



# LINE-Dry

## Cable and Wire Drying Systems



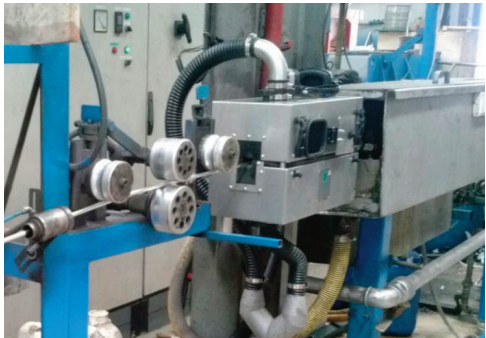
**ACI is a designer and supplier of industrial surface drying equipment for all types of industrial products including cable, wire and other continuous extrusions.**

**The problem:**

The process of extruding insulating layers and jacketed covers over wires typically involves conveying product through a cold water trough in order to bring down extrusion temperatures. The removal of any residual moisture is essential because if left wet, significant issues will occur with processes such as product labelling and spark testing. Effectively and consistently drying cable and wire has proven difficult and expensive. Because of this, manufacturers have used a variety of configurations including homemade air knife systems; various compressed air nozzle systems; air wipes and even sponges. All with varying degrees of success but overridingly ineffective.

**The solution:**

By working closely with cable and wire manufacturers, ACI has quickly earned a solid reputation for producing quality, engineered drying solutions suitable for the cable and wire markets. ACI's LINE-Dry Systems are a collection of blower-driven units that uses precisely controlled blower-driven air flow that reduces noise, improves drying efficiencies and dramatically cuts energy consumption. They operate by closely focusing powerful angled air jets against the flow of the product. These air jets are opposing, and aim at the top and bottom of the product to hold back the advancing residual moisture. This is achieved by breaking the surface tension of the water, allowing it to gather and puddle before the jets.



A general guide to help select the most appropriate product for cable and wire drying applications is illustrated in the following table:

Cable/Wire/Tube & Extrusion Product Guide				
Options	Max Line Speed (m/min)	Product Diameter (mm)	Product Profile	Motor Power (kW)
Standard Cable	400	2 ≤ 25	Round/Flat	3.0
High Speed Cable Dryer	1,000	0 ≤ 4	Round	5.5
Profile Dryer	50	50 ≤ 200	Round	3.0+
Ring Air Knives	10	200+	Round	5.5+

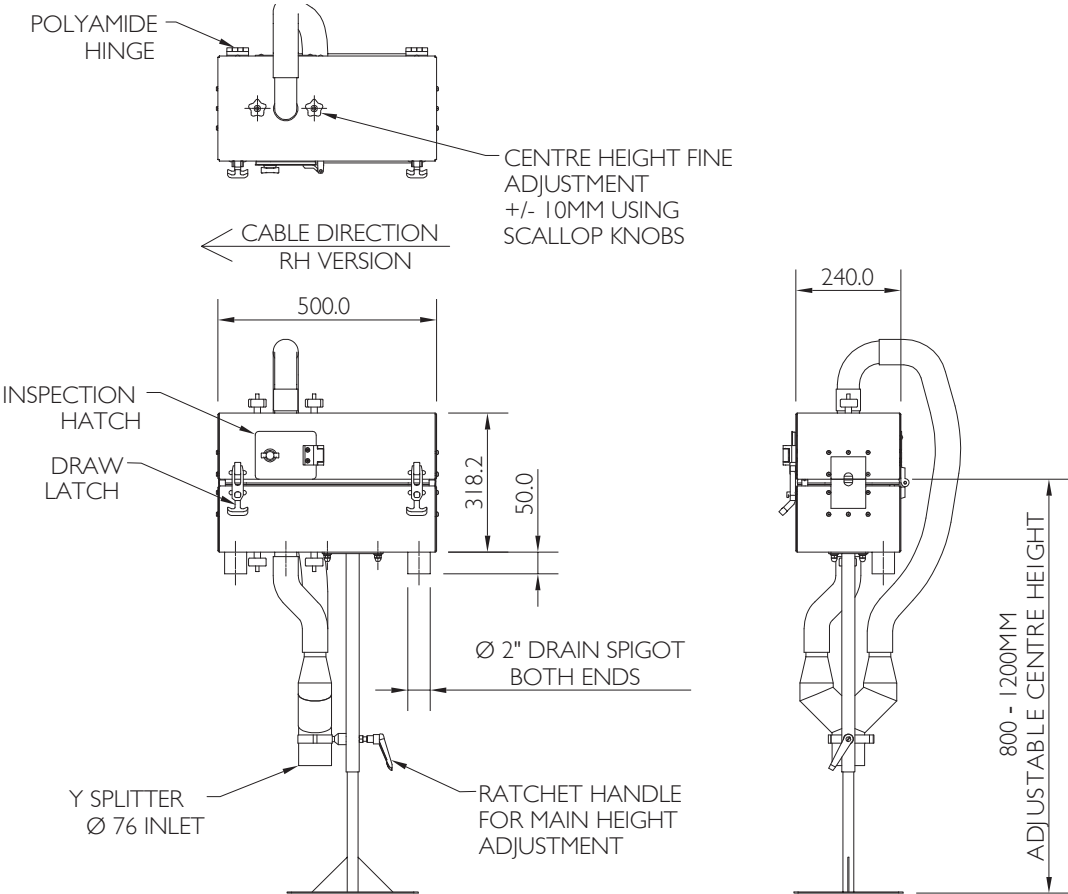
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## Cable and Wire Drying Systems

### Standard Cable /Wire Dryer (2 ≤ 25mm dia)

This standard drying system is fully enclosed and has a height adjustable stand which allows it to be easily positioned into most lines without any issues. Round or flat product profiles, with diameters between 2 and 25mm can be successfully dried at maximum line speeds of up to 400m/min.

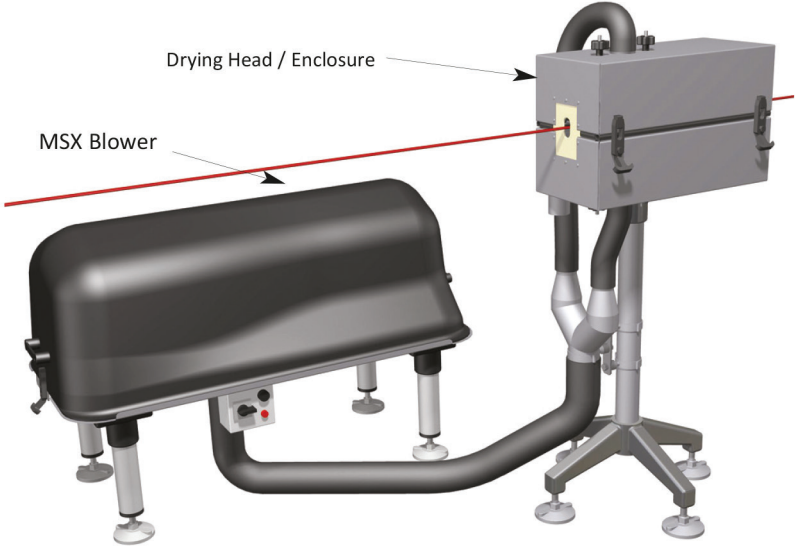
**Outline Drawing:**



**General Characteristics:**

<b>Discharge Figures</b>	<ul style="list-style-type: none"> <li>• Pressures &gt;80In.Swg (2.8PSI)</li> <li>• Air Temperature: 80 Deg.C (176 Deg.F.)</li> <li>• Air Speed: 8,800m/min (28,900ft/min)</li> </ul>
<b>Product Capabilities</b>	<ul style="list-style-type: none"> <li>• 2 ≤ 25mm diameter</li> <li>• Running speeds of 400m/min</li> </ul>
<b>Noise Levels (Blower only)</b>	<ul style="list-style-type: none"> <li>• Below 76dB(A) for blower</li> </ul>
<b>Standard Voltage</b>	<ul style="list-style-type: none"> <li>• 3Ph, 400/480V, 50/60Hz</li> <li>• Input to IP55 control box</li> </ul>
<b>Materials</b>	<ul style="list-style-type: none"> <li>• Powerpack, drying head plenums, and optional spray enclosure: Stainless Steel 304 and fire retardant ABS</li> <li>• Face plates and drying head end-caps: Polyethylene PE1000; Connecting hose: thermoplastic rubber</li> </ul>

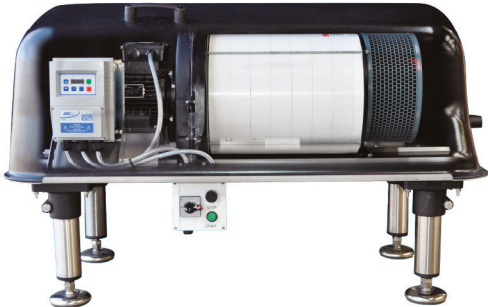
**Typical System Layout:**



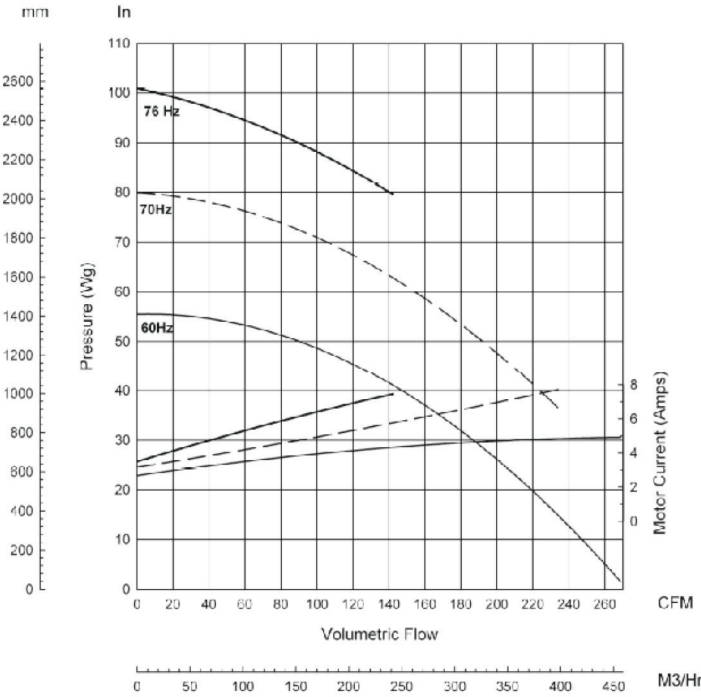
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## Cable and Wire Drying Systems

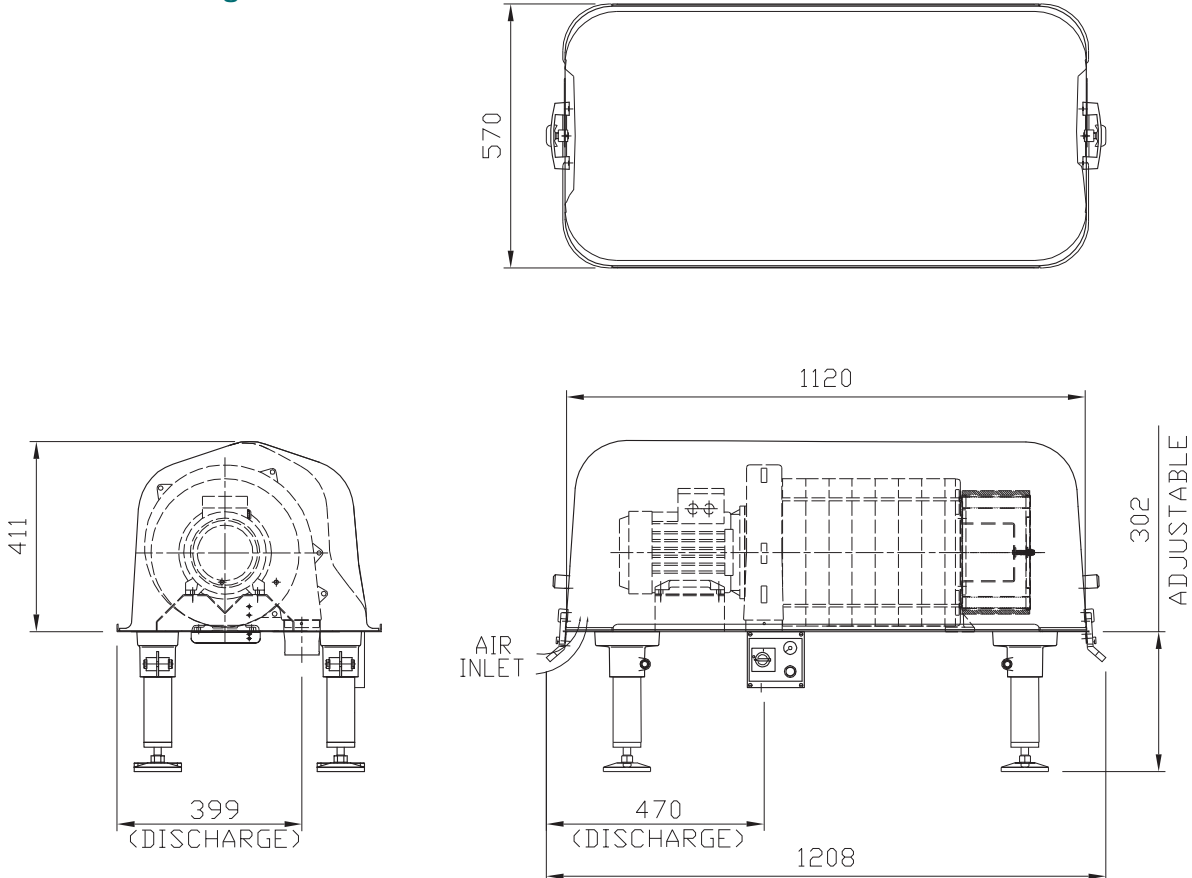
### MSX Blower Performance Details:



- Direct-driven blower offers quiet running (noise levels below 76dB(A)) and maintenance free operation
- Offers low motor speeds, but delivers air at high pressure
- Supplied with inverter as standard
- Further spray protection provided by ABS enclosure



### MsX Blower Outline Drawing:



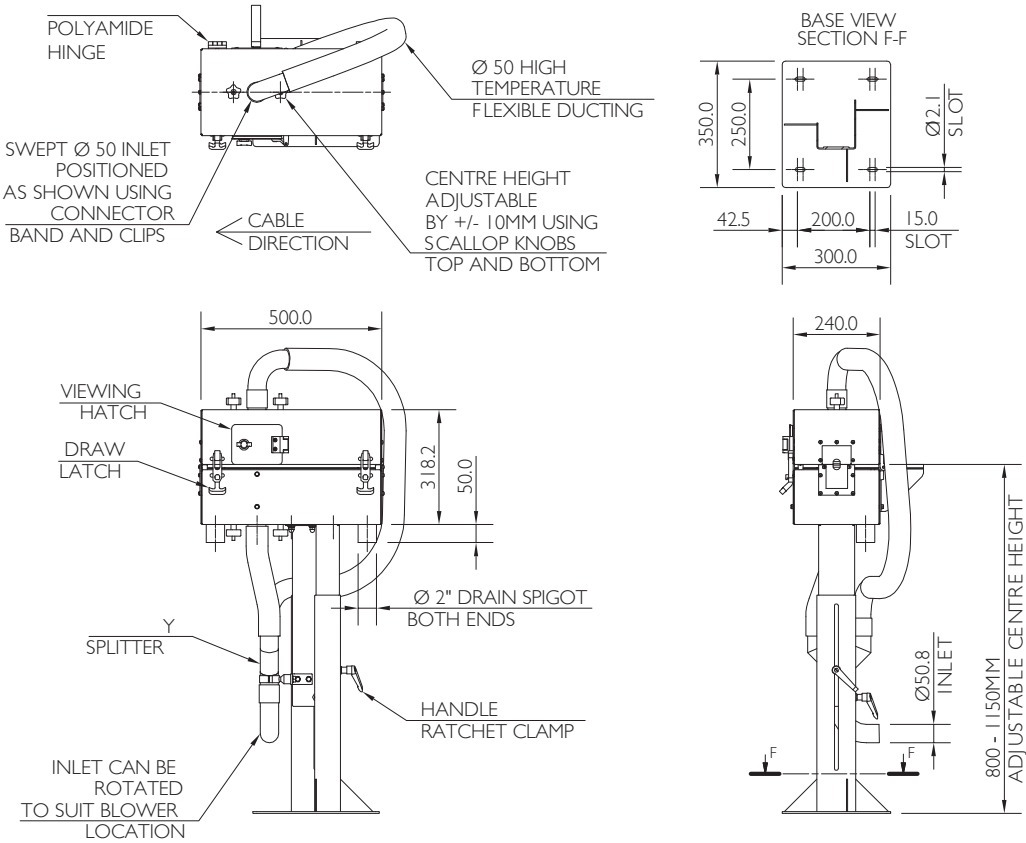
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### High Speed Cable /Wire Dryer (0 < 4mm dia)

ACI's high speed drying system is fully enclosed and has a height adjustable stand which allows it to be easily positioned into most lines without any issues. Round product profiles, with diameters between 0 and 4mm can be successfully dried at maximum line speeds of up to 1,000m/min.

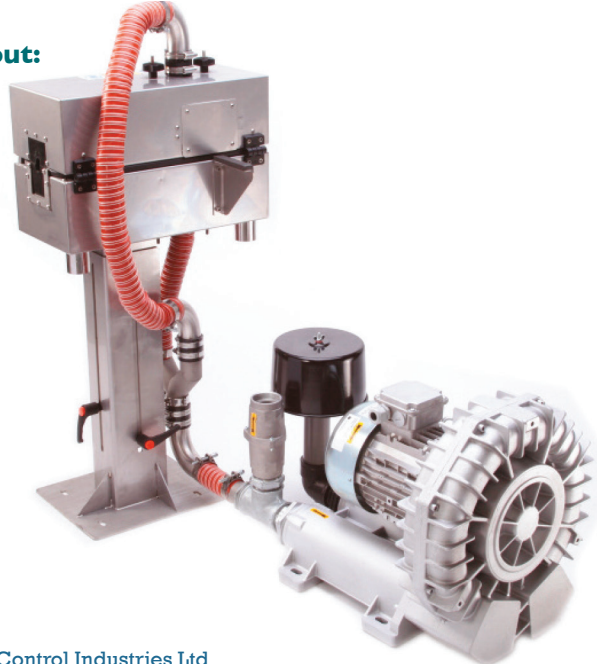
**Outline Drawing:**



**General Characteristics:**

<b>Discharge Figures</b>	<ul style="list-style-type: none"> <li>• Pressures &gt;200In.Swg (7.2PSI)</li> <li>• Air Temperature: 80 Deg.C (176 Deg.F.)</li> <li>• Air Speed: 12,900m/min (42,300ft/min)</li> </ul>
<b>Product Capabilities</b>	<ul style="list-style-type: none"> <li>• Up to 4mm diameter</li> <li>• Running speeds of 1,000m/min</li> </ul>
<b>Noise Levels (Blower only)</b>	<ul style="list-style-type: none"> <li>• Below 74dB(A) for blower (unenclosed)</li> </ul>
<b>Motor Details</b>	<ul style="list-style-type: none"> <li>• Motor power 5.5/6.3kW</li> <li>• 400VY/690VD, 50Hz</li> <li>• 460VY/795VD, 60Hz</li> <li>• 3Ph, 400/480V, 50/60Hz</li> <li>• Input to IP55 motors</li> </ul>

**Typical System Layout:**



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