CamNut™

- Eliminates Thread Galling and Increases Accuracy
- Extreme Temp Resistance (-40°C to +650°C)
- Modular System for Simultaneous Loading
- Enables Tensioning on Short Bolt Grips

Technofast's **CamNut™** tensioning system is a revolutionary, compact solution designed to provide affordable and efficient bolt tensioning without the need for hardware modifications.

Capable of operating in extreme temperatures ranging from -40°C to +650°C, the H1 and H2 series fit standard OEM machine specifications without altering existing bolts or spot faces.

This system allows users to apply direct hydraulic tensioning to turbines, valves, and other critical hardware, eliminating thread galling and increasing bolt load accuracy.

Operation

Standard bolt tensioning requires additional thread length above a hex nut for a tool to grip. The **CamNut™** removes this requirement by replacing the standard nut and serving as the direct attachment point for a separate hydraulic bolt tensioner.

During operation, the external tensioner pulls on the bolt through the **CamNut™**, and the nut's integral collar expands to take up the bolt's elongation.

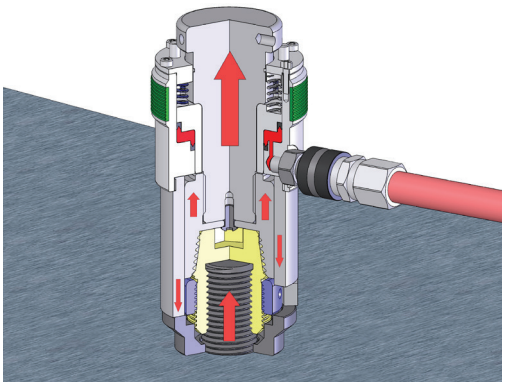
Once the hydraulic pressure is released and the load is retained by the collar, the tensioner is removed for use on the next bolt. This modular system allows for the simultaneous tensioning of multiple bolts, ensuring even joint and gasket compression.

Features

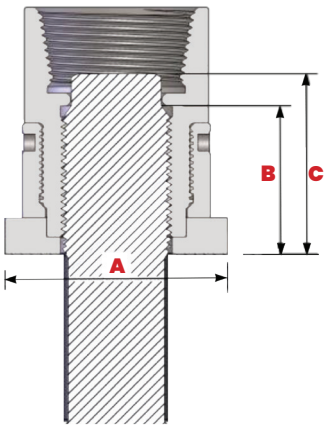
The patented **CamNut™** system is designed for ease of use in restricted spaces or adverse conditions.

Some features of the **CamNut™** are:

- Modular construction reduces overall tool weight
- Quick nut-to-tensioner connection saves time
- Ideal for short bolt grip lengths
- Operates from -40°C up to +650°C
- Fast fitting requires little physical effort
- Eliminates expensive stud replacement for grip
- Fits standard OEM machines without modifications
- Suits large bolts and simultaneous tightening modifications
- Suits large diameter bolts and simultaneous tightening



Specifications



Tensioner	Model Part # -40°C to 400°C	Model Part # 400°C to 560°C	Thread Size	Force Produced (kN)	(A) Nut OD (mm)	(B) Max Stud Length	(C) Max Stud Length with Hex	Nut Weight (kg)
CT-HS-04	H1-CN-112X8	H2-CN-112X8	1.75"	587.03	Ø74	64.0	66.55	2.03
CT-HS-05	H1-CN-200X8	H2-CN-200X8	2"	814.14	Ø84	70.0	73.15	2.75
CT-HS-06	H1-CN-204X8	H2-CN-204X8	2.25"	1011.14	Ø94	72.0	82.55	3.44
CT-HS-07	H1-CN-208X8	H2-CN-208X8	2.5"	1245.75	Ø104	79.0	88.9	4.47
CT-HS-08	H1-CN-212X8	H2-CN-212X8	2.75"	1418.95	Ø114	85.0	98.55	5.60
CT-HS-09	H1-CN-300X8	H2-CN-300X8	3"	1788.20	Ø124	86.0	98.55	7.07
CT-HS-10	H1-CN-308X8	H2-CN-308X8	3.5"	2425.10	Ø144	94.0	117.35	9.90
CT-HS-11	H1-CN-400X8	H2-CN-400X8	4"	3041.60	Ø164	107.0	130.05	14.45
CT-HS-12	H1-CN-408X8	H2-CN-408X8	4.5"	4069.32	Ø183	119.0	146.05	18.79
CT-HS-13	H1-CN-500X8	H2-CN-500X8	5"	4782.12	Ø203	129.0	158.75	25.13
CT-HS-14	H1-CN-508X8	H2-CN-508X8	5.5"	6112.58	Ø223	145.0	177.80	33.72
CT-HS-15	H1-CN-600X8	H2-CN-600X8	6"	7088.87	Ø244	154.0	190.50	41.53

If the standard **CamNut™** does not meet your space or load requirements, custom designs are available on request. For detailed technical specifications and further information, please contact Technofast Industries. This product is protected by Worldwide Patents. **Patent No: PCT/WO2005/123345**

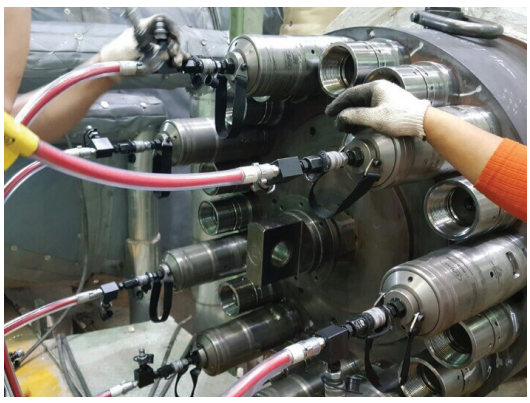
1. Fasten **CamNut™** onto bolt stud before fastening tensioner tool into place

2. Connect hose and pressurise tensioner

3. Screw lockring against washer

4. Release pressure and disconnect hose to remove tensioner tool

H1 & H2 Series Comparison

The H1 and H2 series are engineered to fit within standard OEM machine specifications without hardware modifications:

Series	Temperature Range	Application Focus
H1 Series	-40°C to +560°C	Standard turbines, valves, and OEM hardware
H2 Series	-40°C up to +650°C	High-temperature and extreme environment hardware