



**WEED CONTROL
WITH 100%
HOT WATER**

**Best value
for money**



**Environmentally
friendly and
sustainable**



**Suitable for
all surfaces**



WAVE WEED CONTROL

WAVE weed control with 100% hot water

- The most effective and energy-efficient method of non-chemical weed control
- Suitable for all surfaces and the way to maintain a clean and uniform streetscape in an environmentally friendly way

WAVE Method

Water is one of the best mediums in nature to transfer energy, and the WAVE method makes the most efficient possible use of this. The WAVE method controls weeds with 100% hot water at approx. 98 °C. The energy released destroys the cell structure of the plant. The above-ground parts of the plant die off after each treatment and the weed roots are also further worn down. The result is a clean, uniform streetscape, year round. The WAVE method drives back the weeds sustainably.



The weed is further worn down after each treatment.

WAVE Machines

The WAVE Professional Series includes three vehicle-operated machines and three hand-operated machines. All machines target the weed directly, with a practical hand lance, using a manually-operated dosing system, or using sensor technology. In combination with a buffer, our patented technology saves 70-90% of water and energy. All machines can be filled with surface water. With the safe functioning and low pressure, the machines are simple, practical and can be used on all types of paving.



Targeted weed control through detection with sensors.

Monitoring images



WAVE. All things considered, the best in weed control

- Lowest total cost of ownership
- Environmentally friendly and sustainable
- Suitable for all surfaces
- Works safely and without damage

WAVE offers the best value

Due to the penetration of the hot water, the WAVE method efficiently produces a clean, uniform streetscape year round with relatively few treatments. High quality is delivered for a relatively low price per square meter.

WAVE is environmentally friendly and sustainable

Hot water can be applied accurately, has high heat conductivity and penetrates to the roots of the weeds. Because of this, an average treatment frequency of only 3 to 4 times per year is sufficient. WAVE is the only method that actually suppresses weeds, without wasting energy.

WAVE is suitable for all surfaces

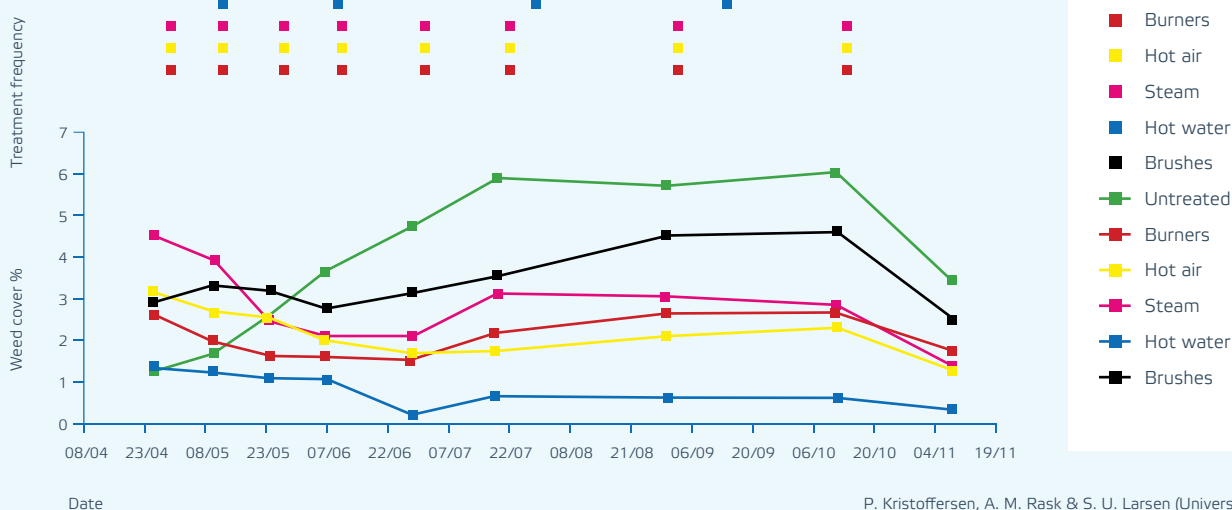
Through the use of hot water in combination with low outflow pressure, WAVE is suitable for all paved and gravel surfaces. The wheel load of the vehicle operated machines can be reduced by using special tyres. It is even possible to treat artificial grass.

WAVE works safely and without damage

With the low outflow pressure, it is possible to work accurately, without damage, right up to facades. The manually controlled side jets make it possible to treat weeds along facades and in the gutter. There is no burning hazard, no dust load and no metal particles are left behind.

	Specific heat kL/kg•K	Thermal conductivity W/m•K	Energy density kJ/kg
Hot air (100°C, 1 bar)	1.01	0.030	101
Water (100°C, 1 bar)	4.18	0.682	418
Steam (100°C, 1 bar)	2.08	0.025	2674

Hot water can transmit 23-27x more energy relative to hot air or steam. By combining this with sensor technology, energy is used as efficiently as possible in comparison to other thermal technologies.



P. Kristoffersen, A. M. Rask & S. U. Larsen (University of Copenhagen)
With hot water the best result is achieved with a low treatment frequency.

WEED CONTROL WITH 100% HOT WATER

The most common weed control methods compared

	Chemical	Mechanical	Burning	Hot air	WAVE hot water
Environmental impact	X Very high	✓ Moderate	✓ Moderate	X High	✓ Low
Surface	✓ Any surface	X No porous or soft surfaces	X No flammable surfaces	X No flammable surfaces	✓ Any surface
Health and safety	X Protective clothing needed against chemicals	X Hearing and dust protection needed	X Protective clothing needed against heat	X Protective clothing needed against heat	✓ No protective clothing needed
Noise	✓ Little noise	X High noise level	✓ Little noise	✓ Little noise	✓ Little noise
Applicability	X Not permitted everywhere	X Not suitable for use around lamp posts and obstacles	X Less suitable for use around lamp posts and obstacles	X Less suitable for use around lamp posts and obstacles	✓ Suitable for touch ups with hand lance
Surroundings	X Undesired damage to adjoining greenery. Cannot be used in water-collection area	X Undesired wear to pavement, residual metal particles and rust patches	X Undesired damage to adjoining greenery	X Undesired damage to adjoining greenery	✓ Directed weed control without damage to the surroundings
Energy consumption	✓ Low	X Higher than WAVE	X Much higher than WAVE	X Much higher than WAVE	✓ Low
Activities	X Resistant weed species survive	X Mows away foliage, rapid regrowth	X Damages the foliage. No effect on the roots	X Damages the foliage. No effect on the roots	✓ Kills the plant as well as the roots
Effectiveness	✓ Depending on the dosage, very high (2 to 3 treatments per year)	X Low (5 to 10 treatments per year)	X Low (4 to 8 treatments per year)	X Low (5 to 10 treatments per year)	✓ High (2 to 6 treatments per year)
Particulars	X Socially unaccepted. Requires certification and strict legislation	X Requires sweeping afterwards	X Cannot be used during extreme drought	X Cannot be used during extreme drought	✓ No resistant weeds. Suppresses weeds. Also cleaning work can be done with hand machines



Cardley-Wave

Units 1-3 • Charles Street • Darwen • Lancashire, BB3 1AT
07943 871259 • info@cardley-wave.co.uk • www.cardley-wave.co.uk



WAVE Europe B.V.

Turbinestraat 16A • 3903 LW Veenendaal • The Netherlands
info@waveweedercontrol.com • www.waveweedercontrol.com