

Spray Condenser Tank

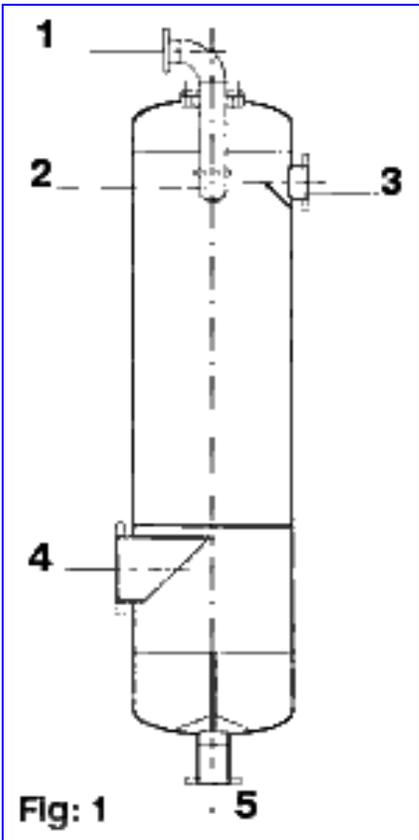
Mfg:	Model:
Stock No. 161	Serial No.

Spray Condenser Tank. Dimensions: 16 in. dia. x 70 in. H (60 gallons). Flange dimensions: (first) 4 in. with 4 holes, (second) 8 in. with 13-1/2 in. dia. Tank body has (2) mounts 5 in. W x 2-1/2 in. H for stability. Inlet: 3 in. reduced to 1-1/2 in. Discharge has hopper and 6 in. flange. Overall dimensions: 25 in. L x 16 in. W x 90 in. H.

General Spray Condensers

A spray condenser is a type of direct-contact condenser. One advantage of such a condenser is that it is relatively simple and inexpensive to produce. It also offers a greater efficiency than shell and tube condensers, due to a greater surface area for heat transfer produced by the droplets. The method is simple; water cooled below the dew point of the air in the condenser is sprayed at an optimum droplet size, and the water vapor condenses while releasing a latent heat of condensation. This latent heat can be utilized by a heat exchanger, and thus converted into energy for other uses in the desalination process. Also increasing efficiency, part of the exit stream of water leaving the condenser may be recycled and used as the spray for the humid air.





Spray Condenser

- 1. Water inley
- 2. Spray
- 3. Incondensables outlet
- 4. Inlet of humid vapor
- 5. Condensates outlet

Fig: 1

5