HL
FITTINGS & FLANGES

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PRODUCT CATALOGUE


Industrial Flanges


Forged Pipe Fittings


Butt Weld Fittings


Industrial Valves


Gaskets

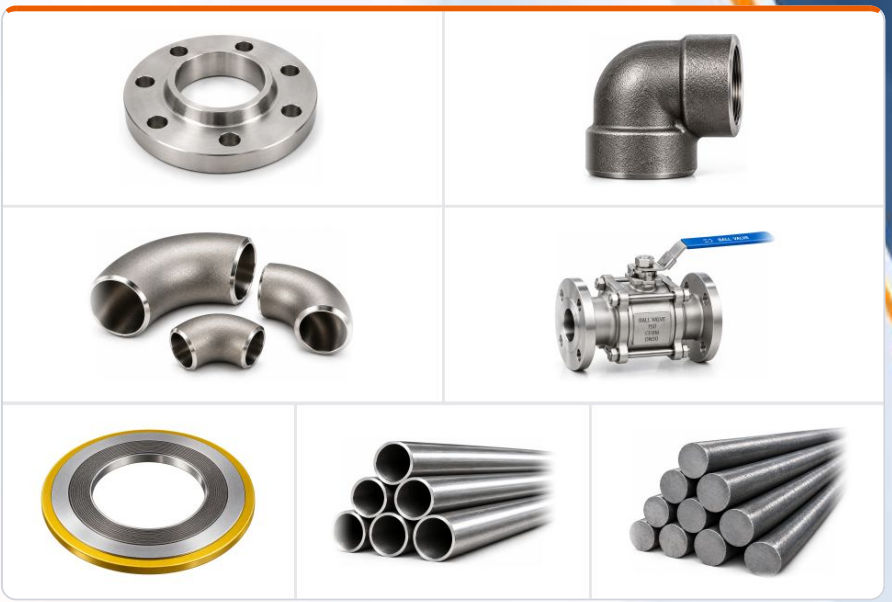
COMPANY PROFILE

HL Fittings & Flanges is a trusted manufacturer, supplier, and stockist of high-quality industrial piping products serving diverse industries across India. We are committed to delivering reliable products, competitive pricing, and exceptional customer service to meet the evolving requirements of our clients.

With a strong focus on quality, precision, and timely delivery, we provide a comprehensive range of industrial products including:

- **Industrial Flanges**
- **Butt Weld Fittings**
- **Gaskets**
- **Forged Pipe Fittings**
- **Industrial Valves**

Our products are sourced and manufactured in compliance with industry standards to ensure durability, performance, and long service life even in demanding operating conditions.



OUR MISSION & VISION

Our Mission

To provide superior quality piping solutions and industrial products that help our customers achieve operational efficiency, safety, and reliability while building long-term business relationships based on trust and transparency.

Our Vision

To become a preferred and recognized name in the industrial piping and fittings industry by consistently delivering quality products, dependable service, and value-driven solutions.

SECTORS WE SERVE

We cater to the requirements of various industries, providing premium products built to withstand the most demanding operating conditions.



Oil & Gas

Upstream, midstream and downstream pipeline systems.



Petrochemical

Process piping and equipment for refineries.



Chemical Processing

Corrosion-resistant fittings for chemical processing.



Power Generation

High-pressure, high-temperature power plant piping.



Water Treatment

Reliable piping for water and wastewater systems.



Pharmaceutical

Hygienic, high-purity piping for pharmaceutical plants.



Food Processing

Sanitary-grade fittings for food and beverage processing.



Engineering & Construction

Custom components for OEM and engineering firms.



Infrastructure

Structural pipes and fittings for civil projects.



Manufacturing

Industrial fittings for general manufacturing.

INDUSTRIAL FLANGES

HL Fittings & Flanges boast the unprecedented array of Flanges while keeping balance with Worldwide Industry norms and Quality with Durability Products.



Slip-On Flanges

PRODUCT OVERVIEW

Slip-On Flanges slide over the pipe and are welded both internally and externally to provide sufficient strength and prevent leakage. They are preferred over weld necks by many installers due to their lower initial cost and ease of alignment.

TECHNICAL DATASHEET

STANDARDS	ASME/ANSI B16.5, EN 1092-1, DIN 2576
RATINGS	Class 150, 300, 600, 1500 | PN10 to PN160
SIZES	1/2" to 48"
MATERIALS	Carbon Steel A105, A350 LF2, Stainless Steel F304/L, F316/L, Alloy Steel F11, F22
FACING	Raised Face (RF), Flat Face (FF)

Blind Flanges

PRODUCT OVERVIEW

Blind Flanges are manufactured without a center bore and are used to seal or block off the end of a piping system, valve, or pressure vessel nozzle. They must withstand significant bending stresses caused by internal system pressures and bolt loading.

TECHNICAL DATASHEET

STANDARDS	ASME/ANSI B16.5, B16.47, DIN 2527, EN 1092-1
RATINGS	Class 150 to Class 2500 | PN6 to PN400
SIZES	1/2" to 60"
MATERIALS	Carbon Steel A105, Stainless Steel F304/L, F316/L, Duplex F51, F53
FACING	Raised Face (RF), Flat Face (FF), Ring Type Joint (RTJ)



INDUSTRIAL FLANGES



Weld Neck Flanges

PRODUCT OVERVIEW

Weld Neck Flanges are characterized by a long tapered hub that goes transitionally to the pipe wall thickness. They are preferred for severe, high-pressure, sub-zero, or elevated temperature applications, and offer excellent resistance to bending and cyclic load stresses.

TECHNICAL DATASHEET

STANDARDS	ASME/ANSI B16.5, B16.47 Series A & B, DIN, JIS, EN 1092-1
RATINGS	Class 150, 300, 400, 600, 900, 1500, 2500 | PN6 to PN400
SIZES	1/2" to 60" Nominal Bore
MATERIALS	ASTM A105 Carbon Steel, A350 LF2 Sub-Zero, A182 F304/L & F316/L Stainless, A182 F11/F22/F91 Alloy Steel
FACING	Raised Face (RF), Flat Face (FF), Ring Type Joint (RTJ)

Threaded Flanges

PRODUCT OVERVIEW

Threaded Flanges (also known as Screwed Flanges) are bored out to match the pipe outer diameter and have NPT threads inside. They can be attached to pipes without welding, which makes them highly valuable for highly explosive environments where hot work is restricted.

TECHNICAL DATASHEET

STANDARDS	ASME B16.5, DIN 2566, EN 1092-1
RATINGS	Class 150, 300, 600
SIZES	1/2" to 4" (Larger sizes rarely used)
MATERIALS	Carbon Steel A105, Stainless Steel F304/L, F316/L
FACING	Raised Face (RF), Flat Face (FF)



INDUSTRIAL FLANGES



Lap Joint Flanges

PRODUCT OVERVIEW

Lap Joint Flanges are used in conjunction with a lap joint stub end. The flange itself is not welded to the pipe, meaning it can easily rotate to align with bolt holes of mating flanges. This makes it highly preferred for piping systems requiring frequent dismantling for inspection and cleaning.

TECHNICAL DATASHEET

STANDARDS	ASME B16.5, DIN 2642, EN 1092-1
RATINGS	Class 150, 300, 600 | PN10 to PN40
SIZES	1/2" to 24"
MATERIALS	Carbon Steel ASTM A105, Stainless Steel A182 F304/304L, F316/316L
FACING	Flat Face (FF)

Socket Weld Flanges

PRODUCT OVERVIEW

Socket Weld Flanges feature a recess socket in the hub to fit the pipe end, which is then fillet-welded from the outside. Because the pipe sits inside the socket, the internal bore remains smooth and flow obstruction is minimized, preventing erosion and solids build-up.

TECHNICAL DATASHEET

STANDARDS	ASME B16.5, DIN 2633
RATINGS	Class 150, 300, 600, 1500
SIZES	1/2" to 3" Nominal Bore
MATERIALS	Carbon Steel A105, Stainless Steel F304/L, F316/L
FACING	Raised Face (RF), RTJ



INDUSTRIAL FLANGES



Flat Flanges

PRODUCT OVERVIEW

Flat Flanges (Plate Flanges) are slip-on type flat discs without a hub. They are used in low pressure, low temperature, and non-critical piping applications. They are highly popular in municipal water treatment and low-pressure utility headers.

TECHNICAL DATASHEET

STANDARDS	EN 1092-1 Type 01, DIN 2573, DIN 2576, ASME B16.47
RATINGS	Class 75, 150 | PN6, PN10, PN16
SIZES	1/2" to 80"
MATERIALS	Mild Steel, Carbon Steel A105, Stainless Steel 304/304L, 316/316L
FACING	Flat Face (FF)

Custom Flanges

PRODUCT OVERVIEW

We specialize in manufacturing custom flanges designed to proprietary blueprints or specific project standards. These include customized dimensions, offset bolting patterns, unique grooves for special seals, and high-thickness designs for extreme pressure vessels.

TECHNICAL DATASHEET

STANDARDS	Custom drawings, ASME Section VIII Division 1 (Design calculations)
RATINGS	Custom engineered ratings up to 10,000 PSI
SIZES	Up to 120" diameter
MATERIALS	Duplex/Super Duplex Steel, Inconel 625, Monel 400, Hastelloy C276, Titanium
FACING	Custom profiles, O-Ring grooves, Tongue & Groove



FORGED PIPE FITTINGS

Premium high-pressure socket-weld and threaded fittings designed for leak-free, critical process connections in extreme pressure environments.



90° Forged Elbows

PRODUCT OVERVIEW

90° Forged Elbows are utilized to change flow direction in high-pressure piping systems by 90 degrees. They are available in both socket-weld (SW) and threaded (NPT) ends, ensuring robust mechanical strength.

TECHNICAL DATASHEET

STANDARDS	ASME B16.11
RATINGS	3000#, 6000#, 9000#
SIZES	1/8" to 4"
MATERIALS	ASTM A105 Carbon Steel, ASTM A182 F304/L, F316/L Stainless Steel, F11/F22/F91 Alloy
END CONNECTION	Socket Weld & Threaded

45° Forged Elbows

PRODUCT OVERVIEW

45° Forged Elbows provide a gradual direction change of 45 degrees, minimizing flow friction, pressure drop, and fluid wear inside the piping system.

TECHNICAL DATASHEET

STANDARDS	ASME B16.11
RATINGS	3000#, 6000#, 9000#
SIZES	1/8" to 4"
MATERIALS	Carbon Steel A105, Stainless Steel F304/L, F316/L
END CONNECTION	Socket Weld & Threaded



FORGED PIPE FITTINGS



Forged Tees

PRODUCT OVERVIEW

Forged Tees (Equal and Reducing) are heavy-duty three-way fittings used to merge or split process fluid flow. The forged structure easily withstands the high pressure at the intersection.

TECHNICAL DATASHEET

STANDARDS	ASME B16.11
RATINGS	3000#, 6000#, 9000#
SIZES	1/4" to 4"
MATERIALS	Carbon Steel A105, Stainless Steel F304/304L, F316/316L, Alloy F11, F22
END CONNECTION	Socket Weld & Threaded

Forged Crosses

PRODUCT OVERVIEW

Forged Crosses are four-way fittings used to distribute flow in four directions or combine three inlet flows into one outlet. They are precision machined to guarantee parallel branch alignments.

TECHNICAL DATASHEET

STANDARDS	ASME B16.11
RATINGS	3000#, 6000#
SIZES	1/4" to 4"
MATERIALS	Carbon Steel A105, Stainless Steel F304/L, F316/L
END CONNECTION	Socket Weld & Threaded



FORGED PIPE FITTINGS



Couplings & Half Couplings

PRODUCT OVERVIEW

Full Couplings are used to connect pipe sections of identical sizes, while Half Couplings are welded directly to main headers to create branch or instrumentation take-offs.

TECHNICAL DATASHEET

STANDARDS	ASME B16.11
RATINGS	3000#, 6000#, 9000#
SIZES	1/8" to 4"
MATERIALS	Carbon Steel A105, Stainless Steel F304/L, F316/L, Duplex F51
END CONNECTION	Socket Weld & Threaded

Forged Unions

PRODUCT OVERVIEW

Forged Unions allow quick disconnection of lines without cutting or damaging the piping system. They consist of a male piece, a female piece, and a tight nut, utilizing a metal-to-metal seal.

TECHNICAL DATASHEET

STANDARDS	ASME B16.11, MSS SP-83
RATINGS	3000#, 6000#
SIZES	1/8" to 4"
MATERIALS	Carbon Steel A105, Stainless Steel F304/L, F316/L
END CONNECTION	Socket Weld & Threaded



BUTT WELD FITTINGS

Seamless and welded butt weld fittings providing permanent leak-proof joints and superior strength under continuous flow stresses.



Butt Weld Elbows

PRODUCT OVERVIEW

Butt Weld Elbows (in 90°, 45° and 180° variations) are welded directly to the pipes. They offer a smooth inner passage to maintain laminar flow and avoid turbulence.

TECHNICAL DATASHEET

STANDARDS	ASME/ANSI B16.9, ASME B16.28, EN 10253
RATINGS	Sch 5S, 10S, 40S, 80S, Sch 10 to Sch XXS
SIZES	1/2" to 48"
MATERIALS	ASTM A234 WPB Carbon, ASTM A403 WP304/L & WP316/L Stainless, A234 WP11/WP22 Alloy

Butt Weld Tees

PRODUCT OVERVIEW

Butt Weld Tees have equal branches or reduced outlets. Their smooth branch radii are cold or hot extruded to eliminate local stress concentration and ensure long service lives.

TECHNICAL DATASHEET

STANDARDS	ASME B16.9, DIN 2615
RATINGS	Sch 10 to Sch XXS
SIZES	1/2" to 48"
MATERIALS	Carbon Steel WPB, Sub-Zero WPL6, Stainless Steel WP304/L, WP316/L



BUTT WELD FITTINGS



Concentric & Eccentric Reducers

PRODUCT OVERVIEW

Concentric Reducers join pipe sections on the same centerline, while Eccentric Reducers feature an offset alignment that keeps one side flat. Eccentric reducers are crucial in pump suction lines to avoid gas pockets.

TECHNICAL DATASHEET

STANDARDS	ASME B16.9, EN 10253
RATINGS	Schedule 10 to Schedule XXS
SIZES	1/2" to 36" (Reducing steps vary)
MATERIALS	Carbon Steel WPB, Stainless Steel WP304/L, WP316/L, Duplex WP51

Butt Weld Caps

PRODUCT OVERVIEW

Butt Weld Caps (dome-shaped) are welded directly to the open end of a pipe to seal it. The spherical dome geometry distributes internal stresses evenly, preventing distortion.

TECHNICAL DATASHEET

STANDARDS	ASME B16.9, DIN 2617
RATINGS	Sch 10 to Sch XXS
SIZES	1/2" to 48"
MATERIALS	Carbon Steel WPB, Stainless Steel WP304/L, WP316/L, Alloy WP22



INDUSTRIAL VALVES

High-precision flow control valves designed to maintain absolute tightness and reliability under extreme pressures.



Ball Valves

PRODUCT OVERVIEW

Ball Valves utilize a hollow, perforated rotating ball to control flow. They are quarter-turn valves that offer quick on/off isolation, high flow coefficients, and bubble-tight shutoff.

TECHNICAL DATASHEET

STANDARDS	API 6D, API 608, BS 5351, ASME B16.34
RATINGS	Class 150 to Class 2500
SIZES	1/2" to 24"
MATERIALS	Forged A105, Stainless F316/CF8M, Low-temp LF2

Butterfly Valves

PRODUCT OVERVIEW

Butterfly Valves feature a circular rotating disc mounted on a shaft. They are lightweight, compact, and economical compared to gates and globes, suitable for isolation and throttling in large pipes.

TECHNICAL DATASHEET

STANDARDS	API 609, BS 5155, ASME B16.34
RATINGS	Class 150, 300, 600
SIZES	2" to 48"
MATERIALS	Ductile Iron, Cast Steel WCB, Stainless Steel CF8M



INDUSTRIAL VALVES



Gate Valves

PRODUCT OVERVIEW

Gate Valves are primarily designed for fully open or fully closed service. They feature a straight-through bore that minimizes flow path obstruction, resulting in negligible friction loss and pressure drop when fully open.

TECHNICAL DATASHEET

STANDARDS	API 600, API 602, BS 5352, ASME B16.34
RATINGS	Class 150 to Class 2500
SIZES	1/2" to 36"
MATERIALS	Cast Steel A216 WCB, Forged A105, Stainless Steel CF8M/F316, Alloy WC6/WC9

Globe Valves

PRODUCT OVERVIEW

Globe Valves are the industry standard for flow regulation, throttling, and frequent cycling. They feature a spherical body with a plug disc that moves perpendicular to the seat, allowing fine control.

TECHNICAL DATASHEET

STANDARDS	BS 1873, API 602, ASME B16.34
RATINGS	Class 150 to Class 1500
SIZES	1/2" to 16"
MATERIALS	Cast Steel WCB, Forged Steel A105, Stainless Steel CF8/CF8M



INDUSTRIAL VALVES



Check Valves

PRODUCT OVERVIEW

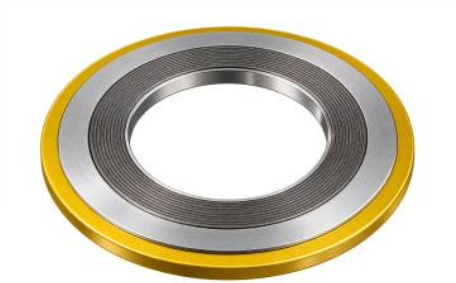
Check Valves (Non-Return Valves) prevent reverse flow in piping systems. They operate automatically based on system pressure and flow direction, protecting pumps and compressors from backflow.

TECHNICAL DATASHEET

STANDARDS	API 594, API 6D, BS 1868, BS 5352
RATINGS	Class 150 to Class 2500
SIZES	1/2" to 24"
MATERIALS	Cast Steel WCB, Forged Steel A105, Stainless Steel CF8M

GASKETS

High-performance industrial gaskets including spiral wound, ring type joint (RTJ), kammprofile, double jacketed, PTFE, graphite and non-asbestos gaskets, manufactured to ASME B16.20 / B16.21 and EN 1514 for reliable, leak-free flange sealing.



Spiral Wound Gaskets

PRODUCT OVERVIEW

Spiral Wound Gaskets are made by winding a V-shaped metal strip together with a soft filler such as flexible graphite or PTFE. The metal gives strength and resilience while the filler provides the seal, allowing the gasket to recover under pressure and temperature cycling. Style CG includes an outer centering ring, CGI adds an inner ring for high-pressure and corrosive service, and style R is the basic sealing element for tongue-and-groove or male-female flanges.

TECHNICAL DATASHEET

STANDARDS	ASME B16.20, EN 1514-2, API 601
TYPES	CG (outer ring), CGI (inner & outer ring), R (basic winding)
RATINGS	Class 150 to Class 2500 | PN10 to PN160
SIZES	1/2" to 60"
MATERIALS	Winding: SS304, SS316L, SS321, Inconel 625, Monel | Filler: Flexible Graphite, PTFE, Mica | Rings: Carbon Steel, SS304, SS316L

Ring Type Joint (RTJ) Gaskets

PRODUCT OVERVIEW

Ring Type Joint Gaskets are precision-machined solid metal rings that seat in matching grooves on RTJ flanges. Oval and octagonal R types suit ASME B16.5 flanges, pressure-energised RX rings improve sealing as pressure rises, and BX rings are designed for API 6A wellhead equipment up to 20,000 psi. Ring hardness is kept below the flange groove hardness to prevent groove damage.

TECHNICAL DATASHEET

STANDARDS	ASME B16.20, API 6A
TYPES	R Oval, R Octagonal, RX, BX
RATINGS	Class 150 to Class 2500 | API 2000 to 20,000 psi
SIZES	R-11 to R-105, RX-20 to RX-201, BX-150 to BX-169
MATERIALS	Soft Iron, Low Carbon Steel, F5, SS304, SS316, Inconel 625



GASKETS



Non-Asbestos (CNAF) Sheet Gaskets

PRODUCT OVERVIEW

Compressed Non-Asbestos Fibre (CNAF) gaskets are made from aramid or synthetic fibres bonded with NBR or SBR rubber. They are an economical, easy-to-install choice for water, air, low-pressure steam, oils and mild chemicals. Gaskets are cut to full-face or inside-bolt-circle patterns to suit ASME and EN flanges.

TECHNICAL DATASHEET

STANDARDS	ASME B16.21, EN 1514-1
TYPES	Full Face (FF), Inside Bolt Circle (IBC / Ring)
RATINGS	Class 150 to Class 300 | PN6 to PN40
SIZES	1/2" to 60" | Thickness 1.5 mm, 2 mm, 3 mm
MATERIALS	Aramid fibre with NBR or SBR binder

Rubber Gaskets

PRODUCT OVERVIEW

Rubber Gaskets provide a reliable, low-bolt-load seal for low-pressure flanges. EPDM suits water, steam and weathering, Neoprene handles moderate oils and outdoor use, Nitrile (NBR) resists fuels and oils, and Viton (FKM) covers aggressive chemicals and higher temperatures. They are supplied as full-face or ring gaskets, optionally with fabric reinforcement.

TECHNICAL DATASHEET

STANDARDS	ASME B16.21, EN 1514-1
TYPES	Full Face (FF), Ring (IBC), Fabric-reinforced
RATINGS	Class 150 | PN6 to PN16
SIZES	1/2" to 72" | Thickness 1.5 mm to 6 mm
MATERIALS	EPDM, Neoprene (CR), Nitrile (NBR), Viton (FKM), Natural Rubber



OUR ESTEEMED CLIENTS

Trusted by leading public sector undertakings, refineries, power, defence and process industries across India.

Engineers India Limited (EIL)
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Nuclear Power Corp. of India (NPCIL)
Rajasthan / Tarapur

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Ministry of Railways (Western Railway)
Maharashtra

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