4 - Tweezers and small tools

We offer a comprehensive range of high quality tweezers and small tools, many of which are from well known and highly respected manufacturers.

Tweezers

Among the wide selection of tweezers offered are those manufactured by Dumont® in Switzerland. This well-established company manufactures tweezers of the very highest quality.

In order to assist in the selection of suitable tweezers for any particular application, we have included information about the materials used and the tip profile and dimensions.

We offer three grades of tweezers:

- **High precision grade** is suitable for most laboratory and fine engineering use.
- **Biology grade** has the thinnest tips, and is used for the most demanding laboratory applications including microscopic work.
- **Electronic grade** offers high quality for electronics and general purpose use. Most of the electronic grade tweezers are coated with a coloured epoxy resin which is insulating, shock resistant and provides better grip.

The various grades of tweezers are also available in a range of materials with differing mechanical and corrosion resistance and magnetic properties:

Carbon steel is an extremely hard alloy composed of C, Mn and Si. This ensures the tweezers have the hardest tips but they are the most vulnerable to rust and corrosion. The tweezers stain easily, are less flexible and more brittle than other grades. They can become highly magnetic, and cannot be sterilised.

Stainless steel is an alloy of C, Mn, Cr and Si. The tips are not as hard as those of carbon steel but are more resistant to rust and corrosion. The tweezers will withstand temperatures of about 400 °C but are not suitable for autoclave sterilisation at 180 °C. They can also become magnetic.

Medical grade tweezers are manufactured from a special stainless steel alloy composed of C, Mn, Cr, Mo and V that provides an excellent resistance to corrosion and a good resistance to salt. Although not as hard as carbon steel, this alloy supports temperatures of approximately 400 °C and is suitable for autoclave sterilisation at 180 °C.

Medical mirror polished tweezers are manufactured from the above alloy and the main part of the tweezer is mirror polished which gives increased resistance to corrosion during sterilisation in an autoclave. The tips are given a micro-matt finish to minimise reflections which might hinder visibility.

Dumoxel® is the trade name for an anti-magnetic grade of stainless steel. This alloy is composed of C, Cr, Ni, Mo and Cu which makes the tweezers marginally softer than other stainless steels. This alloy offers good resistance to corrosion from sulphuric and hydrochloric acid and other mineral and organic acids. It is 95 % anti-magnetic and resistant to temperatures of around 400 °C. The tweezers can be sterilised in the autoclave at 270 °C.

Dumostar® is another patented alloy containing 40 % cobalt. It is 100 % non-magnetic and is resistant to sterilisation temperatures of up to 500 °C. It is more flexible and more resilient than other stainless steels. It is also compatible with human tissues and resistant to mineral and organics acids, as well as to salt.

Titanium alloy is composed of C, Fe, O, H, N and Ti. It is 100 % non-magnetic, resistant to corrosion from nitric acid, chloride, salt water etc. The alloy is not as hard as some of the other alloys but it is lighter, more flexible and resistant to temperatures around 430 °C.

High precision grade tweezers

Type	Tip profile	Tip dimensions Width (mm)	Tip dimensions Thickness (mm)	Length	Material	High precision	Medical	Medical mirror polished
Dumont tweezers 2								
								
Strong, fine, flat tips	▬	0.30 0.34 0.34 0.34	0.12 0.14 0.14 0.14	120 mm	Carbon steel Stainless steel Dumoxel Dumostar	**T5250** **T5251** **T500** **T5381**	**T5270**	**T5281**
Dumont tweezers 2a								
								
Flat, rounded tips	▬	1.50 1.50 1.50 1.50	0.20 0.20 0.20 0.20	120 mm	Carbon steel Stainless steel Dumoxel Dumostar	**T5030** **T5031** **T509** **T5393**	**T5271**	**T5121**

Type	Tip profile	Tip dimensions Width (mm)	Tip dimensions Thickness (mm)	Length	Material	High precision	Medical	Medical mirror polished
Dumont tweezers 3								
Straight, fine tips		0.13 0.17 0.17 0.17	0.08 0.10 0.10 0.10	120 mm	Carbon steel Stainless steel Dumoxel Dumostar	**T5252** **T5253** **T5254** **T5382**	**T5272**	**T5122**
Dumont tweezers 3c								
Straight, fine tips		0.13 0.17 0.17 0.17	0.08 0.10 0.10 0.10	110 mm	Carbon steel Stainless steel Dumoxel Dumostar	**T501** **T5032** **T504** **T5383**		
Dumont tweezers 4								
Straight, very fine tips		0.10 0.13 0.13 0.13	0.06 0.08 0.08 0.08	110 mm	Carbon steel Stainless steel Dumoxel Dumostar	**T527** **T5033** **T505** **T5384**	**T5273**	**T5282**
Dumont tweezers 5								
Straight, extra fine tips		0.08 0.10 0.10 0.10	0.04 0.06 0.06 0.06	110 mm	Carbon steel Stainless steel Dumoxel Dumostar	**T502** **T5034** **T506** **T5385**	**T5004**	**T5123**
Dumont tweezers 5a								
Oblique, very fine tips		0.10 0.13 0.13	0.06 0.08 0.08	115 mm	Carbon steel Stainless steel Dumoxel	**T5255** **T5035** **T5256**	**T5274**	**T5283**
Dumont tweezers 5/45								
Extra fine tips, angled 45°		0.08 0.10 0.10	0.04 0.06 0.06	109 mm	Carbon steel Stainless steel Dumoxel	**T5257** **T5036** **T5258**	**T5275**	**T5284**

Type	Tip profile	Tip dimensions Width (mm)	Tip dimensions Thickness (mm)	Length	Material	High precision	Medical	Medical mirror polished
Dumont tweezers 5/90								
Extra fine tips, angled 90°		0.08 0.10 0.10	0.04 0.06 0.06	106 mm	Carbon steel Stainless steel Dumoxel	**T5259** **T5037** **T5260**	**T5276**	**T5285**
Dumont tweezers 6								
Sharp, angled tips		0.13 0.17 0.17	0.08 0.10 0.10	115 mm	Carbon steel Stainless steel Dumoxel	**T528** **T5038** **T507**	**T5277**	**T5286**
Dumont tweezers 7								
Fine, curved tips		0.13 0.17 0.17 0.17	0.08 0.10 0.10 0.10	115 mm	Carbon steel Stainless steel Dumoxel Dumostar	**T503** **T5039** **T508** **T5386**	**T5278**	**T5124**
Dumont tweezers 7a								
Strong, curved tips		0.20 0.24 0.24	0.12 0.16 0.16	115 mm	Carbon steel Stainless steel Dumoxel	**T5261** **T5040** **T5262**	**T5279**	**T5287**
Dumont tweezers 8								
Large, flat tips		9.20	0.20	110 mm	Stainless steel	**T5041**		
Dumont tweezers SS								
Narrow, fine tips		0.14 0.20 0.20 0.20	0.10 0.12 0.12 0.12	135 mm 135 mm 135 mm 140 mm	Carbon steel Stainless steel Dumoxel Dumostar	**T5263** **T5264** **T5265** **T5396**	**T5280**	**T5125**

Tweezers with clamping ring

The clamping ring on these tweezers slides easily, either by pushing or sliding under gravity, to hold the object being handled by the tweezers securely. Both the clamping ring and the tweezers can be autoclaved.

Type	Tip dimensions Width (mm)	Tip dimensions Thickness (mm)	Length	Material	Medical	
Dumont tweezers 2a						
Flat, rounded tips	1.50	0.20	120 mm	Stainless steel	**T5127**	
Dumont tweezers 3						
Straight, fine tips	0.17	0.10	120 mm	Stainless steel	**T5310**	
Dumont tweezers 4						
Straight, very fine tips	0.13	0.08	110 mm	Stainless steel	**T5311**	
Dumont tweezers 5						
Straight, extra fine tips	0.10	0.06	110 mm	Stainless steel	**T5128**	
Dumont tweezers 6						
Angled tips	0.17	0.10	115 mm	Stainless steel	**T5313**	
Dumont tweezers 7						
Fine, curved tips	0.17	0.10	115 mm	Stainless steel	**T5129**	
Dumont tweezers PP						
Strong, general purpose	0.24	0.14	135 mm	Stainless steel	**T5309**	

High precision crossover tweezers

These tweezers are valuable because the grid or specimen is held in the jaws by the spring pressure of the tweezers, leaving the user to concentrate on manoeuvring it. The grid or specimen can be released by gentle finger pressure.

Type	Tip profile	Tip dimensions Width (mm)	Tip dimensions Thickness (mm)	Length	Material	High precision	
Dumont tweezers NOC							
							
Self-closing, fine tips	●	0.17 0.17	0.10 0.10	108 mm	Stainless steel Dumoxel	**T5071** **T5266**	
Dumont tweezers N1							
							
Self-closing, strong tips	▬	0.20 0.20	0.12 0.12	118 mm	Stainless steel Dumoxel	**T5042** **T5267**	
Dumont tweezers N2A							
							
Self-closing, flat, rounded tips	▬	1.50 1.50	0.20 0.20	118 mm	Stainless steel Dumoxel	**T5319** **T5397**	
Dumont tweezers N5							
							
Self-closing, very fine tips	●	0.10 0.10	0.06 0.06	108 mm	Stainless steel Dumoxel	**T539** **T5268**	
Dumont tweezers N7							
							
Self-closing, fine, curved tips	▬	0.17 0.17	0.10 0.10	115 mm	Stainless steel Dumoxel	**T5269** **T5007**	

Biology tweezers

These are the highest grade of tweezers available with the finest tips and optimum standard of finish, and are ideal for the most demanding work. They are available in stainless steel, Dumoxel, Dumostar or titanium. Titanium is non-magnetic and is therefore recommended for use with nickel grids. It is also inert to many corrosive chemicals and not harmed by steam cleaning. Biology tweezers are also available in the medical and medical mirror polished types to give increased resistance to corrosion during sterilisation.

Type	Tip profile	Tip dimensions Width (mm)	Tip dimensions Thickness (mm)	Length	Material	Biology	Medical	Medical mirror polished
Dumont tweezers 4								
Extra fine, straight tips		0.06 0.06 0.06 0.06	0.02 0.02 0.02 0.02	110 mm	Stainless steel Dumoxel Titanium Dumostar	**T5288** **T5289** **T5290** **T5389**	**T5303**	**T5306**
Dumont tweezers 5								
Super- fine, straight tips		0.05 0.05 0.05 0.05	0.01 0.01 0.01 0.01	110 mm	Stainless steel Dumoxel Titanium Dumostar	**T5130** **T5291** **T5013** **T5390**	**T5304**	**T5307**
Dumont tweezers 7								
Very fine, curved tips		0.07 0.07 0.07 0.07	0.03 0.03 0.03 0.03	115 mm	Stainless steel Dumoxel Titanium Dumostar	**T5131** **T5292** **T5014** **T5392**	**T5305**	**T5308**
Dumont tweezers N5								
Self-closing, super fine tips		0.05 0.05 0.05	0.01 0.01 0.01	110 mm	Stainless steel Dumoxel Titanium	**T5293** **T5294** **T5295**		
Dumont tweezers N7								
Self-closing, very fine, curved tips		0.07 0.07 0.07	0.03 0.03 0.03	115 mm	Stainless steel Dumoxel Titanium	**T5296** **T5297** **T5298**		

Tweezers with black ceramic coating

These Dumont biology grade, medical stainless steel tweezers are coated with an anti-corrosive PVD thin-film coating, which reduces reflection for work under a microscope. The coating increases lifetime, is scratch resistant and is also compatible with sterilisation processes.

Type	Tip profile	Tip dimensions Width (mm)	Tip dimensions Thickness (mm)	Length	Material	Biology	
Type 5 with PVD thin-film coating		0.05	0.01	110 mm	Stainless steel	**T5135**	

Anti-capillary tweezers

These tweezers are shaped to avoid the narrow gap between the points which fills with water when picking up grids. However, they are very delicate and must be used with the greatest care. No guarantee is given against breakage of the tips. The crossover anti-capillary tweezers are recommended for most applications since the pressure on the fine tips is determined by the spring in the tweezers legs.

Type	Tip profile	Tip dimensions Width (mm)	Tip dimensions Thickness (mm)	Length	Material	Biology	
Dumont tweezers 5AC							
Super fine, anti-capillary tips		0.07 0.07 0.07	0.02 0.02 0.02	110 mm	Stainless steel Dumoxel Titanium	**T587** **T5299** **T5300**	
Dumont tweezers N5AC							
Self-closing, super fine, anti-capillary tips		0.07 0.07 0.07	0.02 0.02 0.02	110 mm	Stainless steel Dumoxel Titanium	**T588** **T5301** **T5302**	

Electronic tweezers

These are high quality tweezers, made of stainless steel, but with slightly larger tips than the high precision and biology grades. They are excellent for many routine tasks in the laboratory but are not suitable for picking up grids from a flat surface. Those with handles coated in coloured epoxy resin are marked CO. This resin is insulating, non-slippery and shock resistant. Those which are uncoated and polished are marked PO.

Type	Finish	Length		
Dumont tweezers 0c				
				
Short, straight tips	CO	100 mm	**T5043**	
Dumont tweezers 2a				
				
Flat, rounded tips	CO	120 mm	**T525**	
Dumont tweezers 3c				
				
Straight, fine tips	CO	110 mm	**T521**	
Dumont tweezers 5				
				
Straight, very fine tips	CO	110 mm	**T522**	
Dumont tweezers 7				
				
Curved, fine tips	CO	115 mm	**T523**	
Dumont tweezers P				
				
Heavy construction, fine tips	CO	120 mm	**T526**	
Dumont tweezers SS				
				
Long, narrow tips	CO	140 mm	**T5045**	

Type	Finish	Length	
Dumont tweezers H			
			
Short tips	PO	90 mm	**T5044**
Dumont tweezers AA			
			
Strong, straight tips	PO	125 mm	**T510**
Dumont tweezers GG			
			
Strong, tapered tips	PO	130 mm	**T511**
Dumont tweezers 24			
			
Long, serrated tips	PO	150 mm	**T520**
Dumont tweezers 24/45			
			
Long, serrated tips, angled 45°	PO	145 mm	**T512**
Dumont tweezers 35a			
			
Spade-end	PO	120 mm	**T529**

Tweezers kit

A set of tweezers containing one each of high precision type 1, 2a, 3c, 5 and 7 is supplied in a plastic foam wallet.

T5530 Tweezers kit

Tweezers for electronics

Wafer tweezers

A selection of tweezers for handling wafers of different types has been manufactured from anti-magnetic stainless steel with ribbed handles. They allow secure handling of delicate wafers.

T5051 Type 2W

T5053 Type 3W

T5055 Type 4WL

T5052 Type 2WF

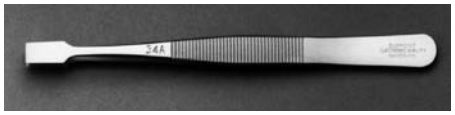
T5054 Type 3WF

T5056 Type 4WF

T5057 Type 2WFG

T5058 Type 3WFG

T5059 Type 4WFG

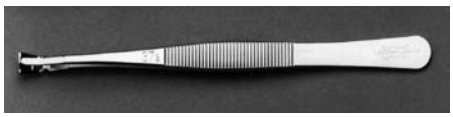


T5060 Type 34A

T5061 Type 35A

T5062 Type 35B

T5063 Type 36A



T5064 Type 37S

T5065 Universal wafer handling tweezers

Wafer tweezers

These tweezers have been specially designed for use with delicate and fragile wafers. They are very firm, but offer an anti-crush grip, and have a very smooth non-glare satin finish. The tweezers are made from anti-magnetic, anti-acid stainless steel.

For 4" wafers

T5517 Wafer tweezers, type 45WF, 16 mm tip width, 7.5 mm tip height, 3.5 mm step thickness

For 6" wafers

T5518 Wafer tweezers, type 46WF, 20 mm tip width, 7.0 mm tip height, 3.5 mm step thickness

T5519 Wafer tweezers, type 46WFG, 20 mm tip width, 7.0 mm tip height, 3.5 mm step thickness

Tweezers for larger wafers

These tweezers have a span of 60 mm.

T5072 Wafer tweezers

Component handling tweezers

T5066 Type 571

T5067 Type 572

T5068 Type 573

T5069 Type 574

T5070 Type 578

T5073A Heat sink tweezers

T5073 Heat sink tweezers crossover pattern

Tweezers for special purposes

Platinum-tipped tweezers

These Dumont® type 5 tweezers with pure platinum tips measure 38 mm from tip to shoulder. The very fine points permit easy pick up of grids. The tips can be sterilised in a flame, and are resistant to many corrosive liquids.

T5005 Platinum-tipped tweezers

Dumont cutting tweezers

These tweezers have cutter jaws 5 mm long.

T534 Cutting tweezers type 60/3, carbon steel

Dumont end cutting tweezers for fine wires, type 15a, 115 mm long, are also available.

T5047 End cutting tweezers type 15a, carbon steel

High precision cutting tweezers

A range of cutting tweezers is available for different applications. **T5502** is suitable for cutting soft copper, gold, silver and magnetic wires, whereas **T5504** has very hard edges for high cutting capacity, allowing very precise cutting of hairsprings.

T5502 Cutting tweezers, 120 mm long, cutting edge 8 mm

T5503 Precision miniature cutting tweezers, 98 mm long, cutting edge 4 mm

T5504 Cutting tweezers, anti-magnetic, 120 mm long, cutting edge 10 mm

Dumont clamping tweezers

These tweezers are useful for handling specimen holder caps and small parts of microscopes.

T535 Clamping tweezers, type 25b, carbon steel

Dumont mini tweezers

For certain manipulations, shorter tweezers are more suitable. Types 3 and 5 tweezers are available in high precision and biological grades.

T5224 Mini tweezers type 3, high precision, 70 mm long
T5225 Mini tweezers type 3, biological, 70 mm long
T5226 Mini tweezers type 5, high precision, 80 mm long
T5227 Mini tweezers type 5, biological, 80 mm long

Tweezers for stubs

These Dumoxel® tweezers are very convenient for handling SEM specimen stubs and other small items. **T5008** is particularly suited to handling 12.7 mm pin stubs.

T5008	Tweezers, opening 1/2 - 3/4"
T5315	Tweezers, opening 1/4 - 3/8"
T5316	Tweezers, opening 1/8 - 3/16"
T5398	Tweezers for 25 mm (1") pin stubs
T5398A	Tweezers for 32 mm (1¼") pin stubs

Tweezers for handling cylinder stubs are also available.

T5048	Tweezers for 10 mm dia stubs, 130 mm length
T5049	Tweezers for 15 mm dia stubs, 140 mm length
T5049-25	Tweezers for 25 mm dia stubs, 153 mm length
T5049-32	Tweezers for 32 mm dia stubs, 154 mm length

SEM stub grippers

These scissor-shaped grippers are useful for handling SEM specimen stubs.

T5017	SEM gripper, short handled, 90 mm
T5018	SEM gripper, long handled, 130 mm

Grippers for 12 mm stubs

These grippers for holding 12 mm pin SEM stubs are safer and stronger than stub tweezers, offering advantages in the preparation and storing of samples.

T5176	Grippers for 12 mm SEM stubs

Mount gripper for grooved 25 mm pin stubs

T5206 SEM pin stub mount gripper for 25 mm (1") dia, 137 mm length

Flexi tweezers

For some applications the bulk of a pair of normal tweezers, or even vacuum tweezers, is too great to allow gentle handling of some delicate devices, samples and live specimens. These simple tweezers are made from 0.12 mm anti-magnetic steel and are ideal for handling plant and animal specimens with positive control.

T5239 Flexi tweezers, 100 mm, pointed end

Butterfly tweezers

These tweezers have soft, coated tips which help to avoid damaging butterflies and other insect specimens.

T5175 Butterfly tweezers

Membrane tweezers

These tweezers have a circular pad on the tips, and are suitable for handling membranes and other delicate objects without damage. The tweezers are anti-magnetic, with strong tips that can be sterilised.

T5027 Membrane tweezers, straight, 120 mm

Spade-end tweezers

The spade-shaped ends make these tweezers suitable for picking up microscope slides, coverslips and microchips.

T529 Tweezers type 35a, stainless steel, fine flat tips, 120 mm

T5046 Tweezers for cover slips, nickelled, coarse-angled, flat tips

Perry tweezers

Perry tweezers have curved tips and a register pin.

T5314A Perry tweezers, 130 mm

Long tweezers

These stainless steel tweezers are 200 mm long with blunt tips, and are useful for retrieving items from deep containers.

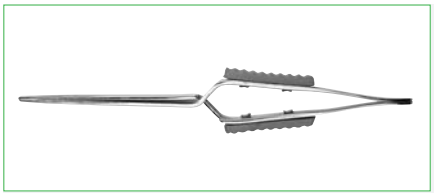
T5022 Tweezers, 200 mm

Super slim tweezers

These long, slender tweezers are suitable for multiple precision applications, and are especially useful for working near heat sources. They are manufactured from anti-magnetic, anti-acid stainless steel with good corrosion resistance.

T5505 Super slim tweezers, 140 mm long, precision relieved tips
T5506 Super slim tweezers, 140 mm long, very fine, bent tips
T5507 Super slim tweezers, 150 mm long, extra fine tips
T5508 Super slim tweezers, 150 mm long, extra fine tips for maximum visibility

Heavy crossover tweezers



These stainless steel tweezers have large, insulated handles, and are useful for metallurgical preparations.

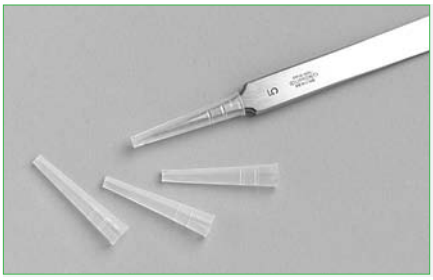
T514 Crossover tweezers, insulated, 160 mm

O-rings

These neoprene O-rings are an easy solution for the clamping of tweezers.

T5023 O-rings. Pack of 10

Tweezers guards

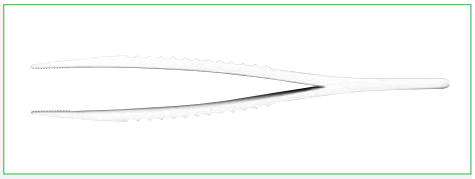


All Dumont® tweezers are supplied with plastic guards to protect the fine tips. Replacement plastic guards are available.

T516 Tweezers guards. Pack of 20

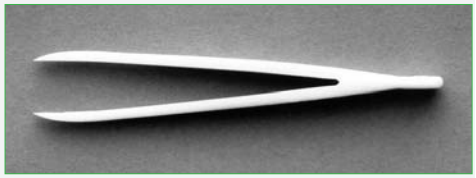
Plastic tweezers

These plastic tweezers have heavily ribbed construction. The jaws open 15 mm wide.



T5009 Heavy plastic tweezers

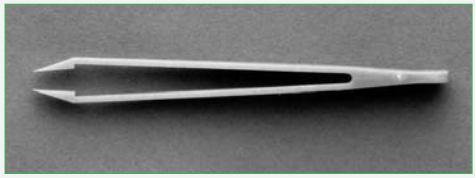
These plastic tweezers, made from CTFE, are virtually unaffected by a wide range of acids, alkalis, oxidising agents and most organic solvents, and are HF resistant. They are 115 mm long, and the tips taper to 0.25 mm thick and 2 mm wide.



T519 Plastic tweezers, CTFE

A range of plastic tweezers made from a glass-filled nylon formulation, a strong resistant insulating material which can be sterilised and withstands aqua regia, acetone and alcohol, is available. These tweezers are easy to clean and non-absorbent, with smooth, non-serrated tips.

These general purpose plastic tweezers are 115 mm long, and the tips taper to 0.2 mm thick.

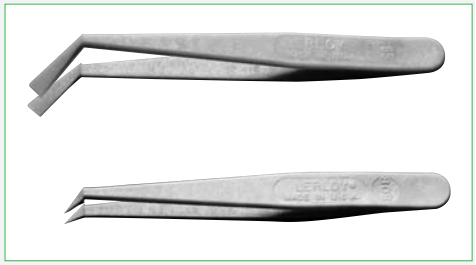


T518 Plastic tweezers

Similar shape to above (**T518**) but resistant to HF.

T518A Plastic tweezers

These plastic tweezers are angled at 45° for handling wafers and components during processing. The tweezers are 125 mm long, and the tips taper to 0.15 mm thick and 5 mm wide.

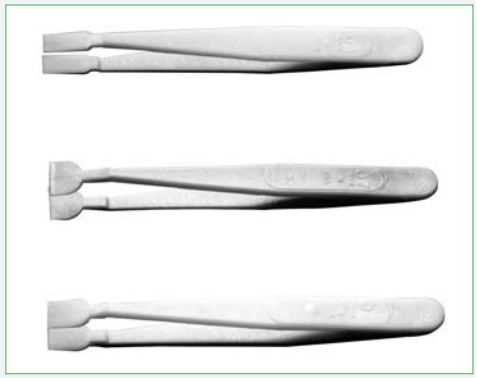


T5235 Plastic tweezers, angled 45°

These angled plastic tweezers have extra fine points and are 110 mm long.

T5233 Plastic tweezers, angled 45°, extra fine points

These plastic tweezers with very thin flat tips are useful for lifting components from flat surfaces. They are 115 mm long, with a tip thickness of 0.15 mm. A range of tip widths is available.



T5230 Plastic tweezers, flat tips, 6.0 mm wide

T5231 Plastic tweezers, flat tips, 9.0 mm wide

T5232 Plastic tweezers, flat tips, 12.5 mm wide

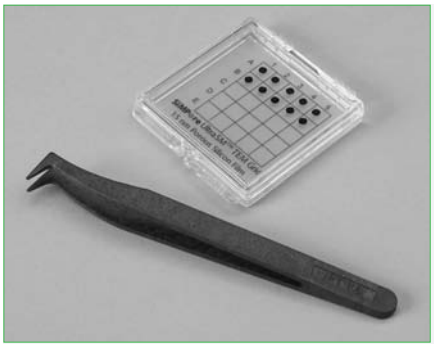
These tweezers are a plastic version of the popular type 2a shape. They are 115 mm long, with a tip thickness of 0.3 mm and 2.4 mm wide.

T5234 Plastic tweezers, type 2a

These heat-resistant plastic tweezers can withstand temperatures to 220 °C. They are 115 mm long, with a tip thickness of 0.1 mm and 3.2 mm wide.

T5236 Plastic tweezers, heat-resistant

TEM window handling tweezers



The ESD safe plastic tips of these tweezers allow handling of TEM windows gently by their edges. The tweezers are 120 mm long and the tips have a gap of 5.5 mm.

T5015 TEM window handling tweezers

Plastic tweezers

Plastic tweezers are also available made from specific high performance plastic materials, with different tip shapes, for different laboratory applications.

Engineering plastic type LR is PPS/GF30 (polyphenylene sulphide reinforced with 30 % w/w glass fibre), which is very hard and rigid, with high tensile and flexural strength and good chemical resistance. It is not resistant to hydrochloric acid, but does resist temperatures up to 230 °C. High performance plastic type SV is PVDF (polyvinylidene fluoride) reinforced with carbon fibre, which has excellent mechanical strength and toughness. It has been heat stabilised, allowing continuous use at temperatures up to 150 °C.

T5500LR Plastic tweezers, type LR, 115 mm long tips, 0.6 mm thick, 0.5 mm wide
T5500SV Plastic tweezers, type SV, 115 mm long tips, 0.6 mm thick, 0.5 mm wide
T5501LR Plastic tweezers, type LR, 115 mm long tips, 1.2 mm thick, 0.5 mm wide
T5501SV Plastic tweezers, type SV, 115 mm long tips, 1.2 mm thick, 0.5 mm wide

Carbon fibre replaceable tip tweezers

A range of tweezers with replaceable high performance carbon fibre tips is available. The material is polyetheretherketone (PEEK™) reinforced with 30 % w/w carbon fibre, which is very hard and rigid with high tensile and flexural strength and excellent resistance to chemicals and aggressive agents. The tweezers handle is made of anti-magnetic, anti-acid stainless steel. The tips are ESD safe and can be used at temperatures up to 260 °C.

T5511 Carbon fibre replaceable tip tweezers, flat, round tips,
130 mm long, 1.8 mm wide, 1.0 mm thick

T5512 Carbon fibre replaceable tip tweezers, very fine tips, reverse action,
130 mm long, 0.5 mm wide, 0.6 mm thick

T5513 Carbon fibre replaceable tip tweezers, very fine, curved tips,
130 mm long, 0.6 mm wide, 0.6 mm thick

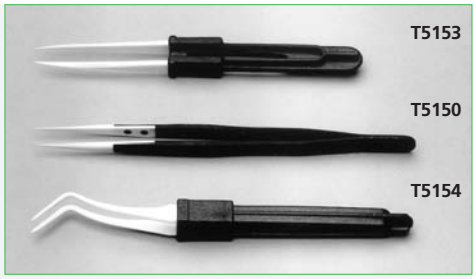
Replacement kits provide two tips with screws, and offer an easy, precise replacement system.

T5511-T Replacement tips for T5511
T5512-T Replacement tips for T5512
T5513-T Replacement tips for T5513

Other sizes and shapes are available.

Ceramic tweezers

These ceramic tweezers overcome the disadvantages of tweezers manufactured from conventional materials such as stainless steel, titanium and plastic. They can be used for a variety of laboratory and electronic applications due to their heat and corrosion resistance, insulation, and anti-static and nonmagnetic properties. Three shapes are available, straight pointed, curved or serrated, on either a special aluminium alloy or polyacetal shank. The straight pointed tweezers are also available on a stainless steel shank.



T5150 Ceramic tweezers, straight, alloy shank
T5151 Ceramic tweezers, curved, alloy shank
T5152 Ceramic tweezers, serrated, alloy shank
T5153 Ceramic tweezers, straight, polyacetal shank
T5154 Ceramic tweezers, curved, polyacetal shank
T5155 Ceramic tweezers, serrated, polyacetal shank
T5156 Ceramic tweezers, straight, stainless steel shank

Ceramic replaceable tip tweezers

Tweezers with zirconium-toughened alumina ceramic, high precision tips are available. The advanced ceramic tip provides a superior combination of strength and hardness with low density. It is almost chemically inert and has high electrical resistance and stability at temperatures up to 1400 °C. The tweezers handle is anti-magnetic, anti-acid stainless steel.

Tweezer length 137 mm.

T5514 Ceramic, replaceable tip tweezers, flat, round tips, tips 35 mm long, 2.0 mm wide, 0.6 mm thick
T5515 Ceramic, replaceable tip tweezers, fine curved tips, tips 43.5 mm long, 0.6 mm wide, 0.6 mm thick
T5516 Ceramic, replaceable tip tweezers, fine strong tips, tips 33 mm long, 0.3 mm wide, 0.6 mm thick

Replacement kits have a patented self-alignment system and consist of two tips with screws.

T5514-T Replacement tips for T5514
T5515-T Replacement tips for T5515
T5516-T Replacement tips for T5516

ESD soft grip tweezers

These anti-magnetic precision tweezers have soft ESD ergonomic cushion grips for enhanced operator comfort. The ESD red rubber handles have very high resistivity. The tweezers are also useful for cryo work.

T5509 ESD soft grip tweezers, 115 mm, extra fine tips
T5510 ESD soft grip tweezers, 120 mm, fine curved tips

Suction tweezers

These suction tweezers can be used for picking up delicate, smooth objects that might be damaged if handled by a conventional pair of tweezers. They are supplied complete with three interchangeable soft rubber suction cups of 2, 4 and 7 mm diameter. In use, the plunger is depressed before the suction cup is applied to the object, and the plunger is then released. A spring pushes the plunger outwards to apply suction.

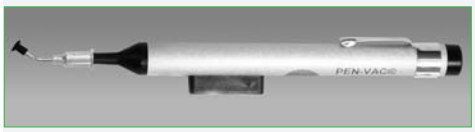
T5320 Suction tweezers

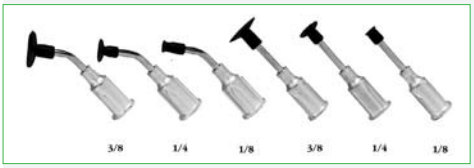
Pen-Vac® tweezers

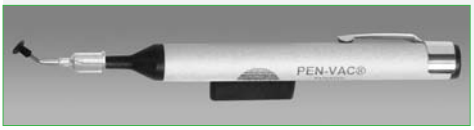
This vacuum tweezer lifts items with flat surfaces that weigh up to 50 g. It requires no power supply, and fits easily into a pocket. The vacuum probes are approximately 32 mm long with cup diameters of 6.4 mm on a straight arm, and 3.8, 6.4 and 9.5 mm on angled arms.

T5720 Pen-Vac complete

ESD safe Pen-Vac set with probes and cups







This Pen-Vac system has a brushed aluminium and clear anodised body. The vacuum is generated by pressing and releasing the vacuum push bar. The sets include six probes and cups, with two each of cup diameters 3.2 mm, 4.8 mm, 6.4 mm, on one bent and one straight probe. The Buna-N cups are static dissipative and non-marking with a temperature range of -20 to 120 °C. The cups can be mounted directly to the tool.

T5722-1 Pen-Vac standard with 6 probes and cups, 146 mm long, 12.7 mm dia

T5722-2 Pen-Vac junior with 6 probes and cups, 127 mm long, 12.7 mm dia

Pen-Vac vacuum pick-up systems

This vacuum pick-up system includes a pump, finger control pen, five interchangeable tips (12, 16, 18, 20 and 25 gauge), vacuum cups (0.25, 0.14 and 0.4"), filter and hose. This system is useful for picking up delicate lightweight material with the finger controlled vacuum. The hollow needle tips or rubber cups can be attached onto the pick-up pen. It is not suitable for wet or corrosive materials. The unit comes with an on/off switch on top of the pump.

T5721 Pen-Vac vacuum pick-up system, 220 V

Vacuum tweezers

These vacuum tweezers are useful for picking up the most delicate specimens without damage. The suction can be applied through fine tubes or rubber suckers fitted to the end of the tubular holder. By closing the hole in the tube with a finger, vacuum is applied through the nozzle. The object being lifted is released by lifting the finger from the hole.

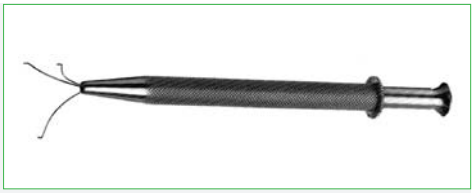
They are supplied with a set of probes 17 G (1.45 mm diameter x 60 mm length), 19 G (1.1 mm diameter x 50 mm length), 23 G (0.65 mm diameter x 50 mm length) and four PVC suction pads with 4, 6.3, 9.5 and 12.7 mm diameters.

G390 Vacuum tweezers complete, 240 V
G390A Set of spare nozzles and tubing

Diamond grips

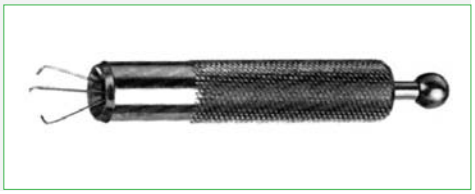
These three-prong, spring-loaded grips are useful for lifting small objects from awkward positions in the microscope. Expands to 30 mm. 110 mm long.

T515 Diamond grips



Also available is a smaller version of the popular diamond grips, which can easily be kept in a pocket. 57 mm long.

T5334 Mini diamond grips



Demagnetiser

This is useful for demagnetising tweezers, pole pieces and similar items.

T570-1 Demagnetiser, 240 V
T570-2 Demagnetiser, 110 V

Demagnetiser

This is useful for demagnetising tweezers, pole pieces and similar parts. Its inner dimensions are 60 x 35 mm, with external dimensions of 135 x 75 x 73 mm.

T570 Demagnetiser, 110/240 V, switchable

Arkansas stones

Arkansas stones are useful for honing tweezers, pins etc. and for sharpening small tools.

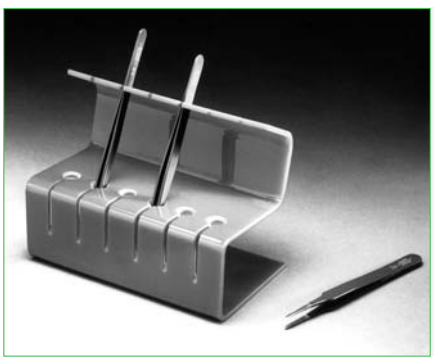
T571 Arkansas stone, triangular, 75 x 6 mm
T572 Akansas stone, square, approx 100 x 10 x 10 mm
T572A Akansas stone, flat, 75 x 25 x 6 mm

Diamond sharpening stones

These 70 x 25 mm diamond sharpening stones are available in coarse, fine and extra fine grades. They can be used for sharpening many small tools. Please note that if water has been used to lubricate the stone, it should be thoroughly dried afterwards.

T5710 Diamond sharpening stone, mini stone, coarse
T5711 Diamond sharpening stone, mini stone, fine
T5712 Diamond sharpening stone, mini stone, extra fine
T5713 Set of three mini stones

Tweezers holder



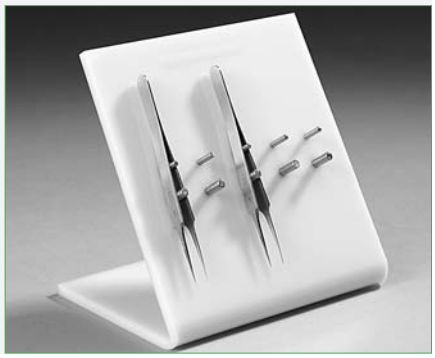
This acrylic holder accommodates six tweezers. It keeps the tips of the tweezers well protected. It is non-autoclavable, but can be gamma irradiated if it needs to be sterilised.

T5180 Tweezers holder

Tweezers holder

These safe, convenient and portable holders for tweezers are made from strong white acrylic with stainless steel pins. The selection of tweezers is quick and easy, with minimal chance of damaging the tweezer tips. Different models hold three, five or eight tweezers or forceps.

T5179-3 Tweezers holder for 3 tweezers
T5179 Tweezers holder for 5 tweezers
T5179-8 Tweezers holder for 8 tweezers



NALGENE forceps

The scissors-type handles have a ratchet to lock the tips, and the jaws have interlocking teeth. These forceps are autoclavable.

T5050 NALGENE forceps. Pack of 12

Forceps

These locking forceps are 150 mm long with straight, serrated jaws and a stainless steel screw pin. They are valuable for holding objects without maintaining pressure by hand.

T551 Locking forceps

The curved forceps are 150 mm long with serrated jaws of stainless steel.

T552 Curved forceps

All-purpose utility scissors

These all-purpose scissors can cut objects ranging from plastic and vacuum tubing, and wire up to 24 gauge stainless steel. The blades are made of fine surgical steel and never need sharpening. One blade is serrated, and the power grip makes cutting easier. The scissors are fully autoclavable.

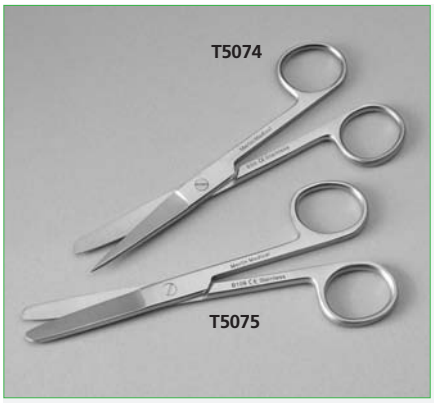
T5187 All-purpose utility scissors, 180 mm long

Ceramic scissors

The polished zirconium blades offer long lasting precision cutting of biological material (eg. cartilage), Kevlar®, PTFE, magnetic tape and cable wrap materials, as well as some electrical wire, certain film materials and fabrics. The lightweight composite handles offer a comfortable grip. Ceramic scissors are unsuitable for glass, fibreglass, thick cardboard, thick cloth, metal and alumina composites. Two blunt tips.

T5188 Ceramic scissors, 127 mm long, blade length 19 mm

Scissors



These general purpose scissors are manufactured from stainless steel, and are 127 mm long with a screw joint.

T5074 General purpose scissors, both points blunt
T5075 General purpose scissors, one sharp point, one blunt point

Surgical scissors are made of stainless steel, and are 130 mm long with sharp points.

T553 Surgical scissors

Dissecting scissors are made of stainless steel, and are 115 mm long with sharp points.

T554 Dissecting scissors

Iris scissors are made of stainless steel, and are 90 mm long, with very fine points.

T577 Iris scissors

These angled iris scissors are 115 mm long.

T577A Angled iris scissors

Micro scissors

The very fine points of these double jointed scissors are useful for very delicate cutting work.

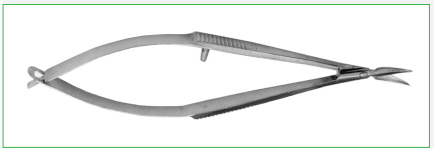
T5001 Micro scissors

Vanna's micro scissors

These are premium quality, very fine-tipped micro scissors of stainless steel, with a satin finish. They are available with straight or slightly curved blades, 80 mm long.

T5220 Vanna's micro scissors, curved
T5223 Vanna's micro scissors, straight

Vanna's type micro scissors



Economy versions of the above in stainless steel, 80 mm long.

T5228 Vanna's-type micro scissors, straight
T5229 Vanna's-type micro scissors, curved

Springbow dissecting scissors

These scissors have sharp points, and are self-opening.

T5321 Straight blades, 110 mm, extra fine points
T5322 Curved blades, 100 mm, extra fine points

A small version of the scissors with straight blades is available.

T5372 Straight 95 mm, extra fine points

Fine scalpel handles and blades

These slim stainless steel handles are designed for use with disposable, sterile, stainless steel blades for fine dissection work. Handles are 5.6 mm in diameter, and are available in lengths of 50, 75, 100 and 130 mm. Supplied individually in plastic wallets. The blade is held in the handle by a quick release chuck.

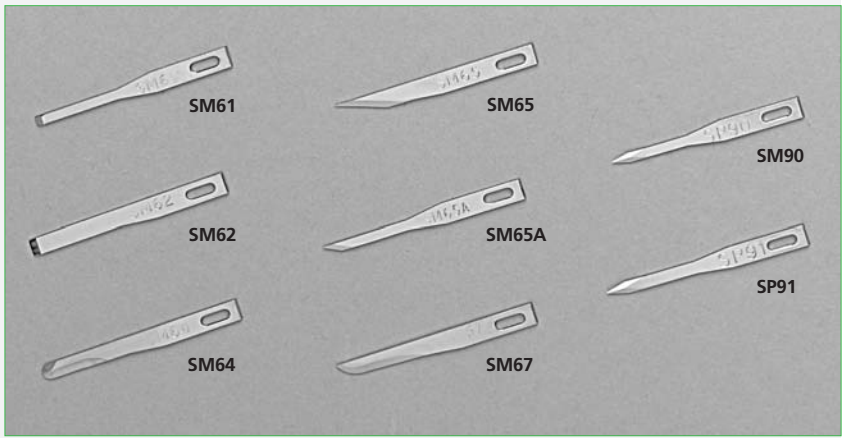
T5216 Fine scalpel handle, 50 mm
T5215 Fine scalpel handle, 75 mm
T5214 Fine scalpel handle, 100 mm
T5211 Fine scalpel handle, 130 mm

An alternative handle has been designed to allow easier blade fitting and removal. This handle has an independently screwed top section. When the top section is held firmly between thumb and forefinger, less than a quarter turn of the handle is required to open and close the jaws for blade fitting or removal. Handles of 95 and 130 mm lengths are available.

T5465 Fine scalpel handle, easy fitting, 95 mm
T5463 Fine scalpel handle, easy fitting, 130 mm

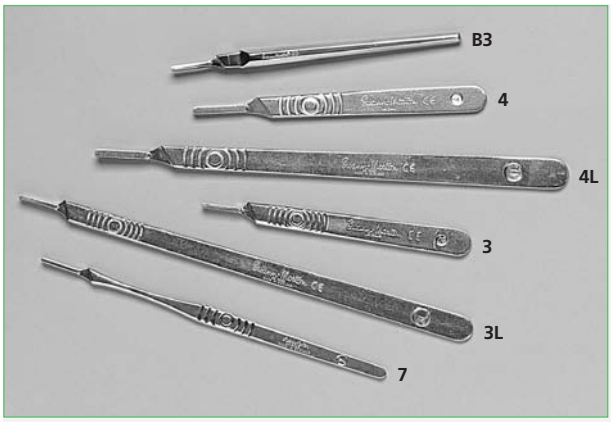
Sterile blades are available to fit all of the above handles.
They are supplied individually packed in metal foil.

T5209-61 Blades, shape 61. Pack of 5
T5209-62 Blades, shape 62. Pack of 5
T5209-64 Blades, shape 64. Pack of 5
T5209-65 Blades, shape 65. Pack of 5
T5209-65A Blades, shape 65A. Pack of 5
T5209-67 Blades, shape 67. Pack of 5
T5209-90 Blades, shape 90. Pack of 5
T5209-91 Blades, shape 91. Pack of 5



Other blade shapes are available. Please ask for details.

Scalpel handles with blades

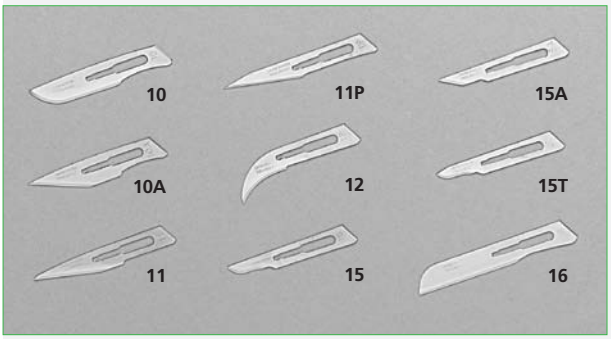


These scalpels have stainless steel handles to hold replaceable blades, and are suitable for a variety of cutting work. They are available in standard or long versions, together with a slimmer end for smaller profile blades.

A pen-shaped handle (B3) is also available for easier control during cutting.

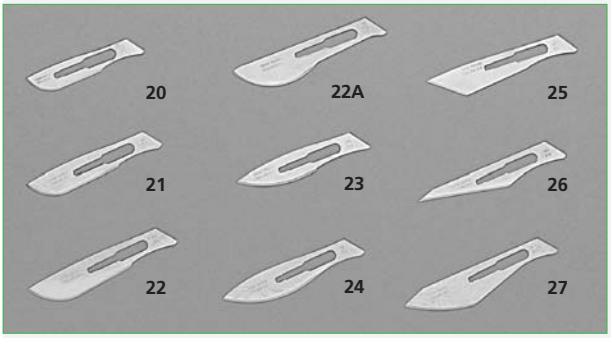
T5327	Scalpel handle no. 4, length 130 mm
T5328	Scalpel handle no. 4L, length 210 mm
T5329	Scalpel handle no. 3, length 120 mm
T5330	Scalpel handle no. 3L, length 210 mm
T5331	Scalpel handle no. 7, length 160 mm
T5464	Scalpel handle no. B3, length 130 mm
T555	Scalpel handle no. 4, plus 5 blades, shape 24
T557	Scalpel handle no. 3, plus 1 blade each of shape 10, 10A, 11, 12 and 15

Sterile carbon steel blades are available, individually packed and supplied in sets of five.



Blades for handles 3, 3L, 7 and B3

T558-10	Blades, shape 10. Set of 5
T558-10A	Blades, shape 10A. Set of 5
T558-11	Blades, shape 11. Set of 5
T558-11P	Blades, shape 11P. Set of 5
T558-12	Blades, shape 12. Set of 5
T558-15	Blades, shape 15. Set of 5
T558-15A	Blades, shape 15A. Set of 5
T558-15T	Blades, shape 15T. Set of 5
T558-16	Blades, shape 16. Set of 5



Blades for handles 4 and 4L

T556-20	Blades, shape 20. Set of 5
T556-21	Blades, shape 21. Set of 5
T556-22	Blades, shape 22. Set of 5
T556-22A	Blades, shape 22A. Set of 5
T556-23	Blades, shape 23. Set of 5
T556-24	Blades, shape 24. Set of 5
T556-25	Blades, shape 25. Set of 5
T556-26	Blades, shape 26. Set of 5
T556-27	Blades, shape 27. Set of 5

All the above blades are also available as sterile stainless steel, individually packed in sets of five. For stainless steel blades, please add S as suffix to the above catalogue reference number.

Non-sterile carbon steel blades can be supplied in single-peel packs in boxes of 100. The base of the box is perforated to allow easy dispensing of the single blades. Please add H as suffix to the above catalogue reference number .

Solid scalpels

These one-piece stainless steel scalpels with polished blades are reusable, and can be resharpened by the user.

T5324 Scalpel, stainless steel, 38 mm blade
T5325 Scalpel, stainless steel, 43 mm blade
T5326 Scalpel, stainless steel, 52 mm blade

Disposable scalpels

These scalpels are useful for various jobs in the laboratory. They have strong plastic handles with heavy duty shape 25A surgical blades.

T5218 Disposable scalpels. Pack of 5

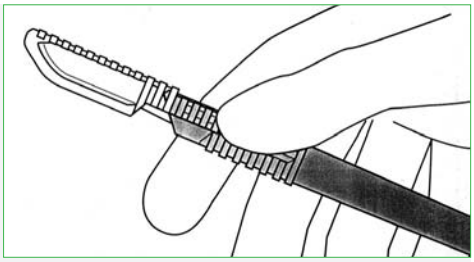
Sterile disposable scalpels

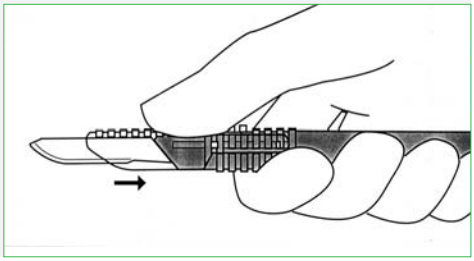
These scalpels have a polystyrene handle fitted with a stainless steel blade. Any of the following blade shapes are available: 10, 10A, 11, 12, 15, 15A, 20, 21, 22, 22A, 23 and 24. Each scalpel is individually packed.

T5217 Sterile disposable scalpels. Pack of 10

Please specify blade shape required by adding blade shape as suffix to the catalogue reference number..

Disposable safety scalpels





These scalpels are specifically designed to reduce the risk of injury or infection during handling of contaminated blades. The scalpel comes with a protective sheath that covers the blade when not in use. These scalpels are available with blade shape 10 and 11.

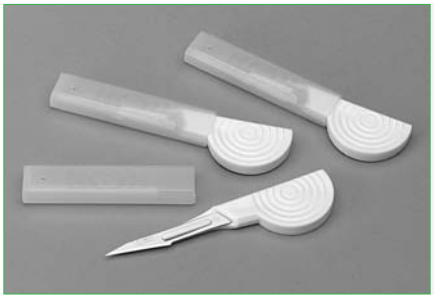
T5219-10 Disposable scalpel, sterile, blade shape 10. Pack of 10
T5219-11 Disposable scalpel, sterile, blade shape 11. Pack of 10

Retractable blade scalpel

This handle is designed so that the blade is retractable. It accepts standard blade shapes 10, 11 and 15.

T5208	Retractable blade scalpel, handle only
T558-10	Blades, shape 10. Set of 5
T558-11	Blades, shape 11. Set of 5
T558-15	Blades, shape 15. Set of 5

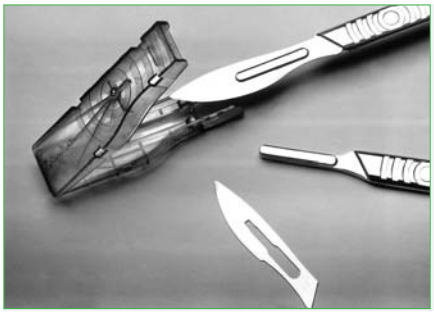
Small disposable scalpels



This small plastic handle can be supplied fitted with stainless steel blade shapes 10, 11, 15 and 15A. Complete with tubular plastic guard.

T5207-10	Small disposable scalpel, blade shape 10
T5207-11	Small disposable scalpel, blade shape 11
T5207-15	Small disposable scalpel, blade shape 15
T5207-15A	Small disposable scalpel, blade shape 15A

Scalpel blade remover



This handy device accommodates both nos. 3 and 4 scalpel handles and helps to safely remove used blades while protecting the user. They are sterile and are intended for single use.

T5210	Scalpel blade remover. Box of 50

Razor blade holder

This simple device has been designed to hold unbacked single edge razor blades safely. It is easy to reload with a new blade.

T567	Razor blade holder
T568	Replacement blades, carbon steel. Dispenser of 20
T569	Replacement blades, carbon steel. Box of 250
T569A	Replacement blades, stainless steel. Box of 250
T569T	Replacement blades, Teflon® coated stainless steel. Dispenser of 20

Razor blades

Single edge backed blades are valuable for block trimming and many other purposes.

T585	Single edge razor blades, carbon steel. Box of 100
T586	Single edge razor blades, stainless steel. Box of 100
T5016	Single edge razor blades, heavy duty carbon steel. Box of 100
T5332	Single edge razor blades, Teflon coated stainless steel. Box of 100

Single edge long carbon steel blades

High quality, single edge backed carbon steel blades for extra cutting width are supplied individually wrapped, with dimensions: length 57.4 mm, cutting edge length 54.9 mm, width 13.3 mm, thickness 0.229 mm.

T5375 Single edge long carbon steel blades. Box of 250

Holder for single edge razor blades

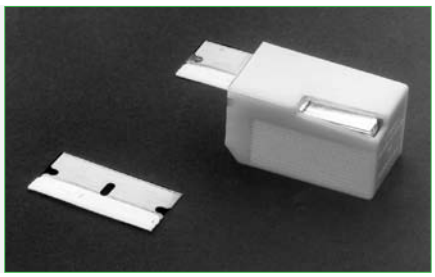
This holds one single edge backed blade for convenient handling, and also serves to keep the fingers away from the cutting edge. When the blade is not in use it can be retracted completely into the handle. It is supplied with one blade, which can be replaced with any single edge backed blade.

T5105 Holder for single edge razor blades

Safety dispenser for 10 single edge razor blades

Single edge backed razor blades are accommodated in this dispenser. Used blades can be slotted into the bottom of the dispenser for safe disposal.

T5106 Safety dispenser for razor blades



WECPREP™ blades

These sturdy, long blades are single edged, manufactured from carbon steel, surgically sharp and make a very effective cutting edge. Blades are 57.5 mm long with a thickness of 280 µm.

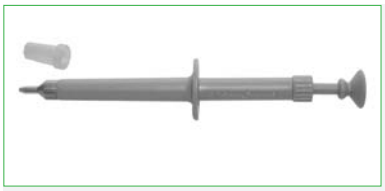
T5114 WECPREP blades. Pack of 50

FEATHER™ blades

These are double edged carbon steel blades that are suitable for use with vibrating microtomes. The blades can be broken in half lengthways. The cutting edge has a length of 37 mm, and thickness of 127 µm.

T5115 FEATHER double edged blades. Pack of 10

Harris Micro-Punch®



The Harris Micro-Punch consists of a razor sharp cutting tip designed to cut, retrieve and store cored samples from source materials such as tissue, gels, paper, cloth, leaves, paint chips, films or other thin substrates. It is ideal for tissue processing or forensic applications. The tips are made from high-carbon steel heat treated to Rockwell hardness Rc 65 and then individually sharpened. Tips are available in diameters ranging from 0.5 to 3.0 mm. The barrel and knob-screw assembly is constructed from injection moulded, lubricated plastic to eliminate sticking. Each Harris Micro-Punch is supplied with a protective plastic tip cover and a 152 x 203 mm, 1.5 mm thick, inert, self-healing Harris cutting mat with dual cutting surfaces.

Replacement tips, plungers and mats can be ordered separately.

T5491	Harris Micro-Punch, hole 0.5 mm
T5492	Harris Micro-Punch, hole 1.0 mm
T5493	Harris Micro-Punch, hole 1.2 mm
T5494	Harris Micro-Punch, hole 2.0 mm
T5495	Harris Micro-Punch, hole 3.0 mm
T5491-T	Replacement tip 0.5 mm
T5492-T	Replacement tip 1.0 mm
T5493-T	Replacement tip 1.2 mm
T5494-T	Replacement tip 2.0 mm
T5495-T	Replacement tip 3.0 mm
T5491-PS	Replacement plunger 0.5 mm, stainless steel
T5492-PS	Replacement plunger 1.0 mm, stainless steel
T5493-PS	Replacement plunger 1.2 mm, stainless steel
T5494-PS	Replacement plunger 2.0 mm, stainless steel
T5495-PS	Replacement plunger 3.0 mm, stainless steel
T5496	Cutting mat, 152 x 203 mm
T5497	Cutting mat, 63 x 76 mm

Harris Uni-Core™

The Harris Uni-Core consists of a razor sharp stainless steel cutting tip designed to cut, retrieve and store cored samples from source materials such as tissue, gels, paper, cloth, leaves, paint chips, films or other thin, soft substrates. The tip is protected by a removable cover cap. A range of diameters from 0.35 to 8.0 mm is available. The body is made from polypropylene plastic. Each Harris Uni-Core is individually packed and ethylene oxide sterilised. A 63 x 76 mm, 1.5 mm thick, inert, self-healing cutting mat with dual cutting surfaces is sold separately. The Uni-Core is a limited reusable, disposable sampling tool, ideal for tissue processing or forensic applications. They may be disposed of after use or cleaned and reused. Tips should be cleaned between each sample extraction by coring blank filter paper; rinsing with ethanol or spraying with compressed air to remove dried artefacts. The mat should be rinsed with ethanol after each sample extraction. Autoclave for 20 minutes at 250 °C and 15 psi. It is recommended to autoclave up to three to five times.

T5490-035	Harris Uni-Core, hole 0.35 mm
T5490-050	Harris Uni-Core, hole 0.50 mm
T5490-075	Harris Uni-Core, hole 0.75 mm
T5490-100	Harris Uni-Core, hole 1.0 mm
T5490-120	Harris Uni-Core, hole 1.2 mm
T5490-150	Harris Uni-Core, hole 1.5 mm
T5490-200	Harris Uni-Core, hole 2.0 mm
T5490-250	Harris Uni-Core, hole 2.5 mm
T5490-300	Harris Uni-Core, hole 3.0 mm
T5490-350	Harris Uni-Core, hole 3.5 mm
T5490-400	Harris Uni-Core, hole 4.0 mm
T5490-500	Harris Uni-Core, hole 5.0 mm
T5490-600	Harris Uni-Core, hole 6.0 mm
T5490-700	Harris Uni-Core, hole 7.0 mm
T5490-800	Harris Uni-Core, hole 8.0 mm
T5496	Cutting mat, 152 x 203 mm
T5497	Cutting mat, 63 x 76 mm

Cutting mats

These three-layer PVC mats in a sandwich structure ensure no cracking or warping. The base has a non-slip surface to hold the sample firmly, which prevents blade run and encourages accurate cutting. It preserves the life of blades. The mats are available in sizes of A1, A2, A3, A4 and A5.

G3152-1	Cutting mat, A1 size, 600 x 900 mm
G3152-2	Cutting mat, A2 size, 600 x 450 mm
G3152-3	Cutting mat, A3 size, 450 x 300 mm
G3152-4	Cutting mat, A4 size, 300 x 200 mm
G3152-5	Cutting mat, A5 size, 230 x 160 mm

Miniature saw

Miniature saw for cutting flat embedding blocks. Length 75 mm, height 25 mm.

T581	Miniature saw
T582	Blades for T581. Pack of 10

Saw frames

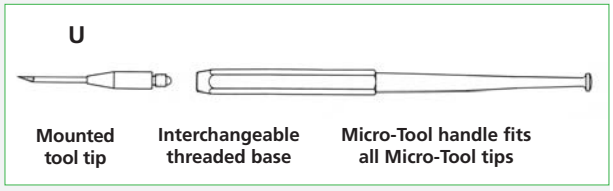
T561	Piercing saw frame with blade
T562	Spare blades for T561. Pack of 10
T545	Hack saw frame with blade
T546	Spare blades for T545. Pack of 10

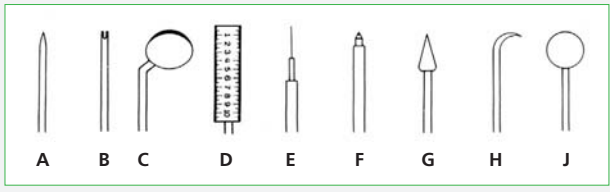
Micro-Tools

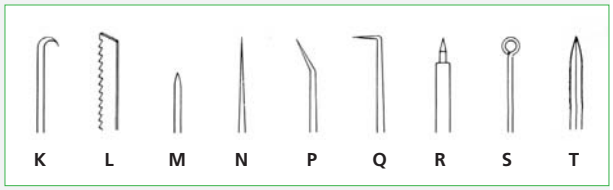
Micro-Tools are the smallest precision instruments available for laboratory use, offering efficient, precise and realistically proportioned tools for microscope work. They are available in different configurations of interchangeable tips, mounted in anodised tool cones. The handle is 120 mm long with hexagonal 6 mm diameter that tapers to 1 mm diameter, and is threaded to fit all tips.

The carbide Micro-Tool tips have been developed for applications where cutting needs to be done on the microscale. The micro-grain tungsten carbide tips are the hardest and most durable cutting tips available in the range. The carbide tips need precise holding for cutting and are more brittle compared to hardened steel or high speed steel tools.

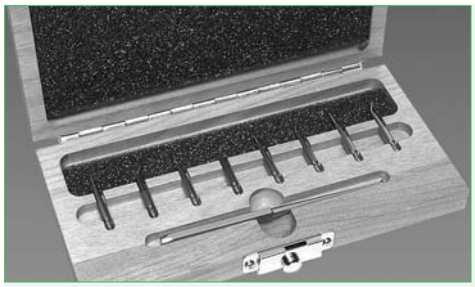
T5344	Micro-Tool handle
T5335	Fork, steel shank, 0.25 mm (B)
T5336	Brush, steel shank, 0.5 mm, natural fibre (E)
T5337	Spatula, steel shank, 0.5 mm (G)
T5338	Hook, 90°, steel shank, 0.25 mm (H)
T5340	Needle, straight, tungsten, 5 µm radius (N)
T5341	Needle, bent 30°, tungsten, 5 µm radius (P)
T5342	Needle, bent 90°, tungsten, 5 µm radius (Q)
T5343	Scribe, carbide, 5 µm radius (R)
T5361	Needle, long steel shank, 0.12 mm (A)
T5362	Spade
T5363	Mirror, stainless steel (C)
T5364	Scale, 10 mm, 0.1 mm divisions (D)
T5365	Knife, 20° (U)
T5366	Diamond scribe 60°, steel shank, 0.5 mm (F)
T5367	Saw (L)
T5368	Needle, short, steel shank, 0.12 mm (M)
T5369	Diamond file, triangular, steel shank, 0.12 mm, 0.5 mm (T)

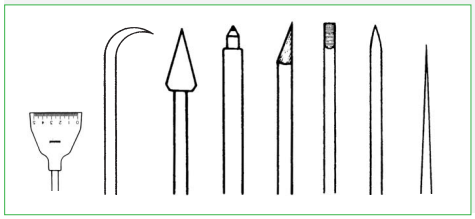






Micro-Tools microscopist tool set



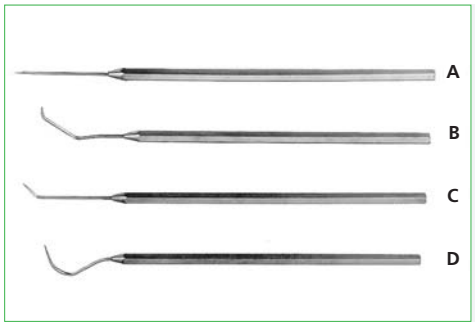


The Micro-Tools are also available as a complete set, supplied in a hardwood case containing an anodised aluminium handle with eight interchangeable tips. All tips have a 0.50 mm shank size.

The set includes a long micro-needle, a micro-chisel, a 20° micro-knife, a 60° micro-diamond scribe, a stainless steel flexible micro-spatula, a 90° micro-hook, a 5 mm stainless steel micro-scale with 0.1 mm divisions, and a straight tungsten ultra micro-needle with 5 µm radius tip.

T5484 Microscopist tool set, complete

Set of probes



Stainless steel instrument probes for delicate manoeuvring of specimens are available singly or in a set of four.

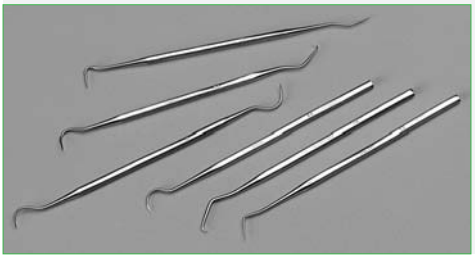
T550A Probe, stainless steel, straight needle, 140 mm, 0.4 mm tip
T550B Probe, stainless steel, hook curve needle, 140 mm, 0.4 mm tip
T550C Probe, stainless steel, bent needle, 140 mm, 0.4 mm tip
T550D Probe, stainless steel, large curve needle, 140 mm, 0.4 mm tip
T550 Set of four fine tip probes

Micro picks

Micro pick, angled, 190 mm, 0.63 mm (0.25") tip
Micro pick, straight, 184 mm, 0.63 mm (0.25") tip

T5420 Micro pick, angled, 190 mm, 0.63 mm (0.25") tip
T5421 Micro pick, straight, 184 mm, 0.63 mm (0.25") tip

Fine probes



Sets of fine tip probes and shapers, which are ideal for the manipulation and extraction of small samples for microscopic examination, are available.

T5414 Set of 6 probe/carvers

T5415 Set of 6 fine probes

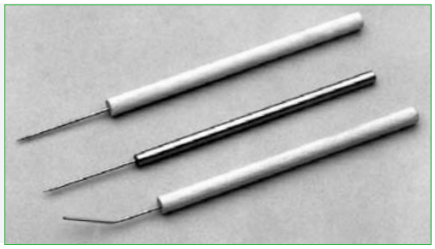
Dissecting needle

These dissecting needles have a sharp knife edge on a pin shank, mounted in an aluminium handle.

T5111 Dissecting needle

Mounted pins

T548-1 Mounted pin in plastic handle
T548-2 Mounted pin in aluminium handle
T548-3 Mounted pin in stainless steel handle
T5080 Seeker, angled pin with rounded tip in wooden handle
T5333 Seeker, angled pin with rounded tip in stainless steel handle

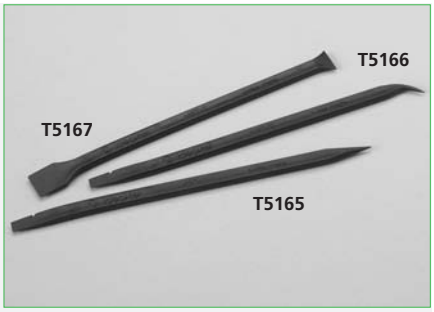


Probes

These multi-purpose tools for electronics, chemistry and watchmaking can be used as a probe for lead-free soldering operations, a positioning aid tool for assembly operations, a spatula for applying adhesives, for dosing chemicals in labs, a stirring rod for the preparation of adhesives and solutions, and a scraper to remove solder masking agents, rubber latex or adhesive coatings. They are available in two ESD-safe high performance plastics.

Type CP: high performance PEEK™ reinforced with carbon fibre, very high chemical resistance, very high temperature resistance (up to 300 °C) most appropriate for lead-free soldering applications even at high temperatures.

Type SV: high performance PVDF Teflon® like material reinforced with carbon fibre. Smooth surface, extremely high acid resistance. Most appropriate for scratch-sensitive components or for applications with acids.

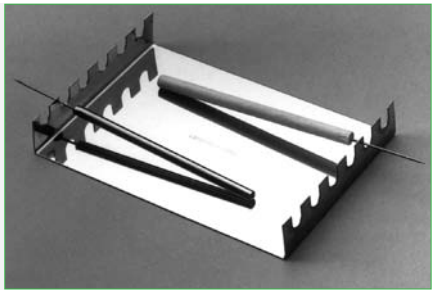


T5165CP Type CP, 150 mm, fine tip and flat strong tip
T5165SV Type SV, 150 mm, fine tip and flat strong tip
T5166CP Type CP, 148 mm, curved fine tip and flat strong tip
T5166SV Type SV, 148 mm, curved fine tip and flat strong tip
T5167CP Type CP, 140 mm, flat large fine tip and flat fine sharp tip
T5167SV Type SV, 140 mm, flat large fine tip and flat fine sharp tip
T5168CP Set of 3 CP probes
T5168SV Set of 3 SV probes

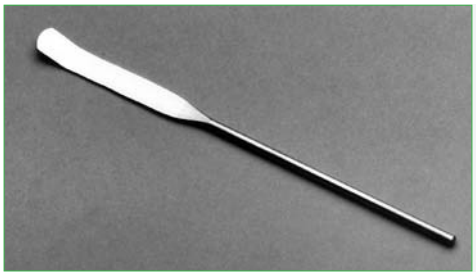
Needle stand

This stainless steel stand has six slots for needles, brushes etc.

L4123 Needle stand



Section lifters



These section lifters are 130 mm long and have a flattened blade with an angled tip.

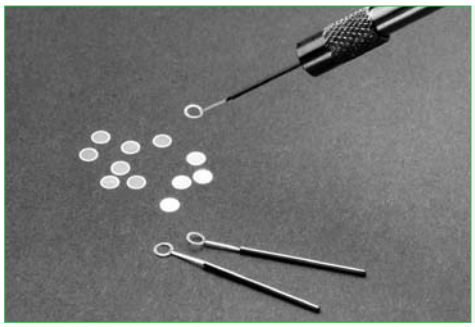
L4168 Section lifter, aluminium
L4122 Section lifter, stainless steel

Section pick-up loop

A platinum loop (5 mm) is held in a pin-vice to provide a readily cleanable loop.

T5010 Specimen pick-up loop, complete
T5011 Spare platinum loops. Set of 3

Perfect loop



Using this loop, thin sections can be transferred easily from microtome boats to grids with a minimum of creasing or folding.

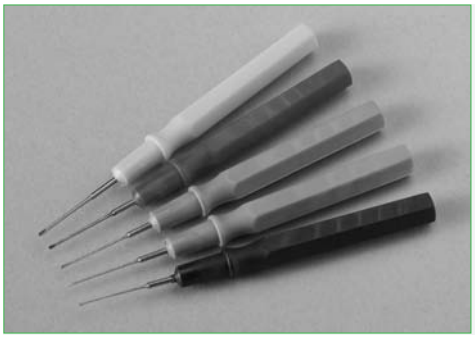
T5112 Perfect loop with handle
T5113 Replacement loop

Perfect loop for light microscopy

Very lightweight stainless steel loop for manoeuvring freshly cut, thick sections onto grids without creasing. Loop thickness is 0.5 mm, and the handle is aluminium with an anodised aluminium slip lock. Dimensions: 4.7 dia x 150 mm.

T5112LM Perfect loop, LM, loop and handle set
T5113LM Perfect loop, LM, loop only

Speedles



These miniature spatula needles can be used to make micro dispersions directly onto adhesive tape, specimen mounts etc. They are ideal for applying very small quantities of adhesive around the edges of specimens and foils. There are five different blade sizes, with colour coded handles for easy identification.

Blade widths of 0.25, 0.30, 0.35, 0.40 and 0.65 mm. Overall length 62 mm.

T5345 Speedles. Set of 5

Micro powder spatulas

A set of four 150 mm long stainless steel micro powder spatulas with black plastic handles are available. They have a curved form, and are ideal for handling powders. The set contains a range of four blade widths (3, 4, 5 and 6 mm), with 45 mm long blades.

T5521 Micro powder spatulas. Set of 4

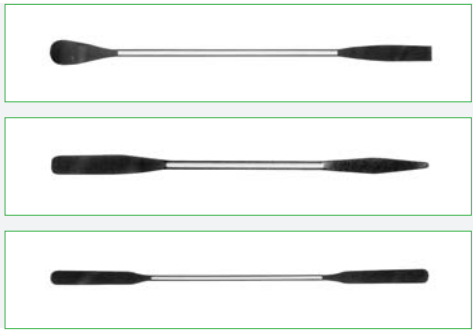
Spatulas

T549 Spatula, Chattaway, stainless steel 178 mm
T5081 Spatula, Chattaway, stainless steel, micropattern blades, 100 mm
T5082 Spatula, with spoon at one end, nickel, 120 mm
T5083 Spatula (palette knife) with wooden handle and stainless steel blade, 100 mm

Teflon® coated micro spatulas

The Teflon coating on these spatulas provides a chemically inert, heat resistant finish that is easily cleaned so that samples can be handled without cross-contamination. The spatulas are available in various end shapes and sizes.

T5430 Micro spoon/spatula, Teflon coated, 230 mm
T5431 Micro spatula, Teflon coated, 184 mm
T5432 Micro spatula, Teflon coated, 203 mm



Dissecting kits

Dissecting kits comprising one each of the following instruments are available in a canvas holdall. Some kits have reusable scalpels which can be resharpened by the user.

One pair of dissecting scissors, open shanks, sharp points, 115 mm
One pair of dissecting scissors, closed shanks, sharp points, 125 mm
One pair of dissecting forceps, sharp tips, 125 mm
One pair of dissecting forceps, blunt tips, 125 mm
One needle, wooden handle
One seeker, wooden handle
One section lifter, aluminium
One camel hair brush
One scalpel, small
One scalpel, large
One section razor, carbon steel

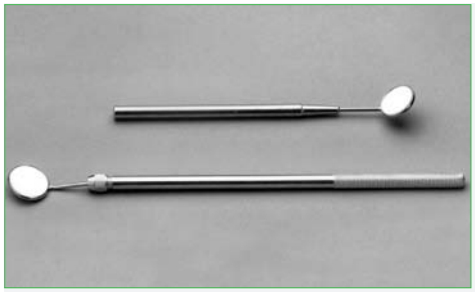
T5240 Dissecting kit 1 with reusable scalpels
T5242 Dissecting kit 2 (as T5240 but without section razor)
T5244 Dissecting kit 3 with scalpels with disposable blades
T5246 Dissecting kit 4 (as T5244 but without section razor)

Holdall for dissecting kits

Holdalls are available in khaki canvas with stitched pockets, protective flap and tape ties to secure when rolled up.

T5248 Canvas holdall

Magnifying inspection mirrors



A dental type mirror is mounted on a solid aluminium handle. The mirror mount is provided with a thread for screwing into the handle.

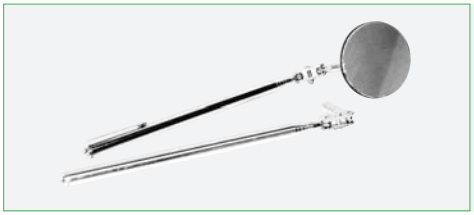
T559 Inspection mirror

Adjustable inspection mirror

A long aluminium handle with knurled grip has a dental-type magnifying mirror on a ball and socket mounting to help adjust the mirror angle.

T5079 Adjustable inspection mirror

Magnetic pick-up mirror



This kit contains a telescopic mirror with 150 - 500 mm range and telescopic magnetic pick-up rod.

T5520 Magnetic pick-up mirror

Sable hair brushes

These brushes help with delicate manoeuvring of specimens and grids, and are also recommended for gentle dusting of SEM samples.

G3440 Sable hair brush size 3, brush width 4.0 mm. Set of 3
G3441 Sable hair brush size 2, brush width 3.0 mm. Set of 3
G3442 Sable hair brush size 1, brush width 2.0 mm. Set of 3
G3443 Sable hair brush size 0, brush width 1.5 mm. Set of 3
G3444 Sable hair brush size 00, brush width 1.2 mm. Set of 3
G3445 Sable hair brush size 000, brush width 0.8 mm. Set of 3
G3446 Set of 6 brushes, one of each size

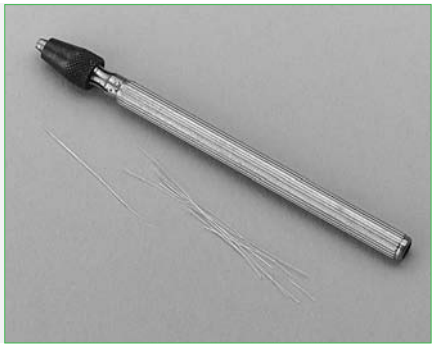
Eyelash with handle

A carefully selected superfine eyelash is attached to a finely balanced wooden handle. It can be used for the delicate manipulation of ultra-thin sections in the knife boat of an ultramicrotome or wherever delicate teasing or manipulation is required.

T5433 Superfine eyelash

Single bristle holder

A convenient pen-type holder with a parallel jaw chuck can hold a single bristle for manoeuvring sections.



T583	Single bristle holder
T584	Spare bristles. Pack of 10

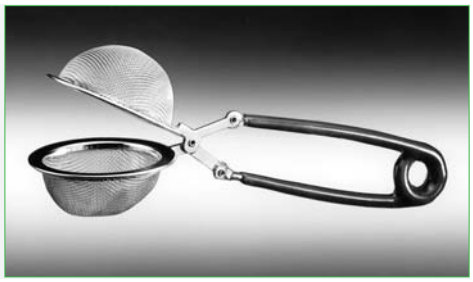
Glass fibre brushes

These brushes are ideal for accurate and rapid cleaning of all metal objects. They can also be used to prepare delicate surfaces for the application of adhesives or paint. Other uses include the erasing of pencil marks off wood or removing non-absorbent ink or drawings, cleaning off paint and lacquer, and preparing surfaces for soldering (eg. printed circuit boards).

T5410	Clutch type scratch brush 2 mm
T5410A	Pack of 3 refills for T5410
T5410B	Pack of 12 refills for T5410
T5411	Propelling pencil scratch brush 4 mm with glass fibre refill
T5411A	Pack of 3 refills for T5411
T5411B	Pack of 10 refills for T5411
T5412	Propelling pencil scratch brush 4 mm with brass refills
T5412A	Pack of 3 refills for T5412
T5412B	Pack of 10 refills for T5412
T5413	Wide pattern scratch brush 8 mm
T5413A	8 mm refill for T5413

Cleaning basket

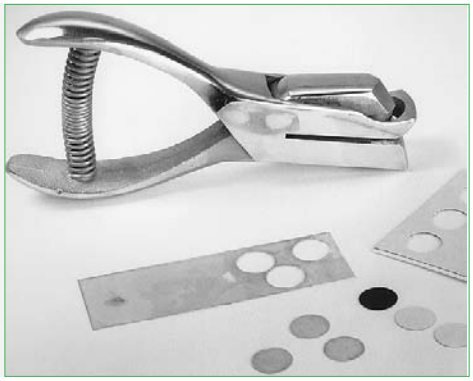
This stainless steel basket will hold small articles safely and easily for cleaning. The basket is approximately 40 mm diameter and 150 mm overall length.



T5221	Component cleaning basket

Disc punches

These have many applications in the laboratory, eg. making adhesive discs for mounting SEM specimens or punching discs from ACLAR® or Melinex® film for growing cells. It can punch a maximum thickness of material 1.7 mm.



T5440	Disc punch, 7.9 mm
T5441	Disc punch, 9.5 mm
T5442	Disc punch, 11.0 mm
T5443	Disc punch, 12.7 mm

Chinagraph pencils

These are useful for writing on polished surfaces, including glass.

T5354 Chinagraph pencils, black. Pack of 12

Glass scribe

This clips to a pocket like a ballpoint pen. It has a retractable tungsten carbide tip that can be used to write on glass, ceramics and plastics.

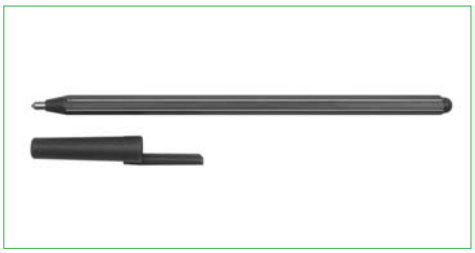
T5346 Glass scribe

Writing diamond

This tool is useful for writing on glass or metal surfaces.

T566 Writing diamond

Diamond scriber

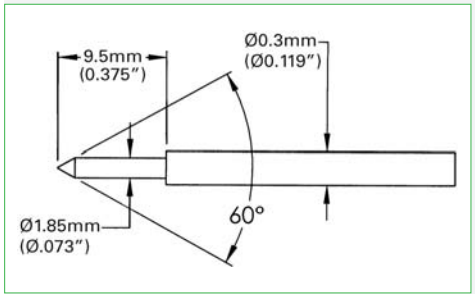


This scriber has a plastic pen-like handle with steel shaft and diamond tip. It marks glass slides, scribes metal, and scores for breaking glass and glass knives. The tip has an included angle of 90°. The overall length is 155 mm without the cap, and the shaft diameter is 3.15 mm. The exposed diamond has a length of 0.86 mm and a diameter of 1.14 mm.

T5483 Diamond scriber

Deluxe diamond scribing pen

This high quality precision diamond scribing pen in a chromium case has a twistable barrel to expose or retract the diamond tip. The screw-type precision mechanism works smoothly and the diamond mounting is firmly affixed when exposed, with no wobble. The diamond has been ground and lapped to a 60° included angle. It has an overall length of 133 mm. Refills are available.



T5482 Deluxe diamond scribing pen
T5482R Diamond refill

Glass writing diamond

This clips to a pocket like a ballpoint pen. It has a retractable diamond tip, and is useful for writing on glass or metal.

T5347 Diamond scribe

Diamond scriber fine point

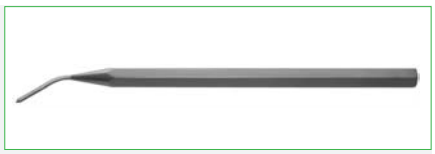
This diamond scriber has a very fine point. Applications include scribing under the microscope, precision scribing and repairing circuits. The fine point scribe can also be used for cleaning or trimming circuits or to break or build new lines. Overall length is 120 mm and the diamond has a 60° included angle. Tip shafts are 0.8 mm diameter and 8 mm long.

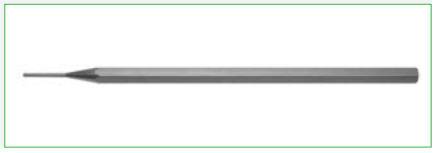
T5444 Fine point diamond scriber, straight shaft
T5445 Fine point diamond scriber, bent 30° shaft

Diamond scriber

These general purpose scribing tools are suited to a wide range of industrial and laboratory uses, to scribe fine lines on a wide range of materials including metal, silicon and plastics. Each high quality hand-held tool has a hexagonal aluminium handle with a polished quality industrial diamond that has been vacuum bonded to a 1.57 mm (0.062") diameter steel tip shaft. The unique high-precision tips of these scribers allow greater access to smaller work areas and make it possible to continuously view what is being scribed.

T5481-A60 Diamond scriber, bent 30° shaft, tip angle 60°, overall length 130 mm
T5481-A90 Diamond scriber, bent 30° shaft, tip angle 90°, overall length 170 mm
T5481-S Diamond scriber, straight shaft, tip angle 90°, overall length 170 mm





Diamond in a wooden grip

This is a heavy duty diamond scriber. Suitable for scoring silicon wafers.

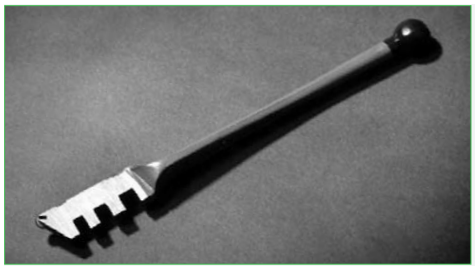
T5448 Diamond in a wooden grip

Diamond glass cutter

This polished diamond cutter with rosewood handle gives a clean deep split in glass.

T564 Diamond glass cutter

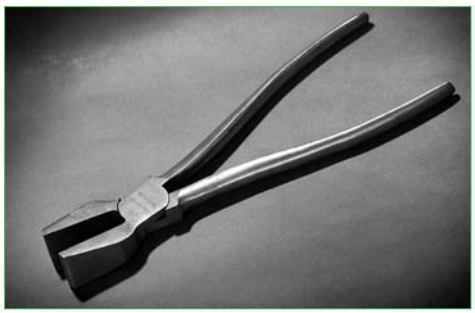
Glass cutting wheel



This is a high quality tungsten cutting wheel.

T574 Glass cutting wheel

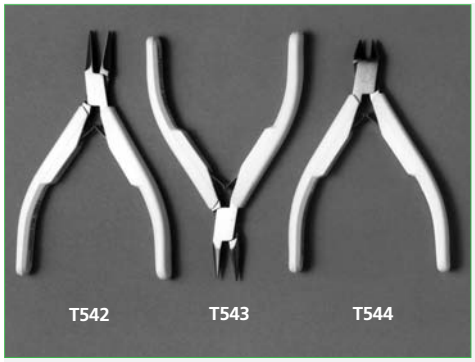
Glass breaking pliers



The substantial pliers have been designed to achieve a good break. The end mark on the jaws helps to locate the breaking line.

T573 Glass breaking pliers

Pliers and cutters



These flat nosed pliers with box joint are 115 mm long, and made of polished steel. They have white plastic insulated handles and return spring.

T542 Pliers, flat nosed

These snipe nosed pliers with box joint are 115 mm long, and made of polished steel. They have white plastic insulated handles and return spring.

T543 Pliers, snipe nosed

These electronic side cutters with box joint are 115 mm long, and made of polished steel. They have white plastic handles and return spring.

T544 Electronic side cutters

These hard wire cutters will cut 0.3 - 1.6 mm diameter copper wire and up to 0.4 mm diameter hard steel wire.

T593 Hard wire cutters

These heavy grade hard wire cutters can cut up to 2 mm diameter copper wire or up to 0.4 mm diameter piano wire.

T594 Heavy grade hard wire cutters

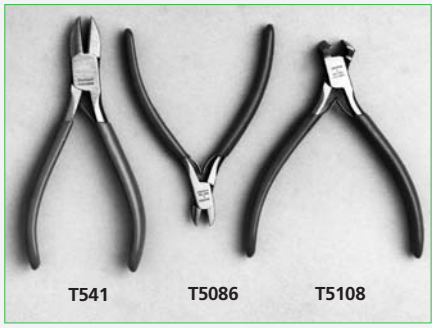
Pliers and cutters

These flat nosed pliers have smooth jaws and plastic covered handles. They are 120 mm long, with box joint and single spring.

T5084 Flat nosed pliers

The snipe nosed pliers have smooth jaws and plastic covered handles. They are 120 mm long, with box joint and single spring.

T540 Snipe nosed pliers



These top cutting pliers have been specially hardened by additional inductive heat treatment so that they can cut hard wire up to 1 mm diameter. They are 130 mm long, with box joint, insulated handles and double spring return.

T5085 Top cutting pliers for hard wire

This oblique cutting nipper has been specially inductively hardened to cut soft wire up to 1.2 mm and hard wire up to 0.5 mm diameter. It is 120 mm long, with box joint, double spring and insulated handles.

T5108 Oblique cutting nipper

This mini side cutting nipper for electronics applications can cut soft wire of up to 0.6 mm diameter. It is 110 mm long, with box joint and insulated handles.

T5086 Mini side cutting nipper

Diagonal cutters are 125 mm long, with spring loaded, insulated handles.

T541 Diagonal cutter

Long snipe nosed pliers have a double polished head and joint bonded, vinyl coated plastic handles that are not insulated.

T5087 Long snipe nosed pliers, 140 mm

Electrician's pliers

These pliers feature a pipe grip, side cutter and two joint cutters. They have a polished head and black PVC coated handles that are insulated to withstand 10,000 V.

T5088 Electrician's pliers

Glass filled pliers

Glass filled Delrin® and glass filled nylon pliers with serrated or non-serrated jaws. They are resistant to many chemicals including acetone and alcohol and are not electrically conductive. The thermal conductivity is very low.

T5117 Glass filled Delrin pliers, serrated jaws, 13.8 cm, white

These pliers are useful for bending wire without damage.

T5118 Glass filled nylon pliers, 14.8 cm, flat jaws, white

Watchmaker's screwdrivers

A set of nine screwdrivers in a numbered rotating stand is available. The colour coded screwdrivers are very high quality with hardened steel blades and nickel-plated handles. Spare blades are also available, and can be stored in the central compartment.

Blade widths:

0.5 mm	Colour code: orange
0.6 mm	Colour code: white
0.8 mm	Colour code: yellow
1.0 mm	Colour code: black
1.2 mm	Colour code: red
1.4 mm	Colour code: grey
1.6 mm	Colour code: mauve
2.0 mm	Colour code: green
2.5 mm	Colour code: blue

T530 Watchmaker's screwdrivers. Set of 9

T530A Spare blades. Set of 9

Crosshead screwdrivers

A set of four crosshead screwdrivers with diameters 1.5, 2, 2.5 and 3 mm with colour coded bands on the barrel are available.

T5012 Crosshead screwdrivers. Set of 4

Screwdrivers

This quality miniature precision jeweller's screwdriver set contains straight blade and crosshead screwdrivers with nickel-plated bodies, blackened steel shafts and revolving heads for precise accurate control.

T5467 Combination screwdriver set in a storage case. Set of 11

Electrician's pattern screwdrivers

These screwdrivers have round shafts and parallel tips, with plastic insulating handles.

T5076 Electrician's screwdriver, blade length 75 mm, tip width 3.0 mm
T5077 Electrician's screwdriver, blade length 150 mm, tip width 5.0 mm

Stubby screwdriver

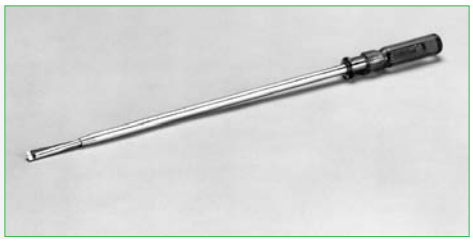
These are useful for access in confined spaces.

T5078 Stubby screwdriver, blade length 45 mm, tip width 6.3 mm

Screw-holding screwdriver

The special design of this screwdriver allows the screw to be positioned and tightened with one hand.

T598 Screw-holding screwdriver, blade length 203 mm, blade width 3.2 mm



Ballpoint tip socket wrenches

The unique ballpoint tip makes these ideal for tightening or removing socket head screws in awkward places. The wrenches will engage a screw head from any angle up to 20°. A set of nine wrenches with extension blade and screwdriver type handle are supplied in a compact plastic case. Wrench sizes are $^{3}/_{64}$, $^{1}/_{16}$, $^{5}/_{64}$, $^{3}/_{32}$, $^{7}/_{64}$, $^{1}/_{8}$, $^{9}/_{64}$, $^{5}/_{32}$ and $^{3}/_{16}$".

T596 Ballpoint tip socket screw wrenches, imperial. Set of 9

These ballpoint wrenches are available as a set of seven metric sizes, supplied in a plastic box, with extension blade and screwdriver type handle. Sizes available are 1.27, 1.5, 2, 2.5, 3, 4 and 5 mm.

T597 Ballpoint tip socket screw wrenches, metric. Set of 7

Socket wrenches

T536 Imperial socket screw wrenches 1/16 to 3/8" across flats. Set of 10 in plastic wallet

T537 Metric socket wrenches 1.5, 2, 2.5, 3, 4, 5 and 6 mm across flats. Set of 7 in a plastic wallet

Loose socket wrenches

Individual short arm socket wrenches are available for replacement of lost or borrowed items. Imperial and metric sizes are available.

Imperial: 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4".

Metric: 1.5, 2, 2.5, 3, 4, 5 and 6 mm.

T5090 Socket wrench 1/16"
T5091 Socket wrench 5/64"
T5092 Socket wrench 3/32"
T5093 Socket wrench 1/8"
T5094 Socket wrench 5/32"
T5095 Socket wrench 3/16"
T5096 Socket wrench 7/32"
T5097 Socket wrench 1/4"
T5098 Socket wrench 1.5 mm
T5099 Socket wrench 2.0 mm
T5100 Socket wrench 2.5 mm
T5101 Socket wrench 3.0 mm
T5102 Socket wrench 4.0 mm
T5103 Socket wrench 5.0 mm
T5104 Socket wrench 6.0 mm

Open ended spanners

Set of six chrome vanadium BA spanners supplied in a plastic case, with sizes of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11BA.

T565 BA spanners, stainless steel. Set of 6

Set of ten metric combination spanners with sizes of 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10 and 11 mm.

T5025A Metric combination spanners. Set of 10

Ring spanners

Set of three BA ring spanners, double ended 0 and 2BA, 2 and 4BA, and 4 and 6BA.

T5003 BA ring spanners. Set of 3

Hexagonal headed nutdriver set

This is a set of screwdriver handles with hexagonal sockets: 3, 3.5, 4, 4.5 and 5 mm A/F, supplied in a plastic wallet. They help tighten nuts that are difficult to reach using conventional spanners.

T5006 Hexagonal headed nutdrivers. Set of 5

Pinchuck

T547 Pinchuck with 3 interchangeable collets, capacity 0 to $^{3}/_{32}$"

Pin vice

T560 Pin vice, 75 mm long

Table vice

This vice clamps to a bench. Clamp is 75 mm wide, with jaw width of 50 mm.

T563 Table vice

Swivel Vacu Vice™

This self-fastening tool has universal ball joint swivel action, rotates to any angle and locks securely into place. Its lever operation clamps the vice instantly to any clean smooth surface, and a set of rubber slides for fragile materials fits onto the steel jaws. The jaws are 76 mm wide and open to a width of up to 76 mm.

T576P Vacu Vice

Replacement jaws are available.

Multi-angle vice

This die-cast aluminium and nickel plated steel vice has a rotating and tilting head that can be instantly locked in position with one lever. It has a height above the workbench of 156 mm and slide-off rubber jaws of 75 mm that open to 50 mm.

T5760 Multi-angle vice

Steel rule

This ruler is calibrated on both sides. It measures 15 cm in 0.5 mm divisions and 6" divided into seven ranges down to 0.01".

T5107 Steel rule, 150 mm

Micrometer

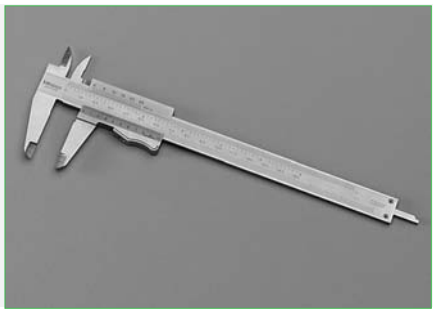
This micrometer (0 to 25 mm) has tungsten carbide measuring faces with a hard satin chrome spindle, and a sleeve with very fine graduations for accurate reading. It conforms to BS870 for accuracy. It has a positive spindle locking lever and ratchet thimble. The micrometer is supplied in a plastic case complete with adjustment tool.

T5450 Micrometer

Vernier calipers

These calipers (0 to 150 mm) are provided with a thumb lock instead of the traditional stop screw, making them easy to use. Vernier scales measure to 0.02 mm.

T5451 Vernier calipers



Electronic digital calipers

These are quality Vernier calipers with a digital readout. Outside, inside depth and step measurements can be measured and easily read from the liquid crystal display. They provide instant mm/inch conversion with a resolution to 0.01 mm or 0.0005".

T5453 Electronic digital calipers, 0 - 150 mm

Miniature power tool kit

This kit includes a high torque drill with pencil grip design, and a plug-in mini transformer with accessories. The kit is useful for drilling, grinding, etc.

T5452 Miniature power tool kit

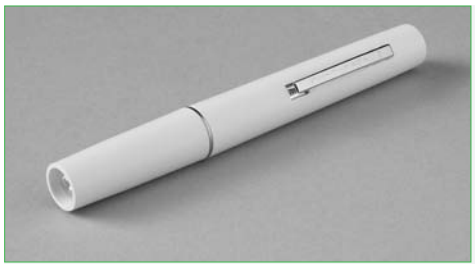
Requires an adaptor for EU usage.

Disposable pen light

This is a small, lightweight disposable pen light which can be clipped onto a pocket. It is useful for illuminating small areas and for examining inaccessible parts of instruments. The light is illuminated by pressing the clip switch. The pen light will last for one to six months depending on usage. When the batteries are depleted the pen light should be discarded.

T5348 Disposable pen light. Pack of 6

Pen light



This is similar to the disposable pen lights but has replaceable batteries. It has a pocket clip which also activates the light.

T5460 Pen light, white barrel

Precision oil lubricator

This lubricator contains lightweight oil suitable for precision work and delivers small droplets as required.

T5416 Oil lubricator

Tool kit for EM lab

This tool kit is particularly suited to the EM laboratory. It comprises the following:
3 Pozidriv®/SupaDriv® screwdrivers, 2, 3 and 5 mm
2 flat blade screwdrivers, 2.5 and 3.5 mm
1 **T532** watchmaker's screwdriver set
4 ball-ended drivers, 3, 4, 5 and 6 mm
1 hexagonal wrench set, metric
1 10 x 10 mm combination spanner
1 **T510** tweezers AA
1 **T511** tweezers GG
1 set of double ended spanners 6 + 7 mm, 7 + 8 mm, 8 + 9 mm, 8 + 10 mm, 13 + 17 mm, 14 + 15 mm
1 tool case

T5353 Tool kit for EM lab

Service engineer's tool kit

This kit contains most of the items needed by an engineer carrying out light electrical and electronic work. It is supplied in a lightweight soft black case with zipper fastening and double carrying handles.

T5351 Service engineer's tool kit

Further details of the contents are supplied upon request.

Tool boxes

For a selection of tool boxes, please refer to page 405.