



CAPoTECT® Introduction

Ready for you



## **BOLT AND NUT PROTECTIVE SYSTEM**

Industrial nuts and bolts are difficult to protect because of their odd shapes and restricted accessibility. Fluorocarbon coating has been used as an alternative but this too has proven to be inadequate as it cannot prevent mechanical damage.

In response to the need for a cost effective, environment friendly solution MAROON SAZEH SHIRAZ has designed a solution

called CAPoTECT® which are protective caps hugging bolts and nuts tightly preventing physical and chemical damage. This product can easily help withstand the tough technical challenges of offshore engineering.

CAPoTECT® has a unique design which essentially insulates the exposed products from the harmful effects of the corrosive atmosphere by enclosing it within a near vacuum environment.

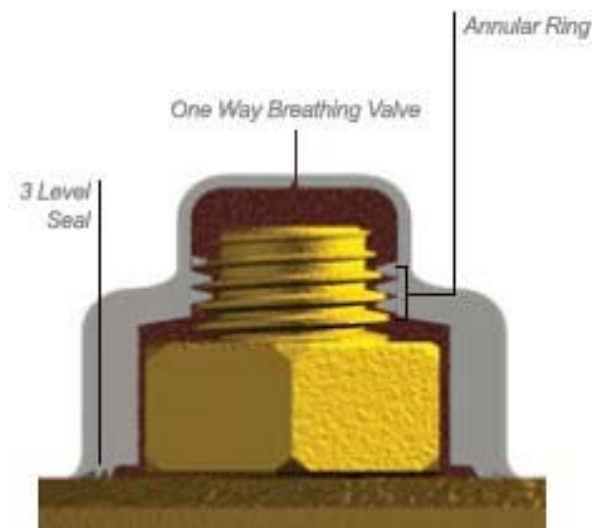


The difference between bolt&nut with (right) and without (left) CAPoTECT

CAPoTECT® is ideal against all types of corrosion and in particular against crevice and galvanic or bimetallic corrosion.

Protective system can effectively reduce or eliminate the harmful effects of crevice and galvanic corrosion on nuts, bolts and flanges.

By creating a near vacuum environment, Our Bolt&Nut





## Maroonsazeh Shiraz Company

The Bolt&Nut Protective Caps can be made from various rubber compounds depending on our customers demand and environmental conditions. For normal offshore platform applications, the caps are made of Special rubber which can withstand a maximum continuous temperature of 95 °C. The caps have UV blocker blended with the rubber compound to withstand the UV rays which can normally accelerate the

### Application

Installation is simple and easy as the caps can be pressed onto the nuts and bolts. CAPoTEC® has been designed and produced to meet the harsh conditions of offshore environments due to its flexible, soft and resistant material.

More importantly, it eliminates the need for time consuming and destructive removal procedures such as the use of hack saws and cutting

ageing process. For higher temperature applications, other alternatives are available which can withstand a maximum temperature of about 200 °C.

By using CAPoTEC®, carbon steel stud bolts and nuts can be used instead of the more expensive Fluorocarbon coated version, thereby reducing capital cost drastically.

torches during maintenance. Furthermore the bolt & nut caps can be detached and attached repeatedly with minimal effort. For maximal functionality and protection some special grease should be applied around the coverage area before installation.



### Benefits:

- Immediate cost savings of 30% to 40% on maintenance or bolt&nut replacements, Extends the useful life of nuts and bolts and reduce time spent on regular inspection and maintenance
- Eliminates the need for time consuming and destructive removal procedures such as the use of hack saws and cutting torches.
- Extends the useful life of the nuts and bolts.
- Reduces time spent on regular inspection and maintenance.
- Made from top quality non-flammable silicone rubber under stringent quality control
- Flexible, reusable and designed to fit nuts and bolts sized between 0.5 to 3.5 inches
- Our product will not harden under long UV exposure
- Able to withstand heat ranging up to 150 °C or more upon special request





## Protective Cap Standard Sizes\*

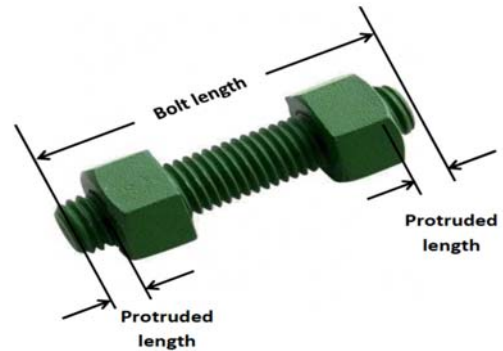
### → Standard Size

5/8" x 3/4" Height

3/4" x 3/4" Height

7/8" x 3/4" Height

1" x 3/4" Height



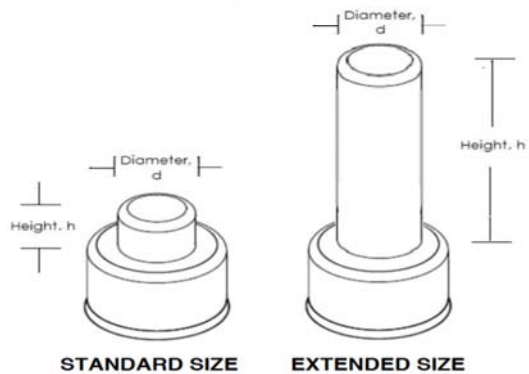
### → Extended Size

5/8 x 1 1/2" Height

3/4" x 1 1/2" Height

7/8" x 1 1/2" Height

1" x 1 1/2" Height

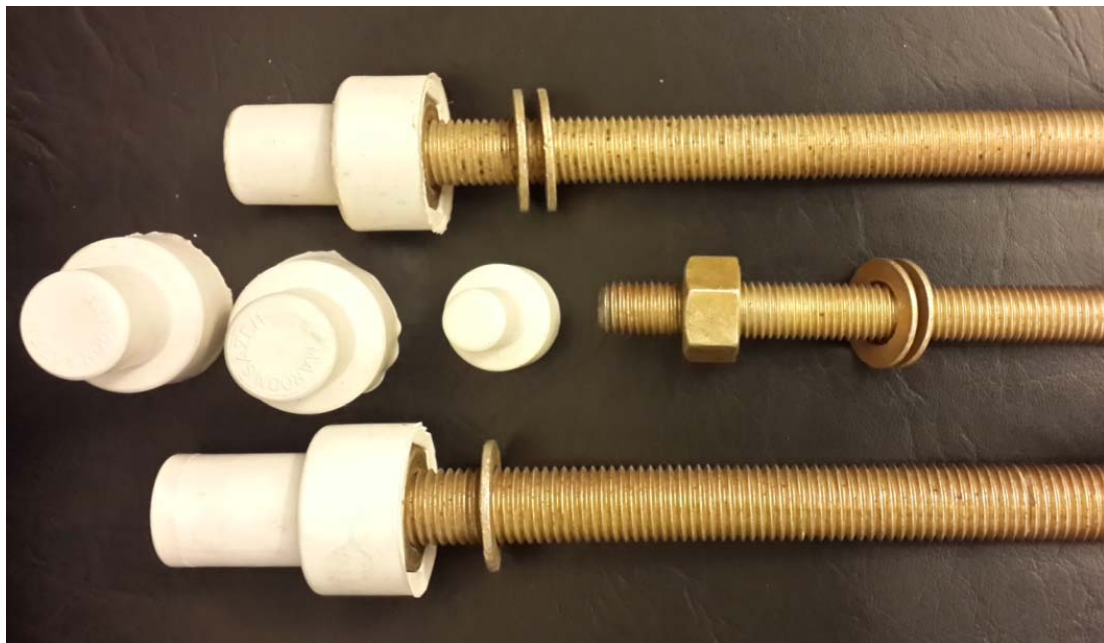


**\*Our product range is wide and we produce as per client demand. In addition to size material is also flexible to order.**



**Bolt&Nut Mechanical Characteristic**

| Characteristics             | Value            |
|-----------------------------|------------------|
| Linear Shrinkage            | 3.8              |
| Hardness (JIS)              | 50               |
| Tensile Strength (Mpa)      | 8.8              |
| Elongation (%)              | 350              |
| Tear Strength (kN/m)        | 13               |
| Compression Set (%)         | 10               |
| Dielectric Strength (kV/mm) | Dry 24<br>Wet 20 |



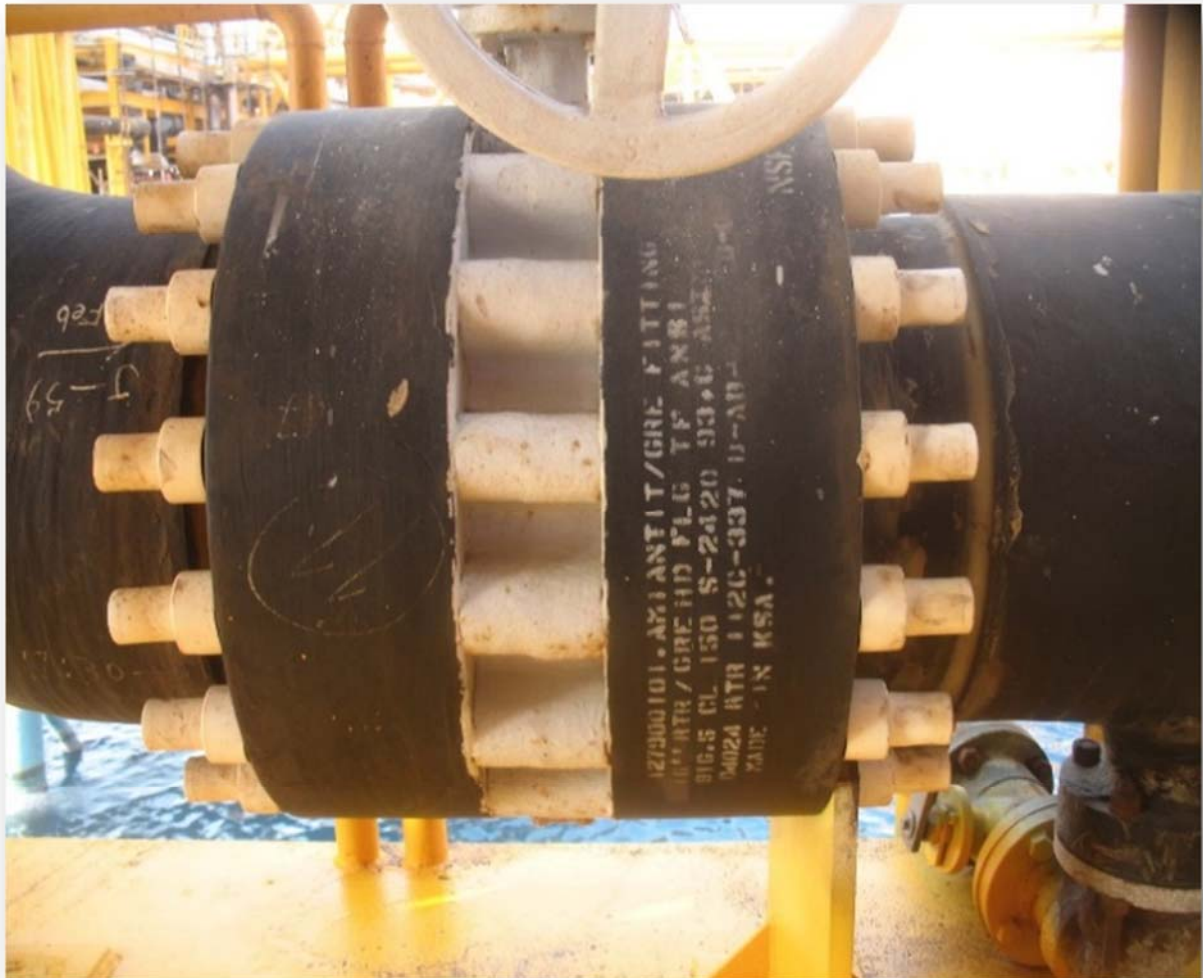


**CAPoTEC Installed Onsite**













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