



## DIN En1092-1 UNI Stainless Steel Pipe Flange With PN10 PN16 PN25

Our Product Introduction

### Basic Information

- Place of Origin: CHINA
- Brand Name: DEYE
- Certification: ISO9001:2015 PED
- Model Number: ZJD-F-TH07
- Minimum Order Quantity: 10PCS
- Price: USD2-USD100 each
- Packaging Details: Fumigation Ply-wooden cases
- Delivery Time: 25-30 days for order production
- Payment Terms: T/T, L/C, D/P
- Supply Ability: 200ton each month



### Product Specification

- Standard: ASME B16.5, ASME B16.47, API 6A, EN 1092-1, BS 4504, BS 10, DIN, JIS, GOST.
- Material: SS316, SS316L, SS304/304L, DUPLEX SS, UNS31803, UNS32750, 904L, INCONEL625,
- Size: 1/2" (DN15) ~ 48" (DN1200)
- Types: Weld Neck, Slip On, Blind, Socket Weld, Threaded, Lap Joint, Spectacle, Paddle, Long Weld Neck, Spacer, Orifice, Reduced, Plate
- Pressure Rating: Class 150, 300, 400, 600, 900, 1500, 2500; PN 6, PN 10, PN 16, PN 25, PN 40, PN 63, PN 100, PN 160, PN 250, PN 320, PN 400.
- Highlight: **UNI Stainless Steel Pipe Flange, PN10 Stainless Steel Pipe Flange, PN25 ss flanges**

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## Product Description

### DIN EN1092-1 UNI SS FLANGES WITH PN10,PN16,PN25

European standard EN 1092-1 – concerning flanges for pipes – establishes the requirements for steel flanges based on their nominal pressure (PN) and dimension (DN). Moreover, it defines the different kinds of flanges and their sealing surfaces, tolerances, threading and labelling.

EN 1092-1 TYPE 01 for Plate flange for welding,

EN 1092-1 TYPE 02 for Loose plate flange with weld-on plate collar TYPE 32,

EN 1092-1 TYPE 03 for Loose plate flange with weld-on plate collar TYPE 33,

EN 1092-1 TYPE 04 for Loose plate flange with weld-neck collar TYPE 34,

EN 1092-1 TYPE 05 Blind flange or blank flange,

EN 1092-1 TYPE 11 for weld neck flange

EN 1092-1 TYPE 12 for Hubbed slip-on flange for welding,

EN 1092-1 TYPE 13 for Hubbed threaded flange,

EN 1092-1 TYPE 21 for LWN – long welding-neck or integral flange

EN 1092-1 TYPE 32 for Weld-on collar plate, EN1092-1 Type 33 for Short collar or lapped pipe end,

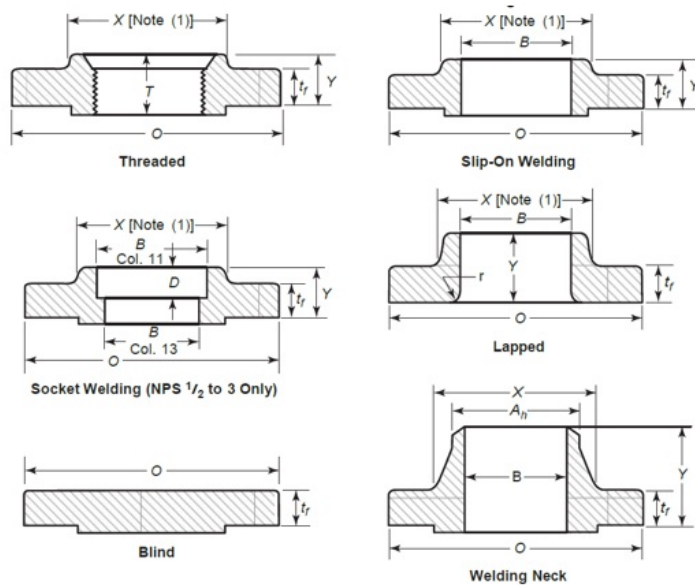
EN1092-1 TYPE 34 for Weld-neck collar

### Product Information/Product Description/Basis Information/Specification

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                        |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Name</b> | DIN EN1092-1 UNI SS FLANGES WITH PN10,PN16,PN25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                        |
| <b>Types</b>        | <ul style="list-style-type: none"> <li>● Stainless steel Blind Flanges</li> <li>● Stainless steel Spectacle Blinds</li> <li>● Stainless steel High Hub Blinds</li> <li>● Stainless steel Orifice Flanges</li> <li>● Stainless steel Slip-on Flanges</li> <li>● Stainless steel Socket Weld Flanges</li> <li>● Stainless steel Weld Neck Flanges</li> <li>● Stainless steel Flat Flanges</li> <li>● Stainless steel Loose Flanges</li> <li>● Stainless steel Threaded Flanges</li> <li>● Stainless steel Lap Joint Flanges</li> <li>● Stainless steel Reducing Threaded</li> <li>● Stainless steel Weld Neck Flanges Series A or B</li> <li>● Stainless steel Square Flanges</li> <li>● Stainless steel Groove &amp; Tongue Flanges</li> <li>● Stainless steel Spade Flanges</li> <li>● Stainless steel Forged flanges</li> <li>● Stainless steel Raised Face Flanges</li> <li>● Stainless steel RTJ Flanges</li> <li>● Stainless steel Pipe Flange Spacer Ring</li> </ul> |                                                                                                                                                                                                                        |
| <b>Face Finish</b>  | Flat Face (FF), Raised Face (RF), Ring Type Joint (RTJ), LM, TF,GF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                        |
| <b>Material</b>     | ANSI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Stainless Steel SS 304/304L,316/316L, SS321, SS347H, SS316TI, SS304HM SS316H, 904L, UNS31803, UNS32750, UNS32760                                                                                                       |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Alloy Steel: WHPY45/52/65/80/A 182 Grade F 5, A 182 Grade F 9, A 182 Grade F 11, F 12, F22, F91, A694 F42, F46, F48, F50, F52, F56, F60, F65, F70, A516.60, 65, 70 (Spectacle Blind Flange, Spacer Ring/Spade Flange), |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Steels for Low Temperature Service: A 350 Grade LF 1, A350LF2, A350LF4, A350LF6, A350LF8. CL1/CL2, LF3 CL1/CL2,                                                                                                        |
|                     | Normally use: CS A105/SA 105N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                        |
|                     | DIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SS 304/304L,316/316L, Stainless steel1.4301, 1.4404, SAF2205, SAF2507,CS RST37.2;S235JR                                                                                                                                |
|                     | GOST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SS 304/304L,316/316L CS CT20;16MN;                                                                                                                                                                                     |
|                     | EN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SS 304/304L,316/316L CS RST37.2;S235JR;C22.8                                                                                                                                                                           |
|                     | JIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SS 304/304L, 316/316L CS SS400,SF440,                                                                                                                                                                                  |
|                     | BS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SS 304/304L,316/316L CSRST37.2;S235JR;C22.8;Q235                                                                                                                                                                       |
|                     | UNI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | C SS 304/304L,316/316L SRST37.2;S235JR;C22.8;Q235                                                                                                                                                                      |
| <b>Pressure</b>     | SABS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 304/304L,316/316L CSRST37.2;S235JR;Q235                                                                                                                                                                                |
|                     | ANSI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Class 150, 300, 600, 900, 1500 2500lbs, with welded thickness of Sch10s, SCH40s, SCH80s, SCH160s. SCHXXS                                                                                                               |
|                     | DIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PN6,PN10,PN16,PN25,PN40,PN64,PN100                                                                                                                                                                                     |
|                     | GOST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PN6,PN10,PN16,PN25                                                                                                                                                                                                     |
|                     | EN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PN6,PN10,PN16,PN25,PN40,PN64,PN100                                                                                                                                                                                     |
|                     | JIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1K,2K,5K,10K,16K,20K,30K,40K                                                                                                                                                                                           |
|                     | BS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PN6,PN10,PN16,PN25,PN40,PN64,PN100                                                                                                                                                                                     |
|                     | UNI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PN6,PN10,PN16,PN25,PN40                                                                                                                                                                                                |
|                     | SABS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 600KPA,1000,1600,2500,4000                                                                                                                                                                                             |

|                |                                                                                                                                                                                                                     |             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Size</b>    | ANSI                                                                                                                                                                                                                | 1/2" – 60"  |
|                | DIN                                                                                                                                                                                                                 | DN15-DN2000 |
|                | GOST                                                                                                                                                                                                                | DN10-DN1600 |
|                | EN                                                                                                                                                                                                                  | DN15-DN2000 |
|                | JIS                                                                                                                                                                                                                 | 15A-1500A   |
|                | BS                                                                                                                                                                                                                  | DN15-DN2000 |
|                | UNI                                                                                                                                                                                                                 | DN10-DN2000 |
|                | SABS                                                                                                                                                                                                                | DN10-DN600  |
| <b>Surface</b> | Oil Black Paint, varnish, Golden yellow paint, anti-rust oil, galvanizing, Cold and Hot Dip Galvanized etc, Zinc plating. chrome plating. Black treatment, anodize, powder coating. punishment, brass plating. etc. |             |

#### Flanges Specification and different types



#### ASME/ANSI B16. 5:

WELDING NECK FL ANGE, SLIPON FL ANGE. BLIND FLANGE. HIGH HUB BLIND FLANGE. SOCKET WELD FL ANGE. LAPJOINT FLANGE, THREADED FL ANGE. RING TYPE JOINT FLANGE. Pressure Class: 1 50.300,400. 600.900,1500,2500

#### ASME/ANSI B16.47 :

WELDING NECK FLANGE, BLIND FLANGE. Pressure Class: 75,150. 300, 400.600,900

#### ASME/ANSI B16.36:

ORIFICE FLANGE WELDING NECK FL ANGE, SLIPON FLANGE, THREADED FLANGE. Pressure Cass: 300, 400,600,900, 1500,2500

#### AWWAC207

AWWA standard steel-ring flanges, Class B\* (86 psi)  
 AWWA standard steel-ring flanges, Class D\* (175-150psi)  
 AWWA standard steel-hub flanges, Class D\* (175-150 psi)  
 AWWA standard steel-hub flanges, Class E\* (275psi)  
 AWWA standard steel-ring flanges, Class E\* (275psi), Blind flanges 275PSI  
 AWWA standard steel-ring flanges, Class F\* (300psi), Blind flanges 300PSI

#### MSS-SP-44

WELDING NECK FLANGE, BLIND FLANGE TO ANSI B16.47 SERIES A  
 Pressure Class: 75,150. 300, 400.600,900

#### JIS B2220/B2291 :

WELDING NECK FLANGE, SLIPON HUB FLANGE SLIPONPLATE FLANGE, SHUT OFF FLANGE, SQUARE FLANGE. Pressure Class:5K.10K 16K 20K 30K

#### BS4504SEC3.1

WELDING NECK FLANGE (111/134). HUBBED SLIPON FLANGE (112), HUBBED THREADED FLANGE (113). LAPPED PIPE END FLANGE (133) PLATE FLANGE (101). LOOSE PLATE FLANGE (102) LOOSE PLATE WITH WELD-NECK FLANGE (104). BLANK FLANGE (105). Pressure Class: PN2.5 TO PN 40

#### BS1560:

WELDING NECK FLANGE. SOCKET WELDING FLANGE SLIP-ON BOSS FLANGE BLIND FL ANGE,

SCREWED BOSS FLANGE, LAPPED FLANGE.  
Pressure Class: 150,300,400,600,900, 1500,2500

**BS 10:**

WELDING NECK FLANGE. PLATE SLIP-ON FLANGE. SCREWED, BOSS FLANGE,  
SLIP-ON BOSS FLANGE, BLIND FLANGE.

Table: D,E,F,H

**DIN FLANGE:**

DIN2573.DIN2576.DIN2641891 DIN2642. DIN2655. DIN2656, DIN2632 DIN263.DIN2634.  
DIN2635.DIN2636. DIN2637.DIN2638.DIN2673

Pressure from PN 6 TO PN320

**AFNOR NFE 29-203:**

PLATE FLANGE (01), LOOSE PLATE FLANGE (02,03,04) BLIND FLANGE (05)  
WELDING NECK FLANGE (111), HUBBED SLIP ON FLANGE (12) SCREWED FLANGE (13).  
HUBBED SOCKET WELDING FLANGE(14),LOOSE HUBBED FLANGE(15),  
INTEGRAL FLANGE (211)

Pressure Class: ISO- PN 2.5TO PN420

**EN 092-1.**

PLATE FLANGE SO (Type 01) LOOSE Plate flanges (Type02, 04) Blind flange (Type 05),  
Welding Neck flange (Type 11), Hubbed Slip on Flange (Type 12), Screw Flange (Type 13),  
Integral Flange (Type 21)

Pressure Class: PN2.5 to PN100

**ASME/ANSI B16.9/MSS SP-43: STUB END. Type: A,B,C**

UNI2253-67,UNI6091-67,UNI2276-67,UNI2280-67,UNI6089-67 PN6,PN10,PN16,PN25,PN40

**GOST 12820-80,GOST 12821-80,Gost Blind**

PN6,PN10,PN16,PN25, PN40, PN63, PN100, PN150,PN250

**SABS1123**

**Technology/ How to use and install the different flange types**

**WELDING NECK FLANGES**

They are connected to the pipe by means of a Butt weld connection. They are used when X-ray testing is required or if the torque over unions are maximum. Its long tapered neck optimizes the stress distribution



**SLIP-ON FLANGES**

This kind of flanges are installed with two weld bead, sliding the pipe inside. Thus installation costs are lower, so less accuracy is required for pipe cutting.



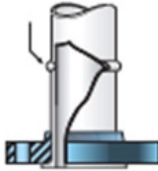
**THREADED FLANGES**

They are usually installed with the pipe previously threaded, in places where welding cannot be done. We do not recommend to install if there are high pressure variations in the system



**LAP JOINT FLANGES**

They slide on an overlapped gasket. They are commonly used where it is necessary to dismantle in order to be cleaned or repaired. Dismantling cost decreases due to the ease of flange turning and drilling alignment.



### **SOCKET WELD FLANGES**

This kind of flange is especially designed for lower small diameters and high pressures. The pipe is inserted into the flange up to the seat and then is fillet welded against the cube.



### **BLIND FLANGES**

Blind flanges are utilized for pipe ends, and they bolted to any of the above flange types.



### **The stainless steel material that normally used**

#### **Material Grades: Chemical Composition**

| ASTM Design | Analysis in % max. |      |      |       |       |               |               |        |
|-------------|--------------------|------|------|-------|-------|---------------|---------------|--------|
|             | C                  | Mn   | Si   | P     | S     | Cr            | Ni            | Mo     |
| F304 L      | 0.030              | 2.00 | 1.00 | 0.045 | 0.030 | 18.00 - 20.00 | 8.00 - 13.00  | 2.00 - |
| F316        | 0.08               | 2.00 | 1.00 | 0.045 | 0.030 | 16.00 - 18.00 | 10.00 - 14.00 | 3.00   |
| F316L       | 0.030              | 2.00 | 1.00 | 0.045 | 0.030 | 16.00 - 18.00 | 10.00 - 15.00 | 2.00 - |
| F321        | 0.08               | 2.00 | 1.00 | 0.045 | 0.030 | 17.00 - 19.00 | 9.00 - 12.00  | 3.00   |

#### **physical properties**

| ASTM Design | Tensile strength |      | Fluency limit |     | Elongation in 50 mm. | Stress | Brinell Hardness (HB) | Charpy - V |                     |                  |
|-------------|------------------|------|---------------|-----|----------------------|--------|-----------------------|------------|---------------------|------------------|
|             | Ksi min.         | MPa  | Ksi min.      | MPa | % min.               | % min. |                       | Energy J   | Average 1 Test tube | Testing Temp. °C |
| A182 - 07   |                  |      |               |     |                      |        |                       |            |                     |                  |
| F304        | 751              | 5151 | 30            | 205 | 30                   | 50     | 156 - 207             |            |                     |                  |
| F304L       | 702              | 4852 | 25            | 170 | 30                   | 50     |                       |            |                     |                  |
| F316        | 751              | 5151 | 30            | 205 | 30                   | 50     |                       |            |                     |                  |
| F316L       | 702              | 4852 | 25            | 170 | 30                   | 50     |                       |            |                     |                  |
| F321        | 751              | 5151 | 30            | 205 | 30                   | 50     |                       |            |                     |                  |

#### **SAF2205 (UNS31803)**

##### **Chemical Composition%**

| C≤   | Si≤ | Mn≤ | P≤   | S≤   | Cr    | Ni      | Mo       | Cu | N        |
|------|-----|-----|------|------|-------|---------|----------|----|----------|
| 0.03 | 1.0 | 2.0 | 0.03 | 0.02 | 22-23 | 4.5-6.5 | 3.0-3.50 | /  | 0.14-0.2 |

##### **physical Performance**

| Test Items         | Test Temp. | Performance                     | Standard Data |
|--------------------|------------|---------------------------------|---------------|
| Tensile Strength   | Room Temp. | Yield Strength $\geq$           | 450 Mpa       |
|                    |            | Tensile Strength $h \geq$       | 620 Mpa       |
|                    |            | Elongation % $>$                | 25            |
|                    |            | Reduction of Area $\Rightarrow$ | /             |
| Impact Value KV(J) | Room Temp. | <b>Lateral</b>                  | /             |
| Brinell hardness   | Room Temp. | $\leq$                          | 290           |
| Rockwell hardness  | Room Temp. | $\geq$                          | /             |

#### **SAF2507(UNS32750)**

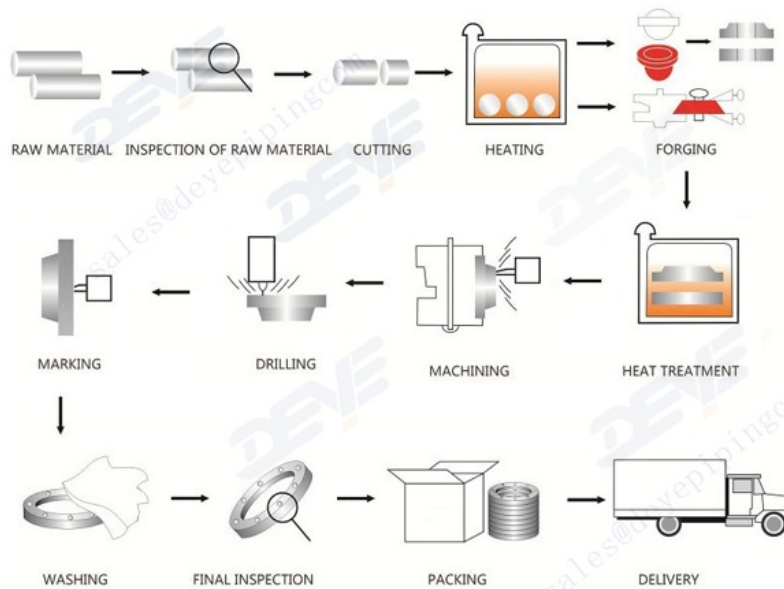
##### **Chemical Composition%**

| c ≤  | Si≤ | Mn≤ | P≤   | S≤    | Cr    | Ni      | Mo      | Cu≤ | N         |
|------|-----|-----|------|-------|-------|---------|---------|-----|-----------|
| 0.03 | 0.8 | 1.2 | 0.03 | 0.015 | 24-26 | 6.0-8.0 | 3.0-5.0 | 0.5 | 0.24-0.32 |

##### **physical Performance**

| Test Items          | Test Temp. | Performance          |               | Standard Data |
|---------------------|------------|----------------------|---------------|---------------|
| Tensile             | Room Temp. | Yield Strength       | Ø≤55 Rm≥      | 550 Mpa       |
|                     |            |                      | Ø >55 Rm≥     | 515 Mpa       |
|                     |            | Tensile Strength     | Ø≤55 R0.002 ≥ | 800 Mpa       |
|                     |            |                      | Ø >55 R0.002≥ | 760 Mpa       |
|                     |            | Elongation A% (4D) > | Ø≤55 ≥        | 15            |
|                     |            |                      | Ø >55 ≥       | 15            |
| Brinell hardness HB | Room Temp. | Ø≤5 ≤                |               | 310           |
|                     |            | Ø >55 ≤              |               | 310           |

#### Flange Production Process/ Manufacture Prodcedure

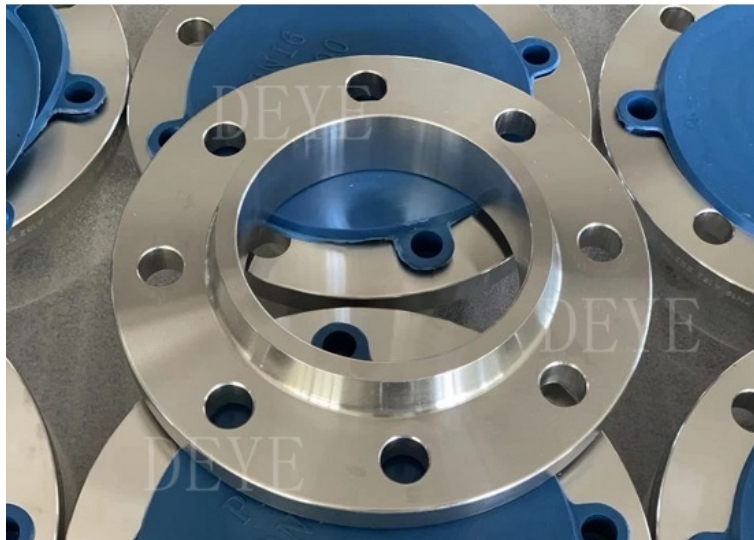


#### Application/Usage

A flange is a method of connecting pipes, valves, pumps, and other equipment to form a piping system to convey the water, steam, air, gas and oil. It also provides easy access for cleaning, inspection, or modification.

#### Flange Photos for shipment

Slip on flanges, CL150LBS, threaded Flanges, 1500LBS RJ flanges, CL2500LBS Weld Neck flange, etc.







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