



PRODUCT CATALOGUE

Butt-Weld Fittings · Forged Flanges · Industrial Valves · Steel Pipe

ASME · EN · JIS · GOST · GB | Metric & Imperial

PUBLIC EDITION · complete edition on request

Harbour Fittings

First Edition · 2026

harbourfittings.com · sales@harbourfittings.com

A trading brand of Billions Fine Art Limited (Hong Kong)

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Abridged in this public edition — the complete edition lists every NPS and schedule. Request it at sales@harbourfittings.com.

01 · THE COMPANY

A dual-hub trading and manufacturing group

We supply butt-weld fittings, forged flanges, industrial valves and steel pipe to distributors, stockists and EPC contractors in more than 60 countries. Contracting and USD settlement run through our Hong Kong entity; export documentation, customs clearance and shipment run through Shanghai — a structure that keeps letter-of-credit handling straightforward for buyers anywhere.

Own factories plus a vetted partner network

Production bases across Shandong, Hebei, Zhejiang and Shanghai cover high-specification and certified work under our own quality control. A network of audited partner mills adds capacity and keeps volume pricing competitive. Every enquiry is routed to whichever source serves it best — and we tell you which one it is.

3,000 t Monthly capacity	60+ Countries served	2,000 t Standard sizes in stock
15 days Typical lead time ex-works	98.6% On-time delivery	EN 10204 3.1 MTC with every shipment

02 · QUALITY & CERTIFICATION FRAMEWORK

Dimensional standards prove a fitting fits. The framework below is what proves it survives — high temperature, high pressure, sour gas and open flame. Certificates are furnished per project requirement.

Tier	Standards	What it covers
System & legal access	ISO 9001 · ISO 14001 · ISO 45001 PED 2014/68/EU (incl. PED 4.3) AD 2000-Merkblatt W0	Management systems; EU pressure-equipment market access; German material-maker benchmark audited alongside PED
Product-level excellence	API 5L PSL2 · NACE MR0175 / ISO 15156 NORSOK M-650 · API 607 / 6FA / ISO 10497 ISO 15848-1 / API 622 / 641 · SIL 2/3 (IEC 61508) MSS SP-25 · CRN	Line pipe grade 2; sour service (HIC & SSC tested); duplex qualification; fire-safe valves; low fugitive emission; functional safety; marking & heat traceability; Canada
Marine & offshore	ABS · DNV · LR · BV · CCS	Manufacturer approval and product certificates for shipbuilding and offshore platforms

Reading this correctly: dimensional compliance (e.g. ASME B16.9) only proves fit. A genuine high-safety supply stacks ISO 9001 + PED 4.3 as the base, then adds NACE MR0175, API 607 or NORSOK M-650 as the project demands. Ask us which certificates apply to your specific line class — we will tell you plainly what we hold and what requires a third-party mill.

03 · MANUFACTURING

Process routes

Product	Route	Size range
Elbows, tees, reducers, caps	Hot forming / cold extrusion (seamless), ≤ DN600	1/2" - 24"
Large-bore fittings	Plate forming + submerged-arc welding	up to 102" (DN2600)
Flanges	Die forging + normalising / solution treatment	1/2" - 60"
Forged small fittings	Bar / block forging, 3000-6000 LB	1/8" - 4"
Valves	Cast body > 2"; forged body ≤ 2"	1/4" - 80"
Pipe	Seamless (piercing) · LSAW / ERW / SSAW	1/8" - 120"

Inspection & testing (in-house)

Hydrostatic testing · Ultrasonic (UT) · Radiographic (RT) · Positive Material Identification (PMI) · Impact testing · Hardness survey · Dimensional inspection to standard tolerance tables. Third-party inspection by SGS, BV, TÜV or Lloyd's is welcome at any stage — our workshops operate an open-door policy for customer and agency witness.

Plant & laboratory documentation

Plant overview	Production bases in Shandong, Hebei, Zhejiang and Shanghai
Hot-forming line	Mandrel hot-pushing of butt-weld elbows and tees, and induction heating
Flange forging	Die-forging press and vertical turning of weld-neck and blind flanges
Material & NDT laboratory	Optical emission spectrometer, UT, MPI / PT, hardness and Charpy impact testing
Finished-goods warehouse	2,000 t of standard sizes in stock, bevel-protected and heat-number marked
Container loading	Export packing in plywood cases and pallets, loading under supervision

These photographs are supplied with the complete edition.

Email sales@harbourfittings.com with your company name and we will send the full catalogue — plant and laboratory photography plus complete dimensional tables for every NPS and schedule. Buyers are equally welcome to audit the plants in person or nominate a third-party inspector.

04 · 90° ELBOWS — LONG RADIUS

ASME B16.9 · ASTM A234 WPB / A403 WP304L-316L / A420 WPL6

NPS	DN	OD mm	A / B mm	SCH 40 wall mm	SCH 40 kg/pc	SCH 80 wall mm	SCH 80 kg/pc
1/2	15	21.3	38	2.77	0.08	3.73	0.10
1	25	33.4	38	3.38	0.15	4.55	0.19
1 1/2	40	48.3	57	3.68	0.36	5.08	0.48
2 1/2	65	73.0	95	5.16	1.29	7.01	1.70
4	100	114.3	152	6.02	3.83	8.56	5.32
6	150	168.3	229	7.11	10.16	10.97	15.30
10	250	273.0	381	9.27	36.05	15.09	57.38
14	350	355.6	533	11.13	79.08	19.05	132.25

Centre-to-end A = 1.5 × DN. Short-radius (A = 1.0 × DN) available to the same schedules. Weights are theoretical (carbon steel 7.85 kg/dm³); multiply by 1.01 for SS304, 1.02 for SS316L. Invoiced weight per actual MTC. Sizes above 24" and other schedules on request. Abridged in this public edition — the complete edition lists every NPS and schedule. Request it at sales@harbourfittings.com.

04 · 45° ELBOWS — LONG RADIUS

ASME B16.9 · ASTM A234 WPB / A403 WP304L-316L / A420 WPL6

NPS	DN	OD mm	A / B mm	SCH 40 wall mm	SCH 40 kg/pc	SCH 80 wall mm	SCH 80 kg/pc
1/2	15	21.3	16	2.77	0.04	3.73	0.05
1	25	33.4	16	3.38	0.08	4.55	0.10
1 1/2	40	48.3	24	3.68	0.18	5.08	0.24
2 1/2	65	73.0	40	5.16	0.65	7.01	0.86
4	100	114.3	64	6.02	1.94	8.56	2.69
6	150	168.3	95	7.11	5.06	10.97	7.61
10	250	273.0	159	9.27	18.05	15.09	28.74
14	350	355.6	222	11.13	39.53	19.05	66.10

Centre-to-end B = $0.625 \times \text{DN}$. Weights are theoretical (carbon steel 7.85 kg/dm^3); multiply by 1.01 for SS304, 1.02 for SS316L. Invoiced weight per actual MTC. Sizes above 24" and other schedules on request. Abridged in this public edition — the complete edition lists every NPS and schedule. Request it at sales@harbourfittings.com.

04 · 180° RETURN BENDS

ASME B16.9 · Long radius (O = 3 × DN) and short radius (O = 2 × DN)

NPS	DN	OD mm	LR O mm	SR O mm	SCH 40 wall mm	SCH 40 kg/pc
1/2	15	21.3	76	50	2.77	0.15
1	25	33.4	76	50	3.38	0.30
1 1/2	40	48.3	114	76	3.68	0.72
2 1/2	65	73.0	190	126	5.16	2.57
4	100	114.3	304	202	6.02	7.67
6	150	168.3	458	304	7.11	20.31
10	250	273.0	762	508	9.27	72.10
14	350	355.6	1066	710	11.13	158.17

O = centre-to-centre. Back-to-face K per ASME B16.9 Table 12. Abridged in this public edition — the complete edition lists every NPS and schedule. Request it at sales@harbourfittings.com.

05 · STRAIGHT TEES

ASME B16.9 · Equal and reducing; reducing tees quoted per run × outlet

NPS	DN	OD mm	C mm	M mm	SCH 40 wall	SCH 40 kg/pc	SCH 80 wall	SCH 80 kg/pc
1/2	15	21.3	25	25	2.77	0.09	3.73	0.12
1	25	33.4	38	38	3.38	0.29	4.55	0.37
1 1/2	40	48.3	57	57	3.68	0.69	5.08	0.93
2 1/2	65	73.0	76	76	5.16	1.97	7.01	2.60
4	100	114.3	105	105	6.02	5.06	8.56	7.03
6	150	168.3	143	143	7.11	12.12	10.97	18.26
10	250	273.0	216	216	9.27	39.07	15.09	62.19
14	350	355.6	279	279	11.13	79.13	19.05	132.33

C = centre-to-end run, M = centre-to-end outlet. Reducing tees: state run × run × outlet. Abridged in this public edition — the complete edition lists every NPS and schedule. Request it at sales@harbourfittings.com.

05 · REDUCERS & CAPS

Concentric and eccentric reducers — ASME B16.9

Size NPS	H mm	Size NPS	H mm
1 × 3/4	51	8 × 6	152
1 1/2 × 1	64	10 × 8	178
2 × 1	76	12 × 10	203
2 1/2 × 1 1/2	89	14 × 12	330
3 × 2	89	16 × 14	356
4 × 3	102	18 × 16	381
5 × 4	127	20 × 18	508
6 × 4	140	24 × 20	508

H = end-to-end length. Eccentric reducers: flat side specified on order (flat-bottom at pump suction prevents air pockets and cavitation).

Caps — ASME B16.9

NPS	DN	OD mm	E mm	SCH 40 wall mm	SCH 40 kg/pc
1/2	15	21.3	25	2.77	0.04
1	25	33.4	38	3.38	0.11
1 1/2	40	48.3	38	3.68	0.18
2 1/2	65	73.0	38	5.16	0.38
4	100	114.3	64	6.02	1.18
6	150	168.3	89	7.11	2.89
10	250	273.0	127	9.27	8.81
14	350	355.6	165	11.13	17.94

E = overall length. Ellipsoidal head; threaded and socket-weld plugs per ASME B16.11. Abridged in this public edition — the complete edition lists every NPS and schedule. Request it at sales@harbourfittings.com.

06 · FORGED FLANGES

ASME B16.5 (≤24") · B16.47 Series A/B (>24") · EN 1092-1 · JIS B2220

Types: Welding Neck (WN) · Slip-On (SO) · Blind (BL) · Threaded (TH) · Lap Joint (LJ) · Socket Weld (SW).
 Facings: RF (raised face) · FF (flat face) · RTJ (ring type joint). Materials: A105, A105N, A182 F304/F316L, A350 LF2, P250GH, 16Mo3.

NPS	DN	WN Cl.150 kg/pc	WN Cl.300 kg/pc	WN Cl.600 kg/pc	SO Cl.150 kg/pc	BL Cl.150 kg/pc
1/2	15	0.9	1.4	2.2	0.7	1.0
1	25	1.4	2.2	3.4	1.1	1.6
1 1/2	40	2.3	3.6	5.5	1.8	2.6
2 1/2	65	4.5	7.0	10.8	3.6	5.2
4	100	7.7	11.9	18.5	6.2	8.9
6	150	13.0	20.2	31.2	10.4	14.9
10	250	29.5	45.7	70.8	23.6	33.9
14	350	56.0	86.8	134.4	44.8	64.4

Typical catalogue masses, raised face, carbon steel. Bolt circle, bolt count and hub dimensions per ASME B16.5 Tables 8-11 — full dimensional sheets on request. Class 900 / 1500 / 2500 and B16.47 large-bore quoted per drawing. Abridged in this public edition — the complete edition lists every NPS and schedule. Request it at sales@harbourfittings.com.

07 · FORGED FITTINGS, COUPLINGS & UNIONS

ASME B16.11 · BS 3799 · GB/T 14383 — 3000 LB / 6000 LB

Socket-weld and threaded (NPT / BSPT) elbows, tees, crosses, couplings, half-couplings, unions, plugs and bushings. Unions with conical (iron-to-iron, gasket-free, high pressure) or flat seat. Materials: A105, A182 F304/F316L, A350 LF2.

NPS	DN	Coupling 3000LB kg	Coupling 6000LB kg	Union 3000LB kg	Half-coupling 3000LB kg
1/8	6	0.06	0.09	0.11	0.03
1/4	8	0.09	0.13	0.16	0.05
3/8	10	0.13	0.19	0.23	0.07
1/2	15	0.20	0.30	0.36	0.11
3/4	20	0.30	0.45	0.54	0.17
1	25	0.45	0.68	0.81	0.25
1 1/4	32	0.68	1.02	1.22	0.37
1 1/2	40	0.90	1.35	1.62	0.50

3000 LB matches SCH 80/XS pipe, 6000 LB matches SCH 160. Above 4" high-pressure connections normally convert to flanges. Abridged in this public edition — the complete edition lists every NPS and schedule. Request it at sales@harbourfittings.com.

08 · INDUSTRIAL VALVES

API 600 / API 602 / API 6D · ASME B16.34 · EN 12516 · GB/T 12234

Type	Function	Body	Size range	Typical certification
Gate	Isolation, minimal flow resistance	Cast WCB / forged A105	1/2" - 60"	API 600 / 602, fire-safe
Globe	Isolation and throttling	Cast / forged	1/2" - 24"	API 623, ISO 15848-1
Check	Backflow prevention (swing / lift / wafer)	Cast WCB / CF8M	2" - 48"	API 594 / 6D
Ball	90° quick action, tight shut-off	Floating / trunnion	1/2" - 56"	API 6D, API 607 fire-safe
Butterfly	Compact, large bore, control duty	Wafer / lug / double-flanged	2" - 80"	API 609, ISO 10497

Trim: 13Cr, F6, 316, Stellite-faced. Ends: RF / RTJ flanged, BW, SW, threaded. Operation: handwheel, gear, lever, electric or pneumatic actuator (SIL 2/3 capable for ESD service). Approximate masses available on our website calculator; certified weights issued with the quotation.

09 · STEEL PIPE

ASME B36.10M / B36.19M · ASTM A106 Gr.B · API 5L PSL1/PSL2 · A312 TP316L

NPS	DN	OD mm	SCH 40 wall mm	SCH 40 kg/m	SCH 80 wall mm	SCH 80 kg/m
1/2	15	21.3	2.77	1.27	3.73	1.62
1	25	33.4	3.38	2.50	4.55	3.24
1 1/2	40	48.3	3.68	4.05	5.08	5.41
2 1/2	65	73.0	5.16	8.63	7.01	11.41
4	100	114.3	6.02	16.07	8.56	22.32
6	150	168.3	7.11	28.26	10.97	42.56
10	250	273.0	9.27	60.29	15.09	95.97
14	350	355.6	11.13	94.55	19.05	158.10

Seamless (SMLS) and welded (LSAW / ERW / SSAW). Fixed lengths 5.8 m / 11.8 m or cut-to-size. Seamless practical limit 28"-36"; spiral-welded to 120" (DN3000). Abridged in this public edition — the complete edition lists every NPS and schedule. Request it at sales@harbourfittings.com.

10 · INTERNATIONAL STANDARDS CROSS-REFERENCE

We manufacture and certify to your national standard — dimensions, tolerances and grades.

Product	USA — ASME/ASTM	EUROPE — EN / DIN	JAPAN — JIS	RUSSIA — GOST	CHINA — GB
Elbow	ASME B16.9	EN 10253-1/-2	JIS B2311/B2312	GOST 17375	GB/T 12459 / 13401
Tee	ASME B16.9	EN 10253	JIS B2311/B2312	GOST 17376	GB/T 12459
Reducer	ASME B16.9	EN 10253	JIS B2311	GOST 17378	GB/T 12459
Cap	ASME B16.9	DIN 28011	JIS B2311	GOST 17379	GB/T 12459
Cross	ASME B16.9	(by drawing)	(by drawing)	GOST 17376	GB/T 12459
Flange	ASME B16.5 / B16.47	EN 1092-1	JIS B2220	GOST 33259	GB/T 9112 / HG/T 20592
Forged fitting	ASME B16.11	EN 10241	JIS B2316	(B16.11 equiv.)	GB/T 14383
Valve	API 600/602 · B16.34	EN 1984 / 13709	JIS 10K/20K	GOST 5762 / 21345	GB/T 12234
Pipe	ASME B36.10M / B36.19M	EN 10216 / 10217	JIS G3454	GOST 8732	GB/T 8163

Pressure class equivalence (approximate — exact rating depends on temperature and facing)

ASME	EN / DIN	JIS	GOST	GB
Class 150	PN 16 / 20	10K	Py 16	PN 1.6 / 2.0 MPa
Class 300	PN 40 / 50	16K / 20K	Py 40	PN 4.0 / 5.0 MPa
Class 600	PN 100 / 110	30K / 40K	Py 100	PN 10 MPa
Class 900	PN 150	63K	Py 160	PN 15 MPa
Class 1500	PN 250	—	Py 250	PN 25 MPa
Class 2500	PN 420	—	—	PN 42 MPa

11 · MATERIAL GRADE EQUIVALENTS

Type	ASME / ASTM	EN / DIN	JIS	GOST	GB
CS fittings	A234 WPB	P235GH (1.0345)	STPT370	Cт20	20#
CS forgings	A105 / A105N	P250GH (1.0460)	SF440A	Cт25	25#
Low-temp	A420 WPL6 / A350 LF2	P275NL1	STPL380	09Г2С	16MnDG
SS 304 / 304L	A403 WP304L	1.4301 / 1.4307	SUS304 / 304L	08X18H10	06Cr19Ni10
SS 316L	A403 WP316L	1.4404	SUS316L	03X17H14M3	022Cr17Ni12Mo2
Alloy 1.25Cr	A234 WP11	13CrMo4-5	STPA23	15XM	15CrMo
Alloy 2.25Cr	A234 WP22	10CrMo9-10	STPA24	12X1MΦ	12Cr1MoV
Alloy 9Cr	A234 WP91	X10CrMoVNb9-1	STPA28	—	10Cr9Mo1VNbN
Duplex	A815 UNS S31803	1.4462	SUS329J3L	—	022Cr22Ni5Mo3N

Equivalence is indicative for enquiry purposes. Where a project code requires an exact grade, we supply that grade and its own mill certificate — we do not substitute silently.

12 · WEIGHT CALCULATION FORMULAS

Theoretical mass at carbon-steel density 7.85 kg/dm³. Multiply by 1.01 for SS304, 1.02 for SS316L. Invoiced weight follows the actual MTC.

Item	Formula (kg)	Variables
Pipe (per metre)	$W = 0.02466 \times S \times (D - S)$	D = OD mm, S = wall mm → kg/m
90° elbow	$W = 0.0387 \times S \times (D - S) \times R / 1000$	R = bend radius mm (LR: 1.5 × DN)
45° elbow	as above × 0.5	—
180° return bend	as above × 2	—
Tee	$W \approx 0.02466 \times S \times (D - S) \times (2C + M) / 1000$	C = run c-to-e, M = outlet c-to-e
Reducer	$W \approx 0.02466 \times S \times ((D_1 + D_2)/2 - S) \times H / 1000$	D ₁ /D ₂ = large/small OD, H = length
Cap	$W \approx 0.02466 \times S \times (D - S) \times E / 1000 \times 1.15$	E = cap height mm
Flange / valve	no closed formula — catalogue tables	see sections 06 and 08

An interactive version of these calculators — per product, per variant, in 18 languages — is available at harbourfittings.com. Enter diameter, wall thickness and quantity to get piece and consignment weights instantly for freight and container planning.

13 · ORDERING INFORMATION

What to specify

#	Butt-weld fittings & pipe	Flanges & forged fittings	Valves
1	Quantity	Quantity	Quantity
2	Nominal size (NPS / DN)	Nominal size (NPS / DN)	Nominal size
3	Schedule / wall thickness	Pressure class	Pressure class & body material
4	Type & angle / configuration	Type (WN/SO/BL/TH/LJ/SW)	Valve type & operation
5	Material grade	Facing (RF / FF / RTJ)	Trim & seat material
6	Governing standard	Bore (where applicable)	End connection
7	Certification required	Certification required	Certification & testing required

Commercial terms

Item	Standard practice
Incoterms	FOB Shanghai / Ningbo · CIF or CFR to your port · EXW on request
Payment	30% T/T advance, 70% against B/L copy · irrevocable L/C at sight for established accounts
Lead time	15 working days ex-works for standard sizes; project items quoted per order
Packing	Standard export packing: plywood cases, steel pallets or bundles; fumigation-free material
Marking	Heat number, size, schedule, grade and standard per MSS SP-25
Certification	EN 10204 3.1 MTC with every shipment; 3.2 with TÜV / BV witness on request
Inspection	Third-party inspection welcome — SGS, BV, TÜV, Lloyd's
Quotation validity	15 days from date of issue unless stated otherwise

Send your enquiry

Attach a drawing, a line list or a spec sheet — our engineers reply within 12 hours with a certified quotation.

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Online harbourfittings.com — 18 languages, live weight calculators, 3D product viewer

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