



WINSTONE

OIL & GAS

Oil & Gas Equipment & Supplies

Professional Product Catalog

Ningbo Winstone Industrial Technology Co., Ltd.

2026 / V15

winstoneintl.com

Products for completion and field maintenance.

Products for distributors, field-service companies, skid builders and industrial purchasing teams.

Focused on oil and natural gas

Ningbo Winstone Industrial Technology Co., Ltd. organizes an oilfield portfolio spanning completion tools, production accessories, valves, piping, gas-treatment consumables and field chemicals.

A practical purchasing structure

For replacement parts, quote the installed equipment and approved part reference. For piping and seals, state size, connection and duty. For chemicals, submit the fluid analysis and treatment objective.

Order-specific commitments

Plan recurring orders by approved part number, batch quantity and required documents. Availability, lead time, packing and delivery terms are confirmed in each quotation.



Reference size selections are not certified supplier ratings. Images illustrate appearance; supplied models require confirmation.

Product overview

240 products organized into 7 purchasing categories.



Well Completion & Stimulation

Unloaded perforating hardware / Frac plugs and balls / Frac pump wear parts / High-pressure connection seals

30 products 8 subcategories Page 14



Flow Control for Oil & Gas

Ball and needle valves / Gate and globe valves / Check valves / Butterfly valves

20 products 6 subcategories Page 29



Oilfield Hose & Piping

Oilfield transfer hoses / Cam-and-groove and hose accessories / ASME pipe flanges / Butt-weld fittings

51 products 7 subcategories Page 39



Surface Production Equipment & Accessories

Liquid filter housings / Instrument tube fittings / Pressure and temperature instruments / Instrument valve manifolds

32 products 6 subcategories Page 65

Product overview

240 products organized into 7 purchasing categories.



Gas Treatment Equipment & Consumables

Gas and glycol filtration / Dehydration adsorbents / Solid H₂S-removal media

12 products 3 subcategories Page 81



Standard Maintenance Consumables

Packing and small seals / Flange gaskets and insulation / Liquid filter cartridges and bags / Screen and adsorption media / Protection and spill response

27 products 5 subcategories Page 87



Oilfield Chemicals

Fracturing and completion additives / Degradable diversion materials / Completion salts and conditioning ingredients / LCM, minerals & mud conditioning / LCM and weighting minerals / Cement additives / Corrosion and scale control / Separation and deposit control / Gas production chemicals

68 products 9 subcategories Page 101

Well Completion & Stimulation

Select a product family. Click its card to open the product pages.



Unloaded perforating hardware

6 products / p. 14



Frac plugs and balls

4 products / p. 17



Frac pump wear parts

5 products / p. 19



High-pressure connection seals

1 products / p. 21



High-pressure treating iron

5 products / p. 22



Proppants

2 products / p. 24



Casing centralization

3 products / p. 25



Cementing accessories

4 products / p. 27

Flow Control for Oil & Gas

Select a product family. Click its card to open the product pages.



Ball and needle valves

4 products / p. 29



Gate and globe valves

4 products / p. 31



Check valves

5 products / p. 33



Butterfly valves

3 products / p. 35



Pipeline strainers

3 products / p. 37



Back-pressure regulation

1 products / p. 38

Oilfield Hose & Piping

Select a product family. Click its card to open the product pages.



Oilfield transfer hoses

4 products / p. 39



Cam-and-groove and hose accessories

11 products / p. 41



ASME pipe flanges

6 products / p. 46



Butt-weld fittings

7 products / p. 49



Socket-weld fittings

5 products / p. 53



NPT threaded fittings

11 products / p. 55



Pipe supports and bolting

7 products / p. 61

Surface Production Equipment & Accessories

Select a product family. Click its card to open the product pages.



Liquid filter housings

2 products / p. 65



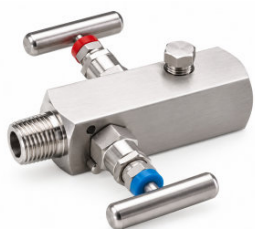
Instrument tube fittings

14 products / p. 66



Pressure and temperature instruments

5 products / p. 73



Instrument valve manifolds

3 products / p. 75



Chemical injection accessories

6 products / p. 77



Auxiliary oil reservoir controls

2 products / p. 80

Gas Treatment Equipment & Consumables

Select a product family. Click its card to open the product pages.



Gas and glycol filtration

5 products / p. 81



Dehydration adsorbents

5 products / p. 83



Solid H₂S-removal media

2 products / p. 86

Standard Maintenance Consumables

Select a product family. Click its card to open the product pages.



Packing and small seals

5 products / p. 87



Flange gaskets and insulation

7 products / p. 89



Liquid filter cartridges and bags

9 products / p. 93



Screen and adsorption media

2 products / p. 97



Protection and spill response

4 products / p. 98

Oilfield Chemicals

Select a product family. Click its card to open the product pages.



Fracturing and completion additives

13 products / p. 101



Degradable diversion materials

2 products / p. 107



Completion salts and conditioning ingredients

8 products / p. 108



LCM, minerals & mud conditioning

7 products / p. 112



LCM and weighting minerals

11 products / p. 116



Cement additives

6 products / p. 121



Corrosion and scale control

5 products / p. 124



Separation and deposit control

8 products / p. 127



Gas production chemicals

8 products / p. 131

A connected completion portfolio

Cementing accessories, inert perforating hardware, stage isolation and treatment consumables.

Casing and cementing

Centralizers, stop collars, float equipment and top/bottom wiper plugs. Select against casing dimensions and the cementing system.



WOG-610

WOG-613

WOG-615

Perforating and stage isolation

Empty charge cases, carriers and mechanical accessories pair with qualified service systems. Composite/dissolvable plugs and matched balls support staged treatment.



WOG-617

WOG-601

WOG-604

Fracturing and flowback

Ceramic/resin-coated proppants complement friction reducers, HVFR and flowback surfactants already in the chemical range.



WOG-608

WOG-360

WOG-119

Select existing catalogue variants. Exact fit, performance and delivery require supplier confirmation.

From fluid handling to replenishment

Match products to a defined duty and operating envelope.

Produced-water handling

Strain solids, remove suspended matter and select separation chemistry against the water-quality target.



Representative product applications

Gas treatment and maintenance

Select filtration, dehydration media and chemical grades for actual gas composition and contaminants.



Representative product applications

Field piping and fluid transfer

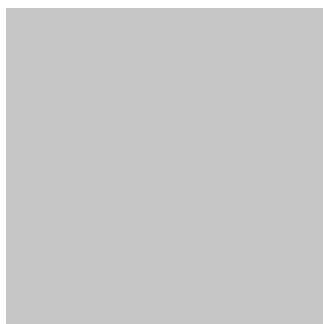
Match pipe specifications, valve duty and complete hose assembly ratings before installation.



Representative product applications

WOG-617

Empty Perforating Charge Case



Representative appearance

Product identity	Individual empty outer case, not gun carrier
Supply condition	Inert metal shell only; no energetic contents
Series control	Existing supplier catalogue case series
Acceptance	Material identity, finish and lot traceability

USE: Standalone empty outer casing for qualified oilfield perforating-system supply chains.

MATERIAL / STRUCTURE: Cup-shaped metal outer case supplied empty. The case is a separate item from the long tubular gun carrier.

OPTIONS / ACCEPTANCE: Existing, documented supplier case families only. Confirm material and finish against the selected catalogue item.

RFQ / APPLICATION: RFQ: approved supplier catalogue case reference, material requirement, lot quantity and inspection documents. Case size cannot be selected from gun OD alone. No loaded charge, liner, initiation device or performance equivalence is offered.

STANDARDS / DOCUMENTS: Require empty/inert supply declaration and traceable inspection records. No standalone API 19B perforating performance is asserted for a shell.

PACKING: Separate and identify each catalogue variant; protect sealing and contact surfaces against impact and corrosion.

WOG-601

Empty Perforating Gun Carrier



Representative appearance

Reference carrier OD	3-1/8 in (79.38 mm)
Supply condition	Empty mechanical carrier only
Body material	Heat-treated alloy steel; grade by approved series
Interface	Selected carrier series; no universal interchangeability

USE: Outer mechanical carrier for oil- and gas-well perforating service in plug-and-perf completion.

MATERIAL / STRUCTURE: Hollow steel carrier with machined ends and external scallops. No energetic components or initiating devices supplied.

OPTIONS / ACCEPTANCE: Existing supplier OD and length series; approved coating, thread and seal configuration only.

RFQ / APPLICATION: Confirm casing drift, carrier envelope, connection drawing revision and operating environment. Body pressure/collapse evidence must cover the ordered assembly. An empty carrier has no standalone perforation-performance rating.

STANDARDS / DOCUMENTS: Require material/heat-treatment records, dimensional inspection and applicable carrier qualification evidence. No API 19B performance claim is made for an empty body.

PACKING: Thread protectors, separated sleeves and restrained crates; confirm packed length and gross weight.

WOG-618

Empty Perforating Gun Loading Tube



Representative appearance

USE: Inert mechanical support component supplied separately from the outer perforating gun carrier.

MATERIAL / STRUCTURE: Empty tubular support with formed openings. No charges, wiring, switches or energetic parts are included.

OPTIONS / ACCEPTANCE: Existing catalogue series only; no custom opening layout or cross-brand conversion.

Product form	Empty internal support tube
Material family	Metal tube; grade by selected catalogue item
Compatibility	Specific carrier and supplier series
Acceptance	Condition, cleanliness and series identification

RFQ / APPLICATION: Specify approved catalogue item, matching carrier series, quantity and required inspection documentation. A gun-size label is insufficient to establish fit. The image represents external appearance only.

STANDARDS / DOCUMENTS: Require supplier component identification and inspection records; qualification belongs to the complete selected system.

PACKING: Protect tubes from bending and edge damage; separate by catalogue series in restrained packs.

WOG-619

Perforating Gun Seal Kit



Representative appearance

USE: Replacement static seals for specified perforating-gun mechanical connections.

MATERIAL / STRUCTURE: Matched elastomer seal set with back-up rings where required by the selected gland.

OPTIONS / ACCEPTANCE: Existing gun-series kits and qualified compounds. No universal multi-brand fit claim.

Kit contents	O-rings and specified back-up rings
Compound options	NBR / HNBR / FKM, by approved duty
Size basis	ID and section in inches (mm), per kit list
Traceability	Compound, cure date and kit revision

RFQ / APPLICATION: RFQ: gun/sub series, kit revision, fluid, temperature and pressure exposure. Require decompression/chemical compatibility evidence when relevant. This is a mapped service kit, unlike a general AS568 assortment.

STANDARDS / DOCUMENTS: AS568/ISO 3601 dimensions only when applicable; compound and gland qualification remain separate requirements.

PACKING: Sealed, size-separated bags with compound/date labels; protect from ozone, heat and sunlight.

WOG-602

Perforating Gun Tandem Sub



Representative appearance

Carrier series	3-1/8 in (79.38 mm) reference family
Material	Heat-treated alloy steel
Configuration	Mechanical connector only
Connection	Supplier catalogue thread/seal interface

USE: Mechanical connection between compatible carrier sections.

MATERIAL / STRUCTURE: Machined steel connector with sealing lands and wrenching surfaces.

OPTIONS / ACCEPTANCE: Catalogue connection, material and seal options only; no custom or cross-brand interface conversion.

RFQ / APPLICATION: Confirm supplier series, mating parts, material heat and pressure/axial-load envelope. Nominal carrier OD alone does not establish fit. No firing, switching or explosive-transfer components are included.

STANDARDS / DOCUMENTS: Dimensional/thread inspection and traceable material records; supplied assembly qualification governs.

PACKING: Thread protectors, separated sleeves and restrained crates; confirm packed length and gross weight.

WOG-603

Perforating Gun Bullnose



Representative appearance

Carrier series	3-1/8 in (79.38 mm) reference family
Material	Heat-treated alloy steel
Configuration	Rounded closed-end nose
Connection	Supplier catalogue thread/seal interface

USE: Lower-end mechanical closure and guidance for a compatible gun string.

MATERIAL / STRUCTURE: Machined steel end component with a rounded nose and threaded connection.

OPTIONS / ACCEPTANCE: Catalogue connection, material and seal options only; no custom or cross-brand interface conversion.

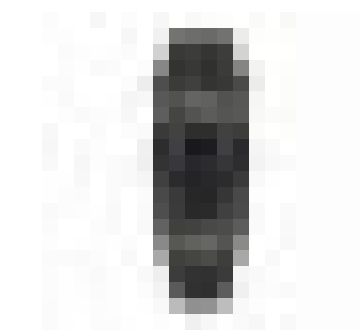
RFQ / APPLICATION: Confirm supplier series, mating parts, material heat and pressure/axial-load envelope. Nominal carrier OD alone does not establish fit. No firing, switching or explosive-transfer components are included.

STANDARDS / DOCUMENTS: Dimensional/thread inspection and traceable material records; supplied assembly qualification governs.

PACKING: Thread protectors, separated sleeves and restrained crates; confirm packed length and gross weight.

WOG-604

Composite Frac Plug



Representative appearance

USE: Temporary stage isolation in cased-hole, multistage hydraulic fracturing of shale oil and gas wells.

MATERIAL / STRUCTURE: Composite load-bearing body with slips, sealing element and ball seat.

OPTIONS / ACCEPTANCE: Existing casing size, elastomer and ball configuration; confirm setting-tool interface.

Reference casing OD	4-1/2 / 5-1/2 in (114.3 / 139.7 mm)
Isolation type	Ball-drop or ball-in-place; catalogue-specific
Removal route	Drillable composite body
Rating basis	Model-specific differential pressure and temperature

RFQ / APPLICATION: RFQ: casing OD, weight in lb/ft (kg/m), drift, actual ID, temperature, required hold time and differential pressure. Confirm ball-seat match, setting envelope and drillout compatibility.

STANDARDS / DOCUMENTS: Require documented isolation testing and batch traceability; API 11D1/ISO 14310 only where applicable and supported for the selected tool.

PACKING: Individual protected packs; protect slips and elastomer; prevent tool-to-tool impact.

WOG-605

Dissolvable Frac Plug



Representative appearance

USE: Temporary stage isolation in cased-hole, multistage hydraulic fracturing of shale oil and gas wells.

MATERIAL / STRUCTURE: Degradable alloy body, gripping elements and model-specific sealing system.

OPTIONS / ACCEPTANCE: Existing size, temperature and fluid-chemistry grades; no guaranteed universal dissolution time.

Reference casing OD	4-1/2 / 5-1/2 in (114.3 / 139.7 mm)
Isolation type	Ball-drop or ball-in-place; catalogue-specific
Removal route	Fluid-dependent dissolution
Rating basis	Model-specific differential pressure and temperature

RFQ / APPLICATION: RFQ: casing OD, weight in lb/ft (kg/m), drift, actual ID, temperature, required hold time and differential pressure. Require dissolution tests in representative brine at the expected temperature.

STANDARDS / DOCUMENTS: Require documented isolation testing and batch traceability; API 11D1/ISO 14310 only where applicable and supported for the selected tool.

PACKING: Individual protected packs; moisture-barrier storage with lot/date traceability.

WOG-606

Composite Frac Ball



Representative appearance

Reference OD envelope	7/8-4 in (22.23-101.6 mm); discrete catalogue sizes
Material family	Machined reinforced polymer composite
Sizing control	OD, roundness and seat contact per approved tool
Service limit	Ball-seat differential pressure and temperature

USE: Ball-actuated isolation or sleeve activation in compatible completion tools.

MATERIAL / STRUCTURE: Solid spherical composite component with controlled machining finish.

OPTIONS / ACCEPTANCE: Existing catalogue ball diameters and fluid/temperature grades only.

RFQ / APPLICATION: Specify the approved ball and seat pair, not casing OD. Confirm diameter tolerance, deformation/seat-extrusion test and temperature exposure. Confirm density, recovery/millout route and fluid compatibility.

STANDARDS / DOCUMENTS: Require dimensional and paired ball-seat performance records. Published supplier-family ranges do not establish interchangeable ratings.

PACKING: Individually separated, diameter-labeled packs; dry storage and lot control.

WOG-607

Dissolvable Metal Frac Ball



Representative appearance

Reference OD envelope	1-4-1/2 in (25.4-114.3 mm); discrete stock sizes only
Material family	Degradable metallic alloy
Sizing control	OD, roundness and seat contact per approved tool
Service limit	Ball-seat differential pressure and temperature

USE: Ball-actuated isolation or sleeve activation in compatible completion tools.

MATERIAL / STRUCTURE: Solid spherical degradable-metal component.

OPTIONS / ACCEPTANCE: Existing catalogue ball diameters and fluid/temperature grades only.

RFQ / APPLICATION: Specify the approved ball and seat pair, not casing OD. Confirm diameter tolerance, deformation/seat-extrusion test and temperature exposure. Qualify dissolution against fluid chemistry and required isolation time.

STANDARDS / DOCUMENTS: Require dimensional and paired ball-seat performance records. Published supplier-family ranges do not establish interchangeable ratings.

PACKING: Individually separated, diameter-labeled packs; dry storage and lot control.

WOG-620

Frac Pump Valve Assembly



Representative appearance

USE: Replaceable wear component for reciprocating frac-pump fluid ends.

MATERIAL / STRUCTURE: Steel valve body with replaceable elastomer insert.

OPTIONS / ACCEPTANCE: Insert compound, guide style and matched valve/seat catalogue set.

RFQ / APPLICATION: RFQ: installed pump and fluid-end identification, approved part reference, plunger size, quantity and operating fluid. Order valves and seats as a matched, documented set.

STANDARDS / DOCUMENTS: Require material/lot records and supplier fit/function evidence. Pressure rating belongs to the qualified fluid-end assembly.

PACKING: Separate and identify each catalogue variant; protect sealing and contact surfaces against impact and corrosion.

Service	Suction / discharge, by fluid-end design
Selection basis	Fluid-end model and approved part reference
Material	Heat-treated steel; compound specified separately
Dimensional record	Inches (mm) on selected catalogue data sheet

WOG-621

Frac Pump Valve Seat



Representative appearance

USE: Replaceable wear component for reciprocating frac-pump fluid ends.

MATERIAL / STRUCTURE: Hardened steel annular seat with controlled contact surface.

OPTIONS / ACCEPTANCE: Existing seat taper and bore variants for documented fluid-end families.

RFQ / APPLICATION: RFQ: installed pump and fluid-end identification, approved part reference, plunger size, quantity and operating fluid. Order valves and seats as a matched, documented set.

STANDARDS / DOCUMENTS: Require material/lot records and supplier fit/function evidence. Pressure rating belongs to the qualified fluid-end assembly.

PACKING: Separate and identify each catalogue variant; protect sealing and contact surfaces against impact and corrosion.

Service	Suction / discharge, by fluid-end design
Selection basis	Fluid-end model and approved part reference
Material	Heat-treated steel; compound specified separately
Dimensional record	Inches (mm) on selected catalogue data sheet

WOG-622

Frac Pump Valve Spring



Representative appearance

USE: Replaceable wear component for reciprocating frac-pump fluid ends.

MATERIAL / STRUCTURE: Compression spring in qualified spring-steel material.

OPTIONS / ACCEPTANCE: Existing valve-series spring rates, free heights and end forms only.

Service	Suction / discharge, by fluid-end design
Selection basis	Fluid-end model and approved part reference
Material	Qualified spring steel
Dimensional record	Inches (mm) on selected catalogue data sheet

RFQ / APPLICATION: RFQ: installed pump and fluid-end identification, approved part reference, plunger size, quantity and operating fluid. Order valves and seats as a matched, documented set.

STANDARDS / DOCUMENTS: Require material/lot records and supplier fit/function evidence. Pressure rating belongs to the qualified fluid-end assembly.

PACKING: Separate and identify each catalogue variant; protect sealing and contact surfaces against impact and corrosion.

WOG-623

Frac Pump Plunger



Representative appearance

USE: Wear component transmitting reciprocating displacement in the frac-pump fluid end.

MATERIAL / STRUCTURE: Machined steel plunger with finished sealing surface and a model-specific attachment.

OPTIONS / ACCEPTANCE: Existing catalogue diameters and surface grades; no custom connection machining.

Reference plunger sizes	4-1/2 / 5 in (114.3 / 127.0 mm)
Product type	Replaceable reciprocating plunger
Material control	Steel substrate and qualified wear surface
Fit control	Length, attachment and working diameter

RFQ / APPLICATION: RFQ: installed pump and fluid-end identification, approved part reference, plunger size, quantity and operating fluid. Order valves and seats as a matched, documented set.

STANDARDS / DOCUMENTS: Require supplier dimensional and material/compound evidence, lot traceability and documented model fit.

PACKING: Sleeve each plunger; protect polished surface and attachment ends.

WOG-624

Frac Pump Plunger Packing Set



Representative appearance

USE: Dynamic sealing consumable for abrasive fracturing-fluid service.

MATERIAL / STRUCTURE: Elastomer/compound sealing rings with specified adapters and support rings.

OPTIONS / ACCEPTANCE: Existing catalogue sets; supply each set complete with the approved ring sequence.

RFQ / APPLICATION: RFQ: installed pump and fluid-end identification, approved part reference, plunger size, quantity and operating fluid. Order valves and seats as a matched, documented set.

STANDARDS / DOCUMENTS: Require supplier dimensional and material/compound evidence, lot traceability and documented model fit.

PACKING: Keep sets complete and clean; label compound and shelf life.

Reference plunger sizes	4-1/2 / 5 in (114.3 / 127.0 mm)
Product type	Matched chevron packing set
Material control	Compound and support-ring material
Fit control	Stuffing-box bore and complete stack height

WOG-625

Hammer Union Lip Seal



Representative appearance

USE: Replacement lip seal for the specified high-pressure hammer-union connection.

MATERIAL / STRUCTURE: Molded elastomer lip seal; selected variants include a metal anti-extrusion support.

OPTIONS / ACCEPTANCE: Existing size/figure/compound combinations; maintain the union manufacturer interface.

RFQ / APPLICATION: Nominal pipe size is not seal OD. Match the actual union manufacturer, figure, seal profile and service medium. Figure marking alone does not authorize cross-brand mixing; confirm the complete connection rating.

STANDARDS / DOCUMENTS: Require compound identity, dimensions and connection-specific qualification; no independent pressure rating is assigned to the seal.

PACKING: Clean sealed bags, segregated by size, figure and compound; protect sealing lips.

Nominal union size	2 / 3 in (nominal DN 50 / 80)
Connection family	Figure 1502 catalogue variants
Compound options	NBR / HNBR / FKM, duty-qualified
Support option	Metal reinforcement where specified

WOG-630

High-pressure Hammer Union



Representative appearance

USE: Detachable connection for compatible high-pressure well-service flowlines.

MATERIAL / STRUCTURE: Forged male/female subs, hammer nut and specified sealing element.

OPTIONS / ACCEPTANCE: Existing size, figure and end-connection variants. Supply as matched components.

RFQ / APPLICATION: RFQ: service fluid, pressure/temperature, line size, exact mating manufacturer/series and inspection needs. Verify all mating components as a qualified assembly. Figure number alone is insufficient for interchangeability or sour-service approval.

STANDARDS / DOCUMENTS: Require material/serial traceability, dimensional records and applicable pressure/leak tests. Sour-service material compliance and the pressure-temperature rating require specific evidence.

PACKING: Protect union faces and threads; restrain in crates and verify packed mass, dimensions and lifting points.

Nominal line size	2 / 3 in (nominal DN 50 / 80)
Connection series	Figure 1502 catalogue options
Service rating	By qualified size, material and complete assembly
Order definition	Exact catalogue configuration and service grade

WOG-631

Integral Treating-iron Pup Joint



Representative appearance

USE: Straight high-pressure connection between treating-line components.

MATERIAL / STRUCTURE: One-piece integral tubular body with documented union end connections.

OPTIONS / ACCEPTANCE: Existing catalogue lengths only, with packing compatible with the assigned container.

RFQ / APPLICATION: RFQ: service fluid, pressure/temperature, line size, exact mating manufacturer/series and inspection needs. Verify all mating components as a qualified assembly. Figure number alone is insufficient for interchangeability or sour-service approval.

STANDARDS / DOCUMENTS: Require material/serial traceability, dimensional records and applicable pressure/leak tests. Sour-service material compliance and the pressure-temperature rating require specific evidence.

PACKING: Protect union faces and threads; restrain in crates and verify packed mass, dimensions and lifting points.

Nominal line size	2 / 3 in (nominal DN 50 / 80)
Connection series	Figure 1502 catalogue options
Service rating	By qualified size, material and complete assembly
Order definition	Catalogue length in ft (m)

WOG-632

Treating-line Swivel Joint



Representative appearance

USE: Articulated connection for layout adjustment of high-pressure treating lines.

MATERIAL / STRUCTURE: Elbow sections with bearing-supported swivel joints and pressure seals.

OPTIONS / ACCEPTANCE: Existing catalogue styles and union ends; rotation is subject to supplier operating limits.

RFQ / APPLICATION: RFQ: service fluid, pressure/temperature, line size, exact mating manufacturer/series and inspection needs. Confirm permitted rotation and articulation under the proposed duty. Figure number alone is insufficient for interchangeability or sour-service approval.

STANDARDS / DOCUMENTS: Require material/serial traceability, dimensional records and applicable pressure/leak tests. Sour-service material compliance and the pressure-temperature rating require specific evidence.

PACKING: Protect union faces and threads; restrain in crates and verify packed mass, dimensions and lifting points.

Nominal line size	2 / 3 in (nominal DN 50 / 80)
Connection series	Figure 1502 catalogue options
Service rating	By qualified size, material and complete assembly
Order definition	Exact catalogue configuration and service grade

WOG-633

High-pressure Plug Valve



Representative appearance

USE: Isolation valve for compatible high-pressure fracturing and well-service lines.

MATERIAL / STRUCTURE: Forged pressure body with rotary plug, seals and manual operating mechanism.

OPTIONS / ACCEPTANCE: Existing bore, union-end and seal configurations; use qualified service kits.

RFQ / APPLICATION: RFQ: service fluid, pressure/temperature, line size, exact mating manufacturer/series and inspection needs. Verify all mating components as a qualified assembly. Figure number alone is insufficient for interchangeability or sour-service approval.

STANDARDS / DOCUMENTS: Require material/serial traceability, dimensional records and applicable pressure/leak tests. Sour-service material compliance and the pressure-temperature rating require specific evidence.

PACKING: Protect union faces and threads; restrain in crates and verify packed mass, dimensions and lifting points.

Nominal line size	2 in (nominal DN 50)
Connection series	Figure 1502 catalogue options
Service rating	By qualified size, material and complete assembly
Order definition	Exact catalogue configuration and service grade

WOG-634

Plug Valve Soft-seal Repair Kit



Representative appearance

USE: Scheduled replacement of soft seals in the selected high-pressure plug-valve family.

MATERIAL / STRUCTURE: Matched soft seals and back-up rings listed for the approved valve model.

OPTIONS / ACCEPTANCE: Existing standard-service or separately qualified fluid-compatible compounds.

RFQ / APPLICATION: RFQ: valve manufacturer/model, size, revision and fluid/temperature. Verify the complete kit list; damaged metallic pressure parts require separate inspection. Reassembly and testing follow the valve supplier procedure.

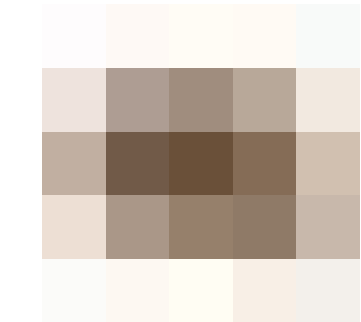
STANDARDS / DOCUMENTS: Require compound and dimensional evidence plus kit-to-valve mapping. A seal kit does not restore an unqualified valve rating.

PACKING: Clean sealed kit packs with part checklist, compound and date labels.

Valve size reference	2 in nominal (DN 50)
Kit identity	Exact valve family and revision
Contents	Specified soft seals and back-up rings
Traceability	Compound, lot and shelf-life record

WOG-608

Ceramic Proppant



Representative appearance

USE: Supports fracture conductivity; select strength and density for the designed closure stress.

MATERIAL / STRUCTURE: Screened, sintered ceramic granules; density and crush resistance vary by grade.

OPTIONS / ACCEPTANCE: Existing low- or intermediate-density grades; require measured conductivity curves.

RFQ / APPLICATION: Application-selected proppant, not a universal frac-sand replacement. RFQ: mesh distribution, closure stress, fluid/temperature, crush and conductivity data, tonnage and delivered freight basis.

STANDARDS / DOCUMENTS: Specify API 19C/ISO 13503-2 material tests and API 19D/ISO 13503-5 conductivity basis where applicable; require lot COA and SDS.

PACKING: Moisture-protected lined bags or rated FIBCs; verified lifting rating, pallet condition and gross shipment weight.

US sieve grades	20/40; 30/50; 40/70 mesh
20/40 sieve openings	0.0335-0.0167 in (850-425 micrometers)
30/50 sieve openings	0.0236-0.0118 in (600-300 micrometers)
40/70 sieve openings	0.0167-0.00835 in (425-212 micrometers)

WOG-609

Resin-coated Sand Proppant



Representative appearance

US sieve grades	20/40; 30/50; 40/70 mesh
20/40 sieve openings	0.0335-0.0167 in (850-425 micrometers)
30/50 sieve openings	0.0236-0.0118 in (600-300 micrometers)
40/70 sieve openings	0.0167-0.00835 in (425-212 micrometers)

USE: Supports fracture conductivity; curable grades can help control proppant flowback.

MATERIAL / STRUCTURE: Graded sand substrate with a supplier-qualified resin coating.

OPTIONS / ACCEPTANCE: Precured or curable stock grades; confirm cure temperature and fluid compatibility.

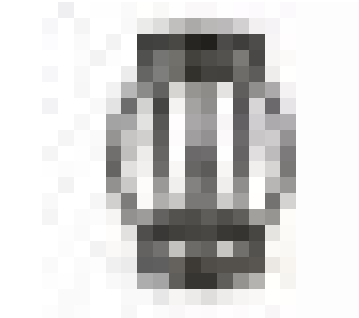
RFQ / APPLICATION: Application-selected proppant, not a universal frac-sand replacement. RFQ: mesh distribution, closure stress, fluid/temperature, crush and conductivity data, tonnage and delivered freight basis.

STANDARDS / DOCUMENTS: Specify API 19C/ISO 13503-2 material tests and API 19D/ISO 13503-5 conductivity basis where applicable; require lot COA and SDS.

PACKING: Moisture-protected lined bags or rated FIBCs; verified lifting rating, pallet condition and gross shipment weight.

WOG-610

Bow-spring Casing Centralizer



Representative appearance

Casing OD	4-1/2 / 5-1/2 / 7 in (114.3 / 139.7 / 177.8 mm)
Structure	Welded bow springs; slip-on or hinged collars
Primary control	Starting/running force and restoring force
Fit selection	Casing OD plus open-hole/restriction diameter

USE: Maintains casing standoff for cement placement in suitable well sections.

MATERIAL / STRUCTURE: Heat-treated spring-steel bows between steel end collars.

OPTIONS / ACCEPTANCE: Existing bow height and end-collar configurations; select qualified stop collars.

RFQ / APPLICATION: RFQ: casing OD, minimum restriction, hole size, inclination and target standoff. Confirm compressed clearance and measured force curves; centralizer count/spacing requires well-specific engineering.

STANDARDS / DOCUMENTS: API 10D/ISO 10427-1 performance evidence where applicable; do not infer validation from appearance.

PACKING: Nested only when springs cannot be damaged; banded pallets with protected bows.

WOG-611

Rigid Spiral-blade Casing Centralizer



Representative appearance

USE: Provides fixed standoff where rigid centralizers can pass the wellbore restrictions.

MATERIAL / STRUCTURE: Cast or machined steel body with integral rigid blades and axial bore.

OPTIONS / ACCEPTANCE: Existing catalogue bore/blade combinations and surface finish options.

Casing OD	4-1/2 / 5-1/2 / 7 in (114.3 / 139.7 / 177.8 mm)
Structure	Rigid slip-on body with helical blades
Primary dimensions	Body bore and maximum blade OD
Fit requirement	Blade OD below minimum passage restriction

RFQ / APPLICATION: Confirm actual casing OD, blade clearance, bearing area and flow-by area. Fixed blade OD does not compress like a bow spring; avoid selecting from casing size alone.

STANDARDS / DOCUMENTS: Require dimensional, material and fit verification; applicable centralization evaluation must match rigid-body design.

PACKING: Separate blade surfaces and protect bores; restrained pallet/crate packing.

WOG-612

Set-screw Casing Stop Collar



Representative appearance

USE: Axially locates compatible casing centralizers and selected cementing accessories.

MATERIAL / STRUCTURE: Machined steel ring with radial threaded screw positions.

OPTIONS / ACCEPTANCE: Existing casing sizes and screw arrangement; no welded-on modification.

Casing OD	4-1/2 / 5-1/2 / 7 in (114.3 / 139.7 / 177.8 mm)
Mounting	Slip-on ring with radial set screws
Material	Steel body and specified screw grade
Acceptance	Holding-force evidence on matching casing

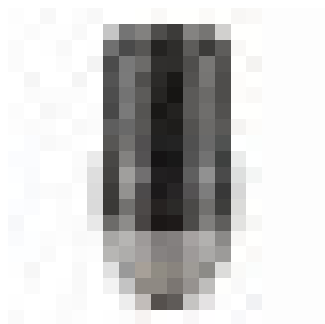
RFQ / APPLICATION: Confirm casing grade, OD tolerance, required holding load and supplier installation limits. The casing surface and selected screw system affect holding performance. Use the approved installation procedure.

STANDARDS / DOCUMENTS: Require dimensional checks and documented holding tests; material identity alone does not prove stop-collar capacity.

PACKING: Separate labeled size batches; corrosion protection and screw retention.

WOG-613

Casing Float Shoe



Representative appearance

USE: Guides the casing end and limits cement backflow after displacement.

MATERIAL / STRUCTURE: Steel outer shell, rounded drillable nose and internal check-valve assembly.

OPTIONS / ACCEPTANCE: Existing casing grade/thread options; qualified drillable internals and compatible plug system.

RFQ / APPLICATION: Specify casing OD, weight in lb/ft (kg/m), grade, connection and minimum drift. Confirm cement/fluid compatibility, backpressure, flow testing and drillout envelope. Match plug landing geometry where used.

STANDARDS / DOCUMENTS: API 10F/ISO 10427-3 test evidence where applicable; casing connections per the selected documented specification.

PACKING: Thread protectors, separated sleeves and restrained crates; confirm packed length and gross weight.

Casing OD	4-1/2 / 5-1/2 / 7 in (114.3 / 139.7 / 177.8 mm)
Connections	API round-thread or buttress catalogue options
Valve arrangement	Single or dual check valve by qualified series
Service control	Flow, differential pressure and temperature

WOG-614

Casing Float Collar



Representative appearance

USE: Provides a backflow check and landing location within the casing cementing system.

MATERIAL / STRUCTURE: Steel cylindrical body with drillable internals and check valve.

OPTIONS / ACCEPTANCE: Existing casing grade/thread options; qualified drillable internals and compatible plug system.

RFQ / APPLICATION: Specify casing OD, weight in lb/ft (kg/m), grade, connection and minimum drift. Confirm cement/fluid compatibility, backpressure, flow testing and drillout envelope. Match plug landing geometry where used.

STANDARDS / DOCUMENTS: API 10F/ISO 10427-3 test evidence where applicable; casing connections per the selected documented specification.

PACKING: Thread protectors, separated sleeves and restrained crates; confirm packed length and gross weight.

Casing OD	4-1/2 / 5-1/2 / 7 in (114.3 / 139.7 / 177.8 mm)
Connections	API round-thread or buttress catalogue options
Valve arrangement	Single or dual check valve by qualified series
Service control	Flow, differential pressure and temperature

WOG-615

Top Cementing Wiper Plug



Representative appearance

Casing OD	4-1/2 / 5-1/2 / 7 in (114.3 / 139.7 / 177.8 mm)
Core	Drillable phenolic or qualified polymer core
Function	Solid-top separating plug
Fit control	Casing ID/weight and landing profile

USE: Separates displacement fluid from cement and wipes the casing interior.

MATERIAL / STRUCTURE: Elastomer wiping fins over a solid drillable core.

OPTIONS / ACCEPTANCE: Existing size and elastomer compounds; conventional profiles only. Match top and bottom plugs as a qualified set.

RFQ / APPLICATION: RFQ: casing OD, weight, actual ID, fluid/temperature exposure and landing equipment. Confirm bump-pressure and sealing limits.

STANDARDS / DOCUMENTS: Require compound identity, dimensional checks, functional tests and shelf-life evidence; no blanket API certification claim.

PACKING: Protect fins from compression, heat and sunlight; separate top/bottom plugs with durable labels.

WOG-616

Bottom Cementing Wiper Plug



Representative appearance

Casing OD	4-1/2 / 5-1/2 / 7 in (114.3 / 139.7 / 177.8 mm)
Core	Drillable phenolic or qualified polymer core
Function	Diaphragm-type flow-through plug
Fit control	Casing ID/weight and landing profile

USE: Separates cement from preceding fluid and permits through-flow after landing.

MATERIAL / STRUCTURE: Elastomer wiping fins around a hollow drillable core with diaphragm.

OPTIONS / ACCEPTANCE: Existing size and elastomer compounds; conventional profiles only. Match top and bottom plugs as a qualified set.

RFQ / APPLICATION: RFQ: casing OD, weight, actual ID, fluid/temperature exposure and landing equipment. Confirm diaphragm opening-pressure range separately from structural pressure rating.

STANDARDS / DOCUMENTS: Require compound identity, dimensional checks, functional tests and shelf-life evidence; no blanket API certification claim.

PACKING: Protect fins from compression, heat and sunlight; separate top/bottom plugs with durable labels.

WOG-187

Two-piece Threaded Ball Valve



Representative appearance

USE: Quarter-turn isolation of compatible liquid or gas lines.

MATERIAL / STRUCTURE: Two-piece stainless body, ball, stem and soft seats.

OPTIONS / ACCEPTANCE: Full/reduced bore, PTFE seat grade, locking handle and stem packing.

RFQ / APPLICATION: Specify bore or port pattern, seat/packing material and pressure-temperature rating. Valve body rating does not establish fire-safe or fugitive-emission qualification.

STANDARDS / DOCUMENTS: Confirm material and pressure-temperature limits, dimensional interface and shell/seat test requirements. Certification requires exact-model evidence.

PACKING: Protect connections, seat faces and operators. Carton or crate by size and weight; retain lot identification.

Nominal size	NPS 1/4-2 (DN 8-50)
Connection	Female NPT; two-piece body
Material / trim	316 stainless / PTFE seats
Rating	Pressure-temperature rating by actual design; confirm before supply

WOG-191

Needle Valve



Representative appearance

USE: Fine flow adjustment and isolation in small-bore instrument and sampling lines.

MATERIAL / STRUCTURE: Machined stainless body, tapered needle stem, seat, bonnet and adjustable stem packing.

OPTIONS / ACCEPTANCE: Straight/angle pattern, hard/soft seat, packing and NPT end sizes.

RFQ / APPLICATION: Specify bore or port pattern, seat/packing material and pressure-temperature rating. Valve body rating does not establish fire-safe or fugitive-emission qualification.

STANDARDS / DOCUMENTS: Confirm material and pressure-temperature limits, dimensional interface and shell/seat test requirements. Certification requires exact-model evidence.

PACKING: Protect connections, seat faces and operators. Carton or crate by size and weight; retain lot identification.

Reference port	1/4-1 in NPT (nominal pipe designation)
RFQ pressure	3,000-6,000 psi (20.68-41.37 MPa); vendor qualified
Material	316 stainless; stem and packing duty selected
Duty	Instrumentation isolation and throttling

WOG-437

Three-piece Threaded Ball Valve



Representative appearance

Nominal size	NPS 1/4-2 (DN 8-50)
Body / ball	CF8M / 316 stainless steel
Ends / seats	Female NPT; PTFE / reinforced PTFE
Flow form	Full / reduced bore by catalogue

USE: Standard isolation, flow-direction or straining functions in production-fluid and utility piping.

MATERIAL / STRUCTURE: Three-piece body with removable center section and manual quarter-turn handle; match the published bore and seat design.

OPTIONS / ACCEPTANCE: Select published size, class, ends, trim and seal materials. State inspection, shell and seat-leakage requirements.

RFQ / APPLICATION: Specify bore or port pattern, seat/packing material and pressure-temperature rating. Valve body rating does not establish fire-safe or fugitive-emission qualification.

STANDARDS / DOCUMENTS: Pressure-temperature limits apply to the selected body, trim and seat. Standard references are not certification claims.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-438

Three-way Threaded Ball Valve



Representative appearance

Nominal size	NPS 1/4-2 (DN 8-50)
Body / ball	CF8M / 316 stainless steel
Ends / seats	Female NPT; PTFE / reinforced PTFE
Port pattern	L-port / T-port; state handle positions

USE: Standard isolation, flow-direction or straining functions in production-fluid and utility piping.

MATERIAL / STRUCTURE: Three-port ball with a fixed L or T passage for diverting or mixing compatible flows; state the permitted operating positions.

OPTIONS / ACCEPTANCE: Select published size, class, ends, trim and seal materials. State inspection, shell and seat-leakage requirements.

RFQ / APPLICATION: Specify bore or port pattern, seat/packing material and pressure-temperature rating. Valve body rating does not establish fire-safe or fugitive-emission qualification.

STANDARDS / DOCUMENTS: Pressure-temperature limits apply to the selected body, trim and seat. Standard references are not certification claims.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-188

Flanged Gate Valve



Representative appearance

USE: On/off isolation in production-water and utility piping; qualify the selected body and trim for hydrocarbon service.

MATERIAL / STRUCTURE: Flanged body, gate/wedge, bonnet, rising or non-rising stem and manual operator.

OPTIONS / ACCEPTANCE: Body material, metal/resilient seat, stem arrangement, flange class and operator.

Nominal size	NPS 2-12 (DN 50-300)
Connection	Flanged ends; class, facing and drilling selected
Material / trim	Body, disc and seat materials selected for fluid
Rating	Pressure-temperature rating by actual design; confirm before supply

RFQ / APPLICATION: Match material grade, end connection, face-to-face length and trim. Use a gate valve for isolation; sustained throttling requires a suitable valve design.

STANDARDS / DOCUMENTS: Confirm material and pressure-temperature limits, dimensional interface and shell/seat test requirements. Certification requires exact-model evidence.

PACKING: Protect connections, seat faces and operators. Carton or crate by size and weight; retain lot identification.

WOG-323

Flanged Globe Valve



Representative appearance

USE: Isolation and controlled throttling on suitable oil, gas and utility piping.

MATERIAL / STRUCTURE: Rising-stem globe valve with handwheel and a throttling disc moving onto the seat.

OPTIONS / ACCEPTANCE: Metal or resilient seating, drain port, trim and installation orientation.

Nominal size	NPS 1/2-8 (DN 15-200)
Flange options	ASME Class 150 / 300 / 600
Body / trim	WCB / CF8M; stainless trim
End / face	RF flanges; face-to-face by selected standard

RFQ / APPLICATION: Match material grade, end connection, face-to-face length and trim. Use a gate valve for isolation; sustained throttling requires a suitable valve design.

STANDARDS / DOCUMENTS: ASME B16.34/B16.5; API 598 or agreed pressure/leak test.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-439

Forged Steel Gate Valve



Representative appearance

USE: Standard isolation, flow-direction or straining functions in production-fluid and utility piping.

MATERIAL / STRUCTURE: Forged body with rising stem and wedge gate; intended for isolation in the fully open or fully closed position.

OPTIONS / ACCEPTANCE: Select published size, class, ends, trim and seal materials. State inspection, shell and seat-leakage requirements.

RFQ / APPLICATION: Match material grade, end connection, face-to-face length and trim. Use a gate valve for isolation; sustained throttling requires a suitable valve design.

STANDARDS / DOCUMENTS: API 602 for compact steel valves; ASME B16.34 rating basis and specified API 598 shell/seat tests. Confirm applicable editions.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

Nominal size	NPS 1/2-2 (DN 15-50)
Class	Class 800; rating by material/temperature
Body / ends	A105 / A182 F316; NPT or socket weld
Bonnet / trim	Bolted bonnet; trim specified

WOG-440

Forged Steel Globe Valve



Representative appearance

USE: Standard isolation, flow-direction or straining functions in production-fluid and utility piping.

MATERIAL / STRUCTURE: Forged globe body with guided disc and stem; published flow direction, trim and throttling limits govern service.

OPTIONS / ACCEPTANCE: Select published size, class, ends, trim and seal materials. State inspection, shell and seat-leakage requirements.

RFQ / APPLICATION: Match material grade, end connection, face-to-face length and trim. Use a globe valve for isolation; sustained throttling requires a suitable valve design.

STANDARDS / DOCUMENTS: API 602 for compact steel valves; ASME B16.34 rating basis and specified API 598 shell/seat tests. Confirm applicable editions.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

Nominal size	NPS 1/2-2 (DN 15-50)
Class	Class 800; rating by material/temperature
Body / ends	A105 / A182 F316; NPT or socket weld
Bonnet / trim	Bolted bonnet; trim specified

WOG-189

Dual-plate Wafer Check Valve



Representative appearance

Nominal size	NPS 2-12 (DN 50-300)
Connection	Wafer body between matching pipe flanges
Material / trim	Body, disc and seat materials selected for fluid
Rating	Pressure-temperature rating by actual design; confirm before supply

USE: Automatic reverse-flow prevention in compatible process and utility lines.

MATERIAL / STRUCTURE: Wafer body with two hinged plates, hinge pin and spring-assisted closing.

OPTIONS / ACCEPTANCE: Body and plate material, seat compound, spring material and flange compatibility.

RFQ / APPLICATION: Confirm flow direction, installation orientation, cracking pressure and minimum operating flow. Evaluate reverse-flow transients and pressure loss in the actual line.

STANDARDS / DOCUMENTS: Confirm material and pressure-temperature limits, dimensional interface and shell/seat test requirements. Certification requires exact-model evidence.

PACKING: Protect connections, seat faces and operators. Carton or crate by size and weight; retain lot identification.

WOG-324

In-line Spring Check Valve



Representative appearance

NPT sizes	1/4-2 in (DN 8-50 nominal)
Material	316 stainless; PTFE/FKM/EPDM as duty allows
Opening behavior	Spring cracking pressure; by selected model
Connection	Female NPT; 0.540-2.375 in mating pipe OD (13.7-60.3 mm)

USE: Compact non-return protection in small-bore liquid or gas service.

MATERIAL / STRUCTURE: Axial in-line check valve with spring-loaded poppet and threaded end connections.

OPTIONS / ACCEPTANCE: Select sealing compound, mesh opening, drain plug and orientation.

RFQ / APPLICATION: Confirm flow direction, installation orientation, cracking pressure and minimum operating flow. Evaluate reverse-flow transients and pressure loss in the actual line.

STANDARDS / DOCUMENTS: NPT to ASME B1.20.1; specify shell and seat leakage tests, cracking pressure and installation orientation.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-325

Flanged Swing Check Valve



Representative appearance

USE: Prevent reverse flow in compatible process and utility lines.

MATERIAL / STRUCTURE: Swing-disc check valve with a hinged disc and bolted cover; installed orientation must permit reliable closure.

OPTIONS / ACCEPTANCE: Metal or resilient seating, drain port, trim and installation orientation.

Nominal size	NPS 1/2-8 (DN 15-200)
Flange options	ASME Class 150 / 300 / 600
Body / trim	WCB / CF8M; stainless trim
End / face	RF flanges; face-to-face by selected standard

RFQ / APPLICATION: Confirm flow direction, installation orientation, cracking pressure and minimum operating flow. Evaluate reverse-flow transients and pressure loss in the actual line.

STANDARDS / DOCUMENTS: ASME B16.34/B16.5; API 598 or agreed pressure/leak test.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-441

Forged Steel Piston Check Valve



Representative appearance

USE: Standard isolation, flow-direction or straining functions in production-fluid and utility piping.

MATERIAL / STRUCTURE: Forged body with guided lift piston for reverse-flow prevention; installation orientation and minimum flow require confirmation.

OPTIONS / ACCEPTANCE: Select published size, class, ends, trim and seal materials. State inspection, shell and seat-leakage requirements.

Nominal size	NPS 1/2-2 (DN 15-50)
Class	Class 800; rating by material/temperature
Body / ends	A105 / A182 F316; NPT or socket weld
Bonnet / trim	Bolted bonnet; trim specified

RFQ / APPLICATION: Confirm flow direction, installation orientation, cracking pressure and minimum operating flow. Evaluate reverse-flow transients and pressure loss in the actual line.

STANDARDS / DOCUMENTS: API 602 for compact steel valves; ASME B16.34 rating basis and specified API 598 shell/seat tests. Confirm applicable editions.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-443

Suction Foot Valve with Strainer



Representative appearance

Nominal size	NPS 1-4 (DN 25-100)
Connection	Female NPT catalogue models
Construction	Stainless body, inlet screen and check disc
Service	Clean compatible liquids; pump suction

USE: Maintain pump prime in compatible clean-water or utility-liquid suction service. Select screen area for available suction head.

MATERIAL / STRUCTURE: Catalogue valve body and trim selected for the fluid; pressure-containing material and seats defined in the order.

OPTIONS / ACCEPTANCE: Select published size, class, ends, trim and seal materials. State inspection, shell and seat-leakage requirements.

RFQ / APPLICATION: Confirm flow direction, installation orientation, cracking pressure and minimum operating flow. Evaluate reverse-flow transients and pressure loss in the actual line.

STANDARDS / DOCUMENTS: Pressure-temperature limits apply to the selected body, trim and seat. Standard references are not certification claims.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-190

Wafer Butterfly Valve



Representative appearance

Nominal size	NPS 2-12 (DN 50-300)
Connection	Wafer body; verify flange drilling and seat fit
Material / trim	Body, disc and seat materials selected for fluid
Rating	Pressure-temperature rating by actual design; confirm before supply

USE: Quarter-turn isolation in water and compatible utility service.

MATERIAL / STRUCTURE: Wafer body, rotating disc, stem, resilient seat and lever or gear operator.

OPTIONS / ACCEPTANCE: Disc/body material, seat compound, flange drilling and operator.

RFQ / APPLICATION: Confirm flange drilling and seat compatibility. Lug construction alone does not establish dead-end pressure capability; actuator torque and fail action require selection.

STANDARDS / DOCUMENTS: Confirm material and pressure-temperature limits, dimensional interface and shell/seat test requirements. Certification requires exact-model evidence.

PACKING: Protect connections, seat faces and operators. Carton or crate by size and weight; retain lot identification.

WOG-192

Pneumatically Actuated Butterfly Valve



Representative appearance

Nominal size	NPS 2-12 (DN 50-300)
Connection	Wafer body; verify flange drilling and seat fit
Material / trim	Body, disc and seat materials selected for fluid
Rating	Pressure-temperature rating by actual design; confirm before supply

USE: Remote on/off control of water or compatible utility fluids.

MATERIAL / STRUCTURE: Butterfly valve with pneumatic actuator, coupling and mounting bracket.

OPTIONS / ACCEPTANCE: Double-acting/spring-return actuator, fail position, limit switches and solenoid voltage.

RFQ / APPLICATION: Confirm flange drilling and seat compatibility. Lug construction alone does not establish dead-end pressure capability; actuator torque and fail action require selection.

STANDARDS / DOCUMENTS: Confirm material and pressure-temperature limits, dimensional interface and shell/seat test requirements. Certification requires exact-model evidence.

PACKING: Protect connections, seat faces and operators. Carton or crate by size and weight; retain lot identification.

WOG-442

Lug-style Butterfly Valve



Representative appearance

Nominal size	NPS 2-12 (DN 50-300)
Body / disc	Ductile iron body; stainless disc option
Seat	EPDM / NBR; match actual fluid
Connection / operator	Lug body; lever or gearbox

USE: Standard isolation, flow-direction or straining functions in production-fluid and utility piping.

MATERIAL / STRUCTURE: Catalogue valve body and trim selected for the fluid; pressure-containing material and seats defined in the order.

OPTIONS / ACCEPTANCE: Select published size, class, ends, trim and seal materials. State inspection, shell and seat-leakage requirements.

RFQ / APPLICATION: Confirm flange drilling and seat compatibility. Lug construction alone does not establish dead-end pressure capability; actuator torque and fail action require selection.

STANDARDS / DOCUMENTS: API 609 where specified. Match flange drilling and verify dead-end rating; it may differ from in-line rating.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-326

Threaded Y-strainer



Representative appearance

USE: Remove coarse debris ahead of pumps, valves and instruments.

MATERIAL / STRUCTURE: Y-pattern threaded body with removable strainer screen and service plug.

OPTIONS / ACCEPTANCE: Select sealing compound, mesh opening, drain plug and orientation.

NPT sizes	1/4-2 in (DN 8-50 nominal)
Material	316 stainless; PTFE/FKM/EPDM as duty allows
Screen selection	Perforation or mesh/wire diameter; no spring function
Connection	Female NPT; 0.540-2.375 in mating pipe OD (13.7-60.3 mm)

RFQ / APPLICATION: Define screen opening and wire diameter or perforation size, not mesh count alone. Check clean and dirty pressure drop and provide safe drain/cleaning access.

STANDARDS / DOCUMENTS: NPT to ASME B1.20.1; shell/leak or screen differential-pressure test by specification.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-327

Flanged Simplex Basket Strainer



Representative appearance

USE: Liquid filtration for produced-water pretreatment, pump protection and chemical-service side streams.

MATERIAL / STRUCTURE: Single basket chamber with removable perforated basket and bolted/flanged line connections.

OPTIONS / ACCEPTANCE: Select flange/NPT connections, element count, seals, differential-pressure ports and code construction.

Connection range	NPS 1-6 (DN 25-150)
Wetted material	304L / 316L stainless steel
Element interface	Perforated basket; optional mesh liner
Design selection	Closure, seal and design pressure/temperature by selected housing

RFQ / APPLICATION: Define screen opening and wire diameter or perforation size, not mesh count alone. Check clean and dirty pressure drop and provide safe drain/cleaning access.

STANDARDS / DOCUMENTS: ASME Section VIII where applicable and ordered; code stamp requires evidence for the supplied vessel.

PACKING: Crate upright or on engineered supports; cap every nozzle and brace closure assemblies.

WOG-444

Flanged Y-strainer



Representative appearance

Nominal size	NPS 2-8 (DN 50-200)
Flange series	ASME Class 125 / 150 / 300, by body
Body / screen	Cast iron / WCB / CF8M; stainless screen
Screen selections	20 / 40 / 60 mesh; specify open area

USE: Standard isolation, flow-direction or straining functions in production-fluid and utility piping.

MATERIAL / STRUCTURE: Catalogue valve body and trim selected for the fluid; pressure-containing material and seats defined in the order.

OPTIONS / ACCEPTANCE: Select published size, class, ends, trim and seal materials. State inspection, shell and seat-leakage requirements.

RFQ / APPLICATION: Define screen opening and wire diameter or perforation size, not mesh count alone. Check clean and dirty pressure drop and provide safe drain/cleaning access.

STANDARDS / DOCUMENTS: ASME B16.1 iron or B16.5 steel flange interfaces as applicable. Confirm body rating, clean pressure loss and screen collapse differential.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-501

Spring-loaded Back Pressure Regulator



Representative appearance

Nominal sizes	1/2 / 3/4 / 1 / 2 in (DN 15 / 20 / 25 / 50)
Connection selection	NPT; catalogue flanged options
Control function	Maintains upstream pressure
Range selection	Select exact spring and body rating

USE: Maintain upstream pressure on a defined production gas or liquid service, such as separator outlet or compatible liquid control lines.

MATERIAL / STRUCTURE: Conventional direct-operated diaphragm/spring regulator; steel or stainless body options by catalogue.

OPTIONS / ACCEPTANCE: Select spring range, port size, diaphragm and seat for the pressure drop and fluid.

RFQ / APPLICATION: RFQ: upstream setpoint/range, inlet and outlet pressures, required flow, gas/liquid composition, temperature, trim and end connections. A regulator is not a safety relief valve.

STANDARDS / DOCUMENTS: Require regulator flow curves and pressure-temperature limits. A control regulator is not a substitute for a required certified safety valve.

PACKING: Individual protective packs on pallets; quote packed size and gross weight. Consolidate identical catalogue sizes.

WOG-193

Oilfield Suction & Discharge Hose



Representative appearance

USE: Transfer compatible drilling fluids and production liquids using a fluid-specific hose grade.

MATERIAL / STRUCTURE: Reinforced hose with a helical support for suction duty; choose a published compound and pressure/vacuum grade for the fluid.

OPTIONS / ACCEPTANCE: Select fixed catalogue bore, length, liner and rated end connection; confirm minimum bend radius.

Reference bore	1-6 in (25.4-152.4 mm)
Reference length	20-100 ft (6.10-30.48 m)
Duty	Water / hydrocarbon / chemical; dedicated construction
Qualification	Working pressure, burst, vacuum, bend radius and ends

RFQ / APPLICATION: Select hose, couplings and assembly rating as one system. Confirm vacuum capability, bend radius, medium and temperature. Water-transfer hose is not stimulation hose.

STANDARDS / DOCUMENTS: Document working pressure, burst, vacuum and end retention for the complete assembly. Verify fluid and temperature compatibility.

PACKING: Coils or cradles, ends capped; maintain minimum bend radius. Confirm packed volume and gross weight before container loading.

WOG-354

Braided Corrugated Metal Hose



Representative appearance

USE: Accommodate vibration and defined movement on pump and process connections.

MATERIAL / STRUCTURE: Flexible metal hose assembly with welded end fittings and load-carrying braid.

OPTIONS / ACCEPTANCE: Single/double braid, alloy, length and minimum bend radius.

Nominal bore	1/2-4 in (DN 15-100)
Assembly length	12-120 in (304.8-3,048 mm)
Construction	Corrugated stainless liner with wire braid
End options	Flanged / NPT / welded ends

RFQ / APPLICATION: Select hose, couplings and assembly rating as one system. Confirm vacuum capability, bend radius, medium and temperature. Water-transfer hose is not stimulation hose.

STANDARDS / DOCUMENTS: ISO 10380 where specified; pressure/leak testing of the finished assembly.

PACKING: Protect braid and ends; coil only above the approved minimum bend radius.

WOG-503

Oilfield Vacuum Suction Hose



Representative appearance

Bore selections	2 / 3 / 4 in (50.8 / 76.2 / 101.6 mm)
Assembly length option	20 ft (6.10 m)
Working class example	150 psi (10.3 bar); assembly-dependent
Vacuum selection	Full-suction grade; verify temperature limit

USE: Transfer compatible oilfield waste liquids and non-refined petroleum in vacuum service.

MATERIAL / STRUCTURE: Oil-resistant tube, textile reinforcement and helical wire with corrugated protective cover.

OPTIONS / ACCEPTANCE: Fixed catalogue bore/length with rated cam-and-groove ends; specify media-compatible seals.

RFQ / APPLICATION: Select hose, couplings and assembly rating as one system. Confirm vacuum capability, bend radius, medium and temperature. Water-transfer hose is not stimulation hose.

STANDARDS / DOCUMENTS: Verify working/burst pressure, vacuum, bend radius and assembled-end retention. Do not infer refined-fuel compatibility.

PACKING: Individual protective packs on pallets; quote packed size and gross weight. Consolidate identical catalogue sizes.

WOG-504

TPU Layflat Water-transfer Hose



Representative appearance

Bore selections	4 / 6 / 8 / 10 / 12 in (101.6-304.8 mm)
Supply form	Standard factory-length rolls
Construction	TPU cover/lining; woven reinforcement
Rating selection	By bore, temperature and coupling system

USE: High-volume water transfer to frac sites and between water storage locations.

MATERIAL / STRUCTURE: Flat-collapsible woven-reinforced polyurethane hose for compact rolled transport.

OPTIONS / ACCEPTANCE: Catalogue roll lengths and rated coupling options; select abrasion and water-quality compatibility.

RFQ / APPLICATION: Select hose, couplings and assembly rating as one system. Confirm vacuum capability, bend radius, medium and temperature. Water-transfer hose is not stimulation hose.

STANDARDS / DOCUMENTS: Require hydrostatic test and coupling retention data. Water supply service only; not high-pressure well stimulation or suction duty.

PACKING: Individual protective packs on pallets; quote packed size and gross weight. Consolidate identical catalogue sizes.

WOG-413

Type A Cam-and-groove Adapter



Representative appearance

USE: Low-pressure liquid transfer for water, compatible chemicals and petroleum service hoses.

MATERIAL / STRUCTURE: Male adapter × female NPT. Conventional catalogue geometry; do not substitute a different coupling system.

OPTIONS / ACCEPTANCE: Select catalogue size, alloy and NBR/EPDM/FKM gasket as applicable. Hose shanks require a qualified hose attachment.

Nominal transfer size	1 / 1-1/2 / 2 / 3 / 4 in (DN 25 / 40 / 50 / 80 / 100)
Body selection	316 stainless steel / aluminum
Connection form	Male adapter × female NPT
Pressure selection	By size, alloy, gasket and catalogue

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: Use the selected coupling pressure-temperature table and mating dimensions. No compressed-gas or steam service.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-414

Type B Cam-and-groove Coupler



Representative appearance

USE: Low-pressure liquid transfer for water, compatible chemicals and petroleum service hoses.

MATERIAL / STRUCTURE: Female coupler × male NPT. Conventional catalogue geometry; do not substitute a different coupling system.

OPTIONS / ACCEPTANCE: Select catalogue size, alloy and NBR/EPDM/FKM gasket as applicable. Hose shanks require a qualified hose attachment.

Nominal transfer size	1 / 1-1/2 / 2 / 3 / 4 in (DN 25 / 40 / 50 / 80 / 100)
Body selection	316 stainless steel / aluminum
Connection form	Female coupler × male NPT
Pressure selection	By size, alloy, gasket and catalogue

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: Use the selected coupling pressure-temperature table and mating dimensions. No compressed-gas or steam service.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-415

Type C Cam-and-groove Hose Coupler



Representative appearance

USE: Low-pressure liquid transfer for water, compatible chemicals and petroleum service hoses.

MATERIAL / STRUCTURE: Female coupler × hose shank. Conventional catalogue geometry; do not substitute a different coupling system.

OPTIONS / ACCEPTANCE: Select catalogue size, alloy and NBR/EPDM/FKM gasket as applicable. Hose shanks require a qualified hose attachment.

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: Use the selected coupling pressure-temperature table and mating dimensions. No compressed-gas or steam service.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

Nominal transfer size	1 / 1-1/2 / 2 / 3 / 4 in (DN 25 / 40 / 50 / 80 / 100)
Body selection	316 stainless steel / aluminum
Connection form	Female coupler × hose shank
Pressure selection	By size, alloy, gasket and catalogue

WOG-416

Type D Cam-and-groove Coupler



Representative appearance

USE: Low-pressure liquid transfer for water, compatible chemicals and petroleum service hoses.

MATERIAL / STRUCTURE: Female coupler × female NPT. Conventional catalogue geometry; do not substitute a different coupling system.

OPTIONS / ACCEPTANCE: Select catalogue size, alloy and NBR/EPDM/FKM gasket as applicable. Hose shanks require a qualified hose attachment.

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: Use the selected coupling pressure-temperature table and mating dimensions. No compressed-gas or steam service.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

Nominal transfer size	1 / 1-1/2 / 2 / 3 / 4 in (DN 25 / 40 / 50 / 80 / 100)
Body selection	316 stainless steel / aluminum
Connection form	Female coupler × female NPT
Pressure selection	By size, alloy, gasket and catalogue

WOG-417

Type E Cam-and-groove Hose Adapter



Representative appearance

USE: Low-pressure liquid transfer for water, compatible chemicals and petroleum service hoses.

MATERIAL / STRUCTURE: Male adapter × hose shank. Conventional catalogue geometry; do not substitute a different coupling system.

OPTIONS / ACCEPTANCE: Select catalogue size, alloy and NBR/EPDM/FKM gasket as applicable. Hose shanks require a qualified hose attachment.

Nominal transfer size	1 / 1-1/2 / 2 / 3 / 4 in (DN 25 / 40 / 50 / 80 / 100)
Body selection	316 stainless steel / aluminum
Connection form	Male adapter × hose shank
Pressure selection	By size, alloy, gasket and catalogue

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: Use the selected coupling pressure-temperature table and mating dimensions. No compressed-gas or steam service.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-418

Type F Cam-and-groove Adapter



Representative appearance

USE: Low-pressure liquid transfer for water, compatible chemicals and petroleum service hoses.

MATERIAL / STRUCTURE: Male adapter × male NPT. Conventional catalogue geometry; do not substitute a different coupling system.

OPTIONS / ACCEPTANCE: Select catalogue size, alloy and NBR/EPDM/FKM gasket as applicable. Hose shanks require a qualified hose attachment.

Nominal transfer size	1 / 1-1/2 / 2 / 3 / 4 in (DN 25 / 40 / 50 / 80 / 100)
Body selection	316 stainless steel / aluminum
Connection form	Male adapter × male NPT
Pressure selection	By size, alloy, gasket and catalogue

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: Use the selected coupling pressure-temperature table and mating dimensions. No compressed-gas or steam service.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-419

Cam-and-groove Dust Cap



Representative appearance

USE: Protects disconnected cam-and-groove interfaces from dirt during storage and transport.

MATERIAL / STRUCTURE: Female dust cap; type DC. Conventional catalogue geometry; do not substitute a different coupling system.

OPTIONS / ACCEPTANCE: Select catalogue size, alloy and NBR/EPDM/FKM gasket as applicable. Hose shanks require a qualified hose attachment.

Nominal transfer size	1 / 1-1/2 / 2 / 3 / 4 in (DN 25 / 40 / 50 / 80 / 100)
Body selection	316 stainless steel / aluminum
Connection form	Female dust cap; type DC
Service restriction	Dust protection only; not a pressure closure

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: Not for pressure retention, compressed gas or steam. Depressurize the line before disconnecting any coupling.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-420

Cam-and-groove Dust Plug



Representative appearance

USE: Protects disconnected cam-and-groove interfaces from dirt during storage and transport.

MATERIAL / STRUCTURE: Male dust plug; type DP. Conventional catalogue geometry; do not substitute a different coupling system.

OPTIONS / ACCEPTANCE: Select catalogue size, alloy and NBR/EPDM/FKM gasket as applicable. Hose shanks require a qualified hose attachment.

Nominal transfer size	1 / 1-1/2 / 2 / 3 / 4 in (DN 25 / 40 / 50 / 80 / 100)
Body selection	316 stainless steel / aluminum
Connection form	Male dust plug; type DP
Service restriction	Dust protection only; not a pressure closure

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: Not for pressure retention, compressed gas or steam. Depressurize the line before disconnecting any coupling.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-421

Cam-and-groove Gasket



Representative appearance

USE: Low-pressure liquid transfer for water, compatible chemicals and petroleum service hoses.

MATERIAL / STRUCTURE: Molded gasket for the female cam-and-groove sealing recess; select the actual groove dimensions and elastomer compound.

OPTIONS / ACCEPTANCE: Select catalogue size, alloy and NBR/EPDM/FKM gasket as applicable. Hose shanks require a qualified hose attachment.

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: Use the selected coupling pressure-temperature table and mating dimensions. No compressed-gas or steam service.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

Coupler sizes	1-4 in (DN 25-100)
Compound	NBR / EPDM / FKM
Dimensional control	ID × OD × thickness by coupling series
Supply format	Bulk bags by size and compound

WOG-422

T-bolt Hose Clamp



Representative appearance

USE: Standard catalogue hardware for hose retention or pipe support at field installations.

MATERIAL / STRUCTURE: Formed steel band or split body with standard fasteners; finish and contact profile selected for the installation.

OPTIONS / ACCEPTANCE: Select the actual outside diameter, adjustment range and fastener material. Keep the published tightening limit with the order.

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: A clamp diameter alone is not a working-load or pressure rating. Use the selected catalogue assembly rating.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

Clamp diameter range	Approx. 1-8 in (25-203 mm); catalogue bands
Band material	304 / 316 stainless steel
Closure	T-bolt with locknut
Ordering basis	Installed hose OD, not hose ID

WOG-423

Worm-drive Hose Clamp



Representative appearance

USE: Standard catalogue hardware for hose retention or pipe support at field installations.

MATERIAL / STRUCTURE: Formed steel band or split body with standard fasteners; finish and contact profile selected for the installation.

OPTIONS / ACCEPTANCE: Select the actual outside diameter, adjustment range and fastener material. Keep the published tightening limit with the order.

Typical SAE sizes	#8 / #12 / #16 / #24 / #32 / #48
Band width	1/2 in (12.7 mm) catalogue series
Material	304 / 316 band; screw grade specified
Adjustment range	Verify actual min/max diameter by size

RFQ / APPLICATION: Cam-and-groove parts are for compatible liquid-transfer service. Do not use for compressed gas or steam. Dust closures are not pressure-retaining process closures.

STANDARDS / DOCUMENTS: SAE J1508 where specified; band and screw construction determine torque and corrosion performance.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-195

Weld-neck Flange



Representative appearance

Nominal size	NPS 1/2-12 (DN 15-300)
Class options	ASME Class 150 / 300 / 600
Material options	A105 / A182 F304(L), F316(L)
Facing / bore	RF / FF; bore to mating pipe schedule

USE: Connect or close process piping, pump packages and gas-treatment modules.

MATERIAL / STRUCTURE: Forged or rolled flange; machined bolt circle, bore and gasket face.

OPTIONS / ACCEPTANCE: Select face finish, bore, coating and bolting set; choose each flange structure separately.

RFQ / APPLICATION: RFQ: NPS, pressure class, facing, material grade, pipe schedule/bore and quantity. Match bolt pattern and gasket. Class designation is not a pressure rating in psi.

STANDARDS / DOCUMENTS: ASME B16.5; material specification and pressure-temperature table. Class is not a psi rating.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-301

Slip-on Flange



Representative appearance

USE: Connect or close process piping, pump packages and gas-treatment modules.

MATERIAL / STRUCTURE: Forged or rolled flange; machined bolt circle, bore and gasket face.

OPTIONS / ACCEPTANCE: Select face finish, bore, coating and bolting set; choose each flange structure separately.

Nominal size	NPS 1/2-12 (DN 15-300)
Class options	ASME Class 150 / 300 / 600
Material options	A105 / A182 F304(L), F316(L)
Facing / fit	RF / FF; slip-on bore to mating pipe outside diameter

RFQ / APPLICATION: RFQ: NPS, pressure class, facing, material grade, pipe schedule/bore and quantity. Match bolt pattern and gasket. Class designation is not a pressure rating in psi.

STANDARDS / DOCUMENTS: ASME B16.5; material specification and pressure-temperature table. Class is not a psi rating.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-302

Blind Flange



Representative appearance

USE: Connect or close process piping, pump packages and gas-treatment modules.

MATERIAL / STRUCTURE: Forged or rolled flange; machined bolt circle, bore and gasket face.

OPTIONS / ACCEPTANCE: Select face finish, bore, coating and bolting set; choose each flange structure separately.

Nominal size	NPS 1/2-12 (DN 15-300)
Class options	ASME Class 150 / 300 / 600
Material options	A105 / A182 F304(L), F316(L)
Facing	RF / FF; blind closure without through bore

RFQ / APPLICATION: RFQ: NPS, pressure class, facing, material grade, pipe schedule/bore and quantity. Match bolt pattern and gasket. Class designation is not a pressure rating in psi.

STANDARDS / DOCUMENTS: ASME B16.5; material specification and pressure-temperature table. Class is not a psi rating.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-303

Socket-weld Flange



Representative appearance

USE: Connect or close process piping, pump packages and gas-treatment modules.

MATERIAL / STRUCTURE: Forged or rolled flange; machined bolt circle, bore and gasket face.

OPTIONS / ACCEPTANCE: Select face finish, bore, coating and bolting set; choose each flange structure separately.

Nominal size	NPS 1/2-2 (DN 15-50); standard small-bore selection
Class options	ASME Class 150 / 300 / 600
Material options	A105 / A182 F304(L), F316(L)
Facing / bore	RF / FF; bore to mating pipe schedule

RFQ / APPLICATION: RFQ: NPS, pressure class, facing, material grade, pipe schedule/bore and quantity. Match bolt pattern and gasket. Class designation is not a pressure rating in psi.

STANDARDS / DOCUMENTS: ASME B16.5; material specification and pressure-temperature table. Class is not a psi rating.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-304

Lap-joint Flange & Stub End



Representative appearance

USE: Connect or close process piping, pump packages and gas-treatment modules.

MATERIAL / STRUCTURE: Forged or rolled flange; machined bolt circle, bore and gasket face.

OPTIONS / ACCEPTANCE: Select face finish, bore, coating and bolting set; choose each flange structure separately.

Nominal size	NPS 1/2-12 (DN 15-300)
Class options	ASME Class 150 / 300 / 600
Material options	A105 / A182 F304(L), F316(L)
Mating detail	Loose backing flange with matching lap-joint stub end

RFQ / APPLICATION: RFQ: NPS, pressure class, facing, material grade, pipe schedule/bore and quantity. Match bolt pattern and gasket. Class designation is not a pressure rating in psi.

STANDARDS / DOCUMENTS: ASME B16.5; material specification and pressure-temperature table. Class is not a psi rating.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-305

Threaded NPT Flange



Representative appearance

USE: Connect or close process piping, pump packages and gas-treatment modules.

MATERIAL / STRUCTURE: Forged or rolled flange; machined bolt circle, bore and gasket face.

OPTIONS / ACCEPTANCE: Select face finish, bore, coating and bolting set; choose each flange structure separately.

Nominal size	NPS 1/2-12 (DN 15-300)
Class options	ASME Class 150 / 300 / 600
Material options	A105 / A182 F304(L), F316(L)
Thread / facing	Female NPT bore; RF / FF facing by selected flange

RFQ / APPLICATION: RFQ: NPS, pressure class, facing, material grade, pipe schedule/bore and quantity. Match bolt pattern and gasket. Class designation is not a pressure rating in psi.

STANDARDS / DOCUMENTS: ASME B16.5; material specification and pressure-temperature table. Class is not a psi rating.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-196

90-degree Butt-weld Elbow



Representative appearance

USE: Route, reduce, branch or close welded oil, gas and utility piping.

MATERIAL / STRUCTURE: Formed 90-degree long-radius butt-weld elbow, with beveled ends and controlled wall transition.

OPTIONS / ACCEPTANCE: Seamless or welded construction; select long/short radius, branch sizes or eccentric orientation as applicable.

Nominal size	NPS 1/2-12 (DN 15-300)
Wall options	Sch 10S / 40(S) / 80(S); by material
Material options	A234 WPB / A403 WP304L, WP316L
Pipe OD range	0.840-12.750 in (21.3-323.9 mm)

RFQ / APPLICATION: RFQ: NPS, schedule/wall thickness, material grade and fitting form. Confirm matching pipe OD and weld preparation; specify corrosion allowance and inspection documents.

STANDARDS / DOCUMENTS: ASME B16.9; ASME B36.10M/B36.19M mating-pipe dimensions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-197

Butt-weld Equal Tee



Representative appearance

Nominal size	NPS 1/2-12 (DN 15-300)
Wall options	Sch 10S / 40(S) / 80(S); by material
Material options	A234 WPB / A403 WP304L, WP316L
Pipe OD range	0.840-12.750 in (21.3-323.9 mm)

USE: Route, reduce, branch or close welded oil, gas and utility piping.

MATERIAL / STRUCTURE: Formed butt-weld fitting with prepared bevels and controlled wall transition.

OPTIONS / ACCEPTANCE: Seamless or welded construction; select long/short radius, branch sizes or eccentric orientation as applicable.

RFQ / APPLICATION: RFQ: NPS, schedule/wall thickness, material grade and fitting form. Confirm matching pipe OD and weld preparation; specify corrosion allowance and inspection documents.

STANDARDS / DOCUMENTS: ASME B16.9; ASME B36.10M/B36.19M mating-pipe dimensions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-198

Concentric Butt-weld Reducer



Representative appearance

Nominal size	NPS 1/2-12 (DN 15-300)
Wall options	Sch 10S / 40(S) / 80(S); by material
Material options	A234 WPB / A403 WP304L, WP316L
Pipe OD range	0.840-12.750 in (21.3-323.9 mm)

USE: Route, reduce, branch or close welded oil, gas and utility piping.

MATERIAL / STRUCTURE: Formed butt-weld fitting with prepared bevels and controlled wall transition.

OPTIONS / ACCEPTANCE: Seamless or welded construction; select long/short radius, branch sizes or eccentric orientation as applicable.

RFQ / APPLICATION: RFQ: NPS, schedule/wall thickness, material grade and fitting form. Confirm matching pipe OD and weld preparation; specify corrosion allowance and inspection documents.

STANDARDS / DOCUMENTS: ASME B16.9; ASME B36.10M/B36.19M mating-pipe dimensions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-306

45-degree Butt-weld Elbow



Representative appearance

USE: Route, reduce, branch or close welded oil, gas and utility piping.

MATERIAL / STRUCTURE: Formed butt-weld fitting with prepared bevels and controlled wall transition.

OPTIONS / ACCEPTANCE: Seamless or welded construction; select long/short radius, branch sizes or eccentric orientation as applicable.

RFQ / APPLICATION: RFQ: NPS, schedule/wall thickness, material grade and fitting form. Confirm matching pipe OD and weld preparation; specify corrosion allowance and inspection documents.

STANDARDS / DOCUMENTS: ASME B16.9; ASME B36.10M/B36.19M mating-pipe dimensions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Nominal size	NPS 1/2-12 (DN 15-300)
Wall options	Sch 10S / 40(S) / 80(S); by material
Material options	A234 WPB / A403 WP304L, WP316L
Pipe OD range	0.840-12.750 in (21.3-323.9 mm)

WOG-307

Eccentric Butt-weld Reducer



Representative appearance

USE: Route, reduce, branch or close welded oil, gas and utility piping.

MATERIAL / STRUCTURE: Formed butt-weld fitting with prepared bevels and controlled wall transition.

OPTIONS / ACCEPTANCE: Seamless or welded construction; select long/short radius, branch sizes or eccentric orientation as applicable.

RFQ / APPLICATION: RFQ: NPS, schedule/wall thickness, material grade and fitting form. Confirm matching pipe OD and weld preparation; specify corrosion allowance and inspection documents.

STANDARDS / DOCUMENTS: ASME B16.9; ASME B36.10M/B36.19M mating-pipe dimensions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Nominal size	NPS 1/2-12 (DN 15-300)
Wall options	Sch 10S / 40(S) / 80(S); by material
Material options	A234 WPB / A403 WP304L, WP316L
Pipe OD range	0.840-12.750 in (21.3-323.9 mm)

WOG-308

Butt-weld Pipe Cap



Representative appearance

Nominal size	NPS 1/2-12 (DN 15-300)
Wall options	Sch 10S / 40(S) / 80(S); by material
Material options	A234 WPB / A403 WP304L, WP316L
Pipe OD range	0.840-12.750 in (21.3-323.9 mm)

USE: Route, reduce, branch or close welded oil, gas and utility piping.

MATERIAL / STRUCTURE: Formed butt-weld fitting with prepared bevels and controlled wall transition.

OPTIONS / ACCEPTANCE: Seamless or welded construction; select long/short radius, branch sizes or eccentric orientation as applicable.

RFQ / APPLICATION: RFQ: NPS, schedule/wall thickness, material grade and fitting form. Confirm matching pipe OD and weld preparation; specify corrosion allowance and inspection documents.

STANDARDS / DOCUMENTS: ASME B16.9; ASME B36.10M/B36.19M mating-pipe dimensions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-309

Butt-weld Reducing Tee



Representative appearance

Nominal size	NPS 1/2-12 (DN 15-300)
Wall options	Sch 10S / 40(S) / 80(S); by material
Material options	A234 WPB / A403 WP304L, WP316L
Pipe OD range	0.840-12.750 in (21.3-323.9 mm)

USE: Route, reduce, branch or close welded oil, gas and utility piping.

MATERIAL / STRUCTURE: Formed butt-weld fitting with prepared bevels and controlled wall transition.

OPTIONS / ACCEPTANCE: Seamless or welded construction; select long/short radius, branch sizes or eccentric orientation as applicable.

RFQ / APPLICATION: RFQ: NPS, schedule/wall thickness, material grade and fitting form. Confirm matching pipe OD and weld preparation; specify corrosion allowance and inspection documents.

STANDARDS / DOCUMENTS: ASME B16.9; ASME B36.10M/B36.19M mating-pipe dimensions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-310

Socket-weld 90-degree Elbow



Representative appearance

Nominal size	NPS 1/4-2 (DN 8-50)
Class options	ASME Class 3000 / 6000
Material	A105 / A182 F304(L), F316(L)
Pipe OD range	0.540-2.375 in (13.7-60.3 mm)

USE: Compact welded branches and connections on small-bore process piping.

MATERIAL / STRUCTURE: Forged fitting with machined socket and pipe-stop shoulder.

OPTIONS / ACCEPTANCE: Select bore/wall compatibility, surface finish and material heat traceability.

RFQ / APPLICATION: RFQ: NPS, pressure class, material and socket dimensions. Match pipe wall and installation specification; class alone does not establish service suitability.

STANDARDS / DOCUMENTS: ASME B16.11; installed weld procedure and socket gap require project control.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-311

Socket-weld Equal Tee



Representative appearance

Nominal size	NPS 1/4-2 (DN 8-50)
Class options	ASME Class 3000 / 6000
Material	A105 / A182 F304(L), F316(L)
Pipe OD range	0.540-2.375 in (13.7-60.3 mm)

USE: Compact welded branches and connections on small-bore process piping.

MATERIAL / STRUCTURE: Forged fitting with machined socket and pipe-stop shoulder.

OPTIONS / ACCEPTANCE: Select bore/wall compatibility, surface finish and material heat traceability.

RFQ / APPLICATION: RFQ: NPS, pressure class, material and socket dimensions. Match pipe wall and installation specification; class alone does not establish service suitability.

STANDARDS / DOCUMENTS: ASME B16.11; installed weld procedure and socket gap require project control.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-312

Socket-weld Full Coupling



Representative appearance

Nominal size	NPS 1/4-2 (DN 8-50)
Class options	ASME Class 3000 / 6000
Material	A105 / A182 F304(L), F316(L)
Pipe OD range	0.540-2.375 in (13.7-60.3 mm)

USE: Compact welded branches and connections on small-bore process piping.

MATERIAL / STRUCTURE: Forged fitting with machined socket and pipe-stop shoulder.

OPTIONS / ACCEPTANCE: Select bore/wall compatibility, surface finish and material heat traceability.

RFQ / APPLICATION: RFQ: NPS, pressure class, material and socket dimensions. Match pipe wall and installation specification; class alone does not establish service suitability.

STANDARDS / DOCUMENTS: ASME B16.11; installed weld procedure and socket gap require project control.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-411

Socket-weld Pipe Cap



Representative appearance

Nominal size	NPS 1/4-2 (DN 8-50)
Material	A105 / A182 F316(L)
Class selection	3000; additional classes by catalogue
Ends	Socket-weld closure

USE: Compact standard connections for process piping, utility lines and oilfield maintenance.

MATERIAL / STRUCTURE: Forged ASTM A105 carbon steel or ASTM A182 F316/F316L stainless steel; machined threads or weld sockets.

OPTIONS / ACCEPTANCE: Choose catalogue NPS, class, material and end combination. Confirm dimensional gauges, heat identity and surface condition.

RFQ / APPLICATION: RFQ: NPS, pressure class, material and socket dimensions. Match pipe wall and installation specification; class alone does not establish service suitability.

STANDARDS / DOCUMENTS: ASME B16.11 where the fitting type is covered; NPT per ASME B1.20.1. Class is not a stand-alone psi rating.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-412

Socket-weld Pipe Union



Representative appearance

Nominal size	NPS 1/4-2 (DN 8-50)
Material	A105 / A182 F316(L)
Class selection	3000; additional classes by catalogue
Ends	Socket weld × socket weld

USE: Compact standard connections for process piping, utility lines and oilfield maintenance.

MATERIAL / STRUCTURE: Forged ASTM A105 carbon steel or ASTM A182 F316/F316L stainless steel; machined threads or weld sockets.

OPTIONS / ACCEPTANCE: Choose catalogue NPS, class, material and end combination. Confirm dimensional gauges, heat identity and surface condition.

RFQ / APPLICATION: RFQ: NPS, pressure class, material and socket dimensions. Match pipe wall and installation specification; class alone does not establish service suitability.

STANDARDS / DOCUMENTS: MSS SP-83 for covered socket-welding union classes; confirm metal-to-metal seat, class and alignment requirements.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-199

NPT Full Coupling



Representative appearance

Thread sizes	1/8-2 in NPT (DN 6-50 nominal)
Thread form	ASME B1.20.1 NPT; taper pipe thread
Material	316 / 316L stainless steel
Body options	Forged / bar stock / investment cast; rating by design

USE: Threaded instrument take-offs, drains, vents and small-bore process connections.

MATERIAL / STRUCTURE: Machined threaded fitting with wrench flats and specified male/female ends.

OPTIONS / ACCEPTANCE: Equal/reducing connections; material grade, wall section and sealant compatibility.

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: ASME B1.20.1; B16.11 only for qualifying forged fitting types; MSS SP-83 for qualifying unions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-313

NPT Hex Nipple



Representative appearance

USE: Threaded instrument take-offs, drains, vents and small-bore process connections.

MATERIAL / STRUCTURE: Machined threaded fitting with wrench flats and specified male/female ends.

OPTIONS / ACCEPTANCE: Equal/reducing connections; material grade, wall section and sealant compatibility.

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: ASME B1.20.1; B16.11 only for qualifying forged fitting types; MSS SP-83 for qualifying unions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Thread sizes	1/8-2 in NPT (DN 6-50 nominal)
Thread form	ASME B1.20.1 NPT; taper pipe thread
Material	316 / 316L stainless steel
Body options	Forged / bar stock / investment cast; rating by design

WOG-314

NPT Three-piece Pipe Union



Representative appearance

USE: Threaded instrument take-offs, drains, vents and small-bore process connections.

MATERIAL / STRUCTURE: Machined threaded fitting with wrench flats and specified male/female ends.

OPTIONS / ACCEPTANCE: Equal/reducing connections; material grade, wall section and sealant compatibility.

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: ASME B1.20.1; B16.11 only for qualifying forged fitting types; MSS SP-83 for qualifying unions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Thread sizes	1/8-2 in NPT (DN 6-50 nominal)
Thread form	ASME B1.20.1 NPT; taper pipe thread
Material	316 / 316L stainless steel
Body options	Forged / bar stock / investment cast; rating by design

WOG-315

NPT Female Equal Tee



Representative appearance

USE: Threaded instrument take-offs, drains, vents and small-bore process connections.

MATERIAL / STRUCTURE: Machined threaded fitting with wrench flats and specified male/female ends.

OPTIONS / ACCEPTANCE: Equal/reducing connections; material grade, wall section and sealant compatibility.

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: ASME B1.20.1; B16.11 only for qualifying forged fitting types; MSS SP-83 for qualifying unions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Thread sizes	1/8-2 in NPT (DN 6-50 nominal)
Thread form	ASME B1.20.1 NPT; taper pipe thread
Material	316 / 316L stainless steel
Body options	Forged / bar stock / investment cast; rating by design

WOG-316

NPT Hex-head Plug



Representative appearance

USE: Threaded instrument take-offs, drains, vents and small-bore process connections.

MATERIAL / STRUCTURE: Machined threaded fitting with wrench flats and specified male/female ends.

OPTIONS / ACCEPTANCE: Equal/reducing connections; material grade, wall section and sealant compatibility.

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: ASME B1.20.1; B16.11 only for qualifying forged fitting types; MSS SP-83 for qualifying unions.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Thread sizes	1/8-2 in NPT (DN 6-50 nominal)
Thread form	ASME B1.20.1 NPT; taper pipe thread
Material	316 / 316L stainless steel
Body options	Forged / bar stock / investment cast; rating by design

WOG-405

NPT Reducing Coupling



Representative appearance

USE: Compact standard connections for process piping, utility lines and oilfield maintenance.

MATERIAL / STRUCTURE: Stainless steel threaded fitting in the selected cast or forged catalogue series; match both end threads and wall section.

OPTIONS / ACCEPTANCE: Choose catalogue NPS, class, material and end combination. Confirm dimensional gauges, heat identity and surface condition.

Nominal size	NPS 1/4-2 (DN 8-50)
Material	CF8M cast / F316 forged catalogue series
Pressure selection	By material and catalogue pressure-temperature table
Ends	Female NPT × smaller female NPT

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: NPT per ASME B1.20.1; dimensional and rating basis by the exact series. Do not substitute low-pressure cast fittings for forged Class 3000.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-406

NPT Hex Reducing Bushing



Representative appearance

USE: Compact standard connections for process piping, utility lines and oilfield maintenance.

MATERIAL / STRUCTURE: Forged ASTM A105 carbon steel or ASTM A182 F316/F316L stainless steel; machined threads or weld sockets.

OPTIONS / ACCEPTANCE: Choose catalogue NPS, class, material and end combination. Confirm dimensional gauges, heat identity and surface condition.

Nominal size	NPS 1/4-2 (DN 8-50)
Material	A105 / A182 F316(L)
Class selection	3000; additional classes by catalogue
Ends	Male NPT × smaller female NPT

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: ASME B16.11 where the fitting type is covered; NPT per ASME B1.20.1. Class is not a stand-alone psi rating.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-407

NPT 90-degree Street Elbow



Representative appearance

USE: Compact standard connections for process piping, utility lines and oilfield maintenance.

MATERIAL / STRUCTURE: Stainless steel threaded fitting in the selected cast or forged catalogue series; match both end threads and wall section.

OPTIONS / ACCEPTANCE: Choose catalogue NPS, class, material and end combination. Confirm dimensional gauges, heat identity and surface condition.

Nominal size	NPS 1/4-2 (DN 8-50)
Material	CF8M cast / F316 forged catalogue series
Pressure selection	By material and catalogue pressure-temperature table
Ends	Male NPT × female NPT; 90°

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: NPT per ASME B1.20.1; dimensional and rating basis by the exact series. Do not substitute low-pressure cast fittings for forged Class 3000.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-408

NPT Half Coupling



Representative appearance

Nominal size	NPS 1/4-2 (DN 8-50)
Material	A105 / A182 F316(L)
Class selection	3000; additional classes by catalogue
Ends	Single female NPT port; weld-on body

USE: Compact standard connections for process piping, utility lines and oilfield maintenance.

MATERIAL / STRUCTURE: Forged ASTM A105 carbon steel or ASTM A182 F316/F316L stainless steel; machined threads or weld sockets.

OPTIONS / ACCEPTANCE: Choose catalogue NPS, class, material and end combination. Confirm dimensional gauges, heat identity and surface condition.

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: ASME B16.11 where the fitting type is covered; NPT per ASME B1.20.1. Class is not a stand-alone psi rating.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-409

Threaded Pipe Nipple



Representative appearance

USE: Compact standard connections for process piping, utility lines and oilfield maintenance.

MATERIAL / STRUCTURE: Seamless pipe nipple with two external NPT ends; stock lengths and schedules define the orderable series.

OPTIONS / ACCEPTANCE: Choose catalogue NPS, class, material and end combination. Confirm dimensional gauges, heat identity and surface condition.

Nominal size	NPS 1/4-2 (DN 8-50)
Material	A106 Gr B / A312 TP316L
Pipe / length	Sch 40/80; 2 / 4 / 6 in (51 / 102 / 152 mm)
Ends	Male NPT both ends

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: ASME B1.20.1 threads; ASTM A733 nipples where applicable. Pipe schedule and material govern the pressure calculation.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-410

Forged NPT Cross



Representative appearance

USE: Compact standard connections for process piping, utility lines and oilfield maintenance.

MATERIAL / STRUCTURE: Forged ASTM A105 carbon steel or ASTM A182 F316/F316L stainless steel; machined threads or weld sockets.

OPTIONS / ACCEPTANCE: Choose catalogue NPS, class, material and end combination. Confirm dimensional gauges, heat identity and surface condition.

Nominal size	NPS 1/4-2 (DN 8-50)
Material	A105 / A182 F316(L)
Class selection	3000; additional classes by catalogue
Ends	Four female NPT ports

RFQ / APPLICATION: RFQ: NPS, male/female NPT ends, material and pressure class or schedule. Specify the exact thread combination. NPT and BSP threads are not interchangeable.

STANDARDS / DOCUMENTS: ASME B16.11 where the fitting type is covered; NPT per ASME B1.20.1. Class is not a stand-alone psi rating.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-341

Stud Bolt & Heavy Hex Nut Set



Representative appearance

USE: Repeatable bolting kits for flanges, valve bonnets and pressure assemblies.

MATERIAL / STRUCTURE: Fully threaded stud supplied with two heavy hex nuts as a matched bolting set.

OPTIONS / ACCEPTANCE: Plain, coated or corrosion-resistant grades; select lubricant and nut proof-load requirement.

Diameter	1/2-1-1/2 in (12.7-38.1 mm)
Length	3-12 in (76.2-304.8 mm)
Material pairing	A193 B7 + A194 2H; B8M options by duty
Thread	UNC / 8UN, diameter and specification dependent

RFQ / APPLICATION: Choose supports by actual pipe OD, supported load and temperature. Check coating and fastener compatibility. Published load capacity must match the exact support size.

STANDARDS / DOCUMENTS: ASTM A193/A194; ASME B18.2.2 nuts; sour-service hardness review when specified.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-346

U-bolt Pipe Clamp



Representative appearance

USE: Modular pipe supports for process skids, racks and utility lines.

MATERIAL / STRUCTURE: Formed or forged support hardware using bolted or threaded attachment.

OPTIONS / ACCEPTANCE: Select pipe OD, rod thread, insulation clearance, finish and load classification.

Pipe sizes	NPS 1/2-12 (DN 15-300)
Rod / bolt options	3/8-3/4 in (9.53-19.05 mm)
Material	Carbon steel / stainless steel
Finish	Zinc plating / hot-dip galvanizing / plain

RFQ / APPLICATION: Choose supports by actual pipe OD, supported load and temperature. Check coating and fastener compatibility. Published load capacity must match the exact support size.

STANDARDS / DOCUMENTS: MSS SP-58 where applicable; project support/load calculations control selection.

PACKING: Boxed by pipe/rod size; galvanized surfaces separated and threads capped. Palletize by installation schedule.

WOG-347

Adjustable Clevis Pipe Hanger



Representative appearance

USE: Modular pipe supports for process skids, racks and utility lines.

MATERIAL / STRUCTURE: Formed or forged support hardware using bolted or threaded attachment.

OPTIONS / ACCEPTANCE: Select pipe OD, rod thread, insulation clearance, finish and load classification.

Pipe sizes	NPS 1/2-12 (DN 15-300)
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Rod / bolt options	3/8-3/4 in (9.53-19.05 mm)
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Material	Carbon steel / stainless steel
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Finish	Zinc plating / hot-dip galvanizing / plain
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RFQ / APPLICATION: Choose supports by actual pipe OD, supported load and temperature. Check coating and fastener compatibility. Published load capacity must match the exact support size.

STANDARDS / DOCUMENTS: MSS SP-58 where applicable; project support/load calculations control selection.

PACKING: Boxed by pipe/rod size; galvanized surfaces separated and threads capped. Palletize by installation schedule.

WOG-348

Threaded-rod Beam Clamp



Representative appearance

USE: Modular pipe supports for process skids, racks and utility lines.

MATERIAL / STRUCTURE: Formed or forged support hardware using bolted or threaded attachment.

OPTIONS / ACCEPTANCE: Select pipe OD, rod thread, insulation clearance, finish and load classification.

Beam fit	Beam flange thickness within the selected clamp range
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Rod / bolt options	3/8-3/4 in (9.53-19.05 mm)
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Material	Carbon steel / stainless steel
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Finish	Zinc plating / hot-dip galvanizing / plain
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RFQ / APPLICATION: Choose supports by actual pipe OD, supported load and temperature. Check coating and fastener compatibility. Published load capacity must match the exact support size.

STANDARDS / DOCUMENTS: MSS SP-58 where applicable; project support/load calculations control selection.

PACKING: Boxed by pipe/rod size; galvanized surfaces separated and threads capped. Palletize by installation schedule.

WOG-349

Two-bolt Riser Clamp



Representative appearance

USE: Modular pipe supports for process skids, racks and utility lines.

MATERIAL / STRUCTURE: Formed or forged support hardware using bolted or threaded attachment.

OPTIONS / ACCEPTANCE: Select pipe OD, rod thread, insulation clearance, finish and load classification.

RFQ / APPLICATION: Choose supports by actual pipe OD, supported load and temperature. Check coating and fastener compatibility. Published load capacity must match the exact support size.

STANDARDS / DOCUMENTS: MSS SP-58 where applicable; project support/load calculations control selection.

PACKING: Boxed by pipe/rod size; galvanized surfaces separated and threads capped. Palletize by installation schedule.

Pipe sizes	NPS 1/2-12 (DN 15-300)
Rod / bolt options	3/8-3/4 in (9.53-19.05 mm)
Material	Carbon steel / stainless steel
Finish	Zinc plating / hot-dip galvanizing / plain

WOG-426

Split-ring Pipe Hanger



Representative appearance

USE: Standard catalogue hardware for hose retention or pipe support at field installations.

MATERIAL / STRUCTURE: Formed steel band or split body with standard fasteners; finish and contact profile selected for the installation.

OPTIONS / ACCEPTANCE: Select the actual outside diameter, adjustment range and fastener material. Keep the published tightening limit with the order.

RFQ / APPLICATION: Choose supports by actual pipe OD, supported load and temperature. Check coating and fastener compatibility. Published load capacity must match the exact support size.

STANDARDS / DOCUMENTS: MSS SP-58 where applicable. Use published loads for the full support assembly and actual installation orientation.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

Pipe sizes	NPS 1/2-4 (DN 15-100)
Rod connection	3/8 / 1/2 in (9.53 / 12.7 mm) nominal
Material	Zinc-plated steel / stainless steel
Construction	Two-piece split ring, catalogue load

WOG-427

Pipe supports and bolting

Strut-channel Pipe Clamp

Standard catalogue hardware for hose retention or pipe support at field installations.



Representative appearance

CONSTRUCTION & MATERIAL

Formed steel band or split body with standard fasteners; finish and contact profile selected for the installation.

CONFIGURATION OPTIONS

Select the actual outside diameter, adjustment range and fastener material. Keep the published tightening limit with the order.

STANDARDS & DOCUMENTATION

MSS SP-58 where applicable. Use published loads for the full support assembly and actual installation orientation.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

REFERENCE SELECTIONS

Channel family

1-5/8 in (41.3 mm) strut system

Pipe sizes

NPS 1/2-6 (DN 15-150)

Material

Zinc-plated steel / stainless steel

Fit control

Actual pipe OD and channel profile

APPLICATION DETAILS

Choose supports by actual pipe OD, supported load and temperature. Check coating and fastener compatibility. Published load capacity must match the exact support size.

WOG-328

Single-bag Filter Housing



Representative appearance

Typical connection	NPS 2 (DN 50); NPT or ASME Class 150 RF
Wetted material	304L / 316L stainless steel
Bag size series	#1 / #2; confirm ring and actual bag length
Design selection	Closure, seal and design pressure/temperature by selected housing

USE: Liquid filtration for produced-water pretreatment, pump protection and chemical-service side streams.

MATERIAL / STRUCTURE: Single-bag pressure housing with removable cover, support basket and bottom/side connections.

OPTIONS / ACCEPTANCE: Select flange/NPT connections, element count, seals, differential-pressure ports and code construction.

RFQ / APPLICATION: Match element seating, seal geometry and clean/dirty differential pressure. Housing design pressure and element collapse limit are separate values.

STANDARDS / DOCUMENTS: ASME Section VIII where applicable and ordered; code stamp requires evidence for the supplied vessel.

PACKING: Crate upright or on engineered supports; cap every nozzle and brace closure assemblies.

WOG-329

Multi-cartridge Filter Housing



Representative appearance

Connection range	NPS 1-6 (DN 25-150)
Wetted material	304L / 316L stainless steel
Element interface	10 / 20 / 30 / 40 in (254 / 508 / 762 / 1,016 mm) cartridges
Design selection	Closure, seal and design pressure/temperature by selected housing

USE: Liquid filtration for produced-water pretreatment, pump protection and chemical-service side streams.

MATERIAL / STRUCTURE: Multi-cartridge housing with removable cover and a matched internal cartridge mounting plate.

OPTIONS / ACCEPTANCE: Select flange/NPT connections, element count, seals, differential-pressure ports and code construction.

RFQ / APPLICATION: Match element seating, seal geometry and clean/dirty differential pressure. Housing design pressure and element collapse limit are separate values.

STANDARDS / DOCUMENTS: ASME Section VIII where applicable and ordered; code stamp requires evidence for the supplied vessel.

PACKING: Crate upright or on engineered supports; cap every nozzle and brace closure assemblies.

WOG-317

Compression Tube Union



Representative appearance

USE: Instrument impulse lines, gas sampling and small-volume chemical injection.

MATERIAL / STRUCTURE: Compression nut, ferrules and machined body matched as one fitting system.

OPTIONS / ACCEPTANCE: Select tube wall, hardness, panel mounting and port orientation. Do not mix manufacturers' ferrules.

RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: Use one qualified fitting system; do not mix ferrules, nuts or bodies across brands. Tube wall/hardness and pressure-temperature tables control service.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 / 1 in
Metric equivalents	6.35 / 9.53 / 12.70 / 19.05 / 25.40 mm
Material	316 stainless steel
Tube-end arrangement	Compression tube ends; select each tube OD separately

WOG-318

Compression Tube Union Elbow



Representative appearance

USE: Instrument impulse lines, gas sampling and small-volume chemical injection.

MATERIAL / STRUCTURE: Compression nut, ferrules and machined body matched as one fitting system.

OPTIONS / ACCEPTANCE: Select tube wall, hardness, panel mounting and port orientation. Do not mix manufacturers' ferrules.

RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: Use one qualified fitting system; do not mix ferrules, nuts or bodies across brands. Tube wall/hardness and pressure-temperature tables control service.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 / 1 in
Metric equivalents	6.35 / 9.53 / 12.70 / 19.05 / 25.40 mm
Material	316 stainless steel
Tube-end arrangement	Compression tube ends; select each tube OD separately

WOG-319

Compression Tube Union Tee



Representative appearance

USE: Instrument impulse lines, gas sampling and small-volume chemical injection.

MATERIAL / STRUCTURE: Compression nut, ferrules and machined body matched as one fitting system.

OPTIONS / ACCEPTANCE: Select tube wall, hardness, panel mounting and port orientation. Do not mix manufacturers' ferrules.

RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

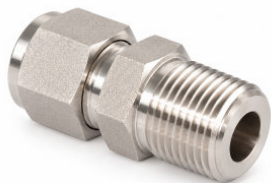
STANDARDS / DOCUMENTS: Use one qualified fitting system; do not mix ferrules, nuts or bodies across brands. Tube wall/hardness and pressure-temperature tables control service.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 / 1 in
Metric equivalents	6.35 / 9.53 / 12.70 / 19.05 / 25.40 mm
Material	316 stainless steel
Tube-end arrangement	Compression tube ends; select each tube OD separately

WOG-320

Tube-to-Male NPT Connector



Representative appearance

USE: Instrument impulse lines, gas sampling and small-volume chemical injection.

MATERIAL / STRUCTURE: Compression nut, ferrules and machined body matched as one fitting system.

OPTIONS / ACCEPTANCE: Select tube wall, hardness, panel mounting and port orientation. Do not mix manufacturers' ferrules.

RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: Use one qualified fitting system; do not mix ferrules, nuts or bodies across brands. Tube wall/hardness and pressure-temperature tables control service.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 / 1 in
Metric equivalents	6.35 / 9.53 / 12.70 / 19.05 / 25.40 mm
Material	316 stainless steel
Pipe-thread option	NPT to ASME B1.20.1; size separately selected

WOG-321

Bulkhead Tube Union



Representative appearance

USE: Instrument impulse lines, gas sampling and small-volume chemical injection.

MATERIAL / STRUCTURE: Compression nut, ferrules and machined body matched as one fitting system.

OPTIONS / ACCEPTANCE: Select tube wall, hardness, panel mounting and port orientation. Do not mix manufacturers' ferrules.

RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: Use one qualified fitting system; do not mix ferrules, nuts or bodies across brands. Tube wall/hardness and pressure-temperature tables control service.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 / 1 in
Metric equivalents	6.35 / 9.53 / 12.70 / 19.05 / 25.40 mm
Material	316 stainless steel
Tube-end arrangement	Compression tube ends; select each tube OD separately

WOG-322

Reducing Tube Union



Representative appearance

USE: Instrument impulse lines, gas sampling and small-volume chemical injection.

MATERIAL / STRUCTURE: Compression nut, ferrules and machined body matched as one fitting system.

OPTIONS / ACCEPTANCE: Select tube wall, hardness, panel mounting and port orientation. Do not mix manufacturers' ferrules.

RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: Use one qualified fitting system; do not mix ferrules, nuts or bodies across brands. Tube wall/hardness and pressure-temperature tables control service.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 / 1 in
Metric equivalents	6.35 / 9.53 / 12.70 / 19.05 / 25.40 mm
Material	316 stainless steel
Tube-end arrangement	Compression tube ends; select each tube OD separately

WOG-353

Seamless Instrument Tubing Coil



Representative appearance

USE: Instrument impulse lines, sample lines and compact chemical-feed piping.

MATERIAL / STRUCTURE: Continuous seamless annealed tubing, coiled for compact shipment and fewer field joints.

OPTIONS / ACCEPTANCE: Select wall thickness, cleaned bore, end caps and coil diameter.

Outside diameter	1/4 / 3/8 / 1/2 in (6.35 / 9.53 / 12.7 mm)
Wall options	0.035 / 0.049 / 0.065 in (0.89 / 1.24 / 1.65 mm)
Coil length	50 / 100 ft (15.24 / 30.48 m)
Material	Annealed 316 / 316L stainless steel

RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: ASTM A269 / A213 as ordered; pressure determined from material, wall, temperature and fittings.

PACKING: Band protected coils on pallets; cap both ends and prevent ovality.

WOG-357

Bulkhead Tube Union Elbow



Representative appearance

USE: Instrument impulse lines, gas sampling and small-volume chemical injection.

MATERIAL / STRUCTURE: Compression nut, ferrules and machined body matched as one fitting system.

OPTIONS / ACCEPTANCE: Select tube wall, hardness, panel mounting and port orientation. Do not mix manufacturers' ferrules.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 / 1 in
Metric equivalents	6.35 / 9.53 / 12.70 / 19.05 / 25.40 mm
Material	316 stainless steel
Tube-end arrangement	Compression tube ends; select each tube OD separately

RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: Use one qualified fitting system; do not mix ferrules, nuts or bodies across brands. Tube wall/hardness and pressure-temperature tables control service.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-428

Tube-to-Female NPT Connector



Representative appearance

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 in
Metric equivalents	6.35 / 9.53 / 12.7 / 19.05 mm
Material	316 stainless steel
Pipe end series	NPT 1/4 / 3/8 / 1/2 in

USE: Connections and accessories for pressure, temperature and sampling instrumentation on oil and gas facilities.

MATERIAL / STRUCTURE: Straight female NPT connector. Use the specified fitting-system nuts, ferrules and assembly procedure.

OPTIONS / ACCEPTANCE: Choose inch tube OD, NPT end, material and service range from the published series; specify calibration where relevant.

RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: NPT per ASME B1.20.1. Compression nuts, ferrules and bodies must remain within one qualified fitting system.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-429

Tube-to-Male NPT Elbow



Representative appearance

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 in
Metric equivalents	6.35 / 9.53 / 12.7 / 19.05 mm
Material	316 stainless steel
Pipe end series	NPT 1/4 / 3/8 / 1/2 in

USE: Connections and accessories for pressure, temperature and sampling instrumentation on oil and gas facilities.

MATERIAL / STRUCTURE: 90° male NPT elbow. Use the specified fitting-system nuts, ferrules and assembly procedure.

OPTIONS / ACCEPTANCE: Choose inch tube OD, NPT end, material and service range from the published series; specify calibration where relevant.

RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: NPT per ASME B1.20.1. Compression nuts, ferrules and bodies must remain within one qualified fitting system.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-430

Tube-to-Female NPT Elbow



Representative appearance

USE: Connections and accessories for pressure, temperature and sampling instrumentation on oil and gas facilities.

MATERIAL / STRUCTURE: 90° female NPT elbow. Use the specified fitting-system nuts, ferrules and assembly procedure.

OPTIONS / ACCEPTANCE: Choose inch tube OD, NPT end, material and service range from the published series; specify calibration where relevant.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 in
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Metric equivalents	6.35 / 9.53 / 12.7 / 19.05 mm
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Material	316 stainless steel
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Pipe end series	NPT 1/4 / 3/8 / 1/2 in
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RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: NPT per ASME B1.20.1. Compression nuts, ferrules and bodies must remain within one qualified fitting system.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-431

Tube-to-Male NPT Branch Tee



Representative appearance

USE: Connections and accessories for pressure, temperature and sampling instrumentation on oil and gas facilities.

MATERIAL / STRUCTURE: Two tube runs, male NPT branch. Use the specified fitting-system nuts, ferrules and assembly procedure.

OPTIONS / ACCEPTANCE: Choose inch tube OD, NPT end, material and service range from the published series; specify calibration where relevant.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 in
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Metric equivalents	6.35 / 9.53 / 12.7 / 19.05 mm
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Material	316 stainless steel
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Pipe end series	NPT 1/4 / 3/8 / 1/2 in
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RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: NPT per ASME B1.20.1. Compression nuts, ferrules and bodies must remain within one qualified fitting system.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-432

Compression Tube Cap



Representative appearance

USE: Connections and accessories for pressure, temperature and sampling instrumentation on oil and gas facilities.

MATERIAL / STRUCTURE: Cap seals a tube end through ferrules. Use the specified fitting-system nuts, ferrules and assembly procedure.

OPTIONS / ACCEPTANCE: Choose inch tube OD, NPT end, material and service range from the published series; specify calibration where relevant.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 in
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Metric equivalents	6.35 / 9.53 / 12.7 / 19.05 mm
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Material	316 stainless steel
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Interface	Matching compression system; no NPT end
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RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: Use the specified compression system, catalogue port dimensions and pressure-temperature limits. Do not mix nuts, ferrules or bodies from different systems.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-433

Tube-fitting Port Plug



Representative appearance

USE: Connections and accessories for pressure, temperature and sampling instrumentation on oil and gas facilities.

MATERIAL / STRUCTURE: Plug closes a matching fitting body port. Use the specified fitting-system nuts, ferrules and assembly procedure.

OPTIONS / ACCEPTANCE: Choose inch tube OD, NPT end, material and service range from the published series; specify calibration where relevant.

Tube OD series	1/4 / 3/8 / 1/2 / 3/4 in
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Metric equivalents	6.35 / 9.53 / 12.7 / 19.05 mm
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Material	316 stainless steel
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Interface	Matching compression system; no NPT end
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RFQ / APPLICATION: RFQ: tube OD in inches, wall thickness, tubing material and each end connection. Use one qualified fitting system; do not mix ferrules, nuts and bodies by appearance.

STANDARDS / DOCUMENTS: Use the specified compression system, catalogue port dimensions and pressure-temperature limits. Do not mix nuts, ferrules or bodies from different systems.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-336

Liquid-filled Bourdon Pressure Gauge



Representative appearance

USE: Local indication on gas, liquid, pump and chemical-injection lines.

MATERIAL / STRUCTURE: Bourdon-tube gauge with bottom or rear pressure connection and protective case.

OPTIONS / ACCEPTANCE: Dual psi/bar scale, accuracy class, safety case, diaphragm seal or pulsation snubber.

Dial sizes	2-1/2 / 4 in (63.5 / 101.6 mm)
Range examples	0-100 / 300 / 1,000 psi (0-0.69 / 2.07 / 6.89 MPa)
Connection	1/4 or 1/2 in NPT; lower/back mount
Build	Stainless case; glycerin fill; wetted material selected

RFQ / APPLICATION: RFQ: measuring range in psi or deg F, process connection, wetted material, accuracy and vibration/pulsation conditions. Confirm dimensions and any hazardous-area requirement.

STANDARDS / DOCUMENTS: ASME B40.100; specify accuracy grade, overpressure limits and calibration points. Select oxygen-clean/dry variants separately when required.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-337

Threaded Bar-stock Thermowell



Representative appearance

USE: Protect temperature sensors on oil, gas and process-liquid piping.

MATERIAL / STRUCTURE: Drilled bar-stock well isolates a temperature sensor from the process stream.

OPTIONS / ACCEPTANCE: Straight, stepped or tapered shank; lag extension, bore and insertion length.

Process thread	1/2 / 3/4 / 1 in NPT (DN 15 / 20 / 25 nominal)
Insertion options	2.5 / 4 / 6 / 9 in (63.5 / 101.6 / 152.4 / 228.6 mm)
Sensor bore	0.260 / 0.385 in (6.60 / 9.78 mm)
Material	316 / 316L stainless; alloy by corrosion duty

RFQ / APPLICATION: RFQ: measuring range in psi or deg F, process connection, wetted material, accuracy and vibration/pulsation conditions. Confirm dimensions and any hazardous-area requirement.

STANDARDS / DOCUMENTS: ASME PTC 19.3 TW where applicable; wake-frequency and stress checks require process data.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-434

Pressure Gauge Snubber



Representative appearance

Port sizes	1/4 / 1/2 in NPT (DN 8 / 15)
Restriction	Porous disc / adjustable needle grades
Wetted material	316 stainless steel
Duty definition	Liquid or gas; viscosity and pulsation

USE: Connections and accessories for pressure, temperature and sampling instrumentation on oil and gas facilities.

MATERIAL / STRUCTURE: Small flow restriction installed upstream of the gauge to damp pressure pulsation; choose porous or adjustable catalogue construction.

OPTIONS / ACCEPTANCE: Choose inch tube OD, NPT end, material and service range from the published series; specify calibration where relevant.

RFQ / APPLICATION: RFQ: measuring range in psi or deg F, process connection, wetted material, accuracy and vibration/pulsation conditions. Confirm dimensions and any hazardous-area requirement.

STANDARDS / DOCUMENTS: Match gauge response time and surge conditions; a snubber is not an overpressure relief device. NPT per ASME B1.20.1.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-435

Pressure Gauge Siphon



Representative appearance

Connection	1/4 / 1/2 in NPT (DN 8 / 15)
Form	Pigtail loop / U-pattern catalogue bends
Material	Carbon steel / 316 stainless steel
Function	Condensate barrier for hot vapor service

USE: Protect a pressure instrument on suitable steam or hot-fluid utility service using an approved siphon installation.

MATERIAL / STRUCTURE: Looped tubing retains a condensate barrier between hot process vapor and the instrument; fill and orient per the gauge installation procedure.

OPTIONS / ACCEPTANCE: Choose inch tube OD, NPT end, material and service range from the published series; specify calibration where relevant.

RFQ / APPLICATION: RFQ: measuring range in psi or deg F, process connection, wetted material, accuracy and vibration/pulsation conditions. Confirm dimensions and any hazardous-area requirement.

STANDARDS / DOCUMENTS: Confirm pipe wall, rated temperature and pressure for the selected siphon; NPT per ASME B1.20.1.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-436

Bimetal Dial Thermometer



Representative appearance

USE: Connections and accessories for pressure, temperature and sampling instrumentation on oil and gas facilities.

MATERIAL / STRUCTURE: Bimetal sensing coil drives a mechanical dial in a stainless case; process isolation uses a correctly sized thermowell.

OPTIONS / ACCEPTANCE: Choose inch tube OD, NPT end, material and service range from the published series; specify calibration where relevant.

Dial sizes	3 / 5 in (76 / 127 mm)
Stem / connection	2.5-12 in (64-305 mm); 1/2 in NPT
Range examples	0-250°F (-18-121°C); 50-500°F (10-260°C)
Construction	Stainless case; back / angle mounting

RFQ / APPLICATION: RFQ: measuring range in psi or deg F, process connection, wetted material, accuracy and vibration/pulsation conditions. Confirm dimensions and any hazardous-area requirement.

STANDARDS / DOCUMENTS: ASME B40.200 where specified; state accuracy, immersion length and calibration points. Verify thermowell clearance.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-338

Two-valve Block-and-bleed Manifold



Representative appearance

USE: Isolate and vent a pressure instrument through a two-valve circuit.

MATERIAL / STRUCTURE: Machined block with isolation, equalizing and/or vent valves according to circuit.

OPTIONS / ACCEPTANCE: Direct/remote mounting, port orientation, vent plugs and packing material.

Port options	1/4 / 1/2 in NPT (DN 8 / 15 nominal)
Body	316 stainless steel
Valve arrangement	2 valves
Seal options	PTFE / graphite packing; duty-specific

RFQ / APPLICATION: RFQ: transmitter/process connections, valve function, pressure-temperature duty, body/seal materials and mounting dimensions. Confirm leak-test and cleanliness requirements.

STANDARDS / DOCUMENTS: ASME B31.3 system review; pressure/leak testing and instrument interface drawing.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-339

Three-valve Differential-pressure Manifold



Representative appearance

USE: Isolate and equalize instruments for pressure or differential-pressure measurement.

MATERIAL / STRUCTURE: Machined block with isolation, equalizing and/or vent valves according to circuit.

OPTIONS / ACCEPTANCE: Direct/remote mounting, port orientation, vent plugs and packing material.

RFQ / APPLICATION: RFQ: transmitter/process connections, valve function, pressure-temperature duty, body/seal materials and mounting dimensions. Confirm leak-test and cleanliness requirements.

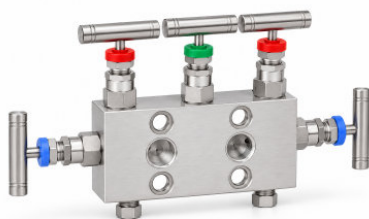
STANDARDS / DOCUMENTS: ASME B31.3 system review; pressure/leak testing and instrument interface drawing.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Port options	1/4 / 1/2 in NPT (DN 8 / 15 nominal)
Body	316 stainless steel
Valve arrangement	3 valves: 2 isolation + 1 equalizing
Seal options	PTFE / graphite packing; duty-specific

WOG-340

Five-valve Differential-pressure Manifold



Representative appearance

USE: Isolate and equalize instruments for pressure or differential-pressure measurement.

MATERIAL / STRUCTURE: Machined block with isolation, equalizing and/or vent valves according to circuit.

OPTIONS / ACCEPTANCE: Direct/remote mounting, port orientation, vent plugs and packing material.

RFQ / APPLICATION: RFQ: transmitter/process connections, valve function, pressure-temperature duty, body/seal materials and mounting dimensions. Confirm leak-test and cleanliness requirements.

STANDARDS / DOCUMENTS: ASME B31.3 system review; pressure/leak testing and instrument interface drawing.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Port options	1/4 / 1/2 in NPT (DN 8 / 15 nominal)
Body	316 stainless steel
Valve arrangement	5 valves
Seal options	PTFE / graphite packing; duty-specific

WOG-331

Fixed NPT Injection Quill



Representative appearance

USE: Inject corrosion inhibitor, scavenger or process chemicals into a flowing stream.

MATERIAL / STRUCTURE: Injection tube places a chemical stream inside the process line; optional tip/check function.

OPTIONS / ACCEPTANCE: Tip orientation, check valve, insertion length and corrosion allowance. Fixed designs are not live-retractable.

Injection connection	1/4-1 in NPT (DN 8-25 nominal)
Insertion length	2-12 in (50.8-304.8 mm), by pipe geometry
Wetted material	316L stainless; alloy upgrades by fluid
Process connection	Fixed NPT mounting; verify insertion depth and root-valve arrangement

RFQ / APPLICATION: Match chemical compatibility, pump delivery at back pressure and suction conditions. A process back-pressure valve is not a certified pressure-vessel safety valve.

STANDARDS / DOCUMENTS: ASME B31.3 piping review; flange to B16.5 or NPT to B1.20.1 as applicable.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-332

Metering Pump Calibration Column



Representative appearance

USE: Check metering-pump delivery and repeatability using a measured drawdown.

MATERIAL / STRUCTURE: Graduated transparent column and end fittings for timed drawdown measurement.

OPTIONS / ACCEPTANCE: Select volume, graduations, shield, vent and drain/isolation arrangement.

Capacity options	16.9 / 33.8 / 67.6 US fl oz (500 / 1,000 / 2,000 mL)
Connection	1/2-1 in NPT (DN 15-25 nominal)
Material	Compatible clear tube; PVC / metal ends
Installation	Vented suction-side service; not discharge pressure

RFQ / APPLICATION: Use the column vented and on the suction side for a timed drawdown measurement. Do not subject an unrated column to pressure or vacuum.

STANDARDS / DOCUMENTS: Verify volumetric graduation accuracy and chemical compatibility; supplier pressure limit controls.

PACKING: Individually cushion clear columns; rigid carton, upright markings and protected threaded ends.

WOG-333

Diaphragm Pulsation Dampener



Representative appearance

USE: Reduce metering-pump discharge pulsation using a correctly sized diaphragm chamber.

MATERIAL / STRUCTURE: Gas-charged diaphragm separates the cushion volume from liquid, reducing metering-pump pulsation.

OPTIONS / ACCEPTANCE: Select diaphragm/packing, adjustment range, connection, mounting and material compatibility.

Connection options	1/4-1 in NPT (DN 8-25 nominal)
Volume selection	Catalogue vessel volume sized to pump stroke and permitted pulsation
Pressure requirement	Specify psi (bar); 100 psi = 6.895 bar
Wetted materials	316L / compatible polymer; PTFE / elastomer seals

RFQ / APPLICATION: Match chemical compatibility, pump delivery at back pressure and suction conditions. A process back-pressure valve is not a certified pressure-vessel safety valve.

STANDARDS / DOCUMENTS: Require product-specific pressure-temperature limits, wetted-material compatibility and functional tests. Applicable pressure-equipment requirements are order-specific.

PACKING: Individual braced cartons/crates; drain and seal wetted passages; ship dampeners depressurized.

WOG-334

Diaphragm Back-pressure Valve



Representative appearance

USE: Maintain controlled back pressure for stable chemical-metering operation.

MATERIAL / STRUCTURE: Diaphragm-regulated polymer back-pressure valve with adjustable spring setting.

OPTIONS / ACCEPTANCE: Select diaphragm/packing, adjustment range, connection, mounting and material compatibility.

Nominal connection	1/2, 1, 1-1/2 in NPT (DN 15, 25, 40 nominal)
Reference adjustment range	10-150 psi (0.69-10.34 bar); verify selected model
Sizing basis	Maximum pump flow and minimum required discharge back pressure
Wetted materials	316 SS / PVC / PVDF; chemically compatible diaphragm

RFQ / APPLICATION: Match chemical compatibility, pump delivery at back pressure and suction conditions. A process back-pressure valve is not a certified pressure-vessel safety valve.

STANDARDS / DOCUMENTS: Require product-specific pressure-temperature limits, wetted-material compatibility and functional tests. Applicable pressure-equipment requirements are order-specific.

PACKING: Individual braced cartons/crates; drain and seal wetted passages; ship dampeners depressurized.

WOG-335

Chemical Dosing Relief Valve



Representative appearance

USE: Bypass excess chemical-feed pressure to a safe return within the selected valve limits.

MATERIAL / STRUCTURE: Spring-loaded chemical-service relief valve for an independently sized return/bypass line.

OPTIONS / ACCEPTANCE: Select diaphragm/packing, adjustment range, connection, mounting and material compatibility.

Nominal connection	1/2, 3/4, 1 in NPT (DN 15, 20, 25 nominal); verify model
Relieving capacity	Size for the full pump discharge flow at the required relief pressure
Set-point constraint	Above normal discharge pressure; below the lowest component pressure limit
Wetted materials	316 SS / compatible polymer; chemically compatible diaphragm

RFQ / APPLICATION: Match chemical compatibility, pump delivery at back pressure and suction conditions. A process back-pressure valve is not a certified pressure-vessel safety valve.

STANDARDS / DOCUMENTS: Require product-specific pressure-temperature limits, wetted-material compatibility and functional tests. Applicable pressure-equipment requirements are order-specific.

PACKING: Individual braced cartons/crates; drain and seal wetted passages; ship dampeners depressurized.

WOG-355

Pneumatic Chemical Metering Pump



Representative appearance

Plunger reference sizes	3/16, 1/4, 3/8, 1/2 in (4.76, 6.35, 9.53, 12.70 mm)
Fluid connection	1/4 in FNPT (DN 8 nominal), model dependent
Performance selection	Match US gal/day (L/day) at injection pressure in psi (bar); use the selected pump curve
Capacity control	Adjustable stroke length / stroke rate, according to catalogue configuration

USE: Deliver controlled low-volume chemical injection using a pneumatic drive.

MATERIAL / STRUCTURE: Pneumatic drive operates a reciprocating liquid metering section; air and liquid pressure ratios are model-dependent.

OPTIONS / ACCEPTANCE: Select diaphragm/packing, adjustment range, connection, mounting and material compatibility.

RFQ / APPLICATION: RFQ: US gal/day (L/day) at injection psi (bar), chemical/viscosity, suction head and drive-air pressure. State instrument air or approved gas drive and site requirements explicitly.

STANDARDS / DOCUMENTS: Pressure equipment/piping review as applicable; API 675 only if the ordered metering pump qualifies.

PACKING: Individual braced cartons/crates; drain and seal wetted passages; ship dampeners depressurized.

WOG-471

Threaded Oil-level Sight Glass



Representative appearance

USE: Visual oil-level checks on catalogue-rated pump and auxiliary lubrication housings.

MATERIAL / STRUCTURE: Threaded circular sight window with a sealed transparent disc; suitable for catalogue-rated lubrication housings.

OPTIONS / ACCEPTANCE: Select a published size and performance grade; confirm material compatibility, installation space and replacement interval.

Port sizes	1/2 / 3/4 / 1 in NPT (DN 15 / 20 / 25)
Body / window	Brass or stainless body; glass window
Seal selection	NBR / FKM to actual lubricant
Function	Direct local oil-level indication

RFQ / APPLICATION: Use for auxiliary lubrication reservoirs within the selected rating. Do not use an ordinary oil-reservoir indicator as a high-pressure separator level instrument.

STANDARDS / DOCUMENTS: State the performance test method and actual fluid conditions. Ratings must come from the selected product data sheet.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-500

Horizontal Oil Level Switch



Representative appearance

USE: Point-level indication for auxiliary oil reservoirs around production equipment.

MATERIAL / STRUCTURE: Side-entry threaded stem with pivoting float and electrical leads. Select float buoyancy and wetted materials for the oil.

OPTIONS / ACCEPTANCE: Fixed catalogue switch; confirm contact load, NO/NC orientation and reservoir pressure limit.

Mounting thread	1/2 in NPT (DN 15 nominal)
Switch action	Normally open / normally closed orientation
Lead length option	24 in (609.6 mm)
Service	Auxiliary oil reservoirs; non-hazardous locations

RFQ / APPLICATION: Use for auxiliary lubrication reservoirs within the selected rating. Do not use an ordinary oil-reservoir indicator as a high-pressure separator level instrument.

STANDARDS / DOCUMENTS: NPT interface to ASME B1.20.1; electrical and pressure ratings per exact catalogue item. No hazardous-area approval implied.

PACKING: Individual protective packs on pallets; quote packed size and gross weight. Consolidate identical catalogue sizes.

WOG-211

Gas Coalescing Filter Element



Representative appearance

USE: Remove entrained liquid aerosols from natural gas after bulk liquid separation.

MATERIAL / STRUCTURE: Microglass coalescing media, drainage layer and supported core. Use an existing catalogue element with documented gas-service compatibility.

OPTIONS / ACCEPTANCE: Select an established end configuration and seal material; retain the same validated part for repeat orders.

Catalogue length options	18 / 36 in (457.2 / 914.4 mm)
Fit selection	Catalogue OD, bore, end caps and seal
Media selection	Microglass coalescing media, drainage layer and supported core
Performance basis	Flow, efficiency, clean/change-out DP

RFQ / APPLICATION: RFQ: installed vessel/element reference, gas composition, flow in scfm or MMSCFD with base conditions, operating psi/deg F, end seals, efficiency and collapse/change-out differential pressure.

STANDARDS / DOCUMENTS: Require retention/coalescence test data, collapse rating and gas compatibility. Nominal size alone does not establish interchangeability.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-212

Dry Gas Particulate Filter Element



Representative appearance

USE: Remove solid contaminants from gas before sensitive downstream equipment.

MATERIAL / STRUCTURE: Depth or pleated particulate media with rigid support. Use an existing catalogue element with documented gas-service compatibility.

OPTIONS / ACCEPTANCE: Select an established end configuration and seal material; retain the same validated part for repeat orders.

Catalogue length options	18 / 36 in (457.2 / 914.4 mm)
Fit selection	Catalogue OD, bore, end caps and seal
Media selection	Depth or pleated particulate media with rigid support
Performance basis	Flow, efficiency, clean/change-out DP

RFQ / APPLICATION: RFQ: installed vessel/element reference, gas composition, flow in scfm or MMSCFD with base conditions, operating psi/deg F, end seals, efficiency and collapse/change-out differential pressure.

STANDARDS / DOCUMENTS: Require retention/coalescence test data, collapse rating and gas compatibility. Nominal size alone does not establish interchangeability.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-213

Gas Filter-separator Element



Representative appearance

USE: First-stage gas solids filtration and liquid coalescence in a compatible filter-separator.

MATERIAL / STRUCTURE: Bonded fiber depth media with metal core and end caps. Use an existing catalogue element with documented gas-service compatibility.

OPTIONS / ACCEPTANCE: Select an established end configuration and seal material; retain the same validated part for repeat orders.

Catalogue length options	18 / 36 in (457.2 / 914.4 mm)
Fit selection	Catalogue OD, bore, end caps and seal
Media selection	Bonded fiber depth media with metal core and end caps
Performance basis	Flow, efficiency, clean/change-out DP

RFQ / APPLICATION: RFQ: installed vessel/element reference, gas composition, flow in scfm or MMSCFD with base conditions, operating psi/deg F, end seals, efficiency and collapse/change-out differential pressure.

STANDARDS / DOCUMENTS: Require retention/coalescence test data, collapse rating and gas compatibility. Nominal size alone does not establish interchangeability.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-502

Compact Sweet-gas Filter



Representative appearance

USE: Remove particles or liquid aerosols from compatible sweet-gas and instrument-gas lines.

MATERIAL / STRUCTURE: Compact metal bowl and threaded head with replaceable element and drain; fixed catalogue sizes.

OPTIONS / ACCEPTANCE: Choose gas-approved seals/media, manual closed-drain connection and differential-pressure indication.

Catalogue connections	1/4-3 in NPT (DN 8-80 nominal)
Service selection	Sweet natural gas; grade-specific approval
Element options	Particulate / coalescing, separately selected
Pressure class example	250 psig (17.2 bar); verify exact item

RFQ / APPLICATION: Confirm flow direction, end seals, differential-pressure limit and media compatibility. Similar outside dimensions do not establish interchangeability or gas-service approval.

STANDARDS / DOCUMENTS: Confirm manufacturer gas-service approval and temperature derating. Air-only units are excluded; sour-gas suitability is not assumed.

PACKING: Individual protective packs on pallets; quote packed size and gross weight. Consolidate identical catalogue sizes.

WOG-225

Cotton-wound Glycol Filter Cartridge



Representative appearance

Length series	10 / 20 / 30 / 40 in (254 / 508 / 762 / 1,016 mm)
Nominal OD	2-1/2 in (63.5 mm)
Media / core	Cotton winding on stainless core
Retention grades	5 / 10 / 25 / 50 / 100 µm; nominal

USE: Remove solid particles from circulating TEG in a natural-gas dehydration unit; select media and core for the actual glycol temperature.

MATERIAL / STRUCTURE: Cotton-wound Glycol Filter / Sock Element in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Select cotton-winding density, nominal micron grade, stainless core and catalogued length.

RFQ / APPLICATION: RFQ: TEG composition, operating temperature, housing and cartridge dimensions, micron efficiency and allowable differential pressure. This cartridge treats liquid glycol, not the gas stream.

STANDARDS / DOCUMENTS: Specify retention efficiency and test method, not micron value alone. Confirm terminal differential pressure and media/seal compatibility from the selected grade.

PACKING: Individually bagged dry cartridges in supported cartons; palletize by size and micron grade. Protect end faces and prevent winding damage.

WOG-231

Molecular Sieve 3A



Representative appearance

Zeolite type	3A molecular sieve
Bead sizes	8 x 12 / 4 x 8 mesh; verify sieve distribution
Extrudate options	1/16 / 1/8 in (1.59 / 3.18 mm)
Supply condition	Activated, moisture-tight drums; no open-air storage

USE: Adsorb water or selected small molecules in gas-treatment beds; select pore size for the intended separation.

MATERIAL / STRUCTURE: Molecular Sieve 3A in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Water capacity, crush strength, attrition and residual moisture. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Select pore chemistry, bead/pellet form and size distribution for the gas composition and regeneration cycle. Do not substitute 3A, 4A and 13X by bead diameter alone.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: Factory-sealed moisture-tight drums or qualified barrier bags. Quote net weight, activation condition, shelf life and packed gross weight; protect from moisture ingress.

WOG-232

Molecular Sieve 4A



Representative appearance

Zeolite type	4A molecular sieve
Bead sizes	8 x 12 / 4 x 8 mesh; verify sieve distribution
Extrudate options	1/16 / 1/8 in (1.59 / 3.18 mm)
Supply condition	Activated, moisture-tight drums; no open-air storage

USE: Adsorb water or selected small molecules in gas-treatment beds; select pore size for the intended separation.

MATERIAL / STRUCTURE: Molecular Sieve 4A in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Water capacity, crush strength, attrition and residual moisture. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Select pore chemistry, bead/pellet form and size distribution for the gas composition and regeneration cycle. Do not substitute 3A, 4A and 13X by bead diameter alone.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: Factory-sealed moisture-tight drums or qualified barrier bags. Quote net weight, activation condition, shelf life and packed gross weight; protect from moisture ingress.

WOG-233

Molecular Sieve 13X



Representative appearance

Zeolite type	13X molecular sieve
Bead sizes	8 x 12 / 4 x 8 mesh; verify sieve distribution
Extrudate options	1/16 / 1/8 in (1.59 / 3.18 mm)
Supply condition	Activated, moisture-tight drums; no open-air storage

USE: Adsorb water or selected small molecules in gas-treatment beds; select pore size for the intended separation.

MATERIAL / STRUCTURE: Molecular Sieve 13X in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Adsorption capacity, crush strength, attrition and residual moisture. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Select pore chemistry, bead/pellet form and size distribution for the gas composition and regeneration cycle. Do not substitute 3A, 4A and 13X by bead diameter alone.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: Factory-sealed moisture-tight drums or qualified barrier bags. Quote net weight, activation condition, shelf life and packed gross weight; protect from moisture ingress.

WOG-234

Activated Alumina



Representative appearance

Commercial grade	Activated alumina beads
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
RFQ media size	1/16 or 1/8 in (1.59 or 3.18 mm) nominal; grade-specific
Acceptance data	Crush strength, attrition, moisture and adsorption capacity

USE: Water adsorption in compatible gas-drying beds, using the selected alumina grade and regeneration cycle.

MATERIAL / STRUCTURE: Activated Alumina in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Surface area, water uptake, crush strength and attrition. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Select pore chemistry, bead/pellet form and size distribution for the gas composition and regeneration cycle. Do not substitute 3A, 4A and 13X by bead diameter alone.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: Factory-sealed moisture-tight drums or qualified barrier bags. Quote net weight, activation condition, shelf life and packed gross weight; protect from moisture ingress.

WOG-235

Silica Gel



Representative appearance

Commercial grade	Non-indicating silica gel
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
RFQ media size	1/16 or 1/8 in (1.59 or 3.18 mm) nominal; grade-specific
Acceptance data	Crush strength, attrition, moisture and adsorption capacity

USE: Moisture adsorption in compatible gas and air drying systems.

MATERIAL / STRUCTURE: Silica Gel in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Water uptake at specified RH, moisture and particle distribution. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Select pore chemistry, bead/pellet form and size distribution for the gas composition and regeneration cycle. Do not substitute 3A, 4A and 13X by bead diameter alone.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: Factory-sealed moisture-tight drums or qualified barrier bags. Quote net weight, activation condition, shelf life and packed gross weight; protect from moisture ingress.

WOG-247

Iron-based H₂S Scavenging Pellets

Representative appearance

Commercial grade	Iron-oxide-based scavenging media
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
RFQ media size	1/16 or 1/8 in (1.59 or 3.18 mm) nominal; grade-specific
Acceptance data	Crush strength, attrition, moisture and adsorption capacity

USE: Fixed-bed hydrogen sulfide removal using a selected iron-based reactive medium.

MATERIAL / STRUCTURE: Iron-based H₂S Scavenging Pellets in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Sulfur uptake basis, pellet strength, fines and moisture. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Require gas composition, moisture, oxygen and operating temperature before media selection. Spent media handling and capacity depend on chemistry and service.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: Supplier-approved sealed packs on pallets; quote net weight and storage limits. Review fresh-media SDS and spent-media handling separately.

WOG-249

H₂S-removal Activated Carbon Pellets

Representative appearance

Commercial grade	Impregnated activated-carbon pellets
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
RFQ media size	1/16 or 1/8 in (1.59 or 3.18 mm) nominal; grade-specific
Acceptance data	Crush strength, attrition, moisture and adsorption capacity

USE: Fixed-bed H₂S removal with a qualified impregnated or catalytic carbon grade.

MATERIAL / STRUCTURE: H₂S-removal Activated Carbon Pellets in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: H₂S capacity at defined humidity/O₂, hardness and fines. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Require gas composition, moisture, oxygen and operating temperature before media selection. Spent media handling and capacity depend on chemistry and service.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: Supplier-approved sealed packs on pallets; quote net weight and storage limits. Review fresh-media SDS and spent-media handling separately.

WOG-342

Braided PTFE Gland Packing



Representative appearance

USE: Valve-stem and pump-gland maintenance in oil, gas and utility services.

MATERIAL / STRUCTURE: Square-section braided PTFE gland packing, supplied as coil or pre-cut rings.

OPTIONS / ACCEPTANCE: Select lubricant, reinforcement, ring form and process compatibility.

Square section	1/8-1 in (3.18-25.4 mm)
Supply form	Coils / pre-cut rings / die-formed sets
Material	Braided PTFE; asbestos-free
Fit dimensions	Shaft/stem OD and stuffing-box bore in in (mm)

RFQ / APPLICATION: RFQ: seal size or cross-section, compound/packing grade, gland dimensions and service fluid. Confirm temperature and pressure, including gas decompression duty where relevant.

STANDARDS / DOCUMENTS: Leakage and friction qualification by service; low-emission testing only when specifically ordered.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-343

Braided Graphite Gland Packing



Representative appearance

USE: Valve-stem and pump-gland maintenance in oil, gas and utility services.

MATERIAL / STRUCTURE: Square-section braided graphite gland packing, supplied as coil or pre-cut rings.

OPTIONS / ACCEPTANCE: Select lubricant, reinforcement, ring form and process compatibility.

Square section	1/8-1 in (3.18-25.4 mm)
Supply form	Coils / pre-cut rings / die-formed sets
Material	Braided graphite; asbestos-free
Fit dimensions	Shaft/stem OD and stuffing-box bore in in (mm)

RFQ / APPLICATION: RFQ: seal size or cross-section, compound/packing grade, gland dimensions and service fluid. Confirm temperature and pressure, including gas decompression duty where relevant.

STANDARDS / DOCUMENTS: Leakage and friction qualification by service; low-emission testing only when specifically ordered.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-448

AS568 O-ring Assortment



Representative appearance

USE: Repeat-purchase sealing and protection products for standard piping and maintenance interfaces.

MATERIAL / STRUCTURE: Fixed catalogue dimensions and specified material grade; sealing function depends on the mating geometry and service.

OPTIONS / ACCEPTANCE: Lock dimensions, compound or metal grade and acceptance limits before repeat orders; retain batch traceability.

RFQ / APPLICATION: RFQ: seal size or cross-section, compound/packing grade, gland dimensions and service fluid. Confirm temperature and pressure, including gas decompression duty where relevant.

STANDARDS / DOCUMENTS: SAE AS568 dimensions and ASTM D2000 compound description where specified. Sour-gas or rapid-gas-decompression duty needs qualified compounds.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

Size system	AS568 dash-number series
Cross sections	0.070 / 0.103 / 0.139 / 0.210 in (1.78 / 2.62 / 3.53 / 5.33 mm)
Compound options	NBR / FKM / EPDM; fixed compound
Hardness options	70 / 90 Shore A, by compound

WOG-449

PTFE Back-up Ring



Representative appearance

USE: Repeat-purchase sealing and protection products for standard piping and maintenance interfaces.

MATERIAL / STRUCTURE: Fixed catalogue dimensions and specified material grade; sealing function depends on the mating geometry and service.

OPTIONS / ACCEPTANCE: Lock dimensions, compound or metal grade and acceptance limits before repeat orders; retain batch traceability.

RFQ / APPLICATION: RFQ: seal size or cross-section, compound/packing grade, gland dimensions and service fluid. Confirm temperature and pressure, including gas decompression duty where relevant.

STANDARDS / DOCUMENTS: Confirm dimensions and material test data. A generic material name does not establish a pressure or temperature rating.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

Size basis	Companion AS568 ring and gland
Material	Virgin / filled PTFE grade
Form	Split / solid catalogue rings
Functional role	Extrusion support; not a primary seal

WOG-450

Bonded Sealing Washer



Representative appearance

Bolt/port size range	1/4-1 in (6.35-25.4 mm) nominal
Construction	Steel annulus bonded to elastomer
Rubber selection	NBR / FKM, fixed compound
Dimensional control	ID × OD × thickness, catalogue series

USE: Repeat-purchase sealing and protection products for standard piping and maintenance interfaces.

MATERIAL / STRUCTURE: Fixed catalogue dimensions and specified material grade; sealing function depends on the mating geometry and service.

OPTIONS / ACCEPTANCE: Lock dimensions, compound or metal grade and acceptance limits before repeat orders; retain batch traceability.

RFQ / APPLICATION: RFQ: seal size or cross-section, compound/packing grade, gland dimensions and service fluid. Confirm temperature and pressure, including gas decompression duty where relevant.

STANDARDS / DOCUMENTS: Match the actual port counterface and washer dimensions; nominal BSP, metric and inch washer designations are not interchangeable.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-054

Spiral-wound Flange Gaskets



Representative appearance

Flange size	NPS 1/2-12 (DN 15-300)
Class series	150 / 300 / 600; match flange
Sealing element	316L winding + flexible graphite or PTFE
Ring construction	Outer guide ring; inner ring per standard and filler

USE: Seal standardized flanged oil, gas and process-piping joints.

MATERIAL / STRUCTURE: spiral-wound gaskets with centering rings. Material and critical interfaces follow the selected product data sheet and service conditions.

OPTIONS / ACCEPTANCE: Standard inner/outer ring styles; graphite or PTFE filler; catalogue ring and winding materials.

RFQ / APPLICATION: RFQ: flange standard, NPS, class, facing and gasket style; specify temperature, pressure, medium and required material. Match the actual flange seating geometry.

STANDARDS / DOCUMENTS: ASME B16.20 with mating ASME B16.5 flange. Specify ring material and filler; pressure class is not an independent gasket pressure rating.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-344

Octagonal Ring-joint Gasket



Representative appearance

USE: Seal flanged oil/gas joints; insulation kits also electrically isolate bolted joints.

MATERIAL / STRUCTURE: Octagonal-section metal ring seats in compatible RTJ flange grooves. Ring number, hardness and groove geometry must match.

OPTIONS / ACCEPTANCE: Select ring cross-section, facing material, guide ring or insulating sleeves/washers.

RFQ / APPLICATION: RFQ: flange standard, NPS, class, facing and gasket style; specify temperature, pressure, medium and required material. Match the actual flange seating geometry.

STANDARDS / DOCUMENTS: ASME B16.20 where applicable; B16.5 flange fit; insulation performance by agreed test. Asbestos-free.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Nominal size	NPS 1/2-12 (DN 15-300)
Flange match	Class / ring number / facing per mating flange
Material / build	Soft iron / approved stainless or alloy; hardness matched to flange
Dimensions	OD / ID / thickness in in (mm), to published size schedule

WOG-345

Kammprofile Gasket



Representative appearance

USE: Seal flanged oil/gas joints; insulation kits also electrically isolate bolted joints.

MATERIAL / STRUCTURE: Serrated metal core with soft facing layers concentrates sealing load while controlling compression.

OPTIONS / ACCEPTANCE: Select ring cross-section, facing material, guide ring or insulating sleeves/washers.

RFQ / APPLICATION: RFQ: flange standard, NPS, class, facing and gasket style; specify temperature, pressure, medium and required material. Match the actual flange seating geometry.

STANDARDS / DOCUMENTS: ASME B16.20 where applicable; B16.5 flange fit; insulation performance by agreed test. Asbestos-free.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

Nominal size	NPS 1/2-12 (DN 15-300)
Flange match	NPS, pressure class, facing and gasket dimensions
Material / build	Serrated metal core with graphite or PTFE facing
Dimensions	OD / ID / thickness in in (mm), to published size schedule

WOG-350

Flange Insulation Gasket Kit



Representative appearance

USE: Seal flanged oil/gas joints; insulation kits also electrically isolate bolted joints.

MATERIAL / STRUCTURE: Type-specific gasket or insulation set selected to the actual flange seal geometry.

OPTIONS / ACCEPTANCE: Select ring cross-section, facing material, guide ring or insulating sleeves/washers.

Nominal size	NPS 1/2-12 (DN 15-300)
Flange match	NPS, pressure class, facing and gasket dimensions
Material / build	Insulating composite gasket, sleeves and insulating/steel washers
Dimensions	OD / ID / thickness in in (mm), to published size schedule

RFQ / APPLICATION: RFQ: flange standard, NPS, class, facing and gasket style; specify temperature, pressure, medium and required material. Match the actual flange seating geometry.

STANDARDS / DOCUMENTS: Flange dimensional fit to ASME B16.5 where applicable; dielectric resistance, compressive strength and leakage tests as agreed. Asbestos-free.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-445

Oval Ring-joint Gasket



Representative appearance

USE: Repeat-purchase sealing and protection products for standard piping and maintenance interfaces.

MATERIAL / STRUCTURE: Fixed catalogue dimensions and specified material grade; sealing function depends on the mating geometry and service.

OPTIONS / ACCEPTANCE: Lock dimensions, compound or metal grade and acceptance limits before repeat orders; retain batch traceability.

Profile	Oval, R-series ring numbers
Flange families	ASME B16.5 / API 6A as specified
Materials	Soft iron / low-carbon steel / 316
Verification	Ring number, hardness and groove fit

RFQ / APPLICATION: RFQ: flange standard, NPS, class, facing and gasket style; specify temperature, pressure, medium and required material. Match the actual flange seating geometry.

STANDARDS / DOCUMENTS: ASME B16.20 for applicable rings; API 6A only for the identified interface. Ring hardness must suit the flange groove.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-446

Compressed Non-asbestos Gasket Sheet



Representative appearance

USE: Repeat-purchase sealing and protection products for standard piping and maintenance interfaces.

MATERIAL / STRUCTURE: Fixed catalogue dimensions and specified material grade; sealing function depends on the mating geometry and service.

OPTIONS / ACCEPTANCE: Lock dimensions, compound or metal grade and acceptance limits before repeat orders; retain batch traceability.

RFQ / APPLICATION: RFQ: flange standard, NPS, class, facing and gasket style; specify temperature, pressure, medium and required material. Match the actual flange seating geometry.

STANDARDS / DOCUMENTS: Specify ASTM F36 compressibility/recovery and ASTM F38 creep data where applicable; compare pressure-temperature limits for the exact grade.

PACKING: Flat sheet packs on supported pallets; protect edges and prevent bending or contamination.

Thickness options	1/32 / 1/16 / 1/8 in (0.79 / 1.59 / 3.18 mm)
Stock sheet example	60 × 60 in (1,524 × 1,524 mm)
Material	Aramid / inorganic fiber with NBR binder
Purchase form	Stock sheets; no special cut profiles

WOG-447

Expanded PTFE Gasket Sheet



Representative appearance

USE: Repeat-purchase sealing and protection products for standard piping and maintenance interfaces.

MATERIAL / STRUCTURE: Fixed catalogue dimensions and specified material grade; sealing function depends on the mating geometry and service.

OPTIONS / ACCEPTANCE: Lock dimensions, compound or metal grade and acceptance limits before repeat orders; retain batch traceability.

RFQ / APPLICATION: RFQ: flange standard, NPS, class, facing and gasket style; specify temperature, pressure, medium and required material. Match the actual flange seating geometry.

STANDARDS / DOCUMENTS: Specify ASTM F36 compressibility/recovery and ASTM F38 creep data where applicable; compare pressure-temperature limits for the exact grade.

PACKING: Flat sheet packs on supported pallets; protect edges and prevent bending or contamination.

Thickness options	1/32 / 1/16 / 1/8 in (0.79 / 1.59 / 3.18 mm)
Stock sheet example	60 × 60 in (1,524 × 1,524 mm)
Material	Expanded PTFE; specified density
Purchase form	Stock sheets; no special cut profiles

WOG-041

Polypropylene Melt-blown Depth Cartridge



Representative appearance

Nominal lengths	10 / 20 / 30 / 40 in (254 / 508 / 762 / 1,016 mm)
Nominal OD	2-1/2 in (63.5 mm)
Retention grades	1 / 5 / 10 / 25 / 50 µm; nominal
Construction / ends	PP depth media; DOE or listed end caps

USE: Melt-blown Cartridge Filter Element for produced water filtration & maintenance.

MATERIAL / STRUCTURE: Thermally bonded polypropylene depth media captures particles through the cartridge wall; no adhesive binder.

OPTIONS / ACCEPTANCE: DOE or published end-cap variants; select nominal retention grade, length and core-supported construction where required.

RFQ / APPLICATION: RFQ: liquid and temperature, flow in US gpm (L/min), installed housing, element dimensions/end style, retention efficiency and clean/change-out differential pressure.

STANDARDS / DOCUMENTS: Specify retention efficiency and test method, not micron value alone. Confirm terminal differential pressure and media/seal compatibility from the selected grade.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-042

Pleated Liquid Filter Element



Representative appearance

Nominal lengths	10 / 20 / 30 / 40 in (254 / 508 / 762 / 1,016 mm)
Media options	Pleated PP / polyester; select one grade
Retention grades	1 / 5 / 10 / 25 / 50 µm
End codes	DOE / 222 / 226; gasket and fin separately specified

USE: Pleated Liquid Filter Element for produced water filtration & maintenance.

MATERIAL / STRUCTURE: pleated polymer cartridge with end seal. Material and critical interfaces follow the selected product data sheet and service conditions.

OPTIONS / ACCEPTANCE: PP or polyester media; select 222/226 or DOE ends and a fluid-compatible seal compound.

RFQ / APPLICATION: RFQ: liquid and temperature, flow in US gpm (L/min), installed housing, element dimensions/end style, retention efficiency and clean/change-out differential pressure.

STANDARDS / DOCUMENTS: Specify retention efficiency and test method, not micron value alone. Confirm terminal differential pressure and media/seal compatibility from the selected grade.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-043

Felt Liquid Filter Bag



Representative appearance

Size #1 envelope	7 in OD x 16-17 in L (177.8 x 406.4-431.8 mm)
Size #2 envelope	7 x 32 in (177.8 x 812.8 mm)
Media / grades	PP / polyester felt; 1 / 5 / 10 / 25 / 50 / 100 / 200 µm
Ring and seam	Steel/plastic ring; sewn/welded; housing match required

USE: Bag Filter for produced water filtration & maintenance.

MATERIAL / STRUCTURE: Material and critical interfaces follow the selected product data sheet and service conditions.

OPTIONS / ACCEPTANCE: PP felt for compatible aqueous service; polyester for compatible higher-temperature service. Published grade temperature limit governs.

RFQ / APPLICATION: RFQ: liquid and temperature, flow in US gpm (L/min), installed housing, element dimensions/end style, retention efficiency and clean/change-out differential pressure.

STANDARDS / DOCUMENTS: Specify retention efficiency and test method, not micron value alone. Confirm terminal differential pressure and media/seal compatibility from the selected grade.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-330

High-flow Pleated Cartridge



Representative appearance

Length series	20 / 40 / 60 in (508 / 1,016 / 1,524 mm)
Nominal OD	6 in (152.4 mm); family-dependent
Retention grades	1 / 5 / 10 / 20 / 40 µm
Interface	Published housing-compatible end geometry; no universal interchange

USE: High-volume produced-water polishing and process-liquid filtration.

MATERIAL / STRUCTURE: Large-diameter pleated cartridge with handle and defined end sealing geometry.

OPTIONS / ACCEPTANCE: Select pleated media, retention efficiency, seal compound and the exact published high-flow housing family.

RFQ / APPLICATION: RFQ: liquid and temperature, flow in US gpm (L/min), installed housing, element dimensions/end style, retention efficiency and clean/change-out differential pressure.

STANDARDS / DOCUMENTS: Specify retention efficiency and test method, not micron value alone. Confirm terminal differential pressure and media/seal compatibility from the selected grade.

PACKING: Sleeved cartridges in rigid cartons; protect handles and end seals from stacking loads.

WOG-400

String-wound Depth Cartridge



Representative appearance

Lengths	10 / 20 / 30 / 40 in (254 / 508 / 762 / 1,016 mm)
Nominal OD	2-1/2 in (63.5 mm)
Media / core	PP yarn / PP core; cotton / SS option
Nominal grades	1 / 5 / 10 / 25 / 50 / 100 µm

USE: Particle or free-oil removal in produced-water, completion-fluid and process-liquid service.

MATERIAL / STRUCTURE: Precisely wound yarn forms graded-depth passages around a perforated core; select winding grade and end fit.

OPTIONS / ACCEPTANCE: Select one published media grade, end style and retention rating. Release checks include dimensions, integrity and stated efficiency.

RFQ / APPLICATION: RFQ: liquid and temperature, flow in US gpm (L/min), installed housing, element dimensions/end style, retention efficiency and clean/change-out differential pressure.

STANDARDS / DOCUMENTS: Specify retention efficiency and test method. Micron grade alone does not establish absolute performance or housing fit.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-401

Pleated Stainless Steel Filter Cartridge



Representative appearance

Lengths	10 / 20 / 30 / 40 in (254 / 508 / 762 / 1,016 mm)
Media	Pleated 316L woven wire mesh
Screen grades	10 / 25 / 50 / 100 / 200 µm
End configuration	DOE or catalogue threaded ends

USE: Particle or free-oil removal in produced-water, completion-fluid and process-liquid service.

MATERIAL / STRUCTURE: Pleated woven-wire media supported by a metal core; intended for compatible liquids and validated cleaning cycles.

OPTIONS / ACCEPTANCE: Select one published media grade, end style and retention rating. Release checks include dimensions, integrity and stated efficiency.

RFQ / APPLICATION: RFQ: liquid and temperature, flow in US gpm (L/min), installed housing, element dimensions/end style, retention efficiency and clean/change-out differential pressure.

STANDARDS / DOCUMENTS: Specify retention efficiency and test method. Micron grade alone does not establish absolute performance or housing fit.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-402

Sintered Metal Powder Filter Element



Representative appearance

Nominal lengths	10 / 20 in (254 / 508 mm)
Construction	Porous sintered 316L powder
Catalogue grades	1 / 5 / 10 / 20 / 50 µm
Ends / verification	Threaded / DOE; bubble point and permeability

USE: Particle or free-oil removal in produced-water, completion-fluid and process-liquid service.

MATERIAL / STRUCTURE: Rigid porous metal formed by powder sintering; pore grade, wall thickness and permeability are controlled separately.

OPTIONS / ACCEPTANCE: Select one published media grade, end style and retention rating. Release checks include dimensions, integrity and stated efficiency.

RFQ / APPLICATION: RFQ: liquid and temperature, flow in US gpm (L/min), installed housing, element dimensions/end style, retention efficiency and clean/change-out differential pressure.

STANDARDS / DOCUMENTS: Specify retention efficiency and test method. Micron grade alone does not establish absolute performance or housing fit.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-403

Nylon Monofilament Filter Bag



Representative appearance

Bag size	#1 / #2; match housing ring
Nominal dimensions	7 × 16-17 / 32 in (178 × 406-432 / 813 mm)
Media	Nylon monofilament
Grade control	50 / 100 / 200 / 400 µm

USE: Particle or free-oil removal in produced-water, completion-fluid and process-liquid service.

MATERIAL / STRUCTURE: Woven single-filament nylon mesh provides surface filtration; select a fixed pore grade and sewn bag configuration.

OPTIONS / ACCEPTANCE: Select one published media grade, end style and retention rating. Release checks include dimensions, integrity and stated efficiency.

RFQ / APPLICATION: RFQ: liquid and temperature, flow in US gpm (L/min), installed housing, element dimensions/end style, retention efficiency and clean/change-out differential pressure.

STANDARDS / DOCUMENTS: Specify retention efficiency and test method. Micron grade alone does not establish absolute performance or housing fit.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-404

Oil-absorbing Liquid Filter Bag



Representative appearance

Bag size	#1 / #2; match housing ring
Nominal dimensions	7 × 16-17 / 32 in (178 × 406-432 / 813 mm)
Media	PP oil-adsorbing layers
Grade control	Oil capacity and downstream retention

USE: Captures dispersed free oil in water circuits; dissolved hydrocarbons and stable emulsions require other treatment.

MATERIAL / STRUCTURE: Layered oleophilic polypropylene media combines free-oil adsorption and particulate interception in a standard bag format.

OPTIONS / ACCEPTANCE: Select one published media grade, end style and retention rating. Release checks include dimensions, integrity and stated efficiency.

RFQ / APPLICATION: RFQ: liquid and temperature, flow in US gpm (L/min), installed housing, element dimensions/end style, retention efficiency and clean/change-out differential pressure.

STANDARDS / DOCUMENTS: Specify retention efficiency and test method. Micron grade alone does not establish absolute performance or housing fit.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-046

Woven Metal Mesh Screen



Representative appearance

Stock roll widths	36 / 48 in (914.4 / 1,219.2 mm)
Stock roll length	100 ft (30.48 m)
Material	304 / 316 stainless steel
Mesh selection	20 / 40 / 60 / 80 / 100 mesh; wire diameter also required

USE: Woven Metal Mesh Screen for produced water filtration & maintenance.

MATERIAL / STRUCTURE: woven wire mesh; not a strainer basket. Material and critical interfaces follow the selected product data sheet and service conditions.

OPTIONS / ACCEPTANCE: Select plain/twill weave from the published mesh-wire schedule; rolls only, without fabricated baskets or cut-to-drawing assemblies.

RFQ / APPLICATION: Specify mesh with wire diameter, or carbon grade with particle distribution and adsorption test. Different media are not interchangeable by bulk volume alone.

STANDARDS / DOCUMENTS: ASTM E2016 for industrial woven wire cloth where ordered. Mesh count alone does not define aperture or open area.

PACKING: Separated cartons on pallets; protect threads and seal faces. Consolidate compatible sizes by purchase schedule.

WOG-048

Granular Activated Carbon Media



Representative appearance

USE: Produced Water Filtration & Maintenance applications; qualify treatment with representative field fluids.

MATERIAL / STRUCTURE: Granular Activated Carbon Media supplied in the specified chemical or media form. Composition and batch properties are defined in the approved product specification.

OPTIONS / ACCEPTANCE: Lock sieve distribution, iodine/adsorption criterion, hardness, ash, moisture and extractables on the grade specification.

Chemistry family	Granular / pellet activated carbon
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
RFQ media size	1/16 or 1/8 in (1.59 or 3.18 mm) nominal; grade-specific
Acceptance data	Crush strength, attrition, moisture and adsorption capacity

RFQ / APPLICATION: Specify mesh with wire diameter, or carbon grade with particle distribution and adsorption test. Different media are not interchangeable by bulk volume alone.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: Sealed bags, drums or IBCs by product. Confirm density, net/gross weight, SDS transport classification and carrier acceptance.

WOG-451

Push-in Flange Protector



Representative appearance

Flange size range	NPS 1/2-12 (DN 15-300)
Material	LDPE / HDPE moulded plastic
Mounting	Push-in bore engagement
Duty	Shipping and storage protection only

USE: Repeat-purchase sealing and protection products for standard piping and maintenance interfaces.

MATERIAL / STRUCTURE: Fixed catalogue dimensions and specified material grade; sealing function depends on the mating geometry and service.

OPTIONS / ACCEPTANCE: Lock dimensions, compound or metal grade and acceptance limits before repeat orders; retain batch traceability.

RFQ / APPLICATION: Protection caps are for storage and transport. Sorbent capacity depends on fluid and test method; choose oil-only or compatible mineral media for the actual spill.

STANDARDS / DOCUMENTS: Confirm flange bore fit and face coverage. This protector is not a gasket, blind flange or pressure-retaining closure.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

WOG-467

Oil-only Absorbent Pad



Representative appearance

Pad format	15 × 19 / 16 × 20 in (381 × 483 / 406 × 508 mm)
Material	Oleophilic, hydrophobic polypropylene
Grades	Light / medium / heavy by basis weight
Order basis	Basis weight, oil uptake and pack count

USE: Routine spill response and lubricant-condition maintenance around pumps, tanks and production equipment.

MATERIAL / STRUCTURE: Standard consumable or threaded maintenance accessory with catalogue dimensions and a defined material specification.

OPTIONS / ACCEPTANCE: Select a published size and performance grade; confirm material compatibility, installation space and replacement interval.

RFQ / APPLICATION: Protection caps are for storage and transport. Sorbent capacity depends on fluid and test method; choose oil-only or compatible mineral media for the actual spill.

STANDARDS / DOCUMENTS: State oil type and test method, such as ASTM F726 where applicable. Absorption capacity is not containment strength.

PACKING: Counted packs in moisture-protected cartons; quote carton dimensions and pallet quantity for cube efficiency.

WOG-468

Oil-only Absorbent Boom



Representative appearance

Boom diameter	5 / 8 in (127 / 203 mm)
Typical length	10 ft (3.05 m)
Construction	PP sorbent, outer net and connectors
Duty	Oil on water in sheltered conditions

USE: Routine spill response and lubricant-condition maintenance around pumps, tanks and production equipment.

MATERIAL / STRUCTURE: Standard consumable or threaded maintenance accessory with catalogue dimensions and a defined material specification.

OPTIONS / ACCEPTANCE: Select a published size and performance grade; confirm material compatibility, installation space and replacement interval.

RFQ / APPLICATION: Protection caps are for storage and transport. Sorbent capacity depends on fluid and test method; choose oil-only or compatible mineral media for the actual spill.

STANDARDS / DOCUMENTS: State oil type and test method, such as ASTM F726 where applicable. Absorption capacity is not containment strength.

PACKING: Counted packs in moisture-protected cartons; quote carton dimensions and pallet quantity for cube efficiency.

WOG-469

Protection and spill response

Granular Clay Absorbent

Routine spill response and lubricant-condition maintenance around pumps, tanks and production equipment.



Representative appearance

CONSTRUCTION & MATERIAL

Standard consumable or threaded maintenance accessory with catalogue dimensions and a defined material specification.

CONFIGURATION OPTIONS

Specify tested uptake by mass, particle size, fines and crystalline-silica information on the SDS. Do not assume oil-selective behavior.

STANDARDS & DOCUMENTATION

State the performance test method and actual fluid conditions. Ratings must come from the selected product data sheet.

PACKING: Separated cartons on pallets; protect threads, sealing faces and fragile parts. State gross weight per package.

REFERENCE SELECTIONS

Material

Calcined mineral / clay granules

Grade control

Sieve range, dust and moisture

Pack examples

40 / 50 lb (18.1 / 22.7 kg) bags

Application

Compatible spills on hard floors

APPLICATION DETAILS

Protection caps are for storage and transport. Sorbent capacity depends on fluid and test method; choose oil-only or compatible mineral media for the actual spill.

WOG-113

Liquid Friction Reducer



Representative appearance

USE: Reduce frictional pressure losses during water-based hydraulic fracturing.

MATERIAL / STRUCTURE: Liquid Friction Reducer in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Active content, viscosity, inversion time and friction-reduction curve. Freeze acceptance limits on the approved grade sheet.

Commercial grade	Liquid polymer emulsion
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Active content, viscosity, inversion time and friction-reduction curve.
Performance basis	Defined test fluid, concentration, temperature and aging time

RFQ / APPLICATION: RFQ: source-water analysis, salinity/hardness, temperature, treatment rate and target friction reduction. Qualify hydration and compatibility in actual make-up water.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-117

Dry Friction Reducer



Representative appearance

USE: Dry polymer for preparing water-based friction-reducing treatment fluids.

MATERIAL / STRUCTURE: Dry Friction Reducer in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Moisture, particle size, dissolution time and brine friction test. Freeze acceptance limits on the approved grade sheet.

Commercial grade	Dry water-soluble polymer
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Moisture, particle size, dissolution time and brine friction test.
Performance basis	Defined test fluid, concentration, temperature and aging time

RFQ / APPLICATION: RFQ: water chemistry, mixing/hydration equipment, powder feed rate and target friction reduction. Agree dissolution time and insoluble limits.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-360

High-viscosity Friction Reducer (HVFR)



Representative appearance

Commercial grade	High-viscosity friction-reducer grade
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Friction curve, hydration and viscosity versus shear rate.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Reduce pumping friction in water-based stimulation fluids; evaluate hydration and friction response in the actual water.

MATERIAL / STRUCTURE: High-viscosity Friction Reducer (HVFR) in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Friction curve, hydration and viscosity versus shear rate. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: RFQ: source-water ions, temperature and shear profile. Measure friction reduction and viscosity separately; qualify proppant transport and cleanup in the selected treatment.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-363

Brine-tolerant Friction Reducer



Representative appearance

Commercial grade	Salt-tolerant friction-reducer grade
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Friction reduction and hydration in specified TDS/divalent ions.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Reduce pumping friction in water-based stimulation fluids; evaluate hydration and friction response in the actual water.

MATERIAL / STRUCTURE: Brine-tolerant Friction Reducer in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Friction reduction and hydration in specified TDS/divalent ions. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: RFQ: actual produced-water/brine sample, total dissolved solids, hardness and iron. Test hydration and friction reduction with the full additive package.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-140

Guar-based Gelling Agent



Representative appearance

Commercial grade	Oilfield guar gum powder
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Moisture, hydration profile, viscosity and insoluble residue.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Build viscosity in compatible water-based stimulation fluids.

MATERIAL / STRUCTURE: Guar-based Gelling Agent in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Moisture, hydration profile, viscosity and insoluble residue. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Test in the intended source water and additive sequence. Hydration, friction reduction, viscosity and breaking depend on temperature, shear and dissolved salts.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-626

Borate Crosslinker



Representative appearance

Product form	Liquid borate-based crosslinker
Grade selection	Immediate or delayed crosslinking
Package reference	55 US gal drum (208.2 L), supplier-confirmed
Acceptance	Active boron, pH, density and gel response

USE: Crosslinks compatible guar-based fluids for selected hybrid or gel-based fracturing programs.

MATERIAL / STRUCTURE: Supplier-formulated liquid crosslinking additive; composition depends on grade.

OPTIONS / ACCEPTANCE: Require batch limits and crosslink-time/rheology tests in actual mix water.

RFQ / APPLICATION: RFQ: base polymer, mix-water salinity, pH, temperature and required working time. Evaluate the complete fluid with breaker and surfactants; no universal dosage or temperature range is implied.

STANDARDS / DOCUMENTS: Require TDS, SDS, COA and composition identity; agree on the applicable ISO 13503-1 fluid-test method and conditions.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-132

Breaker



Representative appearance

Commercial grade	Commercial polymer breaker
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Active content, break-time curve and residual viscosity at temperature.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Reduce residual polymer viscosity after the planned stimulation treatment.

MATERIAL / STRUCTURE: Breaker in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Active content, break-time curve and residual viscosity at temperature. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Test in the intended source water and additive sequence. Hydration, friction reduction, viscosity and breaking depend on temperature, shear and dissolved salts.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-627

Encapsulated Oxidizing Breaker



Representative appearance

Product form	Coated dry granules
Chemistry family	Encapsulated persulfate, grade-specific
Release control	Coating-dependent release profile
Package reference	55.1 lb (25 kg) net pack, supplier-confirmed

USE: Delayed breaker addition for compatible polymer-based fracturing fluids.

MATERIAL / STRUCTURE: Oxidizing breaker core with a supplier-qualified protective coating.

OPTIONS / ACCEPTANCE: Specify assay, coating integrity, particle distribution and release-test method.

RFQ / APPLICATION: Separate from general breaker WOG-132: this entry covers encapsulated release grades. Validate the complete viscosity-versus-time response under planned temperature and fluid chemistry. Do not infer delay from appearance alone.

STANDARDS / DOCUMENTS: TDS, SDS and batch COA; test release and fluid breaking under agreed conditions. Transport classification is grade-specific.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-130

Clay Stabilizer



Representative appearance

Commercial grade	Commercial clay-control grade
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Active content, fluid compatibility and clay-swelling test.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Limit clay swelling or fines migration in compatible treatment fluids.

MATERIAL / STRUCTURE: Clay Stabilizer in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Active content, fluid compatibility and clay-swelling test. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Test in the intended source water and additive sequence. Hydration, friction reduction, viscosity and breaking depend on temperature, shear and dissolved salts.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-121

Nonionic Surfactant



Representative appearance

Commercial grade	Nonionic surfactant grade
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Active matter, cloud point, HLB/chemistry and surface tension.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Modify wetting and interfacial behavior in stimulation or production fluids.

MATERIAL / STRUCTURE: Nonionic Surfactant in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Active matter, cloud point, HLB/chemistry and surface tension. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Test in the intended source water and additive sequence. Hydration, friction reduction, viscosity and breaking depend on temperature, shear and dissolved salts.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-119

Flowback Surfactant



Representative appearance

Commercial selection	Fixed supplier grade; liquid concentrate
Drum / IBC option	55 / 275 US gal (208.2 / 1,041 L)
Batch acceptance	Identity, solids/active, density, viscosity
Performance release	Surface/interfacial tension, contact angle and emulsion tendency.

USE: Reduce interfacial tension and support fluid recovery after stimulation.

MATERIAL / STRUCTURE: Fixed commercial surfactant blend; select aqueous or solvent-carried catalogue grade.

OPTIONS / ACCEPTANCE: Surface/interfacial tension, contact angle and emulsion tendency.

RFQ / APPLICATION: Test in the intended source water and additive sequence. Hydration, friction reduction, viscosity and breaking depend on temperature, shear and dissolved salts.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-138

Completion Non-emulsifier



Representative appearance

Commercial selection	Fixed supplier grade; liquid concentrate
Drum / IBC option	55 / 275 US gal (208.2 / 1,041 L)
Batch acceptance	Identity, solids/active, density, viscosity
Performance release	Brine/crude bottle compatibility and emulsion break time.

USE: Limit persistent emulsions when completion or stimulation fluids contact crude oil.

MATERIAL / STRUCTURE: Fixed commercial surfactant grade for brine/crude contact; distinct from crude demulsification.

OPTIONS / ACCEPTANCE: Brine/crude bottle compatibility and emulsion break time.

RFQ / APPLICATION: Test in the intended source water and additive sequence. Hydration, friction reduction, viscosity and breaking depend on temperature, shear and dissolved salts.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-133

Chelating Iron-control Additive



Representative appearance

Commercial selection	Fixed supplier grade; liquid concentrate
Drum / IBC option	55 / 275 US gal (208.2 / 1,041 L)
Batch acceptance	Identity, solids/active, density, viscosity
Performance release	Iron tolerance and precipitation after spent-acid simulation.

USE: Keep dissolved iron controlled during compatible acidizing and cleanup treatments.

MATERIAL / STRUCTURE: Fixed chelant-based liquid grade; select for ferric/ferrous iron and acid system.

OPTIONS / ACCEPTANCE: Iron tolerance and precipitation after spent-acid simulation.

RFQ / APPLICATION: Test in the intended source water and additive sequence. Hydration, friction reduction, viscosity and breaking depend on temperature, shear and dissolved salts.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-628

Degradable Particulate Diverter



Representative appearance

Physical form	Graded polymer particles
Material family	Degradable polymer, supplier grade
Size specification	US sieve grade plus opening in inches (mm)
Acceptance	Dispersion, hold time and degradation

USE: Temporary diversion material for selected stimulation or refracturing treatments.

MATERIAL / STRUCTURE: Degradable polymer granules, supplied in documented size grades.

OPTIONS / ACCEPTANCE: Existing polymer and size grades only; no reproduction of proprietary multimodal blends.

RFQ / APPLICATION: RFQ: target treatment, temperature, fluid chemistry, required holding period and cleanup window. Require representative plugging/dispersion and degradation tests. Performance of a commercial diversion service cannot be transferred to an untested bulk ingredient.

STANDARDS / DOCUMENTS: Require material identity, TDS/SDS, lot COA and agreed degradation-test conditions. No universal degradation time is claimed.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-629

Degradable Fiber Diverter



Representative appearance

Physical form	Short-cut polymer fibers
Material family	Degradable polymer, supplier grade
Size specification	Length in inches (mm); grade-specific
Acceptance	Dispersion, hold time and degradation

USE: Temporary diversion material for selected stimulation or refracturing treatments.

MATERIAL / STRUCTURE: Degradable short polymer fibers, supplied as a dry material.

OPTIONS / ACCEPTANCE: Existing polymer and size grades only; no reproduction of proprietary multimodal blends.

RFQ / APPLICATION: RFQ: target treatment, temperature, fluid chemistry, required holding period and cleanup window. Require representative plugging/dispersion and degradation tests. Performance of a commercial diversion service cannot be transferred to an untested bulk ingredient.

STANDARDS / DOCUMENTS: Require material identity, TDS/SDS, lot COA and agreed degradation-test conditions. No universal degradation time is claimed.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-456

Potassium Chloride



Representative appearance

Chemical / mineral	Potassium chloride, KCl
Fixed grade	Industrial crystalline grade
Release tests	KCl assay, NaCl, moisture, insolubles
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: Potassium source for clay-sensitive water-based fluids.

MATERIAL / STRUCTURE: Potassium chloride, KCl. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: KCl assay, NaCl, moisture, insolubles. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control purity, insolubles and fluid compatibility. For brines specify density at a stated temperature and crystallization behavior; density alone does not establish well suitability.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-457

Sodium Chloride Completion Salt



Representative appearance

Chemical / mineral	Sodium chloride, NaCl
Fixed grade	Low-insoluble completion salt
Release tests	NaCl assay, insolubles, Ca/Mg
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: Preparation and salinity adjustment of completion and workover brines.

MATERIAL / STRUCTURE: Sodium chloride, NaCl. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: NaCl assay, insolubles, Ca/Mg. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control purity, insolubles and fluid compatibility. For brines specify density at a stated temperature and crystallization behavior; density alone does not establish well suitability.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-458

Calcium Chloride Completion Brine



Representative appearance

Chemical / mineral	Aqueous calcium chloride
Density selection	Up to about 11.6 lb/US gal (1.39 kg/L)
Release tests	Density, clarity, pH, crystallization point
Packaging	55 US gal (208 L) drums; rated IBC options

USE: Solids-free completion and workover fluid within the validated density range.

MATERIAL / STRUCTURE: Aqueous calcium chloride. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Density, clarity, pH, crystallization point. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control purity, insolubles and fluid compatibility. For brines specify density at a stated temperature and crystallization behavior; density alone does not establish well suitability.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-459

Calcium Bromide Completion Brine



Representative appearance

Chemical / mineral	Aqueous calcium bromide
Common concentration	14.2 lb/US gal (1.70 kg/L) nominal brine
Release tests	Density, CaBr ₂ assay, clarity, crystallization
Packaging	55 US gal (208 L) drums; rated IBC options

USE: Higher-density solids-free completion and workover service.

MATERIAL / STRUCTURE: Aqueous calcium bromide. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Density, CaBr₂ assay, clarity, crystallization. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control purity, insolubles and fluid compatibility. For brines specify density at a stated temperature and crystallization behavior; density alone does not establish well suitability.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-464

Sodium Bromide Completion Salt



Representative appearance

Chemical / mineral	Sodium bromide, NaBr
Fixed grade	Low-insoluble crystalline grade
Release tests	NaBr assay, chloride, moisture, clarity
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: Preparation of bromide completion brines at the specified density and temperature.

MATERIAL / STRUCTURE: Sodium bromide, NaBr. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: NaBr assay, chloride, moisture, clarity. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control purity, insolubles and fluid compatibility. For brines specify density at a stated temperature and crystallization behavior; density alone does not establish well suitability.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-142

Bicarbonate Buffer / pH Additive



Representative appearance

USE: Adjust alkalinity or bicarbonate balance in compatible drilling-fluid systems.

MATERIAL / STRUCTURE: Bicarbonate Buffer / pH Additive in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Assay, moisture, insolubles and particle size. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Control purity, insolubles and fluid compatibility. For brines specify density at a stated temperature and crystallization behavior; density alone does not establish well suitability.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

Commercial grade	Sodium bicarbonate, technical grade
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Assay, moisture, insolubles and particle size.
Performance basis	Defined test fluid, concentration, temperature and aging time

WOG-460

Citric Acid Iron-control Ingredient



Representative appearance

USE: Iron complexing and cleaning formulations after fluid-compatibility testing.

MATERIAL / STRUCTURE: Citric acid anhydrous / monohydrate. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Identity, assay, water, iron. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control purity, insolubles and fluid compatibility. For brines specify density at a stated temperature and crystallization behavior; density alone does not establish well suitability.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

Chemical / mineral	Citric acid anhydrous / monohydrate
Fixed grade	Industrial iron-control ingredient
Release tests	Identity, assay, water, iron
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

WOG-461

Sulfamic Acid Descaling Ingredient



Representative appearance

Chemical / mineral	Sulfamic acid, $\text{NH}_2\text{SO}_3\text{H}$
Fixed grade	Industrial descaling ingredient
Release tests	Assay, sulfate, insolubles, moisture
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: Preparation of compatible scale-removal solutions with qualified corrosion control.

MATERIAL / STRUCTURE: Sulfamic acid, $\text{NH}_2\text{SO}_3\text{H}$. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Assay, sulfate, insolubles, moisture. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control purity, insolubles and fluid compatibility. For brines specify density at a stated temperature and crystallization behavior; density alone does not establish well suitability.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-162

Polyamine Shale Inhibitor



Representative appearance

Commercial grade	Polyamine shale-inhibitor solution
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Active content, pH and shale recovery/swelling test.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Limit shale hydration and dispersion in water-based drilling muds.

MATERIAL / STRUCTURE: Polyamine Shale Inhibitor in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Active content, pH and shale recovery/swelling test. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Compare rheology and filtration using the specified mud, salinity and temperature. Commercial grades sharing a chemical name can have different molecular structure and performance.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-163

Liquid Drilling Lubricant



Representative appearance

Commercial grade	Commercial drilling lubricant
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Lubricity coefficient, foaming and mud compatibility.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Reduce torque and drag in qualified water-based drilling fluids.

MATERIAL / STRUCTURE: Liquid Drilling Lubricant in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Lubricity coefficient, foaming and mud compatibility. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Compare rheology and filtration using the specified mud, salinity and temperature. Commercial grades sharing a chemical name can have different molecular structure and performance.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-164

PAC Fluid-loss Control Additive



Representative appearance

Commercial grade	PAC-LV / PAC-HV powder
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	API fluid loss, rheology, moisture and insoluble residue.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Control filtrate loss in compatible water-based drilling fluids.

MATERIAL / STRUCTURE: PAC Fluid-loss Control Additive in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: API fluid loss, rheology, moisture and insoluble residue. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Compare rheology and filtration using the specified mud, salinity and temperature. Commercial grades sharing a chemical name can have different molecular structure and performance.

STANDARDS / DOCUMENTS: API 13A / ISO 13500 for the applicable material and grade; specify test edition and acceptance limits. A catalogue reference is not API certification.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-166

PHPA / Partially Hydrolyzed Polyacrylamide

Representative appearance

Commercial grade	PHPA powder
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Hydrolysis grade, molecular-weight class, moisture and shale recovery.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Encapsulate cuttings and support shale inhibition in water-based muds.

MATERIAL / STRUCTURE: PHPA in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Hydrolysis grade, molecular-weight class, moisture and shale recovery. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Compare rheology and filtration using the specified mud, salinity and temperature. Commercial grades sharing a chemical name can have different molecular structure and performance.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-168

CMC / Carboxymethyl Cellulose

Representative appearance

Commercial grade	CMC-LV / CMC-HV powder
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Viscosity at defined concentration, substitution and fluid loss.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Control drilling-fluid filtration and viscosity by selected grade.

MATERIAL / STRUCTURE: CMC in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Viscosity at defined concentration, substitution and fluid loss. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Compare rheology and filtration using the specified mud, salinity and temperature. Commercial grades sharing a chemical name can have different molecular structure and performance.

STANDARDS / DOCUMENTS: API 13A / ISO 13500 for the applicable material and grade; specify test edition and acceptance limits. A catalogue reference is not API certification.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-169

Xanthan Gum



Representative appearance

USE: Improve low-shear suspension in compatible drilling or completion fluids.

MATERIAL / STRUCTURE: Xanthan Gum in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Low-shear viscosity, screen residue, moisture and dispersibility. Freeze acceptance limits on the approved grade sheet.

Commercial grade

Xanthan / XC polymer, drilling grade

RFQ pack option

50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag

Grade acceptance

Low-shear viscosity, screen residue, moisture and dispersibility.

Performance basis

Defined test fluid, concentration, temperature and aging time

RFQ / APPLICATION: Compare rheology and filtration using the specified mud, salinity and temperature. Commercial grades sharing a chemical name can have different molecular structure and performance.

STANDARDS / DOCUMENTS: API 13A / ISO 13500 for the applicable material and grade; specify test edition and acceptance limits. A catalogue reference is not API certification.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-455

Attapulgite Viscosifier



Representative appearance

USE: Suspension and cuttings transport in saltwater muds; filtration control is separate.

MATERIAL / STRUCTURE: Attapulgite mineral powder. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Rheology in specified brine, moisture. Numerical limits and test methods must be fixed in the purchase specification.

Chemical / mineral

Attapulgite mineral powder

Fixed grade

Saltwater viscosifier grade

Release tests

Rheology in specified brine, moisture

Pack example

50 / 55.1 lb (22.7 / 25 kg) sealed bags

RFQ / APPLICATION: Compare rheology and filtration using the specified mud, salinity and temperature. Commercial grades sharing a chemical name can have different molecular structure and performance.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-161

Cellulose Lost Circulation Material



Representative appearance

Commercial grade	Cellulose fiber LCM
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Fiber-length distribution, moisture and plugging test.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Fibrous bridging material for reducing drilling-fluid losses.

MATERIAL / STRUCTURE: Cellulose Lost Circulation Material in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Fiber-length distribution, moisture and plugging test. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Control particle-size distribution, moisture and grade-specific impurities. Select bridging size to the loss mechanism; distinguish mineral density from loose bulk density.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-171

Graphite Bridging Material



Representative appearance

Commercial grade	Sized graphite bridging granules
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Particle-size distribution, carbon content and lubricity.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Provide deformable bridging particles for lost-circulation treatments.

MATERIAL / STRUCTURE: Graphite Bridging Material in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Particle-size distribution, carbon content and lubricity. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Control particle-size distribution, moisture and grade-specific impurities. Select bridging size to the loss mechanism; distinguish mineral density from loose bulk density.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-173

Nut Shell LCM



Representative appearance

USE: Provide granular bridging in drilling-fluid lost-circulation blends.

MATERIAL / STRUCTURE: Nut Shell LCM in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Fine/medium/coarse sieve cuts, moisture and bulk density. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Control particle-size distribution, moisture and grade-specific impurities. Select bridging size to the loss mechanism; distinguish mineral density from loose bulk density.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

Commercial grade	Ground nut-shell LCM
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Fine/medium/coarse sieve cuts, moisture and bulk density.
Performance basis	Defined test fluid, concentration, temperature and aging time

WOG-174

Asphaltite / Gilsonite



Representative appearance

USE: Asphaltic additive for selected shale-stability and filtration programs.

MATERIAL / STRUCTURE: Asphaltite / Gilsonite in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Softening point, ash, moisture and particle size. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Control particle-size distribution, moisture and grade-specific impurities. Select bridging size to the loss mechanism; distinguish mineral density from loose bulk density.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

Commercial grade	Natural asphaltite / gilsonite
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Softening point, ash, moisture and particle size.
Performance basis	Defined test fluid, concentration, temperature and aging time

WOG-175

Calcium Carbonate Bridging Material



Representative appearance

Commercial grade	Sized calcium carbonate
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	D10/D50/D90, acid solubility, purity and moisture.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Sized acid-soluble bridging particles for drilling and completion fluids.

MATERIAL / STRUCTURE: Calcium Carbonate Bridging Material in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: D10/D50/D90, acid solubility, purity and moisture. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Control particle-size distribution, moisture and grade-specific impurities. Select bridging size to the loss mechanism; distinguish mineral density from loose bulk density.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-185

Barite Weighting Agent



Representative appearance

Commercial grade	Drilling-grade barite
Density grade	4.2 specific gravity; grade-specific API acceptance
Grade acceptance	Specific gravity, soluble alkaline-earth metals and sieve residue.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Increase drilling-fluid density using a qualified ground barite grade.

MATERIAL / STRUCTURE: Barite Weighting Agent in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Specific gravity, soluble alkaline-earth metals and sieve residue. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Control particle-size distribution, moisture and grade-specific impurities. Select bridging size to the loss mechanism; distinguish mineral density from loose bulk density.

STANDARDS / DOCUMENTS: API 13A / ISO 13500 for the applicable material and grade; specify test edition and acceptance limits. A catalogue reference is not API certification.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-452

Drilling-grade Bentonite



Representative appearance

Chemical / mineral	Sodium bentonite powder
Grade specification	API 13A bentonite grade when ordered
Release tests	Yield, viscosity, filtrate, residue
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: Freshwater mud viscosity and filtercake building.

MATERIAL / STRUCTURE: Sodium bentonite powder. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Yield, viscosity, filtrate, residue. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control particle-size distribution, moisture and grade-specific impurities. Select bridging size to the loss mechanism; distinguish mineral density from loose bulk density.

STANDARDS / DOCUMENTS: API 13A / ISO 13500 tests where specified. State the exact bentonite grade; an API reference is not an API monogram claim.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-453

Hematite Weighting Agent



Representative appearance

Chemical / mineral	Micronized hematite, Fe ₂ O ₃
Fixed grade	High-density weighting mineral
Release tests	Specific gravity, PSD, soluble salts
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: High-density drilling fluids where solids loading and abrasion are controlled.

MATERIAL / STRUCTURE: Micronized hematite, Fe₂O₃. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Specific gravity, PSD, soluble salts. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control particle-size distribution, moisture and grade-specific impurities. Select bridging size to the loss mechanism; distinguish mineral density from loose bulk density.

STANDARDS / DOCUMENTS: API 13A / ISO 13500 where applicable; verify density, particle-size distribution and abrasion behavior in the actual mud.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-454

Mica Flake Lost Circulation Material



Representative appearance

Chemical / mineral	Screened natural mica flakes
Fixed grade	Fine / medium / coarse grades
Release tests	Sieve distribution, moisture, impurities
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: Flake bridging material for loss-control blends and pills.

MATERIAL / STRUCTURE: Screened natural mica flakes. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Sieve distribution, moisture, impurities. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control particle-size distribution, moisture and grade-specific impurities. Select bridging size to the loss mechanism; distinguish mineral density from loose bulk density.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-462

Soda Ash Alkalinity Agent



Representative appearance

Chemical / mineral	Sodium carbonate, Na ₂ CO ₃
Fixed grade	Light / dense soda ash
Release tests	Assay, bulk density, insolubles
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: Alkalinity adjustment and calcium precipitation in water-based mud preparation.

MATERIAL / STRUCTURE: Sodium carbonate, Na₂CO₃. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Assay, bulk density, insolubles. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Specify soda ash grade, assay, water calcium hardness, initial and target pH, mud system and batch acceptance limits. Confirm treatment through fluid testing to avoid excess carbonate.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-463

Caustic Soda Beads



Representative appearance

Chemical / mineral	Sodium hydroxide, NaOH
Fixed grade	Solid bead / pearl grade
Release tests	NaOH assay, carbonate, iron
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: Alkalinity and pH adjustment in compatible drilling or process-fluid systems.

MATERIAL / STRUCTURE: Sodium hydroxide, NaOH. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: NaOH assay, carbonate, iron. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Control particle-size distribution, moisture and grade-specific impurities. Select bridging size to the loss mechanism; distinguish mineral density from loose bulk density.

STANDARDS / DOCUMENTS: Confirm CAS/composition, SDS and U.S. TSCA import status for the actual substance. Validate use in the intended fluid system.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-180

Cement Accelerator



Representative appearance

Commercial grade	Commercial cement accelerator
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Assay, thickening time and compressive-strength development.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Accelerate cement hydration in qualified well-cementing systems.

MATERIAL / STRUCTURE: Cement Accelerator in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Assay, thickening time and compressive-strength development. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Qualify with the exact cement, mix water and temperature-pressure schedule. Measure slurry rheology, thickening time, stability and strength where relevant.

STANDARDS / DOCUMENTS: API 10B-2 / ISO 10426-2 testing with the selected cement and mix water; thickening and strength tests under the actual temperature/pressure schedule.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-182

Cement Defoamer



Representative appearance

Commercial grade	Powder cement defoamer
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Moisture, dispersibility and slurry foam/density response.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Reduce entrained air and foam during cement-slurry mixing.

MATERIAL / STRUCTURE: Cement Defoamer in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Moisture, dispersibility and slurry foam/density response. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Qualify with the exact cement, mix water and temperature-pressure schedule. Measure slurry rheology, thickening time, stability and strength where relevant.

STANDARDS / DOCUMENTS: API 10B-2 / ISO 10426-2 testing with the selected cement and mix water; thickening and strength tests under the actual temperature/pressure schedule.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-183

Latex Additive



Representative appearance

Commercial grade	Oilwell cement latex emulsion
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Solids, pH, viscosity and slurry compatibility/stability.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Modify cement-slurry properties using a qualified latex grade.

MATERIAL / STRUCTURE: Latex Additive in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Solids, pH, viscosity and slurry compatibility/stability. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Qualify with the exact cement, mix water and temperature-pressure schedule. Measure slurry rheology, thickening time, stability and strength where relevant.

STANDARDS / DOCUMENTS: API 10B-2 / ISO 10426-2 testing with the selected cement and mix water; thickening and strength tests under the actual temperature/pressure schedule.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-186

Cement Lightweight / Extender Additive



Representative appearance

Commercial grade	Bentonite, oilfield grade
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Yield/rheology, fluid loss, moisture and coarse residue.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Reduce slurry density or extend yield in qualified cement formulations.

MATERIAL / STRUCTURE: Cement Lightweight / Extender Additive in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Yield/rheology, fluid loss, moisture and coarse residue. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Qualify with the exact cement, mix water and temperature-pressure schedule. Measure slurry rheology, thickening time, stability and strength where relevant.

STANDARDS / DOCUMENTS: API RP 10B-2 / ISO 10426-2 slurry qualification. Evaluate thickening time, free fluid, strength and the extender grade.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-465

Sodium Gluconate Cement Retarder



Representative appearance

Chemical / mineral	Sodium gluconate
Fixed grade	Industrial cement-retarder ingredient
Release tests	Assay, reducing sugars, set-time response
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: Cement-slurry retardation after testing with the actual cement and temperature.

MATERIAL / STRUCTURE: Sodium gluconate. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Assay, reducing sugars, set-time response. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Qualify with the exact cement, mix water and temperature-pressure schedule. Measure slurry rheology, thickening time, stability and strength where relevant.

STANDARDS / DOCUMENTS: Qualify the selected grade with API RP 10B-2 / ISO 10426-2 slurry tests as applicable; no universal temperature/dosage is implied.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-466

Sulfonated Naphthalene Cement Dispersant



Representative appearance

Chemical / mineral	Sulfonated naphthalene condensate
Fixed grade	Powder cement-dispersant grade
Release tests	Solids, sulfate, flow and compatibility
Pack example	50 / 55.1 lb (22.7 / 25 kg) sealed bags

USE: Cement-slurry dispersion and water-demand reduction after slurry qualification.

MATERIAL / STRUCTURE: Sulfonated naphthalene condensate. Select one documented commercial grade and preserve the same composition and release limits for repeat supply.

OPTIONS / ACCEPTANCE: Batch COA: Solids, sulfate, flow and compatibility. Numerical limits and test methods must be fixed in the purchase specification.

RFQ / APPLICATION: Qualify with the exact cement, mix water and temperature-pressure schedule. Measure slurry rheology, thickening time, stability and strength where relevant.

STANDARDS / DOCUMENTS: Qualify the selected grade with API RP 10B-2 / ISO 10426-2 slurry tests as applicable; no universal temperature/dosage is implied.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-127

Water-soluble Production Corrosion Inhibitor



Representative appearance

Commercial grade	Water-soluble film-forming concentrate
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Active content, dispersion and corrosion-rate test with actual brine.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Reduce corrosion under the defined fluid, temperature and flow conditions.

MATERIAL / STRUCTURE: Fixed water-soluble film-forming grade selected for produced-water and gathering service.

OPTIONS / ACCEPTANCE: Active content, dispersion and corrosion-rate test with actual brine. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: RFQ: brine analysis, CO₂/H₂S, water cut, temperature, metallurgy and injection point. Qualify the fixed grade against the agreed corrosion-rate method.

STANDARDS / DOCUMENTS: ASTM G170 guides laboratory qualification; require actual-fluid corrosion testing, TDS, SDS and COA.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-505

Oil-soluble Production Corrosion Inhibitor



Representative appearance

USE: Protect wetted metal in suitable oil-dominant production and gathering systems.

MATERIAL / STRUCTURE: Fixed oil-soluble, water-dispersible film-forming grade; carrier and active chemistry fixed by TDS.

OPTIONS / ACCEPTANCE: Phase partitioning, emulsion tendency and corrosion-rate testing.

Commercial selection

Fixed supplier grade; liquid concentrate

Drum / IBC option

55 / 275 US gal (208.2 / 1,041 L)

Batch acceptance

Identity, solids/active, density, viscosity

Performance release

Phase partitioning, emulsion tendency and corrosion-rate testing.

RFQ / APPLICATION: RFQ: brine analysis, CO₂/H₂S, water cut, temperature, metallurgy and injection point. Qualify the fixed grade against the agreed corrosion-rate method.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-126

Phosphonate Scale Inhibitor



Representative appearance

USE: Control mineral deposition; select active chemistry for the actual ions and saturation tendency.

MATERIAL / STRUCTURE: Fixed commercial phosphonate-based grade; choose active chemistry against scale species and brine compatibility.

OPTIONS / ACCEPTANCE: Active content, pH, calcium tolerance and scale-inhibition test. Freeze acceptance limits on the approved grade sheet.

Commercial grade

Fixed phosphonate grade; assay by TDS

RFQ pack option

55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC

Grade acceptance

Active content, pH, calcium tolerance and scale-inhibition test.

Performance basis

Defined test fluid, concentration, temperature and aging time

RFQ / APPLICATION: RFQ: complete water analysis, predicted scale species, mixing ratios and temperature. Agree compatibility and inhibition testing for the specified scale.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-506

Polymeric Scale Inhibitor



Representative appearance

USE: Control selected mineral scale in produced-water and injection systems.

MATERIAL / STRUCTURE: Fixed aqueous polycarboxylate/copolymer grade; select against the predicted scale species.

OPTIONS / ACCEPTANCE: Scale inhibition, calcium tolerance and thermal aging.

Commercial selection	Fixed supplier grade; liquid concentrate
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Drum / IBC option	55 / 275 US gal (208.2 / 1,041 L)
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Batch acceptance	Identity, solids/active, density, viscosity
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Performance release	Scale inhibition, calcium tolerance and thermal aging.
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RFQ / APPLICATION: RFQ: complete water analysis, predicted scale species, mixing ratios and temperature. Agree compatibility and inhibition testing for the specified scale.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-139

Oxygen Scavenger



Representative appearance

USE: Remove dissolved oxygen from compatible injection water or completion brines.

MATERIAL / STRUCTURE: Oxygen Scavenger in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Active content, reaction rate, pH and residual dissolved oxygen. Freeze acceptance limits on the approved grade sheet.

Commercial grade	Commercial oxygen-scavenger grade
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RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
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Grade acceptance	Active content, reaction rate, pH and residual dissolved oxygen.
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Performance basis	Defined test fluid, concentration, temperature and aging time
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RFQ / APPLICATION: Release a fixed grade against defined analytical limits and actual-fluid testing. Match injection point, phase partitioning and residence time. Dosage is field-specific.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-128

Crude-oil Demulsifier



Representative appearance

Commercial grade	Commercial demulsifier grade
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Active content, solvent/flash point and timed bottle-test separation.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Promote separation of oil-water emulsions; qualify by bottle testing with representative crude.

MATERIAL / STRUCTURE: Demulsifier in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Active content, solvent/flash point and timed bottle-test separation. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: RFQ: fresh crude/emulsion sample, water cut, separation temperature and residence time. Use bottle tests to agree water separation, interface and residual water targets.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-507

Produced-water Reverse Demulsifier



Representative appearance

Commercial selection	Fixed supplier grade; liquid concentrate
Drum / IBC option	55 / 275 US gal (208.2 / 1,041 L)
Batch acceptance	Identity, solids/active, density, viscosity
Performance release	Jar test, residual oil, floc behavior and overdosing response.

USE: Destabilize oil-in-water emulsions before produced-water separation.

MATERIAL / STRUCTURE: Fixed cationic treatment grade; qualify with the actual water and downstream separation method.

OPTIONS / ACCEPTANCE: Jar test, residual oil, floc behavior and overdosing response.

RFQ / APPLICATION: RFQ: produced-water sample, oil/solids content, pH, salinity and separator residence time. Agree residual oil, sludge and downstream-filter compatibility targets.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-136

Paraffin Inhibitor



Representative appearance

USE: Control wax deposition in crude-oil production and gathering.

MATERIAL / STRUCTURE: Fixed polymeric wax-crystal modifier/dispersant grade in a defined carrier.

OPTIONS / ACCEPTANCE: Cold-finger deposition and crude-specific compatibility.

RFQ / APPLICATION: Evaluate representative crude/produced-water samples at operating temperature. Record separation time, water quality, emulsion tendency or deposit response as appropriate.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

Commercial selection	Fixed supplier grade; liquid concentrate
Drum / IBC option	55 / 275 US gal (208.2 / 1,041 L)
Batch acceptance	Identity, solids/active, density, viscosity
Performance release	Cold-finger deposition and crude-specific compatibility.

WOG-361

Crude-oil Pour-point Depressant



Representative appearance

USE: Improve low-temperature crude handling by modifying wax-crystal behavior.

MATERIAL / STRUCTURE: Fixed commercial polymer concentrate in a specified solvent; not a universal wax remover.

OPTIONS / ACCEPTANCE: Pour point, low-temperature viscosity and aging stability.

RFQ / APPLICATION: Evaluate representative crude/produced-water samples at operating temperature. Record separation time, water quality, emulsion tendency or deposit response as appropriate.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

Commercial selection	Fixed supplier grade; liquid concentrate
Drum / IBC option	55 / 275 US gal (208.2 / 1,041 L)
Batch acceptance	Identity, solids/active, density, viscosity
Performance release	Pour point, low-temperature viscosity and aging stability.

WOG-362

Asphaltene Dispersant



Representative appearance

USE: Limit asphaltene aggregation and deposition during production or crude blending.

MATERIAL / STRUCTURE: Fixed solvent-carried dispersant grade selected for the crude and diluent pair.

OPTIONS / ACCEPTANCE: Precipitation onset, dispersion and deposit tendency.

Commercial selection	Fixed supplier grade; liquid concentrate
Drum / IBC option	55 / 275 US gal (208.2 / 1,041 L)
Batch acceptance	Identity, solids/active, density, viscosity
Performance release	Precipitation onset, dispersion and deposit tendency.

RFQ / APPLICATION: Evaluate representative crude/produced-water samples at operating temperature. Record separation time, water quality, emulsion tendency or deposit response as appropriate.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-134

Oilfield Defoamer



Representative appearance

USE: Control unwanted foam in the specified aqueous or process system; check downstream separation compatibility.

MATERIAL / STRUCTURE: Oilfield Defoamer in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Active content, dispersion stability and foam knockdown/persistence. Freeze acceptance limits on the approved grade sheet.

Commercial grade	Commercial liquid defoamer
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Active content, dispersion stability and foam knockdown/persistence.
Performance basis	Defined test fluid, concentration, temperature and aging time

RFQ / APPLICATION: Evaluate representative crude/produced-water samples at operating temperature. Record separation time, water quality, emulsion tendency or deposit response as appropriate.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-129

PolyDADMAC Water Clarifier / Coagulant



Representative appearance

Commercial grade	PolyDADMAC solution
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Solids, viscosity, pH and charge-demand/jar test.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Coagulate dispersed contaminants before produced-water clarification.

MATERIAL / STRUCTURE: PolyDADMAC Water Clarifier / Coagulant in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Solids, viscosity, pH and charge-demand/jar test. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Evaluate representative crude/produced-water samples at operating temperature. Record separation time, water quality, emulsion tendency or deposit response as appropriate.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-157

Polyacrylamide Flocculant



Representative appearance

Commercial grade	PAM: anionic/cationic/nonionic grades
RFQ pack option	50 lb (22.68 kg) bag or 55.1 lb (25 kg) bag
Grade acceptance	Charge, molecular-weight class, solids and jar-test response.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: Flocculate suspended solids in produced-water and drilling-wastewater treatment.

MATERIAL / STRUCTURE: Polyacrylamide Flocculant in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Charge, molecular-weight class, solids and jar-test response. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Evaluate representative crude/produced-water samples at operating temperature. Record separation time, water quality, emulsion tendency or deposit response as appropriate.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: moisture-protected 50 lb (22.68 kg) or 55.1 lb (25 kg) bags; alternative factory packs by grade. Confirm net/gross weight and SDS transport classification.

WOG-237

Gas-well Liquid Foamer



Representative appearance

USE: Assist liquid unloading in gas wells through controlled foam generation.

MATERIAL / STRUCTURE: Fixed surfactant-based foamer grade; select against produced water and condensate.

OPTIONS / ACCEPTANCE: Dynamic liquid carryover, foam decay and condensate tolerance.

Commercial selection

Fixed supplier grade; liquid concentrate

Drum / IBC option

55 / 275 US gal (208.2 / 1,041 L)

Batch acceptance

Identity, solids/active, density, viscosity

Performance release

Dynamic liquid carryover, foam decay and condensate tolerance.

RFQ / APPLICATION: RFQ: well liquid composition, condensate fraction, salinity, temperature and gas/liquid rates. Test foam generation, stability and downstream separation.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-239

High-salinity Gas-well Foamer



Representative appearance

USE: Support gas-well unloading where high-salinity brines limit conventional foamers.

MATERIAL / STRUCTURE: Fixed salt-tolerant surfactant grade; validate calcium/magnesium and condensate effects.

OPTIONS / ACCEPTANCE: Carryover at actual TDS, hardness and condensate fraction.

Commercial selection

Fixed supplier grade; liquid concentrate

Drum / IBC option

55 / 275 US gal (208.2 / 1,041 L)

Batch acceptance

Identity, solids/active, density, viscosity

Performance release

Carryover at actual TDS, hardness and condensate fraction.

RFQ / APPLICATION: RFQ: well liquid composition, condensate fraction, salinity, temperature and gas/liquid rates. Test foam generation, stability and downstream separation.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; verify composition and US import status. Performance is qualified with the actual field fluid.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-238

Solid Foamer Stick



Representative appearance

Commercial grade	Commercial gas-well foamer stick
Reference length	15 in (381 mm)
Reference form	Water-soluble solid foamer stick
Fluid selection	Water / condensate ratio, brine and temperature

USE: Solid foamer for assisted liquid unloading in compatible gas wells.

MATERIAL / STRUCTURE: Solid Foamer Stick in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Stick size/mass, dissolution, foam stability and condensate tolerance. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Match water chemistry, condensate content and downstream treatment. Foaming, scavenging and hydrate inhibition are different functions and require different field tests.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: Moisture-resistant individual stick wraps in labeled cartons; quote stick count, net weight and shelf life.

WOG-159

Triazine-based H₂S Scavenger

Representative appearance

Commercial grade	MEA-triazine scavenger solution
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Active content, pH, H ₂ S uptake and spent-fluid behavior.
Performance basis	Defined test fluid, concentration, temperature and aging time

USE: React with hydrogen sulfide in a specified contact system; control dosage, residence time and spent-fluid handling.

MATERIAL / STRUCTURE: Triazine-based H₂S Scavenger in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Active content, pH, H₂S uptake and spent-fluid behavior. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: RFQ: H₂S loading, gas/liquid composition, temperature, contact time and injection equipment. Confirm reaction-product handling and compatibility before field use.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-224

TEG / Triethylene Glycol



Representative appearance

Identity	Triethylene glycol, virgin grade
Drum option	55 US gal (208.2 L)
Bulk pack option	275 US gal (1,041 L) IBC, if transport-approved
Release tests	TEG assay, water, acidity, color and chloride

USE: Absorb water vapor in glycol-based natural-gas dehydration units.

MATERIAL / STRUCTURE: TEG / Triethylene Glycol in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: TEG assay, water, acidity, color and chloride. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Match water chemistry, condensate content and downstream treatment. Foaming, scavenging and hydrate inhibition are different functions and require different field tests.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-230

Glycol Defoamer



Representative appearance

Commercial grade	Glycol-compatible defoamer
RFQ pack option	55 US gal (208.2 L) drum / 275 US gal (1,041 L) IBC
Grade acceptance	Foam collapse, persistence and TEG/filter compatibility.
Field selection	Actual brine, temperature, compatibility and performance tests

USE: Control unwanted foam in the specified aqueous or process system; check downstream separation compatibility.

MATERIAL / STRUCTURE: Glycol Defoamer in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Foam collapse, persistence and TEG/filter compatibility. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Match water chemistry, condensate content and downstream treatment. Foaming, scavenging and hydrate inhibition are different functions and require different field tests.

STANDARDS / DOCUMENTS: Supplier TDS, SDS and batch COA; qualify antifoam action and compatibility with the circulating glycol.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-250

Methanol



Representative appearance

Identity	Methanol, technical grade
Drum option	55 US gal (208.2 L)
Bulk pack option	275 US gal (1,041 L) IBC, if transport-approved
Release tests	Assay, water, acidity and distillation range

USE: Thermodynamic hydrate inhibition in compatible gas-production service.

MATERIAL / STRUCTURE: Methanol in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: Assay, water, acidity and distillation range. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Match water chemistry, condensate content and downstream treatment. Foaming, scavenging and hydrate inhibition are different functions and require different field tests.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

WOG-251

MEG / Monoethylene Glycol



Representative appearance

Identity	Monoethylene glycol, virgin grade
Drum option	55 US gal (208.2 L)
Bulk pack option	275 US gal (1,041 L) IBC, if transport-approved
Release tests	MEG assay, water, acidity and chloride

USE: Thermodynamic hydrate inhibition in suitable gas gathering systems.

MATERIAL / STRUCTURE: MEG / Monoethylene Glycol in a fixed commercial grade. Freeze composition and the release specification after sample approval; repeat orders use the same grade.

OPTIONS / ACCEPTANCE: MEG assay, water, acidity and chloride. Freeze acceptance limits on the approved grade sheet.

RFQ / APPLICATION: Match water chemistry, condensate content and downstream treatment. Foaming, scavenging and hydrate inhibition are different functions and require different field tests.

STANDARDS / DOCUMENTS: SDS and lot COA; agreed analytical/performance methods. US chemical inventory/import requirements apply by composition and use.

PACKING: RFQ: compatible 55 US gal (208.2 L) drums or approved IBCs. Confirm fill weight, closure, storage limits and SDS transport classification for the selected grade.

Define acceptance before production

The following are purchase-specification requirements, not claims of an owned factory or certification.

Metal parts

Require material identity, heat traceability, dimensional/thread checks, specified surface condition and pressure/leakage tests where applicable.

Filters and seals

Agree on media/compound, end dimensions, retention or sealing test basis and lot sampling. Record fit against the selected housing or gland.

Chemical grades

Freeze composition identity, batch limits, analytical method and application test. Require TDS, SDS, COA and shelf-life/storage information.



Standard configurations. Protected delivery.

Select catalogue options and confirm the packed shipment.

Catalogue options and OEM purchasing

Use existing size series, material grades and documented interfaces. OEM sourcing can use approved catalogue parts; private-label packing is quoted only after supplier agreement.

Protect the critical surfaces

Cap threads and sealing faces, restrain hose coils, keep filter elements dry and isolate chemical lots. Define inner packs, cartons, pallets and lifting arrangements.

Confirm actual shipment limits

Check packed dimensions, gross weight, door clearance and floor loading against the assigned container, carrier and route. Overweight charges do not increase permitted payload.

Delivery terms

FOB or destination-delivery terms are confirmed in the offer. DDP requires an agreed lawful import arrangement and a product-specific landed-cost calculation.

Discuss your product requirements

Send product IDs, quantities, duty conditions and required documents.



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For a repeat order, include the previously approved supplier grade or part number. For a new application, include media, pressure, temperature and installation details.