

SEER MONITORING & PROACTIVE CARE



Seer

Why choose Seer?

The Seer monitoring range is an advanced data logger that uses cloud based technology to continually communicate pump status to an internet based portal that has multiple notification setting functionalities.

- Real-time reporting, offering ability to remotely diagnose faults
- Visually represented data and alarm screens
- Historical data held for plant comparison and analysis
- Fully configurable alerts via SMS and email
- Download data scheduling options
- Reduced service & maintenance costs
- Improved plant reliability
- Reduce environmental risk



You can select recipients to be instantaneously informed of any faults, errors, changes or plant status. Not only does the monitoring system report live status and alarm activation but most importantly, observation of the whole system with historical data collection that allows potential issues to be identified early.

Seer has the capability to interrogate and reset remotely. The system uses the ARGOS cloud network via machine to machine data collection offering superior connectivity and ensuring security. Information is received from plant and systems on a real-time basis with data refresh up to every 10 seconds. Variables are then stored and visually represented, for example, pump running currents, incoming voltages, and wet well levels, giving a 'snap shot' of the whole system remotely.

24/7 monitoring

Benefits

REDUCED COSTS

Reduced maintenance costs due to less unnecessary site visits

MAINTENANCE

Pro-active maintenance

MONITORING

Real-time monitoring by a skilled pump engineer

SECURE HOSTING

Secure hosting of cloud based technology

DATA ANALYSIS

Historical data analysis and performance trending

EARLY INTERVENTION

Early intervention to prevent detrimental failures with remote reset and continual monitoring

REMOTE RESET

Remote reset functionality with on-site engineer safety feature

APPLICATIONS



Sports Ground



Biogas



Agriculture



Quarry



Industrial



Water features/fountains



Water Treatment Works



Marine



Potable Water



Leisure



Housing Estate



Food Processing



Brewery



Motorways



Underground and Rail



High Rise Buildings



Borehole



Single Dwellings



Building Site



Hire



Groundworks/civils



Concrete Batching Plant

Plus many more...

www.ttpumps.com

Want to find out more?
Request a team viewer
webinar session
online.

SEER ADVANCED - Adoptable pumping stations

SEER JUNIOR - Food processing

SEER MICRO - Control panels

Example Applications



Seer

PRODUCT RANGE

SEER MICRO



ANALOGUE DATA

- Pump(s) Running Current
- Wet Well Level (mA signal required)
- Pump Total Run Time
- Unit Integral Temperature
- Network Provider / GSM Signal Strength
- Station Location Co-ordinates

DIGITAL DATA SIGNALS

- Common Pump(s) Tripped
- High Level Float Active
- Remote Reset



SEER JUNIOR



ANALOGUE DATA

- Pump(s) Running Current
- Wet Well Level (mA signal required)
- Pump Total Run Time
- Unit Integral Temperature
- Network Provider / GSM Signal Strength
- Station Location Co-ordinates

DIGITAL DATA SIGNALS

- Pump(s) Running
- Pump(s) Overload Tripped
- Pump(s) Overheat Tripped
- Pump(s) Under-load Tripped
- Pump(s) Seal Leak Tripped
- High Level Back-up Float Active
- High-High Level Float Active
- Remote Reset



SEER ADVANCED



ANALOGUE DATA

- Pump(s) Running Current
- Wet Well Level (mA signal required)
- Pump Total Run Time
- Incoming Voltage Readings (3 phases & Neutral)
- Unit Integral Temperature
- Network Provider / GSM Signal Strength
- Station Location Co-ordinates

DIGITAL DATA SIGNALS

- Pump(s) Running
- Pump(s) Overload Tripped
- Pump(s) Overheat Tripped
- Pump(s) Under-load Tripped
- Pump(s) Seal Leak Tripped
- High Level Back-up Float Active
- High-High Level Float Active
- Engineer On Site
- Remote Reset

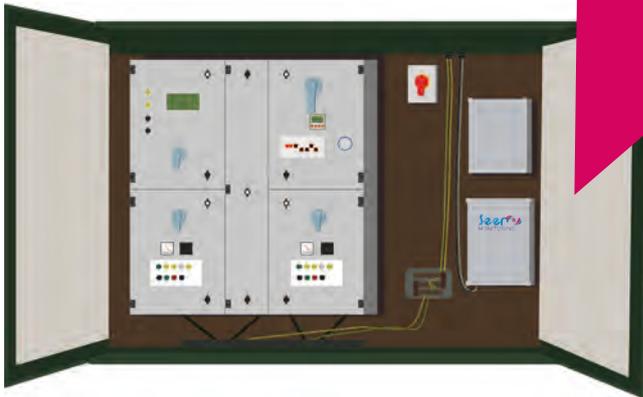




How does Seer work?

EXAMPLE VARIABLES MONITORED

- Power Supply
- High level
- Pump failure: Pump No.1
Pump No.2
- Voltage monitoring
- Pump current
- Pump operating
- Pump under-load
- Pump seal leak
- Wet well Level
- Remote control
- Trip reset
- Pump start
- Remote control active



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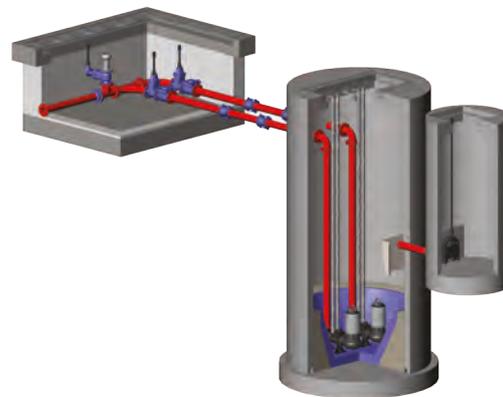
Service Engineer

The Service Engineer can get the full history integrated with the Pumping Station history. They can also reset remotely.



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1. The Seer unit is installed in the pumping station control kiosk.
2. The Seer unit sends information to the cloud.
3. The data is collected and distributed as necessary.
4. Any alarms are highlighted to the T-T Service team.
5. If necessary the T-T Service engineers are deployed to site.
6. The customer can view the pumping station status and activity on the T-T Pumps website and Seer portal.

ARGOS CLOUD NETWORK

MACHINE TO MACHINE
INDUSTRIAL SIM

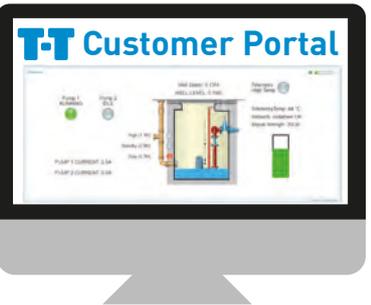
T-T Seer
Data Collection
Condition Monitoring
Alarms
Service History

DATA TO T-T WEBSITE

Website
ttpumps.com

ALARM
CONDITION

OUT OF HOURS
DUTY SERVICE TEAMS



7 T-T Service
Seer Administration

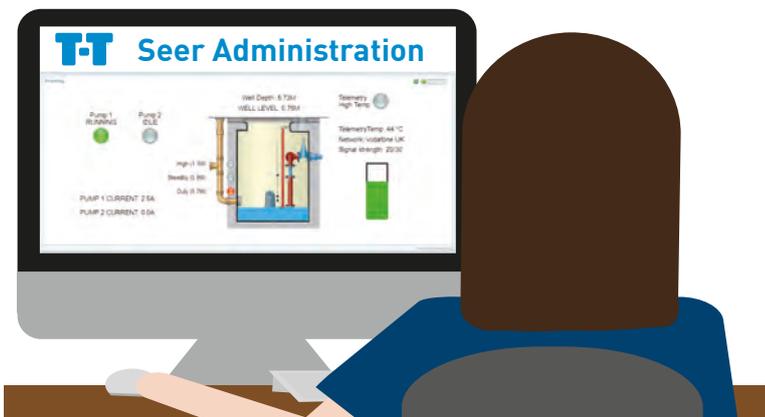
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Alarm to customer via
text or email to multiple
recipients or selected
people.

**THE CUSTOMER
CAN VIEW ALL
SITES UNDER THEIR
CONTROL**



Customer



7. The Seer administration team can assess the historical reports to ensure the pumping station is working as intended. They can decipher if there are any external factors for example voltage drop

affecting the pumping station and suggest changes to keep the pumping station in a healthy working order.

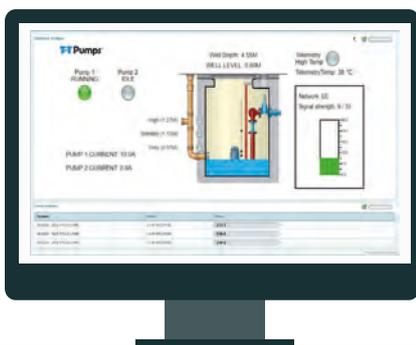
Features

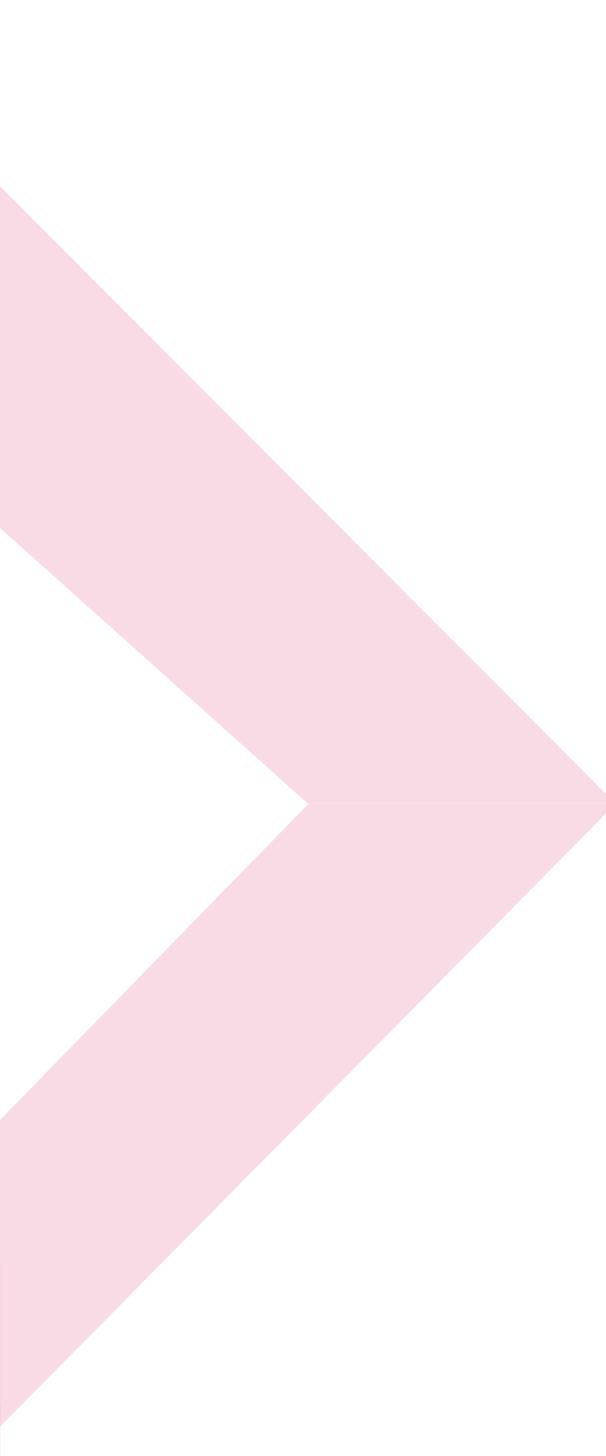
The Seer device has the ability to monitor and report on various attributes which can all be accessed via our Seer monitoring portal. The initial system overview gives you a snap-shot view of the status of the pumping stations, displaying a pictorial view of the pump station in real-time, indicating wet well level, pump operational status, signal strength and network of the comms, and internal temperature.

Additionally to this the Seer portal has the following features:

- **Alarms** which replicates the panel indicators located on the fascia.
- **Hours run** with % duty and operational times
- **Voltage monitoring** maps voltage of each phase, and displays as a bar graph.
- **Remote control** allows pumps to be remotely reset, started and stopped (when forming part of a compatible control panel), with an Engineer on site prompt to check if any operatives are on site.
- **Overview** gives all points / values logged as per user defined conditions.
- **Alarm lists** all alarms logged and resultant returning to normal state, when occurred.
- **Historical data** allows any parameter from the available list to be recalled and plotted as required over days, weeks, months or years.
- **Notes** allows users to populate this with any information, such as site visit detail, ultrasonic level parameters etc. all stored in one convenient location.
- **Info** contains the System ID, SIM No and allows any PDF's to be uploaded, pictures from site, schematic wiring diagrams etc.
- **Account Management** allows reports to be generated on any parameter logged and allows for these to be downloaded/exported.
- **Profiles** can be set for varying roles, such as Administrator, Managers, Operatives and Client with permissions to view and amend data.
- **Notifications** can be set in line with normal business hours & shift patterns for operatives, with options for alerts by text or email as required, dependant upon criticality of the alarm.

SEER MONITORING PORTAL





Seer and Service Agreements for total peace of mind

As an owner or operator of pumping stations, you will want peace of mind that your pumping station operates efficiently, whilst also being environmentally friendly. Our service agreements help to meet these aims and avoid unexpected and costly breakdowns.

Combined with a Seer monitoring unit, T-T can offer complete peace of mind monitoring. Once a Seer unit is configured to our monitoring and service team, we will continually analyse and monitor the plant to ensure smooth continual running.

Using the advanced cloud based monitoring system and our in-house expert pump engineers, we can offer a complete monitoring and service solution for both adoptable and package pumping stations, Seer monitoring service option offers 24/7 monitoring, 365 days a year, improved reliability, reduced operator costs, greater efficiency, avoid costly breakdowns and reduce environmental risk.

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