

# Kerotest Needle and Gauge Valves

## N21 Angle Union Bonnet Needle Valve



### Product Brief

A rugged, forged construction delivers dependable, leak-free performance at high and low pressures. Designed to measure and regulate flow in processing plants and oil and gas production applications, these valves perform in tight spaces and resist low-level corrosiveness. With optional trim, they also resist sour fluid environments, caustic liquids and corrosive media.

### Features/Benefits

- **Maximum operating pressure:** 10,000 psi @ 100° F (38° C).
- **Temperature limits:** Maximum temperature 750° F (398° C).
- **Operation:** Ideal where danger of fire exists.
- **Body:** Metal-to-metal back seat.
- **Flow:** Prevents flow media from entering atmosphere when Open (back seated) or in the Closed position.
- **Connection:** Female pipe ends per ANSI B1.20.1, socket weld ends per ANSI B16.11.
- **Packing:** Repack in Open or Closed position.



*An Employee-Owned Company*

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## Product Description

| Description    | Carbon Steel                    | Stainless Steel                 |
|----------------|---------------------------------|---------------------------------|
| Body           | ASTM-A108 Gr. 1213 ①②           | ASTM-A182 Type F316             |
| Stem           | ASTM-A582 Type 416              | ASTM-A582 Type 303 ③            |
| Packing Nut    | ASTM-A108 Gr. 1213 ①            | ASTM-A582 Type 303              |
| Bonnet         | ASTM-A108 Gr. 1213 ①            | ASTM-A276 Type 316              |
| Packing Washer | AISI-C1010 ①                    | 18-8 Stainless Steel            |
| Packing        | Garlock 127 AFP UTEX Style 1303 | Garlock 127 AFP UTEX Style 1303 |
| Handle         | Carbon Steel ④                  | Carbon Steel ④                  |
| Union Nut      | ASTM-A108 Gr. 1213 ①            | ASTM-A582 Type 416              |
| Handle Nut     | Plated Steel                    | Plated Steel                    |

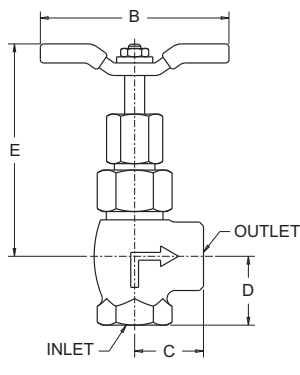
### Notes

- ① Zinc plated.
  - ② A105 also available.
  - ③ Special trim available for sour gas service.
  - ④ Yellow zinc plated.
- Grafoil® packing available upon request.

## Ordering Code/Specifications

| Size | Catalog Number | Inlet Size<br>Outlet Size | Body Material                    | Stem Material                 | Max. Temp.       | Bonnet Type | Approx. Weight (lbs) |
|------|----------------|---------------------------|----------------------------------|-------------------------------|------------------|-------------|----------------------|
| 1/4" | P-ON21-49-002  | 1/4" Female NPT           | ASTM-A108 AISI 1045 Carbon Steel | ASTM-A582 416 Stainless Steel | 750° F<br>399° C | Union       | 0.90                 |
|      | T-ON21-49-002  |                           | ASTM-A182 316 Stainless Steel    | ASTM-A582 303 Stainless Steel |                  |             | 0.90                 |
|      | P-ON21-96-002  | 1/4" Socket Weld          | ASTM-A108 AISI 1045 Carbon Steel | ASTM-A582 416 Stainless Steel | 750° F<br>399° C |             | 0.90                 |
|      | T-ON21-96-002  |                           | ASTM-A182 316 Stainless Steel    | ASTM-A582 303 Stainless Steel |                  |             | 0.90                 |
| 3/8" | P-ON21-49-003  | 3/8" Female NPT           | ASTM-A108 AISI 1045 Carbon Steel | ASTM-A582 416 Stainless Steel | 750° F<br>399° C | Union       | 1.23                 |
|      | T-ON21-49-003  |                           | ASTM-A182 316 Stainless Steel    | ASTM-A582 303 Stainless Steel |                  |             | 1.23                 |
|      | P-ON21-96-003  | 3/8" Socket Weld          | ASTM-A108 AISI 1045 Carbon Steel | ASTM-A582 416 Stainless Steel | 750° F<br>399° C |             | 1.23                 |
|      | T-ON21-96-003  |                           | ASTM-A182 316 Stainless Steel    | ASTM-A582 303 Stainless Steel |                  |             | 1.23                 |
| 1/2" | P-ON21-49-004  | 1/2" Female NPT           | ASTM-A108 AISI 1045 Carbon Steel | ASTM-A582 416 Stainless Steel | 750° F<br>399° C | Union       | 1.23                 |
|      | T-ON21-49-004  |                           | ASTM-A182 316 Stainless Steel    | ASTM-A582 303 Stainless Steel |                  |             | 1.23                 |
|      | P-ON21-96-004  | 1/2" Socket Weld          | ASTM-A108 AISI 1045 Carbon Steel | ASTM-A582 416 Stainless Steel | 750° F<br>399° C |             | 1.23                 |
|      | T-ON21-96-004  |                           | ASTM-A182 316 Stainless Steel    | ASTM-A582 303 Stainless Steel |                  |             | 1.23                 |
| 3/4" | P-ON21-49-006  | 3/4" Female NPT           | ASTM-A108 AISI 1045 Carbon Steel | ASTM-A582 416 Stainless Steel | 750° F<br>399° C | Union       | 1.95                 |
|      | T-ON21-49-006  |                           | ASTM-A182 316 Stainless Steel    | ASTM-A582 303 Stainless Steel |                  |             | 1.95                 |

## Dimensions



Note: Approximate dimensions in Inches (mm).

|      | A           | B            | C            | D           | E                | F                |
|------|-------------|--------------|--------------|-------------|------------------|------------------|
| Size | Width       | Handle Width | CL-to-Outlet | CL-to-Inlet | CL-to-Top (Open) | Hex Flat-to-Flat |
| 1/4" | 1.07 (27.2) | 3.00 (76.2)  | 1.03 (26.2)  | 1.03 (26.2) | 3.31 (84.1)      | 1.00 (25.4)      |
| 3/8" | 1.13 (28.7) | 3.00 (76.2)  | 1.25 (31.8)  | 1.25 (31.8) | 3.50 (88.9)      | 1.25 (31.8)      |
| 1/2" | 1.13 (28.7) | 3.00 (76.2)  | 1.25 (31.8)  | 1.25 (31.8) | 3.50 (88.9)      | 1.25 (31.8)      |
| 3/4" | 1.38 (35.1) | 4.00 (101.6) | 1.50 (38.1)  | 1.50 (38.1) | 4.16 (105.7)     | 1.50 (38.1)      |

All product names referenced herein are trademarks of their respective companies.



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