



ANDERSON INTERNATIONAL



Anderson 4-1/2" Pilot Expander/Dryer[®] Twin Flight Design

As a Rental or Purchase unit for
pilot plant or small commercial
drying of elastomeric materials.

Designed specifically for the Chemical Process Industry

Advantages

The second phase of the Anderson Mechanical Dewatering and Drying Line is the Expander/Dryer[®]. Designed to operate in conjunction with the Dewatering Expeller[®] Press, the Expander/Dryer[®] reduces elastomer moisture content to specification in a matter of seconds. The Expander/Dryer provides low operating and maintenance costs, and a high quality finished product.

- Low operating costs - a mechanical dryer takes advantage of the highly efficient conversion of electrical energy to mechanical work.
- Low maintenance costs - extremely low wear on the parts in contact with the material.
- Minimum heat history - the material is in process for approximately twenty seconds and at a maximum temperature for less than two seconds.

Drying Applications

- Both Emulsion and Solution Synthetic Rubber
- Thermal Plastic Resin-Rubber Masterbatch and Styrene Block Copolymers
- High Styrene Reinforced Polymers
- Natural and Reclaim Rubber

The Anderson 4-1/2" Expander/Dryer®

Product.....Rubber and Plastic Polymer.

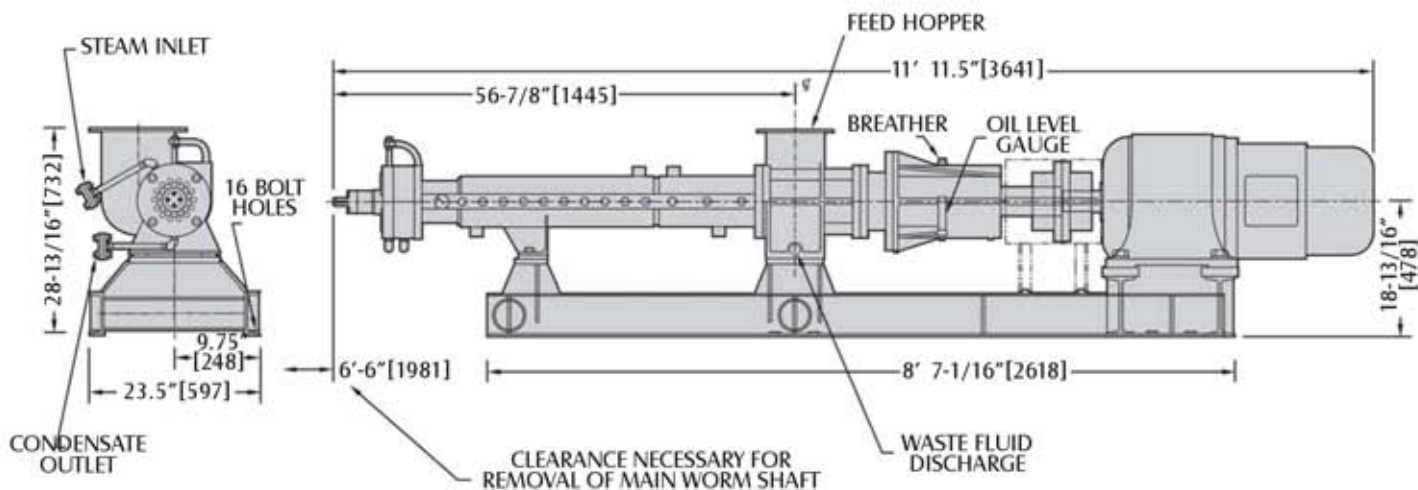
Moisture

Specifications..... 15 to 8% in, 2 to 0.5% or less out.

Operation..... The Expander/Dryer® mechanical dryer operates at an elevated internal pressure in the discharge area of the barrel. Although the material is at temperatures above the normal vaporization point, the moisture to be removed remains liquid. As the material discharges through the multi-holed die plate to atmosphere, the pressure drop causes the moisture to vaporize immediately. This vaporization causes the expansion of the elastomer into a porous form, substantially increasing its surface area, thus allowing the moisture to escape.

The process heat is derived from two sources. The prime source is the action of the worms on the material as the shaft rotates and conveys the material through the Expander/Dryer against the restriction of the discharge die plate. The secondary source is the steam jackets which are also used for heating the unit prior to startup. Due to the high shaft speed and discontinuous worm design, the elastomer is quickly brought to process temperature conditions. The total residence time within the barrel is less than twenty seconds with the material at maximum temperature for only 2 seconds.

Specifications..... The Expander/Dryer mechanical dryer is normally equipped with a gear motor and AC variable speed drive providing a broad range of (100-300) shaft rpm. The thrust unit allows applications using up to 100 H.P. A standard inverter duty motor is applicable. There are three higher capacity models available: The No. 8 for applications up to 350 H.P.; the No. 10A for applications up to 800 H.P.; and the No. 14A for use with up to 1500 H.P. Contact parts are constructed of corrosion resistant, contamination free stainless steels and special alloys.



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