

GP 03-03-07	Inlet and Exhaust Piping for Steam Turbines	December 2004
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Inlet and Exhaust Piping for Steam Turbines

GP 03-03-07

Scope

[I] This Global Practice (GP) covers the design and construction of steam inlet piping for condensing and non-condensing turbines, and exhaust piping for non-condensing turbines.

[I] An asterisk (*) indicates that additional information is required. If a job is contracted, this additional information is furnished in the Job Specification.

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1. Required References

This Section lists Practices and Standards that are generically referenced and assumed to be a part of this document. Unless otherwise specified herein, use the latest edition.

1.1. NEMA–National Electrical Manufacturers Association

NEMA Z535.1	Safety Color Code
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2. Additional Requirements

The following Practices and Standards shall be used with this Practice as specified by the Owner's Engineer.

2.1. Global Practices–ExxonMobil Engineering Practices

GP 03-06-04	Vents and Drains, Flushing and Cleaning Connections
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3. Design

- 1) [R] Blowdown valves shall be provided for low point drains in the turbine supply and exhaust steam lines, and in the turbine casing. Turbine casing drain shall be trapped for turbines requiring automatic unattended startup.
- 2) [O] Two block valves shall be installed in the supply line. One shall be located at the steam main, the other at the turbine.
- 3) [R] Inlet and exhaust steam valves: Installations shall permit the complete drainage of accumulated condensate before valve opening. When installed in horizontal pipe runs, pipelines drains may be installed or the valve may be furnished with a body drain on the inlet side of the gate (or plug). Valves shall be positioned with stems extending vertically upward or horizontal, or any intermediate position, providing the stem is above the horizontal centerline. Also see Section 2.2, Item 2d.
- 4) * [O] A control valve shall be provided for turbines with remote starting facility. The control valve shall be located near the turbine. A bypass valve shall be installed for warming the turbine.
- 5) [S] For general purpose steam turbines with governors not equipped with a manually activated override for testing the overspeed trip system, a bypass with a globe valve shall be installed around the steam inlet gate or control valve to permit checking the overspeed trip in a controlled manner. Bypass is not required if turbine inlet connection is 1 1/2 in. (38 mm) or less.

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