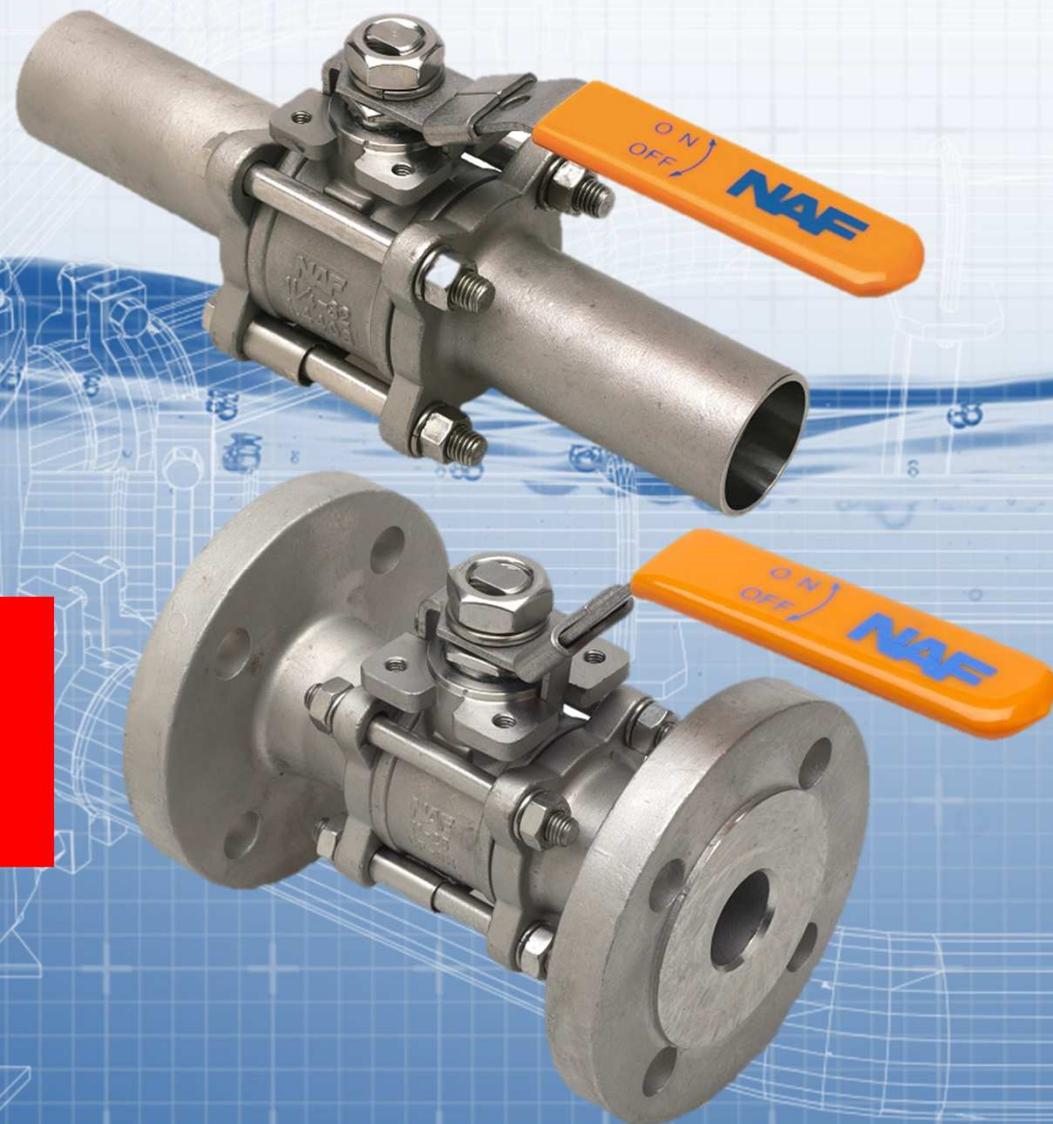


FLowsERVE

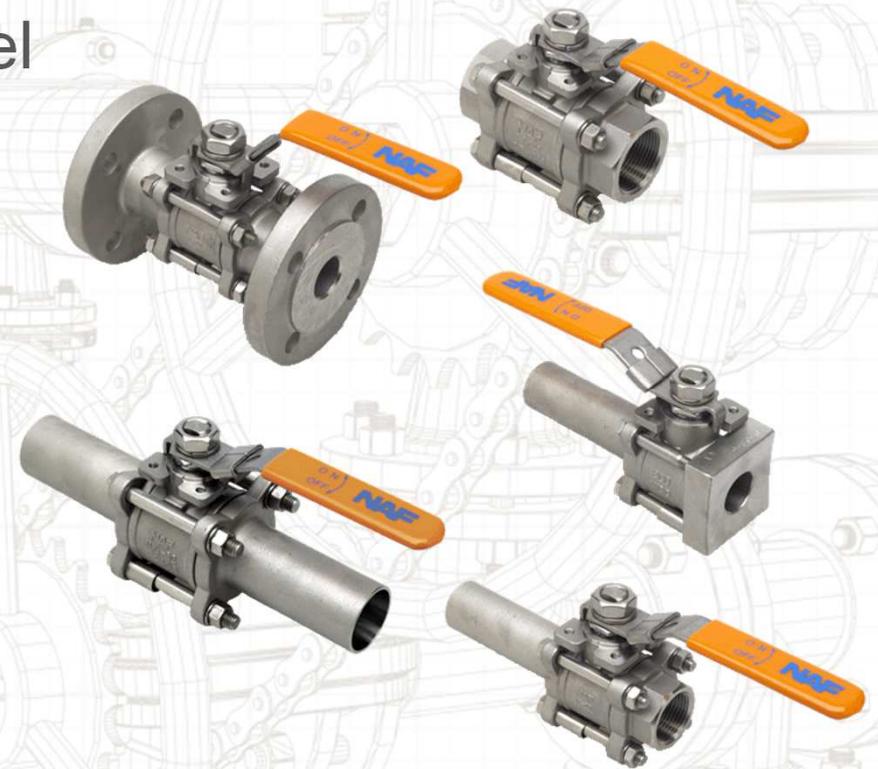
FLowsERVE NAF

Triball Product Presentation



What is the NAF Triball?

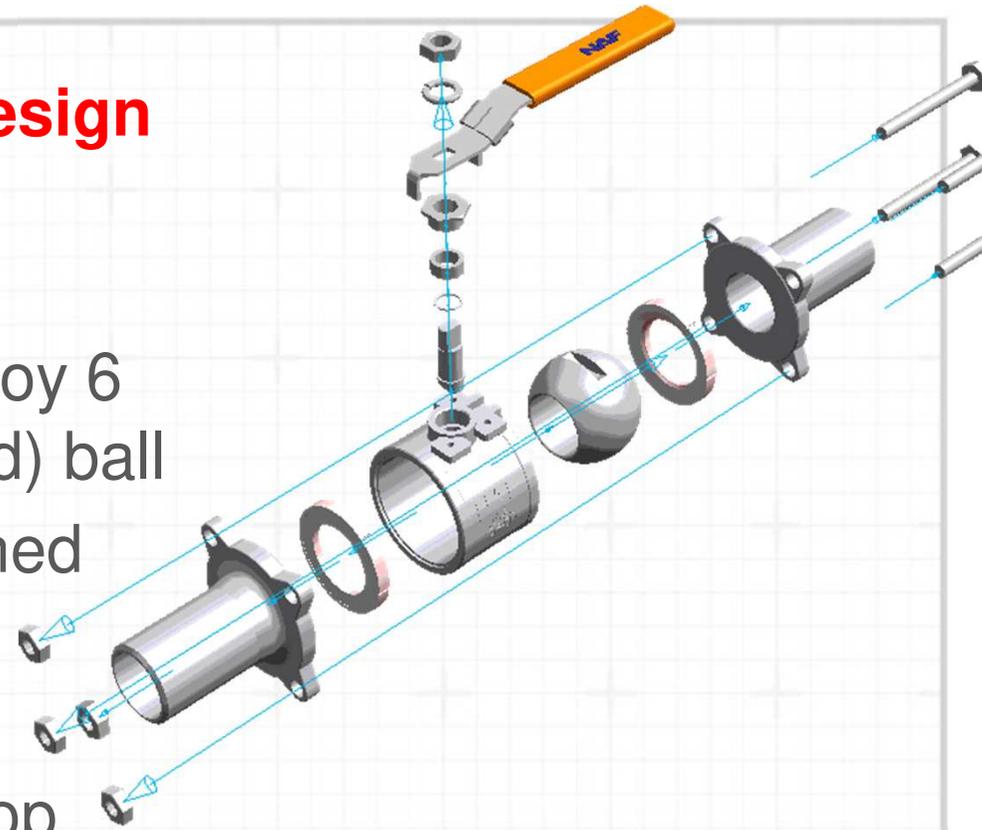
- Three piece ball valve in stainless steel
- Full bore, floating ball design
- High quality, flexible and cost effective
- Soft or metal seated
- Multiple end connections
- CE-marked





NAF Triball design

- Soft seats in R-PTFE
- Metal seated version with seats in Alloy 6 with an ENP (electroless nickel plated) ball
- Stem seal with v-ring packing combined with an o-ring
- Lockable hand lever
- ISO mounting plate, double D stem top
- CE-marked according to PED (2014/68/EU) module H, category III, fluids group 1 & 2



NAF Triball design

■ Multiple combinations of end connections:

- Threaded ends
- Short welding ends
- Long welding ends
- Flanged, PN16
- Connection plate end
- Combinations of the above



NAF 888650/60
DN 10-100
Female cylindrical,
pipe thread Rp.



NAF 888655/65
DN 10-100
Long welding end mm and
female cylindrical, pipe
thread Rp.



NAF 888651/61
DN 10-100
Short welding ends
for "mm" pipes



NAF 888656/66
DN 10-80
Female pipe thread NPT



NAF 888652/62
DN 15-65, PN 10-40
NAF 888352/62
DN 80-100, PN10-16
Face-to-face length acc. to
DIN 3202-F1 and ISO 5752
serie 1 Flanges



NAF 888657/67
DN 10-100
Long welding ends for ISO
pipes acc. to ISO 4200 range E



NAF 888653/63
DN 10-100
Long welding ends for
"mm" pipes



NAF 888658/68
DN 15-65, PN 10-40
Flanges and female cylindrical
pipe thread Rp.



NAF 888654/64
DN 15-25, 40-50 and 80-100
Welding end for "mm" pipe
and connection plate for
sampling.
Consult NAF for more
information.



NAF 888659/69
DN 10-100
Long welding end for ISO pipe
acc. to ISO 4200 and female
cyl. pipe thread Rp.



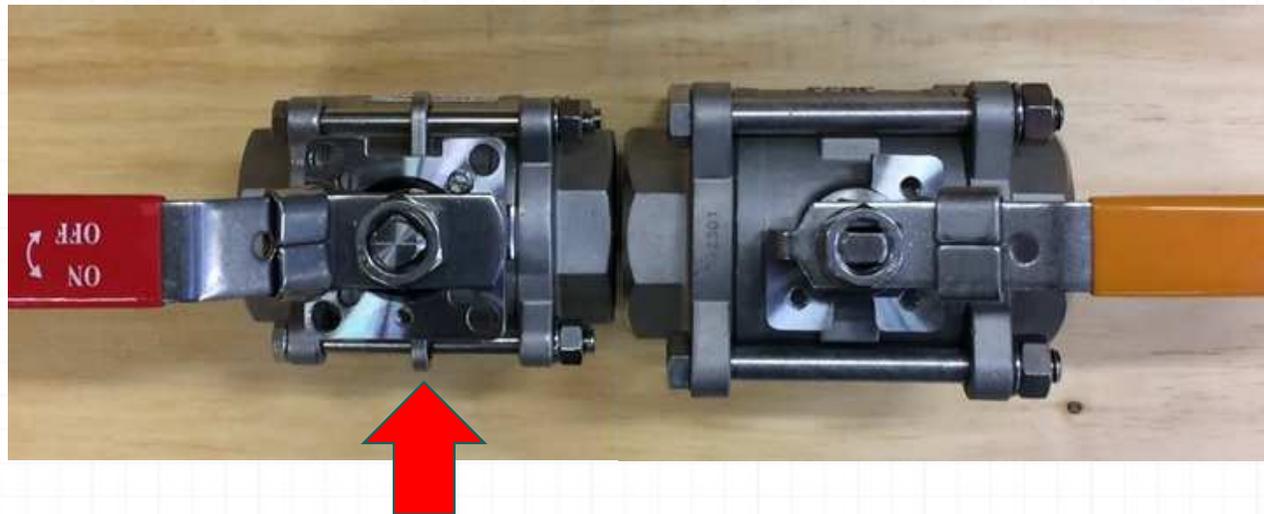
NAF Triball design

PN 63 design from "low cost source" sold in Europe

v.s.

Sturdy PN 40 Triball design

Same size!

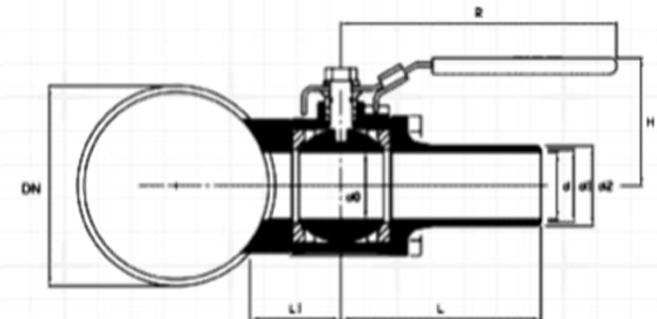


Which one do you think leaked heavily out from the valve body already at $p=35$ bar(g)...?



NAF Triball design- Connection plate end

- Two main applications:
 - **”Branching”** of smaller pipes from a main pipe > Avoiding breakage due to vibration
 - Piping to instruments, e.g. transmitters
 - Pipe flushing
 - Drainage from pipes or tanks
 - **”Sampling”** of suspended media > Avoiding plugging, e.g. pulp, due to the short distance between main process and ball
- Fulfills ”full weld penetration” acc to EN 13445-3
- Reverse end is normally a long welding end but can also be short welding end, threaded or flanged





NAF Triball

Material: CF8M (EN 1.4408)

Sizes: DN10-DN100

Pressure class: PN10-PN40

Tightness class: Soft: EN 12266-1:2012, rate A
Metal: EN 60534-4, Class V

Connection: Threaded, welding ends, flanged, connection plate

Temperature: -30° to 250°C, -22° to 482°F



Summary of Features and Benefits of the NAF Triball

The NAF Triball offers the following features which provides a competitive advantage:

- **Sturdy design** > Safe operation and minimized risk for non-planned plant downtime and leakage to atmosphere
- **Metal seated version** > Flexible use for a variety of applications and in different operating modes, including use in an intermediate opening position
- **Long welding end option** > No need to disassemble the valve before welding
- **Up to 250°C/482°F** in its standard configuration > Reduced inventory need due to the extensive temperature coverage
- **Stem seal with v-ring packing combined with o-ring** > High tightness, wide temperature range, possible to retighten
- **Lockable hand lever** > Increased safety as valves easily can be locked out
- **ISO mounting plate** > Easier to automate the valve
- **Connection plate version** >
 - Minimizing the risk for breakage due to vibrations
 - For use as sampling valve
- **PED approved even for fluids group 1** > Wider fluid coverage and increased safety



Thank you for your attention

See www.naf.se for more information