



The Ultimate Multi-Purpose Equipment Cleaning and Infection Control Solution



Specification Brochure

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HUBSCRUB is an automated equipment cleaning process to assist and enhance your infection control programmes. HUBSCRUB allows you to completely clean and decontaminate wheelchairs, commodes, toilet frames, shower chairs, carts, trolleys, over-bed tables and more within 6 minutes.

HUBSCRUB's patented cleaning and decontamination system includes state of the art UV technology and allows for multiple pieces of equipment to be cleaned at the same time, significantly reducing labour time and costs.

HUBSCRUB is perfect for hospitals, aged care facilities and suppliers of assistive products.

- **HUBSCRUB** comes with four (4) UV lamps as standard. Two UV lamps are located at the top on either side facing downward. Two additional UV lamps are located in the back facing the front of equipment.
- Prior to disinfection, equipment is washed and rinsed to provide a clean surface which is always recommended. Independent testing confirmed that a wash, rinse and 3 minute UV dosage eliminated C-Diff, MRSA, CRE pathogens.
- Total time approximately 6 minutes. **HUBSCRUB** also features a UV only option. When equipment is clean and/or non-washable a UV only cycle can be selected.
- This model also offers the addition of liquid disinfectants – RTU or Concentrate or both.

DESIGNED TO LAST

HUBSCRUB's use of technology is all about long life and adaptability for future requirements. **HUBSCRUB** machines are still working in the field after 20 years in the most demanding service business.

INFECTION PREVENTION

Wide array of choices to meet facility's needs. Ultra Violet (UV) with wash rinse, UV only, Concentrates, Ready-to-use, Green choices, Automatic dilution ratios, Contact times... We've got you covered.

ADVANCED ELECTRONICS

On-board programming, internet connection, USB for detailed documentation, circuit board for reliability, long life and secure connections.

ENGINEERED FOR CONVENIENCE

All parts easily accessible for serviceability and maintenance. Lightweight for portability within a facility or external facilities.

ENGINEERED FOR PERFORMANCE

Cleaning spray pressures 40 to 50psi for faster and deeper cleaning. Friction to remove soiled surfaces and pathogens on surfaces. A rotating spray system that makes contact with all surfaces – front, back, top, both sides of equipment and a powerful under spray system.

HIGHLIGHTS



- **HUBSCRUB's** use of a printed circuit board is a perfect example of **HUBSCRUB'S** inbuilt lasting value.
- No loose wire connections, no short circuits and highly reliable.



- Our proven rotating spray system originated for washing and rinsing equipment. Today that same advantage is used for spraying concentrate disinfectants and Ready-to-use (RTU) disinfectants.
- This method ensures excellent coverage on equipment surfaces by spraying from the bottom to the top of equipment surfaces.



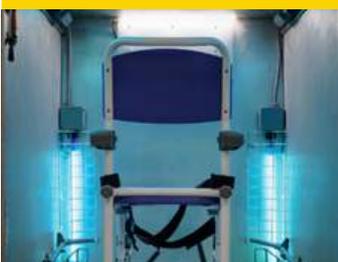
- The underside of equipment is often neglected. **HUBSCRUB's** under spray system is a powerful spray pattern for equipment surfaces and for the inside surfaces for various types of equipment.



- This photo shows three spray nozzles that are mounted on the rotating spray arms.
 - The dark nozzle in the middle is used for washing and rinse cycle and is 1 of 12 nozzles.
 - The nozzle on the right side of the middle nozzle is used by the concentrate disinfectant.
 - The nozzle on the left size is used by the Ready-to-use (RTU) Disinfectant.



- The effectiveness of UV depends on:
 - a clean surface
 - distance from the UV lamp to equipment surface
 - how long the lamps are on
 - a direct line of sight to the equipment surface
- These important requirements is why **HUBSCRUB** UV is so effective & quick.



- If the surface is clean **HUBSCRUB** can also bypass the wash and rinse cycle and apply UV Only.
- Items such as keyboards, phones, cuffs, etc. can be placed on the parts rack be disinfected all at the same time.
- This cycle is only 3 minutes.

STANDARD FEATURES

- Programmable microprocessor automation
- Touchscreen display with extensive features
- Under-spray system for equipment under carriage
- Rotating cleaning and rinse spray system for both sides, front, top and back with spray pressures 40 to 50 psi
- Multiple cleaning cycles ranging from 3 to 6 minutes
- Automatic change in cleaning detergent amount based on cleaning selection
- Lighted wash and disinfection chamber
- Water conservation – 15 Litres per standard wash
- Complete chemical dispensing system with automatic chemical line and device cleaning
- Self-cleaning wash pump filter
- Automated draining system
- USB entry for PDF information files
- Safety door switch
- Ground fault circuit protection
- Mobility handles
- See through door window
- Heavy duty caster wheels for each mobility
- 15 Litres of Hubscrub chemical starter pack
- 15 Litres of Hubscrub disinfectant

CHOOSE YOUR OPTIONS

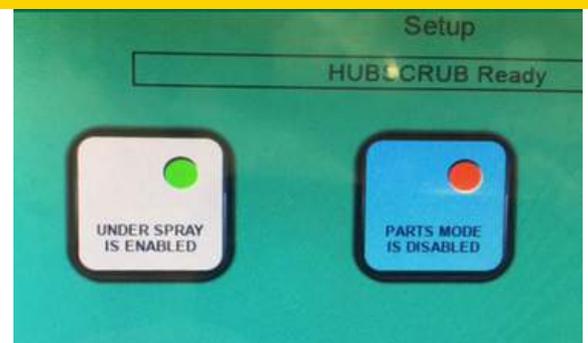
Variable Spray Arm Control

- This option controls the speed of the rotating spray arms. The operator can increase the speed from pause up to fast.
- A handy option for very soiled equipment by adjusting to slow, or faster when equipment has minimal soil.



Parts Cleaning

- PARTS CLEANING and Variable Spray Arm Control work together to maximize cleaning.
- Spray arm rotation will be in the parts rack or parts basket location. When this option is selected, it will be displayed on the touch-screen.
- The picture shows that Under-spray is enabled and Parts mode is disabled.



Quick Disconnects

- Consists of a fitting that threads into **HUBSCRUB** and the locking fitting on the hose.
- They offer a solid connection that is quick to remove and re-install.
- These fittings are recommended when **HUBSCRUB** is moving from one location to another.



HUBSCRUB Connect

- **HUBSCRUB** Connect is an internet connection to run remotely, diagnose issues, updates and preventive maintenance.
- Requires site evaluation to verify connectivity to the Internet.



CHOOSE YOUR ACCESSORIES



- A Mat and Terry Cloth Towel is used to contain water drips when removing equipment from the wash Chamber.
- The Mat and Towel are attached by Velcro when the towel needs to be washed and dried.
- The vinyl mat keeps the floor dry. Measures approximately 245 cm L by 112cm wide.



- Ramps are 1.2m long and adjustable side to side.
- A receiver plate is attached to the base for the ramps to attach to the base.
- Very handy for people that are not familiar with patient care equipment and lifting wheelchairs into the chamber.



- Parts Rack is stainless steel. Can hold 23 kgs.
- Rack has six fork hooks that rest on top of the guard rails on either side. Combination of the underspray and rotating spray system provide thorough cleaning, rinsing and disinfection.
- Easy to install and remove. Measure 76cm by 76cm.



- Parts Basket is 128cm H X 51cm L X 41cm W.
- Swivel casters are 13cm high to raise the basket off the floor for the underspray.
- Caster wheels are convenient to roll the basket to **HUBSCRUB**.



- The Power Dry is a small package with big performance.
- An average hair dryer has a velocity of 40mpg.
- Our Power Dry is 160mpg.
- Quickly dries parts and removes water pockets.



- Personal Spray Attachment is very handy.
- It can dispense cleaning detergent and provides a rinsing function.
- Spray pressure is the facilities water pressure.
- Can be used for miscellaneous equipment.
- Power is not needed.

LITTLE THINGS CAN MEAN A LOT

- When a chemical is dispensed through tubing and devices, a rinse function is automatically completed to remove chemical residue from building up - a preventive maintenance benefit.
- The filter screen for the main wash and rinse system is cleaned automatically throughout the cycle - saves time.
- Any operator error or system error will be displayed with detailed explanations of the cause. No need to hunt for that missing manual.
- Admin lock feature can select a specific cleaning/disinfection function. Facility can set a standard process. Great for new staff members.
- Conservation – Only 15 Litres of water for complete wash and rinse functions. This is frequently less than a manual wash of only one item.
- Non corrosive hot water temperatures 38°-49°C recommended, to prevent metal corrosion. When cycle is complete, display shows REPEAT SELECTION OR CHANGE. Nice feature to keep things simple.

HUBSCRUB - FLEXIBLE & ADAPTABLE

Example 1

A large user with over 50 **HUBSCRUB** machines got notice from their disinfectant supplier their current disinfectant would be replaced by a new disinfectant with a dilution ratio of over 2 times what they have now. In less than 3 days all **HUBSCRUB** units were up and running with the new disinfectant and new dilution ratio. With **HUBSCRUB** dilution ratios and contact times are easily changed.

Example 2

A facility was undergoing maintenance and the water pressure was going to be lower for a few days. **HUBSCRUB** monitors various functions to maintain completion times. For example how long it should take to fill the sink. A program change was made to increase the amount of time with the lower water pressure, by allowing extra time to fill the sink. **HUBSCRUB** was kept in production by this simple change.

Example 3

A new bacteria emerged and required extra UV dosage time. The current setting was set at 3 minutes. The dosage time needed to be set at 5 minutes. A password was entered and the 3 minutes was simply changed to 5.

These are just a few live examples of how **HUBSCRUB** adapts to to the conditions.

WHAT DOES RESEARCH SAY?

World Journal of Microbiology and Biotechnology

“Do wheelchairs spread pathogenic bacteria within hospital walls?” “Study indicate that wheelchairs are contaminated by several pathogenic bacteria among them antibiotic resistant strains”

Beckers Infection Control and Clinical Quality

“Implementing and sustaining best practices in mobile equipment disinfection”
“One area often overlooked, but represents a significant opportunity to reduce risk is disinfection of mobile equipment such as wheelchairs”

American Journal of Infection Control

“Spores On Wheels”
“In a hospital and affiliated long term care facility, we found that Shared wheelchairs were frequently contaminated with health care associated pathogens, including C-Diff spores.”

Micro Scientific

“An infrequent clean and disinfect policy increases the risk “Examples - Pathogen Survival
C-Diff - can survive more than 5 months
MRSA - Survives from 7 days to 7 months
Escherichia Coli - 1 hour to 18 months
Adenovirus - 7 days to 3 months

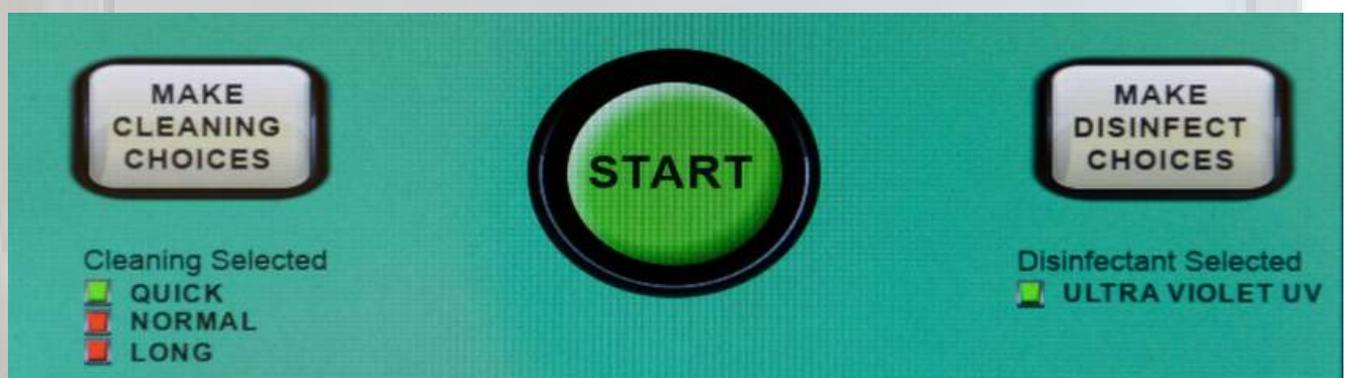
THE BOTTOM LINE

Improving labour productivity is key in today's market. Investing in **HUBSCRUB** technology helps to complete cleaning and disinfection tasks more effectively, ensures consistent quality, contributes to employee satisfaction and makes up for labour shortages.

To break the chain of infections, mobility equipment such as wheelchairs need the same level of attention that is given to environmental surfaces.

By spending significantly less time on manual repetitive tasks, your staff can be deployed to other responsibilities. After all, cleaning costs are all about labour time.

Today, public health awareness, regulatory standards and rising expectations is business critical. Emphasis on cleaning and disinfection is here to stay.



SPECIFICATION SHEET - HUBSCRUB 20/80 UV MODEL V7.7

20/80 UV MODEL

The 20/80 UV uses a concentrate disinfectant that is mixed with water, coupled with powerful UV to disinfect equipment.

APPLICATION

For use in hospitals, long term care facilities, assisted living, rehab facilities, medical equipment providers, re-cycling organizations and by service businesses to clean and disinfect wheelchairs and other durable medical equipment. Also ideally suited to early childhood centres.

DESCRIPTION

Hubscrub is controlled by an industrial micro-processor. The system will automatically cycle through wash, disinfect and rinse selections. Cycle times are selectable for soil conditions.

DIMENSIONS

Exterior Overall (W X H X L): 98cm X 156.2cm X 164cm
Wash Chamber Interior Available Space (W X H X L): 79cm X 125cm X 138cm
Wash Chamber Door Opening (W X H): 84.5cm X 107.3cm

WEIGHT

Approximately 177 kgs

MOBILITY

Two (2) swivel caster wheels located in the front (Door side) Two (2) fixed casters in the back Caster size is 31.75mm X 101.6mm. Pull handles located on front for better control when moving from one location to another.

CAPACITY

Hubscrub accommodates larger size wheelchairs, carts, geri chairs, Brodas, split rental beds. 2 wheelchairs folded or 2 commodes, or 2 shower chairs, or 2 over-bed tables, or multiple walkers or combinations of different washable equipment.

SET-UP LOCATION

System positioned on a level floor to maintain accurate water level readings. Access to water temp 39°-49°C, drain and 240V electrical outlet.

ACCESS

Doorways should be at least 991mm for the unit to pass through.

SPACE REQUIREMENTS

Allow 91.5cm for door swing plus at least 122cm for wheelchair/equipment loading and unloading. Provide space for placing equipment out of the way for drying and loading. Allow 61cm for opening the chemical door and changing out chemical containers on the back end.

STANDARDS

Accreditation approved process UL/CSA System Components

GENERAL FEATURES

1. **Material** – Aluminum 13 gauge. Welded seams. Internal sink and floor – Stainless Steel
2. **Micro-processor** - Software programmable. New revisions for updates through communications or cartridge insert. Touchscreen with extensive information features. USB entry for PDF information files to include; Maintenance, Training, Repair .
3. **Wash pump/motor** – 1HP Centrifugal Booster pump, 7 stages, noryl impellers, rated 82°C, overload protection.
4. **Drain pump/motor** – 1/3HP Centrifugal pump, flow rate 23 Litres a minute.
5. **RTU Spray pump/motor** – 1/8hp, 24vdc, Permanent magnet, low amp, up to 130psi.
6. **Concentrate Spray pump/motor** – AC
7. **Metering pump/motor** – chemical dispensing, 24vdc, Diaphragm
8. **Filter System** – Continuous self cleaning for recycling water through wash pump. Two removable filter screens. One large mesh and another fine mesh bolted into position to protect wash pump and solenoid valves. Third filter for spray nozzles positioned on moving spray system with removable filter screen for cleaning.
9. **Door Safety** – Cycles cannot start unless door is closed. If opened during cycle, system services are shut off and cycle stops with displayed message.
10. **Cleaning Times** – 3 to 6 minutes based on selection.
11. **Moving Spray System** – Mechanically driven on both sides of chamber by continuous chain drive system with rotating forward and reverse direction. Spray nozzles positioned to reach front, back, sides and top of equipment surfaces including underside with Underspray system. Spray pressures 40-50 PSI per spray nozzle.
12. **Venting** – Vent openings to release wash chamber expansion.
13. **Window** – Door window for wash chamber 61 cm x 61cm. User has a complete visual look at the system process through the door window.

CLEANING AND DISINFECTION FEATURES

1. **Touchscreen – Start/Stop** – Controls running system services. If cycle is stopped before completion, the cycle starts from the beginning when Start button is pressed.
2. **Touchscreen** – Used to input and display current function in progress, management information, changes, extensive documentation, alert messages and explanations of alert messages.
3. **Cycle Descriptions** – Once cycle selections have been made, pressing the Start on the touchscreen will automatically begin the cycle without intervention until the cycle functions have been completed. Cycle times are based on what cleaning or disinfection cycle has been selected.
4. **Clean Only** – During a wash cycle, a measured amount of detergent is dispensed into the internal sink. The wash pump will pump mixed solution through the spray nozzles located on the rotating spray system and through the underspray system.
5. **Disinfection** – During the disinfection cycle, a liquid disinfectant concentrate or Ready To Use will be dispensed and sprayed onto equipment surfaces. If UV is used for disinfection, the wash and rinse cycles are first completed and then the UV lamps come on for 3 minutes.
6. **Rinse** – During the final rinse cycle, a measured amount of rinse drying aid is dispensed into the internal sink and pumped through the spray system to rinse off chemical residue, soil impurities and removes any spotting on equipment surfaces. Hard surfaces will be dry in 2 minutes using recommended water temperature. It also includes a rust inhibitor. At the conclusion of the rinse the system stops leaving rinse water in the internal sink to be used by the next wash cycle.
7. **Chemical Dispensing** – Chemicals in liquid form are dispensed into the internal sink or dilution tank based upon their function and purpose in the cycle. The only chemical that is dispensed into the dilution tank is the disinfectant. Dispensing method is the use of a metering pump that draws the chemical through an opened valve, flow sensor, metering pump and into the internal or dilution sink. To minimize any chemical residue and build up left in the fluid line, a water purge function follows all chemical dispensing through the same fluid line.
8. **Empty Internal Sink** – To remove water from the internal sink independent of the automated cycles, an empty function is provided on the touchscreen. This function is used to empty the sink after all operations for the day. In addition, the Empty function is used as the means to empty water that has collected when using the Manual Spray Attachment for miscellaneous cleaning.
9. **Water Usage** – approximately 15 litres for complete wash, disinfectant and rinse operations.
10. **Disinfectant Usage** – Based on disinfectant type, over 300 cycles are achieved with 3.8 litres of concentrate disinfectant, 74mL for Ready To Use or with UV 1500 hours of use.
11. **Doorways** – Be sure to verify from the location that **HUBSCRUB** is received, to the location where it will be installed, that doorways, elevators and walkways will accommodate the dimensions of the model 20/80.

UTILITY REQUIREMENTS

1. **Hot Water** – Recommend standard hot tap water 38°C to 49°C. Access to a standard garden hose male faucet thread. Distance to tap within 1m for supplied hoses. Water flow should be capable of filling a litre container in approximately 10 to 15 seconds for standard setting.
2. **Hot Water Tank** – If **HUBSCRUB** will be operating in a location where hot water is stored in a hot water tank, high volume cleaning may affect the supply of hot water in a low capacity water tank.
3. **Drain** – 51mm diameter drain line raised 61-91.5cm off the floor or utility sink or floor drain. Drain line capable of 27 litres a minute flow rate. Distance to drain line within 4m for supplied hoses. Longer hoses are available.
4. **Electricity** – standard 240V, 20 amp circuit with no other major appliances on the same circuit. Running amps; 9 to 12. 4.5m heavy duty electrical cord supplied.

MAINTENANCE DIAGNOSTICS

1. **Diagnostics** – Software included to test each electro-mechanical device. Operator and system error conditions displayed for identification and correction.
2. **Display Messages** – Some examples include; low water, water fill time exceeds standard setting, drain time exceeds standard setting, what chemical is low, door opened while running, obstruction in the way of spray arm, total wash cycles, ...
3. **Maintenance**– procedures primarily include; cleaning filters for water fill, spray system strainers, chemical filters. Maintenance reminders and instructions are available on the touchscreen.
4. **System Self Maintenance** – Filter screen for wash pump automatically cleaned when the screen becomes clogged. No cartridge replacements are necessary. Chemical lines automatically purged with water to rinse chemical residue that builds up over time.

SERVICEABILITY

Access – Due to the light weight, the entire unit can be lifted up to rest on its back or leaned on its side allowing complete access to any part of the total unit. All electro-mechanical devices and wiring are easily accessible. Open architecture and mounting plates offer easy maintenance, replacement or repair. Electronics are convenient for access, inspection, repair or replacement.



The Ultimate Multi-Purpose Equipment Cleaning and Infection Control Solution



PHONE

0800 2 HUBSCRUB
0800 248 272

EMAIL

INFO@HUBSCRUB.CO.NZ

ADDRESS

Independent Living
308 Te Irirangi Drive
Flat Bush
Auckland 2013