

Product Catalog

HIGH PERFORMANCE SEPARATORS



Drilling Oil & Gas



Oil And Gas Conditioning



BioGas Renewable



Environmental Protection



Chemicals



Industrial Wastewater



EXCELLENCE COMES AS STANDARD

www.kapwell.co.uk

SAND MANAGEMENT
PRODUCED WATER TREATMENT
SEPARATORS TWO OR THREE PHASE
INTERNALS FOR SEPARATORS
DEGASSERS
MUD GAS SEPARATORS
SCRUBBERS (SCAVANGERS)

Kapwell Ltd Profile



A Global Company with Values.

Kapwell's vision is to be one of the leading global offshore equipment companies for Separator, equipment supply, repair, replacement parts and field service. We offer our global customers lifecycle support that includes equipment commissioning, training, technical support, recertification and repair services. With a total commitment towards service and on-time delivery, all contracts from major installations through to maintenance projects are tailor made packages designed and project managed to suit our client's requirements.



Our Core Values

- Professionalism.
- Creativity.
- Trust.
- Staff rights.
- Customer satisfaction.
- Focusing on our client's advices.
- Believe in our mission.
- Supporting leader to achieve vision



Our Strategy

To deliver cutting-edge technology, driven highly skilled team.



Health Safety and Environment (HSE)

Our core principle is the protection of people's health and the natural environment, which is embedded in our day to day work.



Customer orientated

Through understanding of customer's requirement and exceeding those expectations through comprehensive planning to future proof regulatory requirements.



Maintain operational viability

- Kapwell, high performance separators

Our goal is to fulfil the expectations of our clients and business partners by providing high-quality goods at prices that are competitive in the market.

Safe Design

The Kapwell equipment is simplistic and intuitive in its operation. This eliminates the need for the expensive additional maintenance requirements.

Created with functionality in mind

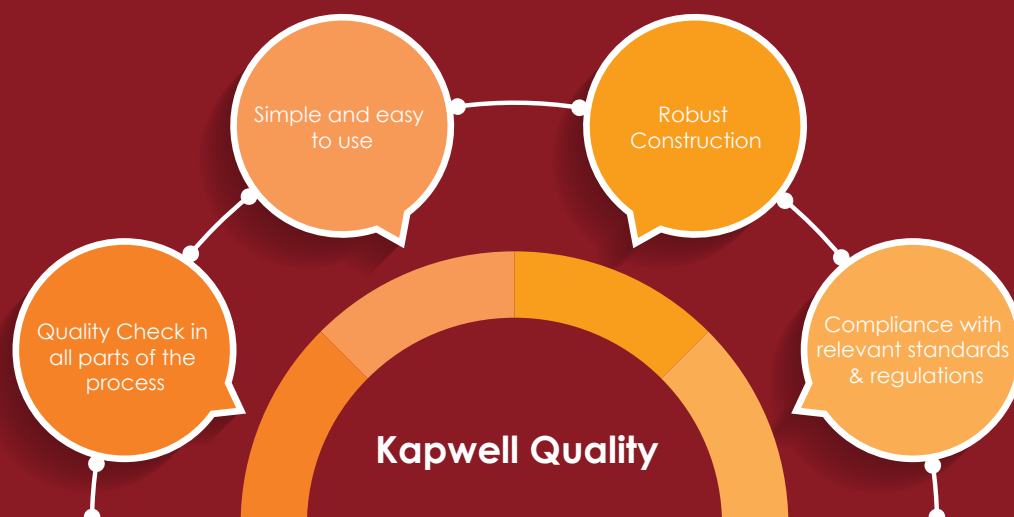
The Kapwell equipment undergoes extensive research, development, and testing to ensure that it complies with all applicable rules and regulations.

Maintain the status quo

The keys to enhanced productivity and less downtime lie in the sturdy construction of the components as well as their reliable production.

Strong working relationship

Kapwell machinery are potent tools in the battle for market share. Consistent, easy, and adaptable



Why Kapwell

- High Performance Equipment

The Company

Kapwell is committed to provide professional separation equipment through constantly exceeding customer's expectations and building a long term commitment. This is due to the portfolio of products' that are reliable, fit for purpose, user-friendliness and our professionalism towards service. We assure that our products have the best quality to price ratio in the segment. We ensure our customers are supported by our highly dedicated team and local network support.



Certification & Quality

Kapwell follows Norsok standards to satisfy Norwegian statutory requirements (PSA, NCS) including Framework HSE, Facilities and Working Environment Regulations.

The EC conformity process for various products is the tool of the European Union to ensure that only products which comply with the essential health and safety requirements are placed on the market and put into service within the European Economic Agreement (EEA) area. The visual symbol of this conformity is the CE marking on the product. The EEA area extends to include the continental shelves of Member States, but seagoing vessels and mobile offshore units are exempt.

Quality

Our QA vision is to become our customers' preferred supplier by supplying product & services of the highest quality.

Kapwell Ltd commits and empowers its organisation to ensure that our customers experience with Kapwell Ltd are at all times exceeds our customer expectations.

Certification & Quality

Kapwell comply with GOST-K & GOST-R standards and mandatory certification requirements. Kapwell supplied with RTN and technical passports and designed for survivability in - 40 degree C environments.

Quality Assurance



Contents

Sand Management

Spherical Sand Separator	.....9
Vertical Sand Separator	.....9
Cyclonic Wellhead Desander	.....9
Dual Wellhead Screen Filter	.....9
Sand Jetting OR Fluidising System	.....9
Sand Monitoring	.....9

Degasser

Atmospheric Degasser	.....14
Centrifugal Degasser	.....14
CO2 Degassifier	.....14
Horizontal Degasser	.....14
Thermal Degasser	.....14
Vacuum Degasser	.....14

Internals Separators

Mesh type Mist Eliminator	.....13
Vane Mist Eliminator	.....13
Swirl Type Mist Eliminator	.....13
Multi Vane Inlet Distributor	.....13
Perforated Baffle Plates	.....13
Coalescing Plate Pack	.....13

Scrubber

Atomizers H2S Scrubber	.....11
Flare Vent Scrubber	.....11
Gas Scrubber Package	.....11
H2S Scavenger Solid Bed (DRY)	.....11
H2S Scavenger wet Scrubber (WET)	.....11
Hydrogen Scrubber	.....11
Jet Venturi Scrubber	.....11
Oil Gas Scrubber	.....11

Mud Gas Separators

Horizontal Mud Gas Separator	.....15
MGS for Gas Service	.....15
API Monogram MGS	.....15
Liquid Seal Gauge Panel	.....15
Low Liquid Level Shutdown System	.....15

Produced Water

Deoiling Hydrocyclones	.....10
Desanding Hydrocyclones	.....10

Separators

Test Separator	.....12
Three Phase separator	.....12
Inline Deliquidizer	.....12
Gas Separator	.....12

all statements, technical information and recommendations contained herein are believed to be reliable, but no guarantee is given as to their accuracy and/or completeness. the user must determine the suitability of the product for his own particular purpose, either alone or in combination with other products and shall assume all risk and liability in connection therewith. Whilst every attempt has been made to ensure accuracy in the content of the tables, the information contained in this catalogue does not form part of any contract



Product Overview

Sand Management



Spherical Sand Separator



Vertical Sand Separator



Cyclonic WellHead Desander

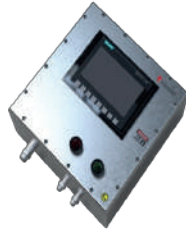


Dual WellHead Screen Filter

Sand Management

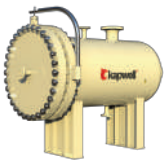


Sand Jetting OR Fluidising System



Sand Monitoring

Produced Water Treatment (Fluid Flow Management)



Deoiling Hydrocyclone

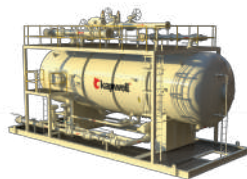


Desanding Hydrocyclone

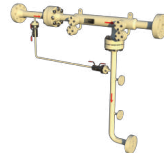
Separators



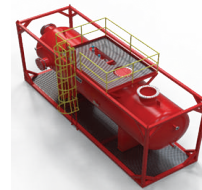
Test separator



Three Phase Separator



Inline Deliquidizer



Gas Separator

Internals Separators



Mesh Type Mist Eliminator



Vane Mist Eliminator



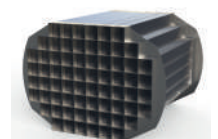
Swirl Type Mist Eliminator



Multi Vane Inlet Distributor



Perforated Baffle Plates



Coalescing Plate Pack



Product Overview

Degasser



Atmospheric Degasser



Thermal Degasser



Vacuum Degasser



Centrifugal Degasser



Horizontal Degasser



CO2 Degassifier

Mud Gas Separators



Horizontal MGS



MGS for Gas Service



API Monogram MGS



Liquid Seal Monitoring Panel



Low Liquid Level Shutdown System

Scrubbers



Gas Scrubber



Flare Scrubber

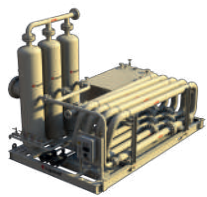


Oil & Gas Scrubber

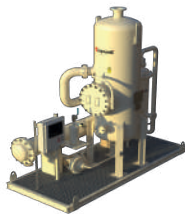


Jet Venturi Scrubber

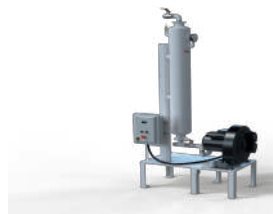
Scrubbers



Atomizers H2S Scrubber



Hydrogen Scrubber



H2S Scavengers Solid Bed (DRY)



H2S Scavengers WET Scrubber (WET)



Sand Management

Hydrocyclones

Hydrocyclone separator works by creating a vortex in the liquid and forcing the particles to the outside of the vortex. The separated particles then exit the Hydro cyclone through different outlets. They are relatively simple and inexpensive to operate and maintain, making them a popular choice for particle separation.

Hydrocyclones are used to separate particles from a liquid suspension based on their size and density. It commonly used in industries such as mining, oil and gas, and wastewater treatment.



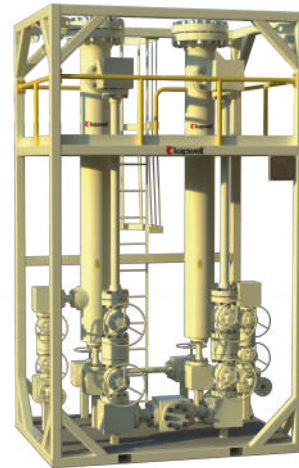
Spherical Sand Separator

Sand separator

A sand separator works by using gravity to separate the heavier sand particles from the lighter fluid, allowing the clean fluid to be collected and reused. It removes sand and other small particles from water or other fluids.

Hydrocyclone filters

Hydrocyclone filters consist of a cylindrical body with an inlet and outlet, and a conical section that creates a vortex in the liquid. As the liquid enters the hydrocyclone, the centrifugal force created by the vortex causes the particles to be separated and collected at the bottom of the cone.



Hydrocyclone Filters



Vertical Sand Separator

Sand Jetting System (Fluidisation)

The sand jetting package includes the following options: Automated Flushing System, Timer-Based Flushing System, and Manual Flushing System. The flushing system can be performed in either online or offline mode, depending on the vessel's operational status. For effective cleaning, the online flushing system employs multiple flushing nozzles inside the vessel.

The Automated Flushing System is triggered by a solid level sensor within the vessel, which activates the flushing system through actuated valves on the supply and return headers of the produced water supply. The Timer Based Flushing System operates without a sensor inside the vessel, instead activating the flushing system according to a timed sequence of opening and closing the automated valves

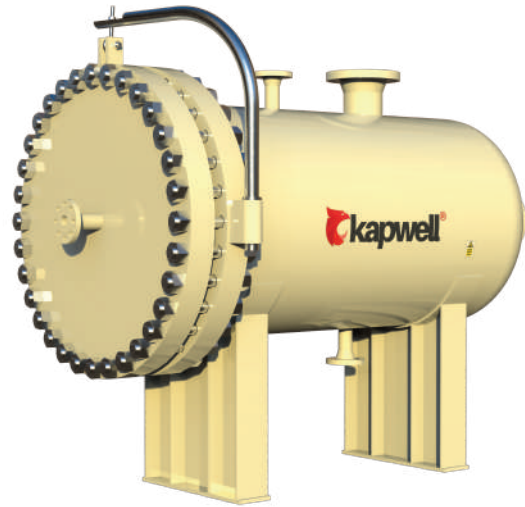


Sand Jetting System

Produced Water Treatment (Fluid Flow Management)

Deoiling Hydrocyclones

Kapwell Ltd's Deoiling Hydrocyclones are advanced separation devices designed to efficiently remove oil and other contaminants from wastewater and process streams. Utilizing centrifugal force, these hydrocyclones separate oil droplets from water, ensuring a high level of oil removal with minimal energy consumption. Built with durable materials to withstand challenging operating conditions, Kapwell's Deoiling Hydrocyclones are ideal for industries such as oil and gas, chemical processing, and wastewater treatment. They are engineered to deliver reliable, cost-effective performance while meeting environmental standards and reducing operational downtime.



Deoiling Hydrocyclone

Desanding Hydrocyclones

Kapwell's Desanding Dual Hydrocyclones are engineered to effectively remove sand and solids from produced water in oil and gas operations. These hydrocyclones utilize centrifugal force to separate heavier particles from lighter fluids, ensuring optimal performance in challenging environments. With a dual configuration, they enhance efficiency and reliability, allowing for higher throughput while minimizing maintenance needs. This technology not only helps in protecting downstream equipment from abrasion and fouling but also plays a crucial role in meeting environmental compliance standards by improving water quality before disposal or reuse.



Scrubbers

Gas Scrubber

By applying cutting-edge design techniques, our gas scrubber makes sure that the gas stream comes into significant contact with the liquid. This allows us to remove liquid droplets from the gas streams, protecting the downstream equipment from damage and malfunction.

For various gaseous emissions, scrubbers can also be used as an emission-limiting strategy.

H2S Scrubber WET & DRY

Wet H2S Scrubber is the most effective scrubber available; it also requires very little maintenance and is nice to users during downtime. A caustic solution is used in this wet H2S scrubber in order to absorb H2S and convert it into a liquid condition. A feasible and cost-effective H2S abatement scrubber system can be custom developed depending on the process outlet as well as the amount of H2S that needs to be treated.

Kapwell offers dry H2S scrubbers that are utilised for the purpose of cleaning the gases prior to their combustion or disposal. Activated carbon is utilised in these scrubber systems. Activated carbon is responsible for removing hydrogen sulphide from a gas by enabling a chemical reaction within the scrubber tank.

Flare Scrubber

Your operation will be able to run more safely and cleanly thanks to Kapwell's Vent Scrubber, which removes free liquids from your vent gas stream before they enter the relief and blow-down lines in your flare system.

Jet Scrubber

The Jet Scrubber from Kapwell is a cost-effective solution for the cleaning of extremely contaminated gases, requiring low maintenance and offering nearly limitless turndown possibilities. The jet scrubber is capable of eliminating harmful gases and particle matter in a variety of environments.

Atomizers H2S Scrubber

Kapwell's Atomizers H2S Scrubber is an innovative solution designed to effectively remove hydrogen sulfide (H2S) from gas streams. Utilizing a triazine-based chemical process, this scrubber efficiently neutralizes H2S, ensuring that emissions meet environmental regulations. The system operates by atomizing the gas stream, allowing for optimal contact with the triazine solution, which absorbs and converts H2S into less harmful substances.

Hydrogen Scrubber

Kapwell's hydrogen gas scrubber is an advanced system designed to efficiently remove hydrogen from air or gas streams. This innovative technology utilizes a combination of chemical and physical processes to selectively capture hydrogen, ensuring a cleaner and safer environment. The scrubber is particularly effective in industrial applications where hydrogen is present as a byproduct or contaminant, helping to reduce emissions and improve air quality. By integrating robust control systems and real-time monitoring capabilities, Kapwell's hydrogen scrubber enhances operational efficiency and compliance with environmental regulations.



Gas Scrubber



H2S Scrubber (WET)



Jet Venturi Scrubber



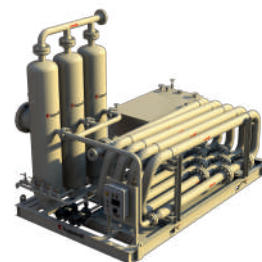
Flare Scrubber



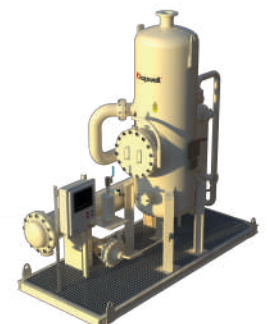
H2S Scrubber (DRY)



Oil & Gas Scrubber



Atomizers H2S Scrubber



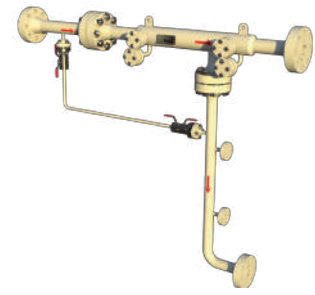
Hydrogen Scrubber

Separators

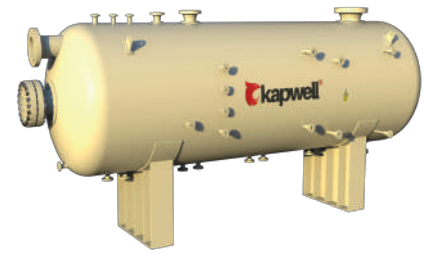
Separators are an essential component in the oil and gas industry that are used to separate the different components of a mixture, typically crude oil or natural gas, into their individual phases.

Inline Deliquidizer

An Inline Deliquidizer is a specialized device used in the oil and gas industry to remove liquid droplets from gas streams during transportation. Positioned directly within the pipeline, it efficiently separates gas from liquid, reducing the risk of pipeline corrosion, improving flow efficiency, and minimizing downstream processing requirements. By operating in-line, it eliminates the need for external liquid separators and fits seamlessly into existing systems, making it a compact, efficient solution for maintaining the integrity and quality of gas transmission.



Inline Deliquidizer



Test separator

HP Test Separators

Kapwell's high-pressure test separators are specialized equipment used in the oil and gas industry to separate oil, gas, water, and solids from well fluids under high-pressure conditions. These separators are engineered for durability and accuracy, allowing for precise measurement and analysis of each component, which is essential for assessing well performance and optimizing production processes. Built to withstand extreme pressures, Kapwell's separators offer reliable performance and are available in various configurations to meet specific operational needs. Their design ensures safety, efficiency, and compliance with industry standards.

Gas Separators

Gas separators are devices used to separate gas from liquids or solids in industrial processes. They play a crucial role in the oil and gas, chemical, and environmental industries by removing gas from oil, water, or other fluids to ensure efficient operation, improve safety, and reduce emissions. Common types include vertical and horizontal separators, which differ in design based on flow characteristics and separation needs. Gas separators typically work using gravity, centrifugal force, or filtration to remove gas bubbles or separate phases, allowing for the collection of pure gas or liquid streams for further processing or disposal.

Three-phase separator

A three-phase separator is a vessel used to separate gas, oil, and water from a well stream. It works by using gravity to separate the three phases based on their different densities. The separated phases are then collected and routed to their respective storage or processing facilities.



Gas Separator



Three Phase Separator

Internals Separators

Mesh Type Eliminators

Mesh Type Eliminators offer effective mist removal solutions by utilizing layered mesh materials to capture liquid droplets from gas streams. Designed for high efficiency and low pressure drop, these systems are ideal for various industrial applications, including those offered by Kapwell Ltd in the oil, gas, and chemical sectors. They ensure reliable operation and enhanced process performance while requiring minimal maintenance.



Mesh Type Eliminator

Multi Vane Inlet Distributor

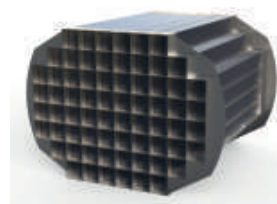
Kapwell Ltd's Multi-Vane Inlet Distributors are designed to optimize flow distribution in separation systems, ensuring uniform liquid and gas distribution across the process. With their advanced vane design, they minimize pressure drop while enhancing separation efficiency in various applications. Ideal for use in oil, gas, and chemical processing, these distributors promote reliable operation and improved system performance.



Multi-Vane Inlet Distributor

Structured Packing or Coalescers

Engineered to maximize separation efficiency in liquid-liquid and gas-liquid systems, Kapwell Ltd's structured packing and coalescers minimize pressure drop and optimize energy use. This design enhances process performance and lowers operational costs, making them ideal for demanding applications in the oil, gas, and chemical sectors. These solutions ensure reliable, high-quality results for your operations.



Coalescers Plate Pack

Swirl Type Mist Eliminator

Kapwell Ltd's Swirl Type Mist Eliminators provide exceptional mist removal in gas streams, leveraging a unique swirl action to capture fine droplets efficiently. This design minimizes liquid carryover and pressure drop, enhancing separation performance in challenging applications. Ideal for use in oil, gas, and chemical processing, it ensures reliable mist elimination with minimal maintenance.



Swirl Type Mist Eliminators

Vane (Chevron) Mist Eliminator

Vane Mist Eliminators, also known as Chevron Mist Eliminators, deliver superior mist removal through precisely angled vanes that efficiently capture liquid droplets. Designed to handle high gas velocities with minimal pressure drop, these solutions are ideal for oil, gas, and chemical processes that require dependable mist separation. With their robust design, Kapwell Ltd ensures low maintenance and optimal performance in demanding environments.



Vane Mist Eliminators

Degassers

Degasser removes gas that is dissolved or entrained in drilling mud or other fluids. Gas can accumulate in drilling fluids during the drilling process due to the high pressures and temperatures encountered underground.

Atmospheric degassers rely on gravity to remove gas from the fluid, While Vacuum degassers use a vacuum to draw the gas out and Centrifugal degassers use centrifugal force to separate the gas from the fluid.

Vacuum Degasser

A vacuum degasser operates by creating a vacuum that draws gas out of the fluid, typically using a centrifugal pump. The degassed fluid is then returned to the drilling process, which can increase drilling efficiency and safety.



Vacuum Degasser



Centrifugal Degasser

Centrifugal Degasser

Centrifugal degassers remove gas from drilling fluids. They operate by using centrifugal force to separate gas from the fluid. This process can be more efficient than other degassers and can work on a wider range of drilling fluids.



Horizontal Degasser

Horizontal Degasser

Mounted over the active pit Horizontal degassers are a forced two-phase liquid/gas separator. Horizontal degassers are mounted over the drilling rig active pit. Horizontal degassers have the largest separation area in comparison to other types of degassers, and the vacuum inside them makes them the most effective separators.

Thermal Degasser

The Kapwell thermal degasser makes use of cutting-edge degassing design in order to either completely remove gases from the water or decrease them to concentrations that are below the respective acceptable residual levels.



Thermal Degasser

Mud Gas Separator

Horizontal Mud Gas Separator

As the name suggests, it is designed in a horizontal orientation and typically consists of a cylindrical vessel with a length-to-diameter ratio of 2:1 or greater. It is designed in a horizontal orientation and uses centrifugal force to separate the gas from the mud. Horizontal mud gas separators are commonly used in offshore drilling operations where space is limited, as they take up less vertical space than traditional vertical mud gas separators. They are also useful in situations where there is a limited amount of gas to be separated from the mud.

Mud Gas Separator for Oil & Gas Service

A mud gas separator is a piece of drilling equipment used to remove gas from drilling mud. When drilling, gas can become trapped in the drilling mud, creating a dangerous condition if the gas is not removed. The mud gas separator utilizes gravity and centrifugal force to separate the gas from the mud, allowing the gas to be evacuated away from the drilling site in a safe manner.

API Monogram Mud Gas Separator

Monogram to API Spec 12J Specification, our Mud Gas Separators are designed to handle a high proportion of mud and gas. The proven design of our Mud Gas Separator meets the latest governing regulations and requirements such as API Std 53.

Liquid Seal Monitoring Panel & Gauge Panel

Kapwell liquid seal monitoring panel or gauge panel is used to continuously monitor the liquid seal and alert the crew if there is any sign of failure, ensuring the proper functioning of a mud gas separator. If the liquid seal fails, it can create a dangerous situation for the drilling crew, as gas can flow back into the rig and cause explosions or other accidents.

Liquid seal monitoring panel is a critical safety feature in drilling operations that helps to ensure the proper functioning of mud gas separators and prevent gas-related accidents.

Low Liquid Level Shutdown

Kapwell's Low Liquid Level Shutdown System for mud gas separators is designed to enhance safety and operational efficiency in drilling operations. This system continuously monitors the liquid level within the mud gas separator, ensuring it does not fall below a predetermined threshold. If the liquid level drops too low, the system automatically triggers a shutdown of the separator, preventing potential damage and maintaining optimal performance. By integrating advanced sensors and control mechanisms, this solution minimizes the risk of gas blowouts and enhances the overall reliability of mud circulation, making it an essential component in managing drilling fluid systems effectively.



Horizontal MGS



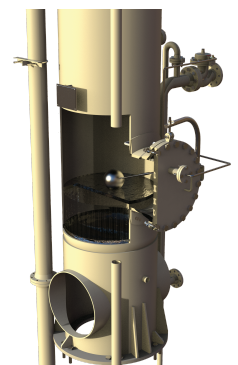
MGS for Gas Service



API Monogram MGS



Liquid Seal Monitoring Panel



Low Liquid Level Shutdown System



Our extensive selection of equipment ensures that we can meet all onshore and offshore separator requirements. No matter where your business is located, all of our products will guarantee that you fulfil internal governance and environmental compliance requirements.

As good as we can.

With a total commitment towards service and on-time delivery, all contracts from major installations to maintenance projects are tailor-made packages designed and project managed to suit the individual client's requirements. From arctic conditions, deserts, remote locations to harsh offshore facilities and aggressive desert environments, Kapwell Ltd provides world-class products and services



Rental Equipment

We supply custom made Separators Equipment. Our rental option also includes on-site support, spare parts, installation, and commissioning.



Field Service

Our field service engineers are supported by unmatched technical expertise in our technical support function and industry leading quality management.



Local Support

Kapwell is committed to providing you troubleshooting, service & technical support at any stage of your equipment's life cycle



Services

Warranty

All Kapwell separation equipment has been rigorously tested and inspected by quality personnel at both the company and the subcontractor's site. According to the terms of the warranty, it is guaranteed to be free of material and workmanship faults.

Our service representative will repair or replace any parts found to be deficient in material or workmanship. For warranty claims, please contact Kapwell or its agent.
Applies to Kapwell equipment sold in Europe, Middle East and Africa:

- Your Kapwell equipment is guaranteed against any manufacturing defects for one year from the date of purchase.
- The warranty is issued only at the time of original purchase; it is non-transferable.
- Kapwell service dealer will repair Kapwell equipment in the warranty period.
- Warranty for Kapwell equipment is only valid in the country or region of purchase.

NOTE: This warranty does not apply to damage caused by accident, misuse, do-it-yourself repairs, negligence, abuse, fire, or to any Kapwell product, which has been repaired by ANYONE other than an authorized Kapwell service dealer. Also wearing parts are not covered by warranty. Warranty is void if products are used for any purpose other than that which was intended. Please read instruction manuals and maintenance instructions carefully.

WWW.KAPWELL.CO.UK

Also on our site:

- Product information
- Technical manuals
- Brochures
- Dealer finder
- About Kapwell
- Certification Compliance
- Our Standards
- Capabilities
- History
- Quality
- Safe - HSE
- Accreditations
- Manufacturing
- Research & Development
- Prototype Testing
- Simulation Modelling
- Optimization

Services

- Retrofits & Upgrades
- Spares
- Aftermarket Support
- Local Support
- Rental Equipment
- MGS Sizing Verification

Services



New Bespoke & Upgrades

We are experts in separation design employing cutting-edge technology, and we also enhance the performance of your current separators.



Design & Engineering Support

Kapwell provides a comprehensive selection of fully customisable design services to assist you with your Separator project. We can assist you with anything from thorough design of a Process, Mechanical Design, Computational Fluid Dynamics (CFD), and Research & Development



Remote Support

Kapwell is committed to providing you troubleshooting, service & technical support at any stage of your equipment's life cycle.



GLOBAL FOOTPRINT

From arctic conditions or remote jungle locations to harsh offshore facilities and aggressive desert environments, we supply world-class products and services.



Head Office : 37 Waterloo Quay, Aberdeen, AB11 5BS, Scotland, UK
Workshop : Unit 6, Linton Business Park, Gourdon, DD10 0NH, Scotland

Tel: +44 1224 007288
www.kapwell.co.uk

 **kapwell**[®]
Email: info@kapwell.co.uk
ISO 9001:2008

Company Registration: SC399848
VAT Registration: GB 113759808