

OCCUPATIONAL TOOLS AND EQUIPMENT LIST

Sprinkler Fitter



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 March 2019 Plan of Training for the **Sprinkler Fitter** occupation. It identifies the necessary tools and equipment required by apprentices and training institutions for the completion of apprenticeship.

Acknowledgements

The Provincial Trade Advisory Committees (PTAC), industry representatives, instructors and apprenticeship staff provided valuable input to the development of this document. Without their dedication to quality apprenticeship training, this document could not have been produced.

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
Sprinkler Fitter

SECTION A: TOOLS AND EQUIPMENT REQUIRED BY STUDENT			
Item	Units for Individual Students	Required for Pre-Employment or Direct Entry (PE) Advanced (A) Both (B)	Comments
Safety Equipment			
Coveralls	1	B	
CSA Approved Hard Hat	1	B	
Gloves - Leather	1	B	
CSA Approved Safety Glasses	1	B	Must include side shield protection.
CSA Approved Work Boots	1	B	Must meet CSA standards – 9 in. high recommended.
Safety Vest	1	B	
Hand Tools			
Calculator - Scientific	1	B	
Drywall Saw	1	B	
Hacksaw (18 teeth per in.)	1	B	
Level - Torpedo (9 in.)	1	B	
Measuring Tape - Standard/Metric (25 ft.)	1	B	
Philips Screwdriver – (#1, #2, #3)	1 Set	B	
Pipe Wrench (8 in.)	1	B	
Pliers / Vice Grips (6 in.)	1	B	
Robertson Screwdrivers - (#1, #2, #3)	1 Set	B	
Scale Ruler - Metric/Imperial	1	B	

Note: When identifying sets, please include specific information.

SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION				
Item	Units per 15 Students	Maximum Students per Unit	Required for Pre-Employment or Direct Entry (PE) Advanced (A) Both (B)	Comments
Safety Equipment				
CSA Approved Hard Hat	3	5	B	
CSA Approved Safety Glasses	3	5	B	Must include side shield protection.
Dust Mask	15	1	B	
Ear Plugs	15	1	B	
Eye Wash Station	As required by OHS regulations		B	
Fire Blanket	1	15	B	
Fire Extinguisher	As required by OHS regulations		B	
First Aid Kit / Station	As required by OHS regulations		B	
Full Face Shield	9	2	B	
Gloves - Leather	3	5	B	1 small pair 1 medium pair 1 large pair 1 extra-large pair
Lanyard (6 ft.)	5	3	B	
Lanyard - Retractable (10 ft.)	2	8	B	
Safety Harness	5	3	B	
Safety Vest	3	5	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Pre-Employment or Direct Entry (PE) Advanced (A) Both (B)	Comments
Hand Tools				
Adjustable Wrench - Crescent Style	5 - 8 in. 5 - 10 in. 5 - 12 in. 2 - 15 in.	3 3 3 8	B	
Chisel - Cold (1/2 in. to 1 in.)	1 set	15 per set	B	
Combination Wrench - Metric (8 mm to 32 mm)	2 sets	8 per set	B	
Combination Wrench - Standard (1/4 in. to 1 1/4 in.)	2 sets	8 per set	B	
Contour Marker /Center Finder	1	15	B	
Drywall Saw	3	5	B	
File - Half Round Bastard Cut (12 in.)	5	3	B	
Hacksaw (18 teeth per in.)	3	5	B	
Hammer - Ball Pein (24 oz.)	5	3	B	
Level (2 ft.)	2	8	B	
Level - Torpedo (9 in.)	3	5	B	
Measuring Tape - Standard/Metric (25 ft.)	15	1	B	
Philips Screwdriver - (#1, #2, #3)	2 sets	8 per set	B	
Pipe Tap and Die (1/4 in. to 2 in.)	1 set	15 per set	B	

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Pipe Wrench	3 - 8 in.	5	B	
	3 - 10 in.	5		
	3 - 12 in.	5		
	3 - 14 in.	5		
	8 - 18 in.	2		
	8 - 24 in.	2		
	2 - 36 in.	8		
Try Square	4	4	B	
Square (2 ft.)	4	4	B	
Pipe Wrench - Compound Leverage (36 in. capacity)	1	15	B	
Pipe Wrench - Hex Valve Wrench (Up to 3 1/2 in.)	1	15	B	
Pliers - Channel Lock (12 in.)	4	4	B	
Pliers - Linesman (9 in.)	2	8	B	
Pliers - Needle Nose (6 in.)	2	8	B	
Pliers - Vise Grip (6 in.)	5	3	B	
Plumb Bob	3	5	B	
Pry Bar - Flange Alignment	1	15	B	
Robertson Screwdriver - (#1, #2, #3)	2 sets	8 per set	B	
Slotted (flat) Screwdriver - (1/4 in., 5/16 in., 3/8 in.)	2 sets	8 per set	B	
Torx screwdriver - (#10, #15, #20, #25)	2 sets	8 per set	B	
Torque Wrench	2	8	B	
Tube Bender (1/4 in.)	4	4	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Pre-Employment or Direct Entry (PE) Advanced (A) Both (B)	Comments
Tube Cutter - Copper and Plastic (1/2 in. – 2 in.)	5	3	B	
Tube Reamer/Cleaner - Copper and Plastic (1/2 in. – 2 in.)	5	3	B	
Wire Brush	5	3	B	
Wrench - Hex Key (Metric) Set (1 mm to 15 mm)	1 set	15 per set	B	
Wrench - Hex Key (Standard) Set (1/16 in. to 9/16 in.)	1 set	15 per set	B	
Specialty Hand Tools				
Backflow Test Kit	2 kits	8 per kit	A	
Backflow Devices - Pressure Vacuum Breakers, Double Check Valve Assemblies, Reduced Principle Zone Assemblies	2 of each device	8 per each device	B	
Flow Meter	2	8	B	
Removal Tool and Packing Tool (for Valve and Pump Packing)	1 set	15 per set	B	
Sprinkler Head Wrench (unique to each specific sprinkler head)	1 per each type of Specialty Sprinkler Head	15	B	Dependent upon school supplied sprinkler head – each sprinkler head has its own specific type of wrench for installation

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Victaulic Wrench (9/16 in. to 1 1/16 in.)	3 sets	5 per set	B	
Power Tools				
Brazing Equipment	4 sets	4 per set	B	
Chop Saw - (for metal cutting) (12 in.- 14 in. blade)	1	15	B	
Chop Saw Blade	1 box of 10	15 per box	B	
Cut Groover (1 in. to 2 in.)	1	15	B	
Drill Bits - (for concrete) (1/4 in. to 3/4 in.)	1 set	15 per set	B	
Drill Bits - (for steel) (1/8 in. to 1/2 in.)	1 set	15 per set	B	
Drill - Electric (1/2 in.)	1	15	B	
Drill - Hammer	1	15	B	
Grinder – Electric (4 1/2 in. or 5 in. angle)	1	15	B	
Hole Hawg Drill (for mechanical tees)	1	15	B	
Hole Saw – (for bimetal) (3/4 in. to 4 in.)	1 set	15 per set	B	
Oxy / Fuel Tanks	2	8	B	
Oxy / Fuel Torches	2 sets	8 per set	B	
Pipe Bender (up to 2 in.)	2	8	B	
Pipe Roll Groover - Lever (2 in. to 4 in.)	1	15	B	
Reciprocating Saw	1	15	B	

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Reciprocating Saw Blades - (for bimetal) (3 in. – 9 in.)	1 set	15 per set	B	
Soldering Equipment	4 sets	4 per set	B	
Shop Equipment				
All units must have complete safety equipment, safety controls and associated parts to make them fully functional for training applications.				
Drill Press - Floor Mounted	1	15	B	
Hydrostatic Test Pump	1	15	B	
Pipe Stand (Up to 6 in. capacity)	4	4	B	
Portable Pipe Vise - Trist and Chain Vise	4	4	B	
Pipe Threading Equipment				
Bolt Threading Die (1/4 in. to 3/4 in.)	1 set	15 per set	B	
Carriage with handle (for cutter / reamer /die head)	1	15	B	
Drop Head Die (1/8 in.to 2 in.)	2 sets	8 per set	B	
Foot Operated Deadman Switch	1	15	B	
Jam Proof Ratchet Threading Die Head Set (1 in. to 2 in. capacity)	1 set	15 per set	B	
Nipple Chuck (Up to 2 in. capacity)	2 sets	8 per set	B	
Pipe Cutter - Single Wheel	5 of 1/8 in. to 2 in. 1 of 2 in. to 4 in. 1 of 4 in. to 6 in.	3 15 15	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Pre-Employment or Direct Entry (PE) Advanced (A) Both (B)	Comments
Pipe Reamer - Spiral	3	5	B	
Portable Threading Machine with Oiler	1	15	B	
Power Threading Machine	3	5	B	**Rigid 300 or equivalent
Rigging Equipment				
Chain Hoist - Chainfall (1/2 ton minimum)	4	4	B	
Chain Puller - Come Along (1/2 ton minimum)	4	4	B	
Poly Synthetic Sling	4	4	B	
Shackles (1 in. to 2 in.)	8	2	B	
Synthetic Rope (5/8 in.)	1 – 200 ft. roll	15 per roll	B	
Wire Rope Sling	4	4	B	
Ladders and Scaffolding				
Extension Ladder (20 ft.)	1	15	B	
Scaffolding Sections (Braces, Decking, Toe Boards, Castors, Ends, and Outriggers)	4 Complete Sections	4 per Section	B	
Step Ladder (6 ft., 8 ft. and 10 ft.)	2 of each	8 per each	B	
Blueprint Interpretation				
Calculator - Scientific	3	5	B	
Drafting Set (45/45/90 - 30/60/90 triangles, straight edge, pencils, T-squares, compass, protractor)	15 sets	1 per set	B	

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Scale Ruler - Metric/Imperial	3	5	B	
Sprinkler Specialty Equipment				
All valves and systems to be complete with adequate water supply for use, and all of the safety and alarm devices required for proper operation of the sprinkler valves and pumps				
Dry Sprinkler Valve Assembly	1	15	B	
Fire Alarm Control Panel	1	15	B	
Fire Pump with Controller	1	15	B	
Jockey Pump with Controller	1	15	B	
Manometer	1	15	B	
Pitot Tubes	2	8	B	
Play Pipes	4	4	B	
Pre-Action Sprinkler Valve Assembly	1	15	B	
Pressure Gauge Kit	1	15	B	
Refractometer	1	15	B	
Sprinkler Heads	Assorted types / sizes	15 per type / size	B	
Sprinkler Head Box (for spare sprinkler heads)	1	15	B	
Tachometer	1	15	B	
Wet Sprinkler Valve Assembly	1	15	B	
Equipment				
Broom	4	4	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Pre-Employment or Direct Entry (PE) Advanced (A) Both (B)	Comments
Extension Cord (20 - 25 ft.)	8	2	B	Recommended to be industrial quality 12 gauge cords with GFCI built in or added on
Garbage Container	4	4	B	
Hand Cleaner	2 litres	8	B	
Shop Cloths	2 boxes	8 per box	B	

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