DRILLMEC
DRILLING TECHNOLOGIES

LAND DRILLING RIGS

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Supplying packages successfully operating in all major oilfields in the world

Drillmec has a long history of over 100 years of manufacturing onshore drilling rigs. Over the years, several design improvements that enhanced safety, increased pull capacity, improved performance and reduced environmental impact have followed on.

Drillmec started first with the introduction of conventional land rigs that inculcated Massarenti & Branham-design. Today they are full range land rig packages with varied capacity and specifications to handle all land drilling operations in different parts of the world. At Drillmec, we put our customer's objectives and specifications into consideration in rig design and manufacturing to ensure it meets all the demands.

At Drillmec, we offer all our conventional land rigs with a full package that consists of top drives, drawworks, pipe handling systems, iron roughnecks, drilling control systems, rotary tables, power control units, low-pressure mud systems, catwalks and skidding systems. All these drilling equipment and systems are integrated into our customizable proprietary software DEEP (Drillmec's Embedded Efficiency Platform). With DEEP you enjoy fully automated rig operations with easy controls of rig equipment thus increasing efficiency and performance.

Swing lift & Sling shot type

We have two major packages of land drilling rigs which have been carefully designed and crafted using the most advanced technologies available in the industry.

Our **Swing Lift** onshore drilling rig package that comes with either hydraulic or conventional lifting configuration is specially designed to reduce Non-Productive Time with the simple structure that raises rig components easily and supports a safe and swift rig up and down. This is a key feature in modern land drilling rig manufacturing. In addition to that, this rig design features a wide work area with large space for rig equipment. This allows for faster and better automation of the drilling process while keeping personnel safer at reduced risk.

The **Sling Shot** product line is a self-elevating rig design that features a hydraulic or conventional raising system. This is one of the best conventional land rigs that are suitable for drilling mid-range well depth as seen over the years. It is a compact rig design that saves time in rigging up and down with the self-elevating mechanism. In this rig configuration, the driller cabin and other basic drilling equipment can be set up on the rig floor first before being raised. This is an advantage that saves time for onshore drilling rig types available today.

SWING LIFT type		CONVENTIONAL RAISING					HYDRAULIC RAISING			
		DM 750	DM 1000	DM 1300	DM 1500	DM 2000	HSL 750	HSL 1000	HSL 1300
Hook Load	mt	340	454	590	680	907	340	454	590
	lbs	750,000	1,000,000	1,300,000	1,500,000	2,000,000	750,000	1,000,000	1,300,000
Lines		12	12	14	14	16	12	12	14
Setback Capacity	mt	181	272	362	362	454	181	272	362
	lbs	400,000	600,000	800,000	800,000	1,000,000	400,000	600,000	800,000
Mast Height	m	43	46	48	46	49	43	46	47.8
	ft	142	152	156	152	160	142	152	157
Mast Base	m	8	9	11	9	12	8	9	11
	ft	25	30	35	30	40	25	30	35
Substructure Height	m	9	11	11	11	14	9	9	11
	ft	30	35	35	35	45	30	30	35

SLING SHOT type		CONVENTIONAL RAISING			HYDRAULIC RAISING	
		1000 SS	1300 SS	1500 SS	750 HSS	
Hook Load	mt	454	590	748	340	
	lbs	1,000,000	1,300,000	1,650,000	750,000	
Lines		12	14	14	12	
Setback Capacity	mt	272	362	500	181	
	lbs	600,000	800,000	1,100,000	400,000	
Mast Height	m	46	46	46	43	
	ft	152	152	152	142	
Mast Base	m	9	11	11	8	
	ft	30	35	35	25	
Substructure Height	m	9	12	12	9	
	ft	30	39	39	30	

Land rig key points

ADAPTABILITY

We design out rigs to withstand harsh environmental conditions of different oil and gas fields. Our conventional land rigs can withstand varying extreme temperature conditions such as freezing -45°C and scorching at 55°C while offering safety and comfort to the personnel. In addition, our rigs are designed to reduce trailers with a compact system of special power trailers.

SAFETY

Our land drilling rigs feature a wide work area despite the compact design which provides more space that keeps the drilling crew safe. The advanced automation systems on our rigs remove manual thus making the operations safer.

PERFORMANCE

The integration of DEEP brings high performance as a result of numerous automated processes which saves time and resources. Many of the rig operations like tripping in and out can be done with minimal manpower because of automation.
Also, the HoD® continuous circulation system safely maintains constant circulation of the drilling fluids to the wellbore when adding or removing drill pipe stands, both while drilling and tripping.
The HoD® is an innovative sub-based continuous circulation technology designed to guarantee high safety standard on the rig floor through Drillmec proprietary design solutions.

FAST MOVING

Our onshore rigs are designed to support cluster/pad drilling with the dollies, skidding system, and walking system.

PANORAMIC VIEW

Drilling equipment

DRILLING CONTROL SYSTEMS

DEEP (Drillmec's Embedded Efficiency Platform) incorporates machine learning and artificial intelligence to fulfill new requirements for system integration of the whole drilling package, data touch points and processes, leading to advanced data analyses that facilitate improvements in drilling performance, equipment reliability and maintenance and safety. Our control cabins are specifically designed for each individual drill floor. Our portfolio includes last generation of cyber chairs and cabins for up to three operators. Our PCR (power control rooms) includes all the required power, electronic and automation controls to run all drilling processes such as: VFDs, MCC, Power management including generators control and PLC control systems.

DRILLING STRUCTURES

We design and manufacture derricks, masts and substructures for all applications; we offer 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 our derricks: up to 1,500 ton hook load capacity, welded or bolted derricks, tower or bottleneck type derricks, bases ranging to fit any required installation size, suitable for triple and quadruple stands accommodation, integration of offline activities including any type of pipe handlers, rackers and stand maker systems.

FLUIDS SYSTEMS

MUD PUMPS: we manufacture 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. With a variety of drive packages on the displacement and pressure sides, our 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.
MUD & BULK SYSTEM: we design and customize mud and bulk systems integrating all necessary solids control equipment delivering a full turnkey solution, from bulk mixing and storage to high pressure mud supply.

HOISTING EQUIPMENT

DRAWWORKS: our gear driven drawworks (GD Series) are the primary hoisting machinery used to raise and lower the travelling blocks. They consist of the following main parts: drum, motors, reduction gear, brake, and auxiliary brake. With our determination for continuous improvement over decades of innovation, we produce and offer a wide range of drawworks engineered for today's tough challenges. Our drawworks can be fitted to all rigs with power ranging from 1,000 to 6,000 hp driven by AC/DC motors.

ROTATION EQUIPMENT

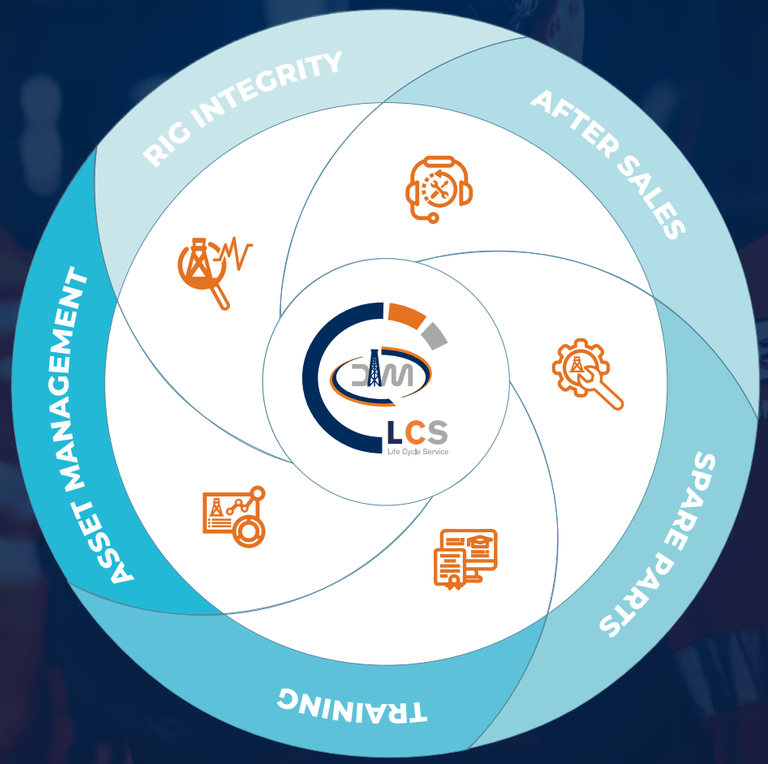
Our rotation equipment is designed for rough conditions and complies with the strictest requirement of the drilling industry.
TOP DRIVES: a full range of top drives can be fitted to almost any rig in order to increase the performance in directional or horizontal drilling. They are electrically powered with a maximum pull string from 250 up to 750 Ton.
ROTARY TABLES: our rotary tables "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.

HANDLING SYSTEMS

Every rig operator is looking for greater efficiency and safer operations combination, whether it is a mechanized pipe handling philosophy or an automated one.
PIPE HANDLERS: our STINGER, XY RACKERS, BRIDGE RACKERS, VERTICAL RACKERS, POWER CATWALKs and THVs are easy to operate and extremely reliable. Conventional racking boards are available as well as our advanced racking board with automated pneumatic or hydraulic latches and stand racker and maker systems.
IRON ROUGHNECKS: a rig equipped with our PCT 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. Our CATHEADS apply the correct connection torque, reducing wear on expensive components, and avoiding connection failures.

Services

Purchasing a Drillmec product entails choosing a brand that will be by your side throughout the life cycle of the rig package or drilling equipment provided.
The worldwide presence of experienced and skillful team of field technicians, together with our 24/7 diagnostic center and our spare parts warehouses strategically located around the globe guarantee a superior quality assistance.
On top of this, our world class IWCF/IADC certified training center is available for in person or remote training for your drilling crew through cutting-edge simulators, with safety and performance in mind.



DRAWWORKS		GDS 1000	GDS 1500	GDS 1600	GDS 2000	GDS 3000	GDM 1500	GDM 2000	GDM 3000
Horse Power	kW	745	1,118	1,193	1,491	2,237	1,118	1,491	2,237
	hp	1,000	1,500	1,600	2,000	3,000	1,500	2,000	3,000
Max Hoisting	m ton	227	340	250	454	680	340	589	771
	lbs	500,000	750,000	550,000	1,000,000	1,500,000	750,000	1,300,000	1,700,000
Transmission		Gear Driven	Gear Driven	Gear Driven	Gear Driven	Gear Driven	1x2-speed Gear-box	2x2-speed Gear-box	2x2-speed Gear-box
Wireline size	mm	31.8	34.9	34.9 - 38.1	38.1	44.5	34.9	38.1	44.5
	in	1 ¼	1 ⅜	1 ⅜ - 1 ½	1 ½	1 ¾	1 ⅜	1 ½	1 ¾
Motor Assembly	kW	1x857	1x857	1x1,193	2x857	2x1,193	2x857	2x857	2x1,193
	hp	1x1,150	2x1,150	1x1,600	2x1,150	2x1,600	2x1,150	2x1,150	2x1,600

MUD PUMPS		9T1000	12T1600	14T2200	12T1600GD	14T2200GD
Liner Size	mm	114 - 178	114 - 184	127 - 229	114 - 184	127 - 229
	in	4 ½ - 7	4 ½ - 7 ¼	5 - 9	4 ½ - 7 ¼	5 - 9
Stroke	mm	228	305	355.5	305	355.5
	in	9	12	14	12	14
Max Pressure	bar	345	345 / 517	517	517	517
	psi	5,000	5,000 / 7,500	7,500	7,500	7,500
Max Delivery	gpm	674	674 / 771	1,272	771	1,272
	l/min	2,554	2,554 / 2,922	4,815	2,922	4,815
Rated	kW	745	1,194	1,640	1,194	1,640
	hp	1,000	1,600	2,200	1,600	2,200

TOP DRIVES		ETD 375	ETD 550	ETD 750
Max Pull Up Static	mt	340	498	680
	lbs	750,000	1,100,000	1,500,000
Max Drilling Torque	Nm	72,000	70,000	80,000
	lbs*ft	53,100	51,600	59,000
Max Make Up Torque	Nm	85,000	85,000	105,000
	lbs*ft	62,692	62,692	77,444
Max Break Out Torque	Nm	108,460	106,630	130,000
	lbs*ft	80,000	78,646	95,883
Power Rating	kW	850	850	850
	hp	1150	1150	1150
Max Speed	rpm	184	219	219

Innovation. Deep down.

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