

MACHINERY SAFETY WEBINAR SERIES

Module 4: How to identify and explain the various types of physical machinery hazards.



Welcome and background

- Presenter: Brent Sutton

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This webinar does not represent a statement of the law as it applies to particular problems or to individuals or as a substitute for legal advice. You should seek independent legal advice if you need assistance on the application of the law to your situation.

Module Overview

Building your knowledge and understanding in managing the risk of machinery across 9 key areas including;

1. Trends and duty holder responsibilities
2. AS/NZS4024 standards in managing machinery risk
3. How machine risk is reduced
4. Understanding physical risks of machinery
5. Understanding common health risks of machinery
6. Common types of machinery risk controls
7. Undertaking a meaningful risk assessment with workers
8. Common safe systems of work and lock out-tag out

Module 4:

How to identify and explain the various types of physical machinery hazards.

In this module we will explore:

1. The sources of physical machinery hazards
2. The different work modes when workers are exposed
3. The seven (7) common hazards with machinery
4. Other common hazards
5. Machinery hazard checklist

Sources of physical hazards

Power Source

Electrical, Pneumatic, Hydraulic etc



Power Train

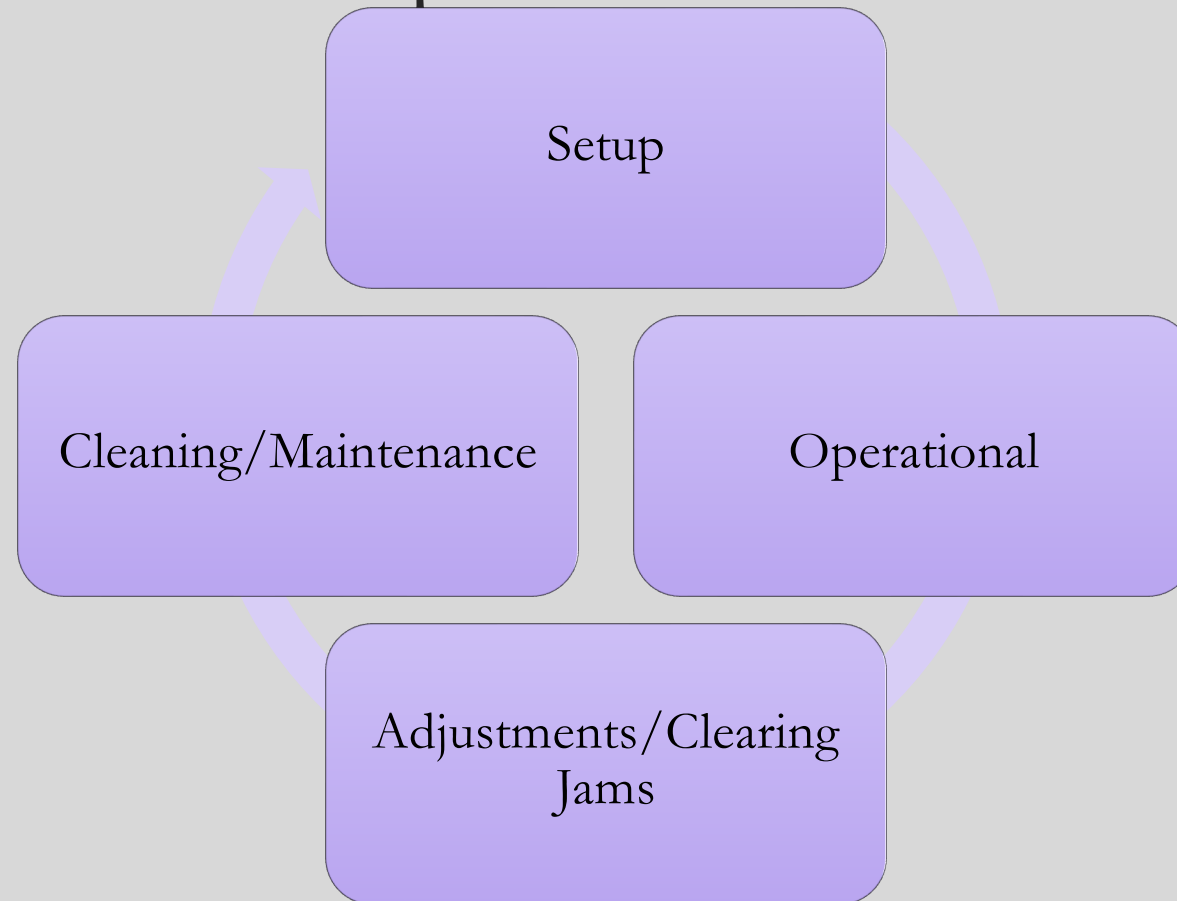
What makes something move



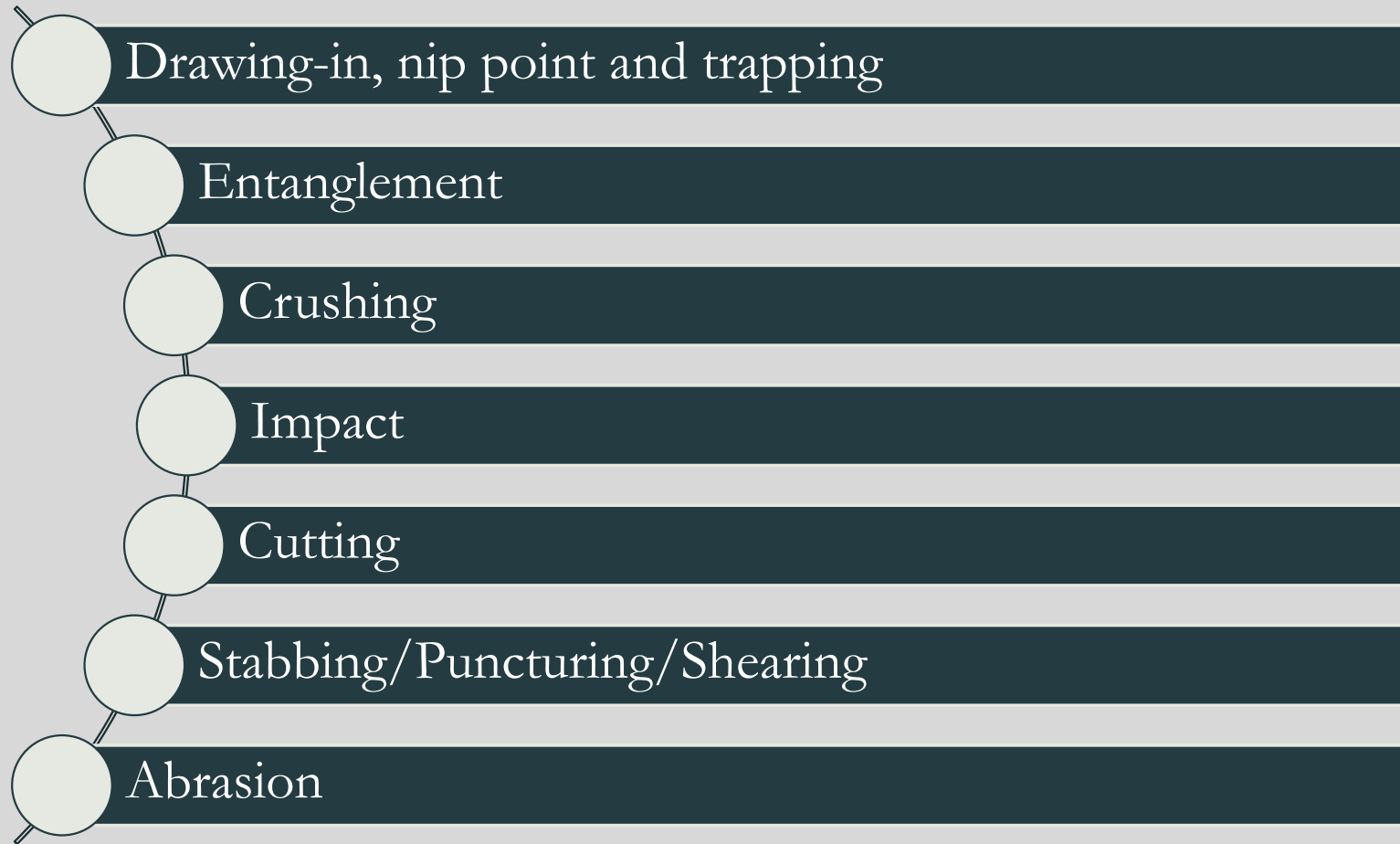
Tooling/Materials

Things that are used as part of the machine process

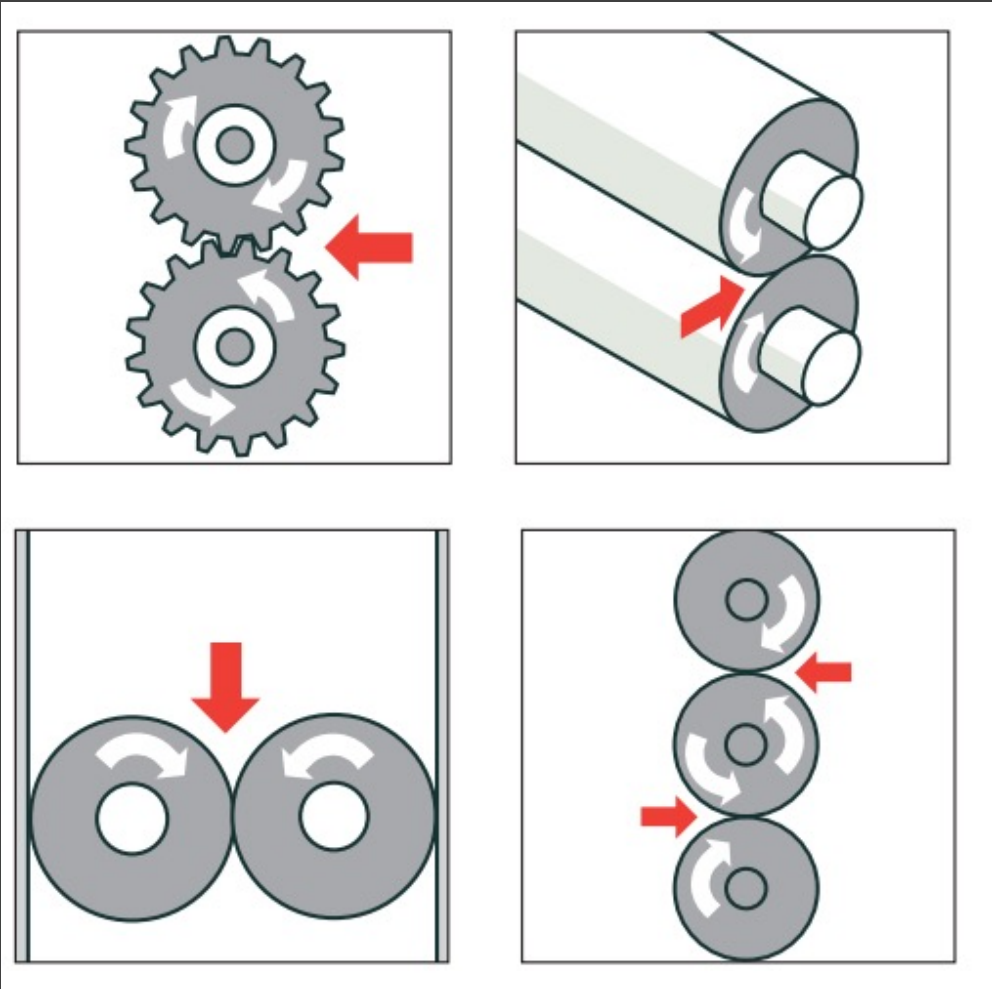
The routine work phases



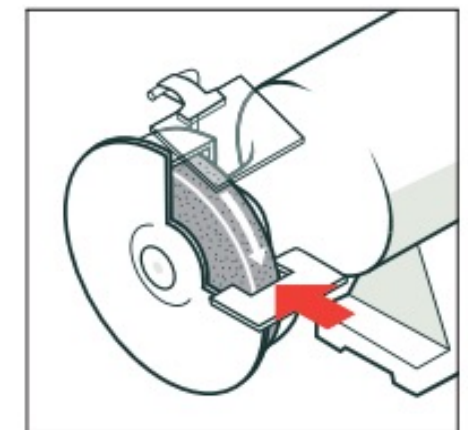
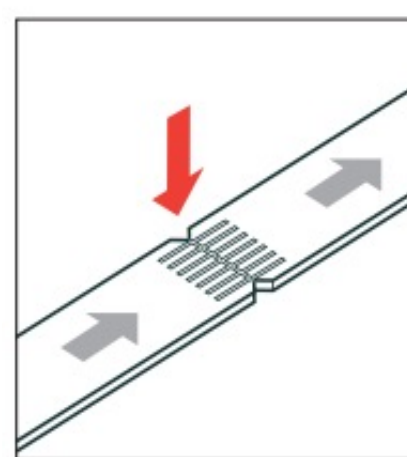
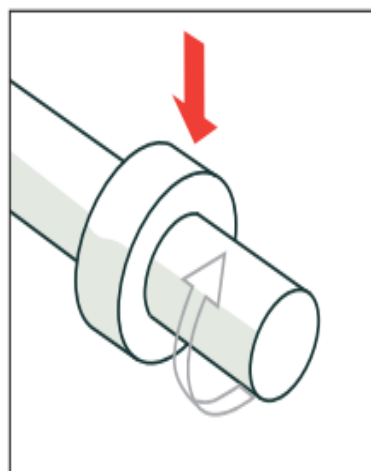
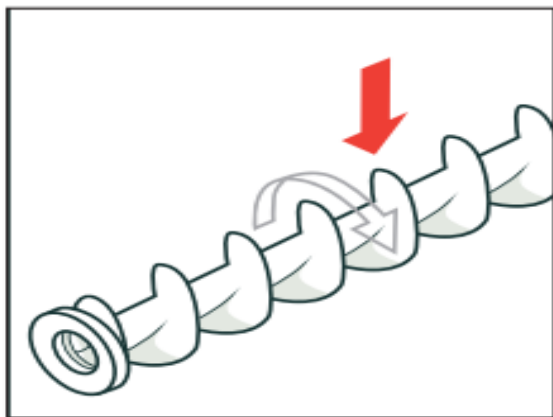
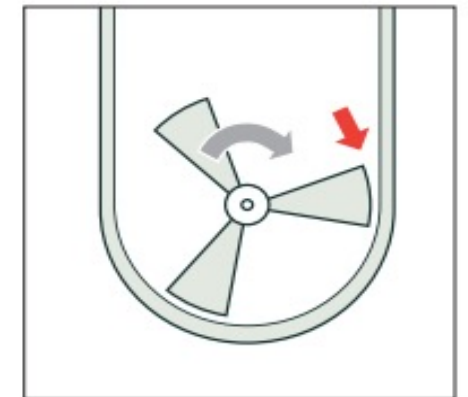
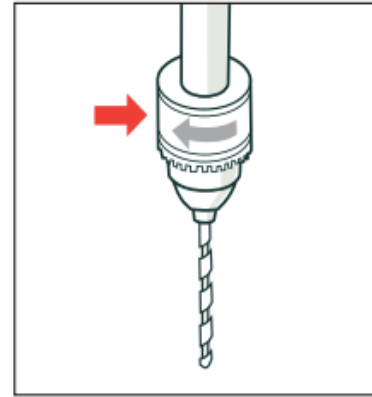
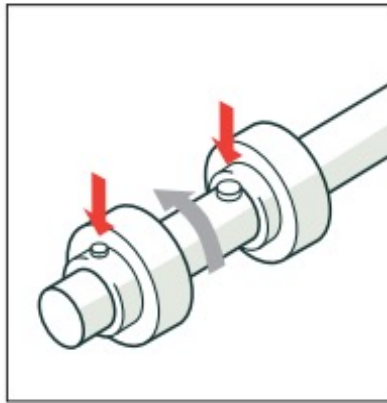
7 Common Hazards

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- 1 Drawing-in, nip point and trapping
 - 2 Entanglement
 - 3 Crushing
 - 4 Impact
 - 5 Cutting
 - 6 Stabbing/Puncturing/Shearing
 - 7 Abrasion

DRAWING-
IN,
NIP POINT
AND
TRAPPING

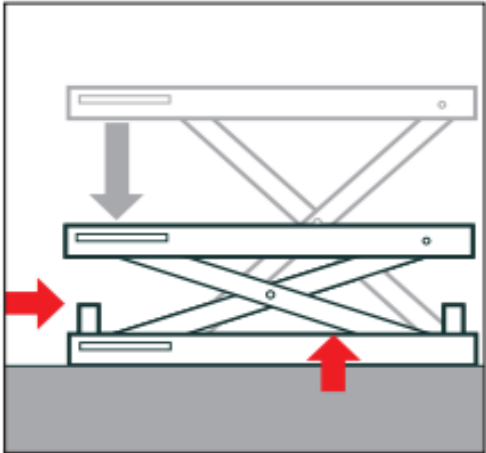
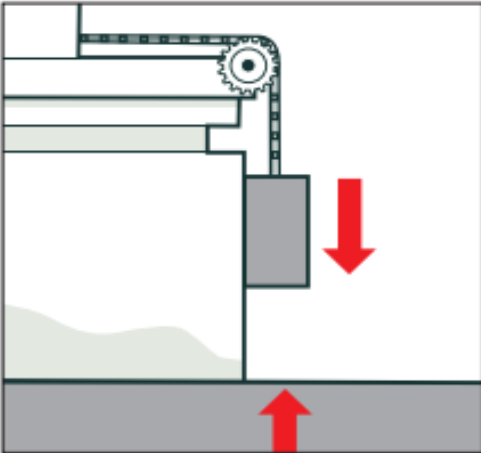
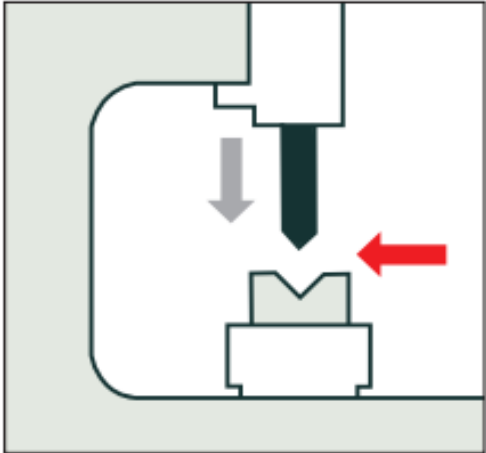
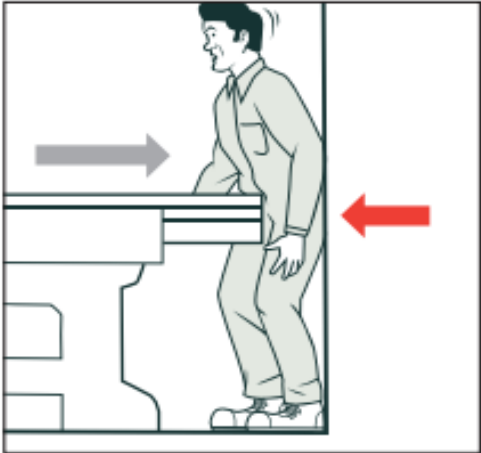


Entanglement

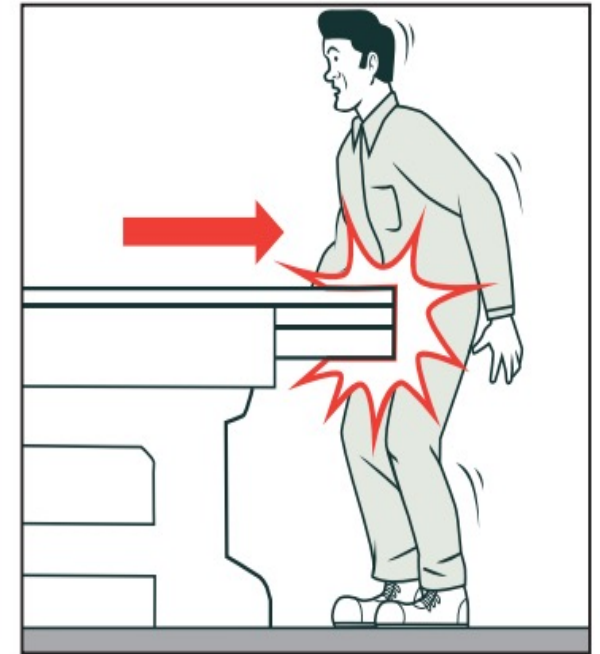
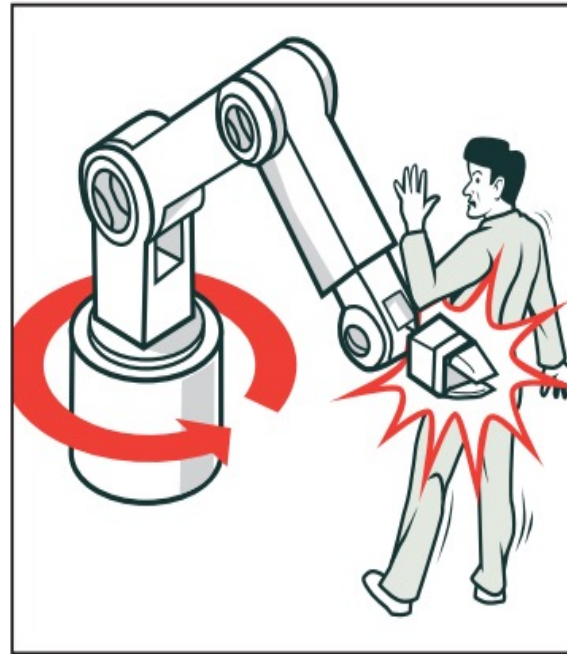




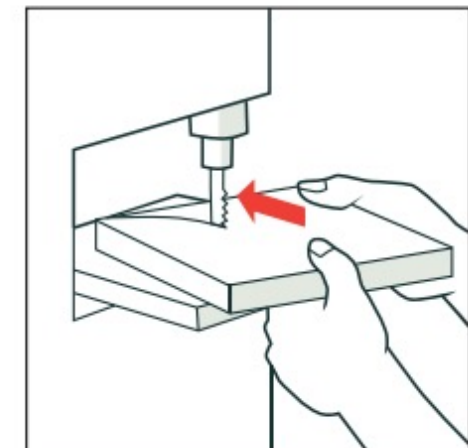
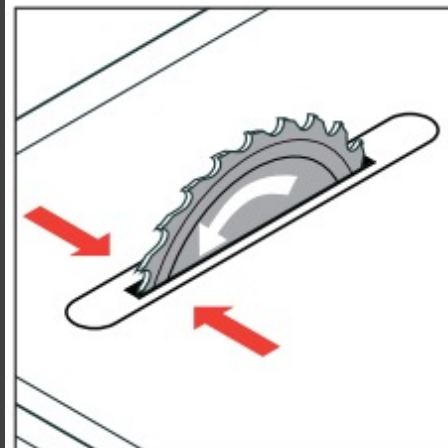
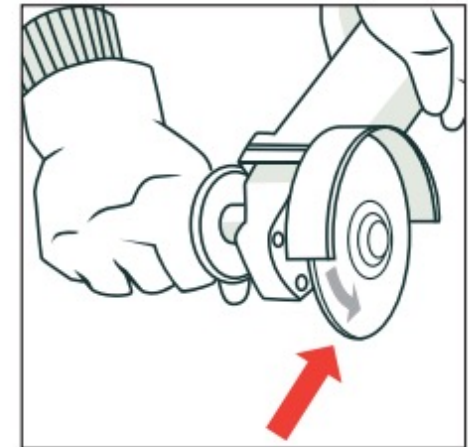
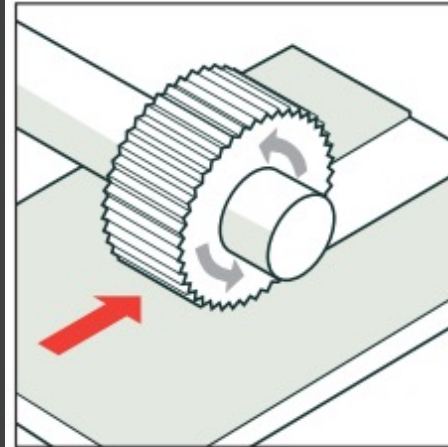
CRUSHING



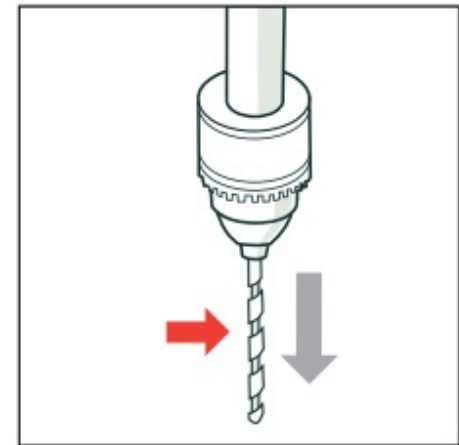
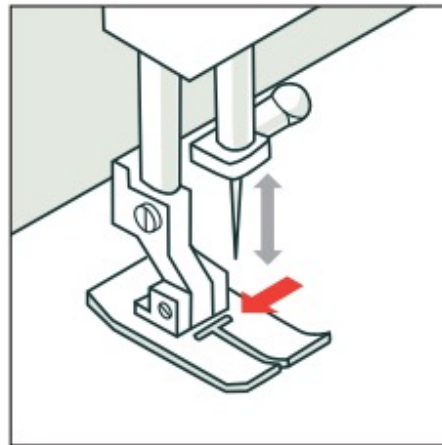
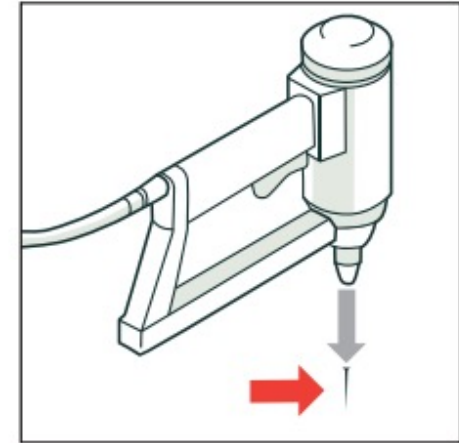
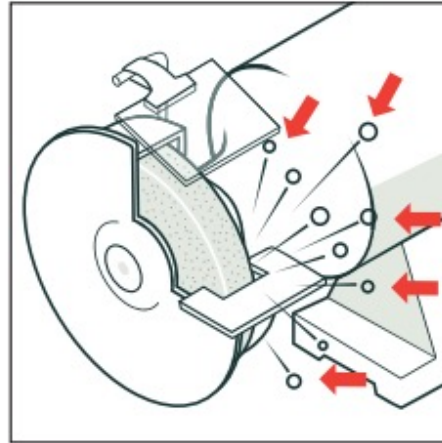
IMPACT



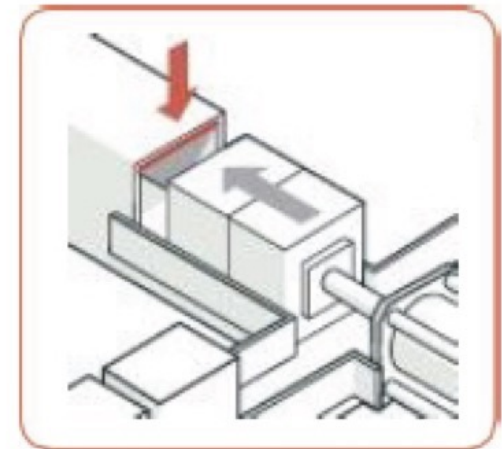
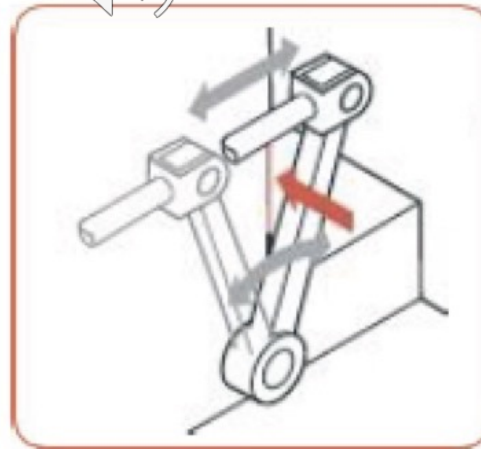
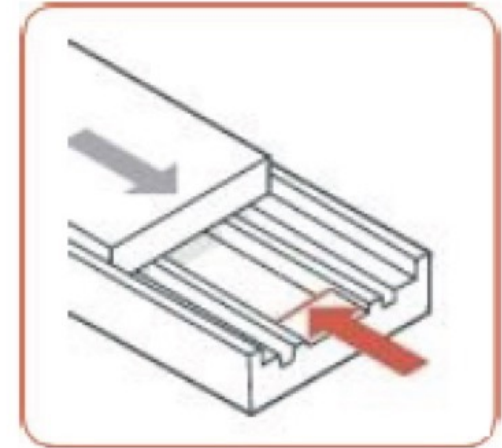
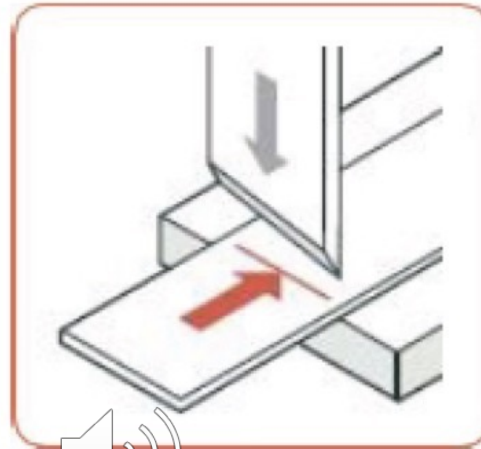
CUTTING



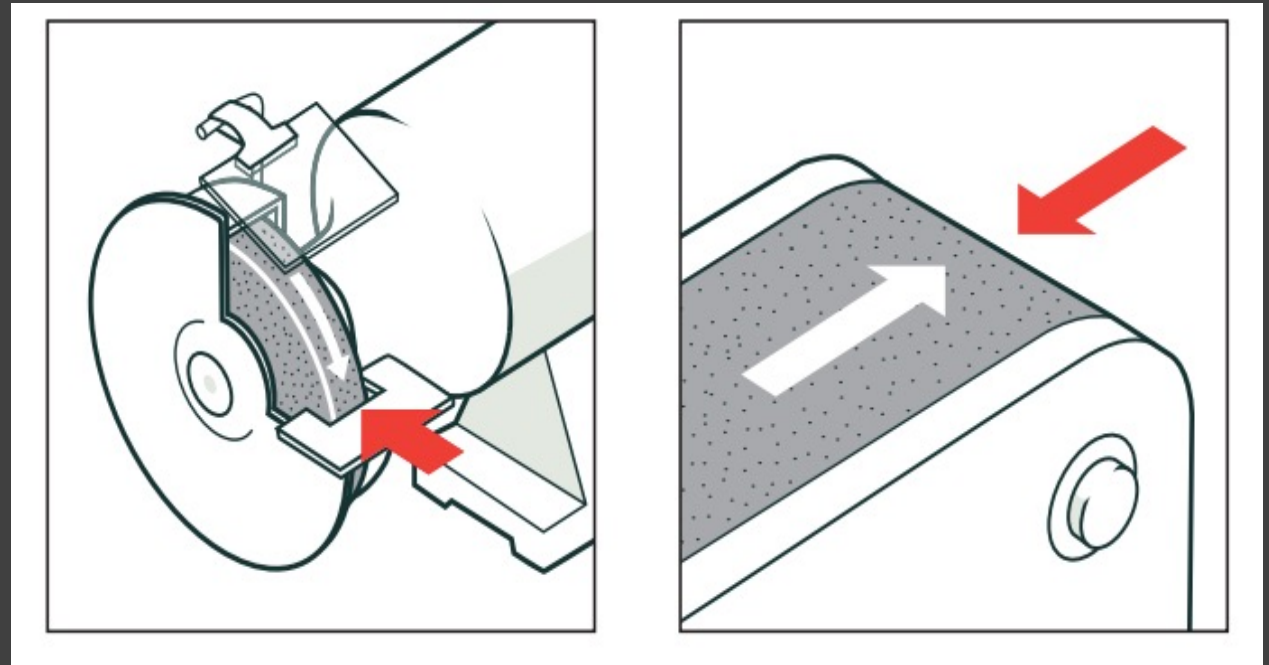
STABBING/
PUNCTURING
/SHEARING



STABBING/
PUNCTURING
/SHEARING



ABRASION



Free Reference Document



<https://worksafe.govt.nz/topic-and-industry/manufacturing/safe-use-of-machinery/>

Other common hazards



HAZARD ID CHECKLIST

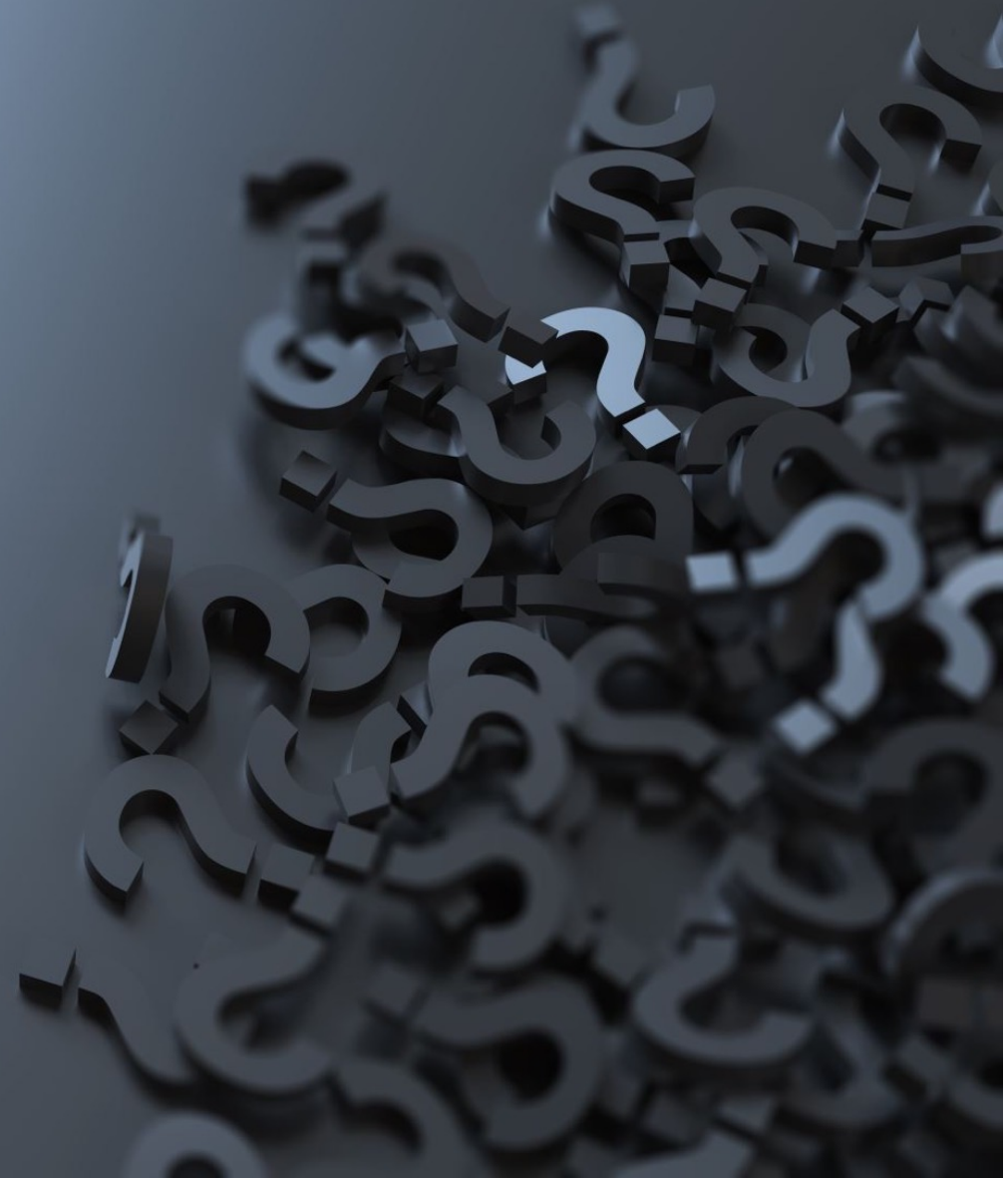
<https://1drv.ms/w/s!AmfKHDCB4cEOiZpuAkDVdgQlfg8PyA?e=nWhUWi>

Can anyone be crushed due to:	Y/N	How and where can this occur?
Material falling off the plant?		
Uncontrolled or unexpected movement of the plant?		
Lack of capacity for the plant to be slowed, stopped or immobilised?		
The plant tipping or rolling over?		
Parts of the plant collapsing?		
Coming into contact with moving parts of the plant during testing, inspection, operation, maintenance, cleaning or repair?		
Being thrown off or under plant?		
Being trapped between the plant and materials or fixed structures?		

Next Module (5)

Understanding common health-related risks with machinery.

QUESTIONS?





THANK YOU FOR YOUR
ATTENDANCE