

Corrosion Fitting Seized Plug 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 plugs in corrosion monitoring access fittings.

Scope

Seized plugs 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

There are various configurations of plug and probe devices that may be encountered.

The equipment must be compact and light weight due to potential access restraints.

It is imperative that the integrity of the fitting body is not affected by the machining process as this may affect pipework integrity.

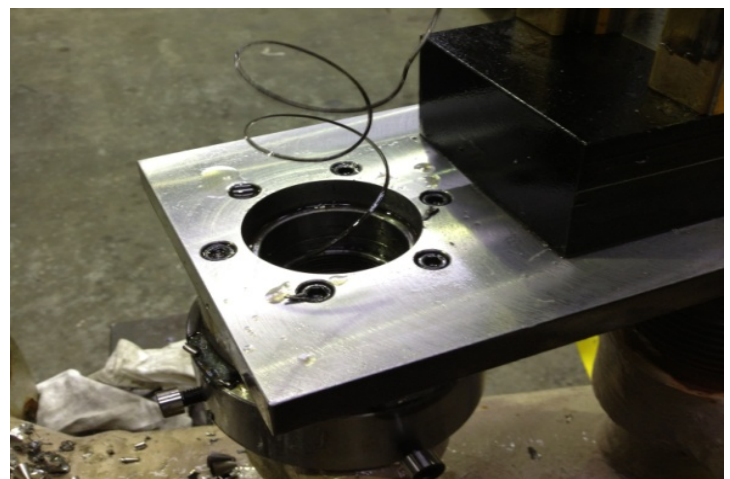
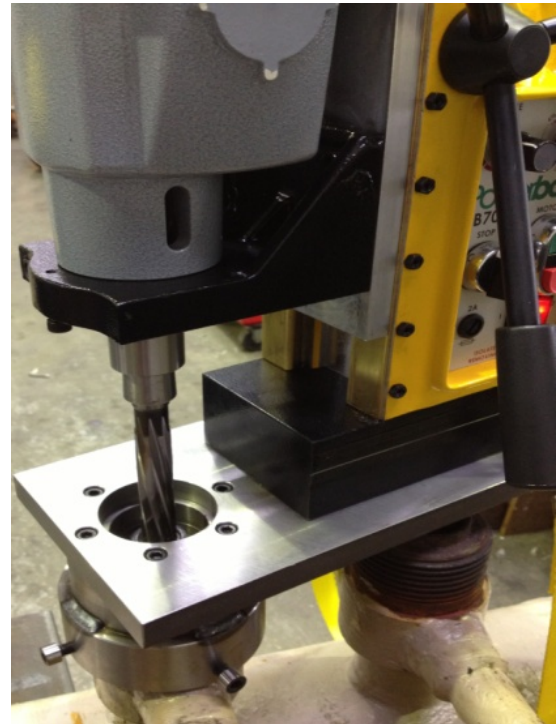
Solution

Workshop trials were carried out to devise a kit of cutting tools to deal with the various solid plug and probe configurations. Drilling machines of a suitable machining capacity and physical size were determined (both air and electric to cover varied site requirements) together with a specially designed mounting arrangement. The equipment and the machining procedure was designed to ensure that no damage would occur to the access fitting body.

Achievements

This approach has been successfully employed by several onshore and offshore locations, they have benefited from: Integrated service approach from Moss & NECE leading to

- Confirmation of access fitting integrity
- improved productivity
- Cost effectiveness when compared to spool or access fitting replacement
- No loss in continuity of corrosion monitoring ability



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