Sample Industries
- BioMass
- BioFuels
- Foods
- Dairy
- Paper and pulp
- Minerals
- Chemical
- Petrochemical
... and many more

Sample Processes
- Drying
- Polymerization
- Heat curing
- Cooling/freezing
- Microbial kill
- Sintering/calcining
- Dewatering

Testing Available!

Rental Unit Available!

For more information contact one of our Sales Engineers
sales@showes.com
www.showes.com

S. Howes, Inc.
Phone: (716) 934-2611
Toll Free: (888) 255-2611
Fax: (716) 934-2081
© 2014 S. Howes, Inc. All rights reserved
ENGINEERED-TO-ORDER

S. Howes can assist in the design of heating and cooling equipment for your specific application. All materials are unique in their thermal heat transfer characteristics. Such factors include: particle size, density, viscosity, etc. After establishing a heat transfer coefficient, among other factors, S. Howes staff can assist in the specification of equipment for your application. Typically, this requires material testing in our lab. When testing in our lab may not be practical, equipment can be shipped to your facility for on-site testing. A technician is available to assist your staff in operating any equipment. Leverage our experience!

APPLICATIONS FOR COOLING/HEATING SCREW CONVEYORS

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>THROUGHPUT CAPACITY*</th>
<th>TEMPERATURE RANGE*</th>
<th>SCREW DIAMETER RANGE</th>
<th>THERMAL TRANSFER CONTACT AREA</th>
<th>HEAT/COOLING MEDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOLING</td>
<td>As low as 100 lbs./hour to as high as 5 tons/hour</td>
<td>MIN (out) 60 °F MAX (in) 1000 °F</td>
<td>4” to 36”</td>
<td>up to 300 sq. ft.</td>
<td>Water Glycol</td>
</tr>
<tr>
<td>HEATING</td>
<td>As low as 100 lbs./hour to as high as 2 tons/hour</td>
<td>MIN (in) 50 °F MAX (out) 400 °F</td>
<td>4” to 36”</td>
<td>up to 300 sq. ft.</td>
<td>Water Steam Glycol Hot Oil (5 to 20 psi requires ASME stamp)</td>
</tr>
<tr>
<td>DRYING/D EWATERING</td>
<td>Can remove as much as 50 lbs. of water/hour</td>
<td>MIN (in) 100 °F</td>
<td>4” to 36”</td>
<td>up to 300 sq. ft.</td>
<td>Steam Hot Oil</td>
</tr>
</tbody>
</table>

*Ranges shown here are typical but not absolute. Different configurations may be designed to fit your needs. Contact S. Howes to discuss your specific application.

SAMPLE COOLING/HEATING CONVEYOR LAYOUT

DESIGN OPTIONS FOR THERMAL CONVEYORS

Auger Types
- Single/Twin/Multi screw
- Heated/Cooled shaft
- Hollow flights
- Ribbon or cut flighting

Seal Types
- Rotating Mechanical
- Packing Gland
- Custom

Jacket Types
- Cooling jackets
- Heating jackets
- Integral or bolt-on
- ASME “U” and “R” stamp

DESIGN OPTIONS FOR THERMAL CONVEYORS

Instrumentation
- Temperature in/out readout
- Flowmeters
- Variety of pressure gauges available
- Customized control panels

Heaters/Coolers
- Single, dual or triple zone configurations
- -5 °F to 600 °F temperature control
- Designed for your needs

Customized
- Inlet/outlet custom designs
- Stands built-to-order
- NDE and X-ray options available
- Various insulation options available