

Successful projects with Wassara™ Casing System



Helsinki – Finland

Reinforcement work in an existing building in central Helsinki.



Parliament building, Stockholm – Sweden

Construction of a 30 meter high grout curtain.



Munin, Stockholm – Sweden

Foundation reinforcement work for a six-storey residential building.



Bancohuset, Stockholm – Sweden

Reinforcement of the unique Banco building in Old Town, Stockholm.



Tara Mines – Ireland

Exploration drilling in water rich formation.



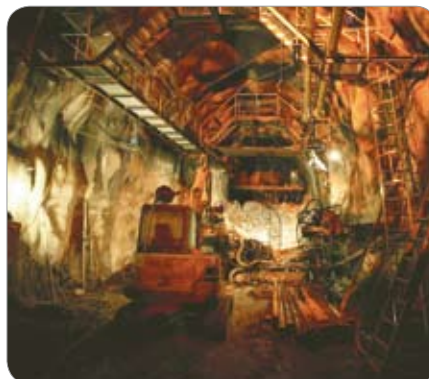
Tunahus, Lund – Sweden

Geothermal drilling to reduce heating costs for over 200 apartments.



Fagersta – Sweden

Reinforcement of foundations for a railway bridge, close to a drinking water supply area.



Hallandsåsen – Sweden

Installation of 100 meter long freeze pipes under difficult ground conditions.

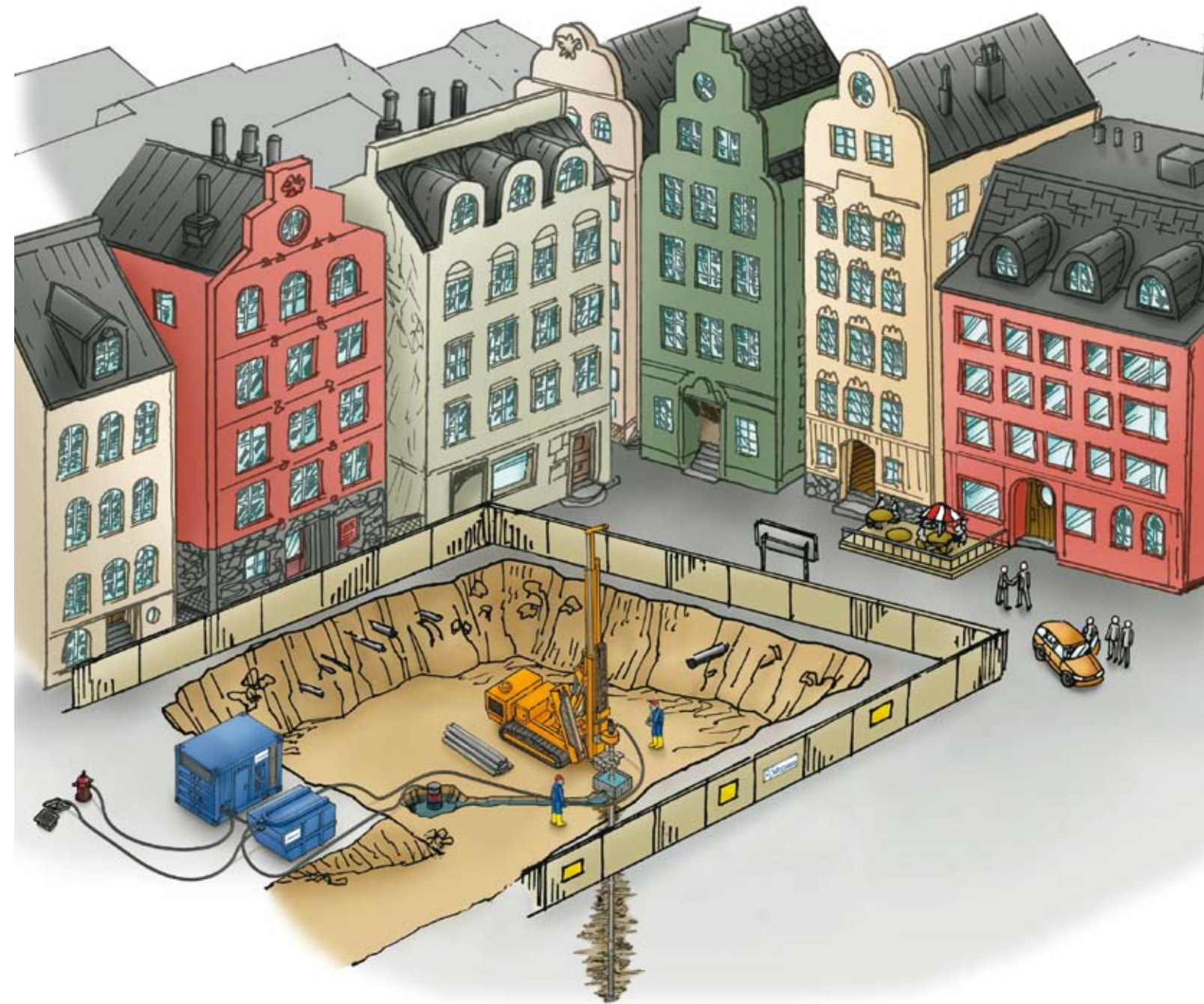


Rosenlundsterrasen, Stockholm – Sweden

Foundation work in a sensitive area close to a highway tunnel.

Byrå 4

Wassara™ Casing System



Wassara’s water-powered casing system is cost-effective and environmentally friendly.

Doesn’t that sound like a good day on the job?

Wassara’s water-powered casing system offers entirely new possibilities for efficient casing advancing.

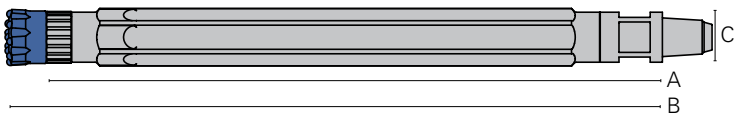
The system demonstrates its superiority most clearly on jobs where the environment is sensitive and has to be handled with care, e.g. when casing advancing in urban environments or when ground conditions are difficult, e.g. clay.

Wassara is a complete water-powered casing system. All its components have been optimized for maximum performance as a unit, making the system economical to use.

Yet another advantage is that our technology has lower environmental impact than traditional drilling systems, and it also offers a significantly better work environment in terms of noise and air pollution.

Doesn’t that sound like a good day on the job? – Every day.

CONSTRUCTION



Wassara™ Hammers.						
Hammer	A mm	B mm	C mm	Weight Kg (Excl. Bit)	Est. Water Cons. New to Worn (l/min)	Rec. Max Operating Pressure** (Bar)
W 80	977	1049	Ø 80–92	32	90–140	100
W 100	1185	1230	Ø 102–111	56.5	225–350	100
W 120	1495	1572	Ø 120–128	99	240–340	100
W 150	1495	1605	Ø 140–162	165	285–410	100

**for casing advancing



W-REX™ System	Casing OD (mm)	Casing Wall thickness (mm)	Ring bit ID (mm)	Ring bit OD (mm)	Pilot bit OD (mm)	Hammer
PILE 114	114.3	10.0	75	129	93	W80 N2
PILE 140	139.7	10.0	100	159	117	W100
WELL 140	139.7	5.0	115	159	128	W100
PILE 168	168.3	12.7	125	188	141	W120
WELL 168	168.3	5.5	140	188	155	W120
PILE 194	193.7	12.7	147	214	166	W150
WELL 194	193.7	5.5	165	214	180	W150

The PILE system is used for piling applications. The WELL system is used for well applications such as geothermal wells where there is a need to continue drilling with a rock bit, thus the large ring bit inner diameter. Both systems use permanent casing.

WASSARA™ CASING SYSTEM – CONSTRUCTION											
Casing (OD, thickness)	W-REX™	Hammer	Check valve	Drill tube (OD, thickness, length in mm)	Swivel	High pressure hose pump unit to swivel (Standard EN856 4SP)	Pump unit	Sedimentation container	Hose - submersible pump to sedimentation container. Max height 15 meter, max length 100 meter	Submersible drainage pump	Hose - water supply to pump unit
Ø											
114.3/10.0 mm	PILE 114	W80S/N2/90/1000281 2 3/8" API REG pin	76 mm, 2 3/8" API REG. PIN/BOX No 1000407	76 x 6.3 x 1000 2 3/8" API REG, No 4000015 76 x 6.3 x 1500 2 3/8" API REG, No 4000014 76 x 6.3 x 2000 2 3/8" API REG, No 4000011 76 x 6.3 x 3000 2 3/8" API REG, No 4000005	Stenberg 600	High pressure hose EN 856 4SP - Ø 32mm L 20m, No 5000002	WASP 80 Diesel	TBD	OD 75 mm (3")	Grindex* Minette 3 phase ITT Flygt* 2620 3 phase	OD 75 mm (3")
139.7/10.0 mm	PILE 140	W100S/111/1000292 2 3/8" API REG pin	89 mm, 2 3/8" API REG. PIN/BOX No 1000365	89 x 6.3 x 1000 2 3/8" API REG, No 4000049 89 x 6.3 x 1500 2 3/8" API REG, No 4000050 89 x 6.3 x 2000 2 3/8" API REG, No 4000013 89 x 6.3 x 3000 2 3/8" API REG, No 4000012	Stenberg 600	High pressure hose EN 856 4SP - Ø 32mm L 20m, No 5000002	WASP 150 Diesel	TBD	OD 75 mm (3")	Grindex* Minor N 3 phase ITT Flygt 2630 MT 3 phase	OD 75 mm (3")
139.7/5.0 mm	WELL 140										
168.3/12.7 mm	PILE 168	W120S/126/1001067 3 1/2" API REG pin	114 mm, 3 1/2" API REG. PIN/BOX No 1000716-114	114 x 8.8 x 1000 3 1/2" API REG, No 4000016 114 x 8.8 x 1500 3 1/2" API REG, No 4000017 114 x 8.8 x 2000 3 1/2" API REG, No 4000018 114 x 8.8 x 3000 3 1/2" API REG, No 4000019	Stenberg 600	High pressure hose EN 856 4SP - Ø 38mm L 20m, No 5000003	WASP 150 Diesel	TBD	OD 75 mm (3")	Grindex* Minor H 3 phase ITT Flygt* 2630 HT 3 phase	OD 75 mm (3")
168.3/5.5 mm	WELL 168										
193.7/12.7 mm	PILE 194	W150S/160/20317 3 1/2" API REG pin	140 mm, 3 1/2" API REG. PIN/BOX No 1000717-140	140 x 8.8 x 1000 3 1/2" API REG, No 4000020 140 x 8.8 x 1500 3 1/2" API REG, No 4000021 140 x 8.8 x 2000 3 1/2" API REG, No 4000022 140 x 8.8 x 3000 3 1/2" API REG, No 4000023	Stenberg 600	High pressure hose EN 856 4SP - Ø 38mm L 20m, No 5000003	WASP 150 Diesel	TBD	OD 75 mm (3")	Grindex* Minor H 3 phase ITT Flygt* 2630 HT 3 phase	OD 75 mm (3")
193.7/5.5 mm	WELL 194										

*Recommended manufacturer