UNITED GRINDING NORTH AMERICA
AUTOMATION SOLUTIONS

ACHIEVE GREATER THROUGHPUT, HIGHER PART QUALITY AND INCREASED PRODUCTIVITY FOR LOWER PRODUCTION COSTS.
AUTOMATION SOLUTIONS

THE RIGHT PARTNER

The Automation Solutions operation is based at UNITED GRINDING North America’s state-of-the-art headquarters in central Ohio, putting our automation engineers and service experts in close proximity to manufacturing hubs so that our team can collaborate with customers on design, implementation, and ongoing training and service.

Our team of dedicated automation engineers have vast experience helping manufacturers overcome challenges due to increasingly fierce competition and rising costs, often while struggling to obtain skilled labor. Our solutions range from fully automated custom cells to standard loading systems such as the flexLoad.

We are a member of the Robotics Institute of America and a FANUC Certified Automation Systems Integrator.

5 WAYS WE DELIVER ROI

1. Reduce labor costs on many repetitive tasks
2. Put your human capital in more impactful positions
3. Enhance quality through repeatable precision
4. Boost productivity while improving throughput and cycle times
5. Efficiently integrate with many components and processes

INDUSTRY EXPERTISE

- Automotive & Transportation
- Defense
- Medical
- Tooling & Machining

HOW MANUFACTURERS ARE USING AUTOMATION

<table>
<thead>
<tr>
<th>Application</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workpiece exchange</td>
<td>74%</td>
</tr>
<tr>
<td>Tool exchange</td>
<td>30%</td>
</tr>
<tr>
<td>Measuring equipment</td>
<td>28%</td>
</tr>
<tr>
<td>Deburr station</td>
<td>12%</td>
</tr>
<tr>
<td>Reader/marker</td>
<td>9%</td>
</tr>
<tr>
<td>Washer</td>
<td>8%</td>
</tr>
</tbody>
</table>

Based on responses of 160 manufacturers in the UNITED GRINDING North America Grinding Automation survey
APPLICATIONS & OPERATIONS

Automation can be applied to many setups for these processes and applications:
- Deburring
- Laser Marking
- Gauging
- Part Washing
- Traceability
- Vision Systems
- Bar Code Scanning
- RFID Chip Reading
- Stacking/Palletizing
- Bowl Feed Systems
- Conveyor Systems

Grinding machine operations that can be automated:
- Chuck
- Collet System
- Between Centers
- HSK Workholdings
- Custom Fixtures
- Iso-Taper Workholdings
- Expanding Mandrel

FLEXLOAD AUTOMATION SYSTEM

The flexLoad automation system integrates with STUDER cylindrical grinding machines to provide the following advantages:
- Accelerated cycle times by eliminating the need to slow spindles
- Process automation by linking multiple machines and workstations
- Flexibility by incorporating gauging, washing stations and many other applications

RAPID ROI

According to a Robotics Industry of America study, a single flexLoad system with basic tooling, running 2 shifts a day, 5 days a week for 15 years vs. an operator will:
- Improve productivity 33 percent per shift
- Save more than $1.5 million in labor costs
- Net nearly $500,000 in productivity savings
ASSEMBLED AND BACKED IN THE USA

Choose UNITED GRINDING North America for:
- The right solution
- A smooth installation
- Proper training
- A proven, trusted service provider

We are dedicated to helping you get the most out of your machine tool investment. For more information on UNITED GRINDING Automation Solutions, contact:

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