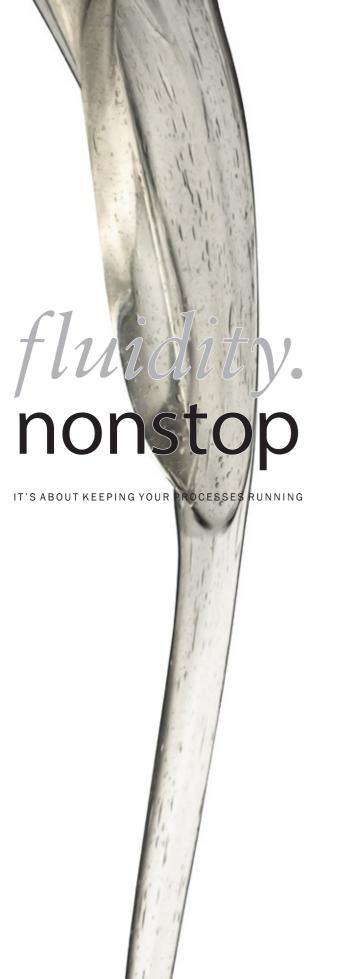
dity. MStop

IT'S ABOUT KEEPING YOUR PROCESSES RUNNING









About AxFlow

Part of Axel Johnson AB with sales of over 7 billion euro and 20,000 employees worldwide, the AxFlow group is one of Europe's largest suppliers of process pumps with offices a presence in 28 European countries, South Africa, Australia and New Zealand.



In the UK, AxFlow has over 65 years history and operates from 5 locations across the country from which we supply a multitude of process pumps and a range of pump service and repair packages.







AxFlow has developed *fluidity*.nonstop a concept through which we provide products and services that encompass all aspects connected with the smooth running of process pumps.



Our Approach

There is a lot of hype, philosophical talk and exaggerated claims when it comes to condition monitoring; at AxFlow we hope to cut through this and offer a system based on four simple principles.

KEEP IT PRACTICAL

- Our system is simple with only 2 pieces of hardware.
- No knowledge of vibration analysis is required to use the system.
- · We make no exaggerated claims.
- Our system is based around pumps as this is our area of expertise.
- Sensors can be moved between equipment and sites
- There are two pieces of software that allows the separation of the simple overview of equipment from deeper analysis.
- Our system is extremely flexible in terms of it's application but also it's communication methods and management.
- There is no monthly subscription for hardware or software.

PROVIDE SUPPORT

- We have established an IT infrastructure that you can piggy back off.
- We can install the sensors and data collectors if
 you want
- We can monitor the system and carry out any analysis.

THE BEST TECHNOLOGY

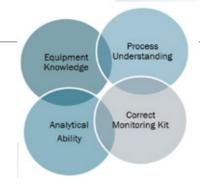
- Our system uses it's own internal WiFi.
- Communication with our cloud server can be with WiFi, Ethernet cables or 3/4G
- Our system is ATEX certified.
- Ours system has been calibrated to work down to low frequencies.



IT'S NOT JUST ABOUT VA

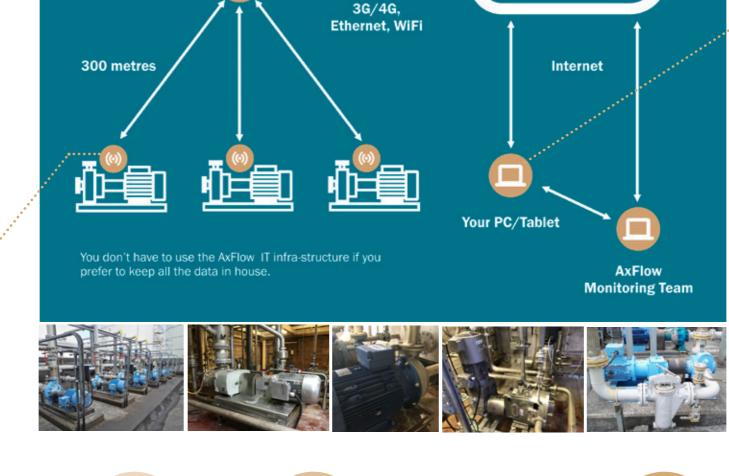
Successful condition monitoring isn't really about expertise in vibration analysis (VA) but

- A good working understanding of the overall process
- Knowledge of the equipment being monitored.
- Having good monitoring equipment.





- Can handle 60 sensors.
- Standard 230v 50hz.
- Safe area or ATEX version available.
- Can use either 3G, 4G, Ethernet, site Wi-Fi.
- IP66 rated.





- Single or tri-axial piezo vibration and temperature sensor.
- Mounted via magnet or threaded connection.
- ATEX rated (II 1GD Ex ia IIC T4).
- Powered by a standard camera batteries.
- Communicate with data collector via separate wifi system.
- IP66 rated.
- · Variable data collection settings.

Which Pumps
Identify which pumps
need to be monitored
such as critical, problem
or those with long
delivery times.

••••••••••••

60 sensors per

WiFi router

2

Level of Monitoring In most instances only one sensor is required per pump. Method of
Communication
Decide how the data
collector will send
the data.

Axflow Cloud Server

Set Thresholds
Let the pumps run
for a couple of weeks
and then set specific
thresholds.

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4

Install Equipment & Software

We will ensure all parts of the communication chain are working and can install the equipment if you want.



Two different software packages to ensure both systems have the optimum designs and features.

- Easy to use web browser interface that allows you to quickly monitor overall vibration levels.
- More sophisticated administrative and analysis program.



Pump Test Programme

To better understand the characteristics of pumps and their vibration signatures we have undertaken a testing programme on a specially commissioned test rig. The aim is to identify the vibration waveforms and spectrums of the pump failure modes of and when operating outside of their rated performance envelopes.

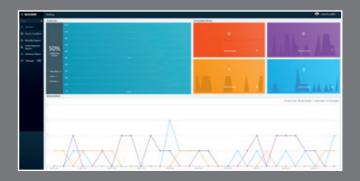
A range of different pump types including some not normally associated with vibration analysis have been included such as AODD, rotary lobe, peristaltic, vane, peripheral turbine, eccentric disc, internal and external gear, progressive cavity and of course centrifugal pumps.

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Web Browser



The monitoring software is hosted on the web and accessible from any internet connected PC or tablet.



Easy to organise your assets and instantly see their



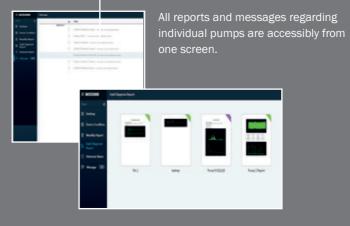


Graded alerts based on customized thresholds that can be sent via email and SMS if required.

Easy colour coded navigation to alarmed equipment.



Quick and easy analysis of overall vibration levels.



AxFlow can carry out any analysis you may require.

Administrative and Analysis Software



A well constructed interface which makes it quick and easy to manage sites, machines and sensors. If hosted on the AxFlow cloud the system can be accessed anywhere in the world and used by unlimited users.



Set numerous measurement definitions per sensor based on any frequency range and a range of parameters such as acceleration, velocity, and



Set bespoke data down to 1 second.



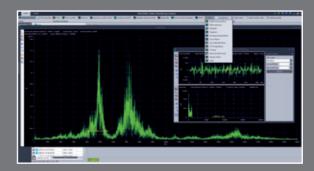
Set threshold values per measurement definition looking at overall, peak, peal to peak and Kurtosis.



An extremely powerful analysis suite with a wide range of analysis tools including:

- Multi time waveforms
 Cross-phase
- Multiple spectrums
- Tend analysis
- - Cepstrum

 - Envelope demodulation



There are no monthly subscriptions for either pieces of software





email: info@AxFlow.co.uk www.AxFlow.co.uk

Slough (Head Office)

820 Yeovil Road, Slough Trading Estate Slough SL1 4JA Tel.: +44 (0)1753 255 600

Radstock

14 Haydon Industrial Estate Radstock, BA3 3RD Tel. + 44 (0)1761 433285

Scotland

Unit 3, Harlaw Centre, Howe Moss Crescent, Kirkhill Industrial Estate, Dyce, Aberdeen, AB21 OGN Tel.: +44 (0)1224 729 367

Huddersfield

Unit 9a, Fieldhouse Business Park, Old Fieldhouse Lane, Huddersfield, HD2 1FA Tel.: +44 (0)1484 543 649

Durham

Unit 16, Chilton Industrial Estate, Avenue 3, Chilton, Ferryhill, DL17 OQS Tel.: +44 (0)191 329 3189

fluidity.nonstop® is our promise and our commitment to offer service, product quality, performance and expertise the like of which has not been seen before. We are Europe's leading source of pumps and pump expertise for the process industry and we intend to maintain that position by working fluidly, and ceaselessly, to bring you the best.