

NRC CIRCULAR CHEVRON CRYOTRAP MODEL 315-20

Optimum performance... 12,000 liters/second conductance

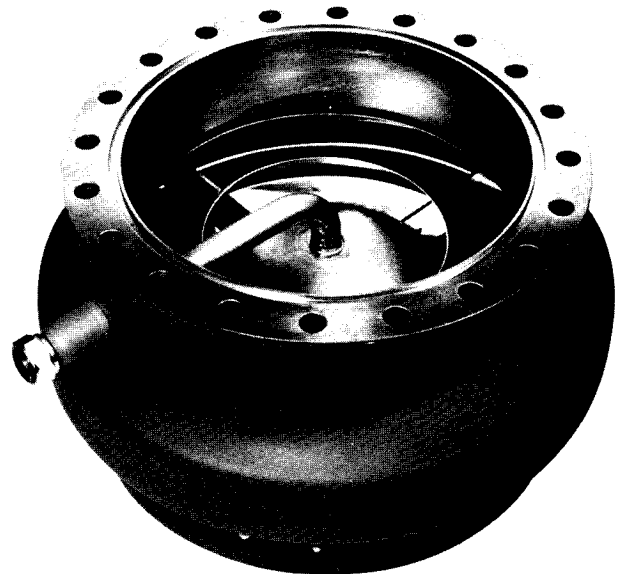
GENERAL DESCRIPTION

The NRC 315-20 cryotrap offers optimum cold trap performance for large-scale diffusion pump applications emphasizing clean vacuum. Unique circular chevron geometry of these 20" cold traps produces the maximum conductance possible for an optically dense baffle.

A minimum of internal welds and the use of stainless steel and nickel plating reduce contamination from outgassing.

Model 315-20 cryotrap are specifically engineered to complement performance characteristics of NRC's HS series high speed diffusion pumps. They may be filled with liquid nitrogen or water. Single fill and vent assembly makes filling fast and easy.

Circular chevron cryotrap in the 315-1 series are available in larger units up to nominal 48" size on request.



FEATURES

Highest Conductance — retains nearly 45% of diffusion pump speed.

Economy — low coolant consumption rate and long holding time reduce system operating costs.

Low Outgassing — outer shell is stainless steel; flanges are mild steel; fins and chevrons are nickel-plated copper, reservoir is stainless steel.

Long Holding Time — polished reservoir and facing surfaces of the chevron and outer shell result in extremely low emissivity and reduced liquid nitrogen cost.

Leak Prevention — minimum of internal welds reduces possibility of leaks at cryogenic temperatures.

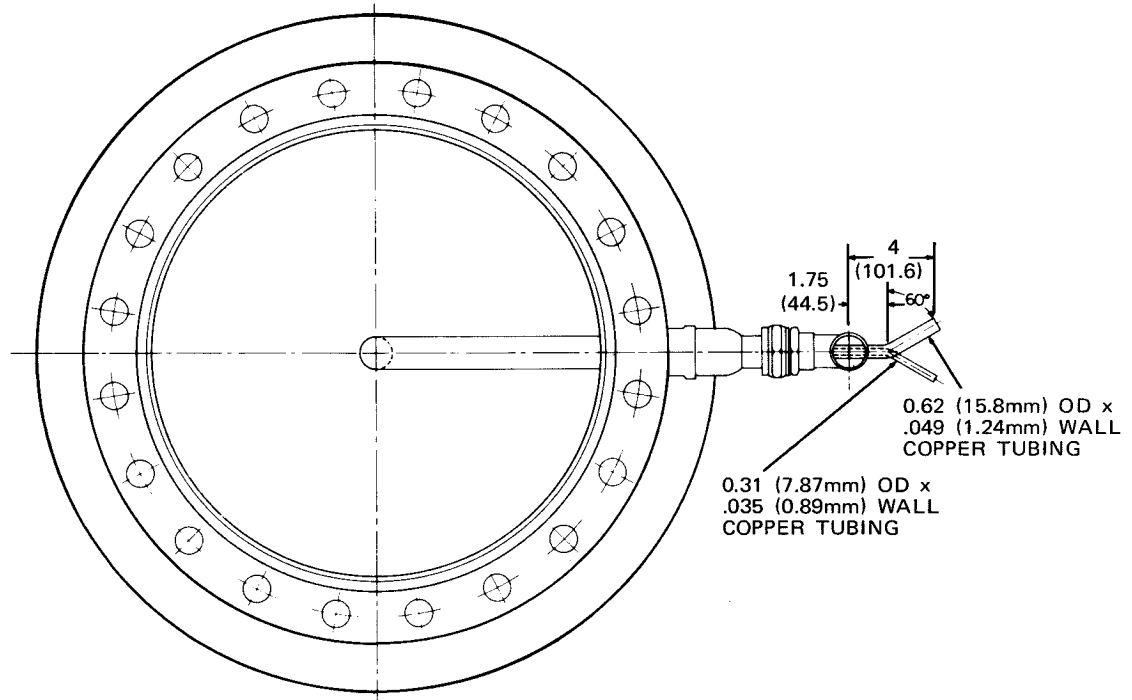
OPERATING SPECIFICATIONS

| | |
|--|---------------------------------|
| Conductance (@ 1×10^{-4} Torr) | 12,000 l/s |
| Reservoir volume | 10 liters |
| Volume of liquid nitrogen required to fill and cool initially (approx.) | 17 liters |
| Liquid nitrogen consumption rate at high vacuum (approx.) | 3.3 liters/hr. |
| Holding time for single liquid nitrogen charge (approx.) | 3 hrs. (directly above pump) |

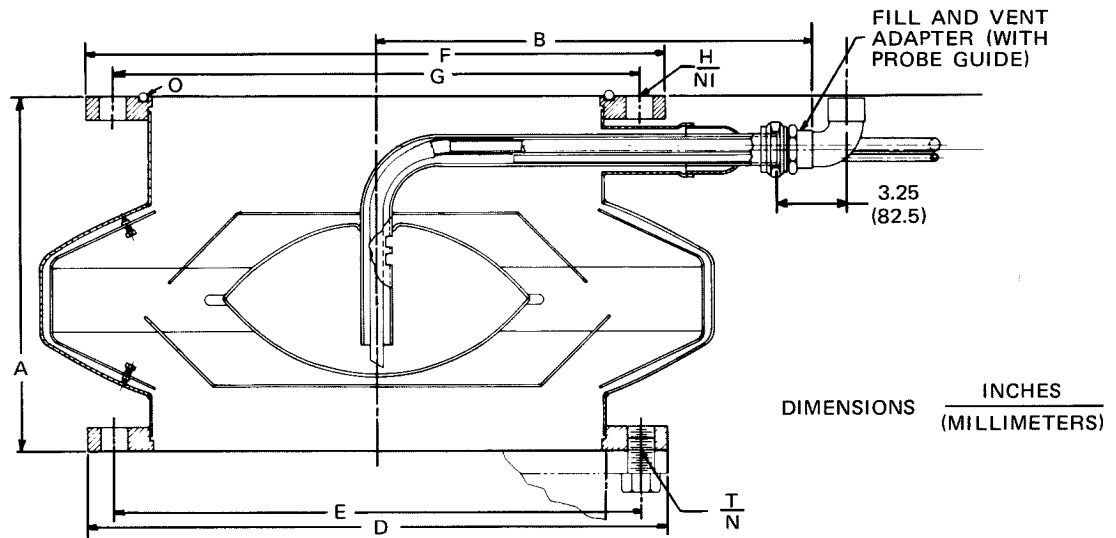


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315-20 Circular Chevron Cryotrap (Top View)



315-20 Circular Chevron Cryotrap (Side View)

| | COLD TRAP SIZE | A + .03" (.762) | B | C | D FLANGE DIA | E BOLT CIRCLE | F FLANGE DIA | G BOLT CIRCLE | H HOLE SIZE | NI NO.OF HOLES | T HOLE SIZE | N NO. OF HOLES | O RING NUMBER |
|----|----------------|-----------------------|-------|------|-----------------|------------------|-----------------|------------------|----------------|-------------------|----------------|-------------------|------------------|
| IN | 20 | 17.5 | 22.25 | 3 | 27.5 | 25 | 27.5 | 25 | 1.25 | 20 | 1.25 | 20 | 0181-84349-002 |
| MM | 508 | 445 | 565 | 76.2 | 700 | 635 | 700 | 635 | 31.8 | 508 | 31.8 | 508 | |

WHEN ORDERING REQUEST MODEL NO. 0315-87866-320

ORDERING INFORMATION

Orders and requests for additional information should be addressed to the nearest Varian District Office or to Varian Associates, NRC Operation, 121 Hartwell Ave., Lexington, Massachusetts 02173. Address European inquiries to nearest Varian District Office or to Varian SpA, Via Varian, 10040 Leini, Torino, Italy.