



## 2018 21st ANNUAL SKILLS MANITOBA COMPETITION CONTEST DESCRIPTION

**CONTEST NAME:** PLUMBING

**CONTEST NO:** 15

**NOTE:**

Post-Secondary Level: Maximum 10 competitors

**CONTEST LOCATION:** Red River College – Notre Dame Campus  
J106

**CONTEST START TIME AND DURATION:**

7:30 AM for 6 1/2 hours

**PURPOSE OF CHALLENGE:**

To assess the contestant's knowledge and skills in the installation of a piping system with high regard to the aspects of quality workmanship, proficiency in pipe joining techniques and accuracy of work within a specified time frame.

**SKILLS AND KNOWLEDGE TO BE TESTED:**

- Apply mathematical concepts involving parallel, 60, 45 and 22 ½ offsets in a piping system.
- Interpreting and applying the blueprint specifications.
- Assembly of various piping systems
  - Steel – threaded
  - Copper – hard and soft soldering
  - PVC- solvent welding
- Applying safe work practices

**POINT BREAKDOWN / 100% TOTAL:**

- Accuracy of installation approximately 40%
- Quality of workmanship approximately 30%

- Piping pressure test approximately 20%
- Safe work practices approximately 10%
- Full marks for dimensions within 2mm
- Half marks for dimensions within 4 mm
- Point deduction per additional material request 10 points
- Completion time will be utilized as a tie breaker

### **NATIONAL COMPETITION ELIGIBILITY:**

- A mark of **70% or higher** must be scored by the gold medalist in order to attend the National Skills Competition

### **EQUIPMENT, TOOLS, MATERIALS TO BE PROVIDED BY COMMITTEE:**

Pipe threader, tripods, soldering torches (B tank turbo), cordless drills, adhesives, Teflon, threading paste, solder and brazing materials, flux etc.

All workstations will be supplied with the required materials including pencil and paper.

### **EQUIPMENT, TOOLS, MATERIALS TO BE SUPPLIED BY COMPETITOR:**

All competitors must supply their own personal protective equipment, hand tools, pocket calculators and a metric 25mm wide measuring tape. *See notes for tool list*

### **WORKSITE SAFETY RULES / REQUIREMENTS:**

All Competitors should address the dangers of long hair, jewelry, etc.

Personal protective equipment that must be worn at all times in the competition area

- Approved Steel toe boots
- Protective eye wear
- Hearing protection
- Long sleeve shirt

Additional personal protective equipment to be used as required

- Gloves
- Face shield

### **SPECIAL CONDITIONS / ADDITIONAL INFORMATION:**

1. No project specific aids, tools or jigs
2. Proper pipe joint engagement is mandatory
3. There will be NO onsite instruction of pipe joining methods
4. Project plans and documents will be released at the end of March/2014

### **Tool List**

- Pocket calculator
- 1 meter metric metal rule and a 25mm wide measuring tape
- 12 inch and 14 inch pipe wrench
- 24 inch level and 9 inch torpedo level
- 12 inch metal saw with spare blades
- 8 and 12 inch adjustable wrenches
- Copper tube cutters 1/2 - 3/4 inch
- 1 1/2 to 4 inch plastic pipe cutters
- 16 ounce carpenters hammer
- 1/2 round steel file
- Plumb line

- Small tri square
- Striker
- Deburring tools
- Competitor may bring a IPT's Pipe Trades Handbook into the competition

### **THE IMPORTANCE OF ESSENTIAL SKILLS FOR CAREERS IN THE SKILLED TRADES;**

Essential skills are used in nearly every job and at different levels of complexity. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change. Good Essential Skills means you will understand and remember concepts introduced in technical training. The level of Essential Skills required for most trades is as high as or higher than it is for many office jobs.

The following 9 skills have been identified and validated as key essential skills for the workplace:

Numeracy, Oral Communication, Working with Others, Continuous Learning, Reading Text, Writing, Thinking, Document Use, Digital.

Top Essential Skills for Plumbing: Document Use, Oral Communication, Thinking: Problem Solving

### **FOR MORE INFORMATION PLEASE CONTACT: TECHNICAL COMMITTEE MEMBER**

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