

OPERATION & SAFETY INSTRUCTIONS

ADJUSTABLE HOT AIR GUN

Models 609 and variants



IMPORTANT

Please read all instructions BEFORE attempting to use this product



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GENERAL SAFETY CONSIDERATIONS

WARNING: COMPRESSED AIR COULD CAUSE DEATH, BLINDNESS OR INJURY

1. Do not operate the Hot Air Gun at air pressures above 150 psig (10.3 Bar).
2. Do not operate the Hot Air Gun at line temperatures above 110°F (43°C).
3. Avoid direct contact with compressed air.
4. Do not direct compressed air at any person.
5. When using compressed air, wear safety glasses with side shields.

NOTE: When using a Model 609 Adjustable Hot Air Gun, there is no need to limit compressed air pressure to a maximum of 30 psig (2 bar). It is not possible to block the flow of air from a model 609 Adjustable Hot Air Gun to register 30 psig on a test gauge.

Introduction

An Adjustable Hot Air Gun is a device that converts 15 SCFM of filtered 100 psig (6.9 Bar) compressed air into a hot airstream with temperatures adjustable up to 250°F. The Adjustable Hot Air Gun is perfect for a wide range of industrial spot preheating applications.

Compressed Air Supply

The compressed air supply must be filtered to remove water and dirt using a 5 micron or smaller filter. Failure to use a filter may cause clogging (and freezing) of the compressed air paths inside the Vortec product. Filter recommendations are given in Table 1.

Filter elements must be changed on a regular basis. Frequency of change is determined by the condition of the compressed air supply. Filters should be installed in the compressed air supply line as close as possible to the Vortec product.

The appropriate size of compressed air supply line should be selected to ensure optimal performance of the Vortec product. Please refer to Table 2 to determine what supply line size is recommended for your application.

Contact Vortec at 1-800-441-7475 for further assistance.

Installation

An Adjustable Hot Air Gun can be installed by directly plumbing to the appropriately-sized hard piped compressed air source that does not exceed 150 psig (10.3 Bar).

Operation

The Adjustable Hot Air Gun uses 15 SCFM of compressed air to provide your spot heating needs.

To adjust the temperature, unscrew the Threaded Cap and remove the Hot Air Muffler. Turn the Needle Valve counterclockwise for a cooler airflow, or clockwise to make the airflow hotter. Reassemble Hot Air Muffler and Threaded Cap after adjustment.

Maintenance

The Adjustable Hot Air Gun has no moving parts, and requires only filtered compressed air for proper operation. The Adjustable Hot Air Gun can be disassembled for cleaning, if necessary, as shown in the Adjustable Hot Air Gun Assembly Drawing.

Troubleshooting

Insufficient airflow may be caused by the following:

1. Undersized compressed air line size.
2. Compressed air pressure too low.
3. Partial or complete blockage of internal compressed air path, due to dirt. See Maintenance section for cleaning instructions; and Compressed Air Supply section for filter recommendations.
4. Insufficient compressed air volume.
5. Loose cold cap. This may occur if not tightened properly after disassembled for cleaning.

If trouble persists, please contact Vortec at 1-800-441-7475.

Limited Warranty

Vortec compressed air products manufactured by ITW Air Management will be replaced or repaired if found to be defective due to manufacture defect within ten years from the date of invoice.

Refer to our website **www.vortec.com** for full warranty details and limitations. ITW Air Management makes no specific warranty merchantability or warrant of fitness to a particular purpose.

Adjustable Hot Air Gun Assembly

(Drawings shown below are not to scale)

Model 609

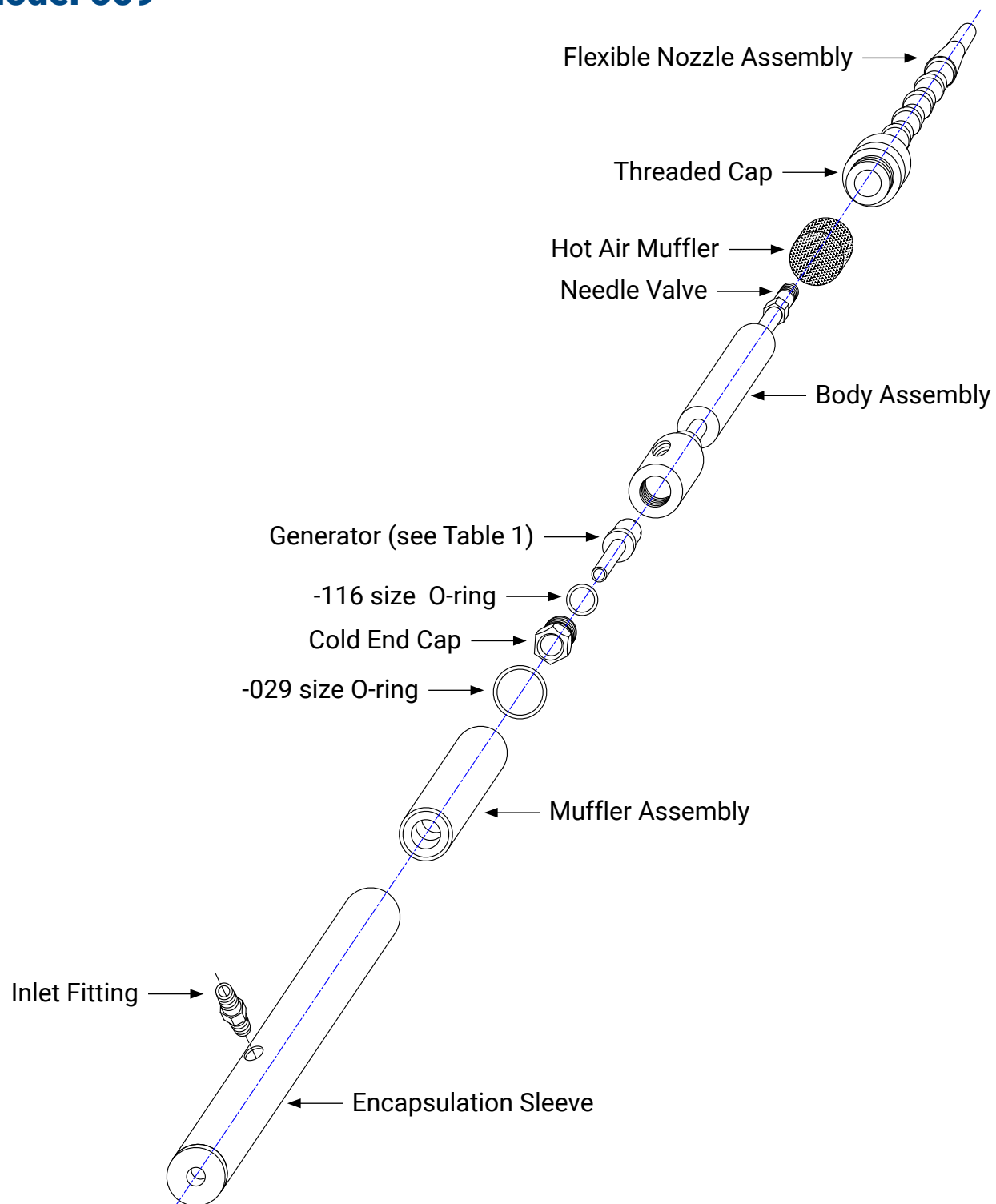


Table 1: Filter Recommendations

| FILTER AND REPLACEMENT PART ITEM NUMBERS | | | | | |
|--|---------------------|--------------------|-------------------------|------------------------|------------------------------------|
| Vortec Model | 5 micron Air Filter | Oil Removal Filter | Dual Outlet Flex Nozzle | Magnetic Mounting Base | Replacement Generator Kits (5 pcs) |
| 609, 609-1 | 701S-24A | 701S-48 | 610-30 | 610-26 | 208GK-15H |

Table 2: Determining Compressed Air Line Size

1. Calculate total product compressed air consumption (SCFM, SLPM).
2. Determine length of compressed air line required for connection to main supply.
3. Locate pipe length in left column and read to the right to find the compressed air requirements.
4. Locate pipe size at top of column.

| MAXIMUM AIRFLOW (SCFM) THROUGH PIPE AT 5 PSIG PRESSURE DROP (100 PSIG AND 70°F) | | | | | | | | | |
|---|-----------------------------------|-----|-----|-----|-----|-------|-------|------|-------|
| Pipe Length (Feet) | Pipe Size (Nominal) - Schedule 40 | | | | | | | | |
| | 1/4 | 3/8 | 1/2 | 3/4 | 1 | 1-1/4 | 1-1/2 | 2 | 2-1/2 |
| 10 | 29 | 65 | 120 | 254 | 480 | 978 | 1483 | 2863 | 4536 |
| 20 | 21 | 46 | 85 | 180 | 340 | 692 | 1049 | 2024 | 3208 |
| 30 | 17 | 37 | 70 | 147 | 277 | 565 | 856 | 1653 | 2619 |
| 40 | 15 | 32 | 60 | 127 | 240 | 489 | 792 | 1431 | 2268 |
| 50 | 13 | 29 | 54 | 114 | 215 | 437 | 663 | 1280 | 2029 |
| 60 | 12 | 26 | 49 | 104 | 196 | 399 | 606 | 1169 | 1852 |
| 70 | 11 | 25 | 46 | 96 | 181 | 370 | 561 | 1082 | 1715 |
| 80 | 10 | 23 | 43 | 90 | 170 | 346 | 524 | 1012 | 1604 |
| 90 | 10 | 22 | 40 | 85 | 160 | 326 | 494 | 954 | 1512 |
| 100 | 9 | 21 | 38 | 80 | 152 | 309 | 469 | 905 | 1435 |

| MAXIMUM AIRFLOW (SLPM) THROUGH PIPE AT 0.3 BAR PRESSURE DROP (6.9 BAR AND 21°C) | | | | | | | | | |
|---|-----------------------------------|------|------|------|-------|-------|-------|-------|--------|
| Pipe Length (Meters) | Pipe Size (Nominal) - Schedule 40 | | | | | | | | |
| | 1/4 | 3/8 | 1/2 | 3/4 | 1 | 1-1/4 | 1-1/2 | 2 | 2-1/2 |
| 3 | 821 | 1840 | 3396 | 7188 | 13584 | 27677 | 42117 | 81023 | 128369 |
| 6 | 594 | 1302 | 2406 | 5094 | 9622 | 19584 | 29687 | 57279 | 90786 |
| 9 | 481 | 1047 | 1981 | 4160 | 7839 | 15990 | 24225 | 46780 | 74188 |
| 12 | 425 | 906 | 1698 | 3594 | 6792 | 13839 | 20999 | 40497 | 64184 |
| 15 | 368 | 821 | 1528 | 3226 | 6085 | 12367 | 18763 | 36224 | 57421 |
| 18 | 340 | 736 | 1387 | 2943 | 5547 | 11292 | 17150 | 33083 | 52412 |
| 21 | 311 | 708 | 1302 | 2717 | 5122 | 10471 | 15877 | 30621 | 48535 |
| 24 | 283 | 651 | 1217 | 2547 | 4811 | 9792 | 14829 | 28640 | 45393 |
| 27 | 269 | 623 | 1132 | 2406 | 4528 | 9226 | 13980 | 26998 | 42790 |
| 31 | 255 | 594 | 1075 | 2264 | 4302 | 8745 | 13273 | 25612 | 40611 |

Rubber hose maximum airflow rating: 1/2" I.D. rubber hose = 3/8" pipe; 3/4" I.D. rubber hose = 1/2" pipe