



**Room: Engineering Technology/ Metal
Technology**

Engineering – LIST A
Equipment List and Specifications

Standards, Specifications and Conditions

All equipment/machinery/tools shall be durable and safe for school use. Equipment wholly or partly funded from public funds is subject to Inspection by officers from the Department of Education & Skills.

It is essential that tenders for equipment for school use shall:

- i) Comply fully with the specifications and be durable and safe for school use.
- ii) Comply fully with the standards as detailed and shall comply fully with European (EN) standards, both established and developing.
- iii) Comply with European electrical standards and CE marking as appropriate.
- iv) Be accompanied by documentation of sufficient detail for full evaluation.
- v) Include the completed and signed certificate of compliance.

Award of a contract is conditional on the production of a current tax clearance certificate.

Failure to comply with the above may result in the tender being deemed null and void.

Section 1 – General Workop Equipment/Tools

Code Quantity	Descriptions & Specifications	Cost €
ENG/A/01 24	Engineer's bench vice, cast iron with c.100-125 mm steel jaws. Manufacturer: _____ Catalogue No: _____	
ENG/A/02 24	Pair of fibre grips for ENG/A/100. Manufacturer: _____ Catalogue No: _____	
ENG/A/03 24	Engineers ball pein hammer, weight c.500 g (1 lb). Manufacturer: _____ Catalogue No: _____	
ENG/A/04 4	Claw hammer, tempered/hardened head, wood/metal handle, 500 g (1 lb). Manufacturer: _____ Catalogue No: _____	
ENG/A/05 4	Carpenters mallet, c.115 mm Manufacturer: _____ Catalogue No: _____	
ENG/A/06 24	Engineers stainless steel rule, pearl chrome finish, 300 mm long, graduated in mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/07 24	Engineers stainless steel rule, pearl chrome finish, 150 mm long, graduated in mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/08 24	Engineers steel try square, blade 120 mm min. Manufacturer: _____ Catalogue No: _____	
ENG/A/09 4	Woodwork try-square, blade length: 150 mm min. Manufacturer: _____ Catalogue No: _____	
ENG/A/10 24	Engineers spring dividers, c.100-150 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/11 24	Engineer's fully integrated scribe, double ended, c.175 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/12 24	Engineers centre punch, c.100 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/13 24	Engineer's jenny callipers, c.125 mm, firm friction joint, adjustable point. Manufacturer: _____ Catalogue No: _____	
ENG/A/14 24	Chisel, flat, c.150 mm long. Manufacturer: _____ Catalogue No: _____	
ENG/A/15 24	Hacksaw frame, 300 mm, adjustable or fixed type. Manufacturer: _____ Catalogue No: _____	
ENG/A/16 24	Junior hacksaw frame. Manufacturer: _____ Catalogue No: _____	
ENG/A/17	Tenon saw, c.250 mm – 300 mm, stiffening rib. Manufacturer: _____ Catalogue No: _____	
ENG/A/18 24	Hand file, 250 mm long, smooth grade, double cut. Manufacturer: _____ Catalogue No: _____	
ENG/A/19 24	Hand file, 250 mm long, bastard grade, double cut. Manufacturer: _____ Catalogue No: _____	
ENG/A/20 24	File card (wooden base type), c.100 mm x 50 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/21 2	Combination set, with centre head, square head, protractor and 300 mm rule. Manufacturer: _____ Catalogue No: _____	
ENG/A/22 5	Universal bevel protractor, c.150 mm blade. Manufacturer: _____ Catalogue No: _____	

Quantity	Descriptions & Specifications	Cost €
ENG/A/23 4	Universal bevel, c.150 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/24 2	Surface plate, c.200 mm-300 mm square or rectangular, machined surfaces. Manufacturer: _____ Catalogue No: _____	
ENG/A/25 2	Surface gauge, adjustable beam, scribe, column c.200 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/26 4	V-block and clamp, min. clamping capacity 25 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/ 2	Centre square, capacity 40-50 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/27 2	Toolmaker's clamp, c.100 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/28 2	Precision vernier caliper, capacity c.150 mm, dial reading 0.02 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/29 2	Precision vernier caliper, capacity c.150 mm, digital reading. Manufacturer: _____ Catalogue No: _____	
ENG/A/30 4	Precision micrometer, capacity 0-25 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/31 1	Internal micrometer set. Capacity: c.25-55 mm complete with extension rods, spacing collar and fitted case: accuracy 0.01 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/32 1	Vernier depth gauge, c.150 mm blade, reading 0.02 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/33 1	Precision micrometer, capacity 25-50 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/34 1	Universal dial test indicator, dial graduated to read 0.01 mm. Range c.8 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/35 1	Magnetic base holder for dial test indicator. Manufacturer: _____ Catalogue No: _____	
ENG/A/36 1	Set of telescopic gauges, complete with case. Manufacturer: _____ Catalogue No: _____	
ENG/A/37 2	Slotted angle plate, size: c. 113 mm x 88 mm x 75 mm – open-ended type. Manufacturer: _____ Catalogue No: _____	
ENG/A/38 1	Feeler gauge, metric, e.g., 10 blades – 0.05 mm-0.08 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/39 1	Radius gauge, metric. Manufacturer: _____ Catalogue No: _____	
ENG/A/40 1	Drill gauge, e.g., 0.5 mm to 12 mm x 0.5 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/41 1	Screw pitch gauge, ISO forms, metric Manufacturer: _____ Catalogue No: _____	
ENG/A/42 6	Engineer's outside spring caliper, c.100-150 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/43 6	Engineer's inside spring caliper, c.100-150 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/44 1	Wire gauge, 1-36 swg (0.19 – 7.6 mm). Manufacturer: _____ Catalogue No: _____	

Quantity	Descriptions & Specifications	Cost €
ENG/A/45 4	Set(s) of assorted flat and Philips head screwdrivers with plastic handles. Manufacturer: _____ Catalogue No: _____	
ENG/A/46 4	Combination pliers, c.200 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/47 4	Heavy-duty electricians pliers with insulated handles, c.150 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/48 2	Slip joint pliers, chrome finish, c.230 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/49 2	Flat nose pliers, c.160 mm, insulated handles. Manufacturer: _____ Catalogue No: _____	
ENG/A/50 2	Round nose pliers, c.160 mm, insulated handles. Manufacturer: _____ Catalogue No: _____	
ENG/A/51 2	Vice grips, c.250 mm, lever release. Manufacturer: _____ Catalogue No: _____	
ENG/A/52 2	Sheet-metal vice grips, c.250 mm, lever release. Manufacturer: _____ Catalogue No: _____	
ENG/A/53 4	Hand vice, spring type, c.100 mm length. Manufacturer: _____ Catalogue No: _____	
ENG/A/54 2	Adjustable spanner, chrome finish, c.200 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/55 2	Set, combination spanners (ring/open jaw ended), metric: e.g., 6 x 7 to 18 x 19, chrome finish. Manufacturer: _____ Catalogue No: _____	
ENG/A/56 1	Set of bi-hex sockets and accessories (metric: e.g., 10 to 32 x 2 mm). Manufacturer: _____ Catalogue No: _____	
ENG/A/57 2	Set of allen keys, e.g., 3 mm - 10 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/58 2	Riveting tool set, to include, snap, set and bolster to suit 3 mm rivets. Manufacturer: _____ Catalogue No: _____	
ENG/A/59 2	Riveting tool set, to include, snap, set and bolster to suit 5 mm rivets. Manufacturer: _____ Catalogue No: _____	
ENG/A/ 2	Riveting tool set, to include, snap, set and bolster to suit 6 mm rivets. Manufacturer: _____ Catalogue No: _____	
ENG/A/60 2	Pop riveting kit, complete with pliers and assorted rivets, industrial grade. Manufacturer: _____ Catalogue No: _____	
ENG/A/61 1	Set of number stamps, 3 mm, set of 9, Grade A. Manufacturer: _____ Catalogue No: _____	
ENG/A/62 1	Set of number stamps, 5 mm, set of 9, Grade A. Manufacturer: _____ Catalogue No: _____	
ENG/A/63 1	Set of letter stamps, 3 mm, set of 27, Grade A. Manufacturer: _____ Catalogue No: _____	
ENG/A/64 1	Set of letter stamps, 5 mm, set of 27, Grade A. Manufacturer: _____ Catalogue No: _____	
ENG/A/65 2	Set of pin punches, e.g., 1.5 mm to 8 mm, c.100-150 mm long. Manufacturer: _____ Catalogue No: _____	
ENG/A/66 2	Set of stocks, dies, taps and wrenches, ISO thread form, e.g., 6 mm to 12 mm x 1 mm. Circular die pattern. Set complete in strong case. Manufacturer: _____ Catalogue No: _____	
ENG/A/67 1	Hand held engraver, variable speed. Manufacturer: _____ Catalogue No: _____	

Code Quantity	Descriptions & Specifications	Cost €
ENG/A/68 6 6 6	Set of three taps (taper, second and plug) for screw cutting 6 mm ISO. Set of three taps (taper, second and plug) for screw cutting 8 mm ISO. Adjustable tap wrench to suit. Manufacturer: _____ Catalogue No: _____	
ENG/A/69 6 6 6	Circular dies for screw cutting 6 mm ISO. Circular dies for screw cutting 8 mm ISO. Stock to suit above dies. Manufacturer: _____ Catalogue No: _____	
ENG/A/70 4	Set of drills, HSS, parallel shank, 1.0 to 13 mm x 0.5 mm. Set in case. Manufacturer: _____ Catalogue No: _____	
ENG/A/71 1	Set of drills, HSS, M.T. shank, 14 to 25 mm x 1 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/72 2	Set of counter sink drills, HSS, 6, 8, 10 mm. Parallel shank 90°. Manufacturer: _____ Catalogue No: _____	
ENG/A/73 1	Set of c.5 hole-saws, complete with arbor, sizes from c.20 mm to c.60 mm diameter. Manufacturer: _____ Catalogue No: _____	
ENG/A/74 2	Set of combination centre drills, HSS, No. 1, 2, 3, 4, 5, 6, and 7. 60° angle (Slocomb). Manufacturer: _____ Catalogue No: _____	
ENG/A/75 1	Morse-taper sleeves, 3-2, 2-1. Manufacturer: _____ Catalogue No: _____	
ENG/A/76 1	Parallel machine reamers, parallel shank, e.g., 6 to 12 x 2 mm steps. Manufacturer: _____ Catalogue No: _____	
ENG/A/ 2	Cordless drill, min. 14 V complete with case and spare battery. Manufacturer: _____ Catalogue No: _____	
ENG/A/77 1	Variable speed double insulated electric hand drill, 110 V 50 Hz supply, complete with chuck and key, c.13 mm capacity. Manufacturer: _____ Catalogue No: _____	
ENG/A/78 1	Portable electric orbital sander, complete with tool case, 110 V, 50 Hz, c.600 W motor. Manufacturer: _____ Catalogue No: _____	
ENG/A/79 1	Portable electric jig saw, complete with tool case, 110 V, 50 Hz, c.700 W motor. Manufacturer: _____ Catalogue No: _____	
ENG/A/80 2	Crosscut chisel, c.150 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/81 2	Round nose chisel, c.150 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/82 2	Diamond point chisel, c.150 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/83 2	Miniature side cutter pliers, spring leaf mechanism, c.150 mm Manufacturer: _____ Catalogue No: _____	
ENG/A/84 2	Miniature top cutter pliers, spring leaf mechanism, c.150 mm Manufacturer: _____ Catalogue No: _____	

Code Quantity	Descriptions & Specifications	Cost €
ENG/A/85 4 4 4	Chisels (firmer): 6 mm 10 mm 18 mm Manufacturer: Catalogue No:	
ENG/A/86 4 4 4	Chisels (bevel): 6 mm 10 mm 18 mm Manufacturer: Catalogue No:	
ENG/A/87 2	Bench plane, smooth, 50 mm cutter, adjustable for depth of cut/alignment. Manufacturer: Catalogue No:	
ENG/A/88 6	Cast iron bench blocks, rough machined on one face, c. 250 mm x c.200 mm x c.50 mm. Manufacturer: Catalogue No:	
ENG/A/89 6	Quarter litre oilcan. Manufacturer: Catalogue No:	
ENG/A/90 1	Combination oilstone, c.200 mm, coarse and fine faces. Manufacturer: Catalogue No:	
ENG/A/91 1	Engineers steel try square, blade length 200-250 mm. Manufacturer: Catalogue No:	
ENG/A/92 12	Hand files – 200 mm bastard. Manufacturer: Catalogue No:	
ENG/A/93 12	Hand files – 200 mm smooth. Manufacturer: Catalogue No:	
ENG/A/94 12	Hand files – 150 mm bastard. Manufacturer: Catalogue No:	
ENG/A/95 12	Hand files – 150 mm smooth. Manufacturer: Catalogue No:	
ENG/A/96 12	Half-round files – 250 mm smooth. Manufacturer: Catalogue No:	
ENG/A/97 12	Half round files – 250 mm bastard. Manufacturer: Catalogue No:	
ENG/A/98 12	Half round files – 150 mm smooth. Manufacturer: Catalogue No:	
ENG/A/99 12	Half round files – 150 mm bastard Manufacturer: Catalogue No:	
ENG/A/100 12	Round files – 200 mm smooth. Manufacturer: Catalogue No:	
ENG/A/101 12	Round files – 200 mm bastard. Manufacturer: Catalogue No:	
ENG/A/102 12	Round files – 150 mm smooth. Manufacturer: Catalogue No:	
ENG/A/103 12	Round files – 150 mm bastard. Manufacturer: Catalogue No:	
ENG/A/104 12	Square files – 200 mm smooth. Manufacturer: Catalogue No:	
ENG/A/105 12	Square files – 200 mm bastard. Manufacturer: Catalogue No:	

Code Quantity	Descriptions & Specifications	Cost €
ENG/A/106 12	Square files – 150 mm smooth. Manufacturer: Catalogue No:	
ENG/A/107 12	Square files – 150 mm bastard. Manufacturer: Catalogue No:	
ENG/A/108 12	Three-square files – 200 mm smooth. Manufacturer: Catalogue No:	
ENG/A/109 12	Three-square files – 200 mm bastard. Manufacturer: Catalogue No:	
ENG/A/110 12	Warding files – 150 mm smooth. Manufacturer: Catalogue No:	
ENG/A/111 12	Warding files – 150 mm bastard. Manufacturer: Catalogue No:	
ENG/A/112 24	Abra files, c.250 mm, medium. Manufacturer: Catalogue No:	
ENG/A/113 4	Pair of abra file spring clips Manufacturer: Catalogue No:	
ENG/A/114 6	Piercing saw frames. Manufacturer: Catalogue No:	
ENG/A/115 6	Pack of blades for item ENG/A/207. Manufacturer: Catalogue No:	
ENG/A/116 72	File handle for 250 mm file, plastic or wooden. Manufacturer: Catalogue No:	
ENG/A/117 96	File handle for 200 mm file, plastic or wooden. Manufacturer: Catalogue No:	
ENG/A/118 120	File handle for 150 mm file, plastic or wooden. Manufacturer: Catalogue No:	
ENG/A/119 200	Hacksaw blade, 300 mm, 24 T.P.I. Manufacturer: Catalogue No:	
ENG/A/120 4	Set of c.6/12 assorted needle files. Manufacturer: Catalogue No:	
ENG/A/121 200	Hacksaw blade junior type. Manufacturer: Catalogue No:	

Section 2 – Metal Heating Equipment and Accessories		
Code Quantity	Descriptions & Specifications	Cost €
ENG/A/201 2	Smiths close mouth tongs, flat bit, and lightweight. Manufacturer: _____ Catalogue No: _____	
ENG/A/202 2	Smith bolt type tongs, c.10 mm, lightweight. Manufacturer: _____ Catalogue No: _____	
ENG/A/203 2	Smiths square mouth tongs, c.10 m lightweight. Manufacturer: _____ Catalogue No: _____	
ENG/A/204 1	Brazing hearth; single station type, c.525 mm x c.450 mm x c.1045 mm. Unit to be supplied with gas/air brazing torch, gas/air jewellery torch, compressor unit, gas/air non-return valves, refractory hearth, side and rear shields lined with asbestos free materials. Unit to be fitted with extended rear shield, gas solenoid valve, pressure switch and temperature insulation bricks. Electrics: 1 pH, 50 Hz, 220-240 V, c.375 W. Manufacturer: _____ Catalogue No: _____	
ENG/A/205 1	Soldering iron heating stove, chamber type, suitable for two irons. Supplied complete with pizod spark ignitor, burner, burner tray and temperature controller. Manufacturer: _____ Catalogue No: _____	
ENG/A/206 2	Soldering iron, straight with handle, c.220 g. Manufacturer: _____ Catalogue No: _____	
ENG/A/207 2	Soldering iron, straight with handle, c.500 g. Manufacturer: _____ Catalogue No: _____	
ENG/A/208 2	Soldering iron, hatchet with handle, c.500 g. Manufacturer: _____ Catalogue No: _____	
ENG/A/209 1	Gas fired kiln, max. temperature c.1000 °C. Overall dimensions c.420 mm x c.300 mm x c.245 mm. Complete with pizod spark igniter, flame failure device, heat control valve, safety door. Temperature indicator, removable burner tray and refractory tile. (Type of gas supply available to be stated when ordering). Manufacturer: _____ Catalogue No: _____	
ENG/A/210 1	Tongs, scissor action, brass type, size: c.200 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/211 1	Multi-use portable gas torch with gas container, fine flame adjustment, screw-on burner, safety checked and test burned. Manufacturer: _____ Catalogue No: _____	

Section 3 – Sheet Metal Equipment		
Code Quantity	Descriptions & Specifications	Cost €
ENG/A/301 2	Tinmans folding bars, c.250 mm Manufacturer: Catalogue No:	
ENG/A/302 3	Tinmans snips: straight, c.200 mm. Manufacturer: Catalogue No:	
ENG/A/303 2	Tinmans snips, straight, c.150 mm. Manufacturer: Catalogue No:	
ENG/A/304 3	Tinmans snips, curved, c.200 mm. Manufacturer: Catalogue No:	
ENG/A/305 1	Vacuum forming machine, bench top model, cut sheet size min. 250 mm x min. 450 mm. Electrics – 230 V, 50 Hz. Manufacturer: Catalogue No:	
ENG/A/306 2	Plastic faced hammer, c.25 mm diameter head. Manufacturer: Catalogue No:	
ENG/A/307 2	Copper and hide-faced hammer, c.40 mm head. Manufacturer: Catalogue No:	
ENG/A/308 4	Rawhide mallet, c.40 mm diameter head. Manufacturer: Catalogue No:	
ENG/A/309 2	Boxwood mallet, c.40 mm diameter head. Manufacturer: Catalogue No:	
ENG/A/310 2	Boxwood mallet, c.50 mm diameter head. Manufacturer: Catalogue No:	
ENG/A/311 2	Boxwood bossing mallet, c.50 mm diameter head. Manufacturer: Catalogue No:	
ENG/A/312 2	Boxwood bossing mallet, c.60 mm diameter head. Manufacturer: Catalogue No:	
ENG/A/313 1	Set of tinmans groovers, e.g., 5 mm, 6 mm, 7 mm. Manufacturer: Catalogue No:	
ENG/A/314 6	Steel wire brush, e.g., 4-row type, fitted with plain back. Manufacturer: Catalogue No:	
ENG/A/315 2	Plannishing hammer, c.125 g. Manufacturer: Catalogue No:	
ENG/A/316 2	Raising hammer, c.200 g. Manufacturer: Catalogue No:	
ENG/A/317 2	Collet hammer, c.200 g. Manufacturer: Catalogue No:	
ENG/A/318 2	Blocking hammer, c.200 g. Manufacturer: Catalogue No:	
ENG/A/319 2	Doming hammer, c.150 g. Manufacturer: Catalogue No:	
ENG/A/320 2	Repousse hammer, c.150 g. Manufacturer: Catalogue No:	
ENG/A/321 1	Set of repousse punches. Manufacturer: Catalogue No:	
ENG/A/322 1	Set of dotting punches. Manufacturer: Catalogue No:	
ENG/A/323 1	Set of engravers, different shapes in set. Manufacturer: Catalogue No:	

Code Quantity	Descriptions & Specifications	Cost €
ENG/A/324 1	Doming block, c.75 mm cube. Manufacturer: Catalogue No:	
ENG/A/325 2	Leather sandbag, c.200 mm dia. Manufacturer: Catalogue No:	
ENG/A/326 1	Leather sandbag, c.250 mm dia. Manufacturer: Catalogue No:	
ENG/A/327 1	Box and Pan folding machine – hand operated. Folding capacity in steel up to 2 mm (14 swg) min. x c.1000 mm length. Machine to be supplied complete with stand and range of clamping bars. Manufacturer: Catalogue No:	
ENG/A/328 1	Guillotine – treadle type. Capacity in steel up to c.1.5 mm, c.1000 mm blade length. Manufacturer: Catalogue No:	
ENG/A/329 1	Plastic dip coating unit. Minimum capacity 50 litres. Supplied complete with air blower and air pressure regulator together with 20 kg packs of two different colours of Polyethylene powder. Electrics: 1 pH, 230 V, 50 Hz. Manufacturer: Catalogue No:	
ENG/A/330 1	Thermoplastic sheet strip heater, suitable for bending of thermo-plastic sheets up to c.6 mm thick and up to c.500 mm wide. 110 V, 50 Hz. Manufacturer: Catalogue No:	
ENG/A/331 1	Hot wire sculptor/cutter Electrics: 110/230 V, 50 Hz, voltage through the wire c.8 V. Manufacturer: Catalogue No:	

Section 4 – Welding Equipment and Accessories		
Code Quantity	Descriptions & Specifications	Cost €
ENG/A/401 1	Welding set with six nozzles, c.1 to 7. Manufacturer: Catalogue No:	
ENG/A/402 1	Length of oxygen and acetylene hose, c.5 metres long x 8 mm (or std) bore complete with standard fittings. Manufacturer: Catalogue No:	
ENG/A/403 1	Set of flashback arrestors (one for acetylene, one for oxygen) Manufacturer: Catalogue No:	
ENG/A/404 1	Acetylene two stage regulator. Manufacturer: Catalogue No:	
ENG/A/405 1	Oxygen two stage regulator. Manufacturer: Catalogue No:	
ENG/A/406 1	Spindle key. Manufacturer: Catalogue No:	
ENG/A/407 1	Rubber wheeled welding trolley suitable for two cylinders. Manufacturer: Catalogue No:	
ENG/A/408 1	Set of tip cleaners. Manufacturer: Catalogue No:	
ENG/A/409 1	Spark Lighter. Manufacturer: Catalogue No:	
ENG/A/410 1	MIG welding set, wire size c.0.6-1.2 mm, OCV, c.46V, current range c.30-250A. Manufacturer: Catalogue No:	
ENG/A/411 1	Electric arc welding set, fan cooled transformer output, c.220 A, 3 pH/1 pH, 5 kVA. Manufacturer: Catalogue No:	
ENG/A/412 1	Welding kit to suit ENG/A/511 to include, electrode holder, earth clamp, chipping hammer, primary and earth cables and hand shield. Manufacturer: Catalogue No:	
ENG/A/413 4	G cramp, c.100 mm. Manufacturer: Catalogue No:	
ENG/A/414 2	G cramp, c.200 mm. Manufacturer: Catalogue No:	
ENG/A/415 1	Spot welding gun, portable and suitable for bench mounting. Capacity on mild sheet 0.5 +0.5 mm min., 2 + 2 mm max. thickness, max. length of arms c.500 mm. Built in timer, 230V, 1 pH, 50 Hz, approx. weight 10 kg. Manufacturer: Catalogue No:	

Section 5 –Electronics		
Code Quantity	Descriptions & Specifications	Cost €
ENG/A/501 1	Basic electronics and/or mechanisms construction and simulation software; license for seven users. Manufacturer: Catalogue No:	
ENG/A/503 6	Low cost construction set/kit, capable of allowing for the construction of models of various structures and mechanisms, e.g., bridges, towers, model automobiles, etc. A number to include appropriate power supply units. Manufacturer: Catalogue No:	
ENG/A/504 1	Educational electronics teaching kit capable of allowing for the demonstration of a range (c.20) simple electronic circuits/systems such as fire alarm and motor controllers. Kit to be accompanied with associated guides/texts, and suitable for use with a class group of students. Manufacturer: Catalogue No:	
ENG/A/505 1	Computer control/monitoring simulation software, complete with interface control box (e.g., bit by bit controller), computer connection lead and plug-in type power supply. Manufacturer: Catalogue No:	
ENG/A/506 6	LT variable voltage power supply unit, overload protection. Performance (approx.): DC – 0-25 V (no load) and 24V (8 A load) AC – 0-25 V (no load) and 24V (8 A load) Manufacturer: Catalogue No:	
ENG/A/507 12	Electric soldering iron, complete with stand and sponge, c.15-30 W, 220-240 V Manufacturer: Catalogue No:	
ENG/A/508 6	Digital multi-meter, auto-ranging frequency measurement, capacitance measurement and transistor test. Voltage a.c and d.c – c.5 ranges each from 200 mV x 100 μ V to 600 V x 1 V Current a.c and d.c – c.4 ranges each from 2 mA x 1 μ A to 10 x 10 mA Resistance – c.6 ranges from 200 R x 0.01 R to 20 M x 10 K Capacitance – c.5 ranges from 2000 pF x 1 pf to 20 μ F 10 nF Frequency – c.5 ranges from 2 kHz x 1 Hz to 20 MHz x 100 kHz Diode test Continuity test Transistor test NPN and PNP Manufacturer: Catalogue No:	
ENG/A/509 12	Miniature electronics tool kit, to contain tools such as pliers, snips, wire strippers and screwdrivers, in appropriate case. Manufacturer: Catalogue No:	
ENG/A/510 6	Helping-hands for soldering work Manufacturer: Catalogue No:	

Code Quantity	Descriptions & Specifications	Cost €	
ENG/A/511 2	De-soldering pump, portable type.		
	Manufacturer: _____ Catalogue No: _____		
ENG/A/512 2 2 2	Single core wire, diameter, c.1.2 mm x c.100 m length, to include:		
	Black reels		
	Red reels		
	Blue reels		
Manufacturer: _____ Catalogue No: _____			
ENG/A/513 2 2 2	Stranded wire, diameter, c.1.4 mm x c.100 m length, to include:		
	Black reels		
	Red reels		
	Blue reels		
Manufacturer: _____ Catalogue No: _____			
ENG/A/514 1 1	Extra flexible stranded wire, diameter, c.2.8 mm x c.100 m length, to include:		
	Red		
	Black		
Manufacturer: _____ Catalogue No: _____			
ENG/A/515 10	Pack of c.10 crocodile clip leads.		
	Manufacturer: _____ Catalogue No: _____		
ENG/A/516 50 50 50 50	Pack/kit of 4 mm plugs and sockets, to include:		
	4mm Plug Red		
	4mm Socket Red		
	4mm Plug Black		
4mm Socket Black			
Manufacturer: _____ Catalogue No: _____			
ENG/A/517 40 40 40 40 40 40 100	Pack/kit of battery holders and clips, to include:		
	2XAA		
	4XAA		
	2XC		
	4XC		
	2XD		
	4XD		
	PP3 battery snaps		
Manufacturer: _____ Catalogue No: _____			
ENG/A/518 5 500 500 500 500 500	Pack/kit of micro-miniature electrolytic capacitors, to include,		
	Variety capacitor kit suitable for simple electronic circuit building		
	100µF 16v		
	220µF 16v		
	470µF 16v		
	1000µF 16v		
2200µF			
Manufacturer: _____ Catalogue No: _____			
ENG/A/519 5 2000 1000 2000 1000 1000 1000 1000 1000 1000 1000 1000	Pack/kit of resistors, to include:		
	Variety resistor kit suitable for simple electronic circuit building		
	270R		
	1K		
	2K2		
	4K7		
	10K		
	22K		
	33K		
	100K		
	150K		
	1M		
	Manufacturer: _____ Catalogue No: _____		

Code Quantity	Descriptions & Specifications:	Cost €
ENG/A/520 100 100 100 100 100 100 50	Pack/kit of potentiometers, to include: 1K LIN 2200K LIN 10K LIN 47K LIN 100K LIN 1M LIN 100K LIN dual control (stereo) Manufacturer: _____ Catalogue No: _____	
ENG/A/521 20 20 10	Miniature motors, to include: High torque miniature motor, 3-6 V High power, 12 V motor Solar motor Manufacturer: _____ Catalogue No: _____	
ENG/A/522 100	Motor mount (e.g., self-adhesive) to suit miniature motors detailed in TECH/320. Manufacturer: _____ Catalogue No: _____	
ENG/A/523 100	MES lamp (bulb), 6 V/60 mA, commercial grade. Manufacturer: _____ Catalogue No: _____	
ENG/A/524 100	MES lamp (bulb) holder, solder tags at base. Manufacturer: _____ Catalogue No: _____	
ENG/A/525 100	MES lamp (bulb) holder, spring loaded contact, fixing centres: c.23 mm. Manufacturer: _____ Catalogue No: _____	
ENG/A/526 500 500 500 500 2000 500 500 40	Pack/kit of assorted standard 5mm LED's and clips, to include: Red Yellow Green Flashing 5mm bezel panel clips (one piece). Silicone rectifier diode IN4001 1A, 50V max. Silicone rectifier diode IN5401 3A, 100V max Seven segment LED display, common cathode, c.13 mm Manufacturer: _____ Catalogue No: _____	
ENG/A/527 50	Light dependent resistor (ORP 12 specification) Manufacturer: _____ Catalogue No: _____	
ENG/A/528 100 10	Pack/kit of assorted sizes of strip-board, to include: 25 mm x 64 mm 119 mm x 455 mm Manufacturer: _____ Catalogue No: _____	
ENG/A/529 30	Pack/kit of breadboard, to include: 400 Tie points Manufacturer: _____ Catalogue No: _____	
ENG/A/530 200 100 100 100 50	Pack/kit of general purpose transistors, to include: ZTX321 NPN specification BC108 NPN specification BFY51 NPN specification BC109 NPN specification TIP121 Darlington NPN specification Manufacturer: _____ Catalogue No: _____	

Code Quantity	Descriptions & Specifications:	Cost €
ENG/A/531 150 150 100 100 100 100 100 50 10 50 50 50	Pack/kit of miniature switches, to include: Miniature toggle SPST Miniature toggle SPDT Miniature rocker Standard slide DPDTCO Push to make Push to break Push latching Tilt switch (mercury) Reed switch with magnets Microswitch button Microswitch lever Microminiature microswitch lever Manufacturer: _____ Catalogue No: _____	
ENG/A/532 50	Control knobs, to fit c.6 mm shaft Manufacturer: _____ Catalogue No: _____	
ENG/A/533 10	Low-fume / colophony free solder, 500 g / 22 swg (0.71 mm) Manufacturer: _____ Catalogue No: _____	
ENG/A/534 2	Multiple drawer storage cabinets, plastic drawer type, wall mountable, c.60 drawer unit size. Manufacturer: _____ Catalogue No: _____	

Section 6 – Pneumatics Equipment		
Code Quantity	Descriptions & Specifications:	Cost €
ENG/A/601 1	Pneumatic modular board to allow for mounting of the following components ENG/A/702-710 below. Manufacturer: Catalogue No:	
ENG/A/602 12	Single-acting cylinder, c.20 mm bore, c.50 mm stroke Manufacturer: Catalogue No:	
ENG/A/603 12	Double-acting cylinder, c.20 mm bore, c.50 mm stroke Manufacturer: Catalogue No:	
ENG/A/604 12	Five port valve Manufacturer: Catalogue No:	
ENG/A/605 12	Flow control valves (restrictors) Manufacturer: Catalogue No:	
ENG/A/606 12	3/2 pushbutton valves Manufacturer: Catalogue No:	
ENG/A/607 6	Visual indicators Manufacturer: Catalogue No:	
ENG/A/608 6	Limit switch (roller lever activated) Manufacturer: Catalogue No:	
ENG/A/609 2	Reservoir (45 cm ³ capacity) Manufacturer: Catalogue No:	
ENG/A/610 3	Manifold, c.8 mm x c.4 mm outlet Manufacturer: Catalogue No:	
ENG/A/611 1	Air compressor, c.8 bar, c.5 litres/m, c.24 litre receiver Manufacturer: Catalogue No:	
ENG/A/612 10 m	Nylon tube, c.4mm diameter, red Manufacturer: Catalogue No:	
ENG/A/613 10 m	Nylon tube, c.4mm diameter, blue Manufacturer: Catalogue No:	
ENG/A/614 10 m	Nylon tube, c.4mm diameter, clear Manufacturer: Catalogue No:	
ENG/A/615 2	Safety cutter, to suit cutting of nylon tube at ENG/A/712-714 above Manufacturer: Catalogue No:	
ENG/A/616 12	Equal T-connectors Manufacturer: Catalogue No:	
ENG/A/617 12	Equal elbow connectors Manufacturer: Catalogue No:	
ENG/A/618 24	Blanking plugs to suit ENG/A/716-717 above Manufacturer: Catalogue No:	
ENG/A/619 1	Basic pneumatics system construction & simulation software; license for seven users. Manufacturer: Catalogue No:	

Section 7 – CAD Software and Hardware		
Code Quantity	Descriptions & Specifications:	Cost €
ENG/A/700	Framework Agreement in place for purchase of 3d CAD software.	0.00
	Manufacturer:	Catalogue No:

Section 8 – Health & Safety Equipment:		
Code Quantity	Descriptions & Specifications:	Cost €
ENG/A/801 24	Non-mist safety goggles, full ventilation, for use over spectacles, kite marked to BS 2092. Manufacturer: _____ Catalogue No: _____	
ENG/A/802 24	Student aprons, suitable for workshop use. Manufacturer: _____ Catalogue No: _____	
ENG/A/803 12	Clearways face shields with adjustable headbands. Full facial and eye protection while operating machine tools, forging, heating and melting of metals, etc. Kite marked to BS 2092. Manufacturer: _____ Catalogue No: _____	
ENG/A/804 1	Lightweight safety spectacles with fully adjustable side frames and clear side shields, fitted with replaceable lens to BS 2092. Manufacturer: _____ Catalogue No: _____	
ENG/A/805 6	Heavy duty chrome leather apron, complete with apron ties, suitable for hot metal working, e.g., welding, forging, casting, etc. Manufacturer: _____ Catalogue No: _____	
ENG/A/806 2	Arc-welding auto-darkening helmet. Manufacturer: _____ Catalogue No: _____	
ENG/A/807 6	Gas welding goggles, kite marked to BS 2092 and BS 1542. Manufacturer: _____ Catalogue No: _____	
ENG/A/808 6	Pair Gloves for materials handlings, abrasion and cut resistant; oil, grease and dirt repellent. Manufacturer: _____ Catalogue No: _____ Manufacturer: _____ Catalogue No: _____	
ENG/A/809 2	Pair heating resistant leggings for use during the metal casting process. Manufacturer: _____ Catalogue No: _____	
ENG/A/810 2	Soft soap/hand barrier cream dispenser, rechargeable type, suitable for wall mounting. Manufacturer: _____ Catalogue No: _____	
ENG/A/811 1	Roll of hand paper, 200 mm wide, on roller stand. Manufacturer: _____ Catalogue No: _____	
ENG/A/812 4	Portable Welding Screens freestanding, self-supporting panels constructed from tubular steel and green flameproof material conforming to BS 3119.20. Dimensions: Frame c.1.8m x c.1.2m; Screen: c.1.5m x c.1.2m. Manufacturer: _____ Catalogue No: _____	
ENG/A/813 1	Single Phase, double wound, transformer with earth metallic screen between windings. Mounted in robust carrying case. Input 230 V, 50 Hz. Output 110 V in 2 x 16 A sockets to CEE 17. Rating: 2 kVA. Unit to comply with Factories Act. (Electricity Regulations) of 1972.	
ENG/A/814 1	First aid cabinet, wall mounted type, size: c.240 x c.370 x c.100 mm - with hinged door complete with kit min. 24 person first aid kit. Manufacturer: _____ Catalogue No: _____	
ENG/A/815 2	Ear Defenders: headband and ear cup type. To be supplied complete with two sets of renewable sealing rings and to conform/be tested to EN352/BS 5108. Attenuation of 20 dB required. Manufacturer: _____ Catalogue No: _____	
ENG/A/816 6	Safety signs appropriate for workshop display, assorted. Manufacturer: _____ Catalogue No: _____	

Section 9 – General Ancillary Equipment:		
Code Quantity	Descriptions & Specifications:	Cost €
ENG/A/901 24	Bench brush, banister type, c.300 mm overall x c.50 mm at end, flat backed. Resin set pure bristle. Manufacturer: Catalogue No:	
ENG/A/902 2	Plastic funnel, c.100 mm diameter. Manufacturer: Catalogue No:	
ENG/A/903 1	Electronic Label maker, complete with tapes. Manufacturer: Catalogue No:	
ENG/A/904 2	Glue gun, complete with box (c.1 kg) of glue sticks, 230 V, 50 Hz. Manufacturer: Catalogue No:	
ENG/A/905 1 set	Blackboard instruments comprising: compass, c.500 mm approx. with steel point; 60° set square, heavy duty plastic type, c.500 mm side; 45° set square, heavy duty plastic type, c.500 mm side with hand clasp; protractor, heavy duty type, c.425 mm side; rule, bevelled edge, 1 metre long, with metric graduations, heavy-duty type. Manufacturer: Catalogue No:	
ENG/A/906 1	Mobile tool cabinet, c.1000 x c.500 x c.350 mm, all metal construction complete with fitted drawer and lock. Manufacturer: Catalogue No:	
ENG/A/907 2	Large plastic dustbin with fitted lid, capacity c.76 litres. Manufacturer: Catalogue No:	
ENG/A/908 2	Galvanised bucket, c.10 litre capacity. Manufacturer: Catalogue No:	
ENG/A/909 2	Floor sweeping brushes. Manufacturer: Catalogue No:	
ENG/A/910 25	T-square, A2 size, quality hardwood. Manufacturer: Catalogue No:	
ENG/A/911 25	A2 drawing board. Manufacturer: Catalogue No:	

Note: Equipment to be commissioned and training provided where appropriate.

Equipment for Engineering Technology/Metalwork NINE SECTIONS

Section	Code Quantity.	Descriptions & Specifications:	Total Cost €
Section 1	ENG/A/001-121	General Workshop Equipment/Tools.	
Section 2	ENG/A/201-211	Metal Heating Equipment and accessories.	
Section 3	ENG/A/301-331	Sheet Metal Equipment.	
Section 4	ENG/A/401-415	Welding Equipment and Accessories.	
Section 5	ENG/A/501-535	Electronics equipment	
Section 6	ENG/A/601-618	Pneumatics equipment	
Section 7	ENG/A/700	CAD Software and Hardware	
Section 8	ENG/A/801-816	Health and Safety Equipment.	
Section 9	ENG/A901-11	General Ancillary Equipment.	
Total :			€
Add for VAT:			€
Total Amount for ENG/A List:			€

Standards, Specifications and Conditions

All equipment/machinery/tools shall be durable and safe for school use. Equipment wholly or partly funded from public funds is subject to Inspection by officers from the Department of Education and Skills.

It is essential that tenders for equipment for school use shall:

- i) Comply fully with the specifications listed.
- ii) Ensure that all equipment/machinery/tools shall be of an appropriate quality and standard suitable for use in a post-primary school workshop setting.
- iii) Comply fully with European (EN) standards, established and developing, as appropriate.
- iv) Comply with European electrical standards and CE marking as appropriate.
- v) Be accompanied by documentation of sufficient detail for full evaluation.
- vi) Ensure consistency between machinery/equipment/tools quoted for and that supplied.
- vii) Include the completed and signed certificate of compliance.

Award of a contract is conditional on the production of a current tax clearance certificate

Failure to comply with the above may result in the tender being deemed null and void

Certificate of Compliance with Standards, Specifications & Conditions

I/We certify that the equipment tendered complies in all respects with the standards, specifications and other requirements/conditions specified in this tender document.
I/We hold a current tax clearance certificate.

Company: _____

Signed: _____

Position: _____

Date: _____