



# TRYNOX<sup>®</sup>



**CLAMPSENSE BY TRYNOX**

Without a doubt, food and beverage production is something that has always been held in high standard with regard to hygiene. But, in the past few decades, sanitation and hygiene has become a growing concern among food processing, manufacturing business and industry professionals. One of the most common items used in the food and beverage industry susceptible to contamination in piping systems are sanitary gaskets and seals.

Unions used in the sanitary piping are commonly known as clamp unions. Thousands of these devices are installed worldwide in food and beverage processing plants. The process of installing, maintaining, cleaning and removing these sanitary gaskets is a critical aspect of preventing bacteria growth.

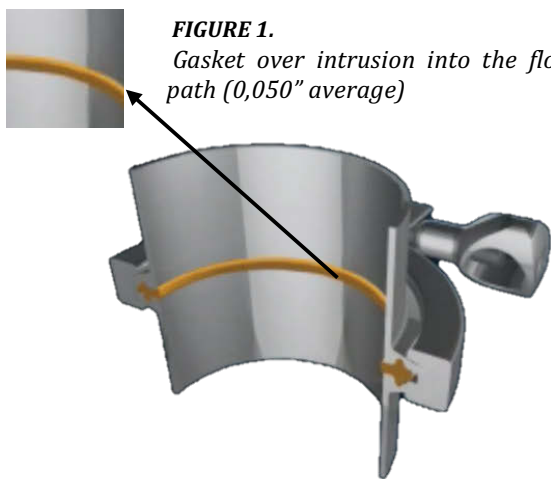
Unfortunately, the operation of the clamps is susceptible to human manipulation. Inconsistencies in how much a clamp is tightened results in either a recess or intrusion of the gasket, relative to the ferrule and, ultimately, into the flow path.

Figure 1 shows how the intrusion disturbs product flow. Even when the CIP solution, a pipe cleaning solution, flows through the system it becomes clearly evident that the space beneath the intrusion is not being cleaned properly.

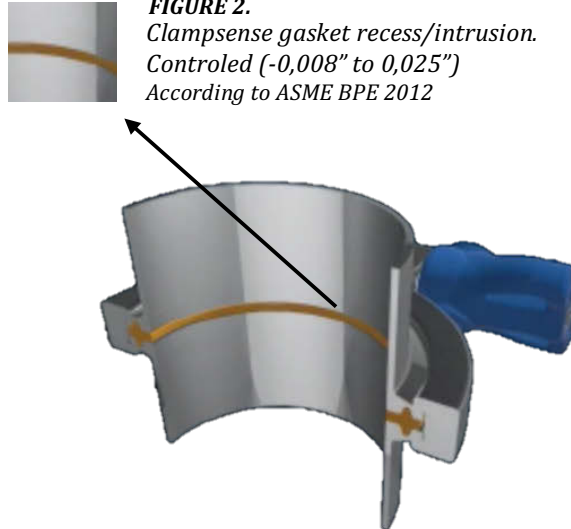
Typically, a gasket intrudes approximately 0.050 inches into the flow path, which, in turn, increases the potential for cracking of the gasket material. This crack could potentially harbor bacterial growth or cause material to break off into the finished product.

One solution to this issue is Trynox *Clampsense*. This is a precision limit torque adjustable clamp which has been engineered to consistently achieve intrusion levels of less than .008 inches into the flow path. This eliminates the possibility of cracking. Therefore, eliminating the risk of gasket debris in the product stream or harmful bacterium growing in crevices that the CIP failed to adequately reach, as shown in figure 2.

**FIGURE 1.**  
*Gasket over intrusion into the flow path (0,050" average)*



**FIGURE 2.**  
*Clampsense gasket recess/intrusion. Controlled (-0,008" to 0,025") According to ASME BPE 2012*





User friendly, easy removal and replacement, same weight than standard clamps.

Ergonomic handle.

Keyless clamp fitting, adjust torque set point using a coin.

Available in two materials: nylon and stainless steel.

Torque limit the clamp pressure through clamp sides by sensing the sealing strength applied over the sanitary gasket.

Suitable any tri-clamp unions and gaskets diameters.

Fits to Sanitary Stainless Steel Tubing, has been engineered to consistently achieve gasket intrusion levels of less than +0.025"/-0.008" into the flow path. This mitigates the possibility of cracking, gasket debris in the product stream or harmful bacteria growing in crevices that the CIP failed to adequately reach. Has a maximum operating pressure rating of 140 pounds per square inch (psi) at 70 degrees F ambient temperature. This sanitary gasket is suitable for use in food, beverage, and other hygienic applications.

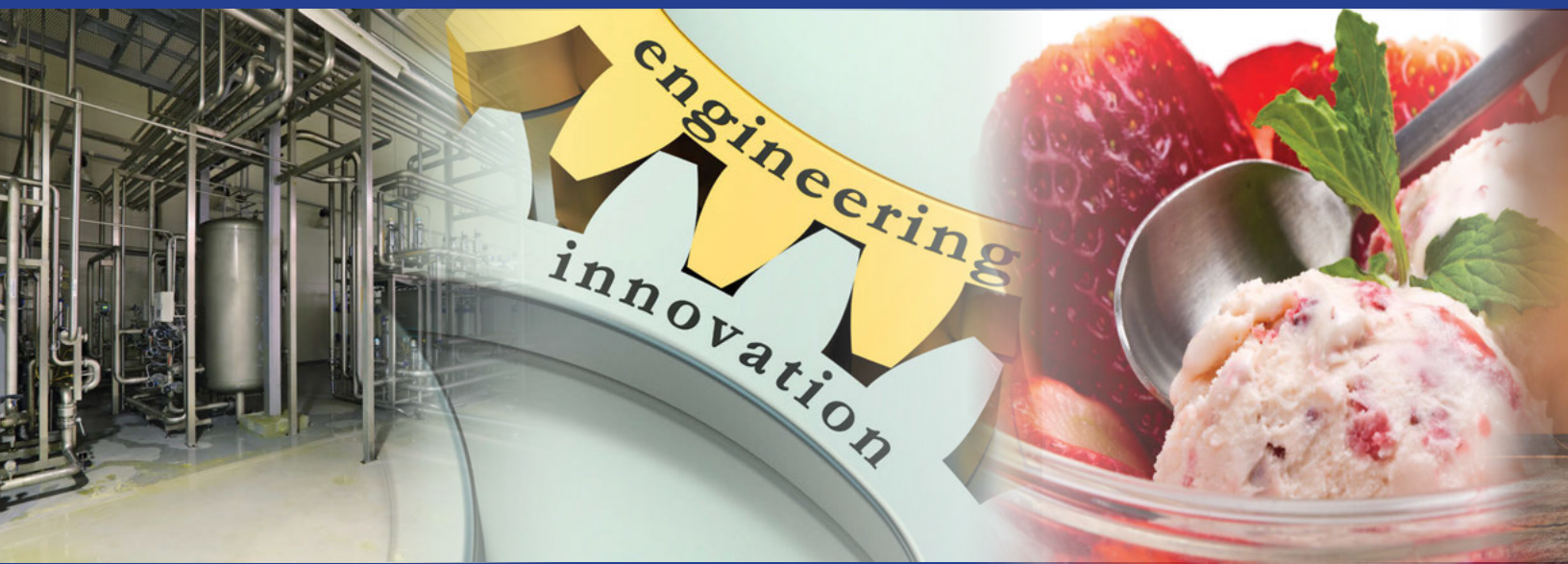
#### CLAMPSENSE

Size		Ref.	A		Net. W. (#)	
Inch	mm		Inch	mm	A	S
0.5" - 0.75"	12.7 - 19.0	T13VT.5/.75?	1-3/16"	30.16	0.29	0.44
1.0" - 1.5"	25.4 - 38.1	T13VT1/1.5?	2-1/8"	53.90	0.47	0.62
2"	50.8	T13VT2.0?	2-21/32"	67.41	0.51	0.66
2.5"	63.5	T13VT2.5?	3-3/6"	80.90	0.78	0.93
3"	76.1	T13VT3.0?	3-23/32"	94.41	0.77	0.92
4"	101.6	T13VT4.0?	4-13/16"	122.43	1.24	1.39
6"	152.4	T13VT6.0?	6-11/16"	170.05	2.20	2.35
8"	203.2	T13VT8.0?	8-11/16"	220.85	2.45	2.6

NOTE: Substitute the letter "?" at the reference to "A" for ABS Handle and to "S" for Stainless Handle.

If you want to know more information about *Clampsense* visit our website at [www.trynox.com](http://www.trynox.com) or if you want to order visit our distributor's online store at [www.chemsealinc.net](http://www.chemsealinc.net).





If you want more information about our products and services, feel free to contact us at our email address [trynox@trynox.com](mailto:trynox@trynox.com) or visit our web page [www.trynox.com](http://www.trynox.com)



**TRYNOX®**



7871 W 25<sup>th</sup> ct.  
Hialeah, Florida 33016  
(888) .337.0649