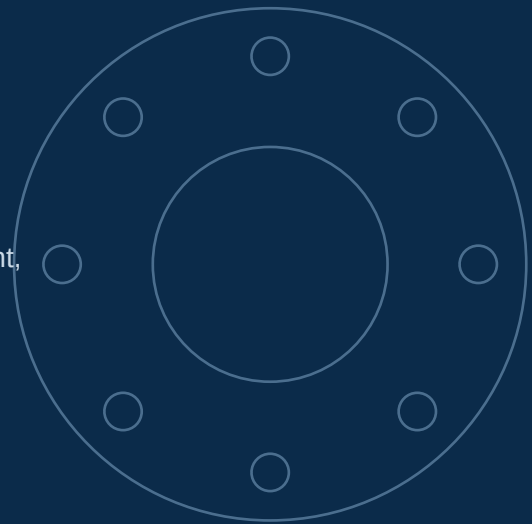


PRODUCT OVERVIEW

Vessel Nozzles

ASME pressure-vessel penetrations for inlet, outlet, instrument, manway and cleanout service.



DOCUMENT

Product overview

FAMILY	Nozzles
RANGE	Vessel Nozzles
TYPES	8
REVISION	Rev. 04
ISSUED	15 September 2026

Vessel Nozzles

ASME pressure-vessel penetrations for inlet, outlet, instrument, manway and cleanout service.

Vessel nozzles are engineered penetrations in pressure equipment. The range covers flush, hillside, self-reinforced, shell, tangential, instrument and manway configurations, supplied as flanged, threaded or butt-weld connections. Designs are reviewed against ASME Section VIII Division 1 and project specifications for reinforcement, weld detail and NDE.

STANDARDS AND SUPPLY SCOPE

- Primary standards: ASME Section VIII Div. 1; ASME B16.5; ASTM A106 / A182 / A312.
- Product types: Flush Nozzle, Manway Nozzle, Pressure Vessel Nozzle, Hillside Nozzle, Instrument Nozzle, Self-Reinforced Nozzle, Shell Connection Nozzle, Tangential Nozzle.
- Standard and made-to-order configurations; project documentation on request.
- Material certificates, inspection records and test reports issued with the order where specified.

SELECTION INPUTS

- Duty, media, pressure and temperature.
- Size, pressure class and connection detail.
- Material and any sour-service or NACE requirement.
- Documentation, NDE and test requirements.

Ordering and technical support

sales@belvantaglobal.com · +1 (713) 555-0140 · www.belvantaglobal.com

1200 Industrial Parkway, Houston, TX 77032, United States

Quotations are prepared against the released specification. Certified drawings are issued with the order.

PRODUCT TYPES

Each type below has a dedicated datasheet in the product library. Open the range page for specifications, ordering data and drawings.

Flush Nozzle

ASME Section VIII Div. 1 · ASTM A106-B / ASTM A182 F304L

Flanged vessel connection with a bore flush to the internal shell surface.

Manway Nozzle

ASME Section VIII Div. 1 · ASTM A516-70 / ASTM A105

Large-diameter access opening with cover, davit and sealing arrangement.

Pressure Vessel Nozzle

ASME Section VIII Div. 1 · ASTM A106-B / ASTM A182 F304L

General-purpose flanged or welded penetration for pressure-vessel service.

Hillside Nozzle

ASME Section VIII Div. 1 · ASTM A234 WPB / ASTM A182 F316L

Angled penetration for connections that must follow a shell contour or flow path.

PRODUCT TYPES

Each type below has a dedicated datasheet in the product library. Open the range page for specifications, ordering data and drawings.

Instrument Nozzle

ASME Section VIII Div. 1 · ASTM A106-B / ASTM A182 F316L

Small-bore connection for pressure, temperature and level instruments.

Self-Reinforced Nozzle

ASME Section VIII Div. 1 · ASTM A106-B / ASTM A182 F316L

Heavy-wall nozzle that provides reinforcement without a separate pad.

Shell Connection Nozzle

ASME Section VIII Div. 1 · ASTM A312 TP304L / ASTM A312 TP316L

Nozzle with an integral pad for shell connections in stainless and alloy equipment.

Tangential Nozzle

ASME Section VIII Div. 1 · ASTM A312 TP316 / ASTM A182 F316L

Nozzle oriented tangentially to the shell for swirl, mixing or separation duty.

DOCUMENTS

- Vessel Nozzles Overview (this document)
- Vessel Nozzles General Arrangement Drawing
- Flush Nozzle Datasheet
- Manway Nozzle Datasheet
- Pressure Vessel Nozzle Datasheet
- Hillside Nozzle Datasheet
- Instrument Nozzle Datasheet
- Self-Reinforced Nozzle Datasheet
- Shell Connection Nozzle Datasheet
- Tangential Nozzle Datasheet

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