

HCR

European series

FRD
FURUKAWA



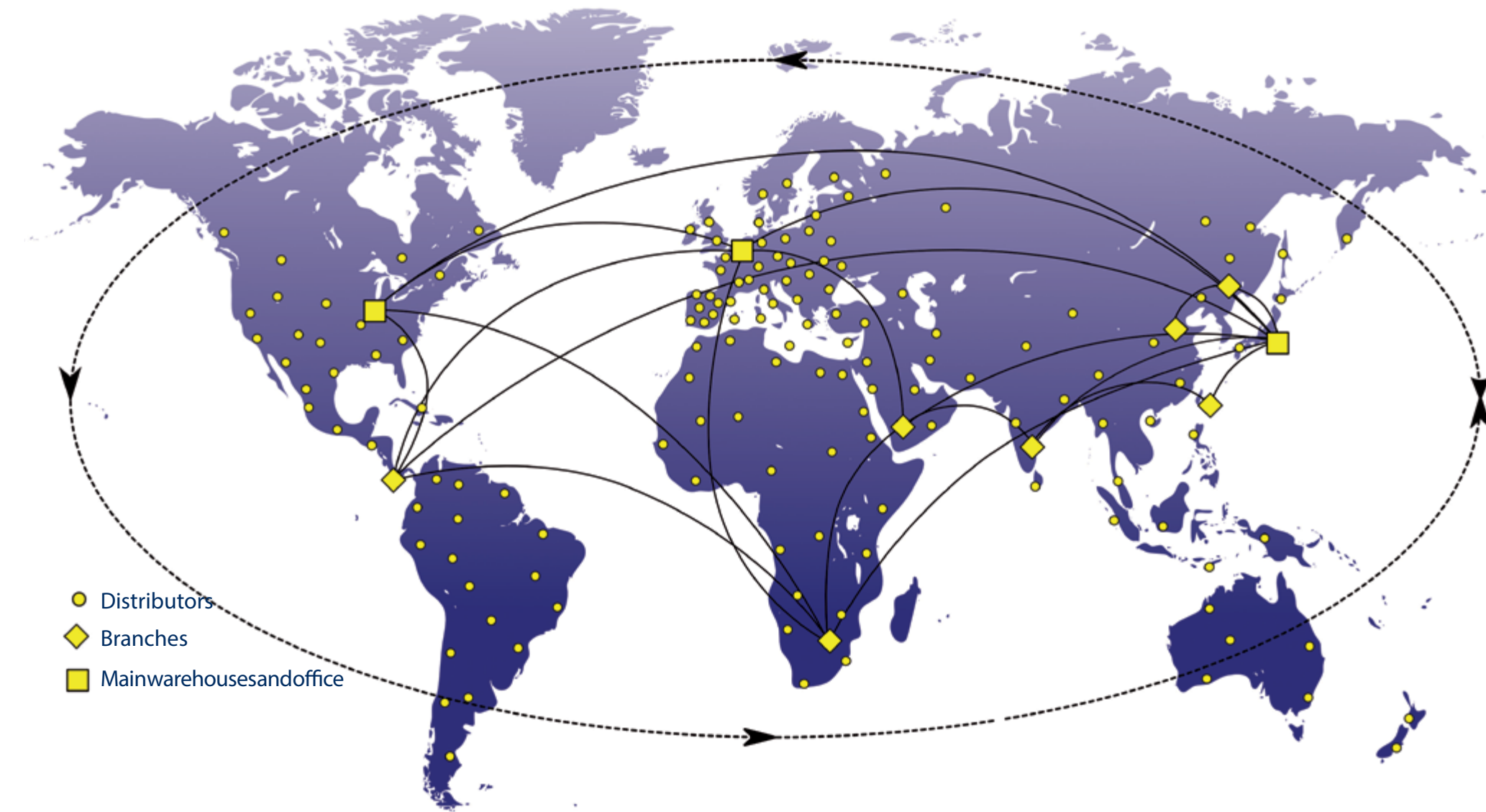
INSIDE FURUKAWA

Japan, a country of old traditions, has proven its highly technical performances in many different ways. Already, many years ago, Japanese electronic equipment contributed greatly to the possibility to reach the moon and other planets. In almost every computer, telephone or any other kind of electronic equipment we can find some Japanese components. In the car industry Japanese engineers have achieved high performances in order to produce more efficient and economical cars. Car tests in different countries have often concluded that Japanese cars are the most reliable and with a minimum of maintenance costs. Also Furukawa is one of those traditional concerns, which could show continuous growth through their ongoing product improvement and development.

Everything started in 1875, when Furukawa opened the Kusakura Copper Mine. The mining of the ore always required new and specific solutions to improve ore production. For this reason Furukawa started in 1900 to produce their own mining equipment, which led to higher production levels of the mine. With this step Furukawa unintentionally created the base for a new, high technology concern. The better results with their custom made machinery soon created a demand for similar machines in other mines. To be able to fulfill these requirements, Furukawa started to separate their activities in different divisions.

In 1918 Furukawa Mining Co. Ltd was founded and, in 1920, Furukawa Electric Co. Ltd. Later in 1961 the start of Furukawa Rock Drill Co. Ltd was an answer to the demand to be able to sell worldwide, the machines that initially were meant only for their own use. In 1971 Furukawa established a new factory in Yoshii for the production of crawler drills and demolition equipment. The demand for those products was so large, that in 1976 a second production unit was established in Takasaki. Since then, far more than 35.000 crawler- and Jumbo drills, numerous hydraulic breakers, demolition grabs, concrete- and steel crushers, have been produced and delivered all over the world. In the meantime Furukawa Rock Drill division has built an international sales and service network, which secures an optimum after sales service for all equipment. Our slogan " FRD – WHERE EXPERIENCE COUNTS" we take as seriously as other Japanese traditions and we hope you will approach us with your specific demands. We and our dealer network are ready to help you.





GLOBAL DISTRIBUTOR NETWORK

LOCAL SERVICE AND SUPPORT

FRD seeks firstly to supply a product of undoubted integrity. Then back this up with a support network of dedicated Distributors to ensure whatever support, wherever and whenever needed. The FRD-Distributor combination has been made unbeatable.

FRD Distributors have been selected for their professional competence, their market coverage, their dedication to quality and their willingness to work. They receive intense training on all machines and systems and every support that a committed manufacturer can give them. They actively exchange experience between each other to ensure their clients get the latest lessons from the market. They are a skilled and fast team of professionals.

VALUE FOR MONEY

Buying FRD products is a smart investment. A reasonable price for top quality, long lifetime, low maintenance and low breakdown time products in the long term makes financially good sense.

Next steps? FRD Europe and its Distributors have a vast resource of information beyond what can be mentioned here. Do not hesitate to get in touch for more detail and an unbeatable quote.



"For a professional problem-free job FRD offers the best combination of quality equipment and instant service and support. The Distributor network is outstanding."

TRADITION MEETS INNOVATION

ENHANCED WORKING CONDITIONS

Power in your hands! An upgraded operator cabin where almost everything is controlled means operators are more comfortable while being productive.

PROVEN RELIABILITY AND MAINTAINABILITY

Traditional reliability with a more modern approach. A built-in diagnostic system finds faults rapidly to reduce downtime. Clever thinking and application of components all around mean improved overall system reliability.

BETTER FOR THE ENVIRONMENT

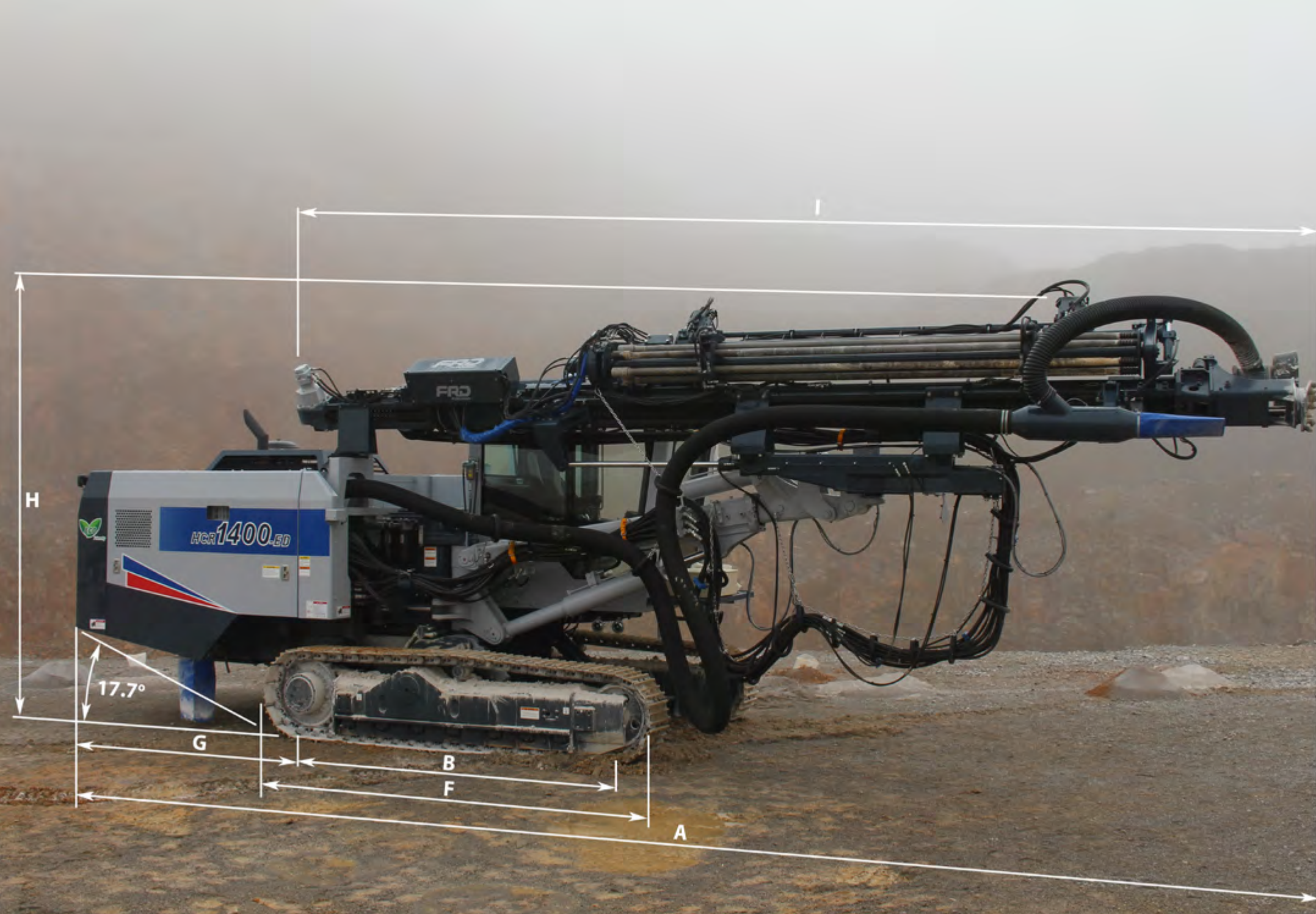
New generation engines and exhaust gas after treatment result in a lower carbon footprint. Smart application of technology means the engine only works when it's really needed.

IMPROVED DRILLING PERFORMANCE

Proven performance now with more punch! Produce more tons with a new range of high power, high frequency drifters and higher flushing air volume combined with Furukawa's famous drilling parameters control system.







SPECIFICATIONS	UNIT	HCR1400-ED	HCR1450-ED	HCR1600-ED
WEIGHT & DIMENSIONS				
Operating weight with ROPS/FOPS cab (including operator, rods, bit)	kg	15250 (15730)	15251 (15730)	17520 (18000)
(A) Overall length	mm	10150	10150	10295
(B) Ground contact length	mm	2780	2780	2780
(C) Overall width (Shipping width)	mm	3457 (2380)	3457 (2380)	3740 (2380)
(D) Width over tracks	mm	2380	2380	2380
(E) Track shoe width	mm	330	330	330
(F) Length over tracks	mm	3480	3480	3480
(G) Rear frame overhang	mm	2535	2535	2535
(H) Overall height (Shipping height)	mm	3618 (2983)	3618 (2983)	3874 (2995)
UNDERCARRIAGE				
Ground clearance	mm	440	440	497
Oscillating angle	deg	±7.5°	±7.5°	±7.5°
Ground Pressure	kPa	81.5	81.5	93.6
Travel speed	km/h	0 - 3.1	0 - 3.1	0 - 4.2
Grade ability	%	57.7 (30°)	57.7 (30°)	57.7 (30°)
Maximum Traction Force	kN	98.5	98.5	98.5
ENGINE				
Make/model	Cummins QSB6.7 Tier4i (Stage 3B)		CATERPILLAR C9.3 Tier4i (Stage 3B)	
Type	6 Cylinder Diesel, water-cooled, turbocharged and air to air after cooled, direct fuel injection, electronic governor			
Power Output	kW/rpm	194 / 2500 Meets Tier 4i (Stage 3B) requirements		261 / 2200 Meets Tier 4i (Stage 3B) requirements
Piston displacement	Liter	6.7	6.7	9.3
Fuel tank capacity	Liter	450	450	650





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COMPRESSOR				
Make and Model		AIRMAN PDS265-S35E	AIRMAN PDS265-S37F	AIRMAN PDS290-S15B
Type		Single Stage Screw	Single Stage Screw	Single Stage Screw
Free air delivery	m³/min	8.2	10	13.5
Working air pressure	MPa	1.03	1.03	1.03
BOOM				
Model		JE326-133	JE326-133	JE326-143
Type		Extension	Extension	Extension
Lift angle (up-down)	deg	45° - 20°	43° - 20°	45° - 25°
Swing angle (right-left)	deg	35° - 5°	35° - 5°	38° - 7°
Extension length	mm	1200	1200	900
Guide Rotary Angle	deg	90 (optional)	90 (optional)	90
GUIDE SHELL				
Model		GH832-32	GH832-32	GH831-42
Feed Type		Hydraulic motor driven chain	Hydraulic motor driven chain	Hydraulic motor driven chain
(l) Overall Length	mm	7971	7971	8095
Feed length / with reverse percussion	mm	4590 / 4415	4590 / 4415	4700 / 4520
Guide slide length	mm	1200	1200	1500
Swing angle (right-left)	deg	30° - 90°	30° - 90°	38° - 38°
Tilt angle	deg	170°	170°	170°
Max. Rod Pull-out Force	kN	29.5	29.5	31
DUST COLLECTOR				
Model		A885-31	A885-31	A A885-43
Type		Automatic air pulse jet		
Suction capacity	m³/min	30	30	40
Number of filters	pcs	5	5	6





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DRIFTER				
Model		HD822	HD826	HD828
Reverse Percussion (RP)		Standard	Standard	Standard
Max Impact Pressure	MPa	20	20	20
Impact Rate - Long Stroke	min ⁻¹	2700	2700	2700
Impact Rate - Short Stroke	min ⁻¹	3300	3300	3300
Max. Impact Power - Long Stroke	kW	22	26	28
Max Impact Power - Short Stroke	kW	18.7	22	23.8
Stroke Adjustment		Stepless Variable	Stepless Variable	Stepless Variable
Max. Rotation Pressure	MPa	20.1	20.1	20.1
Max. Rotation Torque	Nm	1417	1417	1417
Max. Rotation Speed	min ⁻¹	190	190	190
Flushing System		Air/Swivel	Air/Swivel	Air/Swivel
Damping System		Dual	Dual	Dual
Weight (with RP)	kg	242 (281)	243 (282)	268 (312)
Length	mm	1314	1314	
Width	mm	373.4	373.4	387.4
Height	mm	327.5	327.5	327.5
DRILLING TOOLS				
Bit diameter	mm (inch)	76 - 115 (3-4.5)	76 - 115 (3-4.5)	89 - 127 (3.5-5)
Type of bit		Cross, Button, Ballistic, Conical	Cross, Button, Ballistic, Conical	Cross, Button, Ballistic, Conical
Rod size		T45, T51	T45, T51	T45, T51
Rod length	mm (ft)	3660 (12)	3660 (12)	3660 (12)
Starter rod length	mm	4000	4000	4000

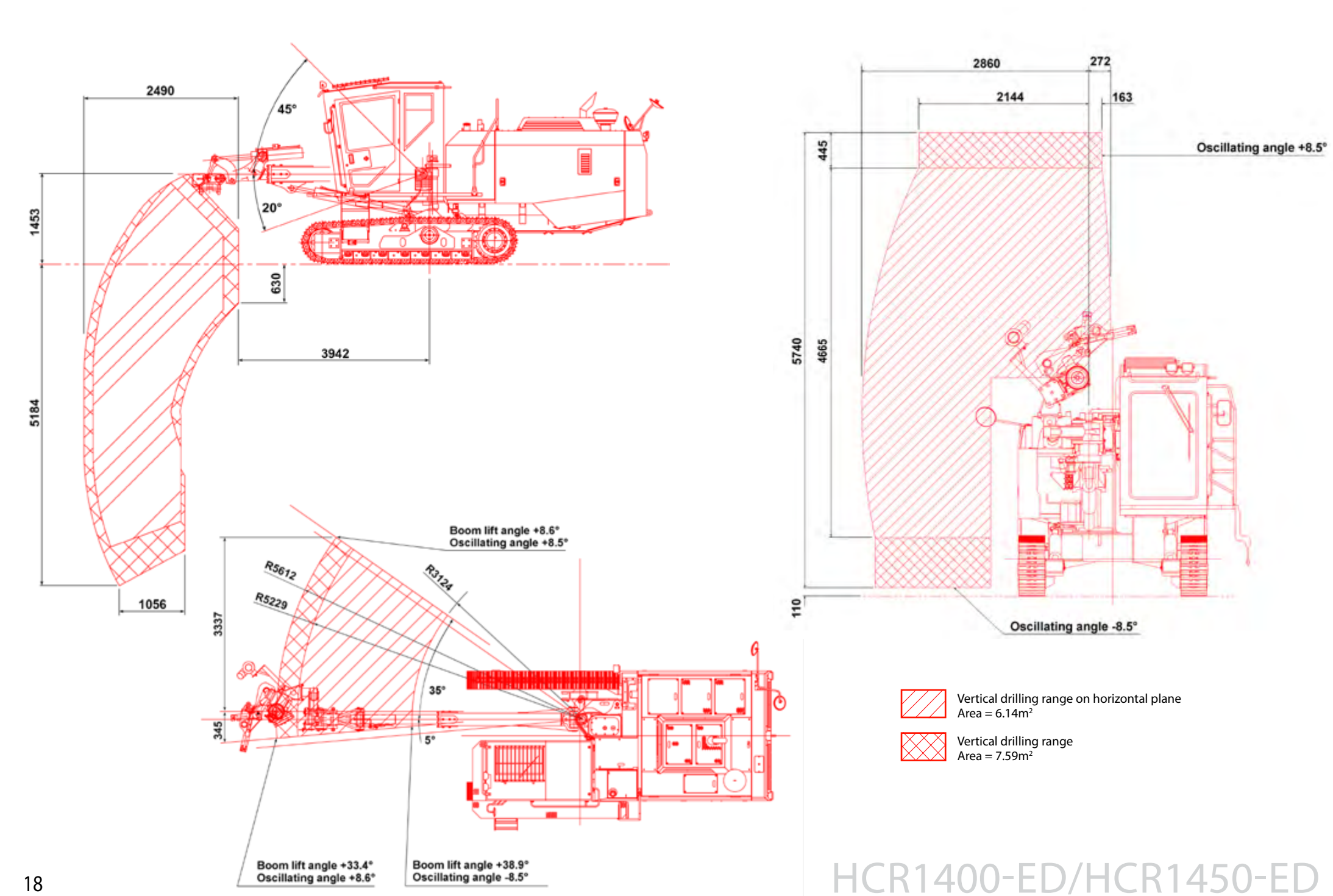


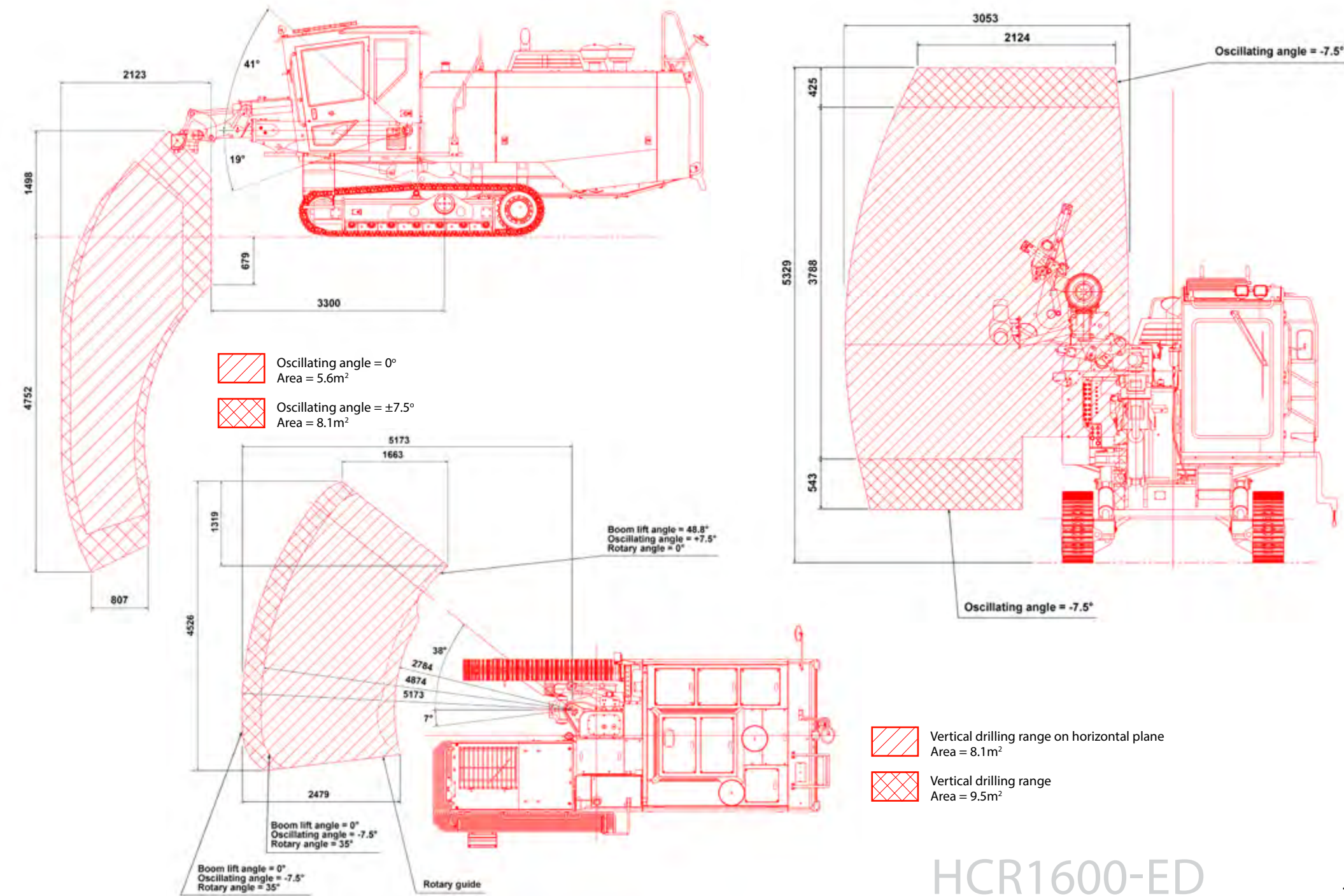


SPECIFICATIONS	UNIT	HCR1400-ED	HCR1450-ED	HCR1600-ED
ROD CHANGER				
Model		GR802-31, 12 feet	GR802-31, 12 feet	GR802-41, 12 feet
Number of Rod Storage		6 + 1	6 + 1	6 + 1
Rod Length	mm	3660	3660	3660
Number of Control Lever		1	1	1
ELECTRICS				
Voltage	V	DC24	DC24	DC24
Battery	V; Ah/h	2 x 12; 108/5	2 x 12; 108/5	2 x 12; 160/5
Lights	V; W	24; 70 x 4 (LED)	24; 70 x 4 (LED)	24; 70 x 4 (LED)
OPERATING ENVIRONMENT				
Ambient Temperature	°C	-15 ~+45	-15 ~+45	-15 ~+45
Maximum Altitude	m	2500	2500	2500
Maximum Sound Pressure Level	dB	127	127	128
Sound Level in Cabin	dB	82.1	82.1	82.2
Vibration	m/s²	0.053	0.053	0.139
HYDRAULIC EQUIPMENT				
Type	2-variable displacement piston pumps supply oil for both travel and drilling. 3-gear pumps for cooling, boom and dust collector.			

STANDARD EQUIPMENT		
CABIN	CABIN	EXTERIOR
Heated, air-suspended seat	Rear and side view cameras	Low horizontal drilling
Heating and air-conditioning (5kW)	Vacuum cleaner with attachments	Manual hydraulic oil filling pump
First-aid kit	Intelligent Monitoring System (IMS)	Tool box
2kg ABC hand held fire extinguisher	ROPS and FOPS certified	6kg ABC hand held fire extinguisher
Radio with USB, Bluetooth & MP3	Slide-open window (x 1)	Auto thread lubricator
12V, 60W auxilliary outlet	Magazine rack	Tripple grouser track shoes
Interior light	Reflective safety vests (x 2)	Tow hook
Retractable sun shades		Chain feed system







HCR1600-ED



OPTION LIST		HCR1400-ED	HCR1450-ED	HCR1600-ED
Central lubrication		O	O	O
Water mist injection system		O	O	O
Electric fuel pump		O	O	O
Fire suppression system		O	O	O
Deep hole rod magazine	(8 rods)	O	O	O
Winter package for cold climates		O	O	O
2D angle indicator		O	O	O
3D angle indicator:-				
Engine and drill data transfer	(USB)	O	O	O
Engine and drill data transfer	(GSM)	O	O	O
Global position tracking	(GPS)	O	O	O
Engine remote shutdown	(GSM)	O	O	O
Electronic compass	(GPS)	O	O	O
Hydraulic winch with radio remote control		O	O	O
Guideshell protective guard with interlock		O	O	O
Single grouser track shoes		O	O	O
Boom rotary guide		O	O	S
S - Standard O - Optional				





Care has been taken to ensure that the Operator has the highest levels of comfort and control. In addition to an air suspended chair with armrests, all machine and drilling controls are within easy reach and even easier to use than before.

Thanks to new materials and other external improvements, sound levels have been further reduced. Other standard features include: rear and side view cameras, radio, heating and air conditioning, 12V DC electrical outlet, cup holders and sun screens. Most fault finding is done from the touch screen display in the cabin.

Regular maintenance tasks are performed from ground level. Inspection and test points are within easy reach and localized to ensure maintenance is carried out swiftly and efficiently.





Furukawa Rockdrill Europe BV
Proostwetering 29
3543 AB Utrecht, The Netherlands
Phone +31-(0)30-2412277
Fax +31-(0)30-2412305
www.frd.eu