SUCCESS STORY:
Using Quick Disconnects for Sensoteq Wireless Sensor Installation

Introduction

CTC's distribution partners, JetTech Mechanical, were commissioned to perform condition monitoring services using Sensoteq Kappa X Wireless Sensors with M6 thread.

To ensure reliable and repeatable data collection, JetTech Mechanical elected to pair Sensoteq Kappa X sensors with CTC's MH107-5A Quick Disconnect Receptacle and compatible Quick Disconnect Studs, providing consistent mounting locations for portable data collection routes.

Overview

JetTech utilized two proven field-mounting techniques and best practices for achieving successful, repeatable Quick Disconnect installations:

- **» Adhesive mounting**
- **» Through-hole mounting**

Each method supports consistent sensor placement, improved data repeatability, and long-term monitoring performance.

Suggested Quick Disconnect Receptacle

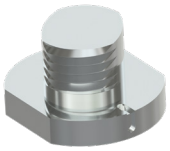
CTC offers the MH107-5A Quick Disconnect Receptacle specifically engineered for use with M6x1 wireless sensors, like the Sensoteq Kappa X. The innovative design with adjustable orientation integral stud makes installation straightforward while also ensuring a secure, long-term connection in the field.

MH107-5A
Quick disconnect receptacle
with M6x1 adjustable orientation integral stud mounting bolt,
corrosion-resistant 316L stainless steel case,
requires M5 hex key (not supplied)

Suggested Quick Disconnect Studs

CTC offers a selection of Quick Disconnect Studs compatible with the MH107-5A Quick Disconnect Receptacle.

Adhesive Mounting



MH107-1B
Quick disconnect stud with 1/4-28 tapped sensor mounting hole, corrosion-resistant 316L stainless steel case

Through-Hole Mounting

MH107-2B
Quick disconnect stud with through-hole mounting, 1/4-28 socket head cap screw included, corrosion-resistant 316L stainless steel case

MH107-3B
Quick disconnect stud with through-hole mounting, M6x1 socket head cap screw included, corrosion-resistant 316L stainless steel case

Surface Preparation and Suggested Tooling Options

Proper surface preparation prior to Quick Disconnect installation is critical to ensure a flat, clean surface ideal for a repeatable mounting interface.

Adhesive Mounting

Spot face the area to create a flat surface and remove paint, coatings and debris prior to bonding.

MH117-3A
1 in. (25.4 mm) diameter spot face and drill bit, 1/4-28 thread

Through-Hole Mounting

Use the combination spot face and drill feature to prepare the surface and drill the mounting hole in a single step, then tap the threads to complete the installation.

MH117-3B
1 in. (25.4 mm) diameter spot face and drill bit with 1/4-28 tap set

Fig. 1
Using a right-angle drill is key to creating a flat surface with the spot face tool

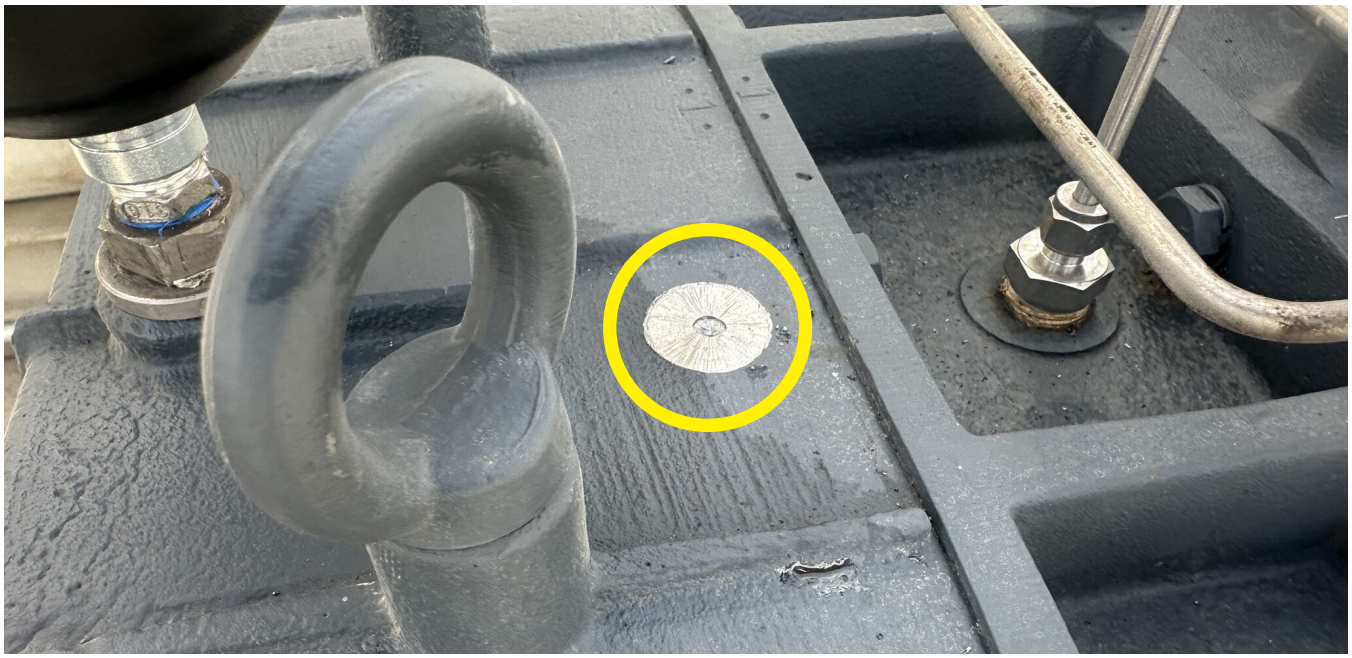


Fig. 2
Prepared surface for an adhesive mount

Installation

Adhesive Mounting

CTC's MH109-2A two-part Devcon Plastic Welder is recommended for the installation of adhesive mounts and offers a strong, permanent adhesion. The bottom of CTC MH107-1B adhesive mount studs feature a roughened surface for strong adhesion.

MH109-2B
Devcon plastic welder two-part adhesive kit

MH107-1B
Bottom of quick disconnect stud with roughened surface for best adhesion

Fig. 3
Completed and cured adhesive installation of MH107-1B

Through-Hole Mounting

Thread the mounting bolt fully into the tapped hole until the base is seated flush against the surface. If the surface is not perfectly flat, epoxy may be used as an optional gap-filling measure to improve contact and long-term stability.

Fig. 4
Completed through-hole mount installation of an MH107-2B

Conclusion

When repeatability and durability are essential, industry leaders choose CTC Quick Disconnect Mounting Hardware for wireless sensor installation to provide secure and stable data collection points in the most demanding environments. CTC's MH107-5A Quick Disconnect Receptacle is specifically engineered for use with the Sensoteq Kappa X wireless sensors so you can harness the unmatched power and performance CTC hardware with your existing wireless condition monitoring system.