

# CRH 5000

## central ram hammer

- Fast hammer blow rate for rapid pile penetration
- Full energy monitoring on screen
- Full history of hammer performance
- Highly reliable and robust electrical switching
- Intelligent stroke control
- Very few serviceable parts, with on screen fault diagnostics
- Easily maintained by Diesel / Mechanical fitter
- Cushion block irons out peak stresses
- Very efficient energy transfer

“the continued evolution of  
digitally controlled  
piling hammers”



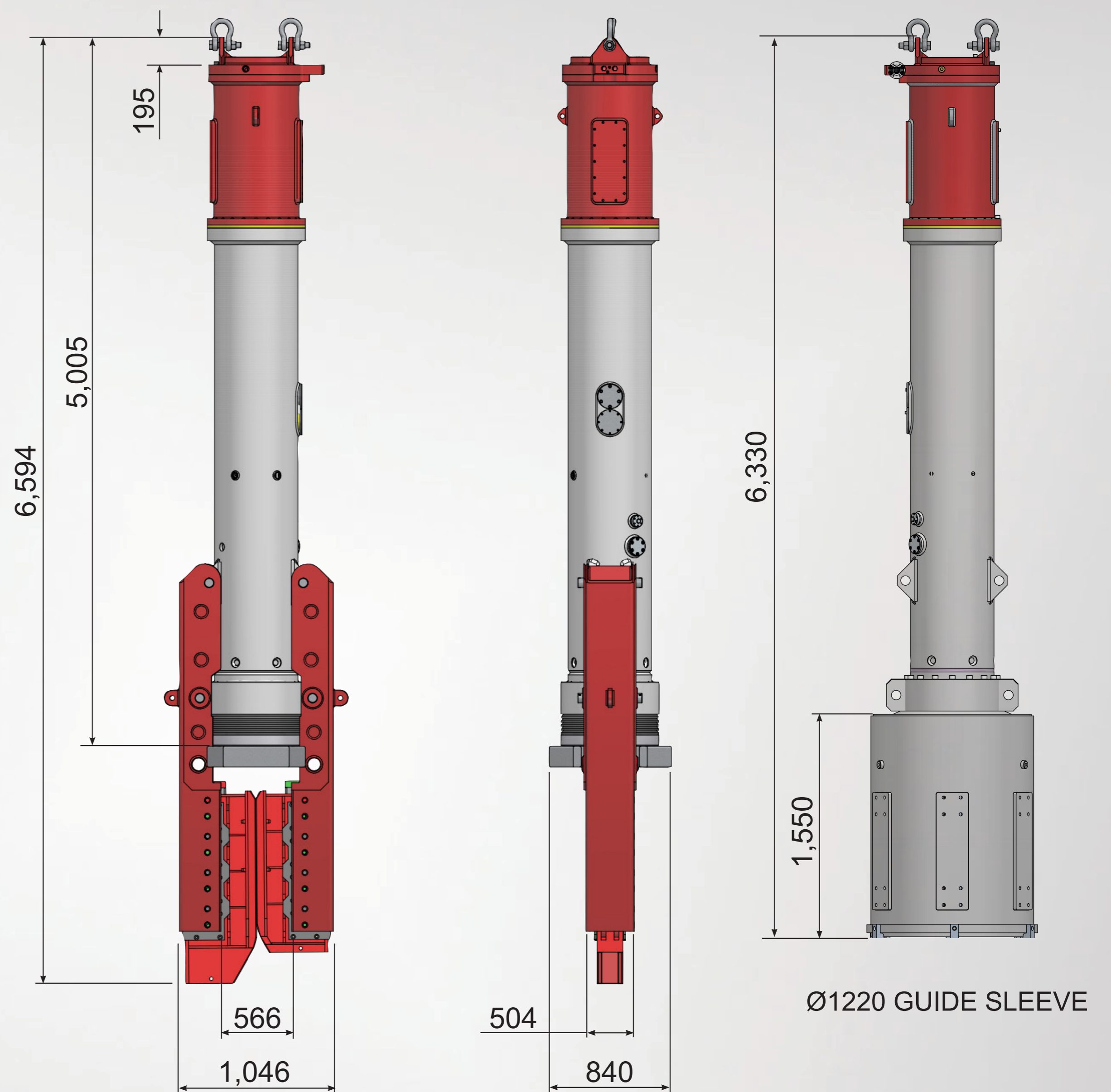
**DAWSON**  
CONSTRUCTION PLANT

Innovative Piling Manufacturers

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## CRH5000 HAMMER

SPECIFICATION	UNITS	CRH5000
RAM WEIGHT	kg	4,068
	lbs	8969
IMPACT VELOCITY	m/s	5
	ft/s	16.36
MAXIMUM ENERGY TRANSFERED TO PILE	kNm	50
	ft lb	36,878
MINIMUM ENERGY TRANSFERED TO PILE	kNm	15
	ft lb	11,063
BLOW RATE	bpm	80-120
LENGTH - LEAD MOUNTED	mm	5,005
	in	197
MINIMUM WIDTH OF BODY	mm	635
	in	25
WEIGHT - WITH SHEET PILE LEG GUIDES + SPREADER PLATE	kg	11,000
	lbs	24,250



WITH LEG GUIDES THE HAMMER READILY FITS PAIRS OF MOST 'U', 'Z' & H SHEET PILES WITH DIFFERENT INSERTS.

## POWER PACK: TIER 4f / STAGE 5

SPECIFICATION	UNITS	DCP270
MAX. POWER	kW	186
	HP	249
MAX. FREQUENCY	rpm	2,200
MAX. OPERATING PRESSURE	bar	270
	psi	3,916
MAX. OIL FLOW RATE	L/min	270
SIZE - LENGTH x WIDTH x HEIGHT	m	3.38 x 1.55 x 1.97
	in	133 x 61 x 76
WEIGHT	kg	4,250
	lbs	9,370
FUEL CAPACITY	L	540

This hydraulic power pack is designed to drive an impact hammer. Other machines that can be powered by the power pack are, for example, an auger, a vibratory, cutter unit, a winch, demolition shears, vibroflot or submersible dredge pump.

The exterior of the power pack is a container of plates. The container is soundproof and equipped with air vents and doors that lock. The power pack delivers a hydraulic oil flow under a specific pressure by means of one or more pumps that are powered by a diesel engine. The engine is mounted on a tubular base plate that serves as a diesel tank. Hydraulic oil is stored in a hydraulic oil tank.

The power pack and the machine to be driven can be operated from the control panel or the remote control. The standard remote control is connected with a cable.

Optional: Wireless remote control.



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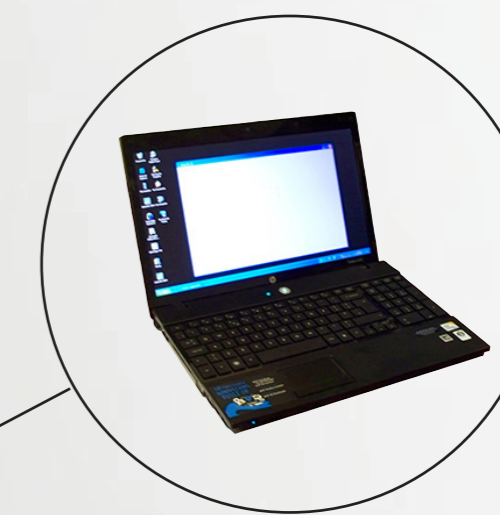
## digitally controlled drop weight

Dawson Construction Plant has developed an industry leading, robust and simple, electronic control system that **constantly** monitors the drop weight position. This constant monitoring allows the switching timing on the main hydraulic spool to be trended to continually optimise hammer performance throughout varying piling conditions, such as:

- 1 – Hard driving with pile recoiling
- 2 – Soft driving with a running pile
- 3 – Cold hydraulic oil on start up
- 4 – Raking piles



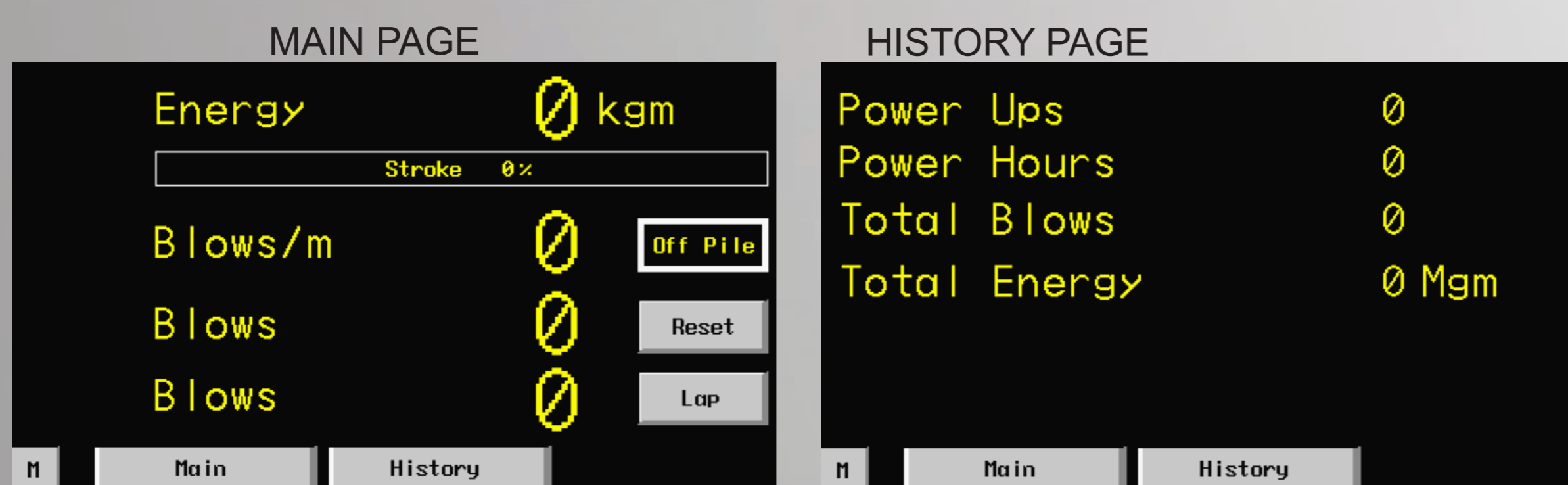
INTERFACE SCREEN MOUNTED ON POWER PACK



DATA CAN BE RECORDED TO A LAPTOP

With constant drop weight position monitoring, the velocity of the drop weight is also known, and therefore energy output can be accurately measured and is displayed to the operator on the power pack's interface screen. This information can be recorded directly to a laptop via a Dawson software interface, and can be saved in standard spreadsheet formats, giving a blow by blow account of every pile driven and a day to day productivity record.

The information can also be recorded directly to Dawson's Energy Monitor System (EMS) phone app (see below).



TYPICAL SCREEN SHOTS

The main screen displays bar graphs showing hammer stroke & hydraulic oil temperature.

An Off Pile indicator confirms when the hammer is securely seated on the pile, and allows piling to commence.

There are numerical read outs showing blows per minute, energy per blow and total blows. The lower reading shows blows in a LAP cycle (measuring blows per increment). The units can be changed from metric to imperial.

The history screen provides information on the total number of start ups / total hours / total blows and total energy through out the life of the hammer.



DAWSON PILE LOGGER SCREEN

## optional: energy monitoring system (ems) app

Dawson offer the option to include our bespoke Energy Monitoring System (EMS) app - the Dawson Pile Logger - which allows users to record all pile driving data directly to their mobile phone.

The app allows users to measure the number of blows and the energy applied to achieve desired pile penetration. The penetration distance increments are changeable and are user-defined.

Once the pile has been driven to the desired depth, the recorded data can be exported to standard spreadsheet formats that can later be emailed onwards or converted to PDFs.

The app is available for customers using Android™ smartphones and can be downloaded on the Google Play store. It operates via a WiFi signal from a computer & router discreetly installed inside the power pack. No batteries are required.

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