

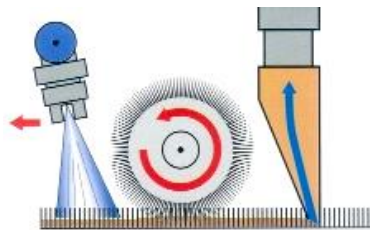


Charis-ONE is a self-contained machine, for cleaning middle sized carpeted areas. With Charis-ONE it is possible to clean a 40cm strip of carpet perfectly, removing the dirt from the base of carpet fibres. The water-flow can be adjusted, for a **maintenance** low-moisture cleaning or a **restoration deep cleaning**.

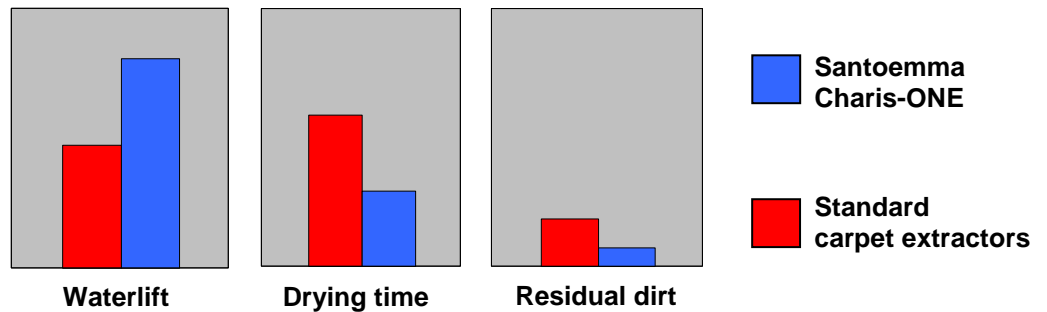
The Santoemma **high waterlift** vacuum system allows excellent removal of the dirt and a very short drying time: the carpet can be dry in one hour! With only a 60 decibel sound level, it is possible to work without disturbing other people.

Adding the patented **SMARTKIT** system, it is possible to perform **automatic chemical dosing**, carpet **pre-spraying** and **rinsing**.

Main application fields: cleaning companies, hotels, conference halls, restaurants, clubs, pubs, offices, banks, shops, cinemas, theatres, ferry boats, ships, airports, fitness centres, school, universities, shopping centres, places of worship, mosques and all places with middle-sized surfaces of carpet.



Injection-extraction cleaning with rotating brush



Optional wand NS300



Optional hand tool NS10PN



Optional SMARTKIT system

Adding to **Charis-ONE** the patented **SMARTKIT** system, it is possible to perform carpet **pre-spraying** with concentrated chemical solution, **automatic chemical dosing** and **carpet rinsing**. The chemical is put as concentrated in a bottle and the machine's tank contains clean water only. When chemical injection is required, the machine automatically sprays chemical in an optimal concentration, either during carpet extraction cleaning or in carpet pre-spraying.

During **extraction cleaning with chemical**, a controlled chemical concentration is ensured, with no need for the operator to perform any dilution. Wrong chemical concentrations and waste of chemical are avoided.

Using a dedicated **pre-spray** hose and gun, it is possible to pre-spray carpet with a concentrated chemical solution. Pre-spraying carpet with a concentrated chemical solution allows a longer dwell time for the chemical, which helps detaching the dirt from carpet fibres.

With SMARTKIT, it is possible to let the machine work with clean water only, in order to rinse carpet fibres, removing any sticky chemical residual and ensuring a slow resoling after cleaning.



Advantages of Charis-ONE:

1. Great cleaning power, thanks to cylindrical rotating brush. No residual dirt will re-emerge on carpet surface after few days!
2. The 3 stages **high waterlift** vacuum motor and the special profile of the vacuum head allows an excellent suction and therefore a complete dirt removal and a very short drying time.
3. **Very silent working** (60 decibels), allowing to use the machine with no discomfort for the worker and for other people. The machine can be used also during normal daily working time and in noise-sensitive places such as hotels, offices, banks.
4. Possibility to adjust the height of the brushes according to the kind of carpet and to the dirt degree.
5. Brush easily replaceable with no need of turning the machine over.
6. Controls at a **comfortable height** for the worker.
7. Water spraying can be continuous or otherwise activated by the machine handle.
8. Quick disconnect spray nozzles, which can be removed without using any tool. The nozzles can be cleaned easily. The complete connector with nozzles can be taken out of the machine without turning the machine over.
9. Possibility to connect the machine with optional tools for cleaning hard-to-reach corners.
10. Possibility to regulate the water flow, according to the degree of dirt and to the desired drying time.
11. With the optional **SMARTKIT-CH**, it is possible to perform **automatic chemical dosing** and **carpet rinsing**.
12. Adding the pre-spray pipe and gun **PRESPRAY-MX** to SMARTKIT-CH, it is also possible to **pre-spray carpet** before cleaning, in order to get the best cleaning results and avoid fast resoling of carpet.



Other technical advantages of Charis-ONE:

1. Detachable tanks. The machine can be carried easily even in a small car.
2. High density polyethylene tanks, very strong and made for lasting a long time.
3. Transparent unbreakable cover, which allows to see the dirty water while it is sucked.
4. Easy to reach hole for filling the tank with clean water.
5. Drainpipe for easily emptying the recovery tank.
6. The gaskets are not glued and replaceable by hand. Easy to clean and change.
7. Brass quick-disconnect couplings, reliable and strong.
8. Water pump with internal bypass, which allows an automatic regulation of the optimal water flow according to the tool used. Moreover, the bypass device makes the pump more reliable and avoids problems in the years.
9. Water pump with external rectifier, specially sized for a greater reliability.
10. Vacuum motor with thermal protection against overload.
11. Vacuum motor treated against rust.
12. Both motor and pump can work continuously.
13. Stainless steel brush bearings for a longer life.
14. Modular design that makes the maintenance easier. The maintenance of the machine can be done at low costs.
15. Brush motor with thermal protection against overload and excessive mechanical action on carpet (useful in case of a wrong regulation of the brush height).














Technical Data

| | |
|---|--------------------------------------|
| Approximate performance (basic machine)*: | 120-250 m²/h |
| Approximate performance (professional SET)*: | 200-300 m²/h |
| Recovery tank capacity: | 35 litres |
| Solution tank capacity: | 35 litres |
| Vacuum motor: | Three stages – High Waterlift |
| Power: | 1500 W |
| Maximum waterlift: | 3400 mm H₂O |
| Maximum air-flow: | 45 l/sec. |
| Pump with by-pass: | Membrane |
| Power: | 80 W |
| Maximum pressure: | 9 bar |
| Maximum water-flow | 4,5 l/min |
| Cleaning width (carpet/floor): | 400 mm |
| Number of nozzles: | 4 |
| Brush: | 1 x 120 W 600 rot/min 363 mm |
| Cable length: | 15 m |
| Hose length: | (optional) |
| Weight (machine body): | 50 kg |
| Weight (packaged machine): | 65 kg |
| Dimensions: | cm 42 x 104 x 96(h) |
| Package dimensions: | cm 50 x 110 x 112 (h) |
| Standard colours: | Blue |
| Tank construction: | High density polyethylene |
| Suitable to work with heater: | YES |

*The effective performance depends on the type of cleaning required: restorative deep cleaning - maintenance cleaning.



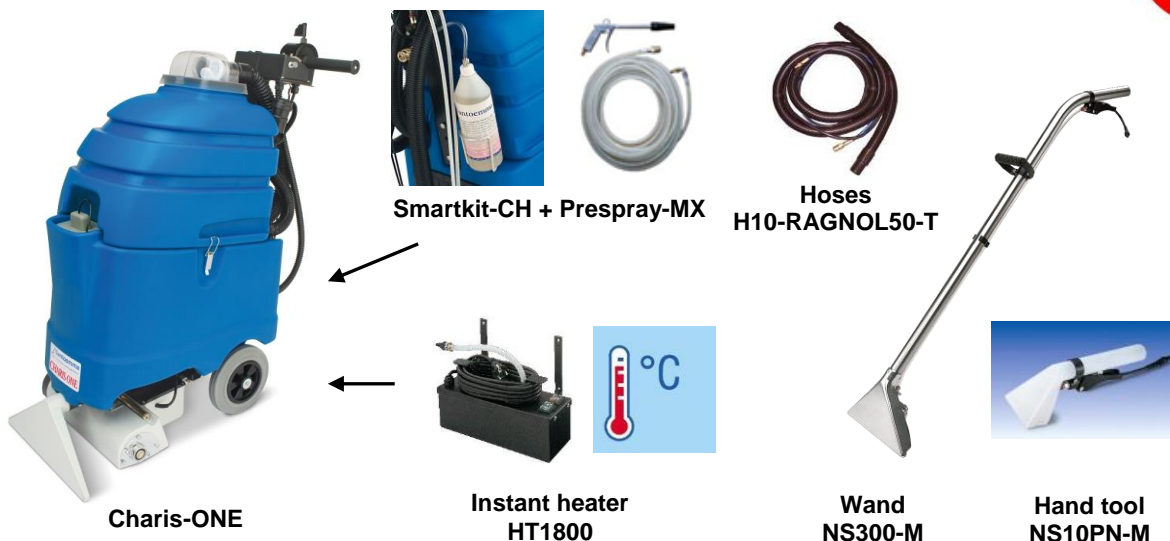
Suggested optional tools (see also Charis-ONE PROFESSIONAL SET)

| | | |
|---|-----------------------|--|
|  | H10-RAGNOL50-T | Vacuum and solution hoses, 5 m, Ø 32 mm, ragno solution pipe, metal couplings |
|  | NS10PN-M | Plastic hand tool, with 1 spray nozzle. |
|  | NS10ALL-M | Aluminium hand tool, with 1 spray nozzle |
|  | NS300-M | Carpet tool with aluminium head, 3 spray nozzles, tubes in stainless steel |
|  | HT1800-220-M | Instant hot water unit, 1800W, complete with metal brackets to fix it on the machine. |
|  | SMARTKIT-CH | Kit for automatic chemical dosing, rinsing and carpet pre-spraying. Not including the pre-spray pipe and gun (PRESPRAY-MX) for carpet pre-spraying. |
|  | PRESPRAY-MX | Complete pre-spray pipe and gun, to be added to SMARTKIT-MX or SMARTKIT-CH, for carpet pre-spraying. |
|  | NS270BRUSH | Special wand, 270mm wide, with a cylindrical rotating brush, to be used for cleaning carpet in combination with an injection-extraction machine |
|  | NS400BRUSH | Special wand, 400mm wide, with a cylindrical rotating brush, to be used for cleaning carpet in combination with an injection-extraction machine |
|  | 9022 | Hose for filling up the clean water tank easily. It can be used to connect the water tap to the machine tank, without spilling water. |
|  | HERMES-M | Tool which allows to wash and dry walls and windows. The solution is injected by 2 nozzles, which are inside the vacuum head, so that it is possible to clean a vertical surface without water dropping on the floor. Hermes is supplied with a brush slide and a rubber slide, to clean rough or smooth surfaces. |
|  | NS270P-M | This tool works with the same principle of Hermes. Its two extensions allow to wash and dry hard floors, high walls and even ceilings. |
|  | ST810 | Three speed air blower, high performance, 1 Hp, 230V – 50Hz, for quick drying of carpet after cleaning. Equipped with wheels and extensible handle, easy to transport. Stackable. |



Charis-ONE PROFESSIONAL SET

Up to
300
sqm/h



Charis-ONE PROFESSIONAL SET includes:

- Machine body
- hoses H10-RAGNOL50-T
- the wand NS300-M
- the plastic hand-tool NS10PN-M, for cleaning upholstery and hard-to-reach spots
- the instant hot water unit HT1800
- the complete SMARTKIT-CH with PRESPRAY-MX, to perform automatic chemical dosing, pre-spraying and carpet rinsing.

Advantages with Charis-ONE PROFESSIONAL SET:

1. The mechanical brushing action gives an excellent cleaning result, removing dirt completely from the base of carpet fibres. No residual dirt will re-emerge on carpet surface after few days!
2. Even a very dirty carpet can be completely clean in a single pass, reducing the time of cleaning operations.
3. Being able to clean in single pass, the amount of solution sprayed on carpet is not excessive and can be completely recovered by the machine's high-waterlift vacuum system. As a result, carpet can be completely dry in one hour!

Complete **Charis-ONE Professional set**, including:

machine body, hoses **H10-RAGNOL50-T**, carpet tool **NS300-M**, hand tool **NS10PN-M**,
instant hot water unit **HT1800**

SMARTKIT-CH for automatic chemical dosing and rinsing, with pipe and gun **PRESPRAY-MX** for carpet pre-spraying