Maritime - Offshore - Industry



A brief overview of the Condition Monitoring and NavCom Department



A collaborating partner

IKM Instrutek is a collaborating partner that focuses on quality, product range and expertise. IKM Instrutek supplies products and services to the shipping, offshore, industry and the public sector.

Our expertise ranges from process, test- and measuring instruments, maritime navigation, communication and condition monitoring.

The company was established in 1985. Its head office is in Larvik, with branch offices in Stavanger, Bergen and Ålesund.

The company has around 46 employees and a budgeted turnover of NOK 190 million. The company is part of the IKM group with around 2,450 employees and an budgeted turnover of approx. NOK 4,3 billion

A part of the IKM Group

IKM Instrutek is part of the IKM Group - a multidicipline sub supplier focusing primarily on the oil and gas industry. The IKM Group conducts business within the following five areas: Electrical/Instrument/ Process, Subsea/Completion/Commissioning, Engineering/Operations, Fabrication/Inspection and Rig/Downhole Services.

Focus on Growth is always the goal, and IKM's ambition is that even the most demanding customer shall choose IKM as their preferred business partner. All IKM companies are ISO-certified, and through internal revisions, audits, and continuous monitoring. IKM Corporate Group ensures that it meets and exceeds the needs of its customers and employees with respect to quality, health, safety and the environment.

What we offer

The Condition Monitoring and NavCom Department offer products and services within 3 areas:

1. Bridge navigation and communication

- Navigation and communication equipment
- Project engineering, installation, service and commissioning
- Service coordination world wide
- GMDSS, AIS and VDR approved surveyor DNV GL, ABS and LR approved service supplier
- Petrobras Annex V

2. Condition Monitoring

- Vibration on- and offline systems including installation, comissioning and preparation for CM class on behalf of DNV GL, ABS and Lloyds.
- Vibration analysis
- DNV GL, ABS and Lloyds approved service supplier for CM class of ships and mobile rigs (Only supplier in the world with all 3 society approvals.)

3. Products and calibration

- Main areas; see following pages.
- Other equipment can be provided on request

IKM Instrutek will ensure to be the most proffesional partner for all ship owners and rig owners within our fields of expertise's.

We shall ensure to give the customers the best possible competitive prices in addition to work closely with our customers to save cost in all areas.

1. Bridge Navigation



IKM Instrutek offers a comprehensive range of innovative navigation, communication and other relevant maritime electronic equipment for all type of vessels.

IKM Instrutek has a wide-ranging staff of highly educated, trained and certified service engineers. We perform service and certifications around the world.

We are certified for GMDSS annual radio survey by The Norwegian Maritime Authority, DNV GL, ABS and Lloyds Register. We are also approved for VDR annual performance test (APT) by Furuno, Danelec, JRC and Totem. Other may be obtained for dedicated customers.

Petrobras Annex V

We have complete solutions for Annex V requirements, incl. follow up locally in Brasil. We have delivered some 20 projects.

With our custom made Serviceweb for administration of equipment, certifications and services, we offer you complete control over your equipment and due dates. Choose us as your long term reliable vendor for new buildings and retrofits around the world.

We have a reference list of about 60 project where we have delivered complete navigation and communication systems.





- Oil spill radar
- Ecdis
- VDR
- Gyros
- GPS
- AIS and LRiT
- BNWAS
- MDL FanBeam
- Hatteland Screens
- Complete Bridge systems
- Echo sounders
- Speed log



Communication

Norwegian Maritime Authority - Radio inspections

IKM Instrutek is approved to perform radio inspection on behalf of the Norwegian Maritime Authority.

Under this agreement IKM Instrutek, on behalf of the Norwegian Maritime Authority shall perform surveys of radio systems (GMDSS) on board vessels.

All Norwegian vessels shall be equipped with radio communication equipment according to international conventions and rules of the Norwegian Maritime Authority. In addition, the vessels are obliged to carry a safety certificate for radio, issued after a radio control has been performed.

IKM Instrutek has been given the authority to issue safety certificates for the radio equipment after performing a successful radio survey.

IKM Instrutek already conducts numerous surveys annually on board a large number of vessels on behalf of the major class societies.

GMDSS We provide:

We provide service, retrofit and survey of Global Maritime Distress and Safety Services (GMDSS) to our client's vessels worldwide.

Approval through major class societies like DNV GL, ABS and Lloyd's as well as The Norwegian Maritime Authority ensures quality service.

Our experienced engineers know what GMDSS is about.

Fleetbroadband

Through our suppliers we deliver cost-effective broadband communication onboard the vessels for a variety of needs, for both operational and social purposes, including calling their friends and family back home while at sea.

The new Inmarsat FleetBroadband terminals delivers ship-to-shore/ ship-to-ship broadband communication of up to 432 kbps together with voice communication all at the same time by utilising the latest generation Inmarsat I-4 satellites.

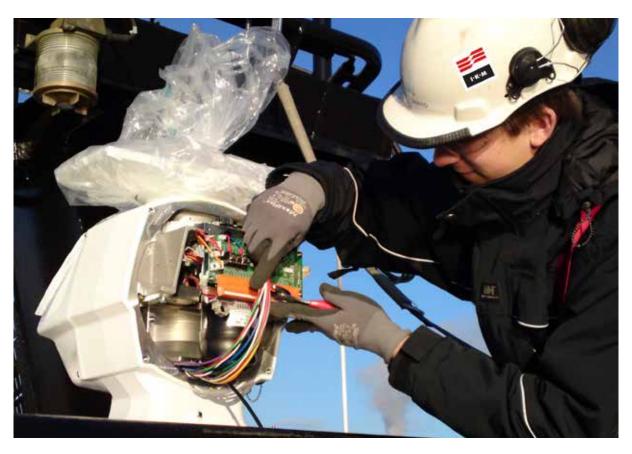
Tele and data

We provide telephone and data services to users worldwide, via portable or mobile terminals which communicate to ground stations through geostationary telecommunications satellites.

Whether your vessels sails worldwide or use regional routes we have full coverage through our globally overlapping Ku band or C-band satellites.



- Handheld communication systems
- GMDSS MF / HF / VHF
- V-sat
- Epirb, SART
- Satellite communication
- TV entertainment
- SSAS
- PA / Phone systems
- Tetra
- Head sets
- CCTV and surveillance systems
- Petrobras Annex V





2. Condition monitoring

The Condition Monitoring Department has expertise and skilled professionals to implement maintenance programs, perform troubleshooting, root cause analysis, vibration data analysis, shaft alignment, corrective work and training.

Our diagnostics center carry out vibration analysis, follow up on alarms, machinery diagnostics, reports and recommendations.

IKM have service personnel available 24/7/365.

IKM Instrutek is granted acceptance by DNV GL, ABS and Lloyds for service suppliers engaged in condition monitoring of machinery onboard ships and mobile units offshore.











Services:

- Vibration measurements and analysis
- Diagnostic center
- Trouble shooting
- Shaft alignment
- Geometric laser measurements
- Balancing (on site)
- Thermo imaging
- THD / electric current and power analysis
- Supervisor and consultants work
- Bearing analysis (root cause and proactive actions)
- Acoustic, HSEQ, Comfort measurement
- Gas leak detection

- Vibration instruments (data collectors)
- Online condition monitoring solutions
- Online wireless solutions (Atex0)
- Machine protection solutions
- Shaft alignment instruments
- Thermal imaging cameras
- Gas leak detection instrumentBalancing instruments
- Stroboscopes and tachometers
- Dynamic pressure systems
- Torque systems
- Vibration sensors, proximity probes
- Vibration test-points, cables and connectors
- Machine shims and machine feet (vibracon)
- Oil maintenance
- EX approved equipment

Competency matrix Navigation and communication

Equipment	Furuno	Northrop Grumman / Sperry	Kelvin Hughes	MT / Marine Technologies	Sailor
Radar X-band	S	S	Х	S	
Radar S-band	S	S	Х	S	
ECDIS	S	S	х	Х	
DGPS	S	S	Х	S	
Aerial					
Gyro		S		S	
Steering repeater	S	S	Х	S	
Echo sounder	S	S	Х	S	
Speed log	S	S	Х	S	
Rudder ind.	S	S	Х	S	
ROT. Ind.		S	Х	S	
Autopilot	S	S	Х	S	
VDR	S	S	X		
AIS	S	S	Х	S	S
LRIT	S	S	Х	S	S
SSAS	S	S	Х	S	S
Weather fax	S		Х		
GMDSS	S	S	Х	S	S
MF/HF	S	S	S	S	S
VHF DSC	S	S	S	S	S
VHF fixed/portable	S	S	S	S	S
UHF fixed/portable				S	S
Airband VHF / Com				S	
Inmarsat C	S	S	Х	S	S
Fleet/InmB	S		Х	S	S
Navtex	S		Х	S	S
EPIRB freefl.				S	S
EPIRB man.				S	S
SART				S	S
Helibeacon					
GPS compass	S	S	Х	S	
VHF dir.finder				S	
Kamera sys. / CCTV	Х				
BNWAS	S	S		S	
V-Sat.	S			Х	
TV- system					
Fambeam					
Current meter					
PA-system				1	

Explanations:

S = Competent to full service, survey, inspection

X = Selling products, can install in whole or in part, but not normally in focus

"Open" = Not competent service, but can on request to sell / install the product if available

Danelec	JRC	Anschütz / Raytheon	SeaTel / Cobham	Jotron	Skipper	Other
	S	Х				
	S	Х		1		
Х	S	Х				
	S	Х				
						S / Comrod
		S				S / SG Brown / Yokogava / Tokimec
		S				S / SG Brown
	S				S	
	S				S	
	S	S				
	S	S		1		
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	S					S / All brands
				S		S / McMurdo
				S		S / McMurdo
				S		S / McMurdo
						S / Telesupply
	S					
					S	S / Toyo
						S / Flir/Pelco/SeaHawk/ Sanyo/ others
						AMI
			S			S / KVH
			S			
						S / MDL
						S / Xylem
				Х		S/ Zenitel

3. Products and calibration

IKM Instrutek is one of the leading vendors of test- and measuring instruments in Norway.

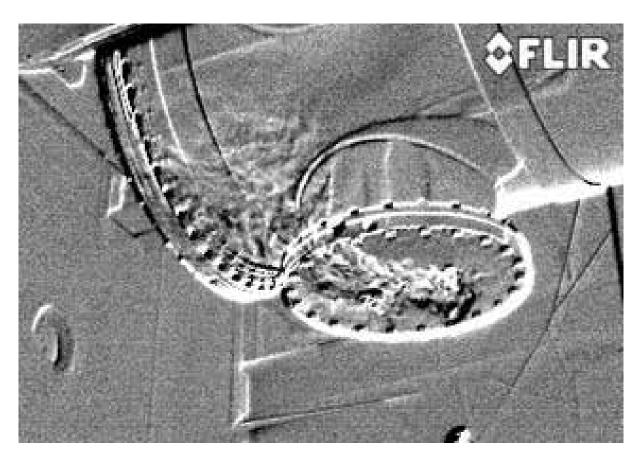
We have our own calibration lab were we do service and calibration. Our major brands for handheld test and measuring instruments are Hioki and Fluke and we can offer a complete range of products and tailor made test solutions based on our customer's applications.

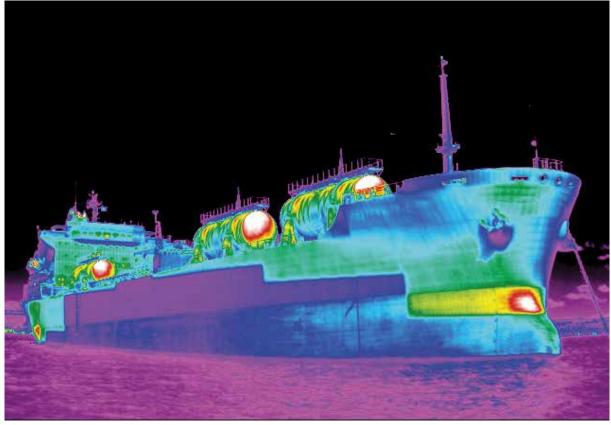
Power Supply Quality (PSQ) has become an important concern for ship electric systems. Thus, deviations of voltage from nominal values and wave-shapes could cause severe malfunctions, interruption or even damage of onboard equipment and systems.

PSQ issues has become a key-factor to ensure normal operation, survivability and safety onboard vessels worldwide. Trust us to deliver state-of-the-art monitoring systems that shows you the reality, allowing for corrective measures to be taken in time to prevent damage.



- Fluke instruments
- Fluke Thermography
- Hioki
- Tek know calibration instruments
- lcom
- Motorola
- Peltor
- Danfoss
- Danfoss frequency converters, VLT
- MSA portable
- MSA stationary
- Fli
- FLIR night vision cameras
- Fixturlaser
- Acoem vibration and acoustic
- CTC Vibration sensors
- VMI vibration
- Kittiwake





Worldwide sales and service network

IKM Instrutek provide repair & retrofit to deep sea vessels worldwide. We seek a strong partnership with our customers and are committed to provide the best service round' the clock.

Our service engineers are highly qualified and are kept updated through continues training and on-the-job practice. In addition to installation and ad-hoc service, they will provide you with support when you need it.

Should it be more convenient to utilize a service provider closer to the vessel, our worldwide network will be at your hands.

Let us coordinate your service requirements 24/7/365.



Service Emergency (24 hours):

(+47) 47 46 84 84

If the person on call-duty do not answer, you are automatically connected to another serviceengineer. We will answer your call!

Inquiries and orders shall preferably be sent to:

NavCom@IKM.no

- Serviceweb
- Nav/ com service
- GMDSS / VDR / AIS
- Petrobras annex V upgrade
- Calibration
- Condition Monitoring services



IKM serviceweb

www.IKMserviceweb.com

Contact us for license and log on!

Why service web?

- Full overview over equipment
- Service history
- Service reports
- Certificates
- Recommendations
- Overview over ongoing services
- Automatic summoning of GMDSS survey
- Automatic summoning of several services

Is a service monitoring system that ensures extremely good monitoring of customers and their ships. Our goal is to be the expert and the "single point of contact" partner that can perform most services in our field and ensure that companies save huge costs to deal with one partner.

We provide repair & retrofit to deep sea vessels worldwide

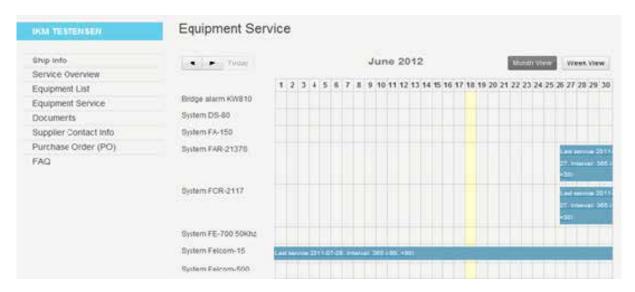
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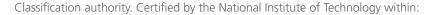
Should it be more convenient to utilize a service provider closer to the vessel, our worldwide network will be at your hands. Let us coordinate your service needs 24/7/365.

Our unique web service offer an easy, assessable and transparent solution to our clients. Here you will be able to monitor the status of ongoing services and plan surveys and maintenance at a single point-of-contact.

This will save you the time and the cost you normally spend while dealing with several companied instead of leaving the job to us.

Please contact us for further information and to book your service today.









ISO 9001 The most recognised standard in the world for quality assurance.

NS-EN ISO 14001 The most recognised standard in the world for environmental management.

OHSAS 18001 Internationally recognised standard for the Working Environment Act and th

Internationally recognised standard for the Working Environment Act and the Internal Control Regulations.



Classification authority Certified by DNV GL within condition monitoring, and radio control (GMDSS and AIS).



Classification authority. Certified within condition monitoring, radio control (GMDSS and AIS) and VDR APT.



Classification authority. Certified within condition monitoring, radio control (GMDSS and AIS) and VDR APT.



Classification authority. Certified within condition monitoring, radio control (GMDSS and AIS) and VDR APT 2019.



On behalf of the Norwegian Maritime Authority we are authorised to perform radio control (GMDSS and AIS) of Norwegian ships and foreign vessels in Norwegian waters.



Safety testing and certification of electrical materials. Certification by Nemko within electro-thermography.



Maritime purchasing organisation. We are a member of Incentra and in 2014 we received the "Supplier of the year" award from Incentra's members.



Member's association that works for openness and responsibility in the global extractive industry.



Supplier register and qualification solution used by purchasing agents in the Nordic transport sector.



Achilles JQS is qualified as a supplier to the oil industry in Norway and Denmark.



Supplier register and a qualification system used by the Nordic energy sector.



A supplier register and a service for qualification used by purchasers in the Norwegian oil and gas sector.



Supervision of companies offering post and telecommunication services. Certified by the Norwegian Communications Authority as a radio installation contractor.



Recycling company for the collection, recycling and environmentally-appropriate processing of electrical and electronic waste.



ITAR

Return scheme for packaging, plastic packaging, packaging cartons and drink cartons.

The International Traffic in Arms Regulations (ITAR). We are authorised to supply ITAR regulated products.



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