

# Cynergy® Clamp Ferrule Fitting Assembly Procedures

## PRODUCT SPECIFICATIONS

<b>Maximum operating pressure</b>	689 kPa (100 psig) at ambient temperature
	414 kPa (60 psig) at 2°C (35°F) and 448 kPa (65 psig) at 90°C (194°F)
<b>Cyclic steam capability</b>	359 kPa (52 psig) saturated steam at 149°C (300°F)

The versatile Cynergy® clamp adapter enables you to connect any standard sanitary clamp fitting to Cynergy PFA tubing — permanently connecting your system via the unique Cynergy welding process.

### Cynergy Beadless Welding

The automated Weld-in-Place™ equipment enables trained individuals to construct Cynergy fluid handling systems on site. An all-Teflon® PFA installation can be welded in place, allowing for a system that is fully drainable and CIP/SIP capable. The equipment provides continuous monitoring of the weld process and collects data required for validation. The equipment is available for lease or sale. Please contact your Entegris distributor or Entegris, Inc. for additional information.

### Cynergy Clamp Connection Assembly

1. Clean the Cynergy clamp fitting face with isopropyl alcohol (IPA) to remove surface contaminants and particles.
2. Select the recommended sanitary gasket and clamp specified in Table 1.
3. Place the appropriate gasket between the two sanitary flanges (see Figure 1).
4. While holding the flanges together, place the clamp around them and secure the clamp. Tighten the clamp to the torque specification shown in Table 1.

**NOTE: Laboratory testing of Cynergy clamp fittings shows performance reliability is dependent on the type of clamp and gasket used. Entegris strongly recommends the use of Tri-Clamp® three-piece clamps for 1", 1½", and 2" sizes, and Tri-Clamp two-piece clamps for ¼", ½", and ¾" sizes. Entegris also recommends the use of sanitary gaskets by Tri-Clover® or Newman with Entegris' Cynergy clamp.**

**The use of any PTFE material gaskets will significantly reduce the pressure performance ratings of Cynergy clamp connections. Please contact your Entegris distributor or Entegris, Inc. for gasket material recommendations.**

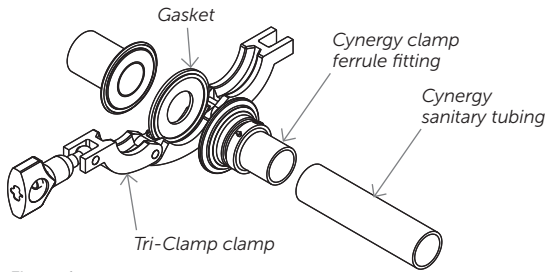


Figure 1.

Table 1.

CYNERGY CLAMP CONNECTION SIZE	TRI-CLOVER EPDM GASKET PART NUMBER	ENTEGRIS EPDM GASKET PART NUMBER	NEWMAN EPDM GASKET PART NUMBER	TRI-CLAMP CLAMP PART NUMBER	ENTEGRIS CLAMP PART NUMBER	CLAMP TORQUE
¼"	—	1333-022	0-42MP-E-¼	13MHHS-¾-S	01-008141	1.7 N•m (15 in•lbs)
½"	42MP-E-½	01-008136	—	13MHHS-¾-S	01-008141	1.7 N•m (15 in•lbs)
¾"	42MP-E-¾	01-008137	—	13MHHS-¾-S	01-008141	1.7 N•m (15 in•lbs)
1"	40MP-E-1	01-008138	—	13MHHS-1½-S	01-008142	2.8 N•m (25 in•lbs)
1½"	40MP-E-1½	01-008139	—	13MHHS-1½-S	01-008142	2.8 N•m (25 in•lbs)
2"	40MP-E-2	01-008140	—	13MHHS-2-S	01-008143	2.8 N•m (25 in•lbs)

### FOR MORE INFORMATION

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