



ROTARY TRADING COMPANY

Solutions by creative engineering & expert technical service

Trends service & maintenance 2016 - 2021

Influence of stakeholders & financial investors	Compliance by local and governmental authorities	ICT developments	Increase dependency of knowledge & technology	Decrease skilled workers/employees
<ul style="list-style-type: none"> Focus at costs and fast ROI 	<ul style="list-style-type: none"> Regulations 	<ul style="list-style-type: none"> Development IT 	<ul style="list-style-type: none"> Connecting of different systems increases 	<ul style="list-style-type: none"> Aging population
<ul style="list-style-type: none"> Continuity 	<ul style="list-style-type: none"> Legislation 	<ul style="list-style-type: none"> Mobile devices 	<ul style="list-style-type: none"> IT influences the service and maintenance work 	<ul style="list-style-type: none"> Decrease in technical skilled employees
<ul style="list-style-type: none"> Efficient use of budgets 	<ul style="list-style-type: none"> Impact infrastructure 	<ul style="list-style-type: none"> Applying ITT effectively increases competitiveness 	<ul style="list-style-type: none"> Increase of productivity 	
<ul style="list-style-type: none"> Effectiveness 	<ul style="list-style-type: none"> Safety 	<ul style="list-style-type: none"> Analysis / dashboard 	<ul style="list-style-type: none"> Increase of safety 	
	<ul style="list-style-type: none"> BRZO 	<ul style="list-style-type: none"> Maintenance is a integral part of the organization 	<ul style="list-style-type: none"> Increase of Quality 	
	<ul style="list-style-type: none"> Standards 	<ul style="list-style-type: none"> History of failure regarding the most important assets 		
	<ul style="list-style-type: none"> Certification's 	<ul style="list-style-type: none"> Big data 		
		<ul style="list-style-type: none"> Decrease overall costs 		
		<ul style="list-style-type: none"> Speed up the availability of big data 	<ul style="list-style-type: none"> Connecting data of different systems gives new important information Prediction maintenance More operational efficient Navigation to the right destination Providing situation specific data 	

Trends service & maintenance 2016 - 2021

Need of outsourcing	Operational Excellence	Need of total solutions	Added value of contractors	Install base: old assets (> 50 to 60 years)
<ul style="list-style-type: none"> Good (done) service & maintenance (primary process) 	<ul style="list-style-type: none"> Continuous improvement of the primary process 	<ul style="list-style-type: none"> Customers are in search for partners for a certain part of their organization 	<ul style="list-style-type: none"> Openness of communication 	<ul style="list-style-type: none"> Most of the asset base is older than 30 to 50 years.
<ul style="list-style-type: none"> Cost reduction 	<ul style="list-style-type: none"> Increase of efficiency 	<ul style="list-style-type: none"> Processes become more complex due to ICT 	<ul style="list-style-type: none"> Integrity (employees, customers and contractors) 	<ul style="list-style-type: none"> Life time extension
<ul style="list-style-type: none"> Shift of responsibility 	<ul style="list-style-type: none"> Cost reduction 	<ul style="list-style-type: none"> Complexity, cost reduction and business creates the need for total solutions with: Responsibility Increase output 	<ul style="list-style-type: none"> Intensive communication 	<ul style="list-style-type: none"> Replacement? Keep in operation?
<ul style="list-style-type: none"> Less qualified and skilled own employees 	<ul style="list-style-type: none"> OEE (Overall Equipment Effectiveness) 		<ul style="list-style-type: none"> Clear strategy 	<ul style="list-style-type: none"> Operational risks vs. increasing maintenance costs. Replacement Yes/no?
<ul style="list-style-type: none"> Non-core activities Driven by lean six sigma Capacity Skilled workers Specialist work (special) Production assets 	<ul style="list-style-type: none"> Prevention of rate losses Prevention of quality losses Prevention of unplanned downtime Prevention of reduced capacity Prevention of reduced product quality 	<ul style="list-style-type: none"> Part of the business process of the customer based on (safety and quality): Design Contract Maintenance 	<ul style="list-style-type: none"> Distinctive at: Sustainability Safety Compliance Customer focus 	<ul style="list-style-type: none"> Most of assets reach the economical / technical life span VITALE = Value Innovation Through Asset Lifetime Extension

Digitalisering data / ICT

Digitalisatie (trends):

- Big data (we creëren steeds meer data).
- Juiste data verzamelen, digitaliseren en up to date houden.
- Data juist interpreteren en er wat mee doen.
- Eenvoudig invoeren / op elk niveau in de organisatie met mobile devices
- Historie / huidig en toekomst
- Technologische ontwikkelingen gaan snel
- Anders...

Toepassing van data (werkzaamheden):

- Uitvoeren van werkzaamheden (operationeel / service & maintenance)
- Rapportages en analyses m.b.t. upgrades, re-rates en vervanging.
- Koppelen verschillende ICT systemen (ERP, CAx en DCS).
- Complexiteit (verbanden leggen tussen verschillende disciplines).
- Kennisborging op locatie (van processen, systemen en assets).
- Anders...

Mobile data management systemen - MO



CA
X

- TAG: P617
- Nom Power [4 kW]
 - Type [Rotary Pump]
 - Material [steel]
 - Geo-Position [LLA]
 - Circuit Diagram



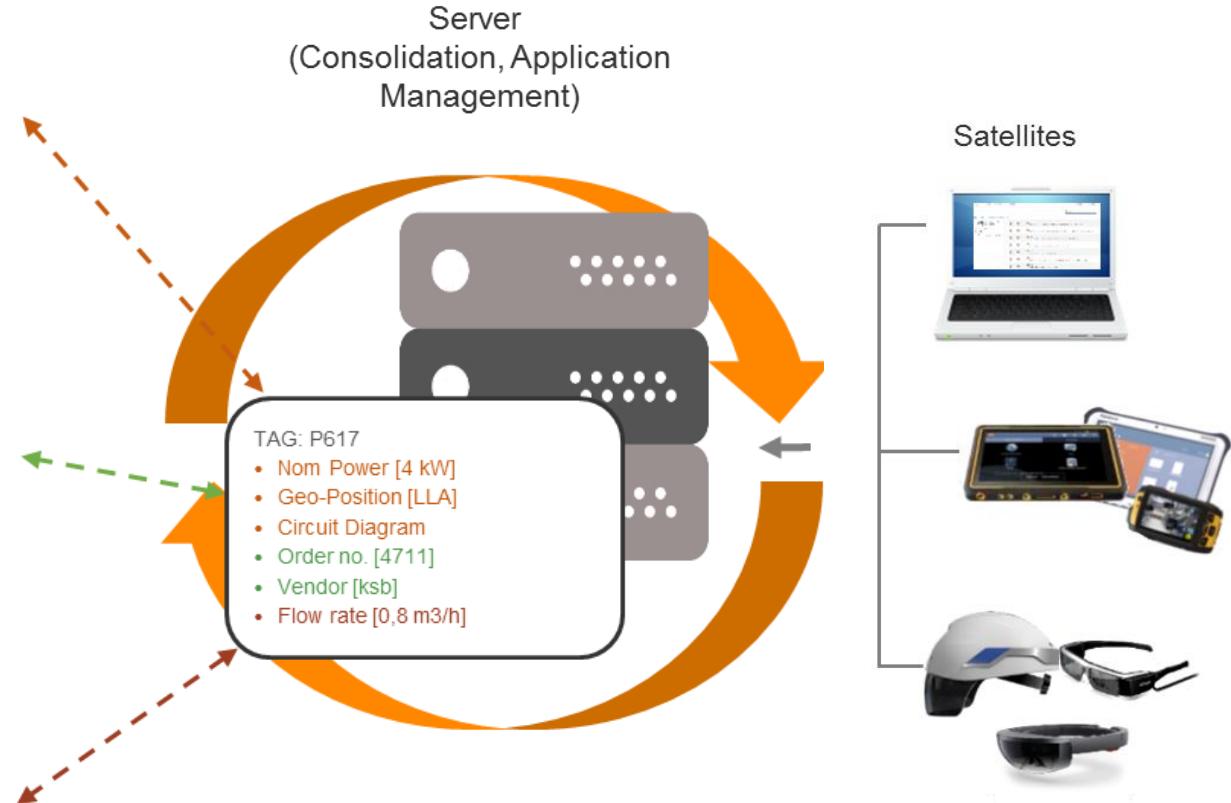
ER
P

- TAG: P617
- Order no. [4711]
 - Vendor [ksb]
 - Price
 - ...



DC
S

- TAG: P617
- Flow rate [0,8 m³/h]
 - Torque [147 N]
 - ...



2.0 Kennisborging/samenwerken

Algemeen:

- Techniek veranderd snel (zeker de afgelopen 10 jaar).
- Er komt een andere generatie (opgegroeid in het digitale tijdperk).
- ER worden minder technici opgeleid (schaarste).
- Kwaliteit opleidingen minder (learning on the job).
- Veel kennis met pensioen de komende jaren.
- Veel kennis niet geborgd (zie digitalisering).
- Bedrijfsscholen vrijwel allemaal verdwenen.
- 24/7 uur operatie.
- Anders...

Specialismen:

- Beperkte capaciteit bij asset owners (meer aanbestedingen).
- Strategische samenwerking (om technische innovatie bij te kunnen houden).
- Advisering en consultancy: o.a. innovatie & reliability programma's.
- Anders...

2.0 Kennisborging/samenwerken



ROTARY TRADING COMPANY

CREATIVE SOLUTIONS AND EXPERT TECHNICAL SERVICE



Rotary Trading Company (RTC) offers creative solutions and expert technical service for all your sealing needs. Our team of experienced engineers and technicians provide tailored solutions for various industries, ensuring reliable and efficient sealing performance. From standard to custom-made seals, RTC has the expertise to meet your specific requirements.

- SEALS
- SEAL REPAIR
- PUMPS & VALVES
- INNOVATIVE PRODUCTS

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ROTARY EQUIPMENT SERVICE

EXPERT TECHNICAL SERVICE FOR ALL ROTATING EQUIPMENT



Rotary Equipment Service (RES) is a trusted partner in the repair and maintenance of all types of rotating equipment. Our team of highly skilled technicians provides expert technical service, including assembly, disassembly, inspection, and repair, to ensure maximum reliability and efficiency. We offer a wide range of services to keep your equipment running smoothly and cost-effectively.

- REPAIR & OVERHAUL
- MACHINING SERVICE
- REVERSE ENGINEERING
- ONSITE MAINTENANCE SERVICES

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ROTARY ADVANCED SOLUTIONS

PART OF ROTARY TRADING COMPANY



Rotary Advanced Solutions (RAS) is a part of Rotary Trading Company (RTC) and offers a range of advanced industrial solutions. Our team of experts provides mobile data management, augmented reality solutions, and monitoring of industrial processes. We use cutting-edge technology to enhance efficiency, reduce costs, and improve safety in the workplace.

- MOBILE DATA MANAGEMENT
- AUGMENTED REALITY SOLUTIONS
- MONITORING INDUSTRIAL PROCESSES

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Reliability & besparing m.b.t. rotating equipment

Systemen:

- Product (meer procesmatig) overstijgend naar betrouwbaarheid en problemen kijken.
- Continue improvement (producten, asset en process gerelateerd).
- Samen met opdrachtgever programma opstellen (Begroting, KPI's &TCO's etc.)

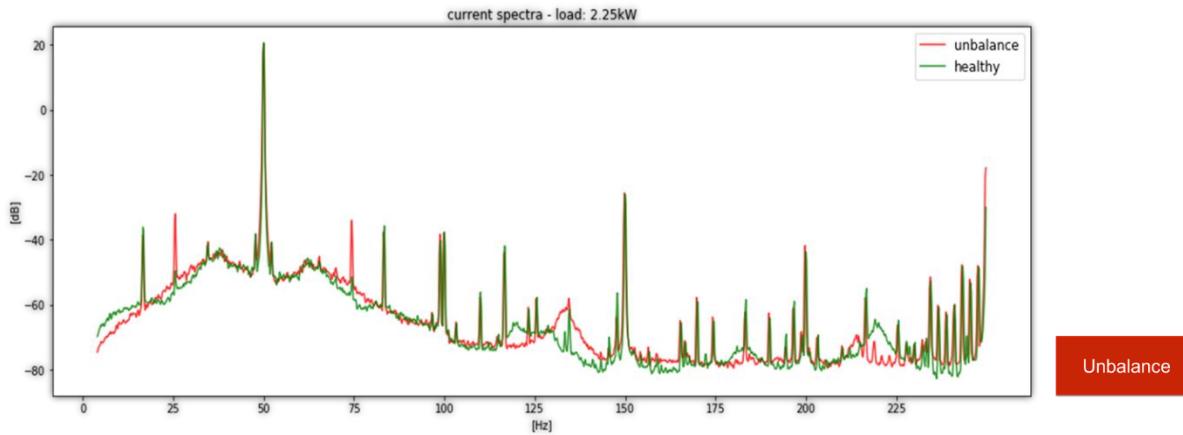
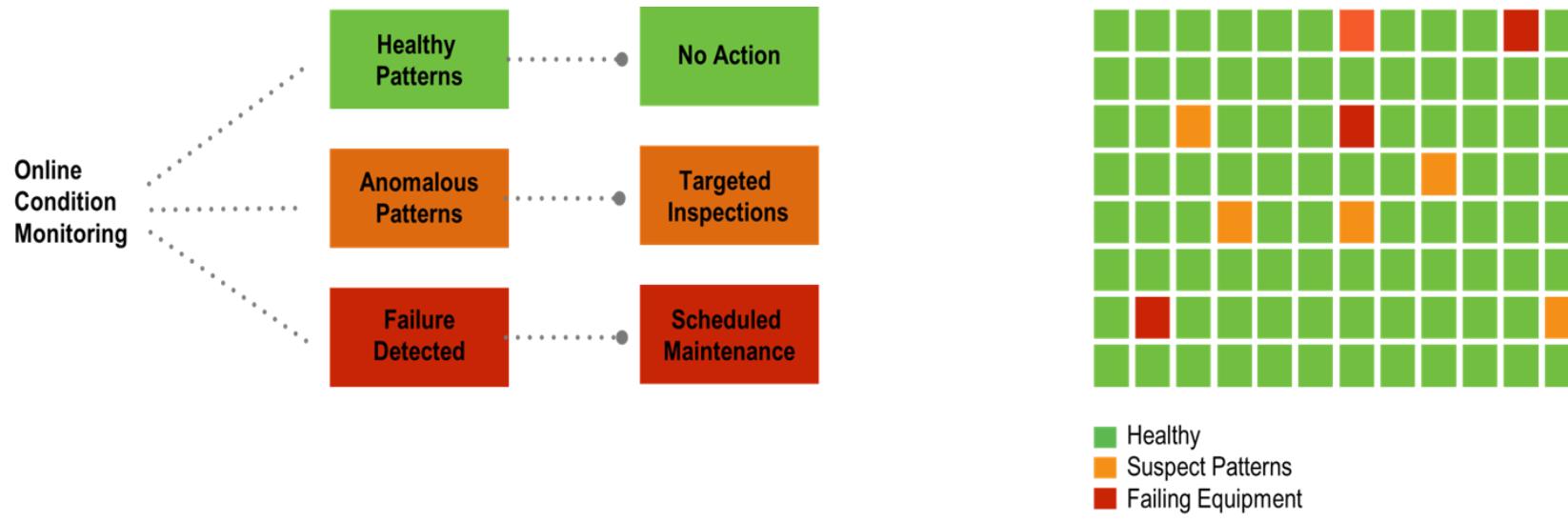
Processen:

- Analyseren & adviseren (Rotating strategie, HoTT, Assetmanagement)
- Product innovaties (gericht op vergroten o.a. reliability en standtijden).

Diensten:

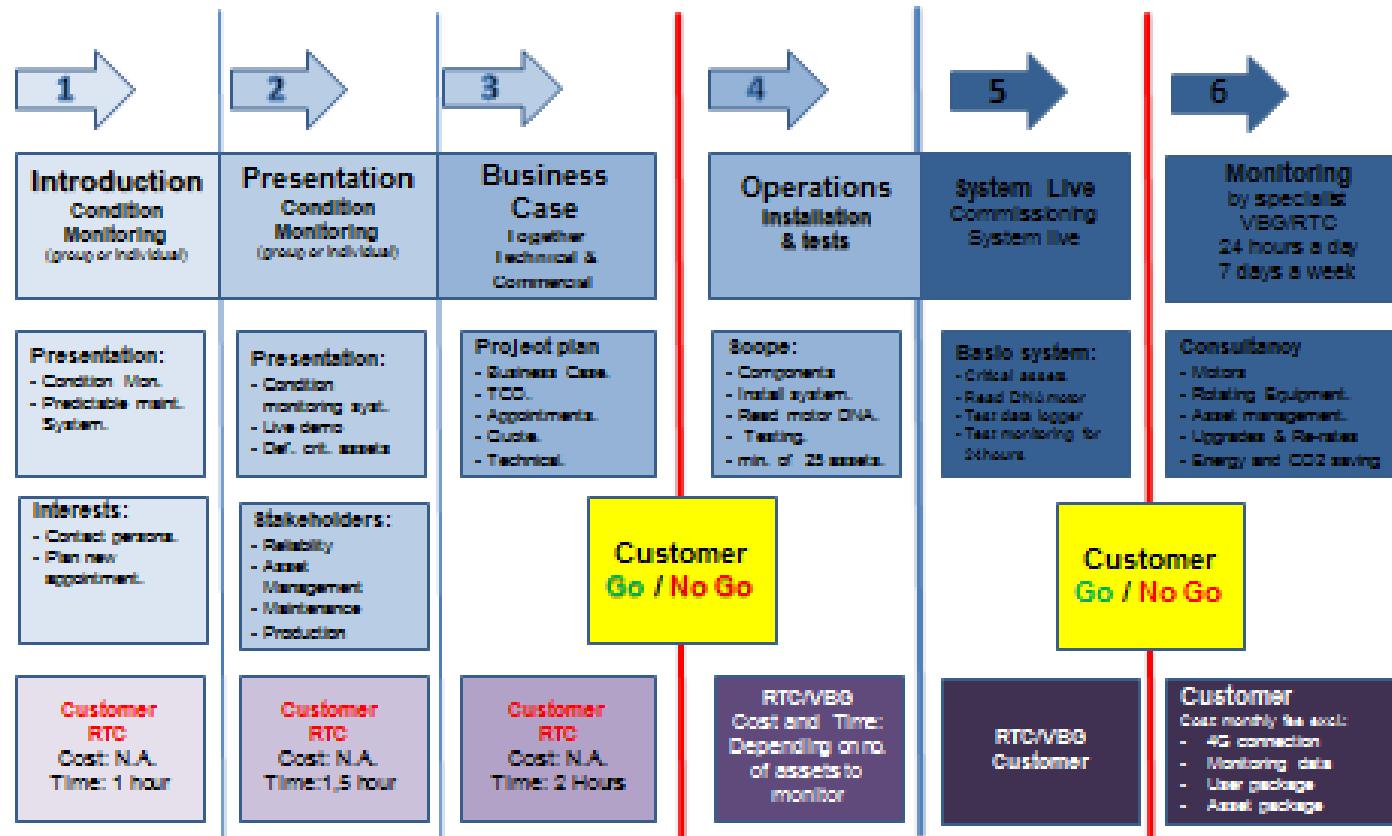
- Trillingsmetingen en Thermografische werkzaamheden.
- Online condition monitoring systemen.
- Predictable maintenance, hoeveel tijd heb ik nog voordat een kritische asset faalt?
- Anders...

Reliability & besparing



Voorbeeld Rotary methodiek 3 genoemde thema's:

Implementation plan 24/7 CMS & predictable maintenance





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