
READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

User Manual for Models:

DS5

|Air Operated Doorway Foam Unit|

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Specifications:

Tubing50 feet polyethylene, 1/2 inch O.D.
Foam output.....25 gallons/minute
(94 liters/minute)
Foam Pattern..... 5 foot wide X 12 foot in length
(one nozzle assembly)

Requirements:

Compressed air 40 to 80 PSI (3 to 5 bar) with 3.5 to 8 CFM (99.15 to 226.62 l/min)

Chemical requirements: follow all instructions from chemical manufacturer.

Electrical requirement.....115VAC - 60HZ
(GFI Protected Circuit)

Air Operated Double Diaphragm Pump Options:

P56.....Flojet polypropylene body with Santoprene diaphragm
P56V..... Flojet polypropylene body with Viton diaphragm
P56K..... Flojet polypropylene body with Kalrez diaphragm

Acceptable Products: Alkaline cleaners, Caustic cleaners, Sanitizers, and Acids.

* D-Limonene and peracetic acid may only be used with Kalrez pump

* Chlorine may only be used with Viton or Kalrez pump

DO NOT USE: All hydrocarbons

 **WARNING**

Avoid Personal Injury



1. Always wear protective clothing, gloves, and eye wear while servicing the foam unit.



2. Avoid contact of cleaning agent with skin and eyes. If contact occurs, see MSDS sheet for further first aid measures.



3. Follow safety instructions of chemical manufacturer (MSDS).

 **CAUTION**

Avoid Equipment Damage

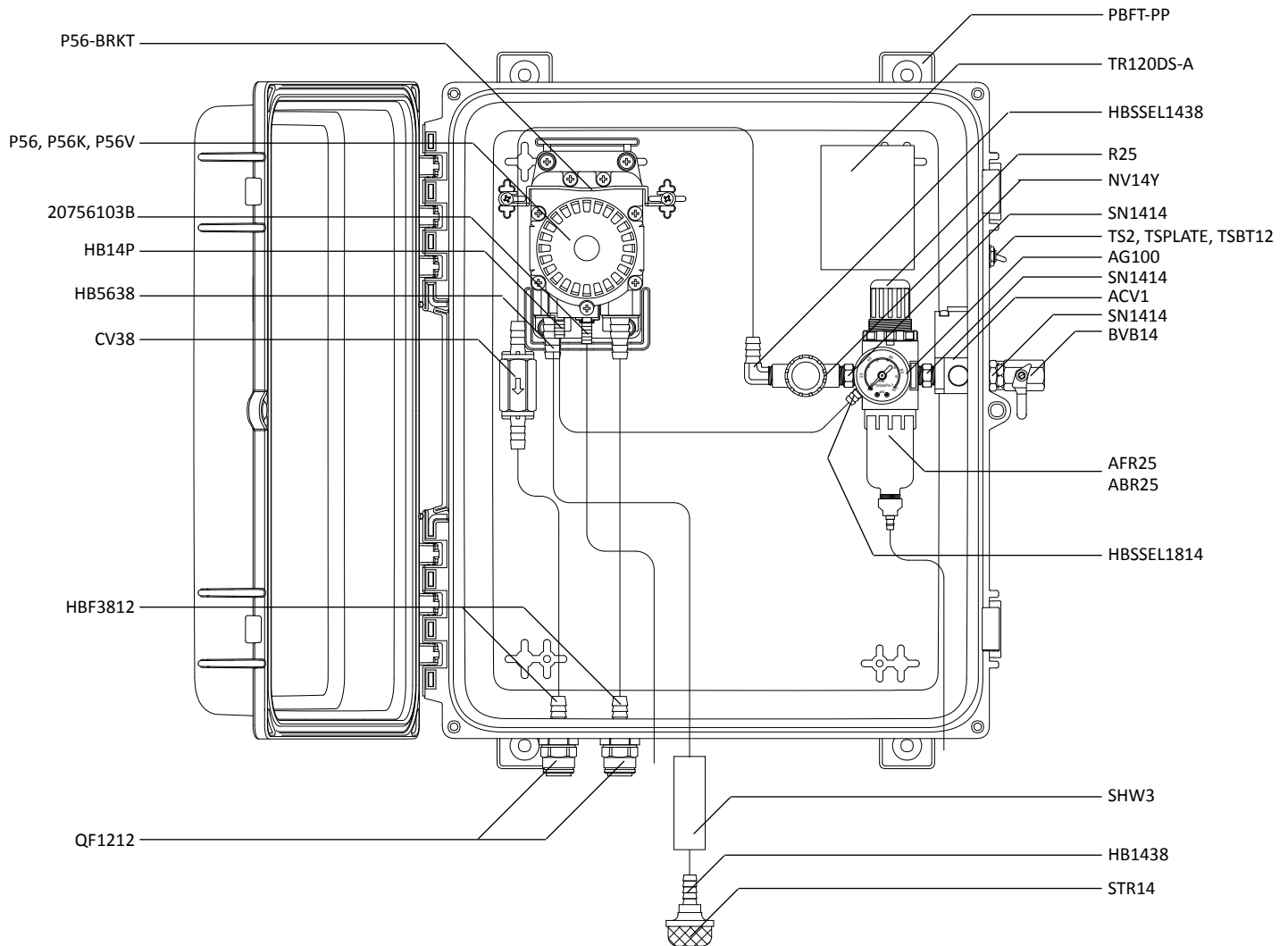
1. Only use clean and dry air. Air must be filtered and free of moisture or pump life will be diminished. If needed, install air dryer before unit.

2. Do not use air lubricator before the unit.

3. Do not exceed a fluid temperature of 110°F (43°C).

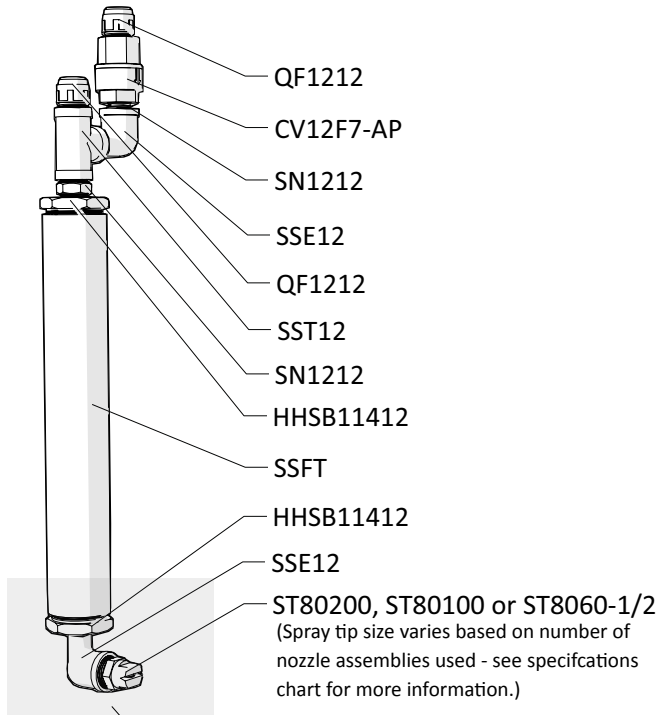
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Inside View - Control Box



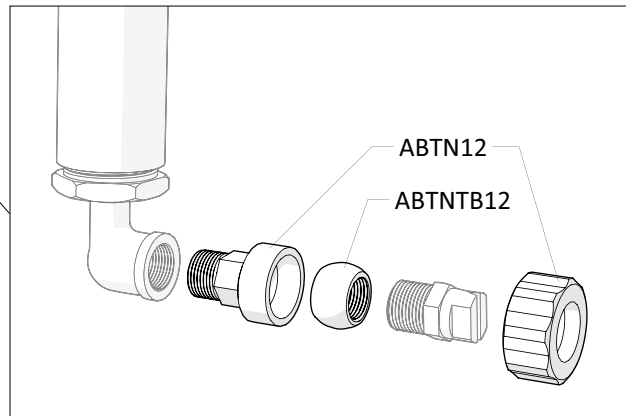
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NOZZLE ASSEMBLY



NOZZLE ASSEMBLY DETAIL

This unit includes an adjustable ball-type nozzle that may be installed to hold the spray tip as shown.



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Installation Instructions:

1. Read all instructions before installing the foam unit.
2. Remove all parts from the shipping box.
3. Select the desired area to mount the control box. The control box should be mounted on a vertical wall.
4. Mount the control box using four of the screws and anchors provided

Note: When drilling holes for the plastic anchors provided with the screws, use a 5/16 inch drill bit

5. Mount the spray tip assembly (GK7T) in the desired location using the two S.S. brackets
6. After the control box and nozzle assembly are mounted, run ½ inch tubing from the solution discharge to the elbow fitting of the nozzle assembly (GK7T). It is important the solution line is plugged into the elbow fitting of the nozzle assembly (GK7T) or the foam quality will be reduced. Run the ½ inch tubing from the air output of the control box to the nozzle assembly (GK7T).
7. Attach a compressed air line from your air compressor to the air inlet valve

Note: The air compressor needs to be able to maintain at least 4 cfm @ 60 psi

8. Set the timer (See timer adjustment instructions)
9. Make sure the toggle switch is in the “off” position and plug the unit into a GFCI protected 110 VAC outlet

Operation Instructions:

1. To activate the unit, turn the toggle switch to the “on” position
2. If necessary, adjust the “wet foam/dry foam” valve to desired wetness or dryness of foam following the steps below:
 - a. Close valve completely in clockwise direction
 - b. Open valve in clockwise direction 2-3 turns

c. With the unit running, continue to open the valve in ¼ turn increments allowing 10 seconds between adjustments until desired foam consistency is achieved.

Note: If the valve is opened too far, it can cause the pump to stall. If this occurs, repeat steps a, b, and c.

3. When running multiple tip assemblies off one control box, it is recommended to change spray nozzle based on chart specification below:

| Item Number | Number of Tip Assembly | Recommended Spray Nozzle |
|-------------|------------------------|--------------------------|
| GK7T | 1 | ST80200 |
| GK7T-2 | 2 | ST80100 |
| GK7T-3 | 3 | ST8060-1/2 |

Air operation range: 40 to 80 PSI (3 to 5 bar) with 3.5 to 8 CFM (99.15 to 226.62 l/min)

Troubleshooting Instructions:

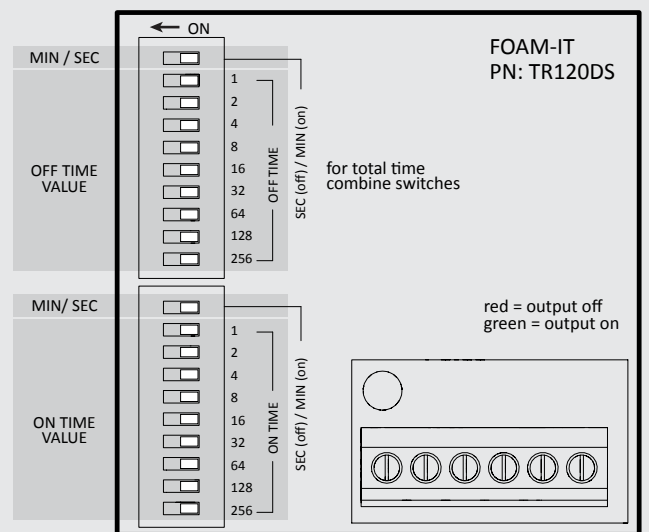
This unit has electronic devices, disconnect power before servicing.

1. Check for proper air pressure (60 psi or more into unit, 60 psi on AG100).
2. Check ABR25 for debris such as water, oil, or rust particles clean by unthreading the ABR25 from the R25.
3. If NV14Y valve is open too far the pump will cycle improperly due to lack of air pressure, if this occurs, reset valve as described in operation instruction.
4. Make sure proper foaming chemical and concentration is being used.
5. If air passes through the P56 without cycling, replace pump.
6. If foam solution backs up into ABR25, the CV38 needs to be replaced.
7. If foam comes out wet, no matter where the NV14Y valve is positioned, the CV38 may need to be replaced.

The TR120DS-A is an adjustable repeat cycle timer with the ON time operating first. ON and OFF times can range from 1 second to 511 minutes.

To set the timer:

1. Starting with the OFF time, move the top dip switch to the left for MIN (minutes) or to the right for SEC (seconds) to select the desired time interval.
2. The next 9 dip switches will be used to control the total active time. To the left is active and to the right is inactive. Combine the numbers of active dip switches to achieve the desired time. The increments are 1, 2, 4, 8, 16, 32, 64, 128, 256.
3. Repeat the above steps for the ON time setting.
4. Timer indicator light will appear red when unit output is off. The indicator turns green when output is on.



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Parts List

| ITEM NUMBER | DESCRIPTION |
|----------------|---|
| 20756103B | Polypro G57 Air Port x HB Straight, w/ Viton o-ring |
| ABR25 | METAL AIR BOWL for R25 |
| ABTN12 | ADJUSTABLE BALL-TYPE NOZZLE 1/2in NPT |
| ABTNTB12 | 1/2in THREADED BALL FOR ABTN12 |
| ACV1 | MAC VALVE 1/4in 110VAC |
| AFR25 | AIR FILTER for R25 |
| AG100 | 1.5in DRY MODEL 20 DUAL SCALE GAUGE |
| B10321.25 | 10-32 X 1 1/4 PHIL TRUSS MACH 18-8 |
| B103225 | 10-32 X 1/4in PHIL MACH SCREW 18-8 |
| BVB14 | AIR INLET VALVE - VA BRS 025-4F4F-BT, NICKEL |
| CC3224 | LTC BLACK 1/2 NPT |
| CC8463 | 1/2in NPT BLACK LOCKNUT |
| CV12F7-AP | 1/2 CHECK VALVE 7 POUND SPRING - ACID PROOF BLK/WHT CHK 685-8F8F-E,7#H,O-RNG. |
| CV38 | PVC CHECK VALVE 3/8 BARBS - SS SPRING |
| EC14-2 | OETIKER CLAMP 13.8 |
| FWLG14 | .569 ID X 1.28 OD X .08 THICK FLAT WASHER SS 18-8 |
| H12CP | 1/2IN OD POLYETHYLENE TUBING - NATURAL |
| HB14P | 1/4in BRASS HB AIR FITTING /G57/P56 |
| HB5638 | HOSE BARB FOR P56 PUMP |
| HBSSSEL1438 | STAINLESS HOSE BARB ELBOW 1/4 INCH NPT X 3/8 HOSE BARB |
| HBSSSEL1814 | 304 STAINLESS ELBOW 1/8 INCH NPT X 1/4 INCH HOSE BARB |
| HBF3812 | HOSE BARB 3/8 X FEMALE PIPE THREAD 1/2 IN |
| HHSB11412 | HEX HEAD STAINLESS BUSHING 1 1/4IN BY 12IN |
| NV14Y | FLOW CONTROL VALVE - INCLUDES BLACK KNOB |
| P56 | 5700 SANTO PUMP |
| P56-BRKT | PUMP BRACKET- STAINLESS STEEL |
| P56-BRKT-SCREW | HI LO SCREW FOR RETAINING P56-BRKT |
| PB16138 | POLYPROPYLENE CONTROL BOX - WORKING DIMS 16x13x8 - PUMP MOUNT |
| PB16138-GSKT | NEOPRENE GASKET 0.220 INCH ROUND CORD STOCK - 61.125 INCHES |
| PB16138-LATCH | LATCH FOR PB16138 |
| PB16138-PIN | STAINLESS STEEL HINGE PIN FOR CONTROL BOX PB16138 - 1/8 x 4 3/4 x 1/2inches |
| PBFT-PP | MOUNTING FEET FOR POLYBOX - PB16138 - POLYPROPYLENE |
| PHC14 | BLACK POLY HOSE CLAMP |

| | |
|-------------|---|
| PL16138 | CONTROL BOX LID - POLYPROPYLENE - 16x13x8 - HINGED LOCKABLE LID |
| QF1212 | MALE CON. 1/2in TUBE X 1/2in MPT - POLYPROPYLENE |
| QFT12 | UNION TEE 1/2in TUBE - POLYPROPYLENE |
| R25 | AIR REGULATOR INCLUDES AIR FILTER AND BOWL |
| S1034FHL | 10 X 3/4 PHIL FLAT HI-LO THRD SCREW 18-8 |
| SHW3 | 3in LONG COATED WEIGHT |
| SN1212 | 1/2in HEX STAINLESS STEEL NIPPLE |
| SN1414 | STAINLESS 1/4"MPT X 1/4"MPT NIPPLE |
| SSC38 | WORM GEAR CLAMP, S/S (.25-.63) |
| SSE12 | STREET ELBOW 1/2in - 316 S.S. |
| SSE34 | S.S. STREET ELBOW 3/4in |
| SSFT | Stainless Steel Foam Tube 1 1/2in |
| SSFTB | STAINLESS STEEL FOAM TUBE BRACKET |
| SSFT-THREAD | THREADS BEING MACHINED ONTO SSFT |
| SS-MESH | STAINLESS STEEL MESH WITH SSST FOR REPLACEMENT |
| SSST | SCREEN DISC .687 DIA. 10 X 10 MESH @ .020 DIA. 300 SERIES S.S. |
| SST12 | 1/2in FPT 304 S.S. TEE |
| ST80200 | VEEJET NOZZLE, BRASS 80200 |
| STR14 | 40 MESH SUCTION LINE STRAINER 1/4 MNPT |
| TR120DS-A | REPEAT CYCLE TIMER - ADJUSTABLE DIGI-SET - 120 VAC |
| TS2 | TOGGLE SWITCH SPST |
| TS2PLATE | ON/OFF SWITCH PLATE |
| TSBT12 | TOGGLE SWITCH BOOT |
| WCB14F | 14-16 - 1/4 FEM INSULATED CONNECTOR |
| WMS14 | 14 X 1 1/4 HEX W/H SMS SLOTT, S/S |
| WMS14A | 5/16 X 1 1/2 STRAIGHT PLASTIC ANCHOR |
| WR1A | 18/3 SJOOW 90 BLACK N.A. W/ 5-15P & 7in ROJ |