Palmer Manufacturing & Supply, Inc.
18 N. Bechtle Avenue
Springfield, Ohio 45504 USA
Phone: 937.323.6339
Fax: 937.323.2709
Toll Free: 800.457.5456
www.palmermfg.com

KNOCKOUT DECORING
MANUAL Knock-out Decoring Machines

Palmer Manufacturing designs and supplies core knock-out equipment for virtually any casting. Palmer’s experience in vibration tooling design allows us to manufacture decoring equipment for virtually any casting or sand process type. From simple A-Frame decoring units to the complete fully automatic units, Palmer is here to serve.

Benefits
• High productivity with simplicity
• Minimal moving and wear parts

Machine Description
The mechanical assembly consists of:
• A-Frame mounting system
• High impact pneumatic hammer
• Foot pedal for clamping and vibration

The Palmer Process
• Operator lifts or holds casting in place.
• Operator engages foot pedal to begin operation
• Air hammer extends, clamps part, and begins vibration
• Operator runs air hammer until decoring is complete

Hammer Details
• Greater impact force than others
• Fewer moving parts mean lower maintenance and refurbishing costs
• Operates in any altitude
• Totally sealed mechanism means longer life
• Exhaust can be vented outside of work area for noise reduction
• Hammer model DTA was specifically designed to replace hammers from others’ machines

Model Description
• Hammering begins immediately when anvil meets the part

Options
• Flat Top – with or without airbag
• Lifting Bars
• Gravity Conveyor
• Powered Conveyor
• Reduced Decibel Level Option

Available Hammers (Also sold separately)

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<tr>
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<tbody>
<tr>
<td>Maximum Stroke</td>
<td>3.375&quot;</td>
<td>5.75&quot;</td>
<td>5.1&quot;</td>
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<tr>
<td>Recommended Working Stroke</td>
<td>1.5&quot;</td>
<td>2.75&quot;</td>
<td>4&quot;</td>
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<tr>
<td>Strokes Per Minute</td>
<td>1700</td>
<td>1200</td>
<td>1200</td>
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<tr>
<td>Air Consumption (CFM)</td>
<td>14</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Overall Length - Cylinder In</td>
<td>15.75&quot;</td>
<td>19.5&quot;</td>
<td>19&quot;</td>
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<tr>
<td>(With tool retainer but without anvil and air nipple)</td>
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<tr>
<td>Overall Length - Cylinder Out</td>
<td>19&quot;</td>
<td>25&quot;</td>
<td>24&quot;</td>
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<tr>
<td>(With tool retainer but without anvil and air nipple)</td>
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<tr>
<td>Weight Without Anvil (Pounds)</td>
<td>38</td>
<td>49</td>
<td>48.5</td>
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<tr>
<td>Maximum Air Pressure (PSI)</td>
<td>90</td>
<td>90</td>
<td>90</td>
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<tr>
<td>Hose Size (Inches)</td>
<td>3/8&quot;</td>
<td>3/8&quot;</td>
<td>1/2&quot;</td>
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AUTOMATIC Knock-Out Decoring Machines

Benefits
- High productivity with simplicity
- Minimal moving and wear parts
- Can be custom designed for virtually any casting
- Fully programmable cycle allows the end user to match the machine’s operation to the core extraction requirements

Machine Description
The mechanical assembly consists of:
- A vibrating frame with vibrating motors, positioning tooling, and casting clamping system
- A suspension by 4 elastic studs
- A static frame supporting the vibrating jaw and the pneumatic hammers

Our Customers are Decoring...
engine supports, manifolds, engine blocks, cylinder heads, engine cradles, and many more items.