MF Companion- Flange

Introduction

The function of a flange is to enable pipeline connections by utilizing pairing to achieve connection and closure. Sealing gaskets are positioned between the flanges, and fasteners are tightened to ensure reliability and sealing of the connection. Flange connections offer easy assembly and disassembly, facilitating convenient replacements. When used in pairs, one is designed for instrumentation while the other is welded to the pipeline, mutually referred to as companion-flange. In this order guide, the flange welded to the pipeline is defined as the companion-flange, adhering to standard size specifications.

Functions

Welding neck flange

• Applicable to various high-temperature and high-pressure pipeline equipment connections, the primary functions include pipe connection, enhancing safety, adapting to high-temperature and high-pressure conditions, and convenient maintenance.

Plate flat welding flange

• The sealing face is only applicable to RF Raised face (within the recommended range). Its advantages include a simple construction, easy installation, reduced equipment and cost investments, while meeting various pipeline operating conditions.

Slip-on welding flange

• Compared to other pipeline connection methods, its advantages lie in high-pressure resistance, corrosion resistance, excellent sealing, and ease of operation.

Threaded flange

• This is a type of flange that utilizes threading for pipeline connections, eliminating the need for welding. When the flange deforms, it imposes minimal additional torque on the cylinder or pipeline, making it suitable for high-pressure pipeline connections.

Illustration

Welding Neck Flange

Plate Flat Welding Flange

Slip-On Welding Flange

Threaded Flange

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Items	Code	Description	
Type	WN	Welding neck flange	
	PL	Plate flat welding flange	
	SO	Slip-on welding flange	
	TH	Threaded flange	
Flange standards	2	HG/T20592	
	1	EN1092-1	
	5	HG/T20615	
	6	ANSI/ASME B16.5	
Flange diameter			Applicable standards
	A	DN25	HG/T-20592, EN1092-1
	B	DN50	HG/T-20592, EN1092-1
	C	DN80	HG/T-20592, EN1092-1
	D	DN100	HG/T-20592, EN1092-1
	1	1-in	HG/T-20615, ANSI/ASME B16.5
	2	2-in	HG/T-20615, ANSI/ASME B16.5
	3	3-in	HG/T-20615, ANSI/ASME B16.5
	4	4-in	HG/T-20615, ANSI/ASME B16.5
Pressure rating			Applicable standards
	1	PN10/PN16	HG/T-20592, EN1092-1
	2	PN25/PN40	HG/T-20592, EN1092-1
	3	PN63	HG/T-20592, EN1092-1
	4	PN100	HG/T-20592, EN1092-1
	A	Class 150	HG/T-20615, ANSI/ASME B16.5
	B	Class 300	HG/T-20615, ANSI/ASME B16.5
	C	Class 600	HG/T-20615, ANSI/ASME B16.5
Flange material	6	316 SS	
Flange sealing face	1	RF Raised face (Instrument - RF Raised face)	
	A	FM Female face (Instrument - M Male face)	
	B	M Male face (Instrument - FM Female face)	
	C	RJ Ring joint face (Instrument - RJ Ring joint face)	
Options		Description (Detailed specifications as following, multiple options or null)	
Sealing gasket	/SE1	Metal gasket	
	/SE2	PTFE gasket, applicable pressure ≤ PN16	
	/SE8	Octagonal gasket, 304 SS, applicable to RJ sealing face	
Bolts	/BL1	Bolts, nuts and other assemblies, carbon steel, high static pressure applications	
	/BL6	Bolts, nuts and other assemblies, 316 SS	