



A 5622 or 5623 Atomizer can be used by itself or as an insert in a Fives North American or other manufacturer's burner body. It frequently is used to atomize waste liquids.

The standard 30 spray angle nozzle produces a long flame typically required for steel reheat furnaces, rotary dryers and kilns, and some melters. Special nozzles for wider, shorter flames are available.

If the 5622 or 5623 Atomizer is to be used in a burner body, appropriate length ("L" dimension) must be specified. When an atomizer is to "stand alone," adequate combustion air must be available, either in the combustion chamber or around the atomizer.

**Construction and Operation:** The stainless steel oil and steam nozzles are concentric and flush; therefore, one pressure does not affect the other, and a Fives North American 7052 Ratiotrol™ can be used. The standard oil nozzle material is 304 SST. Other materials, such as 316 SST and Hastelloy C-276 are also available as options for corrosive fluids

A 5622 or 5623 oil nozzle is readily accessible for cleaning if atomizer is piped as shown dotted for 5622 (on back of this

sheet): Remove pipe plug to open a straight passage to nozzle, which then can be cleaned with steam or a piece of wire. Strainers are recommended in steam and oil lines.

A 5622 steam (or compressed air) passage can be cleaned, even during operation, simply by pushing the oil tube forward against an internal stop, then pulling it back: The oil nozzle O.D. is sized to clean carbon deposits from the steam nozzle I.D.

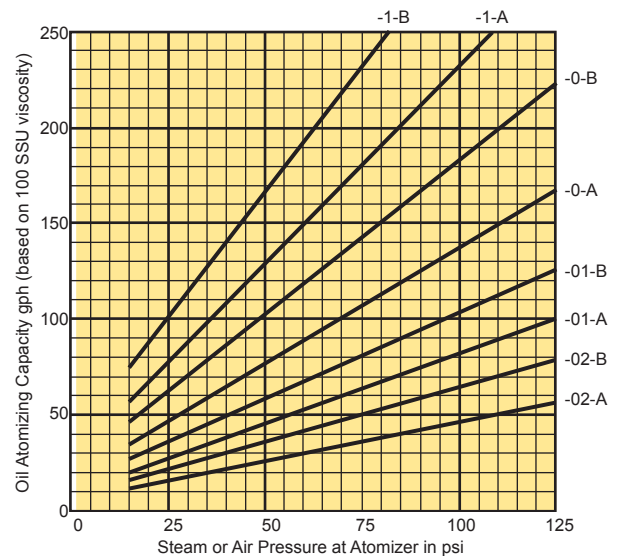
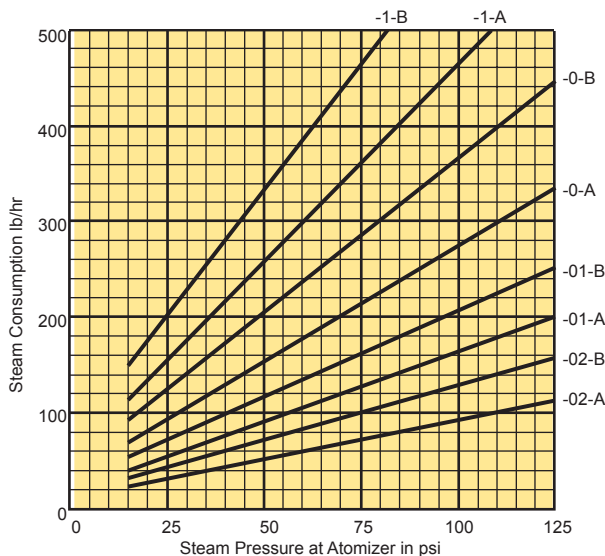
The 5623 Atomizer has a quick disconnect that permits removal of the oil tube, opening a straight passage to the steam nozzle.

Steam or compressed air must be **TURNED ON BEFORE** and **TURNED OFF AFTER** oil is turned on and off.

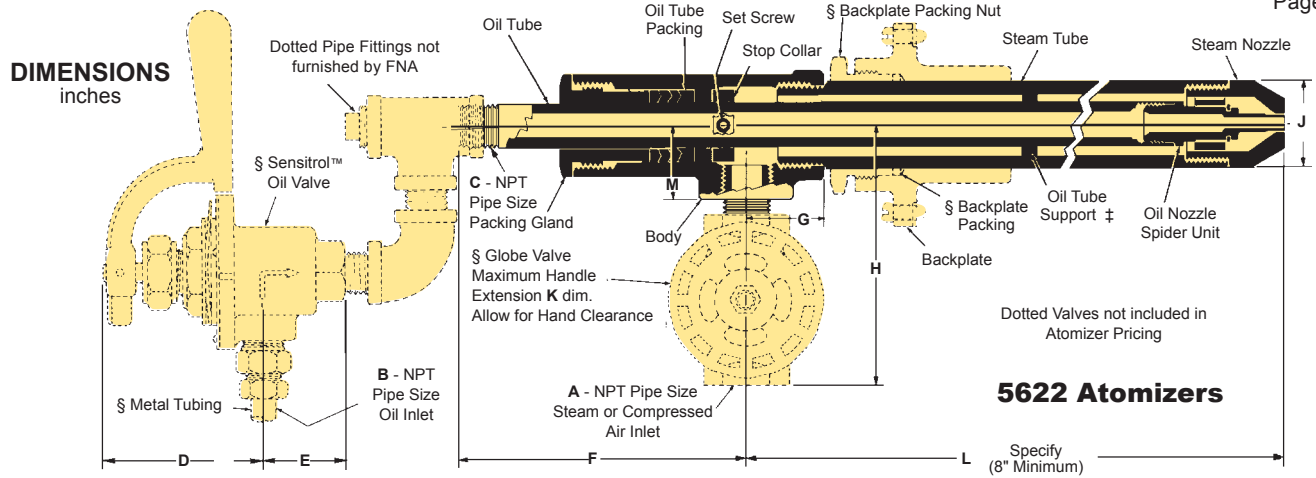
Oil pressure should be at least 5 psi at the inlet to the Sensitrol™ valve.

**Compressed Air:** Standard cubic feet (scf) air is 20 times steam consumption in pounds at same pressure.

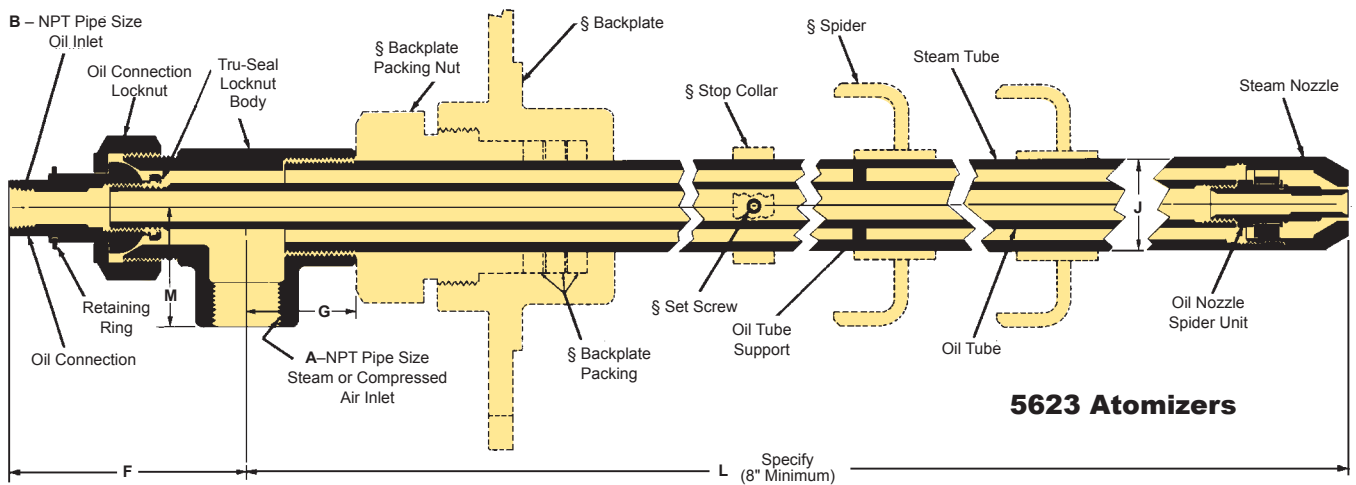
*Example:* An OB Atomizer uses 285 lb/hr steam at 75 psi. Compressed air consumption would be  $285 \times 20 = 5700$  scfh (at 75 psi).



**WARNING:** Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American Combustion, Inc. urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.



Designation	dimensions in inches										
	A	B	C	D	E	F	G	H	J	K	M
<b>5622-02-A &amp; -02-B</b>	3/8	3/8	3/8	2 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	3 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>16</sub>
<b>5622-01-A &amp; -01-B</b>	1/2	3/8	3/8	2 <sup>9</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>
<b>5622-0-A &amp; -0-B</b>	3/4	1/2	1/2	3 <sup>1</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>
<b>5622-1-A &amp; -1-B</b>	1	1/2	1/2	3 <sup>1</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>



DIMENSIONS SHOWN ARE SUBJECT TO CHANGE. PLEASE OBTAIN CERTIFIED PRINTS FROM FIVES NORTH AMERICAN COMBUSTION, INC. IF SPACE LIMITATIONS OR OTHER CONSIDERATIONS MAKE EXACT DIMENSION(S) CRITICAL.

**PARTS LIST** (Set screw is a socket head 1/4-20 x 3/16", R776-2020)

Part Name	Designation			
	-02-A	-02-B	-01-A	-01-B
<b>Oil Nozzle</b>	3-15336-3	3-15336-6	3-15336-9	3-15336-12
<b>Steam Nozzle</b>	3-3288-1	3-3288-2	3-3288-2	3-3288-2
	-0-A	0-B	-1-A	-1-B
<b>Oil Nozzle</b>	3-15337-3	3-15337-6	3-15337-9	3-15337-12
<b>Steam Nozzle</b>	3-3287-1	3-3287-2	3-3287-2	3-3287-2

Designation	dimensions in inches					
	A	B	F	G	J	M
<b>5623-02-A &amp; -02-B</b>	3/8	3/8	4 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>
<b>5623-01-A &amp; -01-B</b>	1/2	3/8	4 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>
<b>5623-0-A &amp; -0-B</b>	3/4	1/2	4 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>16</sub>
<b>5623-1-A &amp; -1-B</b>	1	1/2	4 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>16</sub>

Part Name	Designation			
	5622-02-A&B	5622-01-A&B	5622-0-A&B	5622-1-A&B
<b>Body</b>	3-10045-1	3-0760-2	3-10045-2	3-0724-2
<b>§Copper Tubing</b>	3-0310-7	3-0310-7	3-0310-8	3-0310-8
<b>§Globe Valve</b>	1832-02	1832-01	1832-0	1832-1
<b>Oil Tube</b>	3-0766-2	3-0766-2	3-0773-2	3-0773-2
<b>‡Oil Tube Support</b>	3-1218-2	3-1218-2	3-1219-2	3-1219-2
<b>O.T. Packing</b>	3-1069-1	3-1069-1	3-1069-2	3-1069-2
<b>Packing Gland</b>	3-10047-1	3-10047-1	3-10047-2	3-10047-2
<b>§Sensitrol</b>	1813-02-C	1813-02-D	1813-01	1813-01
<b>§Steam Tube</b>	3-3298-1	3-3298-1	3-0772-1	3-0772-1
<b>Stop Collar (Oil Tube)</b>	3-0761-3	3-0761-3	3-0761-4	3-0761-4

Part Name	Designation			
	5623-02-A&B	5623-01-A&B	5623-0-A&B	5623-1-A&B
<b>Body</b>	3-3307-2	3-3307-1	3-3310-2	3-3310-1
<b>Oil Connection</b>	3-3233-1	3-3233-1	3-3308-1	3-3308-1
<b>Oil Connection Locknut</b>	3-3232-1	3-3232-1	3-3309-1	3-3309-1
<b>Oil Tube</b>	3-3306-1	3-3306-1	3-3301-1	3-3301-1
<b>‡Oil Tube Support</b>	3-1218-2	3-1218-2	3-1219-2	3-1219-2
<b>Retaining Ring</b>	R740-6360	R740-6360	R740-6390	R740-6390
<b>Tru-seal Locknut</b>	R790-0115	R790-0115	R790-0120	R790-0120

Dotted parts other than pipe fittings are for mounting atomizer inside a burner. To replace these, specify part name, atomizer series, burner series and size. Parts not listed for 5623 Atomizers are the same as for 5622 Atomizers.

‡ Furnished only when "L" dimension exceeds 24".  
§ Extra cost option—not part of standard burner assembly.