RAJENDRA INDUSTRIAL CORPORATION

Product catalog 2026



Flanges for data center cooling

Stainless and carbon steel flanges for data center cooling

Weld neck, slip-on, blind and lap joint flanges for the facility water, technology cooling, chilled water and condenser water loops of data centers, forged and machined at our works in Gujarat, India, since 2000.

NPS 1/2 to 24 DN 15 to 600 to EN 1092-1	**Class 150 to 2500** and PN 6 to 100	**316L, 304L, A105, LF2** duplex and super duplex too	**EN 10204 3.1 and 3.2** certificates for every heat

Who we are

Forged, machined and tested at one works

Rajendra Industrial Corporation (RIC) has made stainless steel and carbon steel flanges and forged fittings since 2000. Bars are cut, forged, heat treated, pickled, machined, marked and tested at our works in Umbergaon, Gujarat.

For data center cooling we supply the flanges of every water loop: stainless steel where the coolant must stay clean, carbon steel where it need not.



2000
Founded by Vikas Doshi; works at Umbergaon, Gujarat

100+
People at the works and the Mumbai head office

9
People in the quality team

1.25 t
Forging hammer, with 300 t and 150 t hydraulic presses

45,000
Square feet of works at Umbergaon

400 kN
Universal testing machine in our lab

23
Points on the final checklist before dispatch

2509
Flange drawings online, PDF and DXF

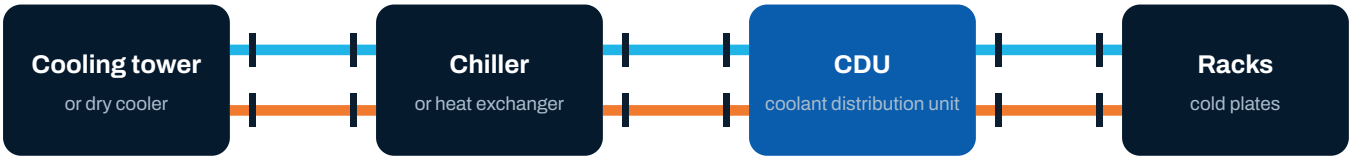
Certificates held

Certificate	Issued by	Number	Valid to
ISO 9001:2015	TÜV NORD CERT GmbH	44 100 20392915	13 Jul 2029
PED 2014/68/EU	TÜV Rheinland Polska Sp. z o.o.	01 2627 IN/M1-260026.00	10 May 2029
NORSOK M-650	Gulf Lloyds Industrial Services (GLIS)	GLIS/RIC/2024/09/MMC-1414	14 Sep 2027
ISO 45001:2018	Gulf Lloyds Business Assurance (GLBA)	1011-OHSAS-BA-UK-04-6202-SIAC-002850-IN	9 Apr 2029
ISO 29001:2020	Gulf Lloyds Business Assurance (GLBA)	1011-QMS-BA-UK-05-6202-SIAC-002873-IN	9 Apr 2029

Where our flanges go

A flange schedule for every cooling loop

A liquid-cooled data center runs three or more water loops. Each has its own rules for material, cleanliness and pressure class, and so its own flanges.



Condenser water
A105, FF at FRP and cast iron

Facility water (FWS)
A105 or stainless, Class 150

Technology cooling (TCS)
316L, pickled and passivated

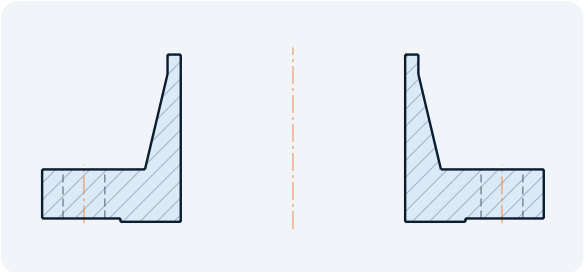
Supply in blue, return in orange; bars mark the flanged joints at each piece of equipment.

Loop	Material	Standard	Flange types	Finish and testing
Technology cooling system (TCS)	ASTM A182 F316L, 304 at least	ASME B16.5 Class 150; EN 1092-1 PN 16	Weld neck; stub end with lap joint; blind	Pickled and passivated to ASTM A380 and A967; 100% PMI
Coolant distribution units (CDU)	316L secondary side; 316L, 304L or carbon steel primary side	ASME B16.5 Class 150; EN 1092-1 PN 16	Weld neck; lap joint with stub end; blind	100% PMI; EN 10204 3.1
Facility water and chilled water	ASTM A105; 304L or 316L where specified	ASME B16.5 Class 150; B16.47 or AWWA C207 above 24 in; PN 16	Weld neck, slip-on, blind	RF steel to steel; FF to cast iron
Condenser water	ASTM A105; A350 LF2 for cold climates	ASME B16.5 Class 150; AWWA C207; B16.47	Slip-on, weld neck, ring, blind	FF at cast iron, FRP and plastic
Hyperscale campus mains	A105 to NPS 24	ASME B16.47 Series A or B, or AWWA C207 above NPS 24	Weld neck, blind on every header end	EN 10204 3.1 for every heat

The flange range

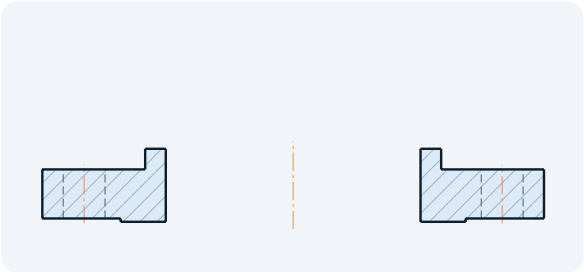
Every type a piping system needs

Forged and machined to the standard, bored to your pipe schedule and marked with the heat number. NPS 1/2 to 24, DN 15 to 600; Class 150 to 2500, PN 6 to 100.



Weld neck flanges

Standards	ASME B16.5; B16.47 Series A and B; EN 1092-1 type 11
Classes	Class 150 to 2500; Class 75 to 900 in B16.47; PN 6 to 100
Bore	To the pipe schedule, every B36.10M and B36.19M wall
Facings	RF, FF, RTJ, tongue and groove



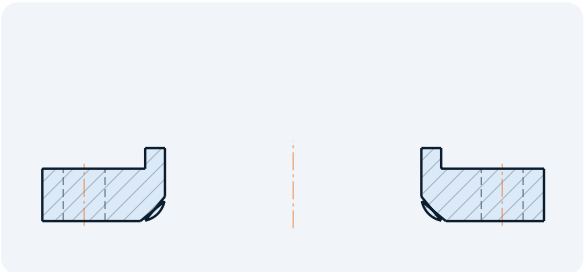
Slip-on flanges

Standards	ASME B16.5, with hub; EN 1092-1 type 01 plate
Classes	Class 150 to 900 with hub; plate in Class 150 and 300; PN 6 to 40
Use	Low pressure water lines, easy alignment
Facings	RF or FF



Blind flanges

Standards	ASME B16.5 and B16.47; EN 1092-1 type 05
Classes	Class 150 to 2500; PN 6 to 100
Use	Header ends, future tie-ins, test points
Facings	RF, FF, RTJ



Lap joint flanges

Standards	ASME B16.5, with stub ends
Classes	Class 150 to 2500
Use	Carbon steel ring over a stainless stub end: TCS and CDU piping at lower cost
Facings	Face on the stub end

Sections of each type at NPS 4 Class 150, to the same scale. Every ASME B16.5 size and class, and every EN 1092-1 size from PN 6 to PN 100, has a dimensioned drawing to download at rajendradatacenter.com.



Socket weld flanges, 1 in Class 150



Slip-on flanges, 3 in Class 150, stamped



Stainless steel slip-on flanges

More types and standards

From socket weld to spectacle blind

The rest of the range in RIC's catalog, made to the standard named and to your purchase order.

Type	Standard	Typical use
Socket weld flanges	ASME B16.5	Small bore lines, instrument and drain connections
Threaded flanges	ASME B16.5	Where welding is not allowed
Ring type joint flanges	ASME B16.5, Class 150 to 2500	High pressure joints with an R ring gasket
Long weld neck flanges	ASME B16.5	Nozzles on vessels and headers
High hub blind flanges	ASME B16.5	Blinds that take a nozzle or a thicker face
Orifice flanges	ASME B16.36, Class 300 to 2500	Flow metering with pressure tappings
Spectacle blinds, spacers and blanks	ASME B16.48, Class 150 to 900	Positive isolation
Ring flanges for water mains	AWWA C207 and C228	Large water and condenser water mains

Standards

- ASME B16.5, NPS 1/2 to 24, Class 150 to 2500
- ASME B16.47 Series A and B, Class 75 to 900
- ASME B16.36 orifice flanges, Class 300 to 2500
- ASME B16.48 spectacle blinds, spacers and blanks, Class 150 to 900
- EN 1092-1 types 01 to 37, collars included, PN 6 to 100
- AWWA C207 and C228

Facing, finish and marking

- Raised face, flat face, ring type joint, tongue and groove
- Stainless flanges pickled and passivated to ASTM A380 and A967 when ordered
- Bored to the pipe schedule: every ASME B36.10M and B36.19M wall
- Marked with the standard, size, class, grade and heat number
- Packed in wooden cases for export



Carbon steel and stainless steel flanges in the stores at Umbergaon

Materials

The grade your specification names

Forgings in stainless, duplex and carbon steel, with chemistry and mechanical properties to the ASTM specification and the heat number on every flange.

Material	Grade	Typical service
Austenitic stainless steel	ASTM A182 F304 and F304L (UNS S30400, S30403)	Technology cooling and CDU piping
Austenitic stainless steel	ASTM A182 F316 and F316L (UNS S31600, S31603)	Technology cooling, CDU and heat reuse loops
Duplex stainless steel	ASTM A182 F60 (UNS S32205)	Seawater and chloride service; NORSOK M-650 qualified
Super duplex stainless steel	ASTM A182 F53 (UNS S32750)	Offshore and seawater service; NORSOK M-650 qualified
Carbon steel	ASTM A105 (UNS K03504)	Facility water, chilled water and condenser water
Low temperature carbon steel	ASTM A350 LF2	Cold climates and low temperature service



Heat and lot marking on a stainless flange



Flanges packed in wooden cases for export

Online library

2509 flange drawings

Every ASME B16.5 weld neck, slip-on, blind and lap joint flange from NPS 1/2 to 24, Class 150 to 2500, and every EN 1092-1 flange and collar from PN 6 to 100, types 01 to 37, as a PDF with the bore for every schedule and the weight in carbon and stainless steel.

Notes and certificates

Technical notes as PDF white papers, our 5 certificates and a sample EN 10204 3.1 certificate, at rajendradatacenter.com/downloads/.

Quality and documents

Every heat traceable, every flange checked

A route card (RIC/PRD/RC-01) follows each lot from bar to box. Our quality team of 9 tests in house; outside laboratories do the rest.

01
Cutting
Bars cut on band saws, each piece tagged with its heat number.

02
Forging
A 1.25 t hammer and 300 t and 150 t hydraulic presses.

03
Heat treatment
Solution annealing or normalizing, recorded on furnace charts.

04
Pickling
Stainless forgings pickled; passivated when the order asks.

05
Machining
CNC lathes, vertical machining centers and conventional lathes.

06
Marking
Standard, size, class, grade and heat number on every flange.

07
Testing
Tensile, hardness, PMI, dye penetrant and dimensional checks.

08
Final inspection
A 23-point checklist against the route card, then packing.

Tests
- In house: tensile (400 kN universal testing machine), Rockwell and Brinell hardness, PMI (Bruker), dye penetrant, dimensional
- Outside laboratories: chemical analysis, intergranular corrosion (ASTM A262), impact, ultrasonic and magnetic particle testing

Documents
- Mill test certificates to EN 10204 3.1, or 3.2 with a third-party inspector
- Third-party inspection by TÜV, Gulf Lloyds, IRClass, Bureau Veritas or SGS
- A sample certificate and our ISO, PED and NORSOK certificates are online

Organizations RIC has supplied

ISRO, BHEL, NTPC, Indian Oil (IOCL), BPCL, HPCL, Chennai Petroleum (CPCL), Reliance Industries, Cochin Shipyard, Hindustan Shipyard, GRSE, Coal India, FACT, Madras Fertilizers, DCM Shriram


Forging shop


Dye penetrant test on a stainless weld neck


Hardness testing

RAJENDRA
INDUSTRIAL CORPORATION

Send us your line list

Types, sizes, classes, grades and quantities, as a list or a drawing. We reply with a quotation, or with the questions we need answered before we quote.

Ask for a quote

sales@rajendradatacenter.com

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rajendradatacenter.com/rfq/

Online

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Works

Plot No. 199/4, 199/6 & L-605, GIDC, Opp. Balaji Weigh Bridge
Umbergaon, Dist. Valsad
Gujarat 396171, India

Head office

97/99, Shiv Vilas Building, 2nd Pathan Street, 5th Kumbharwada
Mumbai 400004, India

Rajendra Industrial Corporation, manufacturer of forged flanges and fittings since 2000. ISO 9001:2015, PED 2014/68/EU, NORSOK M-650, ISO 45001:2018, ISO 29001:2020. Dimensions, materials and tests are to the standards named, and the standard and your purchase order govern. Catalog 2026, edition of 8 November 2026.