CUTSFORTH
CLARITY. CONFIDENCE. COMMAND.

Monitoring System Installation Data Sheet



AT A GLANCE

- **Cutsforth technicians on site** for final connections and commissioning
- **Flexible electrical installation:** By your electrical contractor, or by our electrical team where contracted
- **Five systems:** Brush condition monitoring, EMI, rotor flux, shaft grounding, and wired vibration
- **Planned with you:** Installation parameters and mounting locations agreed before work starts
- **Documented and trained:** Photos, video, and product training for your team

The road to a managed reliability program

Strategy | Assessment | Planning | **Implementation** | Improvement

Monitoring System Installation Installs and commissions your monitoring system on site

A monitoring system performs only as well as its installation. Our technicians make the final connections and commission each system on site. The electrical installation can be done by your electrical contractor, or by the Cutsforth electrical team where contracted. Either way, we plan the work with you first, and finish by training your team.

When do you need installation support?

It fits when a Cutsforth monitoring system is ready to be installed and commissioned.

- Have you bought a Cutsforth monitoring system that needs to be installed and commissioned?
- Do you want Cutsforth technicians to make the final connections and commission the system?
- Would you like the Cutsforth electrical team to do the electrical installation?
- Is your own electrical contractor installing, and you need a clear division of responsibility?
- Do you want your team trained on the system at handover?

How installation works

Every system follows the same four steps. The time on site depends on the system.

STEP 1
Plan the install
We agree installation parameters and mounting locations with your owner's representative.
ON-SITE

STEP 2
Install the electrical work
Enclosures, conduit, power, data, and signal cabling go in. Your contractor or our electrical team does the work.
ON-SITE

STEP 3
Connect and commission
Our technicians make final terminations, power on the system, and validate it.
ON-SITE

STEP 4
Train and hand off
We document the work with photos and video, and train your team on the system.
ON-SITE

Systems we install

System	Who installs	Time	What to expect
Brush condition monitoring (BCM)	Your electrical contractor, or the Cutsforth electrical team if contracted	2–5 days of electrical installation, then 1 day to commission	A wired antenna goes inside the collector ring enclosure. Excitation, the ground detection system, and turning gear may need to be off during antenna installation.
Electromagnetic interference (EMI)	Your electrical contractor, or the Cutsforth electrical team if contracted (not available in all areas)	5–10 days of electrical installation per generator, then 1 day per generator to commission	The generator may need to be in an outage for installation. Sensor locations in locked, energized cabinets, such as the generator neutral ground, may need lockout/tagout.
Rotor flux	Your electrical contractor, or the Cutsforth electrical team if contracted (not available in all areas)	5–10 days of electrical installation per generator, then 1 day per generator to commission	Commissioning can be done in an outage or after startup.
Shaft grounding (SGA3 and SGM Assurance, Series 2)	You install the Assurance enclosure and conduit. Cutsforth technicians install the grounding assembly at the shaft. Your electrician makes the grounding and power connections.	About 1 day	The generator must be secured, stationary, and off turning gear, with the shaft fully coupled and the bearing cap installed.
Wired vibration	Your electrical contractor or your selected third-party contractor	1 day on site for final connections, then 4 hours remote to commission	The equipment need not be online for final connections, but must be online to finish commissioning. Signal cables are buffered, so they cannot affect plant operations.

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What you receive

- **An installed system,** powered on and validated by Cutsforth technicians
- **Documentation of the work** with photos and video
- **Product training** for your plant representatives
- **An evaluation of other units,** if you want one, for BCM, EMI, and rotor flux
- **A path to InsightCM:** remote commissioning follows to bring the data into your software

What we need from you

- Complete local training so our technicians can access the work areas.
- Appoint an IT representative to support integration with InsightCM, PI, or a similar system.
- Confirm that your InsightCM server is installed, share its version, open the network switch and firewalls, and provide the IP and gateway addresses for the monitoring controller.
- Provide a 120 V ground-fault-protected outlet or extension cord on the day, and extra lighting if requested.
- Arrange lockout/tagout where the work requires it, and hold the Cutsforth shipment in a secure place until our technicians arrive.
- Tell us of any delay as early as you can, so we can reschedule without added expense.

Some systems add requirements:

- **If Cutsforth's electrical team installs:** provide project trailer parking with 240 V service.
- **Shaft grounding:** confirm Modbus TCP/IP or 4–20 mA integration before we mobilize, and provide the shaft growth value, the shaft rotation direction, and safe access to the shaft.
- **Wired vibration:** provide remote access or a controllable Microsoft Teams meeting for InsightCM configuration.

The Cutsforth Reliability Services Team

Consulting Services	System Implementation	Monitoring & Diagnostic Services

Cutsforth is one of the few companies that combines deep reliability consulting experience with multi-physics condition monitoring system expertise. Our reliability services team has decades of hands-on, plant-floor experience in equipment reliability and asset performance management.

We help industrial organizations define, plan, and implement ER and AM programs, establish M&D Centers, and apply continuous online monitoring. Our approach is consistent with ISO 55000 and with the good-practice ER process in INPO AP-913 and EPRI guidance.

CONSULTING AND PROGRAM SERVICES

- ER and AM program definition, planning, and implementation
- Asset criticality analysis (ACA), sensor gap analysis, and master equipment list foundational data services
- M&D Center assessment, set-up, and deployment

TECHNOLOGY AND MONITORING

- InsightCM condition monitoring software
- Multi-physics monitoring systems, including vibration, electrical signature analysis, electromagnetic interference monitoring, thermography, and more
- Monitoring and Diagnostic services with industry-veteran subject-matter experts in condition monitoring

Start with a scoping conversation

We start with your goals, then scope a pilot on one of your assets.

Request a System Installation scoping conversation

Contact your Cutsforth representative or visit cutsforth.com.