A photograph of industrial piping with several MODU valves. One valve has a red handle with the MODU logo. A white label with the number '004-035' is visible on a pipe. A red circle is overlaid on the image, containing text.

**Carbon reinforced  
seats with superior  
temperature and  
wear resistance**

## **MODU 90D**

2-pcs flange ball valve PN40/16

- Stainless steel "CF8M"
- Steel "WCB"
- Industrial high end 2-pcs. flange ball valve
- Unique stuffing box ensuring long and reliable service
- Carbon reinforced seats with superior temperature and wear resistance
- Direct mount of actuators
- Food grade materials used throughout the valve
- ISO 14001 certification



**Make it better.**

**MODU<sup>®</sup>**

# MODU 90D

2-pcs flange ball valve PN40/16 • EU-1935/2004, FDA, ATEX, TA-LUFT, SIL3

## Connection / Face to face

Flange according to EN1092-1 PN40..PN16 / (F4/F5)

## Usable for

Water, air, steam, oil etc.

## Options on request

Dimension: DN250-DN300  
 Material: Duplex, hastelloy, titanium etc.  
 Seat: PTFE, Delrin, PEEK etc.  
 Connection: ANSI150

## Pressure rating

DN15-DN50: PN40bar  
 DN50-DN200: PN16bar

## Temperature

-20° C to 220° C

## Accessories

- V-port ball (30°, 60°, 90°), for regulating purposes
- Precision coupling / bracket regulating purposes
- Closed stem extension, TA-Luft approved stuffing box "TSM"
- Closed stem extension, without stuffing box
- Handle with position indication, lockable
- Position indication, handle operated (inductive or mechanic)

## Spare parts

- Complete kit/set of gaskets
- Seat rings
- Joint (body) gaskets
- Ball

## Developed for your industry



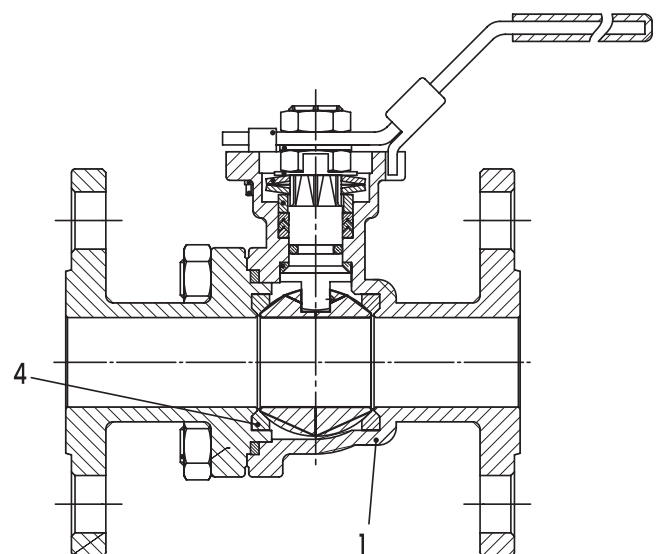
Additional specification can be requested.

## Make it better.

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## Parts description, excerpt

| Pos | Description ..... | Material                    |
|-----|-------------------|-----------------------------|
| 1   | Body .....        | Stainless Steel CF8M or WCB |
| 8   | Seat .....        | CTFE (25%C 75%PTFE)         |



When ordering, please find information in regards to size of valve on the valve nameplate. eg. MODU 90D DN50

### ➤ Improve the quality

We help Engineers to improve the quality of your manufacturing process.

### ➤ Optimize total cost

We help Purchasing Officers to optimize total cost of production, prevent downtime and safeguard your brand.

### ➤ Work smarter

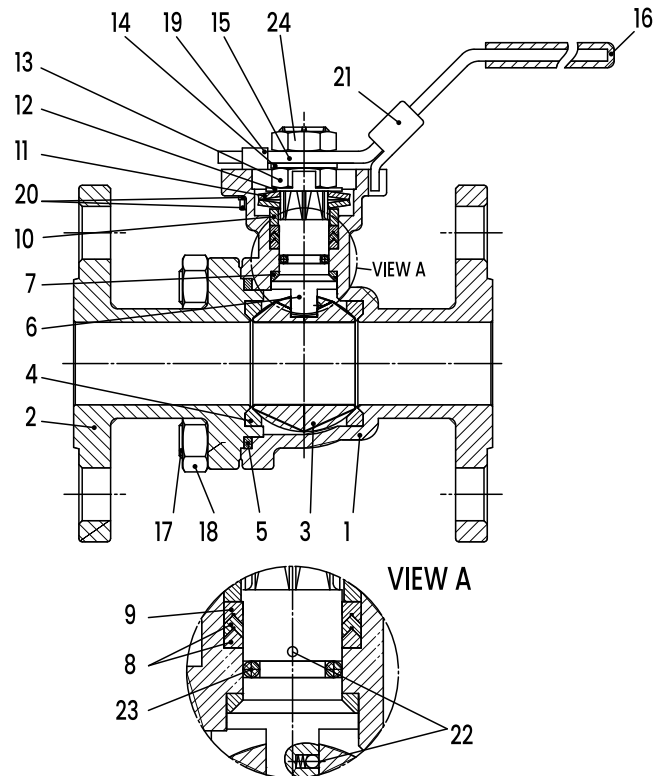
We help Maintenance Crews to work smarter, while preventing time-consuming mistakes.

# MODU 90D

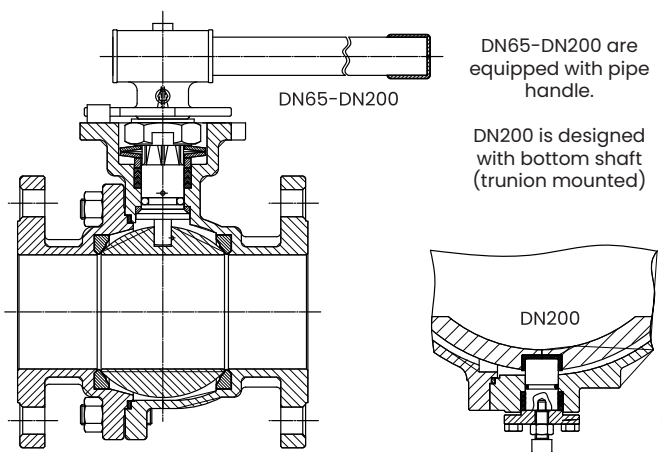
2-pcs flange ball valve PN40/16 • EU-1935/2004, FDA, ATEX, TA-LUFT, SIL3

## Materials

| Pos | Description        | Material                     |
|-----|--------------------|------------------------------|
| 1   | Body               | Stainless Steel CF8M or WCB  |
| 2   | Connection         | Stainless Steel CF3M or WCB  |
| 3   | Ball               | Stainless Steel CF8M/AISI316 |
| 4   | Seat               | CTFE (25%C 75%PTFE)          |
| 5   | Joint gasket       | PTFE                         |
| 6   | Stem               | Stainless Steel AISI316      |
| 7   | Pyramid segment    | CTFE (25%C 75%PTFE)          |
| 8   | Stem seal V-ring   | MG1241 (5%C 20%R 75%PTFE)    |
| 9   | Stem seal top ring | RTFE (25% Glas 75%PTFE)      |
| 10  | Gland              | Stainless Steel AISI304      |
| 11  | Belleville washer  | Stainless Steel AISI301      |
| 12  | Lock saddle        | Stainless Steel AISI304      |
| 13  | Nut                | Stainless Steel AISI304      |
| 14  | Washer             | Stainless Steel AISI304      |
| 15  | Handle             | Stainless Steel AISI304      |
| 16  | Sleeve             | Vinyl                        |
| 17  | Body bolt          | Stainless Steel AISI304      |
| 18  | Nut                | Stainless Steel AISI301      |
| 19  | Stop bolt          | Stainless Steel AISI304      |
| 20  | Nut / washer       | Stainless Steel AISI304      |
| 21  | Locking plate      | Stainless Steel AISI304      |
| 22  | Antistatic device  | Stainless Steel AISI316      |
| 23  | O-ring             | FPM                          |
| 24  | O-ring             | Stainless Steel AISI304      |



| DIM   | *) Torque [Nm] | Weight [kg] | Kv-value [m³/h] Open |
|-------|----------------|-------------|----------------------|
| DN15  | 7,7            | 2.3         | 10                   |
| DN20  | 12,3           | 3.0         | 27                   |
| DN25  | 15,4           | 3.9         | 48                   |
| DN32  | 22,3           | 5.8         | 70                   |
| DN40  | 27,7           | 7.9         | 102                  |
| DN50  | 33,1           | 10.2        | 204                  |
| DN65  | 50,8           | 14.7        | 272                  |
| DN80  | 82,4           | 20.4        | 493                  |
| DN100 | 94,0           | 28.0        | 867                  |
| DN125 | 185,6          | 53.4        | 1087                 |
| DN150 | 194,8          | 69.4        | 1618                 |
| DN200 | 693,8          | 103.0       | 2978                 |



\*) Torques are listed without safety factor at 20°C. See section for actuator sizing in the following pages.

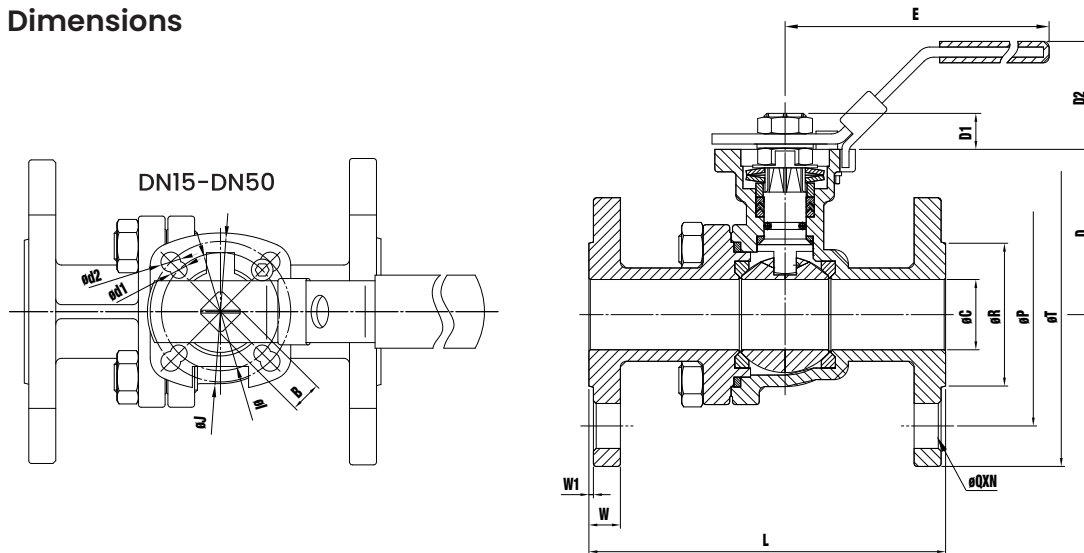
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# MODU 90D

2-pcs flange ball valve PN40/16 • EU-1935/2004, FDA, ATEX, TA-LUFT, SIL3

## Dimensions



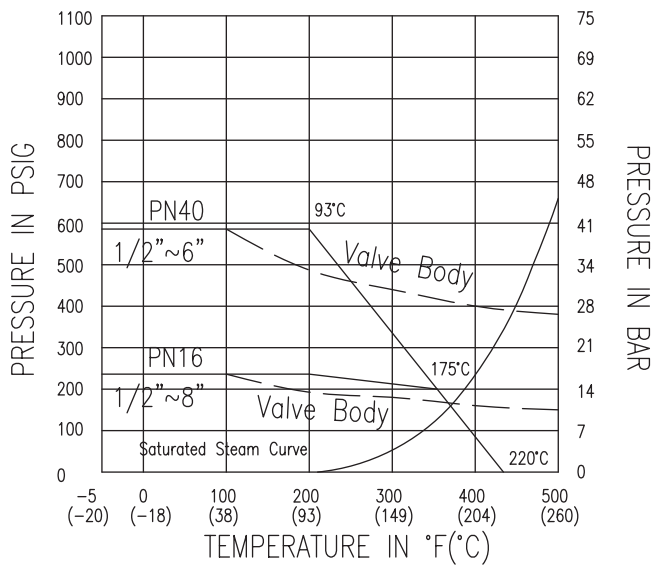
| DIM   | øC  | B  | E   | D     | D1   | D2   | øI  | øJ  | L   | N | øP  | øQ | øR  | øT  | W  | W1 | ød1 | ød2 | ISO5211 |
|-------|-----|----|-----|-------|------|------|-----|-----|-----|---|-----|----|-----|-----|----|----|-----|-----|---------|
| DN15  | 15  | 11 | 165 | 48.7  | 9.9  | 36   | 42  | 50  | 115 | 4 | 65  | 14 | 45  | 95  | 16 | 2  | 6   | 7   | F04/F05 |
| DN20  | 20  | 11 | 165 | 53.7  | 9.9  | 36   | 42  | 50  | 120 | 4 | 75  | 14 | 58  | 105 | 18 | 2  | 6   | 7   | F04/F05 |
| DN25  | 25  | 11 | 165 | 58.8  | 10.3 | 36   | 42  | 50  | 125 | 4 | 85  | 14 | 68  | 115 | 18 | 2  | 6   | 7   | F04/F05 |
| DN32  | 32  | 14 | 215 | 72.6  | 12.9 | 49   | 50  | 70  | 130 | 4 | 100 | 18 | 78  | 140 | 18 | 2  | 7.5 | 9   | F05/F07 |
| DN40  | 38  | 17 | 263 | 89.1  | 19.0 | 58   | 70  | 102 | 140 | 4 | 110 | 18 | 88  | 150 | 18 | 3  | 10  | 12  | F07/F10 |
| DN50  | 50  | 17 | 263 | 96.6  | 19.0 | 58   | 70  | 102 | 150 | 4 | 125 | 18 | 102 | 165 | 20 | 3  | 10  | 12  | F07/F10 |
| DN65  | 65  | 17 | 263 | 116.0 | 19.0 | 58   | 70  | 102 | 170 | 4 | 145 | 18 | 122 | 185 | 18 | 3  | 10  | 12  | F07/F10 |
| DN80  | 80  | 22 | 365 | 132.5 | 23.0 | 46.2 | 102 | 125 | 180 | 8 | 160 | 18 | 138 | 200 | 20 | 3  | 12  | 14  | F10/F12 |
| DN100 | 100 | 22 | 365 | 157.0 | 23.0 | 46.2 | 102 | 125 | 190 | 8 | 180 | 18 | 158 | 220 | 20 | 3  | 12  | 14  | F10/F12 |
| DN125 | 125 | 27 | 705 | 192.7 | 28.5 | 66.5 | 125 | 140 | 325 | 8 | 210 | 18 | 188 | 250 | 22 | 3  | 14  | 18  | F12/F14 |
| DN150 | 150 | 27 | 705 | 210.2 | 28.5 | 66.5 | 125 | 140 | 350 | 8 | 240 | 22 | 212 | 285 | 22 | 3  | 14  | 18  | F12/F14 |
| DN200 | 200 | 36 | 955 | 265.0 | 40.0 | 61.0 | 140 | 165 | 400 | 8 | 295 | 22 | 268 | 340 | 28 | 3  | 18  | 22  | F14/F16 |

# MODU 90D

2-pcs flange ball valve PN40/16 • EU-1935/2004, FDA, ATEX, TA-LUFT, SIL3

## Temperature vs. pressure table for CTFE seats

Valid for fluids and dry gasses. For steam and similar services, contact MODU Valves A/S.



## Actuator sizing

| Media factor  | Multiply by |
|---|-------------|
| Clean, particle free, lubricating (oil, hydraulic fluids etc) | 1.00        |
| Clean, particle free, non-lubricating (water, alcohol etc)    | 1.20        |
| Moist gas or saturated steam                                  | 1.20        |
| Dry gas or superheated steam                                  | 1.40        |
| Gas, dirty unfiltered i.e. Natural gas                        | 1.50        |
| Particle filled, corrosive, solvents and polluted systems     | 2.00 #      |

| Service factor                                      | Multiply by |
|---|-------------|
| Simple on / off maneuvering                         | 1.00        |
| Regulating / Throttling                             | 1.20        |
| Maneuvering once per week                           | 1.20        |
| Maneuvering every second week or critical component | 1.50        |

For actuator dimensioning:

Torque x Media factor x Service factor

# Polluted systems will reduce the expected life span of the seat rings