

Adapted from the Ohio Bureau of Workers' Compensation [Ergonomics Best Practices for Plastics Industry](#)

Situation	Reasons for concern	Best Practice	Results (° per 200,000 hours worked)
Trimming or removing flash	<ul style="list-style-type: none"> <li>• Risk of MSDs (e.g. tendinitis or carpal tunnel syndrome)</li> <li>• Risk of low back pain</li> </ul>	Deflashing fixtures and presses	Reduced musculoskeletal disorders (MSDs) <ul style="list-style-type: none"> <li>• Average risk factor score 32.5 to 21</li> </ul>
Secondary operations (assembly)	<ul style="list-style-type: none"> <li>• Risk of hand and wrist MSDs (tendinitis and carpal tunnel syndrome)</li> </ul>	Hand tool/workstation design <ul style="list-style-type: none"> <li>• Automatic screw-feeding systems</li> <li>• Inline screw guns</li> <li>• Pistol-grip guns</li> <li>• Two parallel arm workstations</li> </ul>	Reduced MSDs <ul style="list-style-type: none"> <li>• Average risk factor score 25 to 17</li> </ul>
Carrying, lifting and mixing material	<ul style="list-style-type: none"> <li>• Stress on the shoulders and back</li> <li>• Risk of back pain and shoulder injuries</li> </ul>	Bulk handling system Automatic mixer	Reduced MSDs <ul style="list-style-type: none"> <li>• Incident rate° from 78.3 to 20.3</li> <li>• Days lost from 392 days° to 198 days°</li> <li>• Turnover rate° 141 to 81</li> <li>• Average risk factor score 32 to 23</li> </ul>
Bending to retrieve parts in boxes or bins	<ul style="list-style-type: none"> <li>• Risk of low back pain</li> </ul>	Lift assist devices features with lift, tilt and/or turn item	Reduced MSDs <ul style="list-style-type: none"> <li>• Days lost from 87.6 days° to 33.0 days°</li> <li>• Average risk factor score 44.3 to 20.9</li> </ul>
Retrieving ejected parts located under the molding machines	<ul style="list-style-type: none"> <li>• Risk of MSDs, especially back injuries</li> </ul>	Conveyor	Reduced MSDs <ul style="list-style-type: none"> <li>• Average risk factor score 24 to 0</li> </ul>
Cleaning, assembling or packing parts at a workstation	<ul style="list-style-type: none"> <li>• Stress on the shoulders and spine</li> <li>• Risk of MSDs (e.g. carpal tunnel syndrome)</li> </ul>	Ergonomic workstation design <ul style="list-style-type: none"> <li>• anti-fatigue floor mats</li> <li>• Chairs with lumbar support, armrest, adjustable features, padding and easy to reach and operate controls</li> </ul>	Reduced MSDs <ul style="list-style-type: none"> <li>• Restricted 127.9 days° to 87.6 days°</li> <li>• Average risk factor score 33.2 to 24.4</li> </ul>

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Handling resin barrels	<ul style="list-style-type: none"> <li>• Stress on the spine</li> <li>• Risk of MSDs, especially back injuries</li> </ul>	Barrel-handling hoist system	Reduced MSDs <ul style="list-style-type: none"> <li>• Incident rate° from 15.2 to 0</li> <li>• Turnover rate° 137 to 50.3</li> <li>• Average risk factor score 323 to 21</li> </ul>