

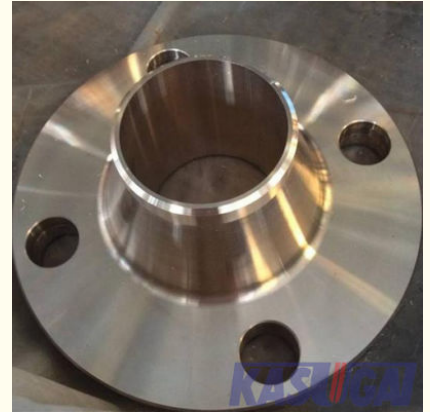


C70600 Welding Neck Flanges , ANSI B16.5/B16.47 Copper Nickel Fittings

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Kasugai
- Certification: ISO PED AD2000
- Model Number: C70600 ANSI B16.5/B16.47 WN
- Minimum Order Quantity: Negotiable
- Price: Negotiable
- Packaging Details: Seaworthy Packing
- Delivery Time: 30 - 60 working days
- Payment Terms: L/C, T/T
- Supply Ability: 200 ton per month



Product Specification

- Product Na: ASTM B151 C70600 ANSI B16.5/B16.47
Copper Nickel Weld Neck Flanges
- Size Range: 1/2" To 48"
- Pressure Class: Class 150, 300, 400, 600, 900, 1500, 2500
- Thickness: Sch10S To Sch160
- Standards: ASTM B151, ASME/ANSI B16.5/B16.47, JIS B2220
- Face Type: Weld Neck (WN)
- Highlight: **C70600 Welding Neck Flanges,
C70600 Copper Nickel Fittings,
ANSI Welding Neck Flanges**

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Product Description

ASTM B151 C70600 ANSI B16.5/B16.47 Copper Nickel Weld Neck Flanges

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Thickness	Sch10S to Sch160
Standards	ASME/ANSI B16.5/B16.47, JIS B2220
Type	Weld Neck (WN)
Dimensions	ASME/ANSI B16.5/B16.47, Custom Drawings
Origin	China

Standards & Materials: ASTM B151

Chemical Composition of ASTM B151 (%)

UNS	C	Ni	Pb	Fe	Mn	Zn	P	S	C
C70600	Remainder	9.0-11.0	0.05	1.0-1.8	1.0	1.0			
C71500	Remainder	29.0-33.0	0.05	0.40-1.0	1.0	1.0			

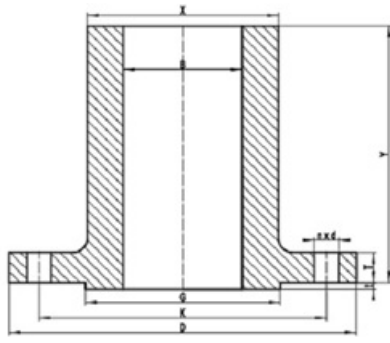
Mechanical Properties of ASTM B151 C70600

Temper Code	Dia. or Distance Between Parallel Surfaces (mm)		Tensile Strength, min (MPa)	Yield Strength at 0.5% Extension Under Load, min (MPa)	Elongation in 4xDia or Thickness of Specimen, min (%)
O60, M30	Round, Hex and Octagonal rods and square bars	All sizes	260	105	30
H04	Round, Hex and Octagonal rods and square bars	Up to 9.5, incl	415	260	10
		Over 9.5 to 25, incl	345	205	15
		Over 25 to 80, incl	275	105	30
		Over 80 to 125, incl	260	105	20
O60	Rectangular bars and shapes	All sizes	260	105	30
H04	Rectangular bars	Up to 9.5, incl	380	205	10
		Over 9.5 to 12, incl	345	195	12
		Over 12 to 80, incl	275	115	20
H04	Shapes	All sizes	(As agreed upon between the manufacturer or supplier and the purchaser)		

Flange Type: Weld Neck (WN)

A weld neck flange, also called a tapered hub flange or high-hub flange, is a kind of flange that can relocate stress to the pipes, ensuring a decrease in high-stress concentration at the bottom of the flange. There are two welding neck flanges designs – the first type is used with pipes while the second, longer type cannot be used with pipes but with a process plant. The weld neck flange comprises of a round fitting that extends beyond the rim of the circumference. These flanges, typically manufactured from forging, are actually welded to pipes.

Long Weld Neck Flanges (LWN)



A typical drawing for long welding neck flange with raised face made in accordance with ASME B16.5



A sample picture of a long weld neck flange

This flange type is regarded as high-hub flanges, which were created so stress could be transferred to the pipe and decreasing the stress concentration at the bottom of the flange.

The long welding neck flange is mainly applied to the construction of pressure vessel functioning as a nozzle (such as a thermowell nozzle). To attach a common welding neck flange to a pressure vessel, a piece of pipe is required with additional welding. A LWN flange on the other hand attaches directly to the vessel, hence, it can be viewed as an integrally reinforced nozzle. It avoids making a weld seam at pipe to flange and provides self-reinforcement.

Reducing Weld Neck Flange

It is also called reducing welding neck flange, because the flange neck has a reducing diameter that to weld to a smaller diameter pipe

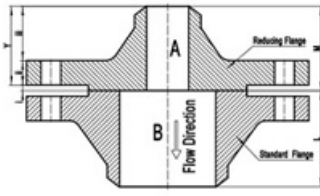


Figure-1: a reducing flange joint: reducing WN flange A and standard WN flange B.

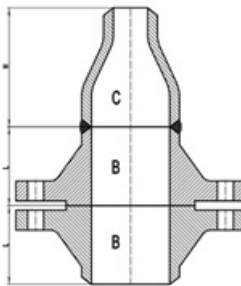


Figure-2: two standard welding neck flanges with one reducer to achieve



A sample picture of a reducing weld neck flange

The reducing weld neck flange is used to make a reduction in the diameter of the pipe. A reducing flanged joint consists of a reducing flange and a standard flange, functioning like a reducer fitting. As illustrated in Figure-1, the larger end of reducing flange A, which is in contact with the standard flange B, is known as "the size from which the reduction is being made"; the smaller end of the reducing flange A, which will be welded to a pipe, is known as "the size to which the reduction is being made". The flow should travel from the smaller size to the larger. If the flow direction were reversed, severe turbulence could develop.

In order to make a reduction in the pipe line with two standard welding neck flanges, an additional reducer shall be used as illustrated in Figure-2. The overall length of this configuration is $2L+H$, which is much longer than $L+M$ of a reducing flanged joint as illustrated in Figure-1. It means that the use of reducing flanges can effectively save space in crowded situation. In fact, the reducing flange is most frequently used in installations with limited space.