



Soft Tissue Injury Prevention Tool

Tip Sheets

Trade: Concrete Work

Job Task: Concrete Placement - Muck Raking

<p>General Tasks</p> <ul style="list-style-type: none"> ➤ Raking and pulling concrete immediately following and in conjunction with concrete pour filling low spots and maintaining an adequate concrete depth. 	<p>Common Tools</p> <ul style="list-style-type: none"> ➤ Concrete Rake
<p>Potential Risk Factors <i>Risk Factors can lead to increased risk for Work Related Musculoskeletal Disorders (WMSD's)</i></p> <p>Moderate Forward Back Bending</p> <ul style="list-style-type: none"> • Moderate Risk when frequently or sustaining forward bending for extended periods. May be a HIGHER RISK for concrete pours of 1000 yards or more. <p>High Hand Grip Force with Awkward Wrist Postures</p> <ul style="list-style-type: none"> • Moderate Risk when sustained high grip force of rake handle with awkward wrist postures for extended periods. May be a HIGHER RISK for concrete pours of 1000 yards or more. <p>Highly Repetitive Motion with High Forceful Hand Exertions</p> <ul style="list-style-type: none"> • Moderate Risk when sustained high grip force of rake handle with repetitive arm/shoulder movements for extended periods. May be a HIGHER RISK for concrete pours of 1000 yards or more. 	<p>Possible Solutions</p> <p>Awkward Posture & Heavy Gripping Solutions:</p> <ul style="list-style-type: none"> • Minimize awkward back postures by rotating every 1-2 hours between raking and other finishing tasks. • Stretch frequently, particularly performing back and upper extremity stretches. • Utilize a power screed as often as possible. Use of a power screed also pulls concrete and helps to minimize concrete raking. • Evaluate the use of alternative handles that attach to the shaft of the rake to promote upright postures, improve leverage. • Use the best slump consistency possible to minimize physical demands of raking to spread concrete. <p>Potential Benefits</p> <ul style="list-style-type: none"> • Increases blood flow and reduce muscle tension. • Reduces exertion of lower back. • Increases productivity. • Reduces strain on hand and arm muscles.
	
<p>Feasibility</p> <ul style="list-style-type: none"> • Engineer Control Single Person Power Screed • Engineer Control Back Buddy Handle • Administrative Control • Work Practice Control <p>Estimated Cost of Intervention</p> <ul style="list-style-type: none"> • \$919.97 for a Single person Power Screed • Depends on manufacturer 	