



## SS316 Stainless Steel Pipe Flange For CL150LBS SCH40

Our Product Introduction

### Basic Information

- Place of Origin: CHINA
- Brand Name: DEYE
- Certification: ISO9001:2015 PED
- Model Number: ZJD-F-WN01
- 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: **SS316 Stainless Steel Pipe Flange,  
48in Stainless Steel Pipe Flange,  
SCH40 stainless steel floor flange**

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## Product Description

### SS316 stainless Steel pipe flange for CL150LBS SCH40

Forged SS flanges are used to connect a pipe with another mechanical device. In the oil and gas industry, forged ss flanges are preferred due to their intrinsic strength and durability.

Pipe flanges are available in multiple types, the standard ones are the welding neck, blind, socket weld, lap joint, threaded, etc.). There are also some special types of flanges, like the swivel flanges, reducer flanges, the Spectacle flanges, and the orifice flanges.

Generally, welding neck, slip-on, and socket weld flanges are used for high-pressure applications that require long-lasting flanged joints. Threaded flanges can be used with a lower pressure piping system, and if vibrations are not present.

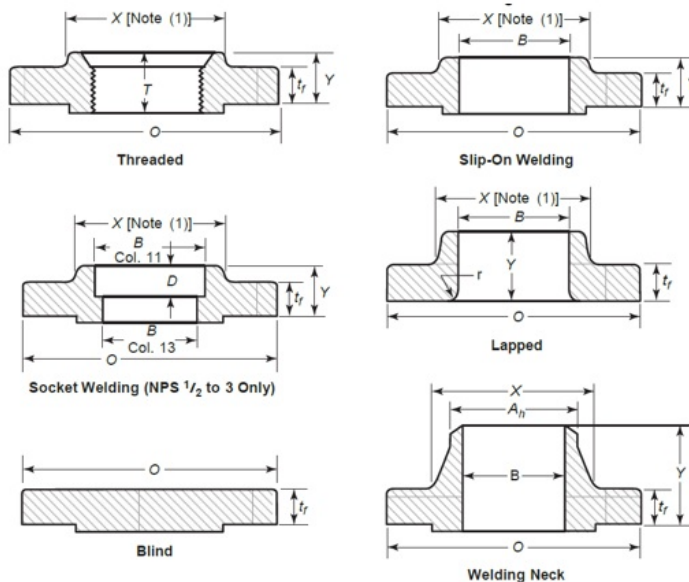
Lap joint flanges are used in connection with stub ends either to facilitate the alignment of the bolts of the two mating flanges or to reduce the cost of noble materials in high-grade flanged joints.

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

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                        |  |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Product Name</b> | Stainless steel304/304L, 316/316L, Duplex SS Pipe flange                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                        |  |
| <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>     | 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                                                                                                                                                                                             |  |
|                     | ANSI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1/2" – 60"                                                                                                                                                                                                             |  |
|                     | DIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DN15-DN2000                                                                                                                                                                                                            |  |
|                     | GOST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DN10-DN1600                                                                                                                                                                                                            |  |

|                |                                                                                                                                                                                                                     |             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Size</b>    | 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 FL ANGE. PL ATE SLIP-ON FLANGE. SCREWED, BOSS FLANGE, SLIPON 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 PL ATE FLANGE (02,03,04) BLIND FLANGE (05)  
WELDING NECKFLANGE (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.



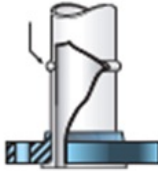
**THREADED FLANGES**

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 s <sub>y</sub> ≥ | 450 Mpa       |
|                    |            | Tensile Strength h ≥            | 620 Mpa       |
|                    |            | Elongation % >                  | 25            |
|                    |            | Reduction of Area=>             | /             |
| Impact Value KV(J) | Room Temp. | <b>Lateral</b>                  | /             |
| Brinell hardness   | Room Temp. | ≤                               | 290           |
| Rockwell hardness  | Room Temp. | ≥                               | /             |

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

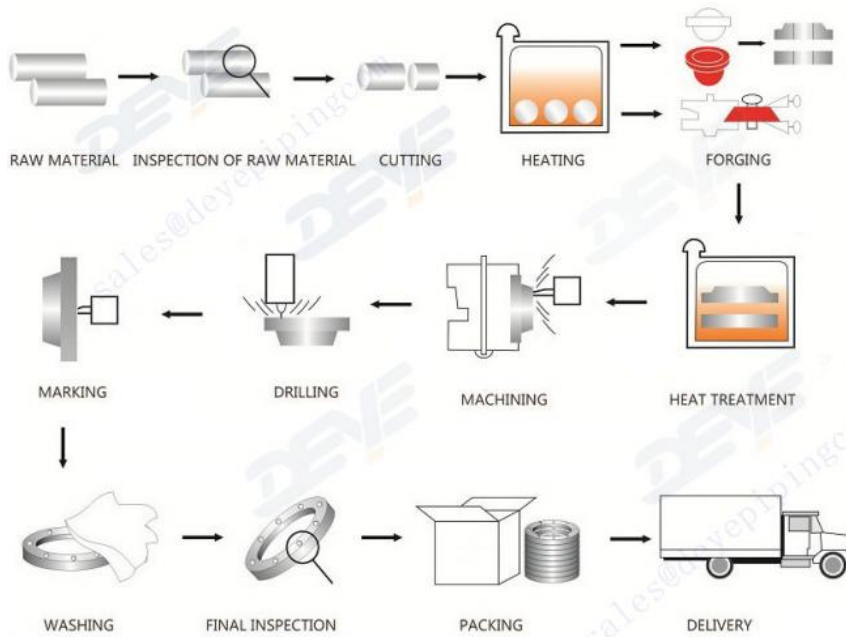
#### **Chemical Composition%**

| 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            | $\varnothing \leq 55 \text{ Rm} \geq$     | 550 Mpa       |
|                     |                         |                           | $\varnothing > 55 \text{ Rm} \geq$        | 515 Mpa       |
|                     |                         | Tensile Strength          | $\varnothing \leq 55 \text{ R0.002} \geq$ | 800 Mpa       |
|                     |                         |                           | $\varnothing > 55 \text{ R0.002} \geq$    | 760 Mpa       |
|                     |                         | Elongation A% (4D) >      | $\varnothing \leq 55 \geq$                | 15            |
|                     | $\varnothing > 55 \geq$ | 15                        |                                           |               |
| Brinell hardness HB | Room Temp.              | $\varnothing \leq 5 \leq$ |                                           | 310           |
|                     |                         | $\varnothing > 55 \leq$   |                                           | 310           |

#### Flange Production Process/ Manufacture Prodcedure

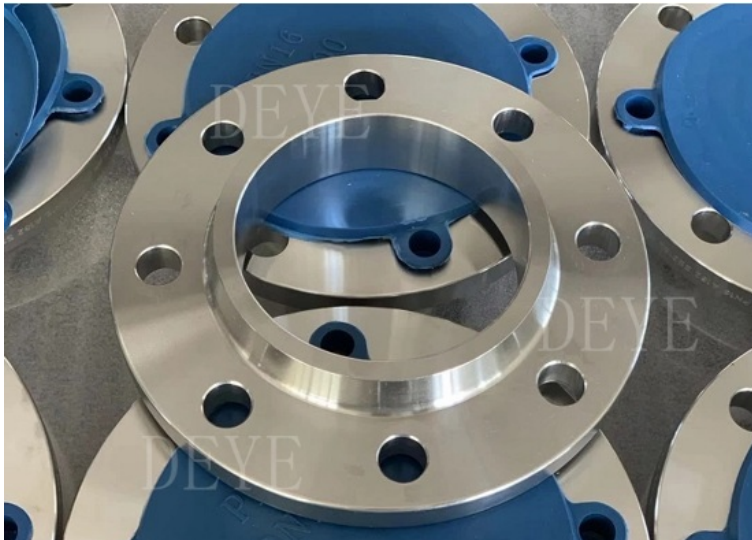


#### Application/Usage

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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