

# **HUBSCRUB**

**MORE THAN WHEELCHAIR CLEANING**



## **INNOVATIVE DESIGN, FUNCTIONALITY AND TECHNOLOGY**

*MAKE IT CLEAR THERE IS NO COMPROMISE WHEN IT COMES TO CLEANING PERFORMANCE, DISINFECTION CHOICES, MOBILITY AND CUSTOMER VALUE*

## DESIGNED TO LAST

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

## INFECTION PREVENTION

Wide array of choices to meet facilities 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.





## STANDARD FEATURES - ALL MODELS

PROGRAMMABLE MICRO-PROCESSOR AUTOMATION  
TOUCHSCREEN DISPLAY WITH EXTENSIVE FEATURES  
UNDERSPRAY 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 3 TO 6 MINUTES.  
AUTOMATIC CHANGE IN CLEANING DETERGENT AMOUNT BASED ON CLEANING SELECTION  
LIGHTED WASH AND DISINFECTION CHAMBER  
WATER CONSERVATION – 4 GALLONS 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 EASY MOBILITY  
4 GALLONS OF **HUBSCRUB** DETERGENT  
4 GALLONS OF **HUBSCRUB** RINSE DRYING AID

## CHOOSE YOUR MODEL BY DISINFECTION TYPE

- 20/80-C** This model uses a concentrate disinfectant that is mixed automatically with water for a dilution ratio based on brand and a specific time the disinfectant needs to stay wet on the surface. Depending on the brand you can expect 128 to 300 disinfectant cycles per gallon. Disinfectant is sprayed through nozzles located on the rotating spray arms to ensure equipment coverage.
- 20/80-R** This model uses a Ready To Use (RTU) disinfectant. There is no mixing with water and the disinfectant should stay wet generally 5 minutes or less. Approximately 2.5 oz of disinfectant is used per cycle. Disinfectant is sprayed through misting spray nozzles located on the rotating spray arms to ensure equipment coverage.
- 20/80-UV** The UV model has four (4) UV lamps. Two UV lamps are located at the top on both sides 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. This model also supports UV Only selection. 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.

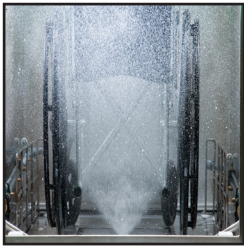
## HIGHLIGHTS



**HUBSCRUB's** use of a printed circuit board is another example of lasting customer 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 side of the middle nozzle 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 and a direct line of sight to the equipment surface. These important requirements is why **HUBSCRUB UV** is so effective and quick.



If the surface is clean our UV model 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 and disinfecting all at the same time. This cycle is only 3 minutes.

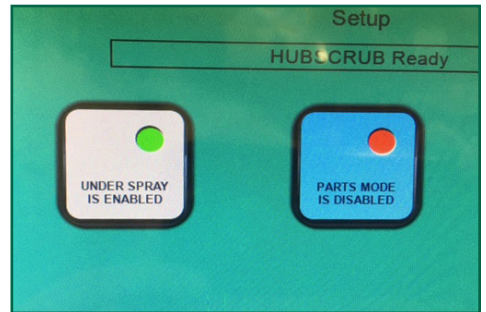


# CHOOSE YOUR OPTIONS

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



**Wrap-1** includes large wrap and vertical **HUBSCRUB**



**Wrap-2** adds facility name to bottom panel (includes Wrap-1)

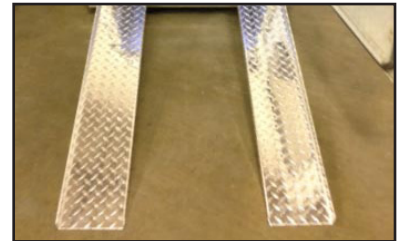


## CHOOSE YOUR ACCESSORIES

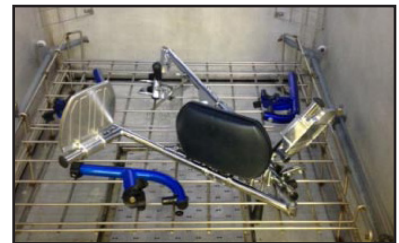
A Mat and Terry Cloth Towel is used to contain water drips when removing equipment from the wash Chamber. The Mat and Towel are attached by Velcro when the towel needs to be washed and dried. The vinyl mat keeps the floor dry. Measures approximately 96" L by 44" wide.



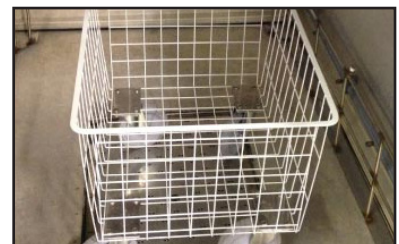
**Ramps** are 4' long and adjustable side to side. A receiver plate is attached to the base for the ramps to attach to the base. Very handy for people that are not familiar with patient care equipment and lifting wheelchairs into the chamber.



**Parts Rack** is stainless steel. Can hold 50lbs. 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 30" by 30".



**Parts Basket** is 11" H X 20" L X 16" W. Swivel casters are 5" 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 for 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 people.

Conservation – Only 4 gallons of water for complete wash and rinse functions. Using less water can be very important for some locations.

Non corrosive hot water temperatures 100°-120° F recommended. When temperatures are over 120° F it begins corrosive on some metals.

When cycle is complete, display shows REPEAT SELECTION OR CHANGE. Nice feature to keep things simple.

## HUBSCRUB - BUILT FOR CHANGE

Example 1 A large user with over 50 units 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 being worked on and the water pressure was going to be lower for a few days. **HUBSCRUB** monitors various functions to have completion times. For example how long it should take to fill the sink. A change had to be made to increase the amount of time with the lower water pressure. A password was entered to allow extra time to fill the sink. **HUBSCRUB** was kept in production by this simple change.

Example 3 If 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 EXAMPLES AND MORE IS WHAT KEEPS **HUBSCRUB** A LONG LASTING PRODUCT.



## 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"

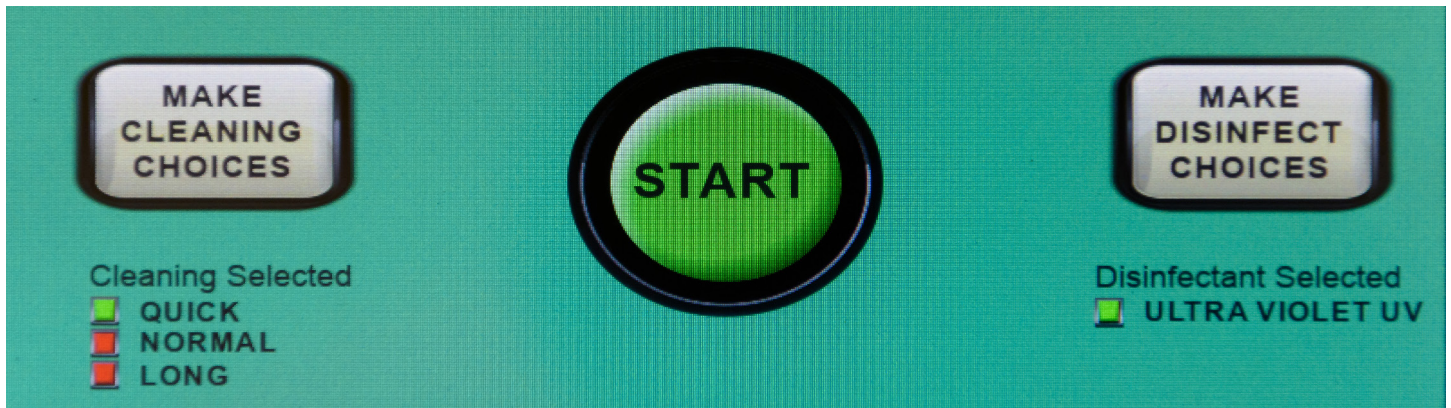
### **American Journal of Infection Control**

"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 labor productivity is key in today's market. Investing in **HUBSCRUB** technology will help to complete cleaning and disinfection tasks more effectively, ensures consistent quality, contributes to employee satisfaction and makes up for labor 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 significant less time on manual repetitive tasks, your staff can be deployed to other responsibilities. After all cleaning costs are all about labor 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 MODELS V7.7



## 20/80 MODELS

There are three 20/80 Models. 20/80-C uses a concentrate disinfectant that is mixed with water. 20/80-R uses a Ready To Use disinfectant no mixing of water. 20/80 UV uses Ultra-Violet 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.

## DESCRIPTION

The Model 20/80 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):

38.5 X 61.5 X 64.5"

Wash Chamber Interior Available Space

(W X H X L): 31.25" X 49" X 54.5"

Wash Chamber Door Opening (W X H):

33.25 X 42.25"

## WEIGHT

Approximately 390 lbs

## MOBILITY

Two (2) swivel caster wheels located in the front (Door side)

Two (2) fixed casters in the back

Caster size is 1.25" X 4"

Pull handles located on front for better control when moving from one location to another.

## CAPACITY

The model 20/80 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 100°-120°F, drain and 115V electrical outlet.

## ACCESS

Doorways should be at least 39" for the unit to pass through.

## SPACE REQUIREMENTS

Allow 3' for door swing plus at least 4' for wheelchair/equipment loading and unloading. Provide space for placing equipment out of the way for drying and loading. Allow 2' for opening the chemical door and changing out chemical containers on the back end.

## STANDARDS

Accreditation approved process

UL/CSA System Components

## GENERAL FEATURES

**Material** – Aluminum 13 gauge. Welded seams.

Internal sink and floor– Stainless Steel

**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 .

**Wash pump/motor** – 1HP Centrifugal Booster pump, 7 stages, noryl impellers, rated 180°F, overload protection.

**Drain pump/motor** – 1/3HP Centrifugal pump, flow rate 6 gallons a minute.

**RTU Spray pump/motor** – 1/8hp, 24vdc, Permanent magnet, low amp, up to 130psi.

**Concentrate Spray pump/motor** – AC

**Metering pump/motor** – chemical dispensing, 24vdc, Diaphragm

**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.

**Door Safety** – Cycles cannot start unless door is closed. If opened during cycle, system services are shut off and cycle stops with displayed message.

**Cleaning Times** – 3 to 6 minutes based on selection.

**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.

**Venting** – Vent openings to release wash chamber expansion.

**Window** – Door window for wash chamber 24" x 24". User has a complete visual look at the system process through the door window.

# SPECIFICATION SHEET - HUBSCRUB 20/80 MODELS V7.7

## Continued

### CLEANING AND DISINFECTION FEATURES

#### TOUCHSCREEN

Start/Stop – Controls running system services. If cycle is stopped before completion, the cycle starts from the beginning when Start button is pressed.

TOUCHSCREEN – Used to input and display current function in progress, management information, changes, extensive documentation, alert messages and explanations of alert messages.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

WATER USAGE – approximately 4 gallons for complete wash, disinfectant and rinse operations.

DISINFECTANT USAGE – Based on disinfectant type, over 300 cycles are achieved with 1 gallon of concentrate disinfectant, 2.5oz for Ready To Use or with UV 1500 hours of use.

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

HOT WATER – Recommend standard hot tap water 100°F to 120°F. Access to a standard garden hose male faucet thread. Distance to faucet within 13' for supplied hoses. Water flow should be capable of filling a gallon container in approximately 10 to 15 seconds for standard setting.

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.

DRAIN – 2" diameter drain line raised 2-3' off the floor or utility sink or floor drain. Drain line capable of 6 gallons a minute flow rate. Distance to drain line within 13' for supplied hoses. Longer hoses are available.

ELECTRICITY – standard 115V, 20 amp circuit with no other major appliances on the same circuit. Running amps; 9 to 12. 15' heavy duty electrical cord supplied.

### MAINTENANCE/DIAGNOSTICS

DIAGNOSTICS – Software included to test each electro-mechanical device. Operator and system error conditions displayed for identification and correction.

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, ...

MAINTENANCE – procedures primarily include; cleaning filters for water fill, spray system strainers, chemical filters. Maintenance reminders and instructions are available on the touchscreen.

### 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.