

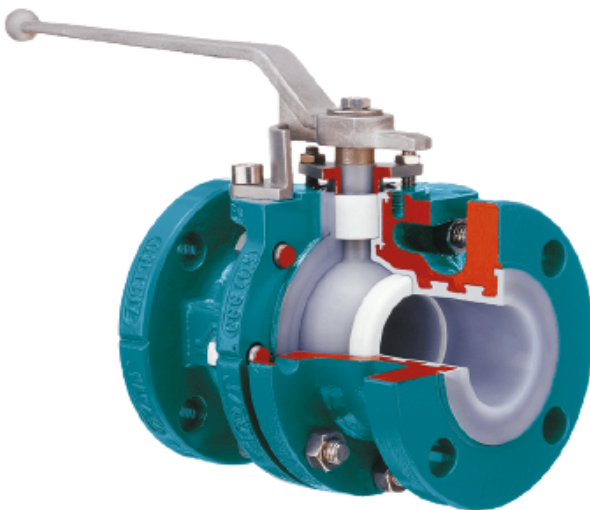
## NVN

Two way ball valve with full bore, chemical-resistant lining, ISO top flange

DIN-EN: DN 15 - 100 / PN 10 - 25

ASME: NPS ½" - 8" / class 150

PT range: -30 < T < 230°C



## Design Features

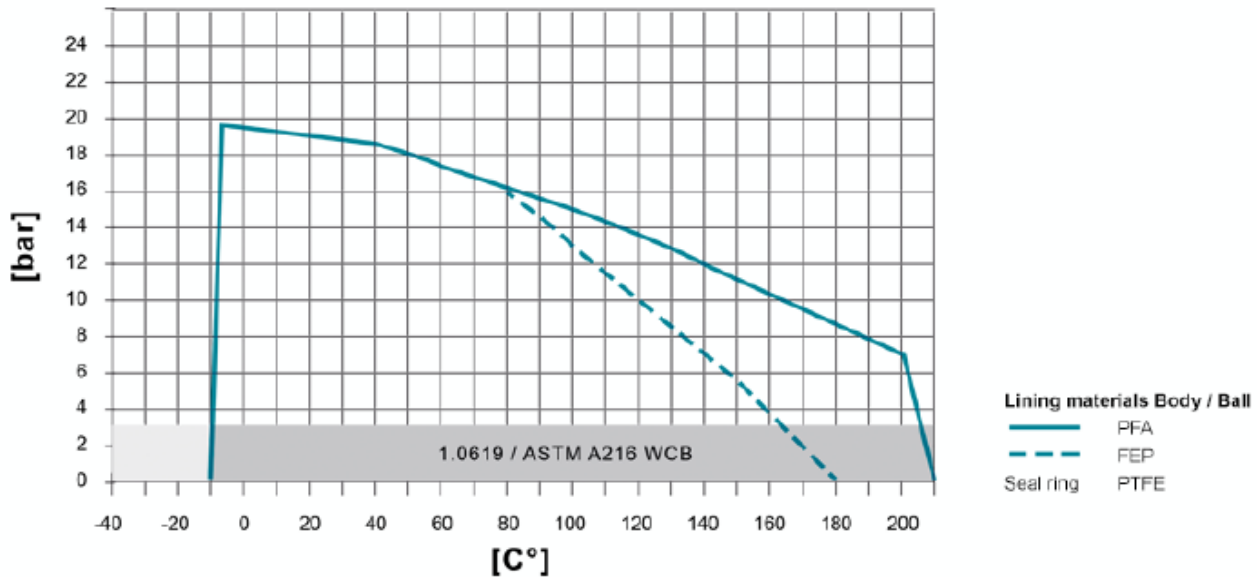
### Design Characteristics

- full bore
- split body
- integral ball and stem
- anti-blow-out
- with readjustable stuffingbox packing
- cavity minimized
- maintenance free - self lubricating
- mounting-flange for actuators acc. to DIN ISO 5211
- with chemical resistant lining - thickness min. 3 mm
- fugitive emission resp. clean air act certified (TA - Luft 2002 approval)

- PED 97/23/EG
- FDA conformity

## PT-Diagram

General Pressure-Temperature-Diagram



The specified values depend on the respective application (medium). Operating temperatures under -20°C only with body material 1.4408 or low-temperature steel. High pressure resistance / temperature resistance on request, e.g. PN 40.

Sleeve: There are different sleeve materials / compounds available.

## Materials

### Standard body materials

- Ductile cast iron ENJS 1049, ASTM Gr 60-40-18 / A395

### Standard plug materials

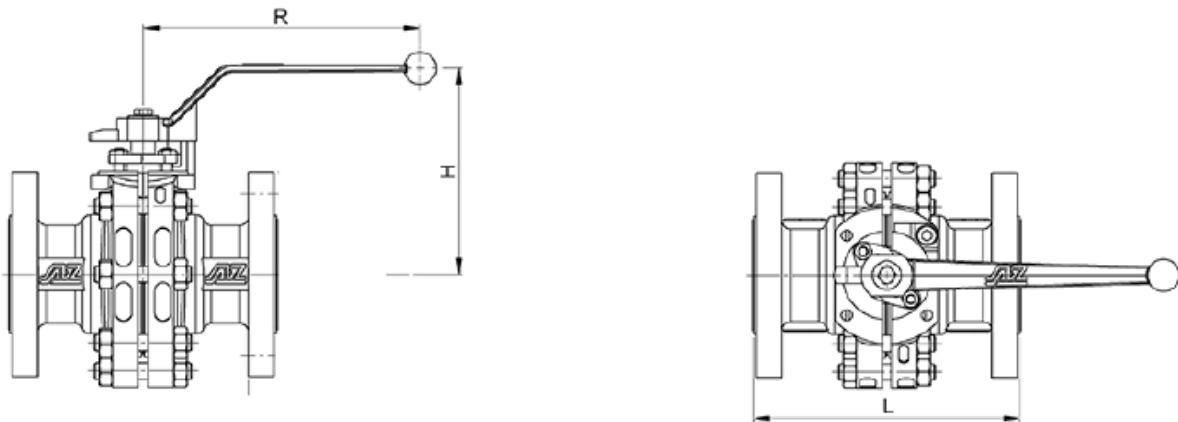
- Stainless Steel 1.4308, ASTM A351 CF8

### Special materials

- Carbon Steel 1.0619, ASTM A216 WCB
- Stainless Steel 1.4408, ASTM A351 CF8M
- Unalloyed stainless steel casting (low Temp.) 1.1138, LCC/LCB/A352

### Lining materials

- Body: PFA, PFA-conductive, FEP
- Ball: PTFE, PFA, PFA-conductive, FEP
- Seal Ring: PTFE



| DIN EN 1092/1 / 558-1 | DN  | PN    | L     | R   | H   | ISO-5211 flange | dihedron [mm] | torque* [Nm] | weight [kg] |
|-----------------------|-----|-------|-------|-----|-----|-----------------|---------------|--------------|-------------|
|                       | 15  | 10-40 | 130   | 170 | 110 | F07             | 11            | 35           | 3,4         |
|                       | 20  | 10-40 | 150   | 170 | 115 | F07             | 11            | 40           | 4,4         |
|                       | 25  | 10-40 | 160   | 170 | 117 | F07             | 11            | 40           | 6,5         |
|                       | 40  | 10-40 | 200   | 170 | 128 | F07             | 11            | 45           | 9,4         |
|                       | 50  | 10-40 | 230   | 230 | 143 | F10             | 14            | 50           | 16,3        |
|                       | 80  | 10-40 | 310   | 320 | 174 | F12             | 19            | 120          | 30          |
|                       | 100 | 10-16 | 350   | 420 | 200 | F14             | 22            | 120          | 38,4        |
|                       | 150 | 10-16 | 350   | 530 | 250 | F16             | 27            | 160          | 75,3        |
|                       | 150 | 25-40 | 350   | 530 | 250 | F16             | 27            | 160          | 75,3        |
| 200R                  | 10  | 292   | 530   | 250 | F16 | 27              | 160           | 107,9        |             |
| 200                   | 16  | 292   | 530   | 250 | F16 | 27              | 160           | 107,9        |             |
| 200                   | 10  | 457   | **    | **  | F16 | 36              | 270           | 198          |             |
| 200                   | 16  | 457   | **    | **  | F16 | 36              | 270           | 198          |             |
| ASME B 16.5 / 16.10   | NPS | Class | L     | R   | H   | ISO-5211 flange | dihedron [mm] | torque* [Nm] | weight [kg] |
|                       | ½"  | 150   | 108   | 170 | 110 | F07             | 11            | 35           | 2,5         |
|                       | ¾"  | 150   | 117,5 | 170 | 115 | F07             | 11            | 40           | 3,2         |
|                       | 1"  | 150   | 127   | 170 | 117 | F07             | 11            | 40           | 5,5         |
|                       | 1½" | 150   | 165   | 170 | 128 | F07             | 11            | 45           | 7,6         |
|                       | 2"  | 150   | 178   | 230 | 143 | F10             | 14            | 50           | 12,6        |
|                       | 3"  | 150   | 203   | 320 | 174 | F12             | 19            | 120          | 26          |
|                       | 4"  | 150   | 229   | 420 | 200 | F14             | 22            | 120          | 39,4        |
|                       | 6"  | 150   | 267   | 530 | 250 | F16             | 27            | 160          | 76,6        |
|                       | 8"R | 150   | 292   | 530 | 250 | F16             | 27            | 160          | 107,9       |
| 8"                    | 150 | 457   | **    | **  | F16 | 36              | 270           | 198          |             |

\*  $\Delta p=10\text{bar}$ , recommended safety factor for actuator +40%  
 \*\* on request

For geometric reasons, threads are used in the flange bores in a few cases