

Corrosion Fitting Seized Cap Removal

Overview

Moss was approached by one of its sister companies, North East Corrosion Engineers (NECE), to engineer a solution to the problem of the removal of seized thread protection and pressure retaining caps on corrosion monitoring access fittings.

Scope

Seized caps prevent maintenance of corrosion monitoring devices resulting in loss of monitoring capability and potential integrity threats if left unrectified. It has become common practice to carry out costly replacement of complete spools or flanged access fittings in order to reinstate monitoring capability and ensure integrity of process systems is maintained.

Challenges

Historical methods to remove seized caps have been time consuming, primitive and potentially risky (i.e.: hand saws and heat as examples). It has become common practice to consider costly replacement of complete spools or flanged access fittings in order to reinstate monitoring capability. Care needs to be taken during the removal operation to ensure that the threaded portion of the fitting is not damaged.

Solution

A portable keymill machine complete with vee block mounting arrangement is clamped to the seized cap. Using a multi flute cutting tool a slot, or if necessary slots, are milled into the cap to expose the threaded portion of the fitting to release the cap for removal.

Achievements

This approach has been successfully taken up by many onshore and offshore locations, they have benefited from:

- Integrated service approach from Moss & NECE leading to improved productivity
- Cost effectiveness when compared to spool or fitting replacement
- No loss in continuity of corrosion monitoring ability
- Ability to successfully instate secondary isolation where thread protection caps are currently installed.



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