

GP 15-03-01	Pressure Instruments	October 2008
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Pressure Instruments

GP 15-03-01

Scope

[I] This Global Practice (GP) covers the design and selection of pressure instruments.

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1. Required References

[I] This Section lists the Practices, codes, standards, specifications, and publications that shall be used with this document. Unless otherwise specified herein, use the latest edition.

1.1. Global Practices–ExxonMobil Engineering Practices

GP 03-06-01	Piping for Instruments
GP 15-06-01	Electronic and Pneumatic Instruments

1.2. API–American Petroleum Institute

API RP 551	Process Measurement Instrumentation
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1.3. ASME–American Society of Mechanical Engineers

ASME B1.20.1	Pipe Threads, General Purpose (Inch)
ASME B40.100	Pressure Gauges and Gauge Attachments

2. Design

- 1) [O] Pressure range shall be such that normal pressure will be in the middle third of the span.
- 2) [S] [R] Instruments shall have over-range protection to the maximum pressure to which they may be exposed. Instruments exposed to vacuum shall have under-range protection to full vacuum.
- 3) [S] Instruments in flammable or toxic service shall not have pressure-containing parts of low melting point materials, such as aluminum or brass.
- 4) [A] [R] All wetted and pressure-containing parts shall meet the material requirements of the process piping to which the instrument is connected. External diaphragm seals may be used with approval by the Owner's Engineer. In process streams containing hydrogen, the use of gold-plated diaphragms shall be considered.
- 5) [O] Scales and displays (local or remote) shall read in engineering units.
- 6) [A] Transmitter design and performance shall meet the requirements of [GP 15-06-01](#) unless otherwise specified by the Owner's Engineer.

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