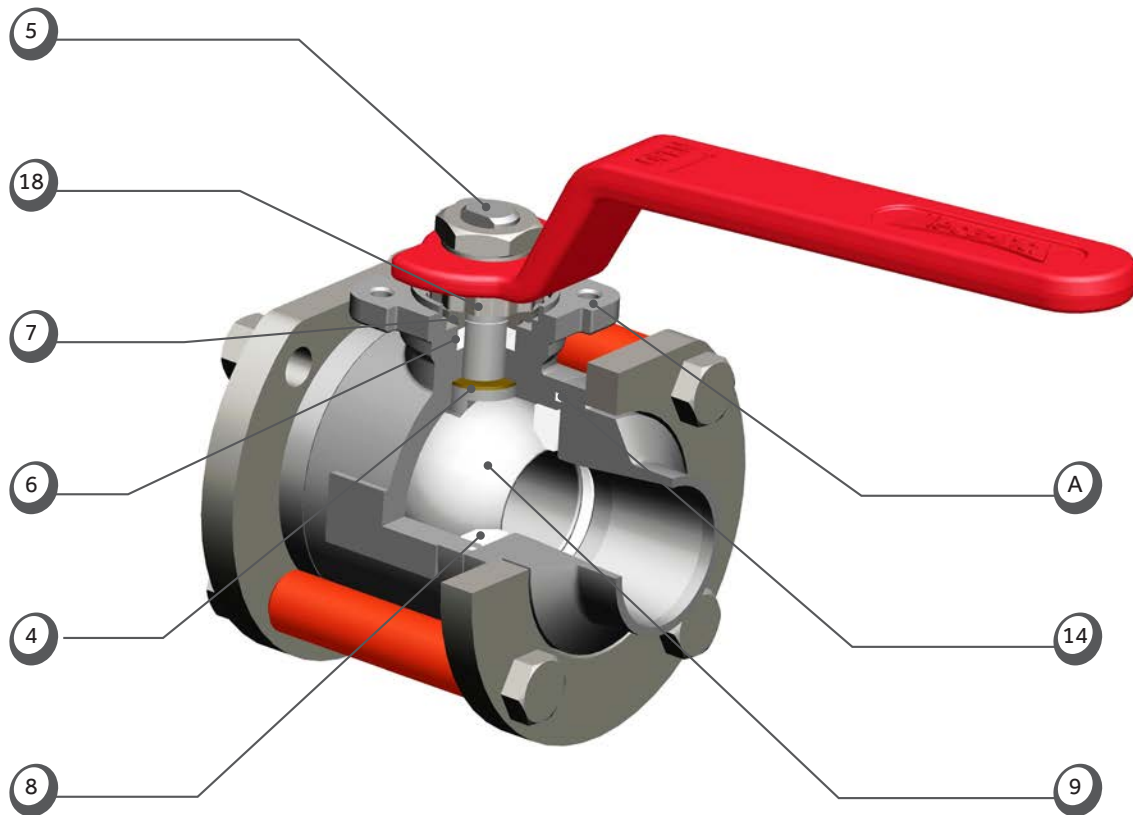
Série en acier carbone
Carbon steel series



Série DN 65 à 200
Size 2" 1/2 to 8" series



Série Motorisée
Actuated series



A • Platine EN ISO 5211

Elle autorise toute adaptation et les encoches permettent le verrouillage du levier en position ouverte ou fermée.

4 • Rondelle de friction

Elle permet une étanchéité primaire. En PTFE chargé PEEK elle assure une meilleure durée de vie du presse-étoupe. Evite le contact métal/métal entre tige et corps.

5 • Tige de manœuvre

Non éjectable, elle est dimensionnée pour résister à des valeurs de couples élevées sans se déformer ni se casser.

6 • Presse-étoupe

Boîtier usiné et équipé de garnitures de type chevron. Le presse-étoupe est antistatique et agréé TA-LUFT.

7 • Rondelles Belleville

Elles assurent le rattrapage d'usure des garnitures du presse-étoupe.

8 • Sièges

Une large variété de matériaux et un design unique permettent l'utilisation de la série PS4 dans des conditions extrêmes (-196°C à +280°C).

9 • Boisseau

Le perçage de l'empreinte de tige permet l'évacuation de toute surpression en position ouverte.

14 • Joints de corps

Encastés dans le corps, ils assurent l'étanchéité entre le corps et les embouts vers l'extérieur.

18 • Freins d'écrous

Les écrous du presse-étoupe et du levier sont bloqués en rotation interdisant tout desserrage dans le temps.

A • EN ISO 5211 top flange

Makes easier the adaptation of an actuator on the valve. This flange has notches to welcome a lockable handle.

4 • Stem thrust seal

Act as a primary sealing. Made of PTFE + PEEK, it ensures a longer lifetime and numerous cycles.

5 • Antiblow-out stem

The stem is designed to resist high operating torques without breaking nor twisting.

6 • Gland-packing

The gland box is machined and receive a V-ring packing. This assembly ensures an antistatic gland-packing, TA LUFT certified.

7 • Spring washers

The spring washers act as a spring to compensate the packing wear.

8 • Seats

A wide range of seat materials is available. The PS4 valve can be used in many process applications from -196°C to 280 °C.

9 • Ball

A cavity relief is drilled in the stem groove in order to avoid any overpressure in "Open" position.

14 • Encapsulated body seals

In PTFE, they are giving a reliable sealing between the body and connections.

18 • Safety nut lock

These nut locks ensure to keep the packing nut and the handle nut in place during valve operations.

Les brides de corps tournantes

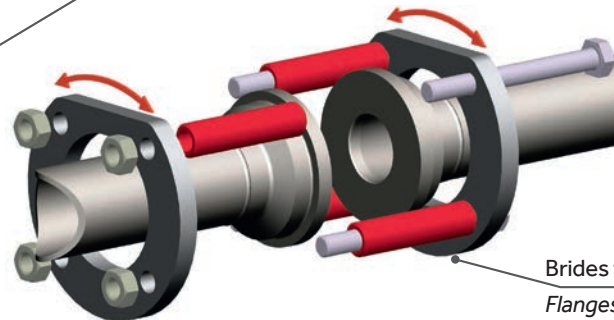
- Installation simplifiée sans alignement des embouts lors de leur soudure
- Orientation à 360° du corps de vanne
- Suppression des contraintes générées par un défaut d'alignement



Loose body flanges

- Ease of installation without alignment of the end pieces
- Orientation of the valve body through 360°
- Elimination of the stresses due to faulty alignment

Corps de robinet orientable à 360°
Valve body rotatable through 360°



Brides tournantes orientables à 360°
Flanges rotatable through 360°

La boîte Kit

- Gain de temps au montage
- Identification des matériaux par couleurs distinctes
- Protection des composants lors de l'installation

The Kit box

- Save time when fitting
- Identification of the materials by distinct colours
- Protection of the components during installation



304L

A216 WCB

904L

Alloy 22

316L

Les embouts usinés

- Large choix de raccordement
- Réalisation sur mesure
- Rapidité de fabrication

The machined ends

- Large choice of connections
- Customized dimensions
- Fast production



ÉTANCHÉITÉ SEAL

Tests & essais

Directive DESP

Conformément aux exigences de l'annexe I de la Directive 97/23/CE DESP, nos robinets subissent des contrôles tout au long de la fabrication. Un test hydrostatique final vérifie la tenue sous pression. Nos essais sont réalisés suivant les normes ISO 5208 et NF EN 12266-2 conformes à la Directive DESP.

Emanations fugitives

Nos robinets sont testés suivant la réquisition " TA LUFT " point 3.1.8.4. du 27/02/1986. Les résultats montrent que les taux de fuites sont nettement inférieurs aux niveaux exigés par les normes EN ISO15848-2, notamment avec les réquisitions VDI 2440_2000.

Pression d'essai d'étanchéité Amont/Aval

Le taux de fuite amont/aval, (fuite en ligne), correspond à l'étanchéité entre le boisseau et les sièges.

Il est contrôlé en vérifiant qu'aucune bulle ne s'échappe du volume d'air sous pression emprisonné dans la sphère en position fermée.

Tous nos robinets sont catégorie " A " selon EN 12266-1 : aucune bulle = aucune fuite

Tests

PED directive

According to Pressure European Directive (PED) 97/23/CE, all our ball valves are controlled during the production process. A final hydrostatic pressure test is achieved before dispatch or warehousing. Our tests are conducted according ISO 5208 international standard.

Fugitives Emissions

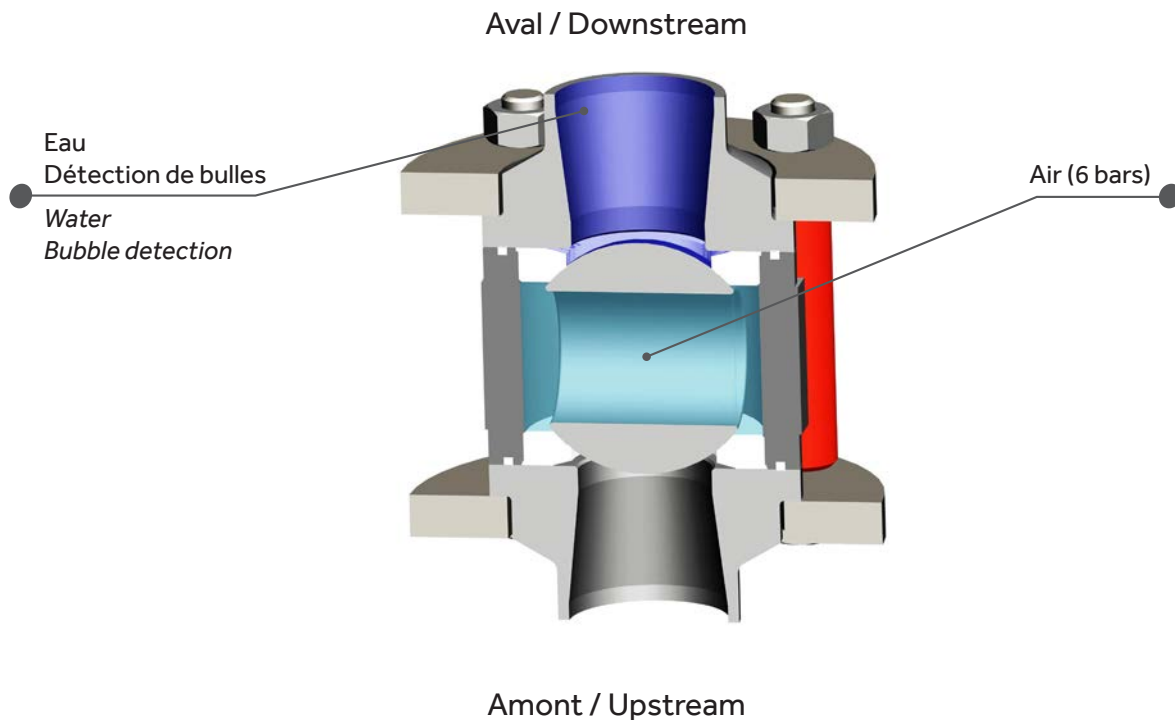
Our valves are tested according TA LUFT 02/27/1986 (Pt 3.1.8.4) requisition. Measure show leakage rate much lower than the level requested EN ISO15848-2 by regulations such as VDI 2440_2000.

Test pressure of the ball sealing

The upstream/downstream leakage rate, (in-line leakage), is the sealing between the ball and the seats.

We check that absolutely no bubble escape from air pressurized trapped in the volume inside closed ball.

All our valves are "A" Cat.: EN 12266-1
no bubble = no leak



Tenue au vide

La conception et la fabrication de nos robinets 2-pièces et 3-pièces garantissent une tenue à un taux de vide d'au moins de 10^{-3} mbar ($0.75 \cdot 10^{-3}$ Torr).

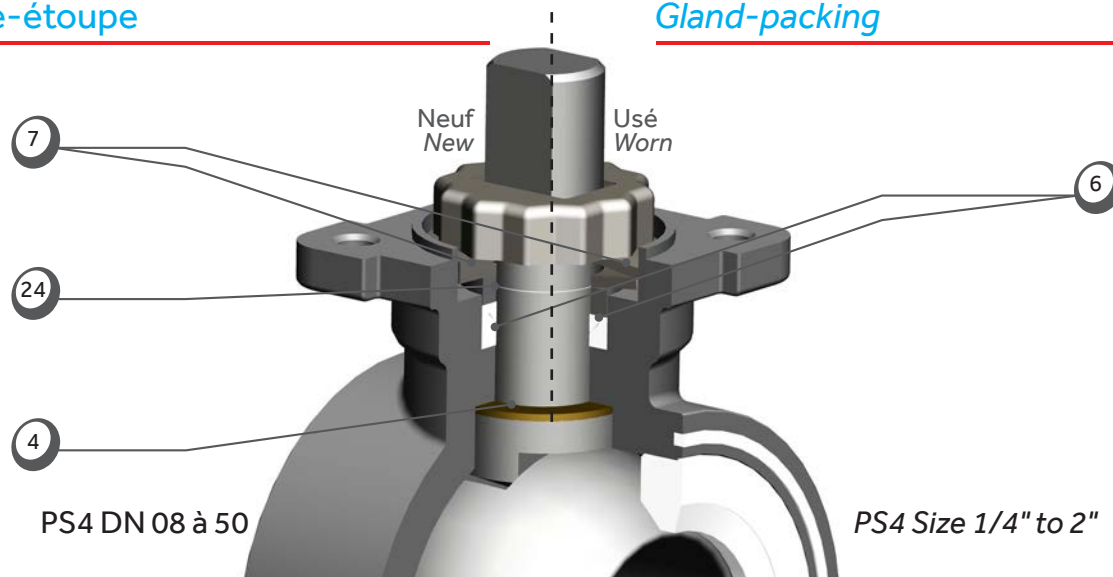
Vacuum resistance

Design and manufacturing of our 2-piece and 3-piece ball valve allow a vacuum capability of at least 10^{-3} mbar ($0,75 \cdot 10^{-3}$ Torr).

SYSTÈME D'ÉTANCHÉITÉ | SEALING DESIGN

Presse-étoupe

Gland-packing



Conception suivant NF EN 12516-1, DIN 3841, ANSI B16.34

Antistatique suivant ISO 7121, NF EN 1983

Garniture antistatique (6) chargée PTFE + carbone + graphite (DN < 50)

Ensemble bille / ressort (B) entre tige & corps et tige & boisseau (DN > 50)

Étanchéité primaire par rondelle de friction (4) en PTFE renforcé PEEK

Étanchéité secondaire par garniture de type "chevron" (6) permettant de maintenir l'étanchéité lorsque la pression vient du corps du robinet

Fouloir inox (24)

Rattrapage du jeu de la garniture par rondelles Belleville (7)

Support siège (20) sur DN > 50

Design according NF EN 12516-1, DIN 3841, ANSI B16.34

Antistatic gland packing according to ISO 7121, NF EN 1983

Gland packing (6) in PTFE+ carbon + graphite (DN < 2")

Ball / spring system (B) between stem & body and stem & ball (DN > 2")

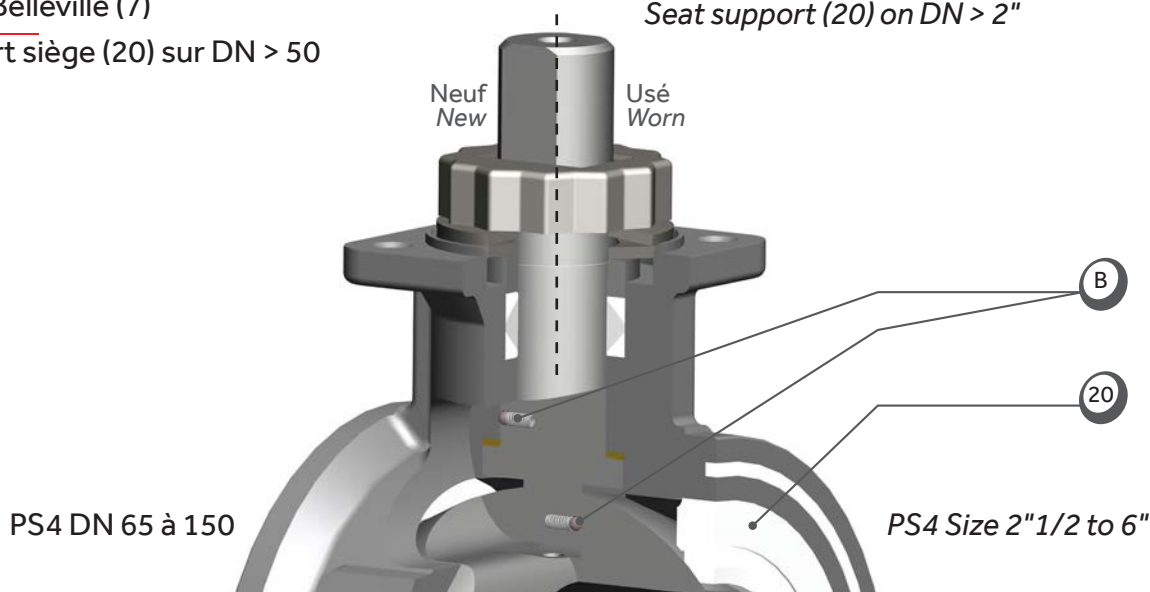
Primary sealing with thrust seal (4) in PEEK reinforced PTFE

Secondary sealing with a "V-ring" packing (6) to allow sealing under pressure coming from the valve body

Gland in stainless steel (24)

Wear compensation by the mean of a pair of spring washers (7)

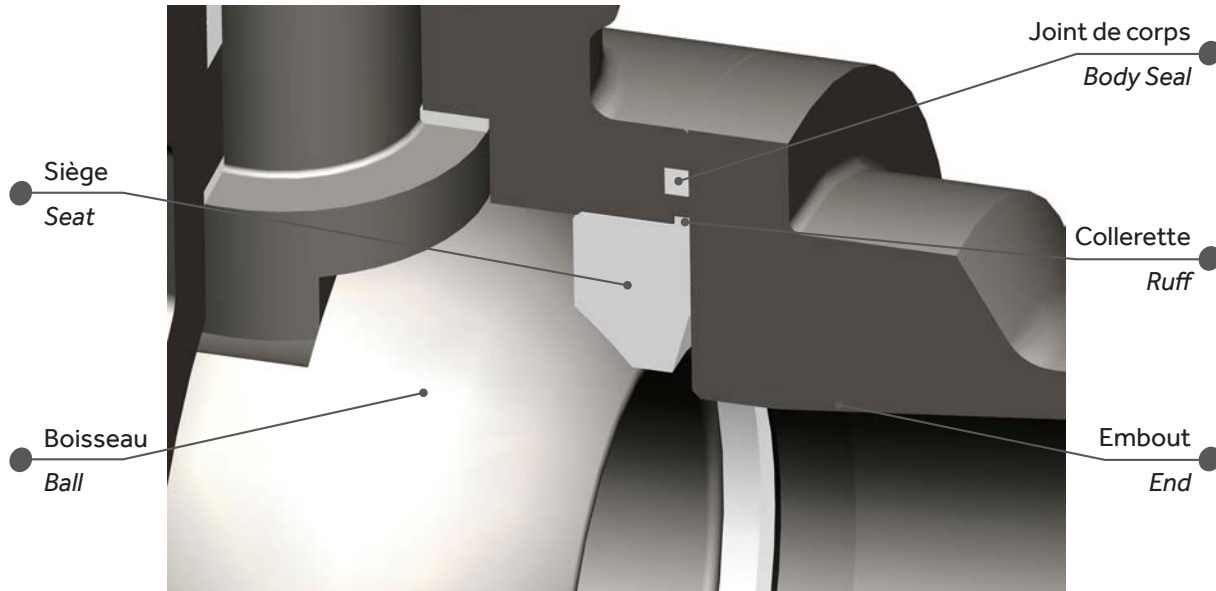
Seat support (20) on DN > 2"



SYSTÈME D'ÉTANCHÉITÉ
SEALING DESIGN

Sièges et joints de corps

Seats and body seals



Joints de corps encastrés qui garantissent l'étanchéité intérieure / extérieure.

Des profils de sièges conçus pour une étanchéité amont / aval optimale.

Elasticité des sièges absorbant les contraintes de pression.

Portée progressive qui optimise les couples de manœuvre.

Collerette qui empêche l'extrusion des sièges quand la pression amont est supérieure à la pression aval.

Built-in body seals to guarantee internal/external tightness.

Seats profiles designed for upstream/downstream sealing.

Seats elasticity to absorb pressure stress.

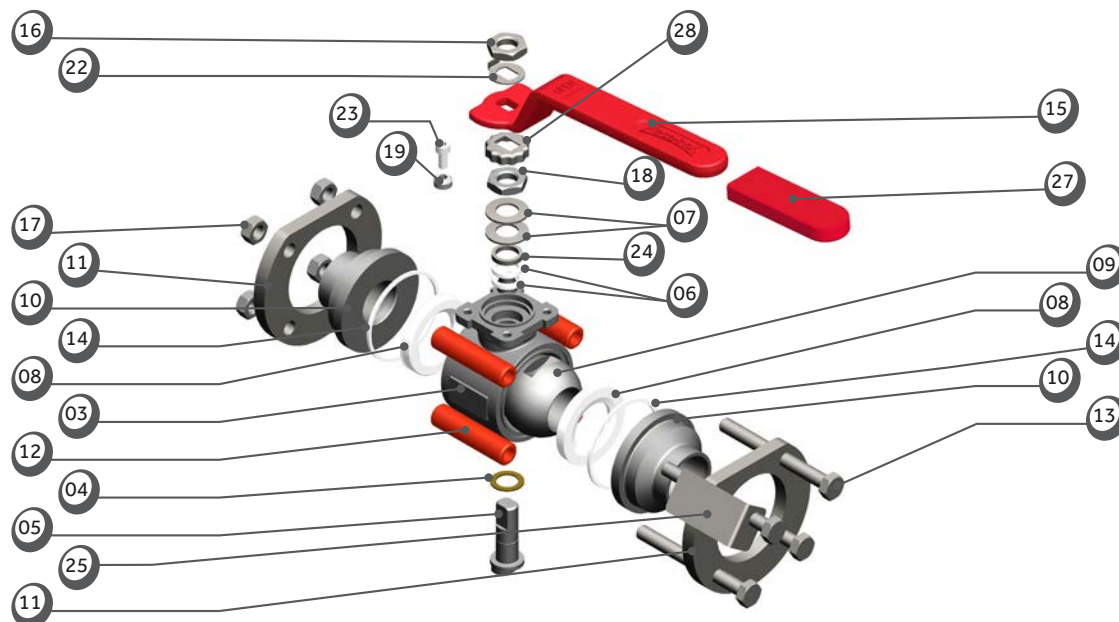
Progressive bearing to optimize operating torques.

Ruff to avoid the seat to be taken away when upstream pressure is higher than downstream pressure.

NOMENCLATURE COMPONENTS

DN 08 à 50

Size 1/4" to 2"



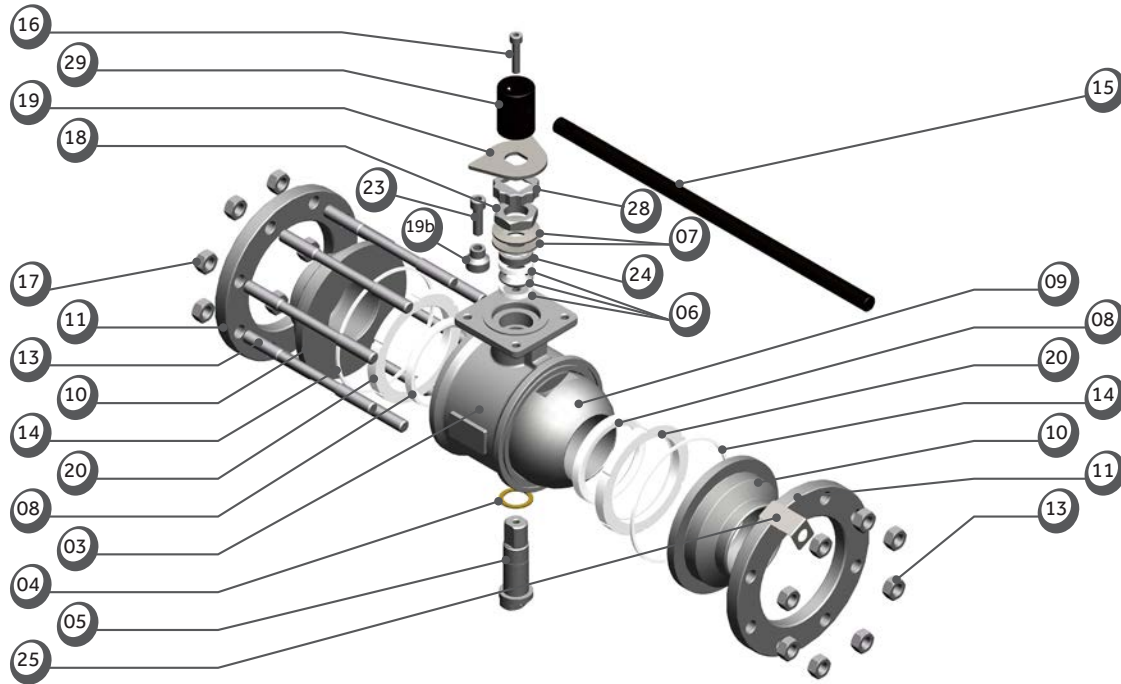
| N° | Nb | Description | Matière (EN) | | Item | Qty | Description | Material (ASTM) | |
|-----|----|-----------------------------------|--------------------------------------|--------------------|------|-----|-------------------------------|---------------------------|---------------------------------|
| | | | Inox | Acier | | | | S.steel | C.steel |
| 03 | 1 | Corps | 1.4409 | 1.0619 Cataphorésé | 03 | 1 | Body | CF3M (316L) | A216 WCB cataphoresis treatment |
| 04 | 1 | Rondelle de friction | PTFE 20% PEEK | PTFE 20% PEEK | 04 | 1 | Stem thrust seal | 20% PEEK PTFE | 20% PEEK PTFE |
| 05 | 1 | Tige de manoeuvre | 1.4404 | 1.4404 | 05 | 1 | Stem | 316L | 316L |
| 06 | 1 | Garniture presse-étoupe | PTFE 33% C + 2% Gr | PTFE 33% C + 2% Gr | 06 | 1 | Gland packing | 33%C+2%Gr PTFE | 33%C+2%Gr PTFE |
| | | Garniture presse-étoupe (SF) | Graphite | Graphite | | | Gland packing (FS) | Graphite | Graphite |
| 07 | 2 | Rondelles ressort | | 1.4310 | 07 | 2 | Spring washers | 301 | 301 |
| 08 | 2 | Sièges | PTFE | PTFE 20% PEEK | 08 | 2 | Seats | PTFE | 20% PEEK PTFE |
| 09* | 1 | Tournant sphérique | | 1.4409 | 09* | 1 | Ball | | CF3M (316L) |
| 10 | 2 | Embouts libres (DN10 à 25) | | 1.1151 Cataphorésé | 10 | 2 | Loose ends (DN10 to 25) | | 1020 cataphoresis treatment |
| | | Embouts libres (DN32 à 50) | 1.4404 | 1.0460 Cataphorésé | | | Loose ends (DN32 to 50) | 316L | A105 cataphoresis treatment |
| | | Embouts fixes | | 1.1151 Cataphorésé | | | Fixed ends | | 1020 cataphoresis treatment |
| | | Embouts à bride | | | | | Flanged ends | | |
| 11 | 2 | Brides tournantes | 1.4307 | 1.0144 Cataphorésé | 11 | 2 | Body flange | 304L | A 501 cataphoresis treatment |
| 12 | 4 | Entretoises | PTFE rouge | PTFE rouge | 12 | 4 | Distance piece | Red PTFE | Red PTFE |
| 13 | 4 | Vis DN10 à 40 | 1.4301 | Classe 8.8 | 13 | 4 | Screw Size 1/4" to 1 1/2 | 304 | Class 8.8 |
| | | Tirants DN50 | 1.4301 | 1.4301 | | | Stud Size 2" | 304 | 304 |
| 14 | 2 | Joints de corps | PTFE | PTFE | 14 | 2 | Body seal | PTFE | PTFE |
| | | Joints de corps (option : SF) | 14404 + Graphite | 14404 + Graphite | | | Body seal (option: FS) | 316L + Graphite | 316L + Graphite |
| 15 | 1 | Levier standard | 1.1181 | 1.1181 | 15 | 1 | Handle standard | 1035 | 1035 |
| | | Levier option | Voir paragraphe OPTIONS DE MANOEUVRE | | | | Handle option | See OPTIONS FOR OPERATION | |
| 16 | 1 | Ecrou de levier | 1.4404 | 1.4404 | 16 | 1 | Lever nut | 316L | 316L |
| 16b | 1 | Vis Th de levier DN10 | 1.4301 | 1.4301 | 16b | 1 | Lever screw DN 10 | 304 | 304 |
| | | Écrous de serrage | | | | | | | |
| 17 | 4 | DN10 à DN40 | 1.4301 | Classe 10.8 | 17 | 4 | Size 1/4" to 1 1/2 | 304 | Class 10.8 |
| | 8 | DN50 | 1.4301 | 1.4301 | | 8 | Size 2" | 304 | 304 |
| 18 | 1 | Écrou de fouloir | 1.4404 | 1.4404 | 18 | 1 | Nut gland | 316L | 316L |
| 19 | 1 | Bague réhaussée de butée | 1.4307 | 1.4307 | 19 | 1 | Stop ring | 304L | 304L |
| 22 | 1 | Frein d'écrou de levier | 1.4307 | 1.4307 | 22 | 1 | Nut stop | 304L | 304L |
| 23 | 1 | Vis Chc de butée | 1.4301 | 1.4301 | 23 | 1 | Screw stop | 304 | 304 |
| 24 | 1 | Fouloir | 1.4404 | 1.4404 | 24 | 1 | Gland | 316L | 316L |
| 25 | 1 | Étiquette identification (option) | 1.4307 | 1.4307 | 25 | 1 | Identification label (option) | 304L | 304L |
| 27 | 1 | Manchon de couleur (option) | PVC | PVC | 27 | 1 | Color plastic cover (option) | PVC | PVC |
| 28 | 1 | Frein d'écrou de P.E | 1.4307 | 1.4307 | 28 | 1 | Stop nut gland | 304L | 304L |

* Sphère percée en standard
* Drilled ball as standard

**NOMENCLATURE
COMPONENTS**

DN 65 à 150

Size 2"1/2 to 6"



| N° | Nb | Description | Matière (EN) | |
|-------------------|----|-----------------------------------|-------------------------------------|--------------------|
| | | | Inox | Acier |
| 03 | 1 | Corps | 1.4409 | 1.0619 Cataphorésé |
| 04 | 1 | Rondelle de friction | PTFE 20 % PEEK | PTFE 20 % PEEK |
| 05 | 1 | Tige de manœuvre | 1.4404 | 1.4404 |
| 06 | 1 | Garniture de presse-étoupe | PTFE | PTFE |
| | | Garniture presse-étoupe (SF) | Graphite | Graphite |
| 07 | 2 | Rondelles ressort | 1.4310 | 1.4310 |
| 08 | 2 | Sièges | PTFE | PTFE |
| 09 | 1 | Tournant sphérique | 1.4409 | 1.4409 |
| | | Embouts libres (DN65 à 100) | 1.4404 | 1.0460 Cataphorésé |
| 10 | 2 | Embouts libres (DN125 à 150) | 1.1151 Cataphorésé | 1.1151 Cataphorésé |
| | | Embouts à bride | 1.4404 | 1.1151 Cataphorésé |
| 11 | 2 | Brides tournantes | 1.4307 | 1.0037 Cataphorésé |
| Tirants | | | | |
| 13 | 12 | DN65 | 1.4307 | 1.0060 |
| | 16 | DN80 à DN125 | | |
| | 20 | DN150 | | |
| 14 | 2 | Joints de corps | PTFE | PTFE |
| | | Joints de corps (option : SF) | 14404 + Graphite | 14404 + Graphite |
| 15 | 1 | Levier standard | 1.0037 Cataphorésé | |
| | | Levier option | Voir paragraphe OPTIONS DE MANŒUVRE | |
| 16 | 1 | Vis de levier | 1.4301 | 1.4301 |
| Écrous de serrage | | | | |
| 17 | 6 | DN65 | 1.4307 | Classe 8.8 |
| | 8 | DN80 à DN125 | | |
| | 10 | DN150 | | |
| 18 | 1 | Écrou de fouloir | 1.4404 | 1.4404 |
| 19 | 1 | Plaque d'arrêt | 1.4307 | 1.4307 |
| 19b | 1 | Bague de butée | 1.4307 | 1.4307 |
| 20 | 2 | Support de siège | PTFE 25% verre ou 1.4404 (option) | |
| 23 | 1 | Vis Chc de butée | 1.4301 | 1.4301 |
| 24 | 1 | Fouloir | 1.4404 | 1.4404 |
| 25 | 1 | Étiquette identification (option) | 1.4307 | 1.4307 |
| 28 | 1 | Frein d'écrou de P.E | 1.4307 | 1.4307 |
| 29 | 1 | Noix de manœuvre standard | 1.0037 Cataphorésé | 1.0037 Cataphorésé |
| | | Noix de manœuvre option | 1.4305 | 1.4305 |

* Sphère percée en standard
* Drilled ball as standard

| Item | Qty | Description | Material (ASTM) | |
|-----------|-----|-------------------------------|---------------------------------------|----------------------------------|
| | | | S.steel | C.steel |
| 03 | 1 | Body | CF3M (316L) | A216WCB cataphoresis treatment |
| 04 | 1 | Stem thrust seal | 20%PEEK PTFE | 20%PEEK PTFE |
| 05 | 1 | Stem | 316L | 316L |
| 06 | 1 | Gland packing | PTFE | PTFE |
| | | Gland packing (FS) | Graphite | Graphite |
| 07 | 2 | Spring washers | 301 | 301 |
| 08 | 2 | Seats | PTFE | PTFE |
| 09 | 1 | Ball | CF3M (316L) | CF3M (316L) |
| | | Loose ends (DN65 to 100) | 316L | A105 cataphoresis treatment |
| 10 | 2 | Loose ends (DN125 to 150) | 316L | 1020 cataphoresis treatment |
| | | Flanged ends | 316L | 1020 cataphoresis treatment |
| 11 | 2 | Body flanges | 304L | A283 Gr C cataphoresis treatment |
| Stud | | | | |
| 13 | 12 | Size 2"1/2 | 304L | A572 |
| | 16 | Size 3" to 5" | | |
| | 20 | Size 6" | | |
| 14 | 2 | Body seal | PTFE | PTFE |
| | | Body seal (option: FS) | 316L + Graphite | 316L + Graphite |
| 15 | 1 | Handle standard | A283 Gr C cataphoresis treatment | |
| | | Handle option | See OPTIONS FOR OPERATION | |
| 16 | 1 | Handle screw | 304 | 304 |
| Nut screw | | | | |
| 17 | 6 | Size 2"1/2 | 304L | Class 8.8 |
| | 8 | Size 3" to 5" | | |
| | 10 | Size 6" | | |
| 18 | 1 | Nut gland | 316L | 316L |
| 19 | 1 | Stop plate | 304L | 304L |
| 19b | 1 | Locking plug | 304L | 304L |
| 20 | 2 | Seat holder | 25% glassfilled PTFE or 316L (option) | |
| 23 | 1 | Stop screw | 304 | 304 |
| 24 | 1 | Gland | 316L | 316L |
| 25 | 1 | Identification label (option) | 304L | 304L |
| 28 | 1 | Stop nut gland | 304L | 304L |
| 29 | 1 | Handle adaptor standard | A283 Gr C cataphoresis treatment | |
| | | Handle adaptor option | 303 | 303 |

TYPES DE JOINTS SEATS & SEALS MATERIAL

Caractéristiques

PS4 / PN4 : Sièges TFM 1600.
Plage de température -50 °C / +190 °C
PZ4 : Sièges PTFE +20 % PEEK.
Plage de température 0 °C / +280 °C
PP4 : Sièges PEEK.
Plage de température 0 °C / +280 °C

Versions acier au carbone, 316L, 904L (UB6), 304L, Alloy 22.

Version standard :

Perçage boule dans la rainure pour décompression du corps en position ouverte.

Option :

Perçage boule coté amont pour décompression en position fermée.

Agréments :

DESP 97/23/CE

TA-Luft (Conformité aux émanations fugitives)

AD2000 Merkblatt

Matériau des sièges agréé FDA

Options :

ATEX 94/9/CE

Marquage π suivant la directive 2010/35/UE TPED :

certification ADR § 1.8.7.6

Technical data

PS4 / PN4: TFM 1600 seats.
Temperature range: -50°C / +190°C
PZ4: 20% PEEK filled PTFE seats.
Temperature range: 0°C / +280°C
PP4: PEEK seats.
Temperature range: 0°C / +280°C

Carbon steel, 316L, 904L, 304L, Alloy 22 version.

Standard version:

Ball drilling in the stem groove for cavity relief in the open position.

Option:

Upstream vent hole for cavity relief in the closed position.

Approvals:

PED 97/23/CE

TA-Luft (fugitive emissions)

AD2000 Merkblatt

Seat material FDA approved

Options:

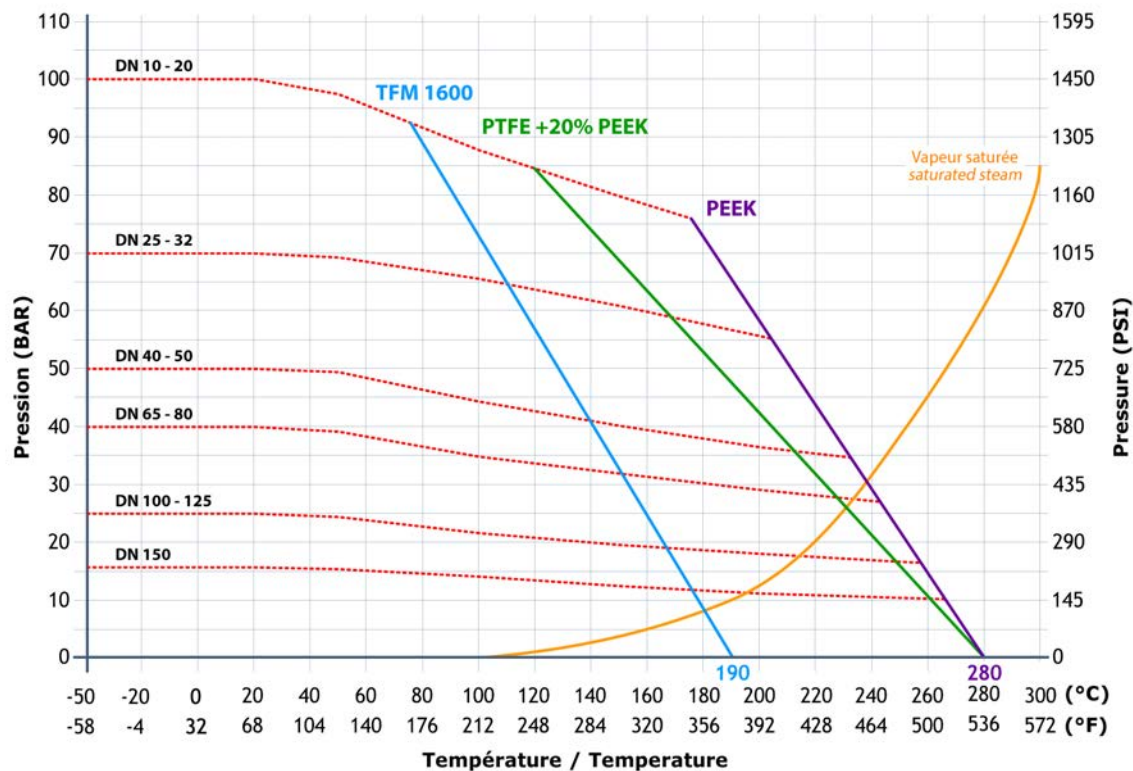
ATEX 94/9/CE

π marking according to 2010/35/UE TPED :

certification ADR §1.8.7.6

Courbes Pression/Température

Pressure/Temperature diagrams



--- tenue mécanique du corps
=== tenue mécanique des sièges

-10 °C = limite d'utilisation des robinets en acier carbone standard (1.0619 / A216 WCB)

-46 °C = limite d'utilisation des robinets en acier carbone basse température (1.0566 / A352-LC2-1)

Toutes les valeurs sont données pour passage intégral.

--- mechanical strength of body
=== mechanical strength of seats

-10°C = limit the use of standard carbon steel valves (1.0619 / A216 WCB)

-46°C = limit the use of low temperature carbon steel valves (1.0566 / A352-LC2-1)

All values are given for full bore size.

TYPES DE JOINTS SEATS & SEALS MATERIAL

Caractéristiques

PH4 : Sièges PEHD (Hostalengur / UHMWPE).

Plage de température -50 °C / + 100 °C

PJ4 : Sièges TFM 1600, joints de corps et Presse-étoupe en Fluorosilicone.

Plage de température -80 °C / + 180 °C

Versions inox 316L, 904L (UB6), 304L, Alloy.

Version standard :

PJ4 / PH4 : Perçage boule dans la rainure pour décompression du corps en position ouverte.

PJ4 : Perçage boule coté amont pour décompression en position fermée.

Option :

PH4 : Perçage boule coté amont pour augmenter la décompression en position fermée.

PH4 : Boule sans perçage de décompression

PJ4 : Rehausse type RHJ pour une double étanchéité et un accès à la partie supérieure du calorifuge de tuyauterie.

Agréments :

DESP 97/23/CE

TA-Luft (Conformité aux émanations fugitives)

AD2000 Merkblatt

Matériau des sièges agréé FDA

Options :

ATEX 94/9/CE seulement pour PJ4

Marquage π suivant la directive 2010/35/UE TPED :

certification ADR § 1.8.7.6

Technical data

PH4: Ultra High Molecular Weight Poly Ethylen seats (UHMWPE). Temperature range -50°C / +100°C

PJ4: TFM 1600 seats. Body seal and gland-packing in fluorosilicon.

Temperature range -80°C / +180°C

316L, 904L, 304L, Alloy version.

Standard version:

PJ4 / PH4: Ball drilling in the stem mark for cavity relief in the open position.

PJ4: Upstream vent hole for cavity relief in the closed position.

Option:

PH4: Upstream vent hole for cavity relief in the closed position.

PH4: Ball without cavity relief

PJ4: Delivered with RHJ stem extension for operation above pipe insulation.

Approvals:

PED 97/23/CE

TA-Luft (fugitive emissions)

AD2000 Merkblatt

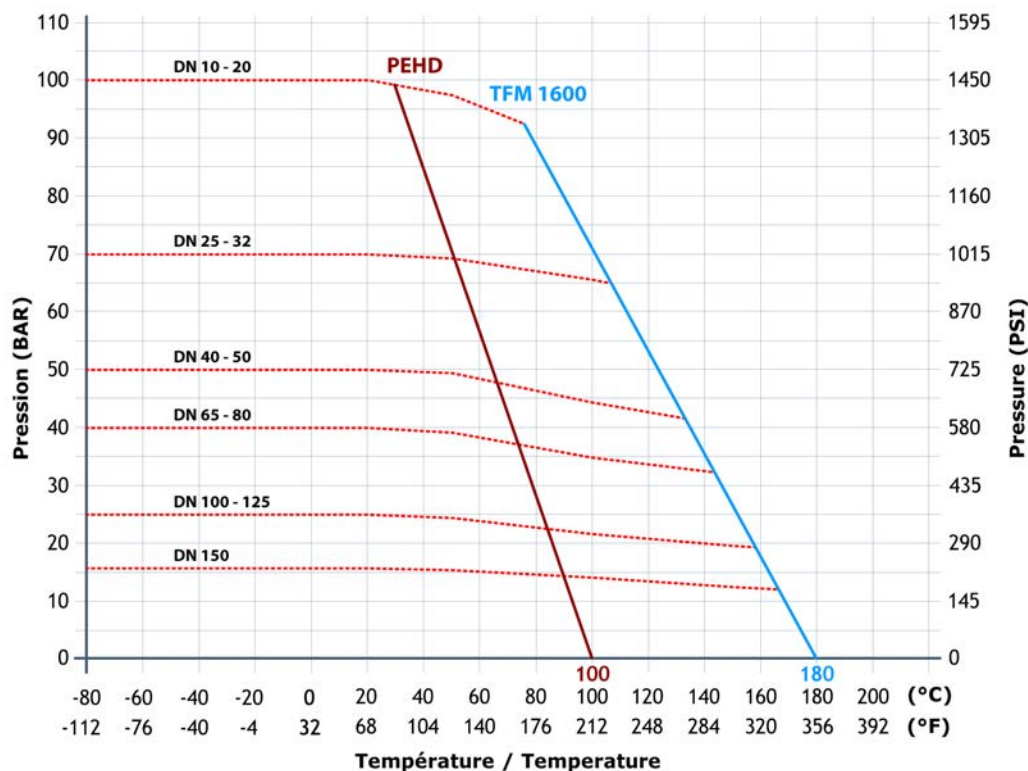
Seat material FDA approved

Options: ATEX 94/9/CE only for PJ4

π marking according to 2010/35/UE TPED :

certification ADR §1.8.7.6

Courbes Pression/Température Pressure/Temperature diagrams



----- tenue mécanique du corps
————— tenue mécanique des sièges

Toutes les valeurs sont données pour passage intégral.

----- mechanical strength of body
————— mechanical strength of seats

All values are given for full bore size.

TYPES DE JOINTS SEATS & SEALS MATERIAL

Caractéristiques

PY4 : Sièges TF 3215 (PTFE + Carbone).

Plage de température -200 °C / + 200 °C

Version sans rehausse pour applications sans risque de prise en glace.

Versions inox 316L, 904L (UB6), 304L, Alloy.

Version standard :

Perçage boule dans la rainure pour décompression du corps en position ouverte. Perçage boule coté amont pour augmenter la décompression en position fermée.

Agréments :

DESP 97/23/CE

TA-Luft (Conformité aux émanations fugitives)

AD2000 Merkblatt

Options:

ATEX 94/9/CE

Marquage π suivant la directive 2010/35/UE TPED :

certification ADR § 1.8.7.6

Technical data

PY4 : TF 3215 seats (PTFE + Carbon).

Temperature range: -200°C / +200°C

Version without extension for applications without risk of freezing.

316L, 904L, 304L, Alloy version.

Standard version:

Ball drilling in the stem mark for cavity relief in the open position. Upstream vent hole for cavity relief in the closed position.

Approvals:

PED 97/23/CE

TA-Luft (fugitive emissions)

AD2000 Merkblatt

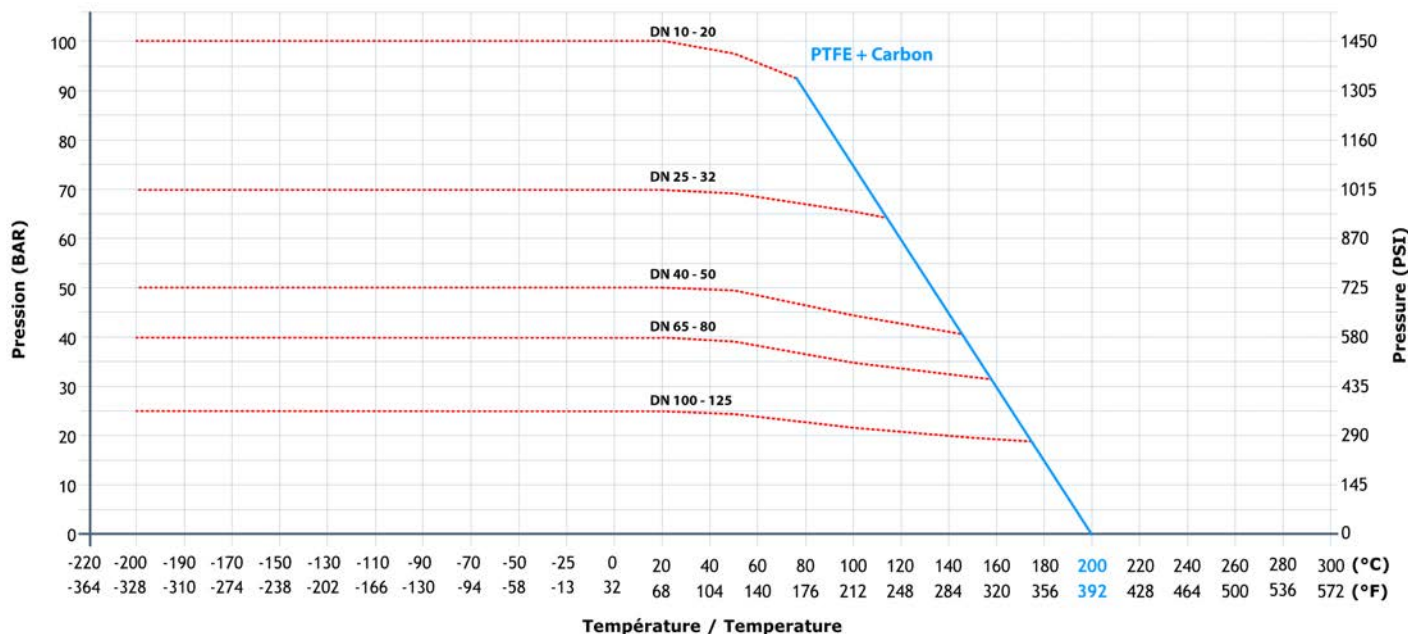
Options:

ATEX 94/9/CE

π marking according to 2010/35/UE TPED:

certification ADR §1.8.7.6

Courbes Pression/Température Pressure/Temperature diagrams



--- Tenue mécanique du corps
— Tenue mécanique des sièges

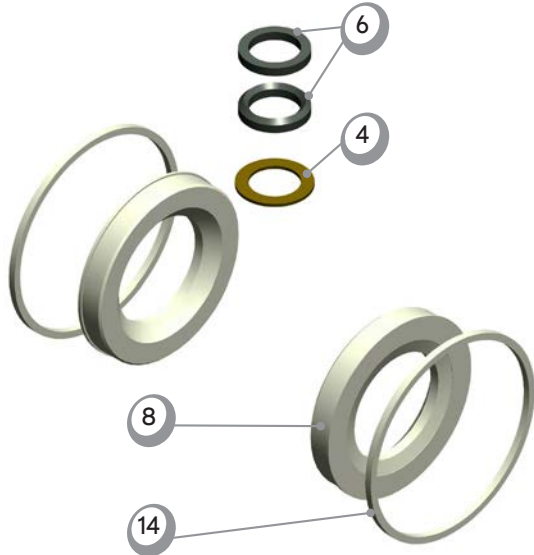
Toutes les valeurs sont données pour passage intégral.

--- mechanical strength of body
— mechanical strength of seats

All values are given for full bore size.

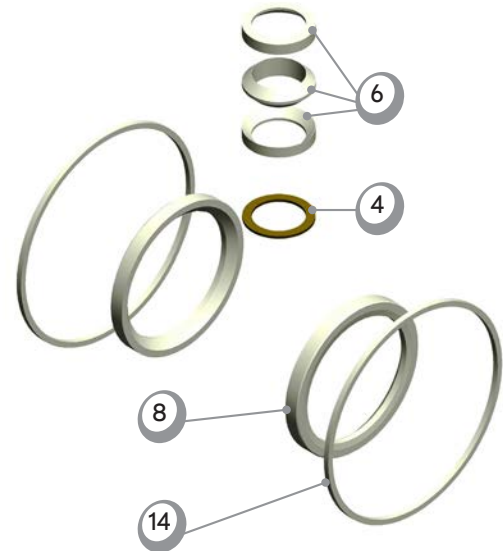
TYPES DE JOINTS SEATS & SEALS MATERIAL

DN 10 à 50 | Size 1/4" to 2"



- 8 • 2 sièges
- 14 • 2 joints de corps
- 6 • 1 garniture de presse-étoupe : DN 10 à 50 = 2 parties
DN 65 à 200 = 3 parties
- 4 • 1 rondelle de friction

DN 65 à 200 | Size 2 1/2" to 8"



- 8 • 2 seats
- 14 • 2 body seats
- 6 • 1 gland-packaging: size 3/8" to 2" = 2 parts
size 2 1/2" to 8" = 3 parts
- 4 • 1 stem thrust seat

| Rep - Robinet Item - Valve type | 04 | 06 | 08 | 14 |
|--|-------------------------------|--------------------------------------|-------------------------------|----------------|
| PS4 DN 10 à DN 50 / PS4 DN 1/4" to DN 2" | | | | |
| PH4 | PE HD | PE HD | PE HD | PE HD |
| PJ4 | PTFE 20% PEEK 20%PEEK PTFE | Fluorosilicone | TFM 1600 | Fluorosilicone |
| PN4 | PTFE 20% PEEK 20%PEEK PTFE | PTFE 33% C + 2% Gr 33%C+2%Gr PTFE | TFM 1600 | PTFE |
| PP4 | PEEK | PTFE 33% C + 2% Gr 33%C+2%Gr PTFE | PEEK | PTFE |
| PS4 | PTFE 20% PEEK 20%PEEK PTFE | PTFE 33% C + 2% Gr 33%C+2%Gr PTFE | TFM 1600 | PTFE |
| PY4 | PTFE 20% PEEK 20%PEEK PTFE | PTFE 33% C + 2% Gr 33%C+2%Gr PTFE | PTFE+Carbone PTFE+Carbon | PTFE |
| PZ4 | PTFE 20% PEEK 20%PEEK PTFE | PTFE 33% C + 2% Gr 33%C+2%Gr PTFE | PTFE 20% PEEK 20%PEEK PTFE | PTFE |
| PS4 DN 65 à DN 200 / PS4 DN 2 1/2" to DN 8" | | | | |
| PH4 | PE HD | PE HD | PE HD | PE HD |
| PJ4 | PTFE 20% PEEK 20%PEEK PTFE | Fluorosilicone | TFM 1600 | Fluorosilicone |
| PN4 | PTFE 20% PEEK 20%PEEK PTFE | PTFE | TFM 1600 | PTFE |
| PP4 | PEEK | PTFE | PEEK | PTFE |
| PS4 | PTFE 20% PEEK 20%PEEK PTFE | PTFE | TFM 1600 | PTFE |
| PY4 | PTFE 20% PEEK 20%PEEK PTFE | PTFE | PTFE+Carbone PTFE+Carbon | PTFE |
| PZ4 | PTFE 20% PEEK 20%PEEK PTFE | PTFE | PTFE 20% PEEK 20%PEEK PTFE | PTFE |

VALEURS KV - CODIFICATION VALUES KV - CODIFICATION

VALEURS KV | KV VALUES

Passage intégral / Full bore

| DN | Size | ΔP= 1 bar Kv (m ³ /h) | ΔP=0.001 bar débit / flow (m ³ /h) |
|-----|-------|-------------------------------------|--|
| 8 | 1/4" | 6 | 0.19 |
| 12 | 3/8" | 8 | 0.25 |
| 15 | 1/2" | 13 | 0.40 |
| 20 | 3/4" | 26 | 0.81 |
| 25 | 1" | 46 | 1.47 |
| 32 | 1"1/4 | 82 | 2.59 |
| 40 | 1"1/2 | 120 | 3.81 |
| 50 | 2" | 223 | 7.07 |
| 65 | 2"1/2 | 423 | 13.37 |
| 80 | 3" | 617 | 19.52 |
| 100 | 4" | 1154 | 36.49 |
| 125 | 5" | 1883 | 59.56 |
| 150 | 6" | 2844 | 89.95 |

Passage Standard / Reduced bore

| DN | Size | ΔP= 1 bar Kv (m ³ /h) | ΔP=0.001 bar débit / flow (m ³ /h) |
|-----|-------|-------------------------------------|--|
| 15 | 1/2" | 8 | 0.25 |
| 20 | 3/4" | 13 | 0.40 |
| 25 | 1" | 26 | 0.81 |
| 32 | 1"1/4 | 46 | 1.47 |
| 40 | 1"1/2 | 82 | 2.59 |
| 50 | 2" | 120 | 3.81 |
| 65 | 2"1/2 | 223 | 7.07 |
| 80 | 3" | 397 | 12.56 |
| 100 | 4" | 560 | 17.71 |
| 125 | 5" | 942 | 29.80 |
| 150 | 6" | 1433 | 45.32 |
| 200 | 8" | 2011 | 63.60 |

Coefficient de débit : Kv

$Kv = Q \cdot \sqrt{d/\Delta P}$ exprimé en m³/h

ΔP = perte de charge en bar

Q = débit volumique exprimé en m³/h

d = densité du fluide

$\Delta P = d(Q/Kv)^2$

$Q = Kv \cdot \sqrt{\Delta P/d}$

Flow coefficient: Kv

$Kv = Q \cdot \sqrt{d/\Delta P}$ in m³/h

ΔP = pressure drop in bar

Q = flow in volum in m³/h

d = density

$\Delta P = d(Q/Kv)^2$

$Q = Kv \cdot \sqrt{\Delta P/d}$

CODIFICATION | CODIFICATION

| Type de sièges Seats | | Type d'embout Body flange | | Raccordement Connection | | Passage Bore | | Matière Material | |
|-------------------------|--------------------------------|------------------------------|-----------------------------------|----------------------------|--------------------------------------|-----------------|-----------------------------|---------------------|--|
| PS4 | TFM 1600 | L | Libre Loose ends | BW | A souder en bout Butt Welding | V | Standard Reduced bore | A | Acier Carbon steel |
| PZ4 | PTFE 20% PEEK 20% PEEK PTFE | T | Voie affleurante Flush mounted | CL | Clamp Clamp ends | N | Nominal Full bore | I | Inox / Stainless steel 316L |
| PP4 | PEEK | | | DB | Double Bague Compression fittings | T | Passage direct True Bore | F | Taux de Ferrite < 1 % Low Ferrite < 1 % |
| PN4 | TFM 1600 | | | FB | 3/8" NPSM | S | Inversé Inverted | U | Uranus B6 904L |
| PY4 | Cryogénique Cryo special | | | FC | Fond de Cuve Tank bottom | | | H | Alloy C22 |
| PJ4 | TFM 1600 | | | SW | A souder emboité Socket Welding | | | J | Inox / Stainless steel 304L |
| PH4 | PE Hostalen Gür UHMWPE | | | TB | Tarauté Briggs NPT threaded | | | D | Super Duplex 1.4410 |
| | | | | TG | Tarauté Gaz BSP threaded | | | C | Duplex 1.4462 |
| | | | | O4 | Soudure Orbitale Orbital welding | | | | |

Sur demande

- mixage des embouts possible
- autres matériaux
- embouts spécifiques

Upon request

- Mix of connections
- others materials
- specific ends

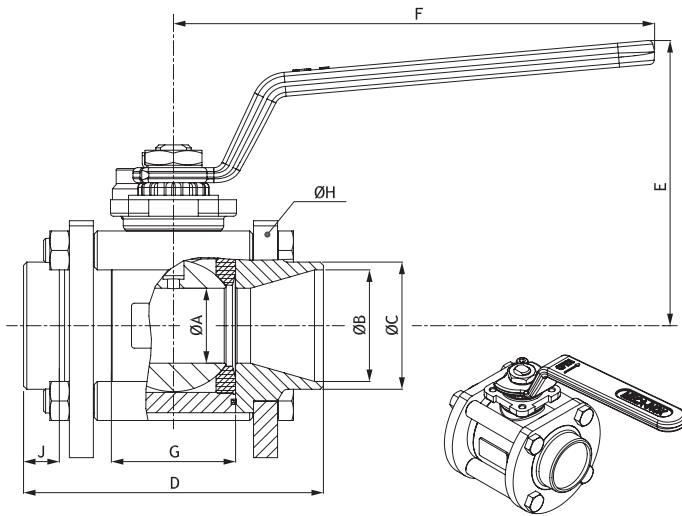
RACCORDEMENTS
TYPE OF CONNECTIONS

A souder en bout

DN 15 à 65
Passage Standard
Tube ISO

Butt Weld

Size 1/2" to 2 1/2"
Reduced bore
ISO pipe

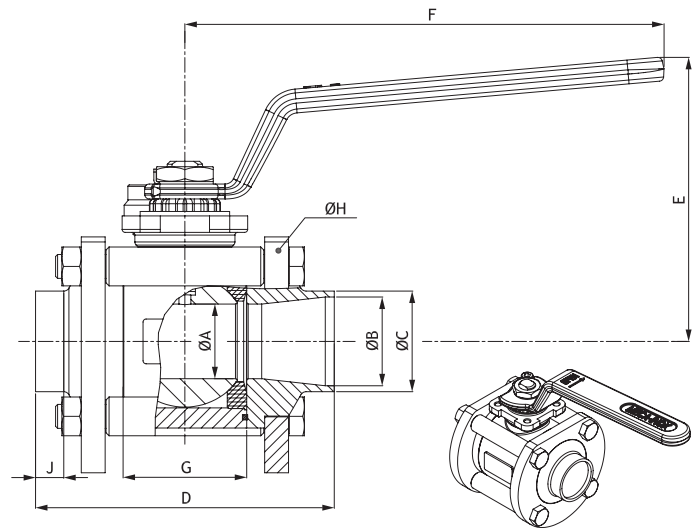


A souder en bout

DN 08 à 50
Passage intégral
Tube ISO

Butt Weld

Size 1/4" to 2"
Full bore
ISO pipe



| DN Size | PN | Ø A | Ø B | | Ø C | D | E | F | G | Ø H | J | ISO 5211 | Poids (Kg) Weight (Kg) | |
|--|--------|-----|--------------|---------------|------|------|-----|-----|-----|------|-----|----------|---------------------------|-------|
| | | | Inox S.Steel | Acier C.Steel | | | | | | | | | | |
| V • Passage Standard / Reduced bore | | | | | | | | | | | | | | |
| 15 | 1/2" | 100 | 11.1 | 17.3 | 15.5 | 21.3 | 65 | 70 | 120 | 20.4 | 56 | 8.5 | F03 | 0.650 |
| 20 | 3/4" | 100 | 14 | 22.9 | 20.5 | 26.9 | 70 | 73 | 120 | 24.4 | 63 | 8.8 | F03 | 0.800 |
| 25 | 1" | 100 | 19 | 29.7 | 27.3 | 33.7 | 85 | 91 | 160 | 31.6 | 80 | 9.1 | F04 | 1.610 |
| 32 | 1 1/4" | 70 | 25 | 37.2 | 34.4 | 42.4 | 100 | 95 | 160 | 41.4 | 88 | 11.9 | F04 | 2.100 |
| 40 | 1 1/2" | 70 | 32 | 43.1 | 40.3 | 48.3 | 110 | 111 | 190 | 48.2 | 104 | 10.9 | F05 | 3.120 |
| 50 | 2" | 50 | 38 | 54.5 | 52.3 | 60.3 | 125 | 116 | 190 | 56.2 | 117 | 14.1 | F05 | 4.300 |
| 65 | 2 1/2" | 50 | 50 | 70.3 | 66.1 | 76.1 | 150 | 137 | 230 | 71 | 148 | 13.2 | F07 | 8.590 |
| N • Passage intégral / Full bore | | | | | | | | | | | | | | |
| 08 | 1/4" | 100 | 11.1 | 9.5 | 8.9 | 13.5 | 65 | 70 | 120 | 20.4 | 56 | 6.4 | F03 | 0.640 |
| 12 | 3/8" | 100 | 11.1 | 13.2 | 12.6 | 17.2 | 65 | 70 | 120 | 20.4 | 56 | 7.3 | F03 | 0.640 |
| 15 | 1/2" | 100 | 14 | 17.3 | 15.5 | 21.3 | 70 | 73 | 120 | 24.4 | 63 | 7.3 | F03 | 0.800 |
| 20 | 3/4" | 100 | 19 | 22.9 | 20.5 | 26.9 | 85 | 91 | 160 | 31.6 | 80 | 7.2 | F04 | 1.610 |
| 25 | 1" | 70 | 25 | 29.7 | 27.3 | 33.7 | 100 | 95 | 160 | 41.4 | 88 | 9.4 | F04 | 2.080 |
| 32 | 1 1/4" | 70 | 32 | 37.2 | 34.4 | 42.4 | 110 | 111 | 190 | 48.2 | 104 | 9.2 | F05 | 3.310 |
| 40 | 1 1/2" | 50 | 38 | 43.1 | 40.3 | 48.3 | 125 | 116 | 190 | 56.2 | 117 | 10.7 | F05 | 4.270 |
| 50 | 2" | 50 | 50 | 54.5 | 52.3 | 60.3 | 150 | 137 | 230 | 71 | 148 | 8.6 | F07 | 8.690 |

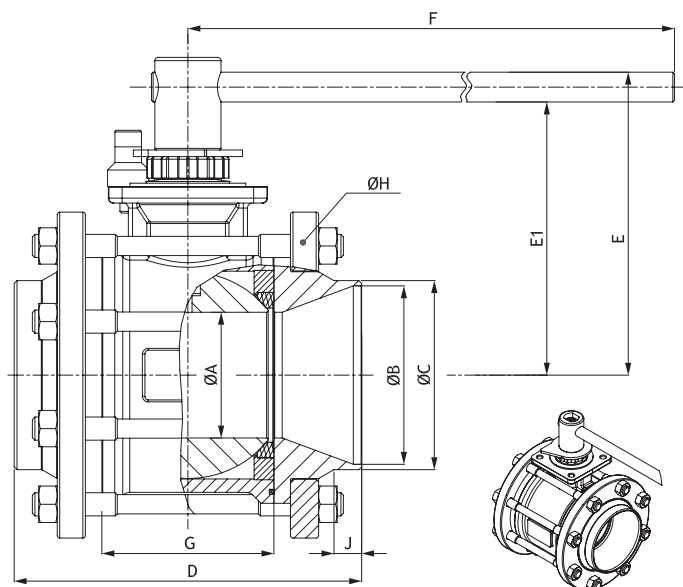
RACCORDEMENTS TYPE OF CONNECTIONS

A souder en bout

DN 80 à 200
Passage Standard
Tube ISO

Butt Weld

Size 3" to 8"
Reduced bore
ISO pipe

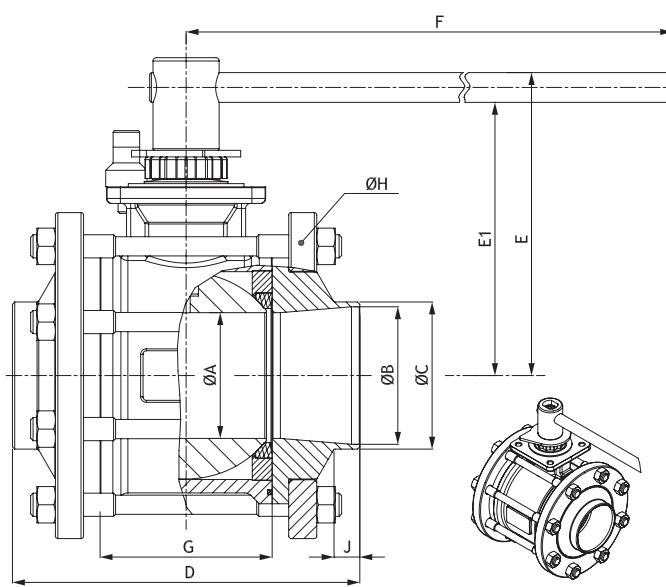


A souder en bout

DN 65 à 150
Passage intégral
Tube ISO

Butt Weld

Size 2"1/2 to 6"
Full bore
ISO pipe



| DN Size | PN | Ø A | Ø B | | Ø C | D | E | E1 | F | G | Ø H | J | ISO 5211 | Poids (Kg) Weight (Kg) | |
|--|-------|-----|-----------------|------------------|-------|-------|-----|-----|-----|-----|-----|-----|-------------|---------------------------|--------|
| | | | Inox S.Steel | Acier C.Steel | | | | | | | | | | | |
| V • Passage Standard / Reduced bore | | | | | | | | | | | | | | | |
| 80 | 3" | 40 | 64 | 83.1 | 78.9 | 88.9 | 180 | 171 | 153 | 370 | 84 | 174 | 12.8 | F07 | 14.840 |
| 100 | 4" | 40 | 76 | 107.9 | 101.7 | 114.3 | 210 | 182 | 165 | 440 | 104 | 197 | 16.4 | F10 | 22.310 |
| 125 | 5" | 25 | 100 | 133.7 | 131.7 | 139.7 | 230 | 204 | 184 | 505 | 130 | 236 | 12.9 | F10 | 33.980 |
| 150 | 6" | 25 | 125 | 162.3 | 159.3 | 168.3 | 260 | 248 | 221 | 710 | 157 | 288 | 11.6 | F12 | 57.940 |
| 200 | 8" | 16 | 150 | 211.5 | 207.9 | 219 | 290 | 270 | 243 | 710 | 185 | 324 | 12.1 | F12 | 78.900 |
| N • Passage intégral / Full bore | | | | | | | | | | | | | | | |
| 65 | 2"1/2 | 40 | 64 | 70.3 | 66.3 | 76.1 | 180 | 171 | 153 | 370 | 84 | 174 | 14.4 | F07 | 14.800 |
| 80 | 3" | 40 | 76 | 83.1 | 78.9 | 88.9 | 210 | 182 | 165 | 440 | 104 | 197 | 14.9 | F10 | 22.510 |
| 100 | 4" | 25 | 100 | 107.9 | 101.7 | 114.3 | 230 | 204 | 184 | 505 | 130 | 236 | 12.7 | F10 | 34.360 |
| 125 | 5" | 25 | 125 | 133.7 | 131.7 | 139.7 | 260 | 248 | 221 | 710 | 157 | 288 | 12.6 | F12 | 58.430 |
| 150 | 6" | 16 | 150 | 162.3 | 159.3 | 168.3 | 290 | 270 | 243 | 710 | 185 | 324 | 10.9 | F12 | 80.860 |

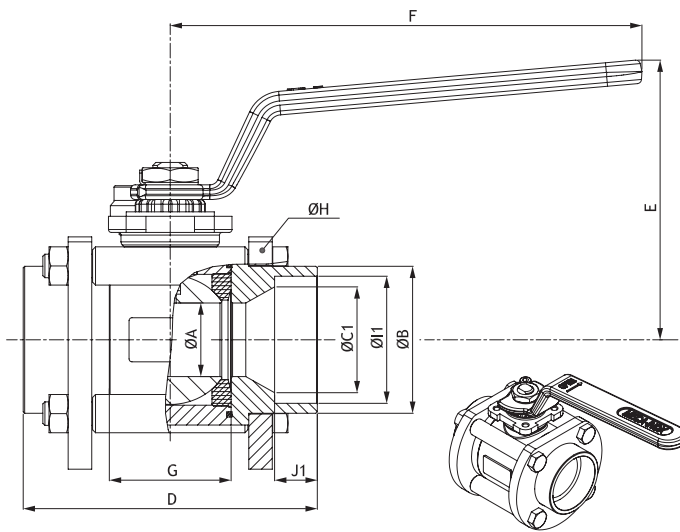
RACCORDEMENTS
TYPE OF CONNECTIONS

A souder emboîté

DN 15 à 65
Passage Standard

Socket Weld

Size 1/2" to 2"1/2
Reduced bore

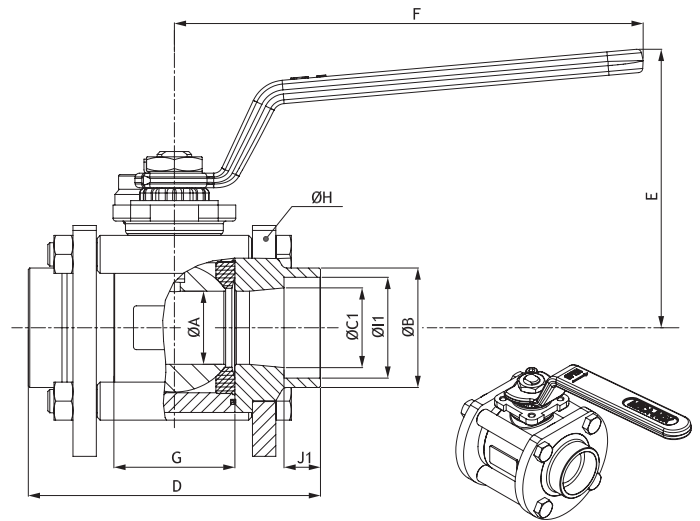


A souder emboîté

DN 08 à 50
Passage intégral

Socket Weld

Size 1/4" to 2"
Full bore



| DN Size | PN | Ø A | Ø B | Ø C1 | D | E | F | G | Ø H | Ø I1 | J1 | ISO 5211 | Poids (Kg) Weight (Kg) | |
|--|-------|-----|------|------|------|-----|-----|-----|------|------|------|----------|------------------------|-------|
| V • Passage Standard / Reduced bore | | | | | | | | | | | | | | |
| 15 | 1/2" | 100 | 11.1 | 27.0 | 16.1 | 65 | 70 | 120 | 20.4 | 56 | 21.9 | 10.5 | F03 | 0.650 |
| 20 | 3/4" | 100 | 14 | 33.0 | 21.7 | 70 | 73 | 120 | 24.4 | 63 | 27.3 | 13.5 | F03 | 0.810 |
| 25 | 1" | 100 | 19 | 42.0 | 27.3 | 85 | 91 | 160 | 31.6 | 80 | 34.0 | 13.5 | F04 | 1.610 |
| 32 | 1"1/4 | 70 | 25 | 50.0 | 36.0 | 100 | 95 | 160 | 41.4 | 88 | 42.8 | 14.5 | F04 | 2.080 |
| 40 | 1"1/2 | 70 | 32 | 56.0 | 41.9 | 110 | 111 | 190 | 48.2 | 104 | 48.9 | 16.0 | F05 | 3.270 |
| 50 | 2" | 50 | 38 | 69.0 | 53.1 | 125 | 116 | 190 | 56.2 | 117 | 61.3 | 17.5 | F05 | 4.220 |
| 65 | 2"1/2 | 50 | 50 | 85.0 | 68.9 | 150 | 137 | 230 | 71 | 148 | 77.1 | 19.0 | F07 | 8.380 |
| N • Passage intégral / Full bore | | | | | | | | | | | | | | |
| 08 | 1/4" | 100 | 11.1 | 19.6 | 11.1 | 65 | 70 | 120 | 20.4 | 56 | 14.3 | 10.5 | F03 | 0.650 |
| 12 | 3/8" | 100 | 11.1 | 24.0 | 12.6 | 65 | 70 | 120 | 20.4 | 56 | 17.8 | 10.5 | F03 | 0.650 |
| 15 | 1/2" | 100 | 14 | 29.0 | 16.1 | 70 | 73 | 120 | 24.4 | 63 | 21.9 | 10.5 | F03 | 0.810 |
| 20 | 3/4" | 100 | 19 | 34.3 | 21.7 | 85 | 91 | 160 | 31.6 | 80 | 27.3 | 13.5 | F04 | 1.610 |
| 25 | 1" | 70 | 25 | 41.0 | 27.3 | 100 | 95 | 160 | 41.4 | 88 | 34.0 | 13.5 | F04 | 2.110 |
| 32 | 1"1/4 | 70 | 32 | 49.8 | 36.0 | 110 | 111 | 190 | 48.2 | 104 | 42.8 | 14.5 | F05 | 3.320 |
| 40 | 1"1/2 | 50 | 38 | 55.9 | 41.9 | 125 | 116 | 190 | 56.2 | 117 | 48.9 | 16.0 | F05 | 4.270 |
| 50 | 2" | 50 | 50 | 69.2 | 53.1 | 150 | 137 | 230 | 71 | 148 | 61.3 | 17.5 | F07 | 8.640 |

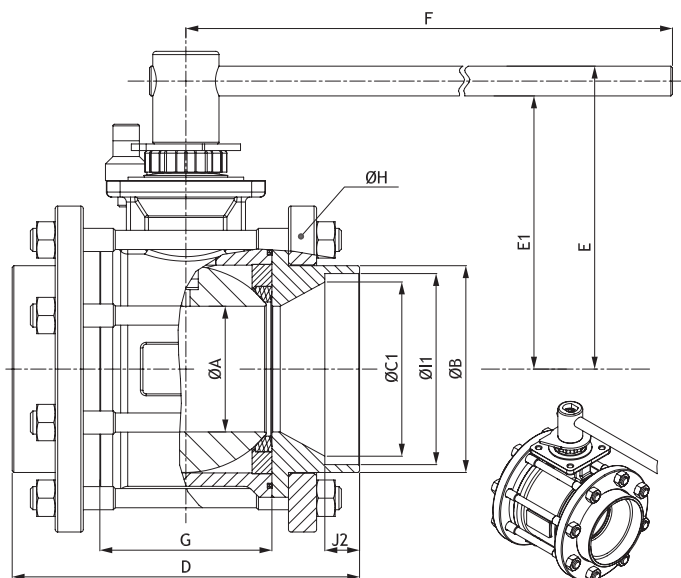
RACCORDEMENTS TYPE OF CONNECTIONS

A souder emboîté

DN 80 à 200
Passage Standard

Socket Weld

Size 3" to 8"
Reduced bore

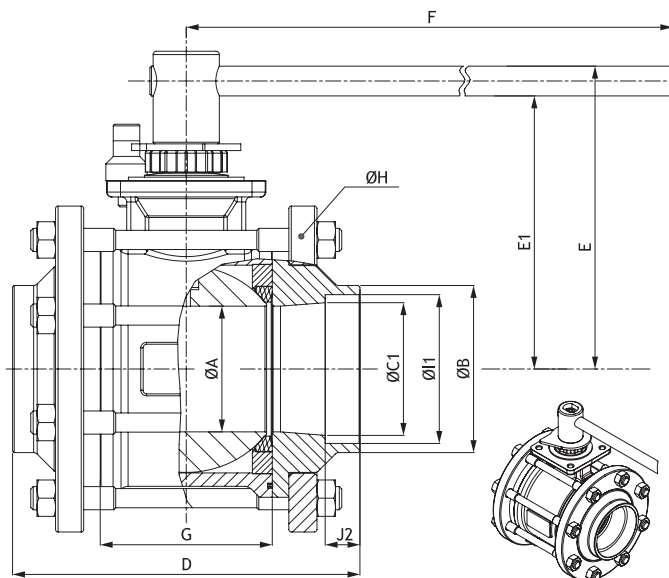


A souder emboîté

DN 65 à 150
Passage intégral

Socket Weld

Size 2"1/2 to 6"
Full bore



| DN Size | PN | Ø A | Ø B | Ø C1 | D | E | E1 | F | G | Ø H | Ø I1 | J2 | ISO 5211 | Poids (Kg) Weight (Kg) | |
|--|-------|-----|-----|-------|-------|-----|-----|-----|-----|-----|------|-------|----------|---------------------------|--------|
| V • Passage Standard / Reduced bore | | | | | | | | | | | | | | | |
| 80 | 3" | 40 | 64 | 101 | 81 | 180 | 171 | 153 | 370 | 84 | 174 | 89.9 | 21 | F07 | 14.700 |
| 100 | 4" | 40 | 76 | 125 | 105.3 | 210 | 182 | 165 | 440 | 104 | 197 | 115.5 | 21 | F10 | 22.010 |
| 125 | 5" | 25 | 100 | 148.5 | 135 | 230 | 204 | 184 | 505 | 130 | 236 | 141.3 | 24 | F10 | 32.820 |
| 150 | 6" | 25 | 125 | 177.5 | 164 | 260 | 248 | 221 | 710 | 157 | 288 | 171.3 | 24 | F12 | 56.140 |
| 200 | 8" | 16 | 150 | 229 | 214 | 290 | 270 | 243 | 710 | 185 | 324 | 221.8 | 30 | F12 | 74.290 |
| N • Passage intégral / Full bore | | | | | | | | | | | | | | | |
| 65 | 2"1/2 | 40 | 64 | 87 | 69 | 180 | 171 | 153 | 370 | 84 | 174 | 77.6 | 19 | F07 | 14.890 |
| 80 | 3" | 40 | 76 | 101 | 81 | 210 | 182 | 165 | 440 | 104 | 197 | 89.9 | 21 | F10 | 22.750 |
| 100 | 4" | 25 | 100 | 127.5 | 105.3 | 230 | 204 | 184 | 505 | 130 | 236 | 115.5 | 21 | F10 | 34.35 |
| 125 | 5" | 25 | 125 | 148.5 | 135 | 260 | 248 | 221 | 710 | 157 | 288 | 141.3 | 24 | F12 | 57.120 |
| 150 | 6" | 16 | 150 | 177.5 | 164 | 290 | 270 | 243 | 710 | 185 | 324 | 171.3 | 24 | F12 | 80.040 |

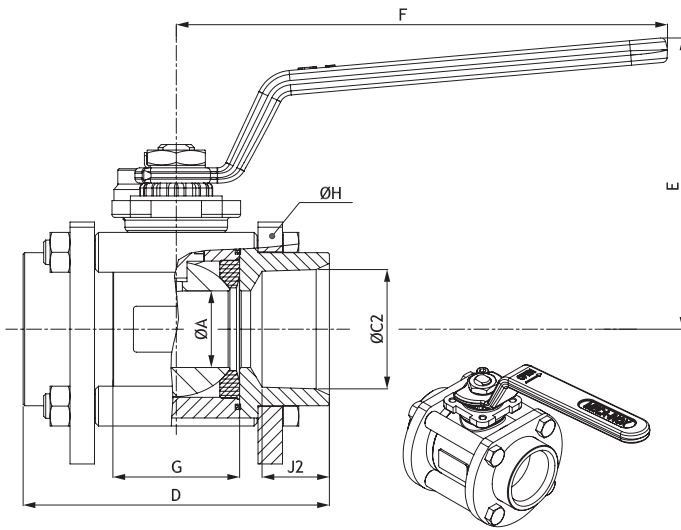
RACCORDEMENTS
TYPE OF CONNECTIONS

Tarudé BSP (TG) & NPT (TB)

DN 15 à 65
Passage Standard

BSP (TG) & NPT (TB) thread

Size 1/2" to 2 1/2"
Reduced bore

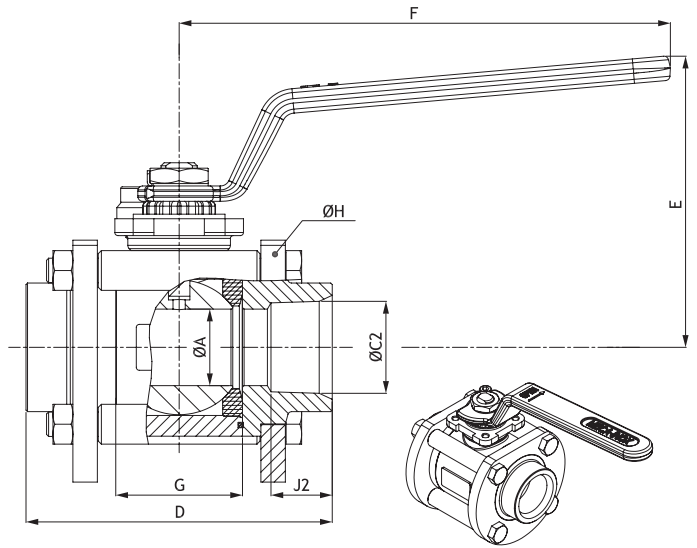


Tarudé BSP (TG) & NPT (TB)

DN 08 à 50
Passage intégral

BSP (TG) & NPT (TB) thread

Size 1/4" to 2"
Full bore



| DN Size | PN | Ø A | Ø C2 | | D | E | F | G | Ø H | J2 | ISO 5211 | Poids (Kg) Weight (Kg) | |
|--|--------|-----|----------------|------------|--------|-----|-----|-----|------|-----|----------|---------------------------|-------|
| | | | GAZ BSP "P" | NPT NPT | | | | | | | | | |
| V • Passage Standard / Reduced bore | | | | | | | | | | | | | |
| 15 | 1/2" | 100 | 11.1 | 1/2" | 1/2" | 65 | 70 | 120 | 20.4 | 56 | 16 | F03 | 0.640 |
| 20 | 3/4" | 100 | 14 | 3/4" | 3/4" | 70 | 73 | 120 | 24.4 | 63 | 16 | F03 | 0.800 |
| 25 | 1" | 100 | 19 | 1" | 1" | 85 | 91 | 160 | 31.6 | 80 | 20 | F04 | 1.600 |
| 32 | 1 1/4" | 70 | 25 | 1 1/4" | 1 1/4" | 100 | 95 | 160 | 41.4 | 88 | 22 | F04 | 2.050 |
| 40 | 1 1/2" | 70 | 32 | 1 1/2" | 1 1/2" | 110 | 111 | 190 | 48.2 | 104 | 22 | F05 | 3.270 |
| 50 | 2" | 50 | 38 | 2" | 2" | 125 | 116 | 190 | 56.2 | 117 | 25 | F05 | 4.160 |
| 65 | 2 1/2" | 50 | 50 | 2 1/2" | 2 1/2" | 150 | 137 | 230 | 71 | 148 | 30 | F07 | 7.730 |
| N • Passage intégral / Full bore | | | | | | | | | | | | | |
| 08 | 1/4" | 100 | 11.1 | 1/4" | 1/4" | 65 | 70 | 120 | 20.4 | 56 | 12 | F03 | 0.700 |
| 12 | 3/8" | 100 | 11.1 | 3/8" | 3/8" | 65 | 70 | 120 | 20.4 | 56 | 12 | F03 | 0.680 |
| 15 | 1/2" | 100 | 14 | 1/2" | 1/2" | 70 | 73 | 120 | 24.4 | 63 | 16 | F03 | 0.980 |
| 20 | 3/4" | 100 | 19 | 3/4" | 3/4" | 85 | 91 | 160 | 31.6 | 80 | 16 | F04 | 1.690 |
| 25 | 1" | 70 | 25 | 1" | 1" | 100 | 95 | 160 | 41.4 | 88 | 20 | F04 | 2.120 |
| 32 | 1 1/4" | 70 | 32 | 1 1/4" | 1 1/4" | 110 | 111 | 190 | 48.2 | 104 | 22 | F05 | 3.320 |
| 40 | 1 1/2" | 50 | 38 | 1 1/2" | 1 1/2" | 125 | 116 | 190 | 56.2 | 117 | 22 | F05 | 4.380 |
| 50 | 2" | 50 | 50 | 2" | 2" | 150 | 137 | 230 | 71 | 148 | 25 | F07 | 8.840 |

RACCORDEMENTS TYPE OF CONNECTIONS

Tarudé BSP (TG) & NPT (TB)

DN 80 à 100
Passage Standard

BSP (TG) & NPT (TB) thread

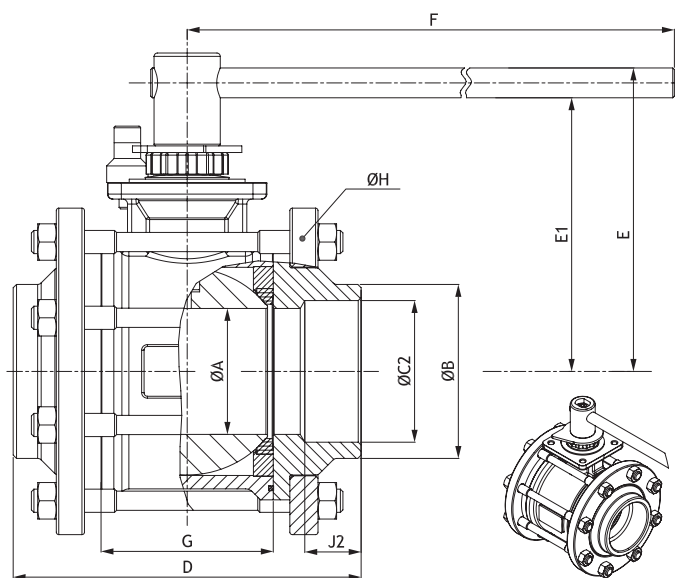
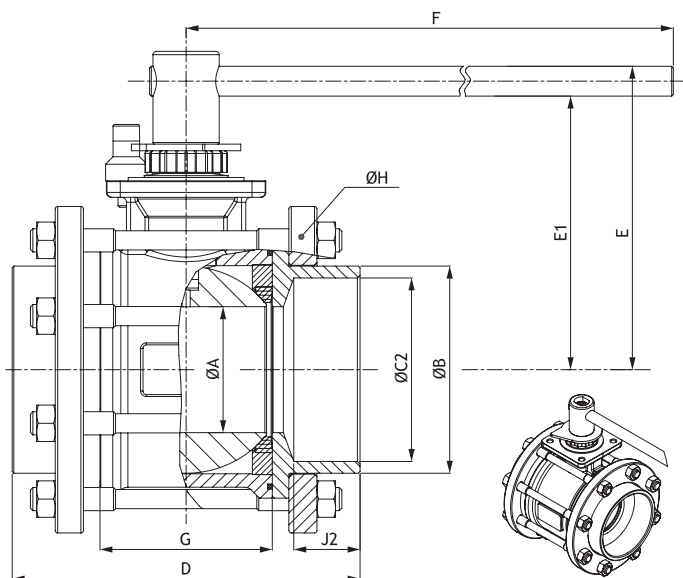
Size 3" to 4"
Reduced bore

Tarudé BSP (TG) & NPT (TB)

DN 65 à 100
Passage intégral

BSP (TG) & NPT (TB) thread

Size 2"1/2 to 4"
Full bore



| DN Size | PN | Ø A | Ø B | Ø C2 | | D | E | E1 | F | G | Ø H | J2 | ISO 5211 | Poids (Kg) Weight (Kg) | |
|--|-------|-----|-----|----------------|------------|-------|-----|-----|-----|-----|-----|-----|-------------|---------------------------|--------|
| | | | | GAZ BSP "P" | NPT NPT | | | | | | | | | | |
| V • Passage Standard / Reduced bore | | | | | | | | | | | | | | | |
| 80 | 3" | 40 | 64 | 107 | 3" | 3" | 180 | 171 | 153 | 370 | 84 | 174 | 34 | F07 | 14.940 |
| 100 | 4" | 40 | 76 | 125 | 4" | 4" | 210 | 182 | 165 | 440 | 104 | 197 | 40 | F10 | 21.590 |
| N • Passage intégral / Full bore | | | | | | | | | | | | | | | |
| 65 | 2"1/2 | 40 | 64 | 85 | 2"1/2 | 2"1/2 | 180 | 171 | 153 | 370 | 84 | 174 | 31 | F07 | 15.000 |
| 80 | 3" | 40 | 76 | 105 | 3" | 3" | 210 | 182 | 165 | 440 | 104 | 197 | 34 | F10 | 22.950 |
| 100 | 4" | 25 | 100 | 130 | 4" | 4" | 230 | 204 | 184 | 505 | 130 | 236 | 40 | F10 | 34.740 |

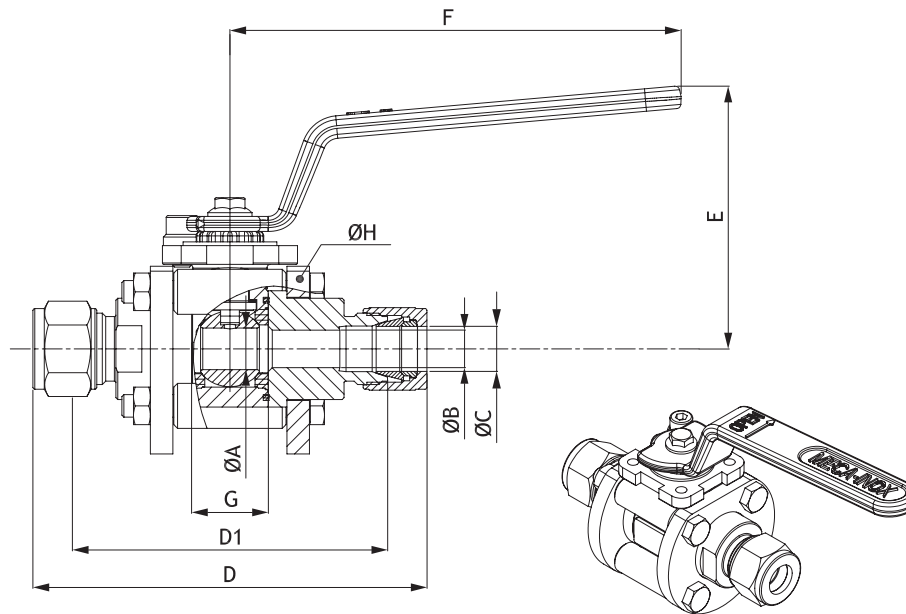
RACCORDEMENTS TYPE OF CONNECTIONS

Double bagues

DN 06 à 18
Passage intégral
Installation rapide et facile
(simple serrage sans soudure)

Compression fittings

Size 06 to 18
Full bore
Fast and easy valve installation
(nut screwing without welding)



| DN Size | PN | Ø A | Ø B | Ø C | D | D1 | E | F | G | Ø H | ISO 5211 |
|----------|-----|------|-----|---------|-------|------|----|-----|------|-----|----------|
| 06 | 100 | 11.1 | 4.8 | OD 6 | 98 | 83.2 | 70 | 120 | 20.4 | 56 | F03 |
| 08 | 100 | 11.1 | 6.4 | OD 8 | 98 | 83 | 70 | 120 | 20.4 | 56 | F03 |
| 10 | 100 | 11.1 | 7.9 | OD 10 | 99.6 | 84.4 | 70 | 120 | 20.4 | 56 | F03 |
| 12 | 100 | 11.1 | 9.8 | OD 12 | 104.7 | 84.5 | 70 | 120 | 20.4 | 56 | F03 |
| 1/2"(OD) | 100 | 11.1 | 9.8 | OD 1/2" | 104.7 | 84.5 | 70 | 120 | 20.4 | 56 | F03 |
| 18 | 100 | 14 | 14 | OD 18 | 113.8 | 93.6 | 73 | 120 | 24.4 | 63 | F03 |

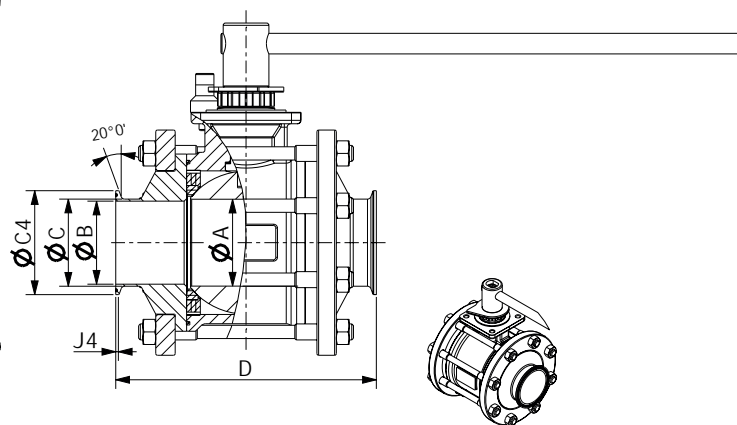
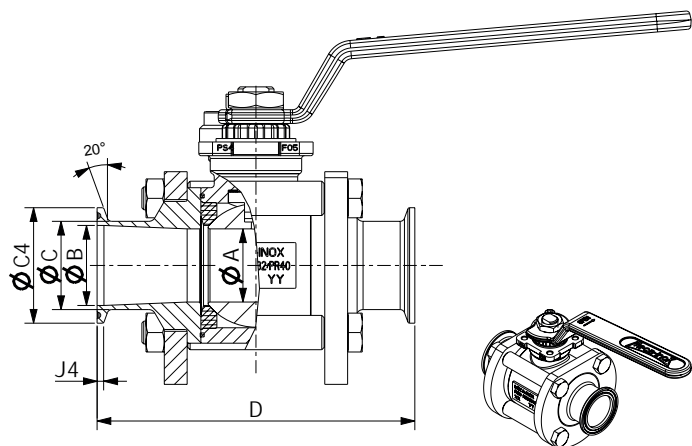
RACCORDEMENTS TYPE OF CONNECTIONS

A clamp

DN 08 à 150

Triclamp ends

Size 1/4" to 6"



Sur demande : dimensions suivant Normes :
ISO / DIN / BSOD / SMS / MICRO-CLAMP / KF

On request: following dimensions standards:
ISO / DIN / BSOD / SMS / MICRO-CLAMP / KF

| DN Size | ØA | D | J4 | ISO (2004) | | | DIN (11850 Row2) | | | BSOD | | | SMS (3008) | | | |
|------------|--------|------|-----|------------|------|------|------------------|-----|-----|------|-------|-------|------------|------|------|------|
| | | | | ØB | ØC | ØC4 | ØB | ØC | ØC4 | ØB | ØC | ØC4 | ØB | ØC | ØC4 | |
| 08 | 1/4" | 11.1 | 89 | 2.85 | 10.3 | 13.5 | 25 | 8 | 10 | 25 | 4.62 | 6.4 | 25 | 8 | 10 | 25 |
| 12 | 3/8" | 11.1 | 89 | 2.85 | 14 | 17.2 | 25 | 10 | 12 | 25 | - | - | - | 10 | 12 | 25 |
| 15 | 1/2" | 14 | 101 | 2.85 | 18.1 | 21.3 | 50.5 | 16 | 19 | 50.5 | 10.92 | 12.7 | 25 | 16 | 18 | 50.5 |
| 20 | 3/4" | 19 | 114 | 2.85 | 23.7 | 26.9 | 50.5 | 20 | 23 | 50.5 | 15.75 | 19.05 | 25 | 20 | 22 | 50.5 |
| 25 | 1" | 25 | 114 | 2.85 | 29.7 | 33.7 | 50.5 | 26 | 29 | 50.5 | 22.1 | 25.4 | 50.5 | 22.6 | 25 | 50.5 |
| 32 | 1 1/4" | 32 | 139 | 2.85 | 41.4 | 45.4 | 64 | 32 | 35 | 50.5 | - | - | - | 31.3 | 33.7 | 64 |
| 40 | 1 1/2" | 38 | 159 | 2.85 | 44.3 | 48.3 | 64 | 38 | 41 | 50.5 | 34.8 | 38.1 | 50.5 | 35.6 | 38 | 64 |
| 50 | 2" | 50 | 164 | 2.85 | 56.3 | 60.3 | 77.5 | 50 | 53 | 64 | 47.5 | 50.8 | 64 | 48.6 | 51 | 77.5 |
| 65 | 2 1/2" | 65 | 202 | 2.85 | 71.5 | 76.1 | 91 | 66 | 70 | 91 | 60.2 | 63.5 | 77.5 | 60.3 | 63.5 | 91 |
| 80 | 3" | 76 | 228 | 2.85 | 84.3 | 88.9 | 106 | 81 | 85 | 106 | 72.9 | 76.2 | 91 | 72.9 | 76.1 | 106 |
| 100 | 4" | 100 | 256 | 2.85 | - | - | - | 100 | 104 | 119 | 97.4 | 101.6 | 119 | - | - | - |
| 125 | 5" | 125 | 309 | 5.6 | - | - | - | - | - | - | - | - | - | - | - | - |
| 150 | 6" | 150 | 337 | 5.6 | - | - | - | - | - | - | - | - | - | - | - | - |

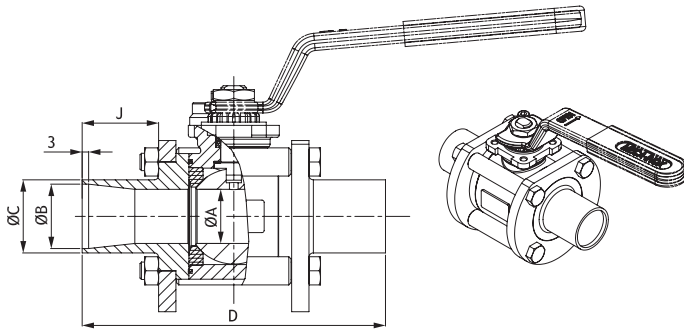
RACCORDEMENTS
TYPE OF CONNECTIONS

Soudure orbitale

DN 08 à 50
Passage intégral
Tube ISO

Orbital welding

Size 1/4" to 2"
Full bore
ISO pipe



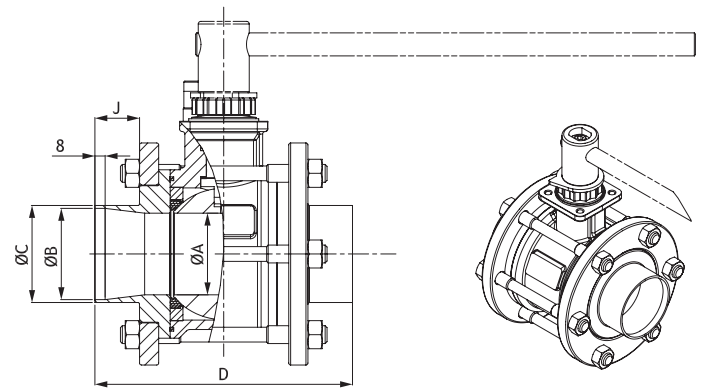
Sur demande : autres dimensions

Soudure orbitale

DN 65 à 150
Passage intégral
Tube ISO

Orbital welding

Size 2"1/2 to 6"
Full bore
ISO pipe



On request : other sizes available

| DN Size | PN | ØA | ØB | ØC | D | J | |
|---------|-------|-----|------|------|------|-----|----|
| 08 | 1/4" | 100 | 11.1 | 10.3 | 13.5 | 113 | 35 |
| 12 | 3/8" | 100 | 11.1 | 14 | 17.2 | 113 | 35 |
| 15 | 1/2" | 100 | 14 | 18.1 | 21.3 | 117 | 35 |
| 20 | 3/4" | 100 | 19 | 23.7 | 26.9 | 130 | 35 |
| 25 | 1" | 70 | 25 | 29.7 | 33.7 | 140 | 35 |
| 32 | 1"1/4 | 70 | 32 | 38.4 | 42.4 | 151 | 35 |
| 40 | 1"1/2 | 50 | 38 | 44.3 | 48.3 | 159 | 35 |
| 50 | 2" | 50 | 50 | 56.3 | 60.3 | 185 | 35 |

| DN Size | PN | ØA | ØB | ØC | D | J | |
|---------|-------|----|-----|-------|-------|-----|----|
| 65 | 2"1/2 | 40 | 64 | 70.3 | 76.1 | 202 | 35 |
| 80 | 3" | 40 | 76 | 83.1 | 88.9 | 228 | 35 |
| 100 | 4" | 25 | 100 | 107.9 | 114.3 | 256 | 35 |
| 125 | 5" | 25 | 125 | 133.7 | 139.7 | 291 | 35 |
| 150 | 6" | 16 | 150 | 162.3 | 168.3 | 323 | 35 |

RACCORDEMENTS TYPE OF CONNECTIONS

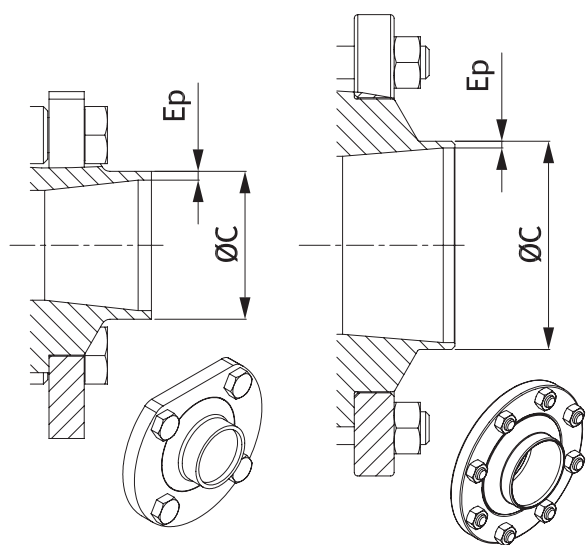
Autres normes de tube

DN 08 à 200

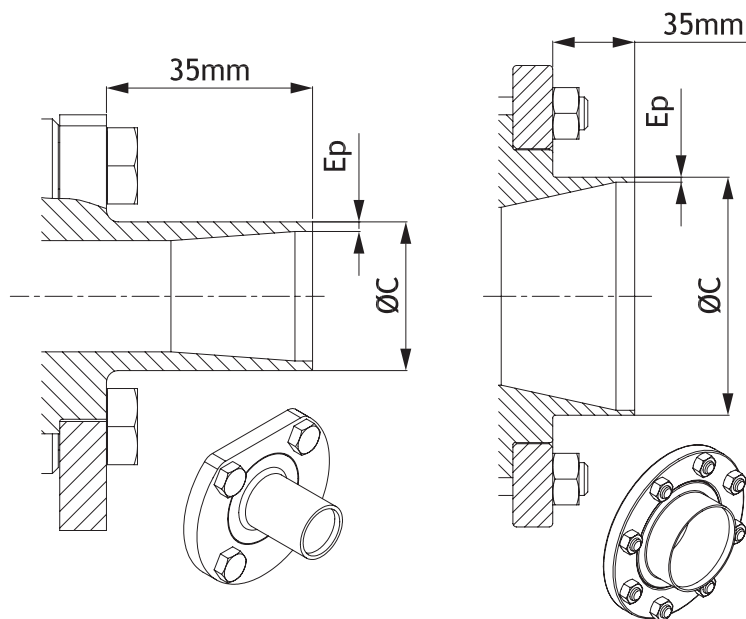
Other pipe standards

Size 1/4" to 8"

A souder en bout - BW Butt weld - BW



A soudure orbitale - O4 Orbital welding - O4



| DN Size | DN | | | | | | | | | | | | | | | |
|--------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | 8 | | 12 | | 15 | | 20 | | 25 | | 32 | | 40 | | 50 | |
| | Ø ext | Ep | Ø ext | Ep | Ø ext | Ep | Ø ext | Ep | Ø ext | Ep | Ø ext | Ep | Ø ext | Ep | Ø ext | Ep |
| Métrique | 10 | 1 | 12 | 1 | 18 | 1 | 23 | 1 | 28 | 1.5 | 34 | 2 | 44 | 2 | 54 | 2 |
| SMS 3008 | 10 | 1 | 12 | 1 | 18 | 1 | 23 | 1 | 25 | 1.2 | 33.7 | 1.2 | 38 | 1.2 | 51 | 1.2 |
| DIN 11850 R2 | - | - | 13 | 1.5 | 19 | 1.5 | 23 | 1.5 | 29 | 1.5 | 35 | 1.5 | 41 | 1.5 | 53 | 1.5 |
| Schedule 10S | 13.72 | 1.65 | 17.15 | 1.65 | 21.34 | 2.11 | 26.67 | 2.11 | 33.4 | 2.77 | 42.16 | 2.77 | 48.26 | 2.77 | 60.33 | 2.77 |
| Schedule 40S | 13.72 | 2.24 | 17.15 | 2.31 | 21.34 | 2.77 | 26.67 | 2.87 | 33.4 | 3.38 | 42.16 | 3.56 | 48.26 | 3.68 | 60.33 | 3.91 |
| BSOD | 6.35 | 1.65 | 9.52 | 1.65 | 12.7 | 1.65 | 19.05 | 1.65 | 25.4 | 1.65 | 31.75 | 1.65 | 38.1 | 1.65 | 50.8 | 1.65 |

| DN Size | DN | | | | | | | | | | | | | |
|--------------|-------|------|-------|------|-------|------|-------|------|--------|------|--------|------|--|--|
| | 65 | | 80 | | 100 | | 125 | | 150 | | 200 | | | |
| | Ø ext | Ep | Ø ext | Ep | Ø ext | Ep | Ø ext | Ep | Ø ext | Ep | Ø ext | Ep | | |
| Métrique | 68 | 1.5 | 83 | 1.5 | 104 | 2 | 129 | 2 | 154 | 2 | 204 | 2 | | |
| SMS 3008 | 63.5 | 1.6 | 76.1 | 1.6 | 101.6 | 2 | - | - | - | - | - | - | | |
| DIN 11850 R2 | 70 | 2 | 85 | 2 | 104 | 2 | 129 | 2 | 154 | 2 | - | - | | |
| Schedule 10S | 73.03 | 3.05 | 88.9 | 3.05 | 114.3 | 3.05 | 141.3 | 3.4 | 168.28 | 3.4 | 219.08 | 3.76 | | |
| Schedule 40S | 73.03 | 5.15 | 88.9 | 5.49 | 114.3 | 6.02 | 141.3 | 6.55 | 168.28 | 7.11 | 219.08 | 8.18 | | |
| BSOD | 63.5 | 1.65 | 76.2 | 1.65 | 101.6 | 2.1 | - | - | - | - | - | - | | |

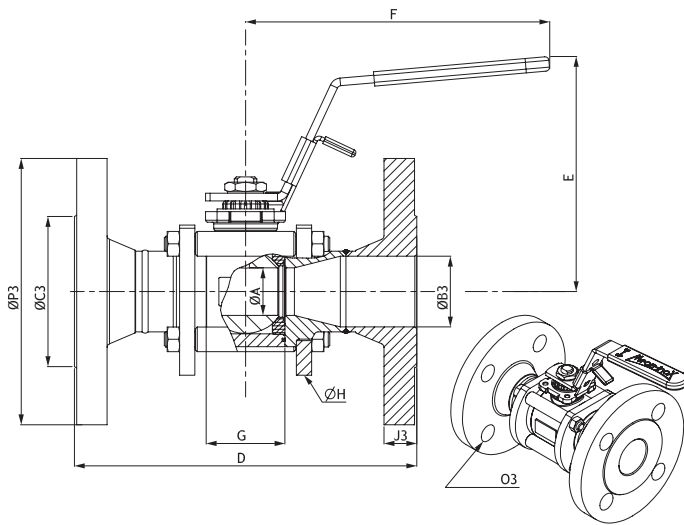
RACCORDEMENTS TYPE OF CONNECTIONS

A brides

DN 15 à 65
Passage Standard - PN 40

Flanged

Size 1/2" to 2"1/2
Reduced bore - PN40

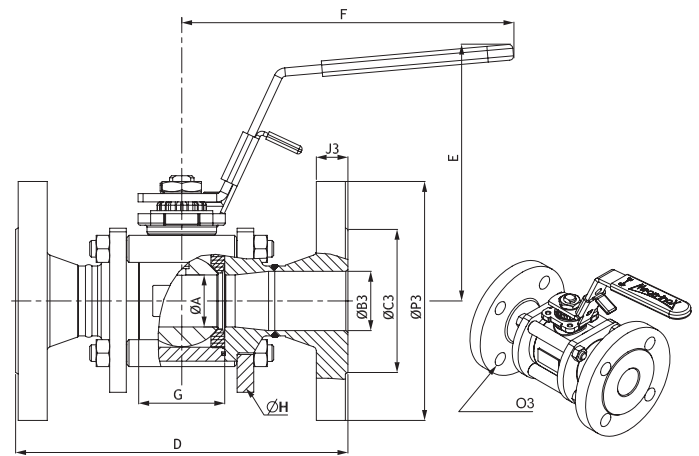


A brides

DN 15 à 50
Passage intégral - PN 40

Flanged

Size 1/2" to 2"
Full bore - PN40



| DN Size | PN | Ø A | Ø B3 | Ø C3 | D | E | F | G | Ø H | J3 | O3 | Ø P3 | ISO 5211 | Poids (Kg) Weight (Kg) | |
|--|-------|-----|------|------|-----|-----|-----|-----|------|-----|----|--------------|----------|---------------------------|--------|
| V • Passage Standard / Reduced bore | | | | | | | | | | | | | | | |
| 15 | 1/2" | 40 | 11.1 | 17.3 | 45 | 130 | 123 | 120 | 20.4 | 56 | 16 | 4xØ14 / Ø65 | 95 | F03 | 1.930 |
| 20 | 3/4" | 40 | 14 | 22.3 | 58 | 150 | 126 | 120 | 24.4 | 63 | 18 | 4xØ14 / Ø75 | 105 | F03 | 2.690 |
| 25 | 1" | 40 | 19 | 28.5 | 68 | 160 | 145 | 160 | 31.6 | 80 | 18 | 4xØ14 / Ø85 | 115 | F04 | 3.910 |
| 32 | 1"1/4 | 40 | 25 | 37.2 | 78 | 180 | 149 | 160 | 41.4 | 88 | 18 | 4xØ18 / Ø100 | 140 | F04 | 5.490 |
| 40 | 1"1/2 | 40 | 32 | 43.1 | 88 | 200 | 160 | 190 | 48.2 | 104 | 18 | 4xØ18 / Ø110 | 150 | F05 | 7.120 |
| 50 | 2" | 40 | 38 | 54.5 | 102 | 230 | 165 | 190 | 56.2 | 117 | 20 | 4xØ18 / Ø125 | 165 | F05 | 9.440 |
| 65 | 2"1/2 | 40 | 50 | 70.3 | 122 | 290 | 180 | 230 | 71 | 148 | 22 | 8xØ18 / Ø145 | 185 | F07 | 15.370 |
| N • Passage intégral / Full bore | | | | | | | | | | | | | | | |
| 15 | 1/2" | 40 | 14 | 17.3 | 45 | 130 | 126 | 120 | 24.4 | 63 | 16 | 4xØ14 / Ø65 | 95 | F03 | 2.250 |
| 20 | 3/4" | 40 | 19 | 22.3 | 58 | 150 | 145 | 160 | 31.6 | 80 | 18 | 4xØ14 / Ø75 | 105 | F04 | 3.470 |
| 25 | 1" | 40 | 25 | 28.5 | 68 | 160 | 149 | 160 | 41.4 | 88 | 18 | 4xØ14 / Ø85 | 115 | F04 | 4.330 |
| 32 | 1"1/4 | 40 | 32 | 37.2 | 78 | 180 | 160 | 190 | 48.2 | 104 | 18 | 4xØ18 / Ø100 | 140 | F05 | 6.880 |
| 40 | 1"1/2 | 40 | 38 | 43.1 | 88 | 200 | 165 | 190 | 56.2 | 117 | 18 | 4xØ18 / Ø110 | 150 | F05 | 8.080 |
| 50 | 2" | 40 | 50 | 54.5 | 102 | 230 | 180 | 230 | 71 | 148 | 20 | 4xØ18 / Ø125 | 165 | F07 | 13.890 |

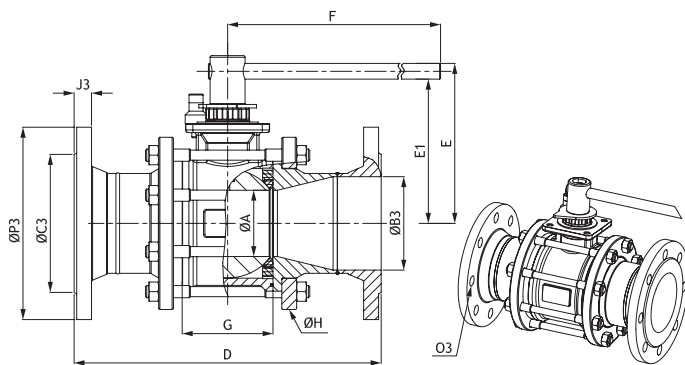
RACCORDEMENTS TYPE OF CONNECTIONS

A brides

DN 80 à 200
Passage Standard

Flanged

Size 3" to 8"
Reduced bore

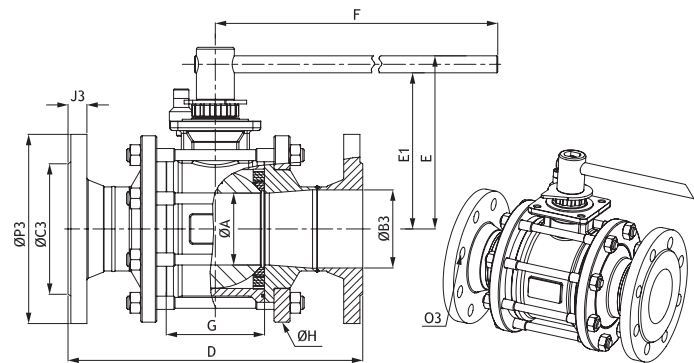


A brides

DN 65 à 150
Passage intégral

Flanged

Size 2"1/2 to 6"
Full bore



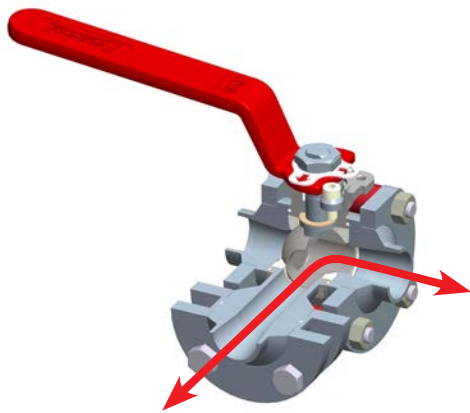
| DN Size | PN | Ø A | Ø B | Ø C3 | D | E | E1 | F | G | Ø H | J3 | O3 | P3 | ISO 5211 | Poids (Kg) Weight (Kg) | |
|--|-------|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|----|---------------|-------------|---------------------------|---------|
| V • Passage Standard / Reduced bore | | | | | | | | | | | | | | | | |
| 80 | 3" | 40 | 64 | 82.5 | 138 | 310 | 171 | 153 | 370 | 84 | 174 | 24 | 8xØ18 / Ø160 | 200 | F07 | 22.920 |
| 100 | 4" | 16 | 76 | 107.1 | 162 | 350 | 182 | 165 | 440 | 104 | 197 | 24 | 8xØ22 / Ø190 | 235 | F10 | 39.520 |
| 125 | 5" | 16 | 100 | 131.7 | 188 | 400 | 204 | 184 | 505 | 130 | 236 | 22 | 8xØ18 / Ø210 | 250 | F10 | 48.720 |
| 150 | 6" | 16 | 125 | 159.3 | 212 | 480 | 248 | 221 | 710 | 155 | 288 | 22 | 8xØ22 / Ø240 | 285 | F12 | 79.450 |
| 200 | 8" | 16 | 150 | 207.3 | 268 | 600 | 270 | 243 | 710 | 183 | 324 | 24 | 12xØ22 / Ø295 | 340 | F12 | 120.810 |
| N • Passage intégral / Full bore | | | | | | | | | | | | | | | | |
| 65 | 2"1/2 | 40 | 64 | 70.3 | 122 | 290 | 171 | 153 | 370 | 84 | 174 | 22 | 8xØ18 / Ø145 | 185 | F07 | 20.840 |
| 80 | 3" | 40 | 76 | 82.5 | 138 | 310 | 182 | 165 | 440 | 104 | 197 | 24 | 8xØ18 / Ø160 | 200 | F10 | 30.150 |
| 100 | 4" | 16 | 100 | 107.1 | 162 | 350 | 204 | 184 | 505 | 130 | 236 | 24 | 8xØ22 / Ø190 | 235 | F10 | 43.840 |
| 125 | 5" | 16 | 125 | 131.7 | 188 | 400 | 248 | 221 | 710 | 155 | 288 | 22 | 8xØ18 / Ø210 | 250 | F12 | 72.210 |
| 150 | 6" | 16 | 150 | 159.3 | 212 | 480 | 270 | 243 | 710 | 183 | 324 | 22 | 8xØ22 / Ø240 | 285 | F12 | 100.850 |

3 VOIES
3-WAY

Version 3 voies / Entrée Horizontale
Passage intégral et Standard

3VLH

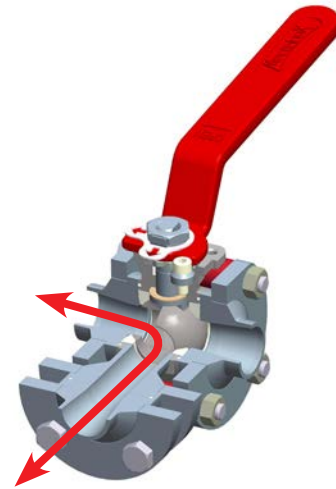
Passage en L
Distribution du fluide



3-way version / Horizontal inlet
Full bore & reduced bore

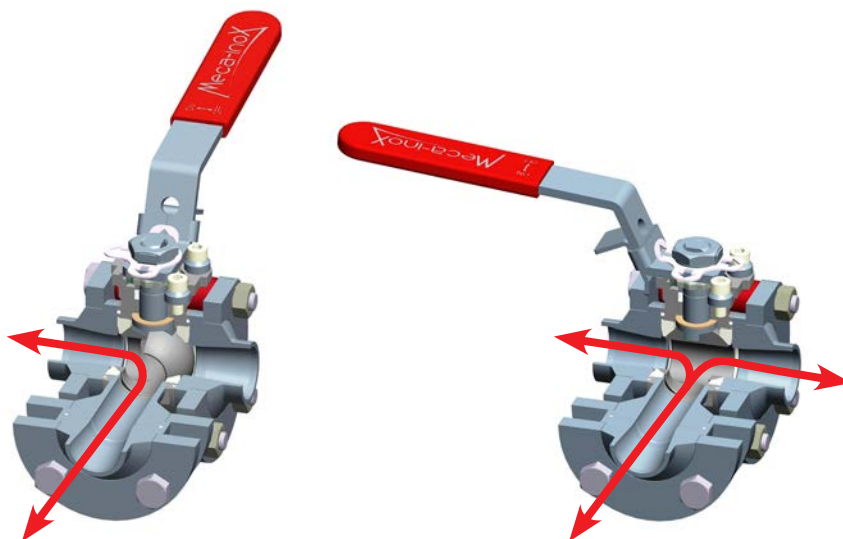
3VLH

L port
Diverting flow



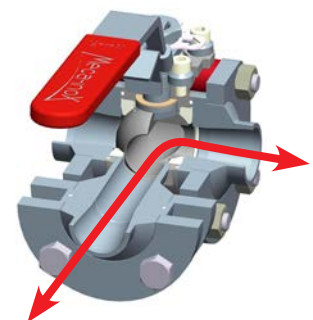
3VTH

Passage en T
Distribution du fluide ou mélange



3VTH

T port
Diverting flow or mixing



3 VOIES
3-WAY

Version 3 voies / Entrée Verticale
Passage intégral et Standard

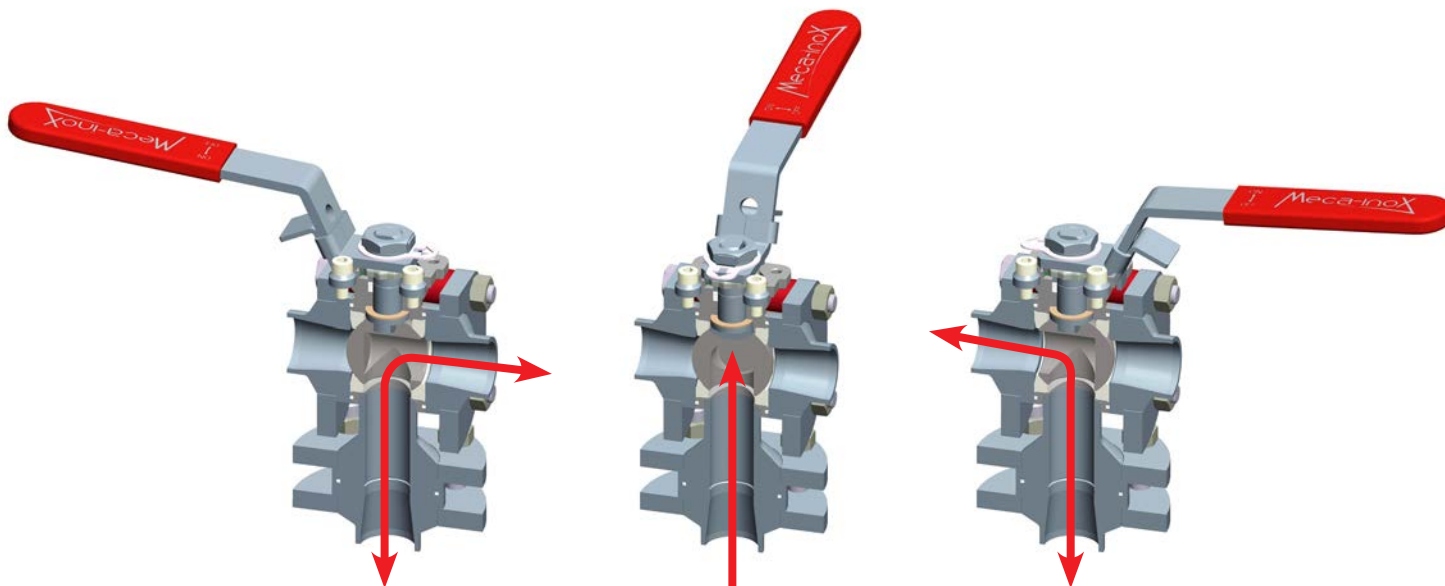
3-way version / Vertical inlet
Full bore & reduced bore

3VLV

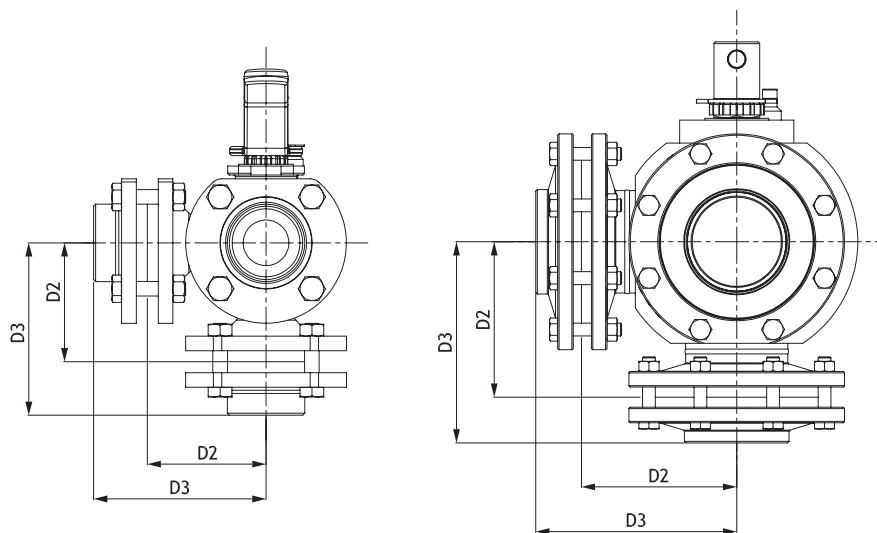
Passage en L
Distribution ou blocage du fluide

3VLV

L port
Diverting flow or flow stop



Dimensions entrée Horizontale & Verticale *Horizontal & Vertical inlet size*



| DN Size | 08 1/4" | 12 3/8" | 15 1/2" | 20 3/4" | 25 1" | 32 1 1/4" | 40 1 1/2" | 50 2" | 65 2 1/2" | 80 3" | 100 4" |
|------------|------------|------------|------------|------------|----------|--------------|--------------|----------|--------------|----------|-----------|
| D2 | 45 | 45 | 50 | 60 | 65 | 72 | 80 | 103 | 135 | 149 | 170 |
| D3 | 67.3 | 67.3 | 72.8 | 86.7 | 94.3 | 102.9 | 114.4 | 142.5 | 183 | 202 | 220 |

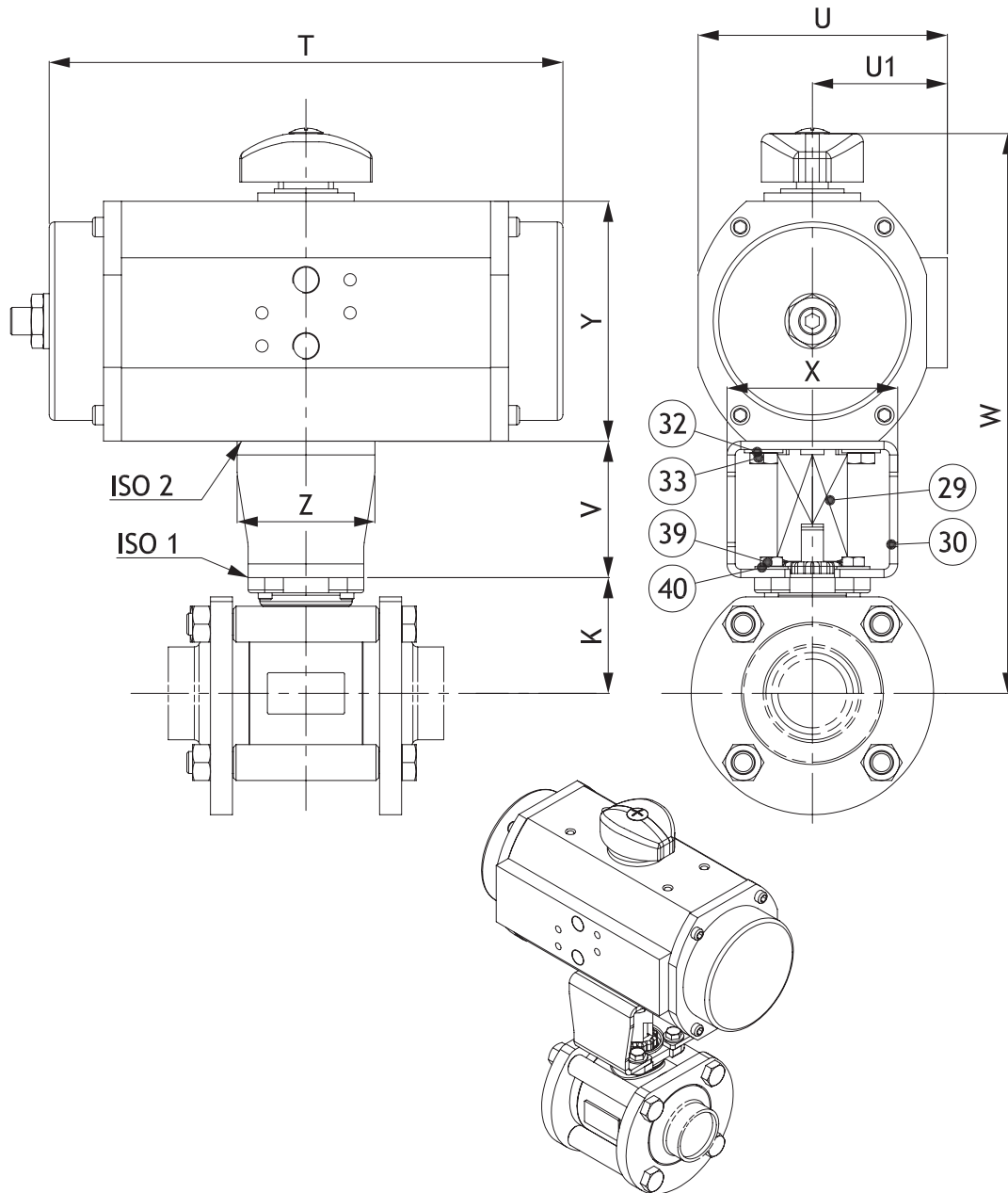
MOTORISATION PNEUMATIQUE PNEUMATIC ACTUATION

Nomenclature PS4 Motorisée

DN 08 à 50

PS4 actuated components

Size 1/4" to 2"



DN 08 à 50

| N° | Nb | Description | Matière (EN) |
|----|----|--------------------------------|--------------|
| 29 | 1 | Entraîneur | 1.4307 |
| 30 | 1 | Arcade | 1.4307 |
| 32 | 4 | Rondelle plate coté actionneur | 1.4301 |
| 33 | 4 | Vis TH coté actionneur | 1.4301 |
| 39 | 4 | Vis TH coté robinet | 1.4301 |
| 40 | 4 | Rondelle plate coté robinet | 1.4301 |

Size 1/4" to 2"

| Item | Qty | Description | Material (ASTM) |
|------|-----|-----------------------|-----------------|
| 29 | 1 | Coupling | 304L |
| 30 | 1 | Bracket | 304L |
| 32 | 4 | Ring (actuator side) | 304 |
| 33 | 4 | Screw (actuator side) | 304 |
| 39 | 4 | Screw (valve side) | 304 |
| 40 | 4 | Ring (valve side) | 304 |

MOTORISATION PNEUMATIQUE | PNEUMATIC ACTUATION

PS4 Motorisée

DN 10 à 50

PS4 actuated

Size 1/4" to 2"

Modèle TRUTORQ Simple Effet sur PS4 *Spring Return TRUTORQ type on PS4*

| DN - Size | | K | ISO 1 | TRUTORQ | ISO 2 | T | U | U1 | V | W | X | Y | Z | | |
|--------------|------------------|----|-------|---------|-------|--------|-----|-------|------|----|------|-------|----|-----|----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | |
| 10 | 1/4"-3/8" | 15 | 1/2" | 27.5 | F03 | TSR003 | F04 | 149.5 | 69.5 | 38 | 47 | 164.5 | 52 | 70 | 36 |
| 15 | 1/2" | 20 | 3/4" | 31 | F03 | TSR003 | F04 | 149.5 | 69.5 | 38 | 47 | 168 | 52 | 70 | 42 |
| 20 | 3/4" | 25 | 1" | 37.9 | F04 | TSR005 | F05 | 186.5 | 90.5 | 49 | 49.5 | 194.4 | 52 | 87 | 42 |
| 25 | 1" | 32 | 1"1/4 | 42 | F04 | TSR005 | F05 | 186.5 | 90.5 | 49 | 49.5 | 198.5 | 62 | 87 | 50 |
| 32 | 1"1/4 | 40 | 1"1/2 | 54 | F05 | TSR005 | F05 | 186.5 | 90.5 | 49 | 49.5 | 210.5 | 62 | 87 | 50 |
| 40 | 1"1/2 | 50 | 2" | 59 | F05 | TSR005 | F05 | 186.5 | 90.5 | 49 | 49.5 | 215.5 | 62 | 87 | 50 |
| 50 | 2" | 65 | 2"1/2 | 73 | F07 | TSR008 | F05 | 162 | 105 | 57 | 79.5 | 281.5 | 85 | 109 | 69 |

Données pour pression de service à : ΔP 7 bars max. et 6 bars d'air comprimé / Values given for service pressure at: ΔP 7 bars max. and 6 bars air supply.

Modèle TRUTORQ Double Effet sur PS4 *Double Acting TRUTORQ type on PS4*

| DN - Size | | K | ISO 1 | TRUTORQ | ISO 2 | T | U | U1 | V | W | X | Y | Z | | |
|--------------|------------------|----|-------|---------|-------|--------|-----|-------|------|----|------|-------|----|----|----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | |
| 10 | 1/4"-3/8" | 15 | 1/2" | 27.5 | F03 | TDA003 | F04 | 149.5 | 69.5 | 38 | 47 | 164.5 | 52 | 70 | 36 |
| 15 | 1/2" | 20 | 3/4" | 31 | F03 | TDA003 | F04 | 149.5 | 69.5 | 38 | 47 | 168 | 52 | 70 | 36 |
| 20 | 3/4" | 25 | 1" | 37.9 | F04 | TDA003 | F04 | 149.5 | 69.5 | 38 | 49.5 | 177.4 | 52 | 70 | 42 |
| 25 | 1" | 32 | 1"1/4 | 42 | F04 | TDA003 | F04 | 149.5 | 69.5 | 38 | 49.5 | 181.5 | 52 | 70 | 42 |
| 32 | 1"1/4 | 40 | 1"1/2 | 54 | F05 | TDA003 | F04 | 149.5 | 69.5 | 38 | 49.5 | 193.5 | 52 | 70 | 42 |
| 40 | 1"1/2 | 50 | 2" | 59 | F05 | TDA003 | F04 | 149.5 | 69.5 | 38 | 49.5 | 198.5 | 52 | 70 | 42 |
| 50 | 2" | 65 | 2"1/2 | 73 | F07 | TDA005 | F05 | 186.5 | 90.5 | 49 | 79.5 | 259.5 | 85 | 87 | 69 |

Données pour pression de service à : ΔP 7 bars max. et 6 bars d'air comprimé / Values given for service pressure at: ΔP 7 bars max. and 6 bars air supply.

PS4 ΔP: 7 bars

| DN | Air Moteur (Bar) | Double Effet Double acting Code | Simple Effet Spring return Code |
|-------------------|------------------|---------------------------------------|---------------------------------------|
| 10 (08-12) F03 | 6 | KPNI410 0411 2TDA003 | KPNI410 0411 2TSR003 N66 |
| 15 F03 | 6 | KPNI410 0411 2TDA003 | KPNI410 0411 2TSR003 N66 |
| 20 F04 | 6 | KPNI420 0411 2TDA003 | KPNI420 0514 2TSR005 N66 |
| 25 F04 | 6 | KPNI420 0411 2TDA003 | KPNI420 0514 2TSR005 N66 |
| 32 F05 | 6 | KPNI432 0411 2TDA003 | KPNI432 0514 2TSR005 N66 |
| 40 F05 | 6 | KPNI432 0411 2TDA003 | KPNI432 0514 2TSR005 N66 |
| 50 F07 | 6 | KPNI450 0514 2TDA005 | KPNI450 0514 2TSR008 N44 |

MOTORISATION PNEUMATIQUE PNEUMATIC ACTUATION

PZ4 Motorisée

DN 10 à 50

PZ4 actuated

Size 1/4" to 2"

Modèle TRUTORQ Simple Effet sur PZ4 *Single Acting TRUTORQ type on PZ4*

| DN - Size | | K | ISO 1 | TRUTORQ | ISO 2 | T | U | U1 | V | W | X | Y | Z | | |
|--------------|------------------|----|-------|---------|-------|--------|-----|-------|------|----|------|-------|----|-------|----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | |
| 10 | 1/4"-3/8" | 15 | 1/2" | 27.5 | F03 | TSR003 | F04 | 149.5 | 69.5 | 38 | 47 | 164.5 | 52 | 70 | 36 |
| 15 | 1/2" | 20 | 3/4" | 31 | F03 | TSR005 | F05 | 186.5 | 90.5 | 49 | 47 | 185 | 52 | 87 | 42 |
| 20 | 3/4" | 25 | 1" | 37.9 | F04 | TSR005 | F05 | 186.5 | 90.5 | 49 | 49.5 | 194.4 | 52 | 87 | 42 |
| 25 | 1" | 32 | 1"1/4 | 42 | F04 | TSR005 | F05 | 186.5 | 90.5 | 49 | 49.5 | 198.5 | 62 | 87 | 50 |
| 32 | 1"1/4 | 40 | 1"1/2 | 54 | F05 | TSR005 | F05 | 186.5 | 90.5 | 49 | 49.5 | 210.5 | 62 | 87 | 50 |
| 40 | 1"1/2 | 50 | 2" | 59 | F05 | TSR005 | F05 | 186.5 | 90.5 | 49 | 49.5 | 215.5 | 62 | 87 | 50 |
| 50 | 2" | 65 | 2"1/2 | 73 | F07 | TSR012 | F07 | 194 | 121 | 67 | 79.5 | 291 | 85 | 118.5 | 69 |

Données pour pression de service à : ΔP 7 bars max. et 6 bars d'air comprimé / Values given for service pressure at: ΔP 7 bars max. and 6 bars air supply.

Modèle TRUTORQ Double Effet sur PZ4 *Double Acting TRUTORQ type on PZ4*

| DN - Size | | K | ISO 1 | TRUTORQ | ISO 2 | T | U | U1 | V | W | X | Y | Z | | |
|--------------|------------------|----|-------|---------|-------|--------|-----|-------|------|----|------|-------|----|----|----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | |
| 10 | 1/4"-3/8" | 15 | 1/2" | 27.5 | F03 | TDA003 | F04 | 149.5 | 69.5 | 38 | 47 | 164.5 | 52 | 70 | 36 |
| 15 | 1/2" | 20 | 3/4" | 31 | F03 | TDA003 | F04 | 149.5 | 69.5 | 38 | 47 | 168 | 52 | 70 | 36 |
| 20 | 3/4" | 25 | 1" | 37.9 | F04 | TDA003 | F04 | 149.5 | 69.5 | 38 | 49.5 | 177.4 | 52 | 70 | 42 |
| 25 | 1" | 32 | 1"1/4 | 42 | F04 | TDA003 | F04 | 149.5 | 69.5 | 38 | 49.5 | 181.5 | 52 | 70 | 42 |
| 32 | 1"1/4 | 40 | 1"1/2 | 54 | F05 | TDA003 | F04 | 149.5 | 69.5 | 38 | 49.5 | 193.5 | 52 | 70 | 42 |
| 40 | 1"1/2 | 50 | 2" | 59 | F05 | TDA003 | F04 | 149.5 | 69.5 | 38 | 49.5 | 198.5 | 52 | 70 | 42 |
| 50 | 2" | 65 | 2"1/2 | 73 | F07 | TDA005 | F05 | 186.5 | 90.5 | 49 | 79.5 | 259.5 | 85 | 87 | 69 |

Données pour pression de service à : ΔP 7 bars max. et 6 bars d'air comprimé / Values given for service pressure at: ΔP 7 bars max. and 6 bars air supply.

PZ4 ΔP: 7 bars

| DN | Air Moteur (Bar) | Double Effet Double acting Code | Simple Effet Spring return Code |
|-------------------|------------------|---------------------------------------|---------------------------------------|
| 10 (08-12) F03 | 6 | KPNI410 0411 2TDA003 | KPNI410 0411 2TSR003 N66 |
| 15 F03 | 6 | KPNI410 0514 2TDA003 | KPNI410 0514 2TSR005 N66 |
| 20 F04 | 6 | KPNI420 0411 2TDA003 | KPNI420 0514 2TSR005 N66 |
| 25 F04 | 6 | KPNI420 0411 2TDA003 | KPNI420 0514 2TSR005 N66 |
| 32 F05 | 6 | KPNI432 0411 2TDA003 | KPNI432 0514 2TSR005 N66 |
| 40 F05 | 6 | KPNI432 0411 2TDA003 | KPNI432 0514 2TSR005 N66 |
| 50 F07 | 6 | KPNI450 0514 2TDA005 | KPNI450 0717 2TSR012 N44 |

MOTORISATION PNEUMATIQUE | PNEUMATIC ACTUATION

PY4 Motorisée

DN 10 à 50

PY4 actuated

Size 1 /4" to 2"

Modèle TRUTORQ Simple Effet sur PY4 *Spring Return TRUTORQ type on PY4*

| DN - Size | | K | ISO 1 | TRUTORQ | ISO 2 | T | U | U1 | V | W | X | Y | Z | | |
|--------------|------------------|----|--------|---------|-------|---------|-----|-------|-------|----|------|-------|-----|-------|-----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | |
| 10 | 1/4"-3/8" | 15 | 1/2" | 27.5 | F03 | 2TSR003 | F04 | 149.5 | 69.5 | 38 | 47 | 164.5 | 52 | 70 | 42 |
| 15 | 1/2" | 20 | 3/4" | 31 | F03 | 2TSR005 | F05 | 186.5 | 90.5 | 49 | 47 | 185 | 62 | 87 | 50 |
| 20 | 3/4" | 25 | 1" | 37.9 | F04 | 2TSR005 | F05 | 162 | 105 | 57 | 49.5 | 216.4 | 62 | 109 | 50 |
| 25 | 1" | 32 | 1"1/4" | 42 | F04 | 2TSR008 | F07 | 194 | 121 | 67 | 49.5 | 230 | 82 | 118.5 | 69 |
| 32 | 1"1/4" | 40 | 1"1/2" | 54 | F05 | 2TSR020 | F07 | 218 | 136.5 | 72 | 49.5 | 264 | 82 | 140.5 | 69 |
| 40 | 1"1/2" | 50 | 2" | 59 | F05 | 2TSR020 | F10 | 218 | 136.5 | 72 | 49.5 | 269 | 82 | 140.5 | 69 |
| 50 | 2" | 65 | 2"1/2" | 73 | F07 | 2TSR035 | F10 | 266 | 156 | 78 | 79.5 | 339 | 120 | 166.5 | 105 |

Données pour température de service cryogénique (-196 °C) et 6 bars d'air comprimé à : ΔP 40 bars Max (DN 10 à 32), ΔP 20 bars Max (DN40 à 50)
 Values given for cryogenics service (-196°C) and 6 bars air supply pressure at: ΔP 40 bars Max (DN 10 to 32), ΔP 20 bars Max (DN40 to 50)

Modèle TRUTORQ Double Effet sur PY4 *Double Acting TRUTORQ type on PY4*

| DN - Size | | K | ISO 1 | TRUTORQ | ISO 2 | T | U | U1 | V | W | X | Y | Z | | |
|--------------|------------------|----|--------|---------|-------|---------|-----|-------|------|----|------|-------|----|-------|----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | |
| 10 | 1/4"-3/8" | 15 | 1/2" | 27.5 | F03 | 2TDA003 | F04 | 14.95 | 69.5 | 38 | 47 | 164.5 | 52 | 70 | 42 |
| 15 | 1/2" | 20 | 3/4" | 31 | F03 | 2TDA003 | F04 | 149.5 | 69.5 | 38 | 47 | 168 | 52 | 70 | 42 |
| 20 | 3/4" | 25 | 1" | 37.9 | F04 | 2TDA003 | F04 | 149.5 | 69.5 | 38 | 49.5 | 177.4 | 62 | 70 | 50 |
| 25 | 1" | 32 | 1"1/4" | 42 | F04 | 2TDA005 | F05 | 186.5 | 90.5 | 49 | 49.5 | 198.5 | 62 | 87 | 50 |
| 32 | 1"1/4" | 40 | 1"1/2" | 54 | F05 | 2TDA005 | F05 | 186.5 | 90.5 | 49 | 49.5 | 210.5 | 62 | 87 | 50 |
| 40 | 1"1/2" | 50 | 2" | 59 | F05 | 2TDA008 | F05 | 162 | 105 | 57 | 49.5 | 237.5 | 62 | 109 | 50 |
| 50 | 2" | 65 | 2"1/2" | 73 | F07 | 2TDA012 | F07 | 194 | 121 | 67 | 79.5 | 291 | 85 | 118.5 | 69 |

Données pour température de service cryogénique (-196 °C) et 6 bars d'air comprimé à : ΔP 40 bars Max (DN 10 à 32), ΔP 20 bars Max (DN40 à 50)
 Values given for cryogenics service (-196°C) and 6 bars air supply pressure at: ΔP 40 bars Max (DN 10 to 32), ΔP 20 bars Max (DN40 to 50)

PY4 Δ P : 40 bars (DN 10 - 32), 20 bars (DN 40- 50)

| DN | Air Moteur (Bar) | Double Effet Double acting Code | Simple Effet Spring return Code |
|-----------|------------------|---------------------------------------|---------------------------------------|
| 10 F03 | 6 | KPNI410 0411 2TDA003 | KPNI410 0411 2TSR003 N66 |
| 15 F03 | 6 | KPNI410 0411 2TDA003 | KPNI410 0514 2TSR005 N66 |
| 20 F04 | 6 | KPNI420 0411 2TDA003 | KPNI420 0514 2TSR005 N66 |
| 25 F04 | 6 | KPNI420 0514 2TDA005 | KPNI420 0514 2TSR008 N44 |
| 32 F05 | 6 | KPNI432 0514 2TDA005 | KPNI432 0717 2TSR020 N44 |
| 40 F05 | 6 | KPNI432 0514 2TDA008 | KPNI432 0717 2TSR020 N44 |
| 50 F07 | 6 | KPNI450 0717 2TDA012 | KPNI450 1022 2TSR035 N44 |

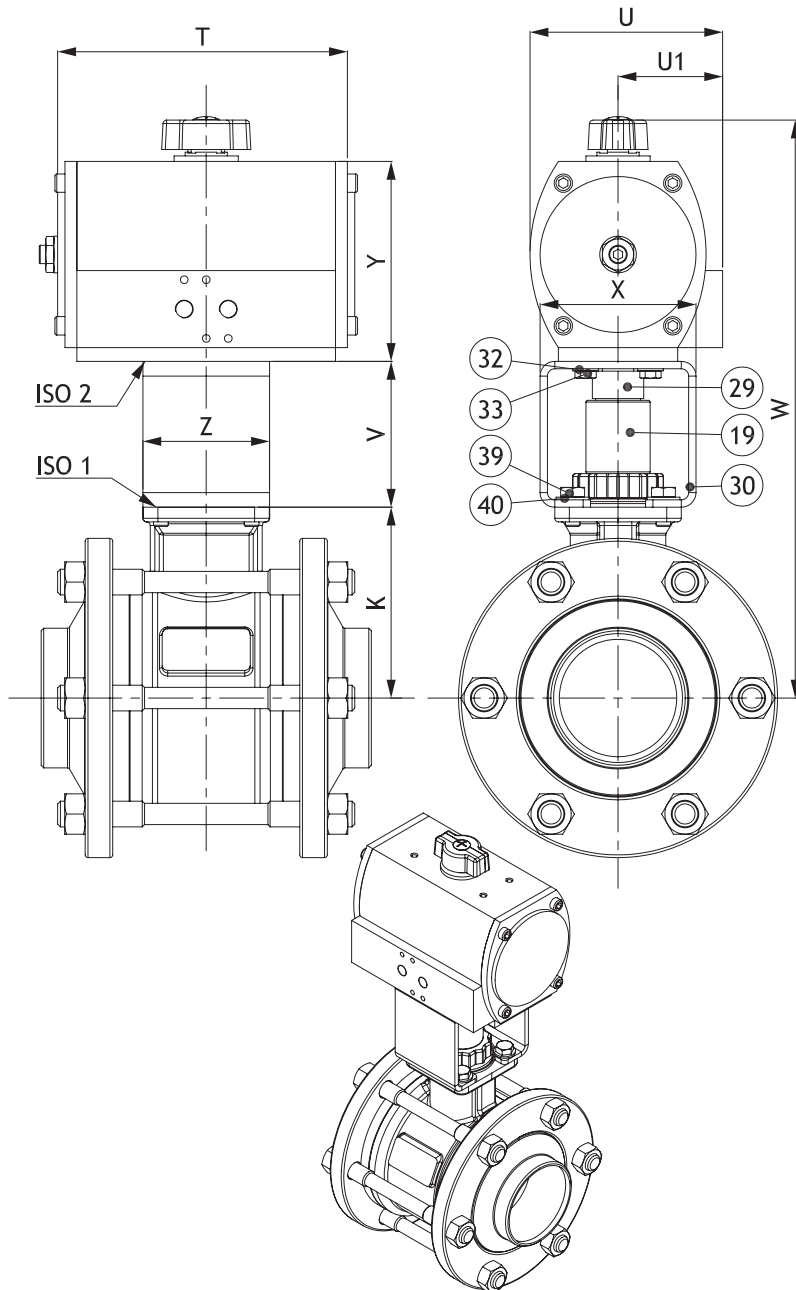
**MOTORISATION PNEUMATIQUE
PNEUMATIC ACTUATION**

Nomenclature PS4 Motorisée

DN 65 à 150

PS4 actuated components

Size 2"1/2 to 6"



DN 65 à 150

| N° | Nb | Description | Matière (EN) |
|----|----|--------------------------------|--------------|
| 19 | 1 | Noix de manœuvre | 1.4305 |
| 29 | 1 | Entraîneur | 1.4307 |
| 30 | 1 | Arcade | 1.4307 |
| 32 | 4 | Rondelle plate coté actionneur | 1.4301 |
| 33 | 4 | Vis TH coté actionneur | 1.4301 |
| 39 | 4 | Vis TH coté robinet | 1.4301 |
| 40 | 4 | Rondelle plate coté robinet | 1.4301 |

Size 2"1/2 to 6"

| Item | Qty | Description | Material (ASTM) |
|------|-----|-----------------------|-----------------|
| 19 | 1 | Handle adaptor | 303 |
| 29 | 1 | Coupling | 304L |
| 30 | 1 | Bracket | 304L |
| 32 | 4 | Ring (actuator side) | 304 |
| 33 | 4 | Screw (actuator side) | 304 |
| 39 | 4 | Screw (valve side) | 304 |
| 40 | 4 | Ring (valve side) | 304 |

MOTORISATION PNEUMATIQUE | PNEUMATIC ACTUATION

PS4 Motorisée

DN 65 à 150

PS4 actuated

Size 2" 1/2 to 6"

Modèle TRUTORQ Simple Effet sur PS4 *Spring Return TRUTORQ type on PS4*

| DN - Size | | | | K | ISO 1 | TRUTORQ | ISO 2 | T | U | U1 | V | W | X | Y | Z |
|--------------|------------------|-----|----|-----|-------|---------|-------|-----|-----|-------|------|-------|-----|-------|-----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | |
| 65 | 2"1/2 | 80 | 3" | 104 | F07 | TSR035 | F10 | 266 | 156 | 78 | 79.5 | 370 | 120 | 166.5 | 105 |
| 80 | 3" | 100 | 4" | 114 | F10 | TSR035 | F10 | 266 | 156 | 78 | 79.5 | 380 | 120 | 166.5 | 95 |
| 100 | 4" | 125 | 5" | 133 | F10 | TSR055 | F12 | 312 | 191 | 95.5 | 79.5 | 450 | 136 | 207.5 | 118 |
| 125 | 5" | 150 | 6" | 161 | F12 | TSR055 | F12 | 312 | 191 | 95.5 | 99.5 | 498 | 144 | 207.5 | 118 |
| 150 | 6" | 200 | 8" | 180 | F12 | TSR100 | F14 | 361 | 227 | 113.5 | 99.5 | 559.5 | 158 | 250 | 140 |

Données pour pression de service à : ΔP 7 bars max. et 6 bars d'air comprimé / Values given for service pressure at: ΔP 7 bars max. and 6 bars air supply.

Modèle TRUTORQ Double Effet sur PS4 *Double Acting TRUTORQ type on PS4*

| DN - Size | | | | K | ISO 1 | TRUTORQ | ISO 2 | T | U | U1 | V | W | X | Y | Z |
|--------------|------------------|-----|----|-----|-------|---------|-------|-----|-------|----|------|-------|-----|-------|-----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | |
| 65 | 2"1/2 | 80 | 3" | 104 | F07 | TDA008 | F07 | 162 | 105 | 57 | 79.5 | 312.5 | 85 | 109 | 69 |
| 80 | 3" | 100 | 4" | 114 | F10 | TDA012 | F07 | 194 | 121 | 67 | 79.5 | 332 | 120 | 118.5 | 105 |
| 100 | 4" | 125 | 5" | 133 | F10 | TDA020 | F07 | 218 | 136.5 | 72 | 79.5 | 373 | 120 | 140.5 | 105 |
| 125 | 5" | 150 | 6" | 161 | F12 | TDA020 | F07 | 218 | 136.5 | 72 | 99.5 | 421 | 136 | 140.5 | 118 |
| 150 | 6" | 200 | 8" | 180 | F12 | TDA035 | F10 | 266 | 156 | 78 | 99.5 | 466 | 144 | 166.5 | 118 |

Données pour pression de service à : ΔP 7 bars max. et 6 bars d'air comprimé / Values given for service pressure at: ΔP 7 bars max. and 6 bars air supply.

PS4 ΔP : 7 bars

| DN | Air Moteur (Bar) | Double Effet Double acting Code | Simple Effet Spring return Code |
|------------|------------------|---------------------------------------|---------------------------------------|
| 65 F07 | 6 | KPNI2P065 0714 2TDA008 | KPNI2P065 1022 2TSR035 N44 |
| 80 F10 | 6 | KPNI2P080 0717 2TDA012 | KPNI2P080 1022 2TSR035 N44 |
| 100 F10 | 6 | KPNI2P100 0717 2TDA020 | KPNI2P100 1227 2TSR055 N44 |
| 125 F12 | 6 | KPNI2P125 0717 2TDA020 | KPNI2P125 1227 2TSR055 N44 |
| 150 F12 | 6 | KPNI2P125 1022 2TDA035 | KPNI2P125 1436 2TSR100 N44 |

MOTORISATION PNEUMATIQUE PNEUMATIC ACTUATION

PZ4 Motorisée

DN 65 à 150

PZ4 actuated

Size 2" 1/2 to 6"

Modèle TRUTORQ Simple Effet sur PZ4 *Single Acting TRUTORQ type on PZ4*

| DN - Size | | | | K | ISO 1 | TRUTORQ | ISO 2 | T | U | U1 | V | W | X | Y | Z |
|--------------|------------------|-----|----|-----|-------|---------|-------|-----|-----|-------|------|-------|-----|-------|-----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | |
| 65 | 2"1/2 | 80 | 3" | 104 | F07 | TSR035 | F10 | 266 | 156 | 78 | 79.5 | 370 | 120 | 166.5 | 105 |
| 80 | 3" | 100 | 4" | 114 | F10 | TSR035 | F10 | 266 | 156 | 78 | 79.5 | 380 | 120 | 166.5 | 95 |
| 100 | 4" | 125 | 5" | 133 | F10 | TSR055 | F12 | 312 | 191 | 95.5 | 79.5 | 450 | 136 | 207.5 | 118 |
| 125 | 5" | 150 | 6" | 161 | F12 | TSR055 | F12 | 312 | 191 | 95.5 | 99.5 | 498 | 144 | 207.5 | 118 |
| 150 | 6" | 200 | 8" | 180 | F12 | TSR100 | F14 | 361 | 227 | 113.5 | 99.5 | 559.5 | 158 | 250 | 140 |

Données pour pression de service à : ΔP 7 bars max. et 6 bars d'air comprimé / Values given for service pressure at: ΔP 7 bars max. and 6 bars air supply.

Modèle TRUTORQ Double Effet sur PZ4 *Double Acting TRUTORQ type on PZ4*

| DN - Size | | | | K | ISO 1 | TRUTORQ | ISO 2 | T | U | U1 | V | W | X | Y | Z |
|--------------|------------------|-----|----|-----|-------|---------|-------|-----|-------|------|------|-------|-----|-------|-----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | |
| 65 | 2"1/2 | 80 | 3" | 104 | F07 | TDA008 | F07 | 162 | 105 | 57 | 79.5 | 312.5 | 85 | 109 | 69 |
| 80 | 3" | 100 | 4" | 114 | F10 | TDA012 | F07 | 194 | 121 | 67 | 79.5 | 332 | 120 | 118.5 | 105 |
| 100 | 4" | 125 | 5" | 133 | F10 | TDA020 | F07 | 218 | 136.5 | 72 | 79.5 | 373 | 120 | 140.5 | 105 |
| 125 | 5" | 150 | 6" | 161 | F12 | TDA020 | F07 | 218 | 136.5 | 72 | 99.5 | 421 | 136 | 140.5 | 118 |
| 150 | 6" | 200 | 8" | 180 | F12 | TDA055 | F12 | 312 | 191 | 95.5 | 99.5 | 517 | 144 | 207.5 | 118 |

Données pour pression de service à : ΔP 7 bars max. et 6 bars d'air comprimé / Values given for service pressure at: ΔP 7 bars max. and 6 bars air supply.

PZ4 ΔP : 7 bars

| DN | Air Moteur (Bar) | Double Effet Double acting Code | Simple Effet Spring return Code |
|------------|------------------|---------------------------------------|---------------------------------------|
| 65 F07 | 6 | KPNI2P065 0714 2TDA008 | KPNI2P065 1022 2TSR035 N44 |
| 80 F10 | 6 | KPNI2P080 0717 2TDA012 | KPNI2P080 1022 2TSR035 N44 |
| 100 F10 | 6 | KPNI2P100 0717 2TDA020 | KPNI2P100 1227 2TSR055 N44 |
| 125 F12 | 6 | KPNI2P125 0717 2TDA020 | KPNI2P125 1227 2TSR055 N44 |
| 150 F12 | 6 | KPNI2P125 1227 2TDA055 | KPNI2P125 1436 2TSR100 N44 |

MOTORISATION PNEUMATIQUE | PNEUMATIC ACTUATION

PY4 Motorisée

DN 65 à 100

PY4 actuated

Size 2"1/2 to 4"

Modèle TRUTORQ Simple Effet sur PY4 *Spring Return TRUTORQ type on PY4*

| DN - Size | | | | K | ISO 1 | TRUTORQ | ISO 2 | ISO 3 | T | U | U1 | V | W | X | Y | Z |
|--------------|------------------|-----|----|-----|-------|---------|-------|-------|-----|-----|-------|------|-------|-----|-------|-----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | | |
| 65 | 2"1/2 | 80 | 3" | 104 | F07 | 2TSR055 | F07 | F12 | 312 | 191 | 95.5 | 79.5 | 411 | 132 | 207.5 | 120 |
| 80 | 3" | 100 | 4" | 114 | F10 | 2TSR055 | F10 | F12 | 312 | 191 | 95.5 | 79.5 | 421 | 136 | 207.5 | 118 |
| 100 | 4" | 125 | 5" | 133 | F10 | 2TSR100 | F10 | F14 | 361 | 227 | 113.5 | 79.5 | 482.5 | 158 | 250 | 140 |

Données pour température de service cryogénique (-196 °C) et 6 bars d'air comprimé à : ΔP 10 bars Max (DN 65 à 100)

Values given for cryogenics service (-196°C) and 6 bars air supply pressure at: ΔP 10 bars Max (DN 65 to 100)

Modèle TRUTORQ Double Effet sur PY4 *Double Acting TRUTORQ type on PY4*

| DN - Size | | | | K | ISO 1 | TRUTORQ | ISO 2 | ISO 3 | T | U | U1 | V | W | X | Y | Z |
|--------------|------------------|-----|----|-----|-------|---------|-------|-------|-----|-------|----|------|-----|-----|-------|----|
| Nominal Full | Standard Reduced | | | | | | | | | | | | | | | |
| 65 | 2"1/2 | 80 | 3" | 104 | F07 | 2TDA020 | F07 | F07 | 218 | 136.5 | 72 | 79.5 | 344 | 85 | 140.5 | 69 |
| 80 | 3" | 100 | 4" | 114 | F10 | 2TDA020 | F10 | F07 | 218 | 136.5 | 72 | 79.5 | 354 | 85 | 140.5 | 69 |
| 100 | 4" | 125 | 5" | 133 | F10 | 2TDA035 | F10 | F10 | 266 | 156 | 78 | 79.5 | 399 | 120 | 166.5 | 95 |

Données pour température de service cryogénique (-196 °C) et 6 bars d'air comprimé à : ΔP 10 bars Max (DN 65 à 100)

Values given for cryogenics service (-196°C) and 6 bars air supply pressure at: ΔP 10 bars Max (DN 65 to 100)

PY4 ΔP: 10 bars (DN65 - 100)

| DN - Size | | | | Air Moteur (Bar) | Double Effet <i>Double acting</i> Code | Simple Effet <i>Spring return</i> Code |
|--------------|------------------|------------|----|------------------|--|--|
| Nominal Full | Standard Reduced | | | | | |
| 65 F07 | 2"1/2 | 80 F07 | 3" | 6 | KPNI2P065 0717 2TDA020 | KPNI2P065 1227 2TSR055 N44 |
| 80 F10 | 3" | 100 F10 | 4" | 6 | KPNI2P080 0717 2TDA020 | KPNI2P080 1227 2TSR055 N44 |
| 100 F10 | 4" | 125 F10 | 5" | 6 | KPNI2P100 1022 2TDA035 | KPNI2P100 1436 2TSR100 N44 |