

# Neles™ R-series segmented ball valve for on-off applications

New Neles segmented ball valve for on-off applications combines the material efficient control valve design with the high capacity and proven performance of Neles on-off valve seating technology.

Standard units are equipped with cylinder or manual actuators and intelligent on-off valve controllers to ensure excellent and reliable isolating performance.

## BENEFITS

- Safe and reliable construction
- Material efficient valve design
- High capacity
- Suitable for harsh environments

## Features

### Specially designed and tested reliable on-off seat

- Metal seated construction developed with years of experience
- Ball to seat contact with materials and coatings maximizing the lifetime
- Suitable also for fibrous flow medias
- ISO 5208 RATE D tightness by standard metal seated construction
- Soft seated constructions available for applications requiring extreme tightness

### High operational efficiency

- High capacity with v-port On-off design
- Low friction on ball-seat connection enables selection of smaller actuators
- Material efficient valve body construction to assure competitiveness

### Materials specially developed for harsh environments

- Corrosion resistance with special materials CG8M, Titanium, Hastelloy C, 254 SMO Super Duplex
- Metal and soft seated constructions
- Ceramic coatings available for metal seated valves for corrosive environments

### Safety and environment

- Rotary operation minimizes fugitive emissions.
- Fire-safe design available with metals seats and graphite packing.



## TECHNICAL SPECIFICATIONS

### Type

Integrally flanged V-port segmented ball, quarter-turn valve for uni-directional on-off duty.

### Body pressure ratings

PN 10-40, ASME 150-300. Maximum operating differential pressure according to PN25. Full rated according to PN25.

### Sizes

DN 300, 350, 400, 500, 600, 700, 800  
Inch 12", 14", 16", 20", 24", 28", 32"

### End-connections

Flanged

### Face-to-face dimensions

ASME/ISA 75.08.02, IEC 60534-3-2.

### Temperature range

-52...+260 °C / -60...+500 °F, with soft bearings  
-52...+315 °C / -60...+599 °F, with metal bearings

### Fire safety

Fire safe design to meet ISO 10497:2010 - API 607, seventh edition.

### Shut-off classification

ISO 5208 Rate D with metal seat. Rate C with soft seat.

## Flow capacity

See bulletin 3R24.

## Valve trim rotation

Clockwise to close.

## Valve body and seat test

Each valve is tested for body integrity and seat tightness. The body test pressure is 1.5 x PN. The seat test pressure is 1.1 x maximum operating pressure of the valve. Test medium is inhibited water. Air test upon request.

## How to order

Example: The following example is for an RE flanged valve, with an ASME Class 300 body (D), standard construction 12" with WCB carbon steel body (D), duplex stainless steel V-port segment with HCr chromium coating (J), duplex stainless steel shaft and pins, PTFE bearings on SS316 net (J), metal seats P live loaded PTFE V-ring packing (T), flange facing roughness Ra 3.2 - 6.3, smooth finish (-).

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.		11.
-	RE	D	A	12	D	J	J	P	T	/	-

1. Sign	Trim codes	
-	Standard V-port (no sign)	
2. Sign	Product series	
RE	Flanged one piece body, V-port segment, face-to-face acc. to ISA 75.08.02 and IEC 60534-3-2.	
3. Sign	Pressure rating and flange drilling	
C	ASME 150 (1" - 32")	
D	ASME 300 (1" - 32")	
F	ASME 600 (1")	
J	PN 10 (DN 200 - DN 800)	
K	PN 16 (DN 100 - DN 800)	
L	PN 25 (DN 200 - DN 800)	
M	PN 40 (DN 25 - DN 600)	
R	JIS 10K flanges, based on body casting of ASME 300 (1" - 28")	
S	JIS 16K flanges, based on body casting of ASME 300 (1" - 28")	
T	JIS 20K flanges, based on body casting of ASME 300 (1" - 28")	
Y	Special, to be specified	
4. Sign	Construction	
A	Standard, drive shaft with ANSI keyway to actuator.	
5. Sign	Size	
	Inch 12" - 32" DN 300 - 800	
6. Sign	Body & screw materials	
D	ASTM A216 gr. WCB / 1-0619	(blind flange & gland bolting SS A4-80/B8M)
A	ASTM A351 gr. CF8M / 1.4408	(blind flange & gland bolting SS A4-80/B8M)
T	Titanium	(blind flange & gland bolting of Titanium)

7. Sign	Segment materials	
J	Type AISI 329+HCr	
C	CG8M + HCr	
S	Type AISI 329	
K	CG8M + CrC	
T	Titanium + ceramic coating	
V	Titanium without coating	
8. Sign	Shaft, pin & bearing materials	
J	Type AISI 329 & PTFE on SS316 net	
S	17-4 PH / Cobalt based alloy (NPS 2" - 10" / DN 50 - 250) (max +425 °C)	
T	Titanium / PVDF	
9. Sign	Seat	
P	On-off seat 316 SS + Cobalt based hard facing, back seal PTFE lip seal.	
P2	On-off seat SS 316 + CrC hard facing (with K segment)	
P5	On-off titanium metal seat	
T	PTFE+C25 %, metal body, back seal PTFE lip seal, size 12" - 32"	
T5	Titanium soft seat	
10. Sign	Stem packing & blind flange seal	
T	PTFE V-rings, live loaded Reduce Zoom	
G	Graphite rings, live loaded (fire-safe)	
11. Sign	Model code	
-	Version 0	
12. Sign	Flange facing	
/ -	ASME B16.5 (Ra 3.2 - 6.3 Reduce Zoom/ RMS 125-250) Cover EN1092-1 Type B1	

Subject to change without prior notice.

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