
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

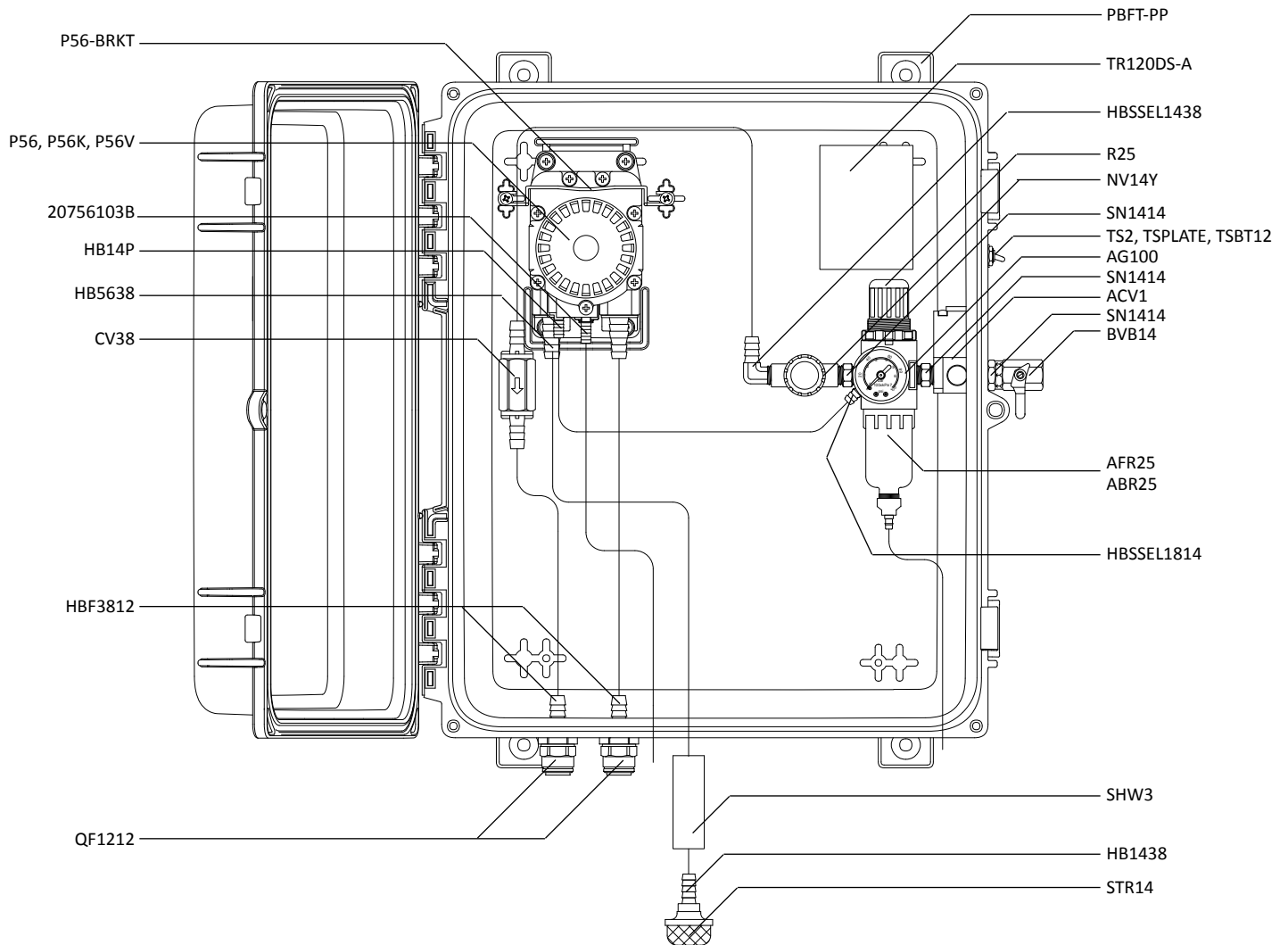
1. Only use clean and dry air. Air must be filtered and free of moisture or pump life will be diminished. If needed, install air dryer before unit.

2. Do not use air lubricator before the unit.

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

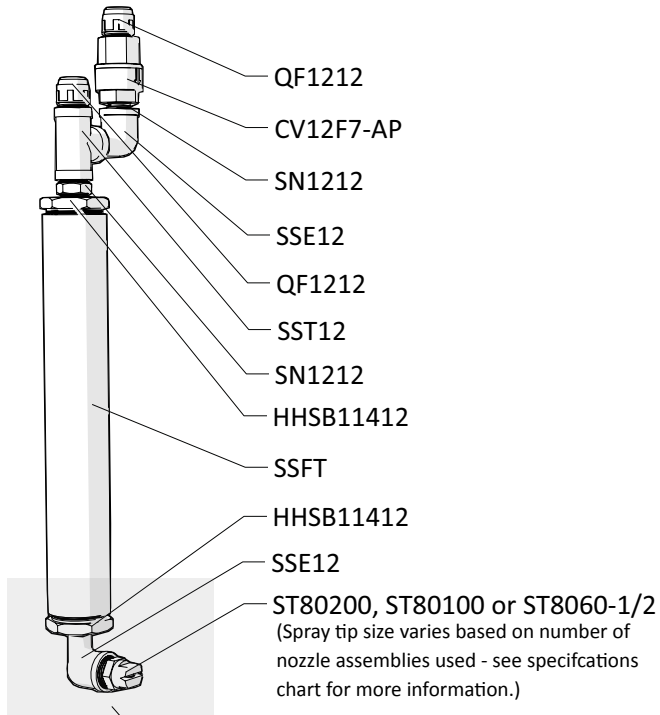
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Inside View - Control Box



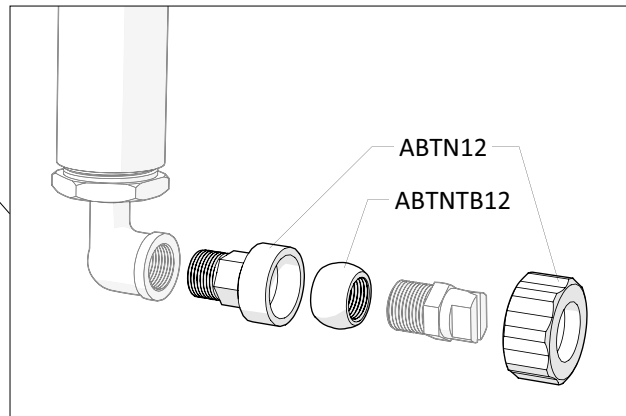
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NOZZLE ASSEMBLY



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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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

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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.

TIMER ADJUSTMENT INSTRUCTIONS:

1. 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.
2. Starting with the ON time, move the top dip switch to the left for SEC (seconds) or to the right for MIN (minutes) to set the desired time interval.
3. The next 9 dip switches will be used to control the total active time. To the left is inactive and to the right is active. Combine the numbers next to the active dip switches to achieve the desired time.
4. Repeat the above steps for the OFF time setting.

