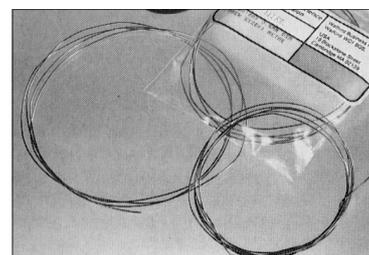


## Metal Wires

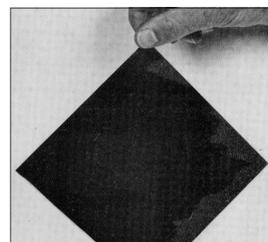
We carry a wide range of *high purity* wire for *shadowing*. All wires are supplied in a convenient dispenser.

<b>W060</b>	Gold wire - fine 0.2mm Ø	1 metre
<b>W091</b>	Gold wire - fine 0.5mm Ø	1 metre
<b>W061</b>	Gold/Palladium (60:40) wire 0.2mm Ø	1 metre
<b>W092</b>	Platinum wire 99.99% 0.1mm Ø	1 metre
<b>W093</b>	Platinum wire 99.99% 0.2mm Ø	3 metre
<b>W095</b>	Platinum wire 99.99% 0.5mm Ø	1 metre
<b>W095/1</b>	Platinum wire 99.99% 0.5mm Ø	0.5 metre
<b>W063</b>	Platinum/Iridium (80:20) wire 0.2mm Ø	1 metre
<b>W064</b>	Silver wire 99.99% 0.25mm Ø	3 metre
<b>W065</b>	Aluminium wire 99.99% 0.25mm Ø	3 metre
<b>W066</b>	Aluminium wire 99.99% 0.25mm Ø	5 metre
<b>W067</b>	Tungsten wire 0.125" (0.032mm) Ø	25 metre
<b>W068</b>	Tungsten wire 0.375" (0.095mm) Ø	10 metre
<b>W069</b>	Tungsten wire 0.5mm Ø	10 metre
<b>W070</b>	Tungsten wire 1mm Ø	10 metre
<b>W094</b>	Molybdenum wire 0.5mm Ø	10 metre
<b>W095</b>	Platinum wire 0.5mm Ø	25 metre



## Foils for Evaporation

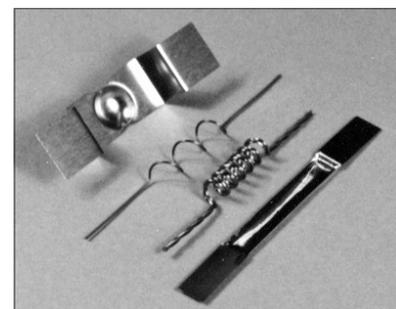
<b>W096</b>	Molybdenum sheet 0.05mm thick x 15cm square	each
<b>W097</b>	Tantalum sheet 0.05mm thick x 15cm square	each



## Ready Made Evaporation Sources

Our range of ready-made wire baskets, boats and filaments offers convenient reproducible evaporation sources. The baskets are suitable for fine or coarse materials and the boats are necessary for evaporation of powders or granulated materials and for the cleaning of apertures by heating in vacuum to bright red heat.

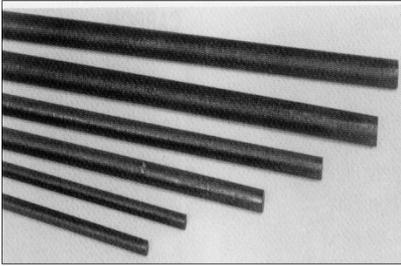
<b>W071</b>	Tungsten triple strand basket, 35 amp	pack of 10
<b>W072</b>	Tungsten single strand basket, 20 amp	pack of 10
<b>F137</b>	Tungsten filament 40 amp	pack of 10
<b>F138</b>	Tungsten filament 20 amp	pack of 10
<b>B176</b>	Molybdenum boat 25 amp 63 x 6.5 x 0.05mm dimple Ø 4.5mm	pack of 10
<b>B177</b>	Molybdenum boat 45 amp 51 x 11 x 0.1mm dimple Ø 9.5mm	pack of 10
<b>B178</b>	Molybdenum boat 80 amp 50 x 11 x 0.1mm dimple Ø 9.5mm	pack of 10
<b>B579</b>	Molybdenum boat 100 amp 54 x 14.5 x 0.1mm dimple Ø 13mm	pack of 10
<b>B580</b>	Molybdenum boat 100 amp 50 x 16 x 0.1mm dimple Ø 13mm	pack of 10
<b>B234</b>	Platinum boat 75L x 0.05 thick. Well 12L x 5W x 1mm Deep	each
<b>B235</b>	Tantalum boat 75L x 0.05 thick. Well 12L x 5W x 1mm Deep	pack of 5
<b>B236</b>	Tungsten boat 32L x 9.5W x 0.05mm thick - well 12mmL x 1mm deep	pack of 5



**Special Boat for aperture cleaning** will hold several apertures at one time

<b>B179</b>	Molybdenum boat for aperture cleaning	Pack of 5
-------------	---------------------------------------	-----------

## Carbon Rods

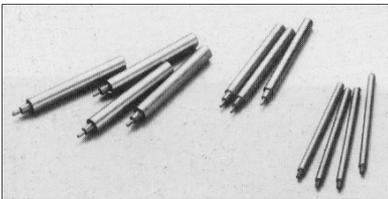


A selection of **spectrographically pure** carbon rods used in EM specimen preparation such as replica making and specimen support films.

**Two Grades - Normal Purity** with Ash Content (impurities) <20 ppm and **High Purity** with Ash Content <2 ppm.

<b>C068</b>	Carbon rods <b>High Purity</b> 3.05mm Ø x 30cm	pack of 10
<b>C161</b>	Carbon rods <b>High Purity</b> 4.6mm Ø x 10cm	pack of 10
<b>C060</b>	Carbon rods <b>Normal Purity</b> 5mm Ø x 20cm	pack of 10
<b>C162</b>	Carbon rods <b>High Purity</b> 4.6mm Ø x 30cm	pack of 10
<b>C163</b>	Carbon rods <b>High Purity</b> 6.15mm Ø x 30cm	pack of 10
<b>C072</b>	Carbon rods <b>Normal Purity</b> 6.3mm Ø x 30cm	pack of 10

## Shaped Carbon Rods



To eliminate the sometimes messy shaping of carbon rods TAAB offers *pre-shaped* rods ready for use in the vacuum coating unit. These rods are manufactured from a soft (graphite type) carbon. **Length 55mm**

<b>C144</b>	Shaped carbon rods 3mm Ø	Pack of 10
<b>C145</b>	Shaped carbon rods 5mm Ø	Pack of 10
<b>C146</b>	Shaped carbon rods 6mm Ø	Pack of 10

## Carbon Fibres



C200



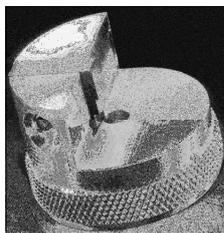
C154



C265

We offer several fibre type carbon evaporation sources which are suitable for either low or high vacuum evaporation.

<b>C200</b>	Loose bound carbon fibre strands. Many customers find this source gives the best overall fine, even coating 2.5mm Ø x 3.5m
<b>C154</b>	Multi stranded spiral wound (braided) carbon fibre 'cord' 2mm Ø x 1m
<b>C265</b>	Double stranded high purity spiral wound 'thread' 1mm Ø x 3.5m
<b>C265/1</b>	Double stranded high purity spiral wound 'thread' 1mm Ø x 1m

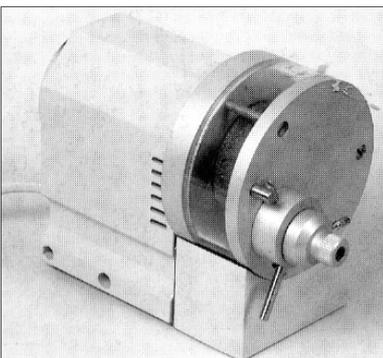


## Hand Tool for Carbon Rod Shaping

This is a high precision hand-held tool for shaping carbon rods to give a cylindrical tip. The smallest diameter is 0.66mm Ø suitable for wrapping platinum wire around for Pt/C evaporations. The next diameter is 1.5mm and the third 3.55mm. Changes in diameter can be achieved by rotating the blade in its holder. The smallest tip is removed when evaporating carbon only.

<b>C131</b>	Hand tool for 6.2mm Ø carbon rod shaping	each
-------------	--	------

## Motorised Carbon Rod Shaper



A purpose designed motor driven shaper with a grinding wheel to produce a profiled tip on a rod. It normally produces a cylindrical tip on the most brittle of rods. The rod holder is adjustable to produce tips of different diameter. The carbon dust is collected in a tray. The shaped grinding wheel can be reversed to produce a conically shaped tip on the carbon rod. The standard collet accepts 6mm rod but other sizes are available on request.

## Carbon Rod Sharpener

A tough, simple manual sharpener to give a clean conical point on carbon rods. High quality replaceable cutter blade and removable transparent debris drawer. Rod position adjuster, automatic feed mechanism and table clamp.

- C164** Carbon rod sharpener  
**C164/1** Replacement cutter



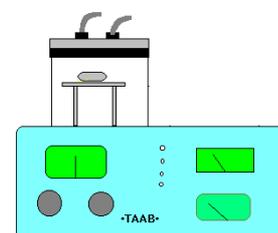
## Chromium Chips/Powder

High purity (99.9%) chromium supplied in *chip* form for use in wire baskets and in *powder* form for evaporation from metal boats.

- C195** Chromium in *chip* form 100g  
**C196** Chromium in *powder* form 100g

## Sputtering Targets

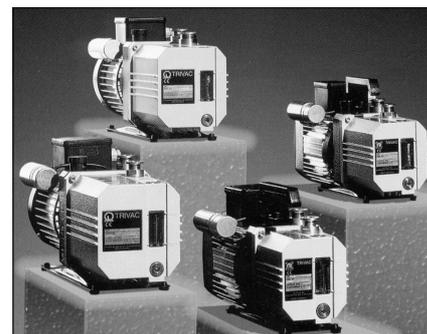
Targets available in gold, palladium, gold/palladium, platinum, platinum/palladium, chromium, silver, carbon, aluminium, nickel, copper, titanium and tungsten for all appropriate TAAB supplied coaters and most other commercial instruments. Targets can also be manufactured from examples if provided.



## Rotary Vacuum Pumps

Two stage Edwards rotary vacuum pumps for connection to any TAAB supplied coating unit (when they are supplied with all connecting hoses and oil mist filter), or separately for use in other applications. All come with a universal motor suitable for 100-120V/200-240V single phase 50/60Hz. Complete with carrying handle, pump oil and supplied with IEC plug.

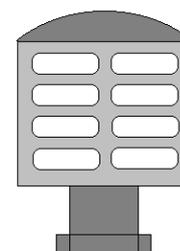
- S344** Rotary pump No. 2 2m<sup>3</sup>/Hr (35l/min)  
**S345** Rotary pump No. 2 2.7m<sup>3</sup>/Hr (47l/min) 'Fomblinised' with gas ballast valve  
**S346** Rotary pump No. 5 5m<sup>3</sup>/Hr (87.5l/min)  
**S347** Rotary pump No. 10 10m<sup>3</sup>/Hr (175l/min)



## Rotary Pump Oil Mist Filter

To avoid the expulsion of possible toxic oil vapours into the laboratory atmosphere during pump-down these disposable filter units can be fitted to the vacuum exhaust. They should be replaced on a regular basis depending how often the equipment is used. We would recommend at least every six months.

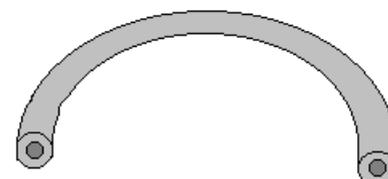
- F263** Rotary pump oil mist filter



## Vacuum Hose - Neoprene

Heavy wall, neoprene hose sold by the metre up to a maximum length of 3 metres. Suitable for use with all coating units.

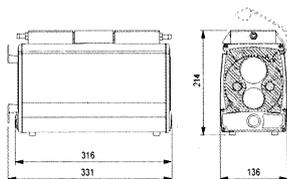
- V062** Vacuum hose 12mm Internal Diameter x 28mm Outside Diameter (per metre)  
**V063** Vacuum hose 20mm Internal Diameter x 34mm Outside Diameter (per metre)



# 8

# Evaporation Supplies

## PTFE Laboratory Vacuum Pumps



The Innovac 20 and 40 are a family of dry vacuum pumps designed for use with corrosive gases and vapours in the laboratory. Innovac features a unique composite-bond Teflon diaphragm providing extended service life compared with existing technologies.

- Fully chemical resistant
- Unique 'T' slot rails for easy mounting of accessories including vapour traps and condensers and an hour meter for monitoring processing times.
- Built-in carrying handle
- Applications include rotary evaporation, filtration and water jet replacement.

Innovac Model	Cat no.	Flow l/min	Vacuum mbar abs	Dimensions mm	Weight Kg
20	V103/20	20.0	8.0	331 x 214 x 136	8.5

## Laboratory Vacuum Pump - Capex



An ideal pump for continuous duty as either a vacuum pump or a compressor. Robust construction and quiet maintenance free operation. Applications include vacuum and pressure assisted filtration and sampling.

Conforms to EN61010 laboratory safety standard

Model	Cat no.	Flow l/min	Vacuum mbar abs	Pressure bar	Dimensions mm	Weight Kg
Capex 8C	V104	8.0	240	2.0	265 x 212 x 136	3.75

## High Vacuum Leak Sealant



A very efficient material at sealing leaks in relatively inaccessible places. Before application the surface should be cleaned with an organic solvent to remove any grease..

Available in handy 450gm aerosol or 85gm bottle for brush application.

- G108** High vacuum leak sealant - aerosol
- G109** High vacuum leak sealant - 85gm bottle

## High Vacuum Pump Fluids and Greases

### Apiezon L grease

A general purpose vacuum grease giving excellent lubrication. Stable, chemically inert, non-toxic, easy to apply and clean off with a good range of operating temperatures and conditions. Vapour pressure  $10^{-10}$  torr at 20°C.

**G096** Apiezon L grease 50g

### Fomblin RT 15 vacuum grease

Fomblin vacuum grease has the important corrosion resistant properties and chemical inertness required for extreme applications. Fomblin when mixed with pure oxygen is non-flammable. Fomblin oils and greases are compounds made solely with carbon, fluorine and oxygen which cannot react to form hydrocarbons, hydrogen or siliceous surface contaminants.

**G098** Fomblin RT 15 vacuum grease 100g

Diffusion Pump Fluid	Application	Ultimate Pressure @ 25°C (TORR)	Cat No.
<b>Santovac 5</b> - Polyphenyl Ether A distilled ultra-pure synthetic diffusion pump fluid. Has exceptional tolerance to excessive gas loads and recovers rapidly from large pressure bursts. Thermally and chemically stable and requires no special handling.	Thin film evaporation, optical coating, UHV systems, electron microscopes, mass spectrometers, metallurgy, research.	$1 \times 10^{-10}$ <i>Equates to Convalex 10</i>	<b>O095</b> 100ml <b>O096</b> 500ml
<b>Convoil-20</b> - Purified, distilled hydrocarbon for general vacuum use. Exhibits many of the characteristics of the synthetic fluids. Is thermally and chemically quite stable and an excellent	Evaporation, sputtering, metallurgy, plasma etch.	$5 \times 10^{-6}$	<b>O102</b> 5 litre <b>O103</b> 25 litre
<b>CVC-2</b> Phenyl methyl siloxanes formulated as a diffusion pump fluid for pumping large gas loads. Used extensively where rapid cycling is	Electronics, metallurgy, vacuum coating, sputtering optical coating, research.	$1 \times 10^{-8}$	<b>O131</b> 500ml <b>O132</b> 1 Kg <b>O133</b> 5 Kg <b>O134</b> 25 Kg
<b>CVC-4</b> Silicone Fluid. Tetramethyl tetraphenyl trisiloxanes formulated as a diffusion pump fluid. Provides fast pump down times and has strong resistance to heat, oxidation and radiation.	Electronics, metallurgy, vacuum coating, sputtering optical coating, research.	$1 \times 10^{-8}$	<b>O097</b> 500ml <b>O098</b> 1 Kg <b>O099</b> 5 Kg <b>O100</b> 25 Kg
<b>DC-702</b> - Silicone Fluid. Phenyl methyl siloxanes formulated as a diffusion pump fluid for pumping large gas loads. Offers good oxidation resistance and is used where rapid cycling is required.	Evaporation, sputtering, electronics, metallurgy, optical coating.	$5 \times 10^{-7}$	<b>O104</b> 500ml <b>O105</b> 5 Kg <b>O106</b> 25 Kg
<b>DC-704</b> Silicone fluid. Tetramethyl tetraphenyl trisiloxane shows excellent heat, oxidation and radiation resistance. Provides fast pump down times with very good ultimate pressure characteristics. Withstands pressure bursts and is thermally and chemically stable.	Evaporation, sputtering, optical coating, metallization, UHV systems, electronics, research, metallurgy.	$1 \times 10^{-8}$	<b>O107</b> 500ml <b>O108</b> 5 Kg <b>O109</b> 25 Kg
<b>DC-705</b> - Silicone fluid. Pentaphenyl trisiloxane has excellent ultimate pressure characteristics and is ideal for ultra high vacuum applications. Chemically and thermally very stable with an extremely slow backstreaming rate. The best choice where a very clean vacuum is required.	Vacuum deposition, electronics industry, special UHV systems.	$3 \times 10^{-9}$	<b>O110</b> 500ml

# 8 Evaporation Supplies

Mechanical Pump Fluid	Application	Ultimate Pressure (TORR) @25°C	Cat No
<b>TW-7</b> Specifically formulated for the increasing demands from the reactive and corrosive gas applications in the semiconductor industry. 100% paraffinic USP Grade	Highly recommended for nitride deposition, plasma etch and is an excellent choice when synthetic diffusion pump fluids are	10 <sup>-6</sup>	<b>O111</b> 5 litre <b>O112</b> 25 litre
<b>68W/100W</b> (ISO 68 or 100) Technical white oil - extremely hydrophobic and resistant to corrosive gases. Has a very long useable life and offers excellent pump protection.	Ideal for use with aggressive and corrosive gases and where water vapour causes emulsification.	10 <sup>-6</sup> <i>68W replaces Edwards 15, 17, 19 &amp; Supergrade A</i> <i>100W replaces Edwards 16, 18 &amp; 20</i>	<b>O113</b> 68W 5litre <b>O114</b> 68W 25l <b>O115</b> 100W 5l <b>O116</b> 100W 25l
<b>Plasma Oil-80</b> Distilled hydrocarbons developed especially for mechanical pumps. An excellent choice when a synthetic fluid is used in the diffusion pump.	Plasma etch, deposition, ion implantation, distillation, mass spectrometers and general use.	10 <sup>-6</sup>	<b>O117</b> 1 litre <b>O118</b> 5 litre
<b>GBR 19</b> Purified hydrocarbons. Excellent lubricating properties with resistance to gum formation and	General use and direct drive pumps	10 <sup>-5</sup>	<b>O119</b> 2 litre <b>O120</b> 5 litre <b>O121</b> 25 litre
<b>GBR 50</b> Formulated from highly refined mineral oils with excellent anti	General use and direct drive pumps	10 <sup>-4</sup>	<b>O122</b> 2 litre <b>O123</b> 5 litre <b>O124</b> 25 litre
<b>GBR 16</b> ISO 32. Purified hydrocarbon with excellent thermal and corrosion resistant properties.	General use.	10 <sup>-3</sup> <i>Equates to U15</i>	<b>O125</b> 5 litre <b>O126</b> 25 litre
<b>Krytox 1506</b> (ISO 65), <b>Krytox 1514</b> (ISO 170) <b>Krytox 1525</b> (ISO 280). Pure perfluorinated polyether - non flammable and inert to most chemicals These substances rank amongst the most stable and inert fluids known.	For pumping explosive and corrosive gases.	Krytox 1506 10 <sup>-7</sup> @ 20° C  Krytox 151410 <sup>-7</sup> @ 20°C  Krytox 1525 10 <sup>-5</sup> @ 20° C	<b>O127</b> 1Kg  <b>O128</b> 1Kg  <b>O129</b> 1Kg
<b>Turbo Pump Oil-TMPLO 12</b>	Lubricating oil suitable for all turbomolecular pumps <b>Equivalent to TLO 11</b>		<b>O130</b> 250ml

Vacuum	V P	ASTM	ASTM	Cat No	Leak Penetrometer
<b>DC 970V</b> The most popular grease for vacuum applications giving the same benefits as silicone fluids.			175-210	<b>G145</b> 50g <b>G146</b> 5 Kg	<b>Celvaseal</b>  A silicon resin solution sold in spray cans.  <b>G162</b> Spray can 16oz
<b>Celvacene</b> A general purpose hydrocarbon grease for most vacuum applications. Sold in three grades - <b>Light, Medium</b> and	10 <sup>-6</sup>	Light 90°C M 120°C H 130°C	120-190 75-120 45-75	<b>G147</b> ¼lb <b>G148</b> 1lb <b>G149</b> ¼lb <b>G150</b> 1lb <b>G151</b> ¼lb <b>G152</b> 1lb	
<b>GPL 207</b> A per fluorinated poly ether grease that gives excellent resistance to chemicals and	10 <sup>-3</sup>	<i>Equates to Fomblin AR 555 (RT15)</i>		<b>G153</b> 2oz tube	