

DS 50 DRS

Compact washer disinfectors



The DS 50 DRS range compact washer disinfectors are designed for the cleaning, thermal disinfection and forced hot air drying of all types of surgical instruments.

These devices are ideal for use in hospitals, dental cabinets, laboratories, surgeries and practitioners.

The range is designed to allow a simple installation onto a bench-top (DS 50 DRS models) as well as stand alone installation or under bench installation into existing furniture (DS 50 HDRS models). All the models provide a practical and safe solution for chemical storage.

The electronic programmable microprocessor is capable of storing up to 40 washing programs password protected. The user can customize any parameter needed to a wash cycle.

These washer disinfectors are provided with a washing and drying injection connection allowing the use of injection washing baskets sending water and drying air directly into hollow objects.

The drop-down door provides a loading platform for a convenient loading and unloading job. The double door model (DS 50/2 DRS) is suitable for barrier installation reducing cross contamination by separating dirty and clean areas.

Specifications

DS 50 DRS dimensions

External WxDxH:
570mm x 575mm x 535mm
22.44" x 22.63" x 21.06"

Chamber WxDxH:
415mm x 480mm x 375mm
16.34" x 18.90" x 14.76"

Door passage WxH:
400mm x 255mm
15.75" x 10.04"

DS 50 DRS/2 dimensions

External WxDxH:
632mm x 562mm x 535mm
24.88" x 22.12" x 21.06"

Chamber WxDxH:
415mm x 500mm x 375mm
16.34" x 19.68" x 14.76"

Door passage WxH:
400mm x 255mm
15.75" x 10.04"

DS 50 HDRS dimensions

External WxDxH:
560mm x 577mm x 825mm
22.05" x 22.72" x 32.48"

Chamber WxDxH:
415mm x 480mm x 375mm
16.34" x 18.90" x 14.76"

Door passage WxH:
400mm x 255mm
15.75" x 10.04"

Standard compliant

Steelco DS 50 DRS range washer disinfectors are designed to comply with the European EN ISO 15883 and UK HTM 2030 guidelines on decontamination and are classified CE medical devices (Community Rule 93/42/CEE)

Water consumption:

6 l (1.85 gal.) per chamber fill

Heat loss:

793 Btu/h (200 kcal/h)

Sound level:

52.0 dB

Standard features

Hinged drop down door

- Stainless steel door frame, stainless steel AISI 316L (DIN 1.4404) washing chamber side, high visibility HST tempered full glass door external side.
- The door acts as a loading platform for lower and dual injection wash carts for a convenient loading and unloading job.

Washing system



- Two rotary spray arms, one on the bottom and one on the top of the chamber
- Spray arms made of AISI 316L stainless steel (DIN 1.4404)
- Easily disassemble washing arms for cleaning and maintenance

Direct injection system

- Wash chamber connections for injection washing basket

Circulation pump

- 1 unit 90 l/min (23.77 gal.US/min) pump.
- Pump power 150W.

Filter system

- A three (3) stage filtration system helps protect recirculation and drain pumps from debris
- Filters can be easily removed for cleaning

Steam condenser

- Prevents vapors from entering into the washing area at a set temperature programmable from:
0°C - 93°C (32°F - 200°F)

Chemical dosing

- One peristaltic pump provide precise addition of liquid chemical agent

Chemical storage



- On DS 50 DRS and DS 50/2 DRS models, chemical tanks are integrated in the front panel and provided with quantity inspection window



- On DS 50 HDRS model the large storage on bottom basement allows to allocate up to two 5 lt. (1.32 Gal US) chemical containers.

Electric heater

- 2.6 kW electric heating elements providing heating up to 93°C (200°F)
- Electronic Thermostat
- Two (2) independent PT1000 temperature probes

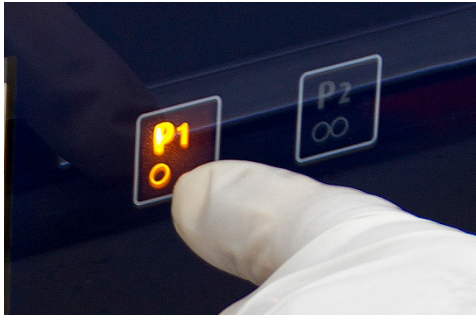
Forced hot air drying system

- Air circulation in the chamber, through the chamber washing arms and through the washing baskets injection.
- F5 (EN 779) pre filter
- 0.75 kW heating elements provide up to 140°C (184°F) air
- Dryer blower flow rate up to 100 m³/h (3.531 ft³/h)

Microprocessor control system

- Possibility of up to 40 storable programs
20 standard programs, 20 user definable programs.
- Password protected programming.

System control panel



- Soft touch control system on glass panel
- Graphic colour LCD display

System monitoring

- Audible and visual alarms provide quality control for each wash cycle
- Sensors control chamber water level and prevent overflow
- RS 232 Port for printer connection to monitor and validate washing cycle.



- USB port for historical cycle data, machine parameters and washing programs download. Allows easy software upgrades.

Drain pump

- Independently operated drain pump for efficiently pumping out waste water

Safety features

Locking door

- Prevents interference with wash cycle once the machine is in operation.

Drop down door

- Eliminates the safety hazard associated with guillotine type doors.
- Counterbalanced for safe operation

Optional features

Water softener

- Softens incoming hot and cold water.
- Programmable regeneration with low salt alarm.

Demineralized water connection

Additional dosing pump

- One (1) peristaltic pump for dosing an additional type of chemical to meet specific wash requirements.
- Additional detergent dosing pump for DS 50 DRS and DS 50/2 DRS models is complete with frontal panel chemical container.

Flowmeter

- Flowmeter for additional chemical control

Conductivity sensor

- Accurate measuring of the conductivity value during the final rinse

Pressure pump sensor

Drain cooling solenoid valve

- Waste water is cooled down to 60°C (140°F)

HEPA filtration

- HEPA H14 filter with global efficiency M.P.P.S. 99,995% (EN 1822)

Independent recording system

Network connection

- Ethernet connection by X-fire device

Printer

- External printer for validating washing phases with detailed information.

Programming and cycle operation

The user is able to create unique programs to meet their specific needs. Listed are various phases that can be programmed and repeated into various combinations.

- **Pre-Wash** – The user is able to define the number of pre-washes, length of pre-washes and select between cold, hot and DI water or mix two sources.
- **Wash** – The user is able to define the length of the wash cycle, detergent dosing and dosing temperature, temperature of the water up to 93°C (200°F) and select between cold, hot and DI water or mix two sources.
- **Chamber flush during drain** – The user is able to define flush time execution during the draining of the chamber.
- **Neutralization** – The user is able to select the length of the rinse, the presence and the amount of neutralizer, temperature of the rinse up to 93°C (200°F) and what type of water is to be used, either cold, hot or DI water or two mixed sources.
- **DI Rinse** – The user can define the length of the DI rinse, temperature of the water up to 93°C (200°F) presence and amount of rinse aid.
- **Drying** – programmable between low speed and high speed drying and up to a temperature of 140°C (284°F). Operation time of the steam condenser.

Construction

Washing chamber

- Constructed using AISI 316L BA Ra<30µin (Ra<0.8µm)
- Designed and constructed with smooth edges and corners removing areas where dirt can accumulate and allow bacterial growth.

Exterior

- AISI 304 Scotch Brite finish Ra<40µin (Ra<1.2µm)

Components

- Constructed using stainless steel and other materials which are resistant against the effects of aggressive detergents

Insulation

- High performance melamine insulation guards against heat loss and reduces noise level

Accessories

A large variety of washing baskets also with direct injection systems for dental, surgical and micro surgical instruments

Cleaning chemicals

A large selection of cleaning chemicals are available.

Required utilities

Warm water

Cold water

DI water (optional)

Drain connection

Electrical requirements

- **Total power** (2.75kW)
- 230V/~50Hz
- 220V/~60Hz
- other electrical connections are available to match electrical requirements of installation site.