

USask Master Specification Directions: The master specifications are intended to be incorporated into the Consultant's final, project specific specification package. The project specific specifications are expected to include any and all sections or portions of sections (Part 1, Part 2, Part 3) that are required to create a fully executable project specification. USask Master Specs only provide information that USask **requires** be a part of the final specification package. Components or sections not included in the Master USask Specifications may still be required for a complete, well-designed project. **It is the consultant's responsibility to ensure all specifications match USask requirements. Any deviations or revisions to any section included in the master specifications requires written consent from the USask Engineering department. The consultant is liable for any omissions, errors, or incorrect equipment or components supplied to site.**

The Master Specifications shall be used in conjunction with USask's Design Guidelines. Any conflicts shall be brought to the attention of USask Engineering staff for clarification.

Part 1 General

Part 2 Products

2.1 PIPE

- .1 Steel pipe: to ASTM A53/A53M, Grade B, as follows:
 - .1 All sizes: Schedule 40.

2.2 PIPE JOINTS

- .1 NPS 2 and under: screwed fittings with lead-free pipe dope.
- .2 NPS 2-1/2 and over: welding fittings and flanges to CSA W48.
- .3 Roll grooved: standard coupling to CSA B242.
- .4 Flanges: plain, slip-on.
- .5 Orifice flanges: slip-on raised face, 2100 kPa.
- .6 Flange gaskets: to ANSI/AWWA C111/A21.11.
- .7 Pipe thread: taper.
- .8 Bolts and nuts: to ASME B18.2.1.
- .9 Roll grooved coupling gaskets: type EPDM.

2.3 FITTINGS

- .1 Screwed fittings: malleable iron, to ASME B16.3, Class 150.
- .2 Pipe flanges and flanged fittings:
 - .1 Cast iron: to ASME B16.1, Class 150.
 - .2 Steel: to ASME B16.5.
- .3 Butt-welding fittings: steel, to ASME B16.9.
- .4 Unions: malleable iron, to ASTM A47/A47M.
- .5 Fittings for roll grooved piping: malleable iron to ASTM A47/A47M.

2.4 VALVES

- .1 Connections:
 - .1 NPS 2 and smaller: screwed ends.
 - .2 NPS 2-1/2 and larger: flanged ends.
 - .3 All valves as specified in 23 05 23 – Valves Sections.

2.5 VICTAULIC SYSTEMS

- .1 Victaulic system may be used on all applications in accessible locations only, such as mechanical rooms, basements, crawl spaces, service corridors, tunnels and other accessible areas, such as above T-bar ceilings and elsewhere as approved by the Consultant. Couplings and components shall be the following Victaulic:
 - .1 50 mm through 300 mm: For rigid type couplings revise to only allow Victaulic Zero-Flex Style 07 on sizes 200 mm through 300 mm. Rigid couplings for sizes 50 mm through 150 mm shall be Quick-Vic Style 107.
 - .1 Rigid type - for all but pump connections and as noted below:
 - .1 For sizes 200 mm through 300 mm: Victaulic Zero-Flex Style 07.
 - .2 For Sizes 50 mm through 150 mm "Quick-Vic: style 107 with grade EHP high temperature gasket rated to 121 °C may be used.
 - .2 Flexible type- provide a minimum of four flexible couplers on suction and discharge of base mounted pumps - Victaulic Style 77.
 - .3 Flange component connections shall be Victaulic style 741 Vic-Flange. Use adaptor insert where directed by manufacturer.
 - .4 Reducing couplings style 750, outlet couplings style 72, and mechanical tees style 920 shall be used where applicable.
 - .2 350 mm through 600 mm: AGS series with wide. width "Flush Seal" gasket.
 - .1 Rigid Type - Victaulic style W07.
 - .2 Flange connections: Victaulic style W741 Vic-Flange.
 - .3 Gaskets shall be grade E with a temperature range of -34C to 100C, or as recommended.
 - .4 All grooved joint couplings, fittings, valves, specialties and gaskets shall be the product of a single manufacturer. Grooving tools shall be those of the same manufacturer as the grooved components.
 - .5 Approved grooved piping system manufacturer is Victaulic. All other grooved system manufacturers to make application for equal status.

Part 3 Execution

END OF SECTION