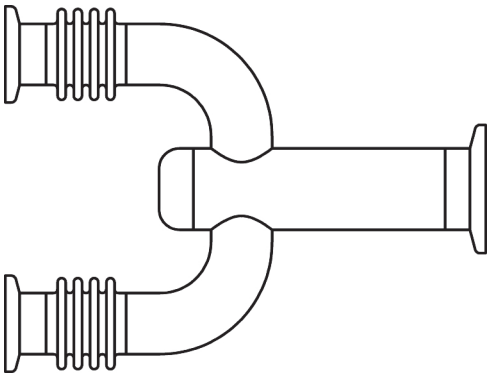
Recommendations for molbloc-S® Downstream Tee Assembly

P/N 401884

INSTRUCTION SHEET

FLUKE® Calibration

The downstream tee assembly, P/N 401884, is used to combine the outlet of two molbloc-S® elements mounted on the same molstic-S. This can be done for the purpose of combining their individual flow measurement capacity, or to consolidate their plumbing connection for use with a downstream vacuum pump or exhaust line.



When connecting the downstream tee assembly, install the centering rings and over pressure rings on both molbloc-S elements prior to installing the clamps.

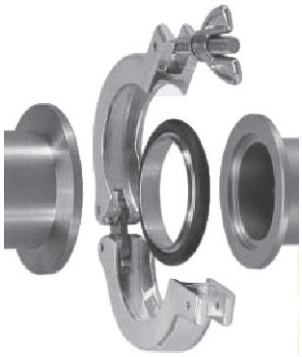
The downstream tee assembly connects the (2) 16 mm ISO-KF style vacuum flanges of the molbloc-S elements, and has a 25 mm ISO-KF style outlet flange.

CONNECTING, DISCONNECTING AND MOUNTING MOLBLOC-S COMPONENTS WITH ISO-KF STYLE VACUUM FLANGES

ISO-KF Style Vacuum Flange Fittings

The outlet connection system on the molbloc-S body is the ISO-KF style vacuum flange. It utilizes an internal centering ring, an external overpressure ring and clamp. The seal is effected by the uniform application of pressure by the clamp on the 15° surface of the mating stainless steel flanges. These mating flange surfaces compress a Viton O-ring that is held in place by the centering ring. The overpressure ring keeps the O-ring in place, and maintains a leak free connection when the system is subjected to internal pressures above vacuum level. This connection is reusable, rotatable, and can operate leak free in vacuum applications up to 10^{-8} Torr, and in positive pressures of 700 kPa (100 psig).

Making and Breaking Procedure for molbloc-S ISO-KF Vacuum Flange Connection



❶ Place the overpressure ring past one of the ISO-KF flanges to be mated.

❷ Place the centering ring into the groove of the ISO-KF flange on the outlet of the molbloc-S.

❸ Align the mating flange against molbloc's ISO-KF flange, and close the gap by hand.

❹ Hold the flanges together and move the overpressure ring directly over the mated flanges.

❺ Place the clamp around the mated flanges. Swing the clamp closed. If necessary loosen the thumbscrew to allow the thrust washer and wing nut to fall into position on top of the clamp. Fully tighten the wing nut by hand.

❻ To break the fitting, hold the molbloc-S with your hand and loosen the wing nut until the clamp can be separated. Remove the clamp, centering ring, and overpressure ring.·

Never use wrenches to hold the molbloc-S body, or to tighten the clamp.

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Leak Testing a Plumbing System Containing the Downstream Tee Assembly

Utilize the included 25 mm ISO-KF style blanking flange, P/N 103239, to close off the outlet plumbing of the downstream tee assembly.



When performing a leak test of a plumbing system that contains the ISO-KF Style Vacuum Flanges, do not exceed the maximum operating pressure of the molbox: 600 kPa (87 psia) for molbox A700k models or 250 kPa (36 psia) for molbox A350K models!

PARTS INCLUDED IN DOWNSTREAM TEE ASSEMBLY

The following parts are included in the downstream tee assembly shipment:

P/N 401884
molbloc-S Downstream Tee Assembly

DESCRIPTION	QTY	PART NO.
Downstream Tee Assembly	1	123607
25 mm ISO-KF Centering Ring	1	101542
25 mm ISO-KF Over-Pressure Ring	1	103241
25 mm ISO-KF Clamp	1	102121
25 mm ISO-KF Blanking Cap	1	103239