



# Saudi Aramco Standards

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## Welding



# SAES – W 010

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## Welding Requirements for Pressure Vessels

The following additional information is contained in SAES-W-010:

A list of the Saudi Aramco and industry standards that are considered to be a part of this standard.

A discussion of the approved welding processes and the limitations for pressure vessel fabrication.



# SAES – W 010

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A discussion of the standard preheat and postweld heat treatment requirements, and the additional requirements that are based on process conditions that include monoethanolamine (MEA) solutions, diglycol amine (DGA) solutions, amino diisopropanol (ADIP) solutions, and deaerator service



# SAES – W 010

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The requirements for hardness testing.

- The requirements for pressure vessel inspection and repairs



# SAES – W 011

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## Welding Requirements for On-Plot Piping

The scope of SAES-W-011, “Welding Requirements for On-Plot Piping” is to provide the minimum requirements for welding on ASME B31.3 piping, both onshore and offshore. The requirements that are contained within this standard are in addition to the requirements of ASME B31.3 and ASME IX.



# SAES – W 011

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The following additional information is contained in SAES-W-011:

A list of the Saudi Aramco and industry standards that are considered to be a part of this standard

A discussion of the approved welding processes and the limitations for pressure vessel fabrication.

A discussion of the weld procedures and welder's qualification requirements that includes base metal, Charpy impact tests, and hardness tests.

The identification of the maximum internal misalignment for butt joints.



# SAES – W 011

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The requirements for piping inspections for each category of fluid service.

A discussion of the standard preheat and postweld heat treatment requirements, and additional requirements that are based on process conditions that include caustic soda (NaOH), MEA solutions, DGA solutions, ADIP solutions, and deaerator service

The requirements for hardness testing, inspection, and repairs.



# SAES – W 012

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## Welding Requirements for Pipelines

The scope of SAES-W-012, “Welding Requirements for Pipelines”, is to provide the minimum requirements for welding onshore and offshore cross-country pipelines in accordance with ASME B31.4 and B31.8. The requirements that are contained in this standard are in addition to the requirements of ASME B31.3 and B31.8, ASME Section IX, and API 1104.





# SAES – W 012

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The following additional information is contained in SAES-W-012:

A discussion of the approved welding processes and the limitations for cross-country pipeline welding

A discussion of the weld procedure and welder's qualification requirements

The identification of the maximum internal misalignment for butt joints.

A discussion of the preheat and postweld heat treatment requirements.



# SAES – W 012

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A discussion of the workmanship and welding technique requirements for welding pipelines

A discussion of hardness testing, inspection, and repairs.



# SAES – W 013

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## Welding Requirements for Offshore Structures

The scope of SAES-W-013, “Welding Requirements for Offshore Structures”, is to provide the minimum requirements for the welding of offshore structures.

The requirements that are contained in this standard are in addition to the requirements of API RP-2A and AWS D1.1.



# SAES – W 013

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The following additional information is contained in SAES-W-013:

A list of the Saudi Aramco and industry standards that are considered to be a part of this standard

A discussion of the approved welding processes and the limitations for offshore structure welding

A discussion of the weld procedure and welder qualification requirements

The requirements for welding, heat treatment, NDE and hardness testing of offshore structure