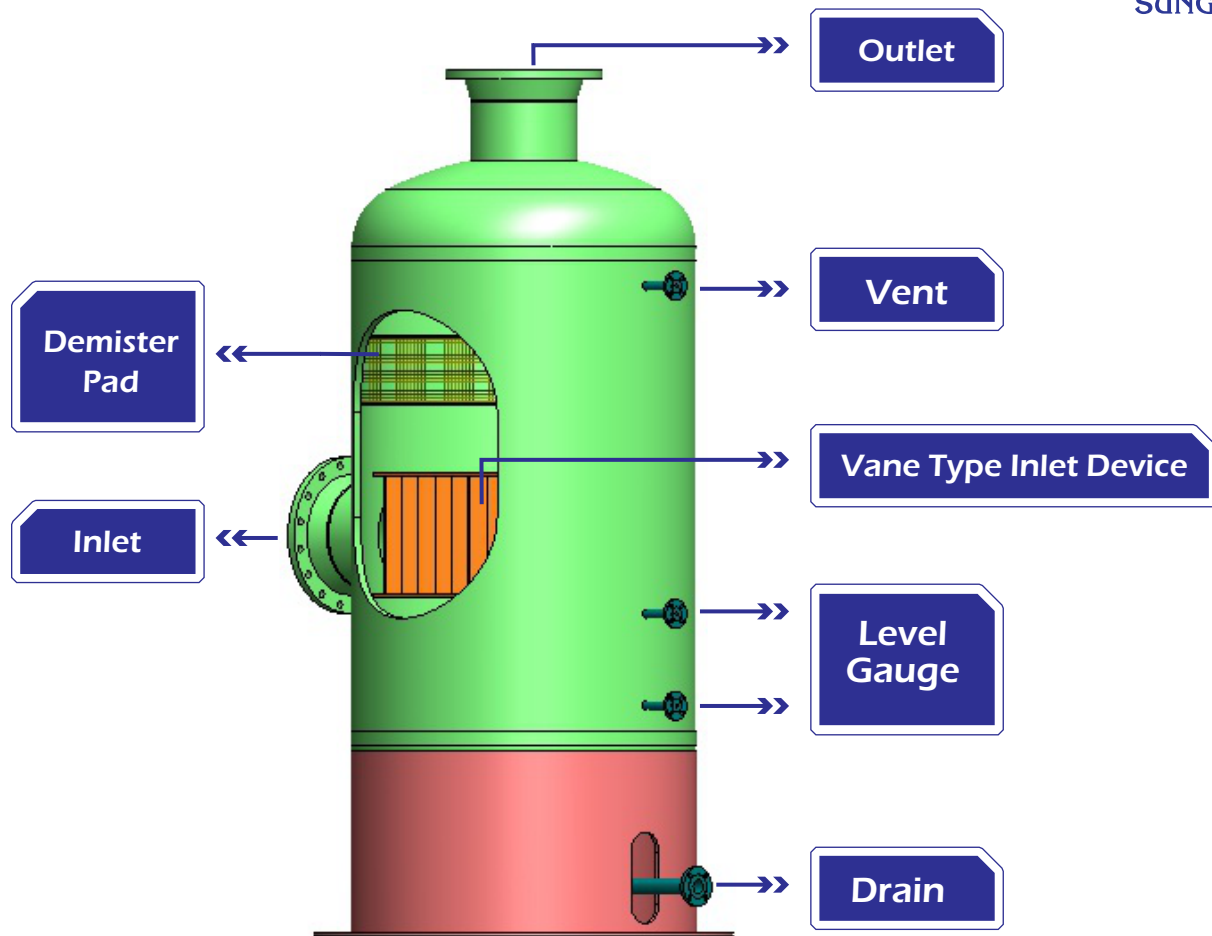


Knockout Drums (Scrubber Separators)

Liquid - Gas, Liquid - Gas - Solid Separation



Application

Knockout drums or scrubbers are used in separation of heterogeneous mixtures of two or more phases. The primary separation is achieved by leveraging the differences in rate of settling of different density constituent phases

Salient Features

- Removal of solid particles up to 10 micron at 99.5% efficiency
- Removal of liquid droplets up to 10 micron at 99.5% efficiency
- Mechanical design as per ASME Sec VIII Div 1 as standard; ASME Code stamping as option
- NACE MR0175 compliance as option

Advantages over other Separators

- Suitable for high capacities
- Low maintenance (fit & forget approach)
- Performance improves during turndown
- Horizontal or vertical installation

Vessel Size

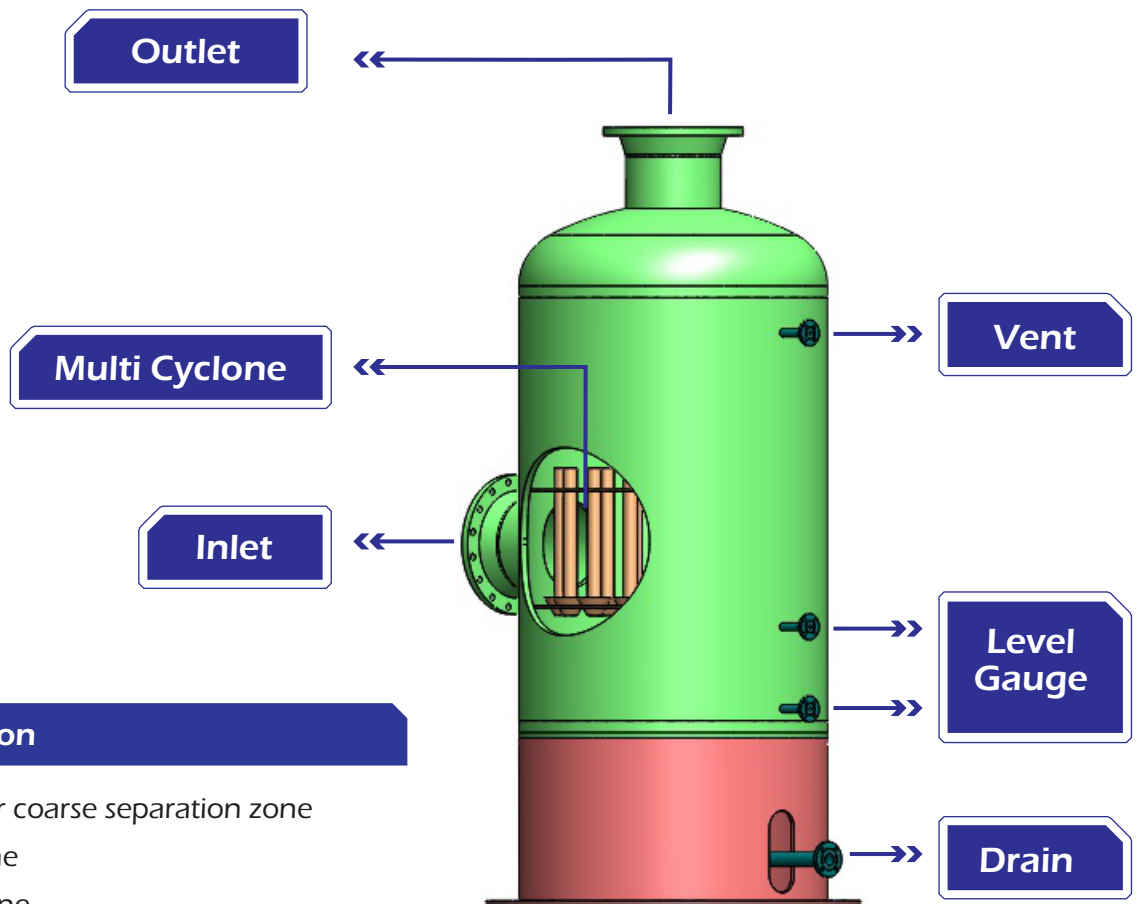
- Up to 120"

Pressure Ratings

- Up to ASME #2500

Industry Used In

- | | | | |
|-------------|---------------------------|-----------------|------------------------|
| ◆ Oil & Gas | ◆ Power Generation | ◆ Environmental | ◆ Industrial Utilities |
| ◆ Marine | ◆ Chemicals Manufacturing | ◆ Metals Mining | ◆ Aviation |



Zones of Operation

- Inlet distribution or coarse separation zone
- Liquid holding zone
- Fine separation zone

Internals for Coarse Separation Zone

- Vane type inlet device
- Multi-cyclone

Stock Housing Materials of Construction

- ASTM A106 Gr. B
- ASTM A516 Gr. 70N
- ASTM A105N
- ASTM A312 Tp304
- ASTM A312 TP316
- ASTM A240 Type 304 or 316
- ASTM A182 Gr. F304
- ASTM A182 Gr. F316

Internals for Fine Separation Zone

- Vane pack
- Demister pad / Wire mesh

On-order Housing Materials of Construction

- Other carbon steels
- Carbon steels with HIC testing
- Low alloy steels
- Austenitic-ferritic stainless steels

Internals Materials of Construction

- Austenitic stainless steel
- Austenitic-ferritic stainless steels
- Nickel or Copper alloys

Application Locations

- ◆ Oil refineries
- ◆ Natural gas processing plants
- ◆ Petrochemical plants
- ◆ Chemical plants
- ◆ Refrigeration systems
- ◆ Air conditioning
- ◆ Compressor systems for air or gases
- ◆ Gas pipelines



Sungov Engineering Private Limited
 K27 Ambattur Industrial Estate
 Chennai 600058 India
 P: +91 44 26359940 F: +91 44 26501408
 exportsales@sungov.com | www.sungov.com

Sungov Asia Pacific Private Limited
 1 North Bridge Road #10-05/06
 High Street Center Singapore 179094
 P +65 9739 5116 F +6568264204
 sales@sungov.sg | www.sungov.sg

Sungov Engineering (M) Sdn. Bhd.
 Suite 1705A, Level 17, Menara Landmark
 12 Jalan Ngee Heng, 80000 Johor Bahru Malaysia
 P: +60 122898369 F: +60 321784313
 sales@sungov.com.my | www.sungov.com.my