

PRODUCT SHEET

JOHNSTON COUPLING

Johnston couplings are used to connect prefabricated vacuum insulated piping and vacuum insulated flexible spools. The Johnston coupling consists of a male and female connector than can easily be installed without welding or special knowledge.



Transfer Lines

Conditioning Equipment

Components

Johnston Coupling

Welded Coupling

Blindcap / Endpiece

VI Demaco valve

Gas lock

Highly flex

Pipe end heater

Filling Stations

Controlling

BENEFITS

Low heat loss value due to vacuum insulation

Easy installation

No welding necessary on coupling

No special vacuum tools needed for installation

For DN10 up to DN25 universal model

APPLICATION

Universal connection between prefabricated VI components like pipe spools, conditioning equipment and interface connections

When fast and easy installment is required

When pipe spools are frequently disconnected

Installation at places were welding is not possible and/or allowed

Suitable as preparation for future extensions or disassembling

FEATURES

All stainless steel

Coupling securing by KF50 hinged clamp or flanges with bolt and nuts

Sealing as combination of cold metal sealing and warm pressure containing O-ring (O-rings with BAM approval on request)

High vacuum level insulation

Pressure Rates; up to PN40

Available sizes from DN10 (1/4") till 4" (DN100)

Qualified welding to the highest standards

Design suitable for design codes like AD2000/EN13480/ASME B31.3

Remarks:

- Limited possibility for routing adjustments
- NDE on coupling not possible

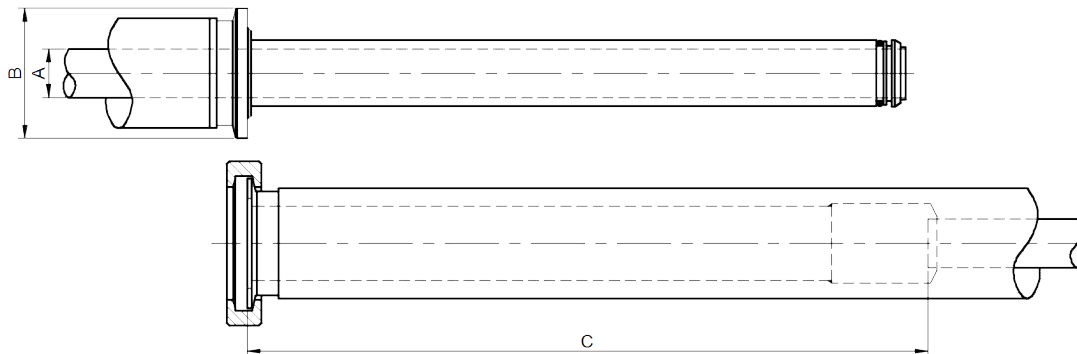
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PIPE SIZE	PROCESS PIPE O.D. A - (mm)	FLANGE CONNECTION (Type)	FLANGE DIAMETER B - (mm)	COUPLING LENGTH C - (mm) ⁽¹⁾	DESIGN PRESSURE (barg)	HEAT LOSS INDICATION (W) ⁽²⁾
DN10 Small	∅ 12x1	Threaded	50	225	25	2.0
DN10	∅ 12x1	KF50 Clamp	75	400	40	4.2
DN15	∅ 18x1	KF50 Clamp	75	400	40	4.2
DN25	∅ 28x1	KF50 Clamp	75	400	40	4.2
1/2"	∅ 21.3x1.6	Flanged	130	500	40	5.8
1"	∅ 33.7x1.6	Flanged	130	500	40	5.8
1 1/2"	∅ 48.3x1.6	Flanged	140	500	40	5.8
2"	∅ 60.3x1.6	Flanged	177	700	40	7.6
2 1/2"	∅ 76.1x2	Flanged	200	700	16	8.2
3"	∅ 88.9x2	Flanged	213	700	16	11.2
4"	∅ 114.3x2	Flanged	250	800	16	14

(1) Standard length until -200°C. For much colder Hydrogen and Helium longer lengths are used

(2) For Helium and hydrogen design versions with reduced heat loss are available



MATERIALS

Tubes and machined parts

1.4301/1.4306/1.4307 ~304/304L

Optional: 1.4401/1.4404 ~316/316L

KF50 clamp

Stainless steel

Bolts and Nuts

Stainless steel A2

Warm pressure containing seal

O-ring (Viton, Buna-N or EPDM)

Cold Seal

Metal seal

DESIGN SPECIFICATIONS

According Pressure Equipment Directive (PED)

Applicable for AD2000, EN13480 or ASME B31.3

Suitable for N₂, O₂, Ar, LNG, H₂, He, CO₂

Suitable for ambient temperatures till -35°C

Static vacuum with Multi-Layer Insulation

O-ring seal leakage <1x10⁻⁸ mbarl/sec

OPTIONS

Other dimensions on request

Reduced heat-losses for Helium or Hydrogen applications

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