

## Welder I

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### **DEFINITION**

This is journeyman level work in the welding trade.

An employee of this class performs welding, brazing, soldering and cutting tasks on a variety of equipment and items. Assignments are in the form of oral and written instructions and may be accompanied by sketches, plans or blueprints. Work is subject to inspection in progress and upon completion. A Welder I may be assigned helpers or apprentices as required.

### **TYPICAL DUTIES** \*

Perform welding, cutting, soldering and brazing duties in fabrication of parts for or repair to backhoes, moles, street sweepers, graders, lawn mowers, bridge decks, diving boards, tunnel ribs, hoists, etc., utilizing arc and acetylene welding equipment.

Use bandsaw, sander hydraulic press, drill press, pipe threader and hand tools to prepare workpieces.

Heat bent workpieces with welding equipment and straightens with other tools; heats parts to separate them.

Clean, chip and grind cracks and joints in workpieces, using solvents, wire brush, chisel or portable grinders.

Performs other related duties as required.

### **KNOWLEDGE, ABILITIES AND SKILLS**

Considerable knowledge of the science pertaining to metals, alloys, combustion gases, basic electricity and the effects of expansion and shrinkage on metal due to heat; the methods and techniques of welding, brazing, soldering and flame cutting.

Knowledge of the occupational hazards of the trade and adaptability to working safely in the presence of showering sparks, hot metal and noxious fumes.

Familiarity with the work of related trades.

Spatial perception to visualize from plans, sketches, drawings, specifications and oral instructions, the relationships and arrangement of parts and assemblies to be joined; form perception to discern pertinent detail in bead sizes, penetration, evenness in weld and differences in shapes, dimensions, alignment and filler-metal application.

Color acuity to recognize color-coded metals and welding rods and ferrous metals by grinder-spark tests, flame temperature and colour differences between hot and molten metal at time of bonding or fusing.

Sufficient strength to perform medium to heavy work requiring frequent lifting of materials, tools and equipment weighing up to seventy-five pounds; capacity to work in awkward positions such as when performing overhead welds; adaptability to working in noisy areas or wet, muddy areas such as deep sewer tunnels.

Manual dexterity to move and manipulate workpieces, controls, electrodes, filler rod, etc., quickly and accurately during set up, welding, brazing and cutting operations.

**TRAINING AND EXPERIENCE REQUIREMENTS**

Job Level

Certified Alberta Journeyman in the trade of Welder. Possession of a valid Alberta Class 5 Motor Vehicle Operator's License.

**Drainage Services:**

The City of Edmonton is required to meet Alberta Environment Wastewater Collection Certification requirements for Drainage Services positions under this classification. All employees are required to obtain Level I Wastewater Collection Certification under the Alberta Environment Certificate program within 2 years of appointment to a permanent position within this class. Once the required level of certification is attained, the employee will transfer to the certified job code for this class, with the commensurate rate of pay.

The Drainage Branch reserves the right to waive the certification requirement for:

- an individual employee after 2 unsuccessful attempts at attaining the certification in a 2 year time frame or for
- a posted Design & Construction Section vacancy, where specific circumstances warrant,

provided that such waiver does not jeopardize the branch's ability to meet Alberta Environment certification requirements. The following classifications in the Drainage Operations Section will continue to require certification and incumbents will not be eligible for waiver of the certification requirement under any circumstances - these classifications are: Drainage Supervisor, Drainage Trainer, Training & Safety Instructor, Drainage Leader II, Maintenance Repairman II, and Pumpwell Millwright II.

\* *This is a class specification and not an individualized job description. A class specification represents and defines the general character, scope of duties and responsibilities of all positions within a specific job classification. It is not intended to describe nor does it necessarily list the essential job functions for a specific position in a classification. Positions may perform some of the duties listed above but this does not necessarily qualify for placement into this classification.*

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Salary Plan	<u>10M</u>	<u>10A</u>	<u>10B</u>	<u>10C</u>
Drainage Uncertified Grade	0146 090			
Drainage Certified Grade	2203 128			
Last Updated:	2010-05			
Originated:	2006-11			