

ON LOCATION

CUTTING EDGE HYDRODEMOLITION



ASSIGNMENT:
Removal of heat lining from
heat plant boiler

AQUAJET



Refractory removal

HYDRODEMOLITION APPLICATION

Refractory removal from heat plant boiler

The worksite was a heating plant. And the task at hand was to remove the refractory inside a boiler, so it could be replaced. Time was of the essence because the plant generated electric power and supplied heat for a city of 225,000 people.

Thanks to Aquajet's Ergo, all hand lance work was replaced by the safe and automated system. The different parts of the Ergo System were easily carried into the boiler and mounted on existing scaffoldings. These scaffoldings were already built inside the boiler for the re-casting of the new heat-resistant lining, and the Ergo climber system could use these to work from.

One Ergo system worked from the top of the boiler and one worked from the bottom, each powered by a high-pressure pump. In this case, the contractor used the small Power Pack 270, which has water pressures up to 2800 bar

and a flow rate of 40l/min. The two Ergo controllers were placed outside the boiler, and the hydraulic hoses were routed into a small manhole.

With the display on the radio remote control, the operator was able to control and adjust the parameters without leaving the working area.

The downtime of the plant was significantly reduced by automating the process and by the much higher reaction forces the Ergo System can handle compared to the hand lance. The complete job was finished in just one week.

Industrial cleaning / Refractory removal

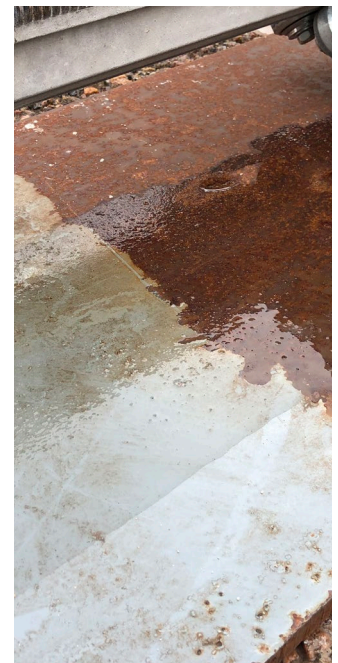
Industrial cleaning and refractory removal has traditionally been carried out using handheld tools. More contractors, however, are switching from manual to automated cleaning, increasing safety and efficiency. Hydrodemolition is an ideal solution for safely and efficiently cleaning tanks and removing refractory in furnaces.

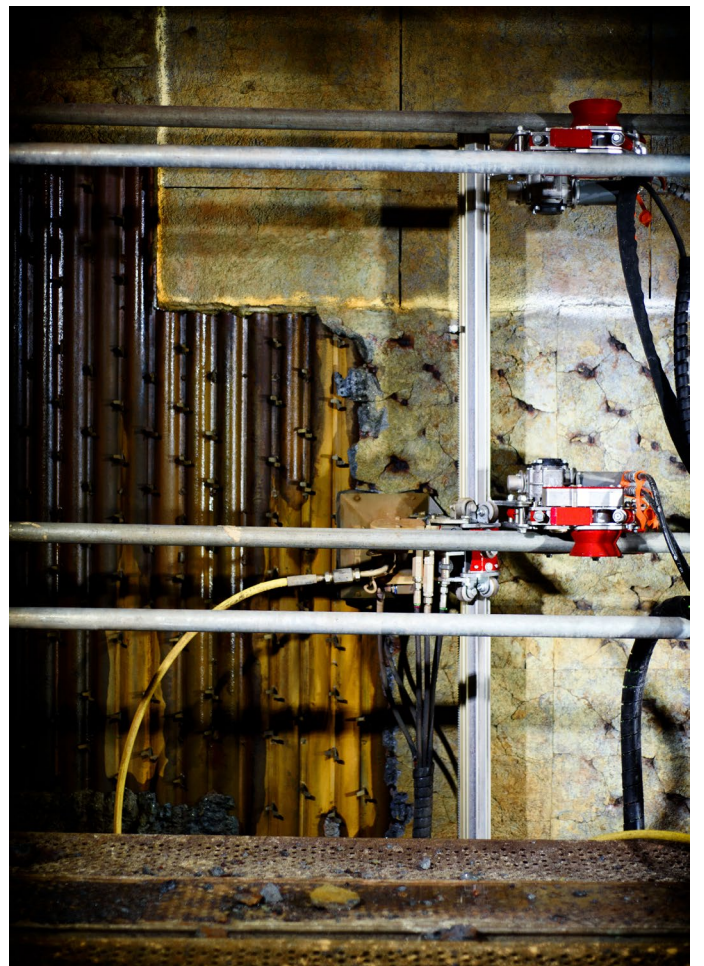
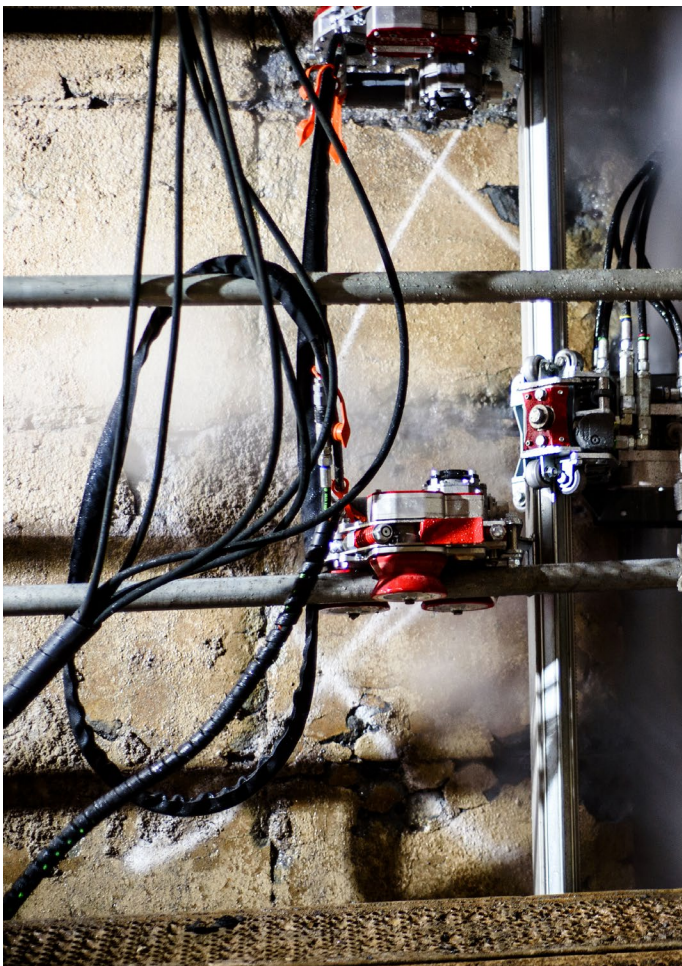
Robotic process:

1000 – 3000 bar / 14 500-43 500 psi
38 – 262 liters / 10-70 gal of water

Recommendation:

Ergo go / Aqua Power Pack 270
Ergo go / Ergo rotolance / Aqua Power Pack 270
Aqua Cutter 410 / Rotolance 2500 / Aqua Power Pack 270
Aqua Cutter 710 / Rotolance 1000 / Aqua Power Pack 700
Aqua Cutter 710 / Rotolance 2500 / Aqua Power Pack 700







Ergo go / Aqua Power pack 270

EQUIPMENT USED

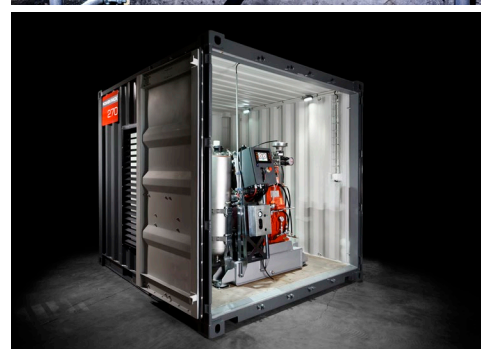
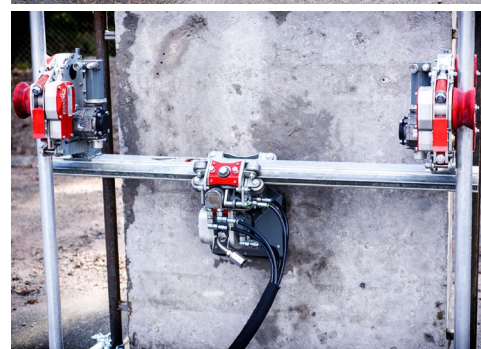
The Ergo go

Ergo Go is a starter kit of awesomeness and basically everything you need to get the show on the road, except for a high-pressure pump. Ergo Go is your loyal wingmate and your very own problem solver. The heart of the starter kit consists of an advanced control unit, the Ergo Controller, two spring loaded high friction rollers called Ergo Climber, and the Ergo Power Head with a 45 degree lance angle and adjustable oscillation.

All system components come in two handy and portable boxes. The boxes are stackable and designed to fit side by side on standard pallet. You can stow the complete system into a van for transporting between sites. Every system component is lightweight, which enables the operator to handle, transport and assemble the system all by himself or herself. All components are easy to connect with AquaJet's unique one-size, single-bolt solution. One tool is all you need.

The Power Pack 270

Our Power Pack is a high-pressure unit, specially designed for all types of Hydrodemolition applications. On the outside it may look like a basic metal container, but on the inside it's a completely different thing. AquaJet's Aqua Power Pack 270 have a powerful diesel engine, high-pressure pump and built-in diesel tank assembled in a 10 ft container. To operate the Power pack you only need fuel and water supply. No external electric supply is required.



(Specifications)

Ergo go

Working width:	0,25-2,0m
Max length between supports:	2,0m
Min clearance height:	320-500mm (depending on bracket type)
Roller beam lengths:	0,25 / 0,5m / 1,0m
Lance angle:	±45°
Oscillation steps:	8° / 22mm and 14° / 42mm
Transport boxes:	1100x355x400 mm
Controller	530x620x1110 mm
Climber weight:	22kg
Power Head weight:	21kg
Roller beam weight:	9,5kg/m
Total weight:	Approx. 85 kg (compl. 1x1m frame)
Controller weight:	98 kg dry, 124 kg with oil
Max reaction force:	1000N
Parallel drive:	±2%

Aqua Power Pack 270 (10 ft)

Pressure* (UHP**)	2800 bar (40610 psi)
Flow* (UHP**)	40 l/min (10,6 US Gal/min)
Pressure* (option)	1200 bar (17404 psi)
Flow* (option)	87 l/min (23,0 US Gal/min)
Tank volume	520 l (137 US Gal)
Approx. weight	3650 kg (8046 lb)
Length (L1)	2,991 m (ISO 10')
Width (W1)	2,438 m (ISO 8')
Inner width (W2)	2,336 m (7,8')
Height (H1)	2,591 m (ISO 8,5')
Inner height (H2)	2,275 m (7,5')

*Other pressures and flows are available upon request.

** Ultra High Pressure.

AQS-0N89