

Offshore Solutions



The core
of drilling
innovation



Offshore Solutions

Drillmec has for decades designed, manufactured and distributed drilling and workover rigs that today operate in more than forty countries on five continents. Drillmec transfers that experience and expertise to offshore rig packages and associated drilling equipment.

In addition to complete Pre-FEED, FEED and EPC of drilling packages, Drillmec offers a comprehensive line of offshore equipment for platforms, jack-ups, barges, semisubmersibles and drill ships that can handle a wide range of E&P and production requirements.

From well head to crown, Drillmec supplies mud systems, mud pumps up to 2,200 hp, drawworks packages up to 4,600 hp, control rooms, derricks, pipe handling systems, power tongs, and rotary tables. Skidding systems, bulk storage and transportation systems are also available.

**support
organization**

Drillmec delivers equipment and complete systems together with a first class after market service.

**experience
since 1929**

TREVI Group's Drillmec S.p.A. has designed, manufactured and distributed drilling rigs and workover rigs operating in more than forty countries on five continents.





Conventional Drilling Packages

Drillmec provides a complete range of offshore drilling equipment packages, using innovative engineering, high quality standards and a knowledgeable staff, in order to cover any of its client's needs. Drillmec's offshore equipment packages are designed to meet all types of operational criteria, hook loads and certification requirements (ABS, RMRS, CE, NORSOK, ATEX, GOST, API).

Drillmec is manufacturing drilling and workover integrated packages for any installation including:

- Fixed platforms
- Jack ups
- Semi-submersibles
- Drill ships

Once Drillmec delivers equipment or a complete system, a comprehensive support organization makes sure everything runs smooth. From front end feasibility studies to parts and service, Drillmec stands behind every piece of equipment. We provide front end engineering and design, technical consulting, project management support, 24/7 maintenance services through our customer care department, inspections and recertifications.

Modular Drilling Packages

The offshore industry around the world is looking for various ways to improve the installation of the offshore drilling packages. Drillmec can accommodate your offshore platform with modular solutions from a single unit to a complete rig package.

Traditional derrick barge cranes are often not readily available to lift these drilling units onto the platforms.

With this in mind, Drillmec developed its Offshore Modules Platform Drilling Rigs, that are not equipped with these derrick barge cranes, in order to compound this challenge. These rigs are designed and built in modules so that the modules can be quickly installed by the drilling rigs operational cranes, with the help of one set of temporary cranes.

The high number of light modules in Drillmec's Offshore Modules Platform simplifies the installation process, also giving the advantage of an even weight distribution on the platform deck.



Mast & Derrick

Drillmec manufactures derricks and masts for all applications, and, in addition, packages can be furnished with top drives, racking system, pipe handlers, elevators, top mounted flares and all derrick related equipment for complete packages.

Drillmec offers a complete range of masts in telescopic, bootstrap, cantilever, and barge mounted units configurations. In the design phase, particular care is given to weight, space, environmental loading conditions and operational capacities.

These are the main features of Drillmec derricks:

- 1,000 ton hook load capacity
- Welded or bolted derricks
- Tower or bottleneck type derricks
- Bases from 24 ft x 24 ft to 50 ft x 50 ft
- Suitable for triple and quadruple stands accommodation
- Racking board equipped with racker and stand maker systems

Configurations available

DYNAMIC DERRICKS

STANDARD DERRICKS

JACK-UP DERRICKS

HYDRAULIC HOIST

SUBSTRUCTURES





Rotation Equipment

Drillmec rotation equipment is designed for rough conditions and complies with the strictest approvals for the drilling industry.

A full range of top drives can be fitted to almost any rig in order to increase the performance in directional or horizontal drilling. They are electrically powered with a maximum pull string from 350 up to 750 Ton.

Drillmec's rotary table "R Type" are designed, in accordance with the industry standards, for drilling depths up to 30,000 FT and beyond. Driven by electric or hydraulic power, the "R Type" series is interchangeable with the most popular rotary table brands.

Travelling block, adapter and crown block tailored to the customer's requirements complete the package of rotation equipment.

Drillmec's quality department inspects all phases of manufacturing and every item is tested in Drillmec's premises before delivery.

Drill Floor Equipment products

TOP DRIVE

TOP DRIVE DOLLIES

ROTARY TABLE

TRAVELLING BLOCK

Drill Floor and Pipe Handling Equipment

Every rig operator is looking for greater efficiency and safer operations combination.

A rig equipped with Drillmec's Iron Roughnecks significantly increases overall performance: speed in screwing and unscrewing the pipes, efficiency reducing risk of errors and breakages, and safety by reducing crew injuries.

Drillmec automated Power Catwalk is both easy to operate and extremely reliable. Conventional racking boards are available as well as Drillmec's advanced racking board with automated pneumatic or hydraulic latches and stand racker and maker systems.

Drillmec catheads apply the correct connection torque, reducing wear on expensive components, and avoiding connection failures.



Drill Floor Equipment products

IRON ROUGHNECK

POWER TONG

PIPE SPINNER

CATHEADS

PIPE HANDLING SYSTEM

Manual / Semi automatic handling

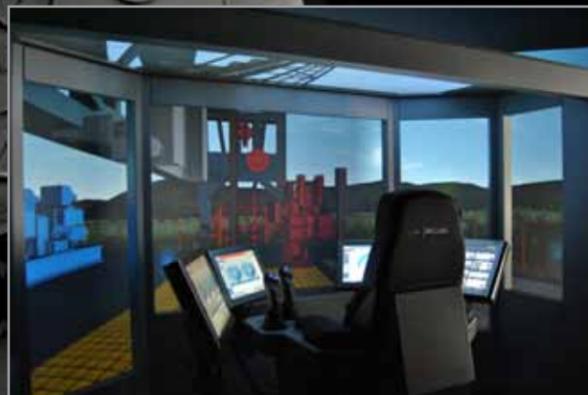
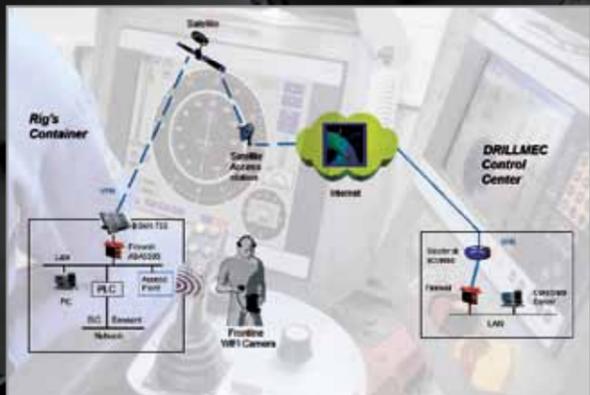
Automatic sequences PLC controlled

Control System & Drilling Instrumentation

Drillmec's Control Cabins are specifically designed for each individual drill floor. Our portfolio includes last generation of cyber chairs and cabins for up three operators. The driller cabins are equipped with air conditioning and air pressurizing system and all components inside the cabin are designed for safe-area and ex-proof if necessary.

It is crucial for rig operators and personnel to have full access to interact with the rig during all drilling operations. The Data Mate System (DMS) provides the rig operator with vital information to manage productivity during drilling and production operations. All the information can be display locally or transmitted to remote for supervisory service or troubleshooting.

Drillmec's extensive knowledge and experience with drilling and equipment helped us develop innovative tools that simplifies the operator's job.



Control System & Drilling Instrumentation products

DMS

CONTROL CABIN

Pneumatic Control

Hydraulic Control

Electronic Control (Cyber Chair)

Drawworks

Drillmec gear driven drawworks (GD Series) are the primary hoisting machinery used to raise and lower the traveling blocks. They consist of the following main parts: drum, motors, reduction gear, brake, and auxiliary brake.

With Drillmec's determination for continuous improvement over decades of innovation, we produce and offer a wide range of drawworks engineered for today's tough challenges.

As with other Drillmec drilling equipment, our drawworks can be fitted to all rigs with power ranging from 1,000 to 4,600 hp driven by AC/DC motors.

Drawworks (MAS GD Series)

Model		MAS 7000 GD	MAS 7500 GD	MAS 8000 GD	MAS 9000 GD
Horse Power	kW	1,490	1,860	2,240	3,330
	hp	2,000	2,500	3,000	4,600
Wireline Size	mm	38	41	44	50
	in	1.1/2	1.5/8	1.3/4	2
Hoisting Drum Size	mm	800 x 1,550	915 x 1,575	915 x 1,575	915 x 1,575
	in	31.1/2 x 61	36 x 62	36 x 62	49.1/2 x 98
Hoisting Capacity - 10 Lines	mt	366	454	-	695
	lbs	807,700	1,000,000	-	1,532,000
Hoisting Capacity - 12 Lines	mt	431	525	620	805
	lbs	950,700	1,157,000	1,300,000	1,774,000
Hoisting Capacity - 14 Lines	mt	493	590	703	906
	lbs	1,087,000	1,300,000	1,550,000	2,000,000
Hoisting Capacity - 16 Lines	mt	-	-	771	-
	lbs	-	-	1,700,000	-



DRILLMEC
DRAWWORK TECHNOLOGIES
MAS 7000 GD

Mud Pumps & Drilling Fluid System

In critical drilling operations the circulation of drilling fluid has to be reliable. Drillmec manufactures a complete range of triplex mud pumps, delivering power from 300 hp to 2,200 hp.

The quick replacement of wearable parts, such as valves, pistons and liners, allows the operator to keep the pump on line longer. Reduced vibration and maintaining constant pressures are also important. The pump's lubricating and cooling systems are vital components in determining reliability.

With a variety of drive packages on the displacement and pressure sides, Drillmec mud pumps have it all in one package. Mud pump controls are rigorously tested before and after installation and quality is guaranteed before deployment to your drill site.

Drillmec manages its own quality testing facility that simulates a wide variety of drilling conditions.

Mud Pumps

Model	12T1600 - 5000 psi		12T1600 - 7500 psi		14T2200		
	min	max	min	max	min	max	
Liner Size	mm	114.3	190.5	114.3	184.1	127	228.6
	in	4.1/2	7.1/2	4.1/2	7.1/4	5	9
Stroke	mm	304.8		304.8		355.6	
	in	12		12		14	
Max Pressure	bar	345		517		517	
	psi	5,000		7,500		7,500	
Max Delivery	gpm	826		771		1,272	
	l/min	3,127		2,922		4,816	
Rated	kW	1,193		1,193		1,640	
	hp	1,600		1,600		2,200	
Max SPM	spm	120		120		110	



HH Series: Hydraulic Hoist Rigs

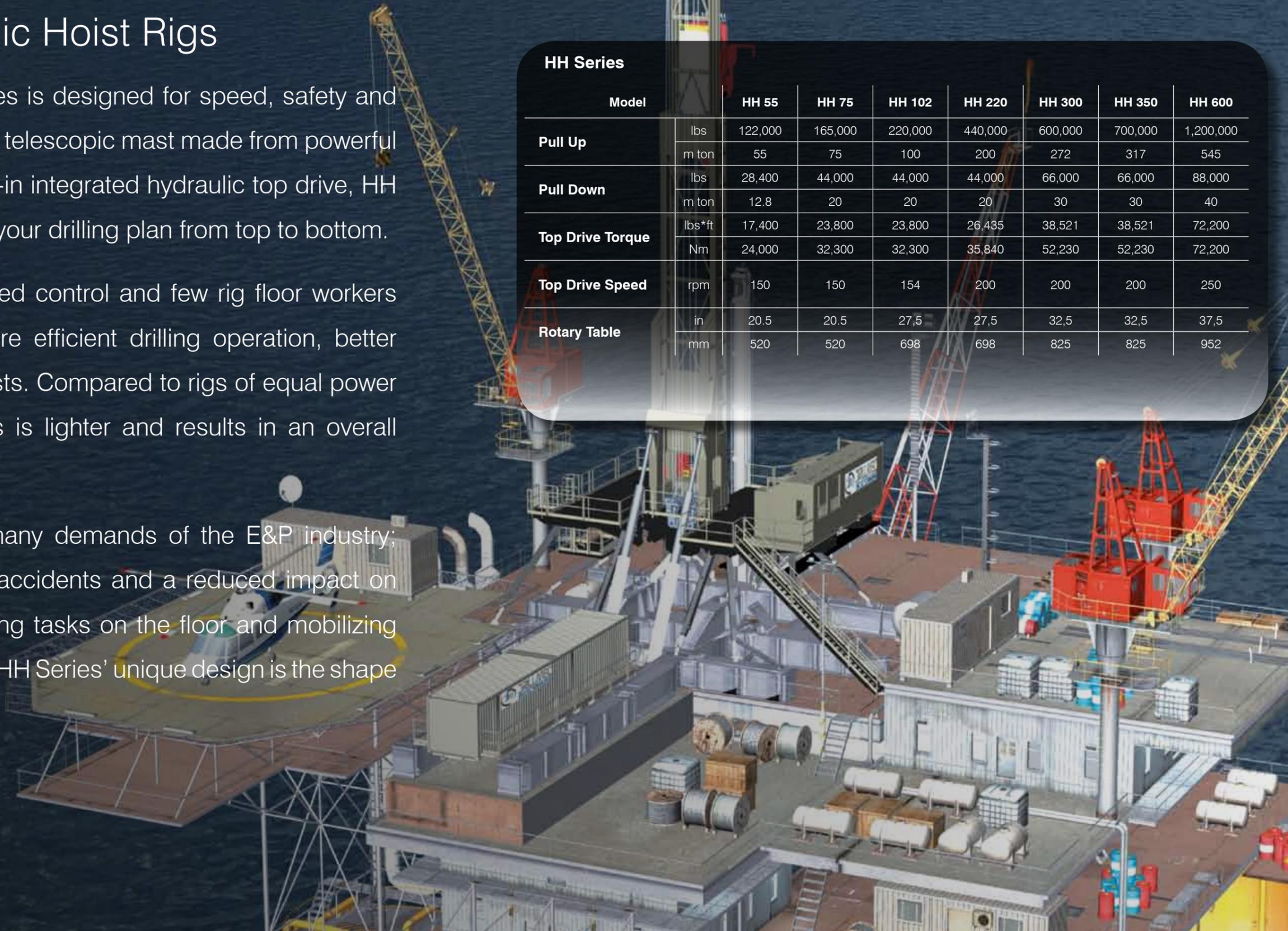
Everything about the HH Series is designed for speed, safety and efficiency. From its self-erecting telescopic mast made from powerful hydraulic cylinders to the built-in integrated hydraulic top drive, HH rigs are designed to optimize your drilling plan from top to bottom.

Automated systems, centralized control and few rig floor workers combine for a safer and more efficient drilling operation, better performance and reduced costs. Compared to rigs of equal power and capability, the HH Series is lighter and results in an overall considerably smaller footprint.

The HH Series answers to many demands of the E&P industry; increased productivity, fewer accidents and a reduced impact on the environment. By automating tasks on the floor and mobilizing components for efficiency, the HH Series' unique design is the shape of things to come.

HH Series

Model	HH 55	HH 75	HH 102	HH 220	HH 300	HH 350	HH 600	
Pull Up	lbs	122,000	165,000	220,000	440,000	600,000	700,000	1,200,000
	m ton	55	75	100	200	272	317	545
Pull Down	lbs	28,400	44,000	44,000	44,000	66,000	66,000	88,000
	m ton	12.8	20	20	20	30	30	40
Top Drive Torque	lbs*ft	17,400	23,800	23,800	26,435	38,521	38,521	72,200
	Nm	24,000	32,300	32,300	35,840	52,230	52,230	72,200
Top Drive Speed	rpm	150	150	154	200	200	200	250
Rotary Table	in	20.5	20.5	27.5	27.5	32.5	32.5	37.5
	mm	520	520	698	698	825	825	952

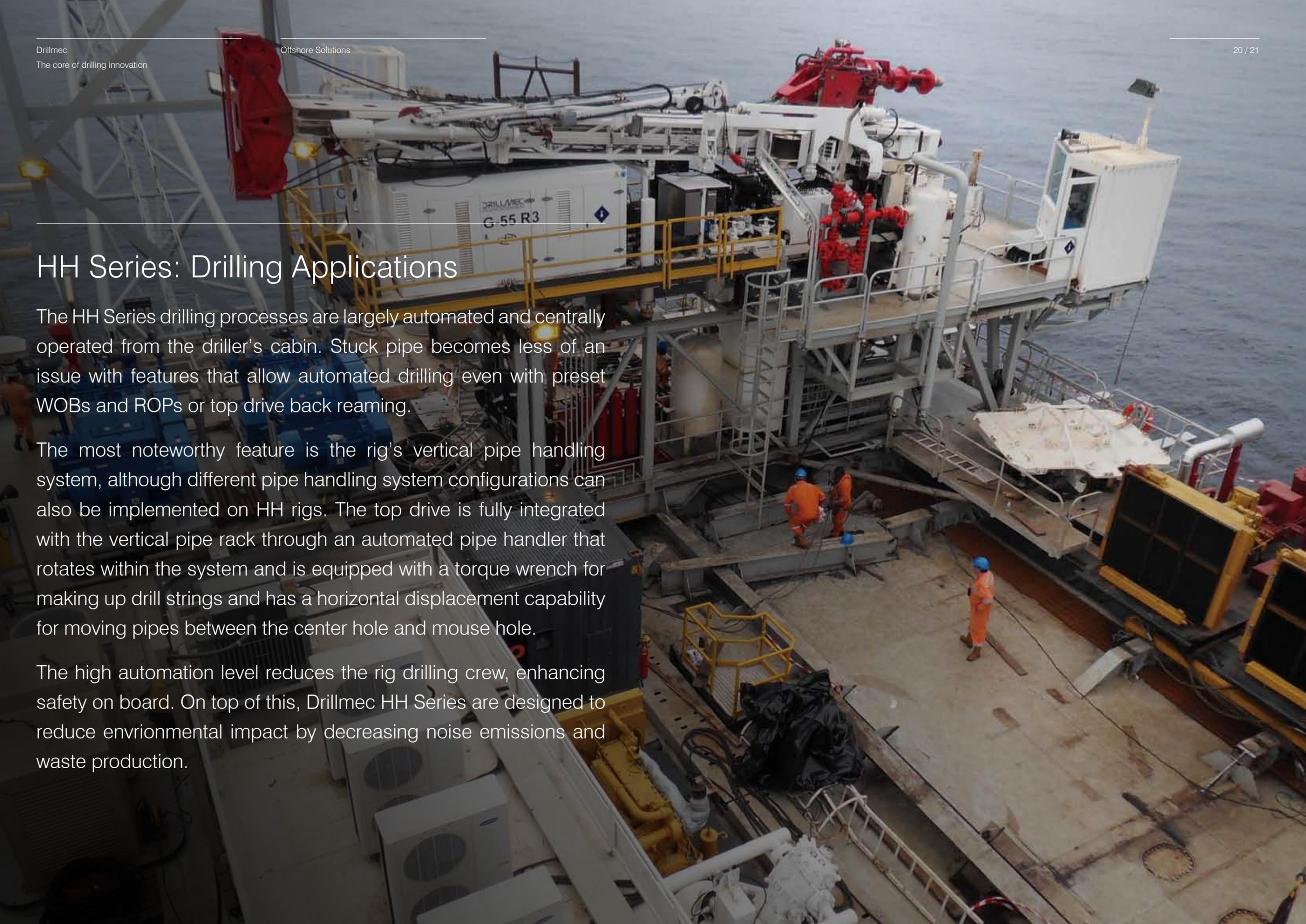


HH Series: Drilling Applications

The HH Series drilling processes are largely automated and centrally operated from the driller's cabin. Stuck pipe becomes less of an issue with features that allow automated drilling even with preset WOBs and ROPs or top drive back reaming.

The most noteworthy feature is the rig's vertical pipe handling system, although different pipe handling system configurations can also be implemented on HH rigs. The top drive is fully integrated with the vertical pipe rack through an automated pipe handler that rotates within the system and is equipped with a torque wrench for making up drill strings and has a horizontal displacement capability for moving pipes between the center hole and mouse hole.

The high automation level reduces the rig drilling crew, enhancing safety on board. On top of this, Drillmec HH Series are designed to reduce environmental impact by decreasing noise emissions and waste production.



HH Series: Workover Applications

The DRILLMEC ICU (Intervention & Completion Unit) are a multipurpose dedicated series of HH rigs suitable to cover all drilling and work-over activities and requirements in an offshore oilfield service.

ICUs are designed to ensure high safety standards, reliability and efficient operation rates to ensure low maintenance costs and long operating life.

These are the main features:

- Hands-off automatic handling of tubulars (drill pipes, tubing, casing) using built in top drive, pipe handler, jib crane and elevators
- Handling ESP components with full access to the well center
- ESP cable guiding & clamping systems for tubing installation
- Rig automation to minimize manual involvement in the operations
- Cyber control cabin with integrated control system
- Automated pipe handling including delivery of pipes between pipe rack and the completion rig
- Light and compact designs to allow simple and easy applications on all different type of platforms
- Skidding and rotation system for full well path area covering
- Tailor made solutions for all different applications and operations



Quality System



Policy

Drillmec has always viewed continuous improvement of company processes and complete satisfaction of customer's needs as essential factors for standing out on the highly complex, competitive oil and gas market. Drillmec's Quality System and HSE System are essential tools for achieving its business goals.

In accordance with its general aims and strategies for growth, Management promotes:

- The central role of the customer
- Full involvement of all personnel to ensure complete awareness of the significance and importance of their work and how they can contribute to achieving quality goals, environment, health and safety protection
- Continuous improvement of the quality of products and services, especially through a strong drive toward technological innovation
- Continuous improvement of process performance
- Safeguarding of the environment and protection of workers' health and safety. Such commitment is widespread not only to our workers, but even to our subcontractors and suppliers.

Drillmec prides itself in meeting the needs of our client rather than our client adapting to our drilling equipment packages.

Certifications

Drillmec SpA and Drillmec INC quality management systems are certified by API (American Petroleum Institute), DNV (DNV Business Assurance), RTN (Rostechnadzor) and CU-TR (Russian approval) and can also work under Norsok, ABS and RMRS, if required by the client.

API 4F-0062	CU-TR 0529642
API 6A-0492	CU-TR 0982253
API 7-1-0305	CU-TR 0529643
API 7K-0045	CU-TR 0529646
API 8C-0041	CU-TR 0529647
API 16A-0112	
API ISO-0076	RTN: PPC 00-047448
API Q1-0527	
API 4F-0058	

ISO 9001:2008
ISO 14001:2004
OHSAS 18001:2007



APIQR® Registration no. 0076



COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =
= ISO 14001 =
= OHSAS 18001 =



- | | |
|---------------------|-----------------------|
| 01 Crown Block | 11 Iron Roughneck |
| 02 Derrick | 12 Drawworks |
| 03 Racking Platform | 13 Rotary Table |
| 04 Cranes | 14 Pipe Deck |
| 05 Control Cabin | 15 Catwalk |
| 06 Traveling Block | 16 Living Quarter |
| 07 Drill Floor | 17 Mud Pumps |
| 08 Manifold | 18 Mud Tanks |
| 09 Lifeboat | 19 Power Control Room |
| 10 Heli Deck | 20 Generators |

For further information...

If you would like further information about our company, products or services, please don't hesitate to get in touch with us. You can do this in a number of ways...

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