

REF. 703DM

**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
EXCELLENCE RANGE**

3 pieces stainless steel direct mounting ISO 5211 ball valve with full bore for Chemical industries, petrochemical industries, hydraulic installation, heating, water distribution, compressed air.

Ball valve with firesafe certificate API 607 to reduce risks in case of fire.

Fugitive emission according to ISO 15848-1 for an excellent tightness on the stem and to prevent external leakage.

PTFE filled with Graphite packing and gaskets, FKM O ring on stem and PTFE filled with stainless steel seat.

Compatible with explosive atmosphere, ATEX Zone 1&21 and Zone 2&22 thanks to the antistatic device.

Thanks to the ISO 5211 plate and the square stem, an actuator can be installed on the valve.



- Size :** DN8 to DN50 (NPS 1/4" to 2")
- Connection :** Female BSP, NPT, Socket or Butt Welding
- Min Temperature :** -40°C
- Max Temperature :** +220°C
- Max Pressure :** 138 Bars
- Specifications :** Antistatic device, ATEX
ISO 5211 mounting pad, direct mounting
Anti blow-out stem, full bore
Fire safe ISO API 607 4th
Fully encapsulated bolts

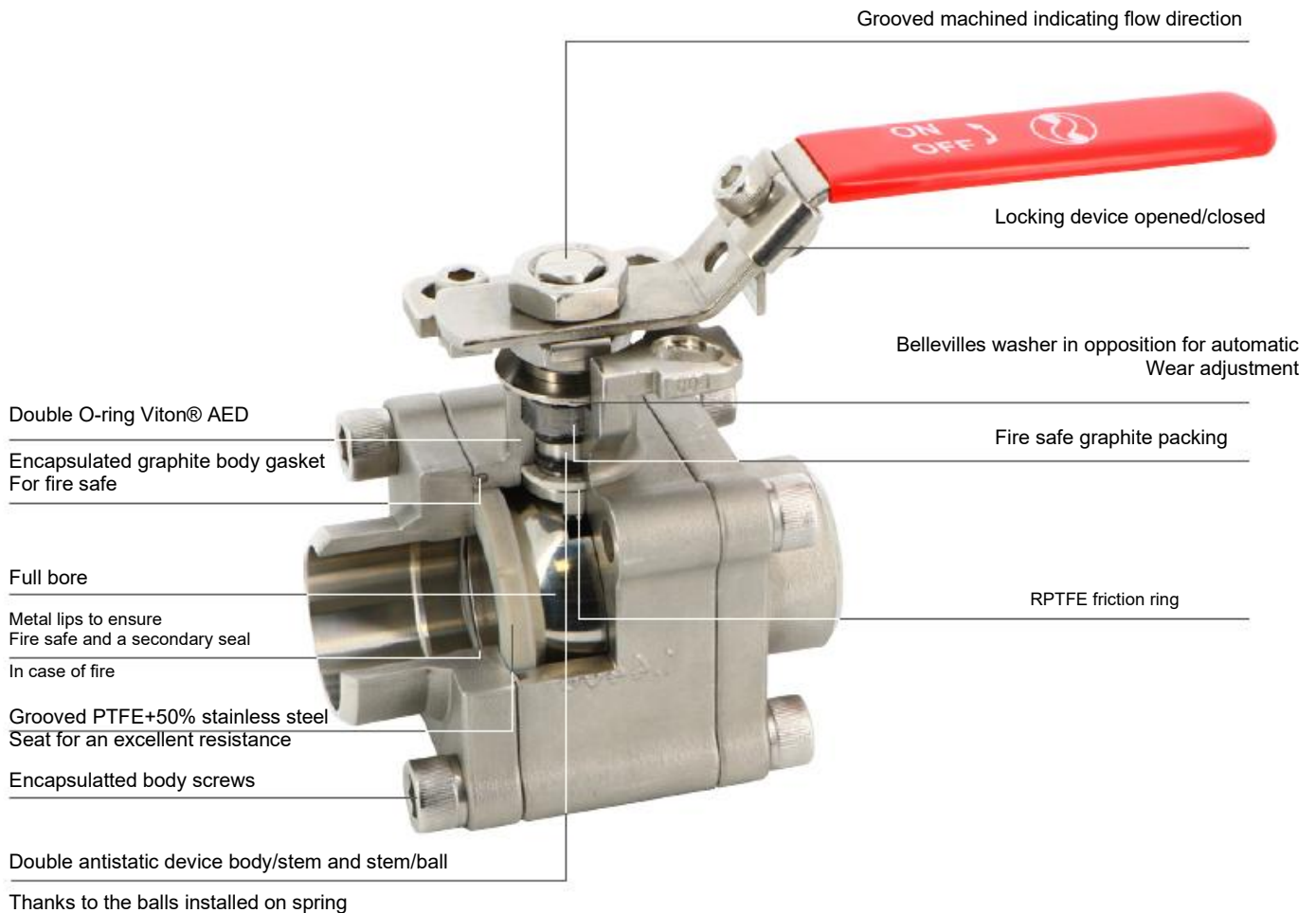
Materials : Stainless steel EN 1.4408

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SPECIFICATIONS :

- Full bore
- Anti blow-out stem
- Grooved PTFE filled with 50% stainless steel seat for an excellent resistance
- Special gland pack with elastic washer
- With exhaust hole in the ball (located in the top of the ball to avoid overpressure in it)
- Double antistatic device (ball between body-stem and ball-stem)
- Fire safe according to API 607 V.4
- Fugitive emission according to ISO 15848-1
- Locking device
- ISO 5211 mounting pad with direct mounting
- Fully encapsulated bolts
- Pressure class 800 lbs



USE :

- Chemical and pharmaceutical industries, petrochemical industries, hydraulic installation, compressed air
- Steam : 18 bars maximum
- Vacuum : 10⁻³ torr
- Min and max Temperatures Ts : -40°C to + 220°C
- Max Pressure Ps : 138 bars (see graph page 4)

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**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
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FLOW COEFFICIENT Kvs (M3 / h) :

| | | | | | | | | |
|--------------|------|------|------|------|----|-------|-------|-----|
| DN (mm) | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
| NPS (") | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4 | 1"1/2 | 2" |
| Kvs (m3/h) | 17 | 17 | 36 | 59 | 90 | 159 | 230 | 418 |

TORQUE VALUES (in Nm without safety coefficient and at ΔP 0 bar) :

| | | | | | | | | |
|-------------|------|------|------|------|------|-------|-------|------|
| DN (mm) | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
| NPS (") | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4 | 1"1/2 | 2" |
| Torque (Nm) | 4.4 | 4.4 | 4.9 | 7.8 | 15.7 | 21.6 | 34.3 | 47.1 |

MAXIMUM ALLOWABLE STEM TORQUE MAST (in Nm) :

| | | | | | | | | |
|-------------|------|------|------|------|------|-------|-------|----|
| DN (mm) | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
| NPS (") | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4 | 1"1/2 | 2" |
| Torque (Nm) | 10.7 | | | | 38.2 | | 74.3 | |

BOLT TIGHTENING TABLE (in Nm) :

| | | | | | | | | |
|-------------|------|------|------|------|----|-------|-------|----|
| DN (mm) | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
| NPS (") | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4 | 1"1/2 | 2" |
| Torque (Nm) | 20 | 20 | 20 | 20 | 40 | 70 | 70 | 70 |

RANGE :


- 3 pieces fire safe stainless-steel ball valve with direct mounting ISO 5211 Ref. **703DM** from DN 8 to DN 50



- Oval lockable handwheel AISI 304 Ref.**9830485-9830486** from DN8 to DN32



- ISO 5211 stem extension AISI 304 Ref.**9830476-9830478** from DN8 to DN50



- Deadman stainless steel AISI 304 Ref.**9810740-9810742** from DN8 to DN50

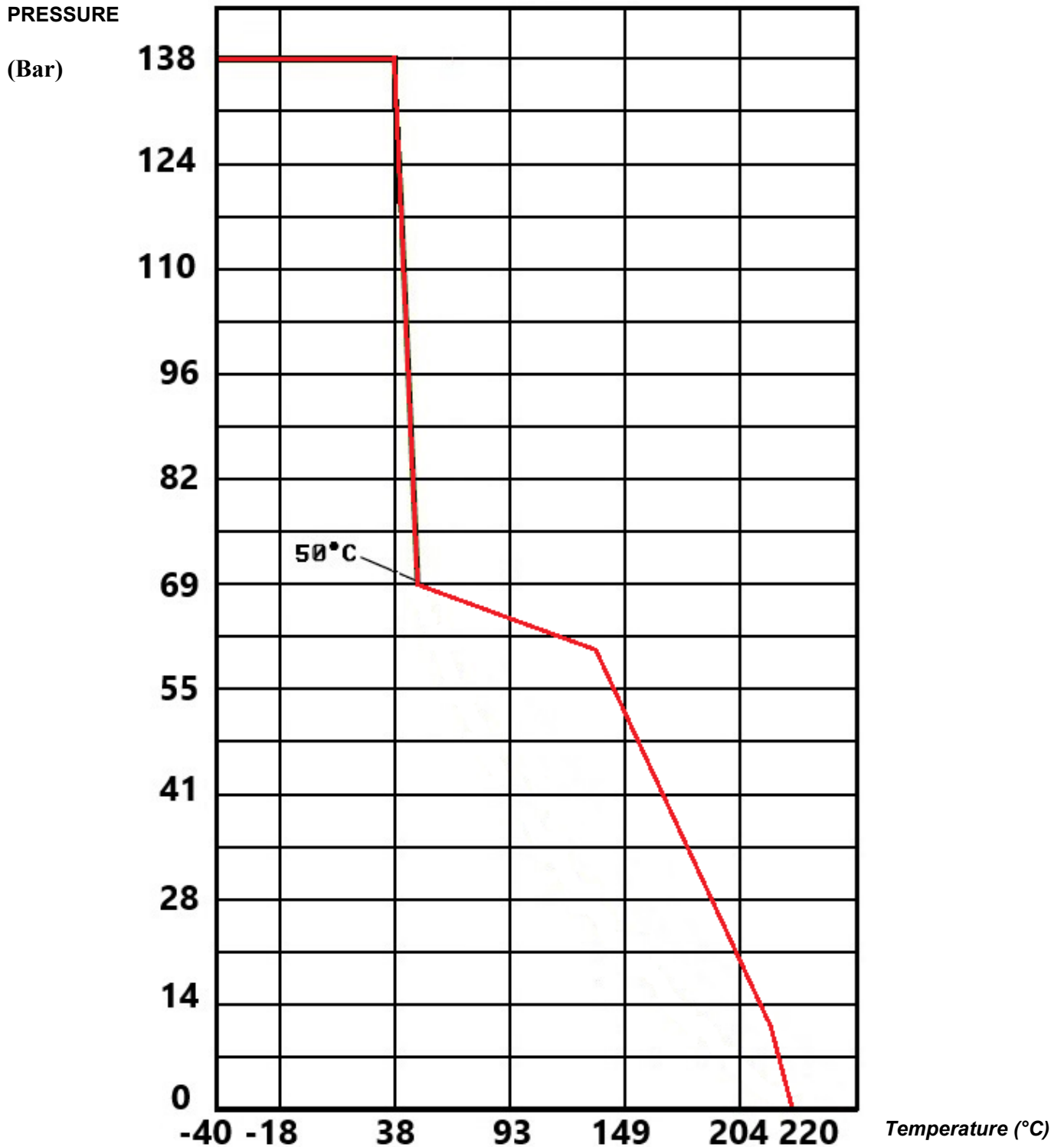
CONNECTION :

- Threaded female BSP, NPT, Butt or Socket Welding

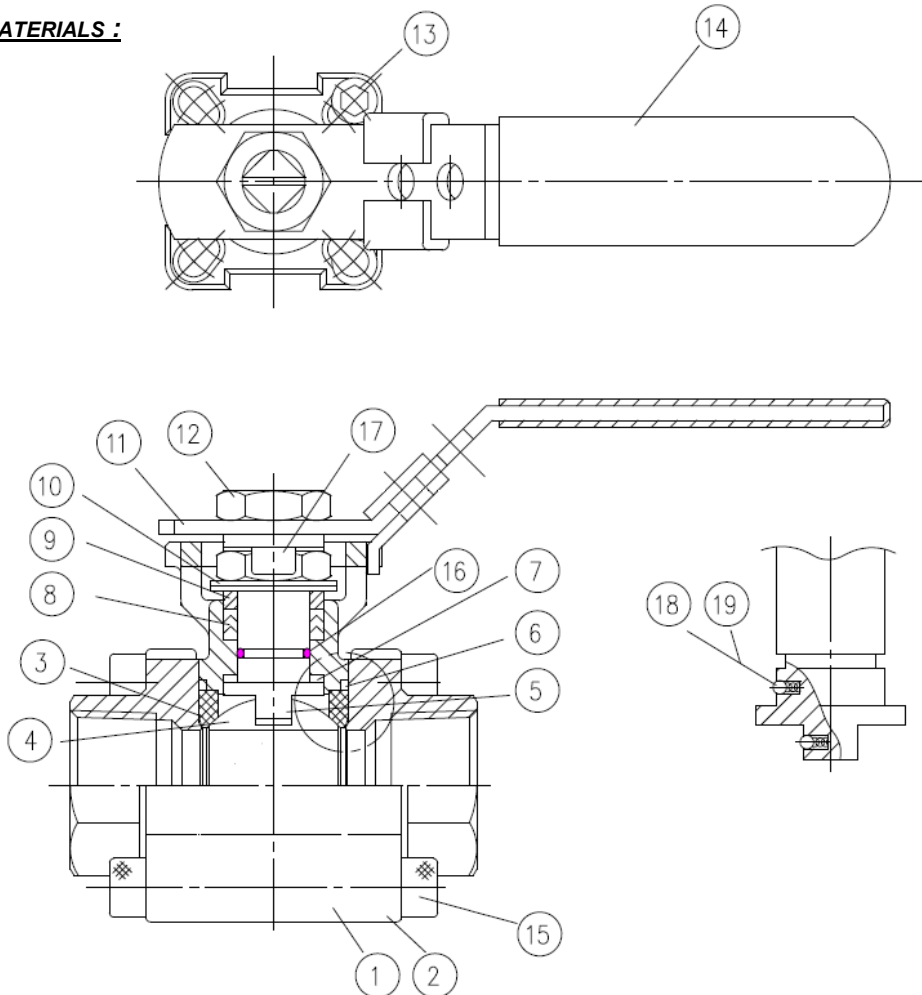
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**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
EXCELLENCE RANGE**

PRESSURE / TEMPERATURE GRAPH :



REF. 703DM

**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
 EXCELLENCE RANGE**
MATERIALS :

Repairability :


| *Gaskets kit (Items 3, 6, 7, 8 and 16) | |
|---|---------|
| DN | Ref. |
| DN8-15 | 9830533 |
| DN20 | 9830534 |
| DN25 | 9830535 |
| DN32 | 9830536 |
| DN40 | 9830537 |
| DN50 | 9830538 |

(* : Gaskets kit)

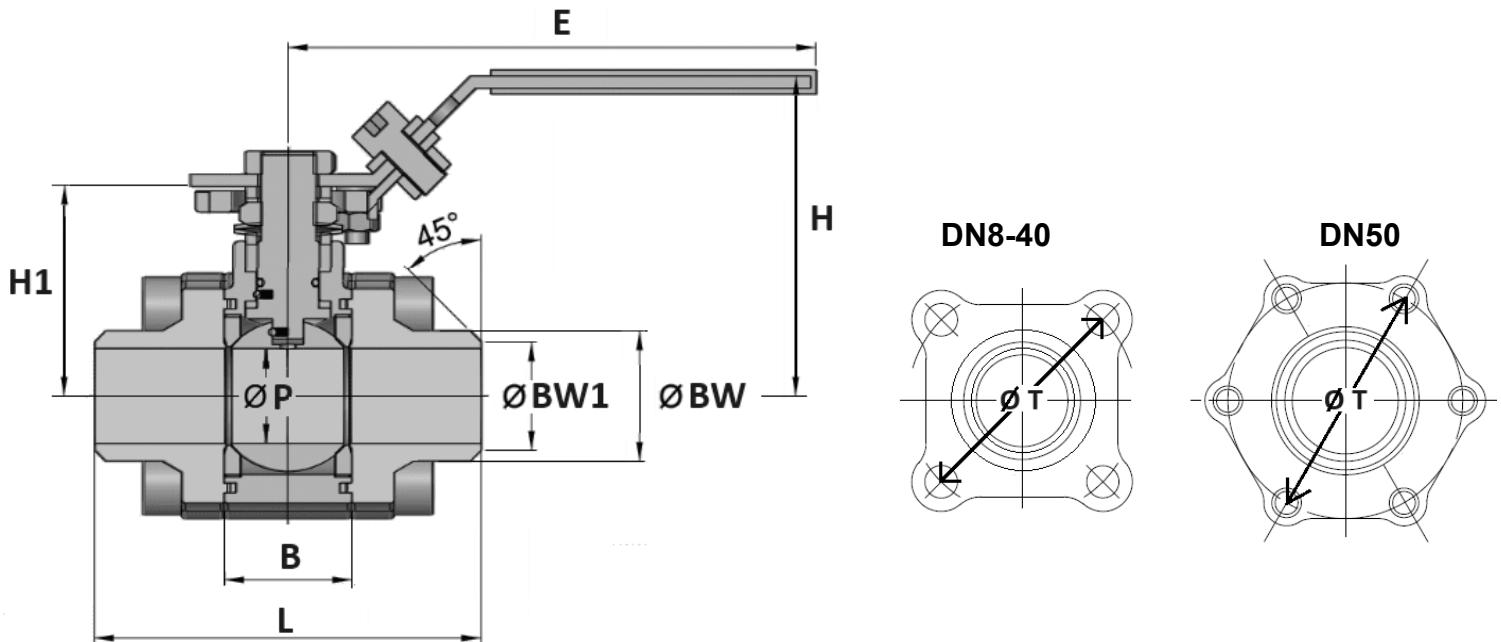
 ** : double O-ring
 For DN40 and 50

| Item | Designation | Materials |
|-------|-------------------|--------------------------------------|
| 1 | Body | Stainless steel EN 1.4408 |
| 2 | Nipple | |
| 3* | Seat | PTFE filled with 50% stainless steel |
| 4 | Ball | Stainless steel ASTM A351 CF8M |
| 5 | Stem | Stainless steel AISI 316 |
| 6* | Body gasket | Graphite |
| 7* | Thrust washer | PTFE filled with 50% stainless steel |
| 8* | Packing | Graphite |
| 9 | Gland | Stainless steel AISI 304 |
| 10 | Elastic washer | Stainless steel AISI 301 |
| 11 | Handle | Stainless steel AISI 304 |
| 12 | Handle nut | |
| 13 | Stop screw | |
| 14 | Handle cover | Vinyl |
| 15 | Bolting | Stainless steel A2-70 |
| 16* | O-ring** | FKM |
| 17 | Stop washer | Stainless steel AISI 304 |
| 18-19 | Antistatic device | Stainless steel AISI 316 |

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**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
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SIZE BW TYPES (in mm) :

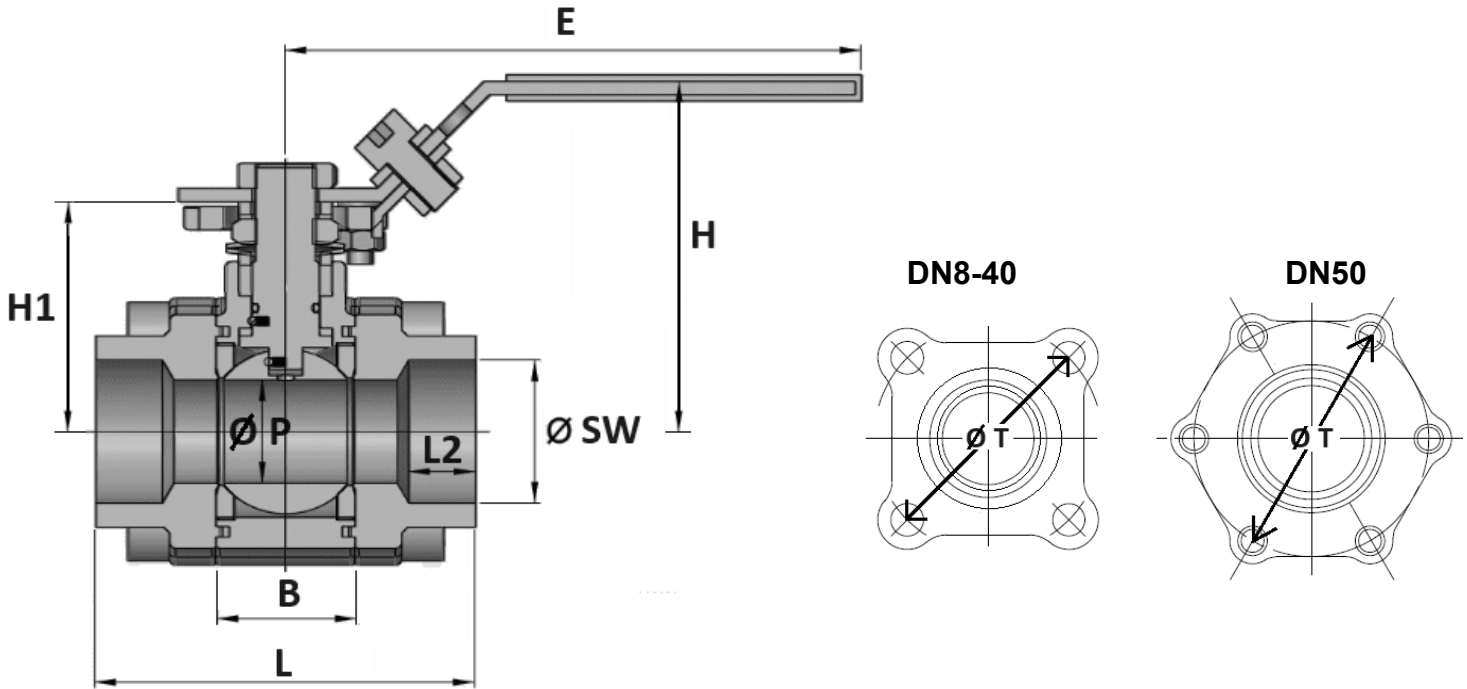


| DN (mm) | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
| NPS (") | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4 | 1"1/2 | 2" |
| Ø P | 11.1 | 11.1 | 16 | 20 | 24.5 | 32 | 38 | 50 |
| L | 75 | | | 90 | 100 | 110 | 125 | 150 |
| B | 25.2 | | | 27.7 | 33 | 41.2 | 49.3 | 63.6 |
| Ø BW | 17.2 | 17.2 | 21.3 | 26.9 | 33.7 | 42.4 | 48.3 | 60.3 |
| Ø BW1 | 13 | 13 | 17 | 22 | 28 | 37 | 43 | 54 |
| E | 110 | | | | 135 | | 165 | |
| H | 70.9 | | | 73.4 | 84.1 | 89.3 | 109.5 | 118.9 |
| H1 | 42.3 | | | 44.8 | 54 | 59.2 | 73.5 | 82.9 |
| Ø T | 47.8 | | | 55.2 | 64.1 | 77.6 | 88 | 108 |
| Weight (kg) | 0.78 | 0.8 | 0.76 | 0.98 | 1.7 | 2.52 | 3.56 | 6.62 |
| Ref. | 703DM108 | 703DM110 | 703DM115 | 703DM120 | 703DM125 | 703DM132 | 703DM140 | 703DM150 |

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**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
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SIZE SW TYPES (in mm) :

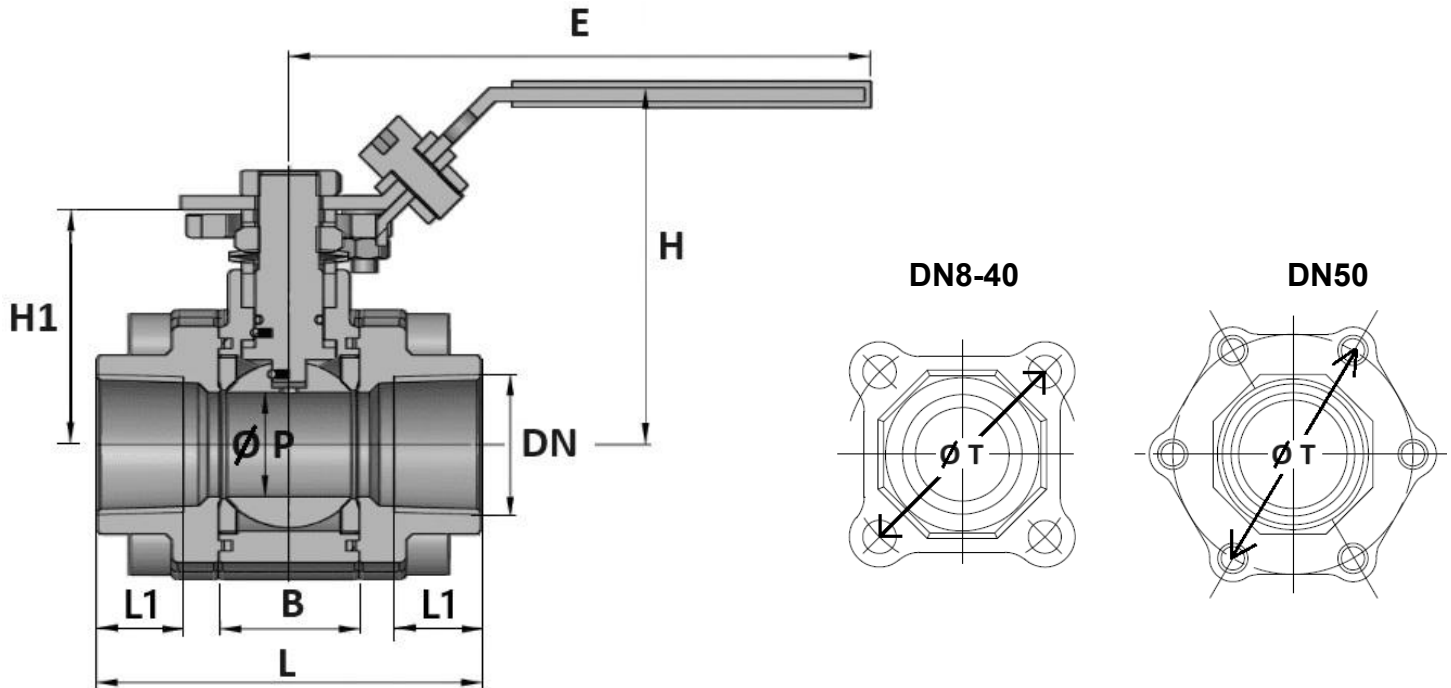


| DN (mm) | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
| NPS (") | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4 | 1"1/2 | 2" |
| Ø P | 11.1 | 11.1 | 16 | 20 | 24.5 | 32 | 38 | 50 |
| L | 75 | | | 80 | 90 | 110 | 120 | 140 |
| B | 25.2 | | | 27.7 | 33 | 41.2 | 49.3 | 63.6 |
| Ø SW | 14.2 | 17.7 | 21.8 | 27.2 | 33.9 | 42.7 | 48.8 | 61.2 |
| L2 | 10 | 10 | 11.2 | 14.3 | 15.8 | 17.5 | 19.1 | 21.3 |
| E | 110 | | | | 135 | | 165 | |
| H | 70.9 | | | 73.4 | 84.1 | 89.3 | 109.5 | 118.9 |
| H1 | 42.3 | | | 44.8 | 54 | 59.2 | 73.5 | 82.9 |
| Ø T | 47.8 | | | 55.2 | 64.1 | 77.6 | 88 | 108 |
| Weight (kg) | 0.82 | 0.84 | 0.85 | 1.04 | 1.82 | 2.66 | 3.9 | 6.8 |
| Ref. | 703DM208 | 703DM210 | 703DM215 | 703DM220 | 703DM225 | 703DM232 | 703DM240 | 703DM250 |

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**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
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SIZE BSP AND NPT TYPES (in mm) :

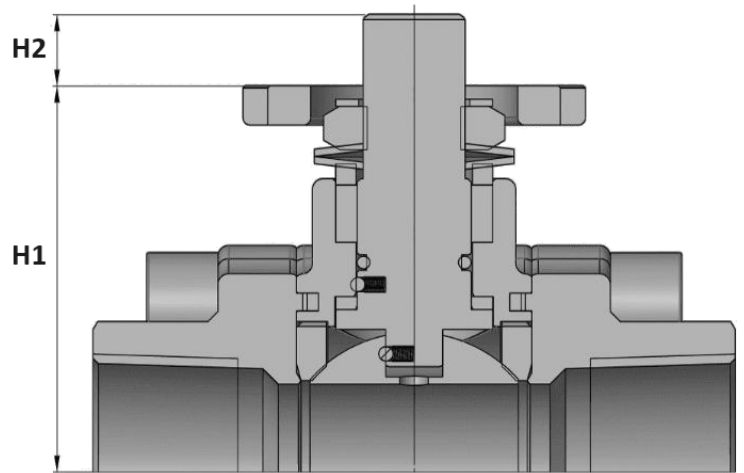
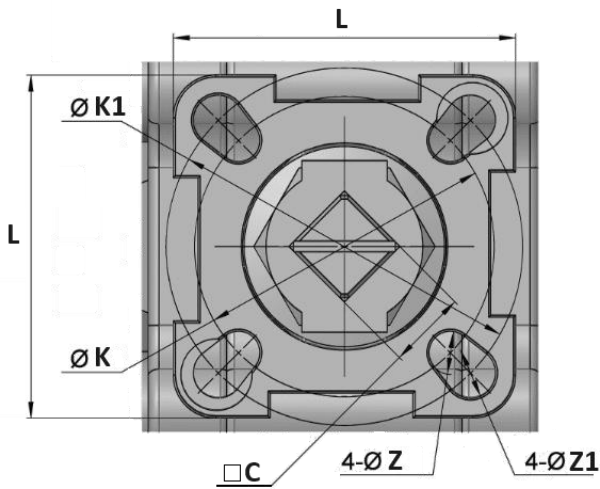


| DN (mm) | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
| NPS (") | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4 | 1"1/2 | 2" |
| Ø P | 11.1 | 11.1 | 16 | 20 | 24.5 | 32 | 38 | 50 |
| L | 75 | | | 80 | 90 | 110 | 120 | 140 |
| L1 | 12.5 | 13.5 | 15.3 | 19.2 | 20.3 | 24.4 | 25.1 | 27.7 |
| B | 25.2 | | | 27.7 | 33 | 41.2 | 49.3 | 63.6 |
| E | 110 | | | | 135 | | 165 | |
| H | 70.9 | | | 73.4 | 84.1 | 89.3 | 109.5 | 118.9 |
| H1 | 42.3 | | | 44.8 | 54 | 59.2 | 73.5 | 82.9 |
| Ø T | 47.8 | | | 55.2 | 64.1 | 77.6 | 88 | 108 |
| Weight (kg) | 0.88 | 0.89 | 0.83 | 1 | 1.69 | 2.56 | 3.7 | 6.6 |
| Ref. BSP | 703DM002 | 703DM003 | 703DM004 | 703DM005 | 703DM006 | 703DM007 | 703DM008 | 703DM009 |
| Ref. NPT | 703DM302 | 703DM303 | 703DM304 | 703DM305 | 703DM306 | 703DM307 | 703DM308 | 703DM309 |

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**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
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ISO PLATE AND STEM SIZE (in mm) :

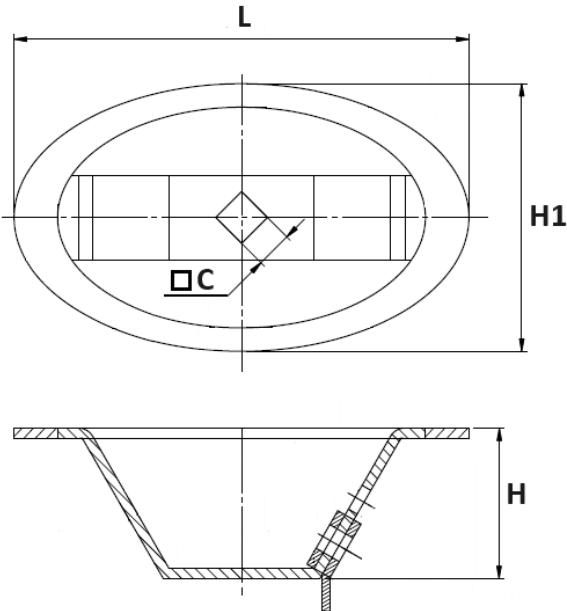


| DN | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
|----------|-------|------|------|-------|----|--------|--------|------|
| NPS (") | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4" | 1"1/2" | 2" |
| H1 | 42.3 | | | 44.8 | 54 | 59.2 | 73.5 | 82.9 |
| H2 | 8 | | | | 10 | | 14.8 | |
| L | 42 | | | 48 | | 68 | | |
| C | 9 | | | 11 | | 14 | | |
| Ø K | 36 | | | 42 | | 50 | | |
| ISO | F03 | | | F04 | | F05 | | |
| 4 x Ø Z | 4 x 6 | | | 4 x 6 | | 4 x 7 | | |
| Ø K1 | 42 | | | 50 | | 70 | | |
| ISO1 | F04 | | | F05 | | F07 | | |
| 4 x Ø Z1 | 4 x 6 | | | 4 x 7 | | 4 x 9 | | |

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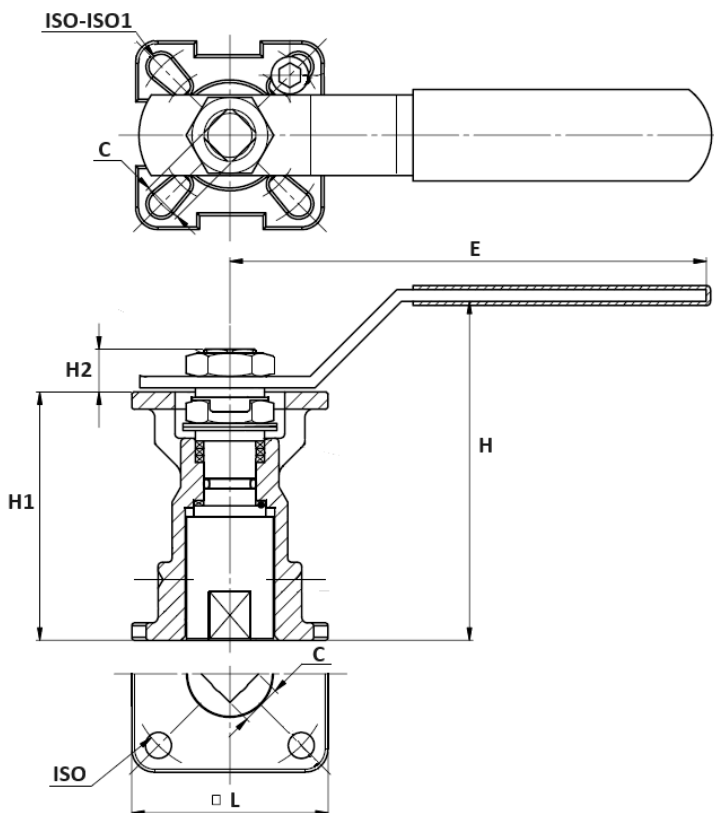
**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
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OVAL LOCKABLE HANDWHEEL AISI 304 SIZE (in mm) :



| DN (mm) | 8-20 | 25-32 |
|---------|-----------|-----------|
| NPS (") | 1/4"-3/4" | 1"-1"1/4" |
| L | 110 | 136 |
| H | 43 | 45 |
| H1 | 66 | 80 |
| C | 9 | 11 |
| Ref. | 9830485 | 9830486 |

STEM EXTENSION AISI 304 SIZE (in mm) :

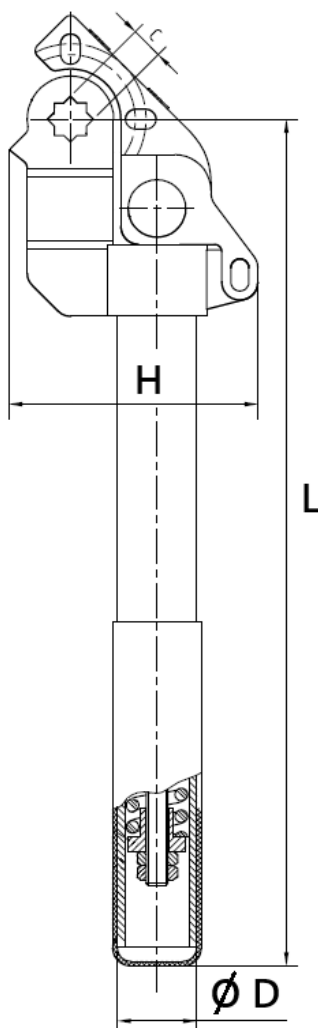


| DN (mm) | 8-20 | 25-32 | 40-50 |
|----------|-----------|-----------|-----------|
| NPS (") | 1/4"-3/4" | 1"-1"1/4" | 1"1/2"-2" |
| H | 87.4 | 93.8 | 117.5 |
| H1 | 60.7 | 67 | 86 |
| H2 | 8 | 10 | 14.8 |
| C | 9 | 11 | 14 |
| E | 110 | 135 | 165 |
| L | 42 | 48 | 68 |
| ISO | F04 | F05 | F07 |
| ISO-ISO1 | F03-F04 | F04-F05 | F05-F07 |
| Ref. | 9830476 | 9830477 | 9830478 |

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**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
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DEADMAN STAINLESS STEEL AISI 304 (in mm) :



| DN (mm) | 8-20 | 25-32 | 40-50 |
|-----------------------|----------------|----------------|----------------|
| NPS (") | 1/4"-3/4" | 1"-1 1/4" | 1 1/2"-2" |
| ISO | F03/F04 | F04/F05 | F05/F07 |
| C | 9 | 11 | 14 |
| H | 70 | | 100 |
| L | 235 | | 350 |
| Ø D | 22 | | 36 |
| Weight (in Kg) | 0.55 | 0.55 | 1.85 |
| Ref. | 9810740 | 9810741 | 9810742 |

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|---|
| <p>FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211 EXCELLENCE RANGE</p> |
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STANDARDS :

- Manufacturer certified ISO 9001 : 2015 and ISO 14001 : 2015
- DIRECTIVE 2014/68/EU : For liquids and gas of Group 1
 - DN8-25 : Article 4, §3 (SEP), no CE marking
 - DN32-50 : Risk Category II, CE0035 marking
- Certificate 3.1 on request
- Construction according to EN 12516-1
- Length according to EN 16722 Series M3 (DIN 3202 M3) for types BSP, NPT and SW from DN15 to DN50
- Pressure tests according to API 598
- Fire safe according to API 607 4th
- Fugitive emission according to ISO 15848-1 : 2015, Class BH
- S.W. ends according to ASME B16.11
- B.W. ends according to DIN 3239
- BSP threaded cylindrical ends according to ISO 228-1
- NPT threaded ends according to ASME B1.20.1
- ISO 5211 direct mounting pad
- ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 & 22 (optional marking) according directive 2014/34/EU
- SIL2 according to IEC/EN 61508, SIL 3 possible according to installation

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