

# Risk Assessment Exercises

The table below lists some typical D&T activities and the risks involved in carrying them out. Assess each activity as either a **high risk**, **low risk** or **no risk** activity and state the actions needed to remove or minimise the risks involved.

Complete the table by assessing the risks for each activity and describe the actions needed to remove or minimise the risks involved. *The first one has been done for you.*

No.	Activity	Risk	Assessment	Action
1.	Using a pillar drill to drill steel flat bar. (e.g. drilling a Ø8 mm hole in 6mm thick steel bar)	Getting clothes caught in a revolving drill chuck.	<i>High risk</i>	<i>Tuck tie in shirt, roll up sleeves, wear protective apron or lab. coat.</i>
		Getting long hair caught in a revolving drill chuck.		
		Leaving a chuck key in the chuck.		
		Drill bit getting stuck in work and the work spinning.		
		Getting swarf in you eye.		
		Getting bumped by people crowding around the drilling machine.		
2.	Drilling a Ø12 mm hole in 12mm thick MDF.	Breathing in MDF dust.		
3.	Drilling a Ø12 mm hole in 4mm thick acrylic.	Drill bit getting stuck in work and the acrylic shattering.		
4.	Drilling a Ø12 mm hole in 0.5mm thick tinplate.	Tinplate snatches on the drill and spins with the drill.		

No.	Activity	Risk	Assessment	Action
5.	Using a glue gun	Burning yourself with the hot glue.		
6.	Carrying a hot glue gun.	Burning others with the hot glue gun.		
7.	Using a soldering iron.	Burning yourself with the hot nib		
8.	Carrying a hot soldering iron.	Burning others with the hot nib.		
9.	Using mortise chisels to cut woodwork joints.	Cutting yourself.		
10.	Carrying mortise chisels.	Cutting others.		
11.	Using a band saw.	Getting clothes caught in the blade.		
		Getting wood particles in your eye.		
		Breathing in fine wood particles.		
		Getting bumped by people crowding around the band saw.		
		Cutting yourself on the band saw blade.		

No.	Activity	Risk	Assessment	Action
12.	Using hand held power tools.	Tripping over trailing power cables.		
13.	Using a jig saw.	Cutting yourself on the jigsaw blade.		
14.	Using a disc sanding machine on MDF.	Breathing in fine particles of MDF dust.		
15.	Using a disc sanding machine on timber, i.e. solid wood.	Breathing in fine particles of wood dust.		
		Getting fine particles of wood dust in your eyes.		
		Getting your clothes caught in the rotating sanding disc.		
16.	Using a disc sanding machine on acrylic sheet.	Getting fine particles in eyes and lungs, getting clothes caught in rotating disc.		
17.	Using a vertical milling machine.	Getting flying debris in your eye		
		Breaking the milling cutter		
		Work flying off the milling table		
		Getting clothes caught in the moving parts of the machine		

No.	Activity	Risk	Assessment	Action
18.	Turning between centres on a wood lathe, e.g. a length of pine 400 X 50 X 50	Breathing in wood dust.		
		Getting wood dust and shavings in your eye.		
		Chisel jamming between the tool rest the rotating timber.		
		Spindle breaking out from between the centres		
		Clothes getting caught in the rotating parts of the machinery or spindle.		
19.	Turning metal bar on a centre lathe	Getting swarf in your eye.		
		Metal bar chattering or bending in rotating chuck whilst being cut		
		Chuck key flying out of the chuck when the lathe is switched on and started.		
		Clothes getting caught in the rotating parts of the machinery.		
		Cutting yourself on swarf as you remove it from the lathe.		

No.	Activity	Risk	Assessment	Action
20.	Using a buffing machine.	Having the work snatched out of your hand by the buffing wheel		
		Getting your fingers pulled into the buffing wheel.		
		Getting debris from the buffing wheel flying into your eyes.		
		Getting your tie caught in the wheel.		
		Being pushed onto the rotating wheel.		
		Burning your fingers on metal heated up by the buffing wheel.		
21.	Using a brazing torch	Burning yourself and others near you.		
22.	Using etching solutions to etch designs in non ferrous metals	Breathing in hazardous fumes.		
23.	Placing metal into acid, lifting metal out of acid.	Getting acid onto yourself, splashing acid onto others.		
24.	Using a craft knife to cut card, using a steel rule to guide craft knife.	Cutting yourself with the craft knife.		

No.	Activity	Risk	Assessment	Action
25.	Leaving pointed or sharp objects in a vice unattended	People walking into the sharp object and cutting themselves.		
26.	Leaving machines switched on and unattended			
27.	Leaving a chuck key in a chuck			
28.	Running around the workshop	Slipping and falling onto something hard		
		Bumping into people and causing them to have accidents		
29.	Spilling water or other liquids on the floor			
30.	Leaving plastic off-cuts on the floor			
31.	Helping someone by switching on a machine for them			
32.	Leaving coats or bags on or around benches during practical work			
33.	Trailing electric cables along the workshop floor			
34.	Not stopping immediately when told to by a teacher or technician.			