Cl150lbs 300lbs Raised Face Forged Steel Flange With ANSI B16.5 MSS SP 44

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: DEYE
- Certification: ISO9001:2015 PED
- Model Number: PF-FL-TH15
- Minimum Order Quantity: 10PCS
- Price: USD10-USD100 each pcs
- Packaging Details: Fumigation Ply-wooden cases
- Delivery Time: 30 days for usual order
- Payment Terms: T/T, L/C, D/P

Product Specification

- Standard: ASME B16.5, ASME B16.47, API 6A, EN 1092-1, BS 4504, BS 10, DIN, JIS, GOST.
- Material: A105, A105N, A350LF2, A182F22, F11, F56, F60, Stainless Steel
- Size: 1/2"(DN15)-88"(DN2200)
- 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.
- Surface: Black,Golden Yellow, Cold Galvanized, HDG. Anti-Rust Oil
- Highlight: **300lbs Forged Steel Flange**, **Forged Steel Flange ANSI B16.5**, **Cl150lbs forged flanges**

Product Description

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Flanges with raised face, Sealing this type of flange face is accomplished by compressing a soft, flat, or semi-metallic gasket between mating flanges in the raised area of the flanges. Raised face (RF) flanges are common in process plant applications but can be used in almost all applications. The raised face (RF) is the most common type of flange facing used. It is called a raised face flange because it has a raised surface above the bolting circle where the gasket is placed. These flanges are widely used in oil and gas pipelines.
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.

Product Information/Product Description/Basis Information/Specification

Product Name	**Cl150lbs 300lbs Raised Face Forged Steel Flange With ANSI B16.5 MSS**	
Types	Plate, Welding Neck, Slip on, Blind, Lap joint, Threaded Flange ,socket welding, Long weld neck, Loose Flanges,, Orifice, Blinds, customized,	
Face Finish	RFlat Face (FF), Raised Face (RF), Ring Type Joint (RTJ)	
Standard	ANSI	ANSI B16.5 ASME B16.47 series A/B, API605, AWWAC207
	DIN	DIN 2631 DIN2632 DIN2543 DIN2502 2573 2527 2565 DIN2566 DIN 2641,2642,
	GOST	GOST 12820-80,GOST 12821-80,Gost Blind
	EN	EN1092-1:2002
	JIS	JIS B2220-2004, KS D3576, KS B6216,KS B1511-2007,JIS B2261; JIS B8210
	BS	BS4504,BS10 Table D/E
	UNI	UNI 2253-67,UNI6091-67,UNI2276-67,UNI2280-67,UNI6089-67
	SABS	SABS 1123
Material	ANSI	CS A105/SA 105N
		Steels for Low Temperature Service: A 350 Grade LF 1, A350LF2, A350LF4, A350LF6, A350LF8. CL1/CL2, LF3 CL1/CL2,
		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),
	DIN	CS RST37.2;S235JR SS 304/304L,316/316L, Stainless steel 1.4301, 1.4404, SAF2205, SAF2507,
	GOST	CS CT20;16MN;SS 304/304L,316/316L
	EN	CS RST37.2;S235JR;C22.8SS 304/304L,316/316L
	JIS	CS SS400,SF440,SS 304/304L, 316/316L
	BS	CSRST37.2;S235JR;C22.8;Q235SS 304/304L,316/316L
	UNI	CSRST37.2;S235JR;C22.8;Q235SS 304/304L,316/316L

	SABS	CSRST37.2;S235JR;Q235;SS 304/304L,316/316L
Pressure	ANSI	Class 150, 300, 600, 900, 1500 2500lbs, with welded thickness of STD, SCH40, SCH80, SCH160. 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
Size	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
Surface	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.	

Features /Characteristics

•Carbon steel flanges shall not be used in services above 425 °C
•High-temperature service: Standard carbon steel material shall be ASTM A 105, a material that can be safely used for temperatures between minus 29 °C and 425 °C.
•Low-temperature Service: Carbon steel flanges used for services below minus 29 °C, shall conform to the impact-testing requirements of ASME B 31.3.
•ASTM A 350-LF2 shall be the standard material for low temperature applications
•High-Yield Service: High strength carbon steel flanges ASTM A694 should fit API Std. 5L pipe Grade X42 to X65.
•Material for low-alloy steel flanges (11/4 Cr – 1/2 Mo) shall be ASTM A 182-F11. Material for intermediate alloy steel flanges (11/2 Cr – 5 Mo) shall be ASTM A 182-F5.

Technology/ How to use and install the different flange types

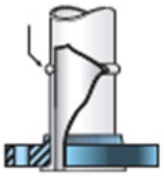
WELDING NECK FLANGES

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.



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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.

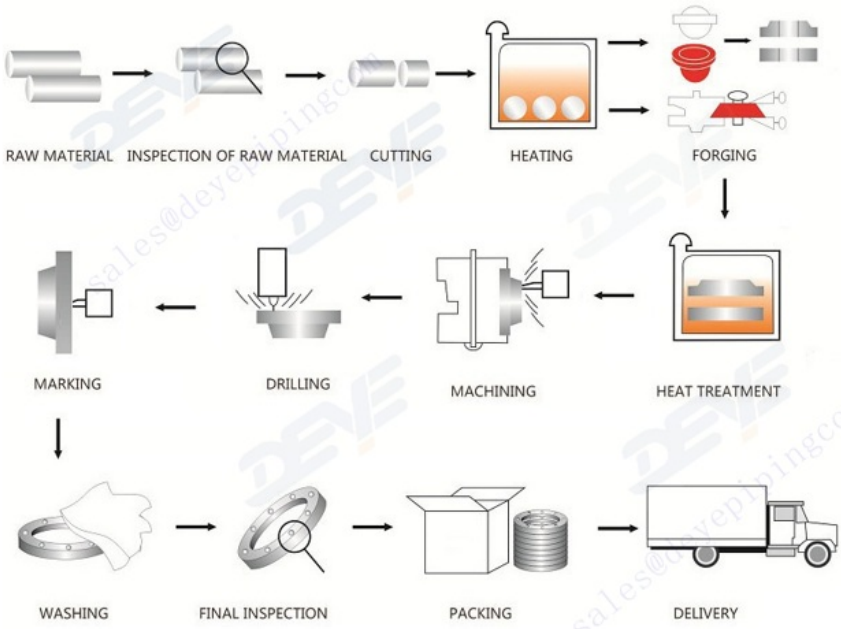
BLIND FLANGES
Blind flanges are utilized for pipe ends, and they bolted to any of the above flange types.

Material Grades:

ASTM Designatioin	Tensile strength		Fluency limit Elongation in 50 mm.			Stress	Brinell Hardness (HB)		Charpy - V Energy J		Testing Temp. ºC
	Ksi min.	MPa	Ksi min.	MPa	% min.	% min.			Min. 1 Test tube	Average 3 Test tubes	
A105 - 05											

		70	485	36	250	22	30	187 max.			
A182 - 07											
Grades	F1	70	485	40	275	20	30	143 - 192			
	F5	70	485	40	275	20	35	143 - 217			
	F11 Cl. 1	60	415	30	205	20	45	121 - 174			
	F11 Cl. 2	70	485	40	275	20	30	143 - 207			
	F11 Cl. 3	75	515	45	310	20	30	156 - 207			
	F22 Cl. 1	60	415	30	205	20	35	170 max.			
	F22 Cl. 3	75	515	45	310	20	30				
	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				
A350 - 04											
Grades	LF1 LF2 Cl. 1 LF2 Cl. 2	60 - 85 70 - 95 70 - 95	415 - 585 485 - 655 485 - 655	30 36 36	3 4 3 4 3 4	205 250 250	25 22 22	38 30 30	197 max. 197 max. 197 max.	14 16 20	18 20 27	-29 -46 -18
	LF3 Cl. 1	70 - 95	485 - 655	37.5 [3 4]		260	22	35	197 max.	16	20	-101
	LF3 Cl. 2	70 - 95	485 - 655	37.5 [3 4]		260	22	35	197 max.	20	27	-101
A694 - 03											
Grades	F42	60	415	42		290	20				
	F52	66	455	52		360	20				
	F56	68	470	56		385	20				
	F60	75	515	60		415	20				
	F65	77	530	65		450	20				
	F70	82	565	70		485	18				

Production Process



Flanged Standard

ASME B16.5
This is the most used flange standard worldwide. The standard includes forged, cast and laminated flanges. It covers service, materials, dimensions, tolerances, marking and testing for flanges. It also describes all flange types for size 1/2”to 24”Class 150#, 300#, 400#, 600#, 900# & 1500#, and 1/2”to 12”Class 2500#.
ASME B16.36
This standard is applicable to flanges for flow measurement with orifice plate.
ASME B16.36 flanges have the same dimensions as B16.5 flanges except for the minimum thickness that is increased to allow measurement orifices.
Moreover, two slots and bolts allow flange separation and the replacement of the measurement plate. It covers sizes from 1”to 24”Class 300# to 1500#, and sizes 1”to 12”Class 2500#.
MSS SP-44
An standardization used for thin thicknesses and high strength. It covers ranges from 12”to 60”Class 150# to 600# and up to 48”Class 900# only for blind and welding neck flanges. Outside diameter and drilling template matches with ASME up to 36. Therefore, they can be used with valves and pumps according to ASME.
ASME B16.47
This standard covers the previous one complementing it with materials, pressure ratings and temperatures from ASME B16.5. A type class is similar to MSS-SP44. B type is the same as API 605.
ASME B16.20
It includes materials, dimensions and marking of rings for steel flanges 1/2 to 24”Class 150# to 1500#, and 36”Class 900#.
API 6 A
API 6 A specification has been created for wellheads and Christmas trees.
It includes the standardization of lap joint flanges, which are dimensionally replaceable with ASME B16.5 ones but adding some tolerances with all sizes.
However, as API materials are more resistant, the maximum service pressure of API/ASME union is limited to that of lower performance flange.
EN1092-1
This European Standard for a single series of flanges specifies requirements for circular steel flanges in PN designations PN 2,5 to PN 400 and nominal sizes from DN 10 to DN 4000.

This European Standard specifies the flange types and their facings, dimensions, tolerances, threading, bolt sizes, flange jointing face surface finish, marking, materials, pressure/ temperature ratings and approximate flange masses.

For the purpose of this European Standard, "flanges" include also lapped ends and collars.
This European Standard applies to flanges manufactured in accordance with the methods described in Table 1. Non-gasketed pipe joints are outside the scope of this European Standard.

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.

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