

OCCUPATIONAL TOOLS AND EQUIPMENT LIST

Process Operator



Government of Newfoundland Labrador
Department of Education and Early Childhood Development
Apprenticeship and Trades Certification Division

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Preface

This document is intended as a companion to the 2012 Plan of Training for the Process Operator occupation. It identifies the necessary tools and equipment required by apprentices and training institutions for the completion of apprenticeships.

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We offer you a sincere thank you.

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Note:

The numbers suggested in the following Tools and Equipment List represent the required minimum. Please verify this list with your selected training institution.

Tools and Equipment List
Process Operator

| SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION | | | | |
|--|----------------------------------|--|---|-----------------|
| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
| HAND TOOLS | | | | |
| Allen wrenches: Imperial and Metric | 5 sets | | B | |
| Ball Peen Hammer | 5 | | B | |
| Centre Punch | 5 | | B | |
| Crescent Wrenches, all sizes (6", 8", 12") | 5 of each | | B | |
| Crowbar | 2 | | B | |
| Diagonal Cutters | 5 | | B | |
| Drill Bits, set, up to 1/2" | 3 | | B | |
| Easy Outs | 2 sets | | B | |
| Fixed Vice | 5 | | B | |
| Flaring Tools | 3 | | B | |
| Fuse Puller | 5 | | B | |
| Gauge Blocks | 1 | | B | |
| Gauge Pointer Puller | 2 | | B | |
| Hack Saw | 5 | | B | |
| Hand Files (assorted) | 5 sets | | B | |
| Ignition Wrenches | 5 sets | | B | |
| Jewellers Screwdrivers | 5 | | B | |

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| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
|---|--------------------------|---------------------------------|---|----------|
| Knock-out Punches, $\frac{1}{2}$ " up to 1-1/4" | 2 | | B | |
| Level, Different Sizes | 3 | | B | |
| Locking Pliers, 12" and 16" | 5-12"; 1-16" | | B | |
| Magnet, Telescopic | 3 | | B | |
| Measuring Tape | 5 | | B | |
| Micrometers (Assorted) | 3 | | B | |
| Mirrors, Telescope | 3 | | B | |
| Needle-Nose Pliers | 5 | | B | |
| Nut Drivers (Assorted) | 5 sets | | B | |
| Open-End Wrenches (Combination) | 5 sets | | B | |
| Packing Puller | 2 sets | | B | |
| Pipe Threader ($\frac{1}{2}$ " up to 1-1/4" and 1/12") | 1 | | B | |
| Pipe Wrenches, 6", 10", 12", 18", 24" | 2 each | | B | |
| Soft-Face Hammer | 3 | | B | |
| Pliers (Assorted Sizes, Linesman) | 5 | | B | |
| Punches | 2 sets | | B | |
| Reamers | 2 | | B | |
| Screw Extractors | 2 sets | | B | |
| Screw Starters (Philips and Slot) | 2 sets | | B | |

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| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
|---|--------------------------|---------------------------------|---|----------|
| Screwdrivers (Philips, Slot and Robinsons) | 2 sets | | B | |
| Scriber | 2 | | B | |
| Sockets (Imperial and Metric, 1/4" - 3/8" and 1/2" Drive) | 1 set of each | | B | |
| Square | 2 | | B | |
| Steel Rule | 2 | | B | |
| Strap Wrenches | 5 | | B | |
| Striker | 2 | | B | |
| Taps and Dies Set (Imperial and Metric, up to 1/2") | 1 each | | B | |
| Torque Wrench, 1/2" drive | 2 | | B | |
| Tube Benders, 1/4" & 3/8" & 1/2" | 5 sets | | B | |
| Tube Cutters | 5 sets | | B | |
| Tweezers | 2 | | B | |
| Vernier Calipers | 2 | | B | |
| Vice Grips | 5 | | B | |
| Wire Brushes | 2 | | B | |
| Wire Crimpers | 5 | | B | |
| Wire Strippers | 5 | | B | |
| POWER TOOLS | | | | |
| Grinders | 2 | | B | |
| Hammer Drill, 3/8" | 1 | | B | |

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|----------------------------------|--------------------------|---------------------------------|---|----------|
| Jig Saw | 2 | | B | |
| Portable Electric Drill, 18-volt | 3 | | B | |
| Soldering Iron | 5 | | B | |
| Soldering Torch | 5 | | B | |

TEST EQUIPMENT AND ACCESSORIES

| | | | | |
|--------------------------------|---|--|---|---|
| Barometer | 1 | | B | |
| Lab scale Process Control Unit | 5 | | B | Examples to be found at C.N.A. Ridge Road campus St. John's, Instrumentation and Control Technician/Technologist program |
| Capacitance Simulators | 2 | | B | |
| Current Calibrator | 5 | | B | |
| Current Tracer | 1 | | B | |
| Deadweight Tester | 1 | | B | |
| Decade Resistance Box | 2 | | B | |
| Dew Point Tester | 1 | | B | |
| Digital Logic Probe | 1 | | B | |
| Digital Multimeter | 5 | | B | |
| Frequency Counter | 1 | | B | |
| Frequency Generator | 1 | | B | |
| Grounding Mats | 2 | | B | |
| Hand-Held Configurators | 3 | | B | |

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| Hand-Held Pyrometer | 1 | | B | |
| Hydrometer | 1 | | B | |
| Lab Scales | 1 | | B | |
| Laptop Computer | 1 | | B | |
| Magmeter (Portable) | 1 | | B | |
| Manometer and Standards | 5 | | B | |
| Millivoltmeter Calibrator | 5 | | B | |
| Modems (AMS) | 1 | | B | |
| Oscilloscope | 1 | | B | |
| Personal Computer (Shop) | 5 | | B | |
| pH Simulator/Buffers | 5 sets | | B | |
| Pneumatic Test Stand | 1 | | B | |
| Portable Sound Level Meter | 1 | | B | |
| Power Supplies | 5 dual channel | | B | |
| Printers | 1 | | B | |
| Regulators | 5 | | B | |
| Signal Generators | 1 | | B | |
| Signature Analyzer | 1 | | B | |
| Software | as required | | B | |
| Strobotac | 1 | | B | |
| Temperature Bath | 1 | | B | |
| Test Gas | 1 | | B | |

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| Test Gauges (Pressure Vacuum) | 5 | | B | |
| Thermometer | 5 | | B | |
| Thyschrometer | as required | | B | |
| Vacuum Pumps | 5 | | B | |
| Wrist Ground Strap | 15 | | B | |

RELATED TOOLS AND EQUIPMENT

| | | | | |
|----------------------------------|-------------|--|---|--|
| Drill Press | 1 | | B | |
| Fixed Vice | 1 | | B | |
| Mobile Radio | 1 set | | B | |
| Portable Cart | 2 | | B | |
| Slings | as required | | B | |
| Step Ladders | 2 | | B | |
| Wire Labeler | 2 | | B | |
| Wooden/Fibreglass Stepladders | 2 | | B | |

PROTECTIVE CLOTHING AND DEVICES

| | | | | |
|---------------------------|-------------|--|---|--|
| Coveralls | 15 | | B | |
| Ear Muffs | 15 | | B | |
| Ear Plugs | 15 | | B | |
| Eye Wash Bottle (Station) | 1 | | B | |
| Face Shield | 2 | | B | |
| Fire Extinguishers | as required | | B | |

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| First Aid Kit | as required | | B | |
| Geiger Counter | 1 | | B | |
| Gloves | 15 | | B | |
| Hard Hat | 15 | | B | |
| Mask (Dust) | as required | | B | |
| Safety Boots | 15 | | B | |
| Safety Glasses | 15 | | B | |
| Splash Goggles | 15 | | B | |
| Nitrile gloves (small, medium and Large) | 3 boxes | | B | |

Note: If identifying sets, please include specific information.