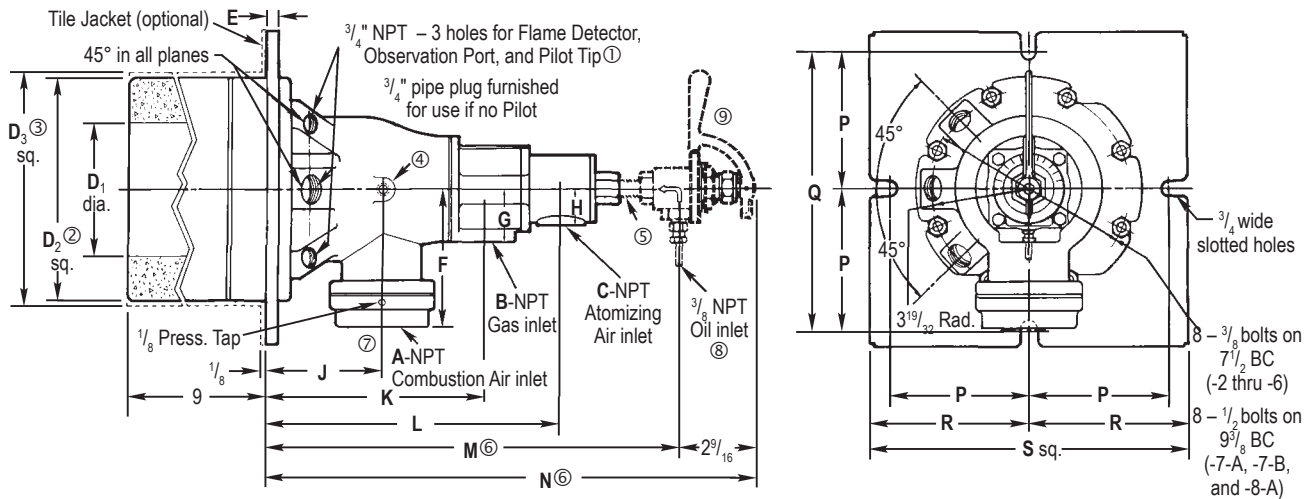




fives north american

**FIRE-ALL™
DUAL-FUEL™ BURNERS**
Dimensions 6422

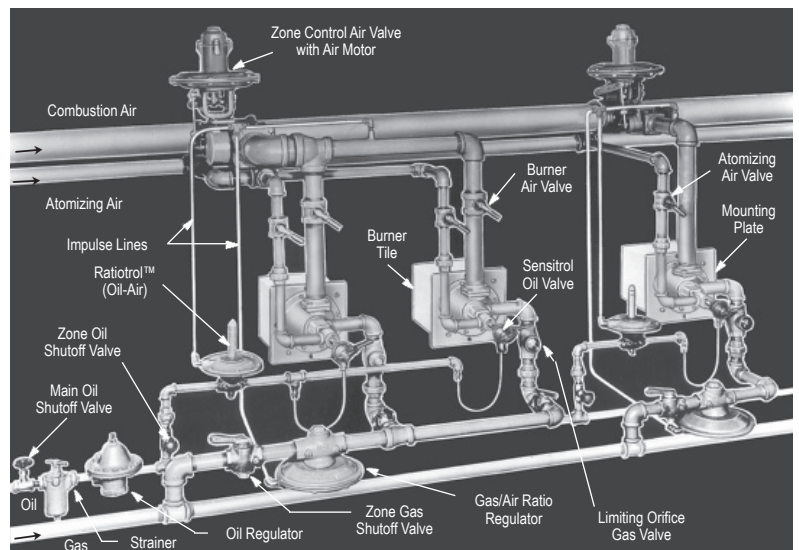
April 2002



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.

| Burner designation | dimensions in inches | | | | | | | | | | | | | | | | | | |
|--------------------|----------------------|-------|-------|----------------|------------------|------------------|------|----------|-------|-------|-------|-------|---------|----------|--------|-------|--------|-------|--------|
| | A | B | C | D ₁ | D ₂ ② | D ₃ ③ | E | F | G | H | J | K | L | M ⑥ | N ⑥ | P | Q | R | S |
| 6422-2 | 1 1/4 | 1 | 3/4 | 5 | 8 1/2 | 9 1/2 | 1/2 | 5 1/4 | 2 | 1 3/8 | 4 3/8 | 8 3/8 | 11 5/16 | 15 13/16 | 18 3/8 | 5 1/4 | 10 1/2 | 6 | 12 |
| 6422-3 | 1 1/4 | 1 | 3/4 | 5 | 8 1/2 | 9 1/2 | 1/2 | 5 1/4 | 2 | 1 3/8 | 4 3/8 | 8 3/8 | 11 5/16 | 15 13/16 | 18 3/8 | 5 1/4 | 10 1/2 | 6 | 12 |
| 6422-4 | 2 | 1 1/4 | 3/4 | 5 | 8 1/2 | 9 1/2 | 1/2 | 5 1/4 | 2 | 1 3/8 | 4 3/8 | 8 3/8 | 11 5/16 | 15 13/16 | 18 3/8 | 5 1/4 | 10 1/2 | 6 | 12 |
| 6422-5 | 2 1/2 | 1 1/4 | 1 | 5 | 8 1/2 | 9 1/2 | 1/2 | 5 1/4 | 2 | 1 3/8 | 4 3/8 | 8 3/8 | 11 5/16 | 15 13/16 | 18 3/8 | 5 1/4 | 10 1/2 | 6 | 12 |
| 6422-6 | 3 | 1 1/2 | 1 | 5 | 8 1/2 | 9 1/2 | 1/2 | 5 9/16 | 2 | 1 3/8 | 4 3/8 | 8 3/8 | 11 5/16 | 15 13/16 | 18 3/8 | 5 1/4 | 10 1/2 | 6 | 12 |
| 6422-7-A | 4 | 2 1/2 | 1 1/4 | 7 | 10 | 11 | 9/16 | 6 15/16 | 2 5/8 | 2 1/8 | 5 7/8 | 11 | 15 1/8 | 20 1/16 | 22 5/8 | 6 1/8 | 12 1/4 | 6 3/4 | 13 1/2 |
| 6422-7-B | 4 | 2 1/2 | 1 1/4 | 7 | 10 | 11 | 9/16 | 6 15/16 | 2 5/8 | 2 1/8 | 5 7/8 | 11 | 15 1/8 | 20 1/16 | 22 5/8 | 6 1/8 | 12 1/4 | 6 3/4 | 13 1/2 |
| 6422-8-A | 6 | 2 1/2 | 2 | 7 | 10 | 11 | 9/16 | 10 11/16 | 2 5/8 | 1 3/4 | 5 7/8 | 11 | 15 1/8 | 20 1/16 | 22 5/8 | 6 1/8 | 12 1/4 | 6 3/4 | 13 1/2 |

| Burner designation | wt, lb | Recommended Sensitrol™ Oil Valve ⑨ | Recommended Pilot Size |
|--------------------|--------|------------------------------------|------------------------|
| 6422-2 | 83 | 1813-02-A | |
| 6422-3 | 83 | 1813-02-A | 4011-11 |
| 6422-4 | 83 | 1813-02-A | (or) |
| 6422-5 | 83 | 1813-02-A | 4011-12 |
| 6422-6 | 83 | 1813-02-B | |
| 6422-7-A | 139 | 1813-02-C | 4011-11 |
| 6422-7-B | 139 | 1813-02-C | (or) |
| 6422-8-A | 145 | 1813-02-D | 4011-12 |



Piping arrangement for single- and double-burner zones.

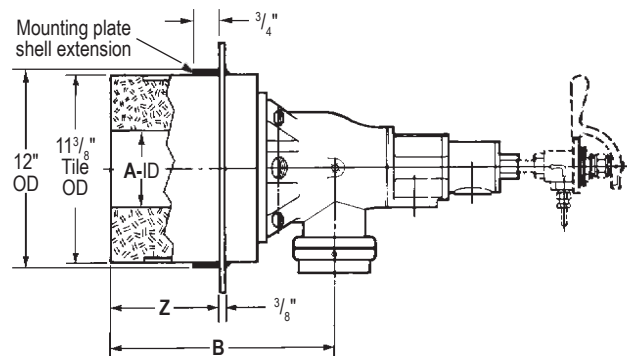
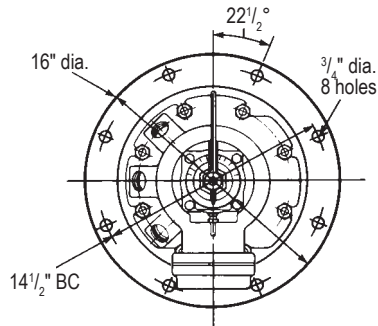
- ① Pilot, Flame Detector, and Observation Port positions are interchangeable, as long as pilot and flame detector are in adjacent holes.
- ② Opening in furnace shell should be about 1/2" larger than dimension D₂ to allow for fillets and draft on mounting plate.
- ③ For 6422- -L-C, -L-4 and -L-9 Burners only. Opening in oven shell should be about 1/4" larger than dimension D₃.
- ④ 1/4" body air pressure tap on -2, -3, -4, -5, and -6. 1/8" body air pressure tap on -7-A, -7-B and -8-A.
- ⑤ Pipe nipple not furnished by North American.
- ⑥ Dimensions M and N assume the use of a 3/8" NPT close nipple between burner and Sensitrol Oil Valve.
- ⑦ For 6422-8-A, air and gas connections cannot be piped in the same plane because the "flower pot" type air connection flange would interfere with the 2 1/2" gas line.
- ⑧ Metal tubing is offered as an extra cost option (order as P.N. 3-0310-7).
- ⑨ Optional (recommended) Sensitrol Oil Valve is not included as part of the burner assembly, and must be ordered separately.

6422 Burners for Fiber Lined Furnaces. For furnaces with ceramic fiber walls, special mounting/tile construction is available: 11³/₈" diameter tile, jacketed in RA330 expanded metal for all but 2" of its length; a circular mounting flange factory-installed from 2" to 9" ("Z" dimension) from the hot face of the tile.

Customer must specify this dimension to nearest 1/2" so tile face is about flush with inside furnace wall.

This construction is suitable for 2000 F furnace temperature.

See Supplement DF-M2 for detailed tile installation recommendations for fiber-lined furnaces.



| Dimensions in inches | | | |
|----------------------|---|--------------------------------|---|
| Size designation | A | B | Z |
| -2 thru -6 | 5 | 13 ³ / ₈ | † |
| -7-A thru -8-A | 7 | 14 ⁷ / ₈ | † |

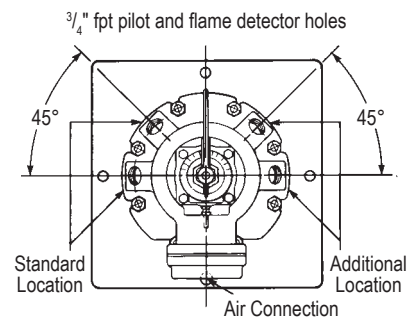
† "Z" dimension variable in 1/2" increments from 2" to 9".

To order, specify: 6422-(code)-(A or B if applicable) (Z) Burner complete. (Order 1813 Sensitrol™ Oil Valve separately--it is not included in complete burner assembly.) Include Z dimension in the burner description: between 2" and 9", written to the nearest 0.5" as a decimal.

Example: Line Item 10 = 6422-7-AZ Burner complete with Z dimension of 6.0"
Line Item 20 = 1813-02-C Sensitrol Oil Valve.

6422 Burners with Extra Pilot and Flame Detector Location. The fixed relationship between 6422 Burner air connections and pilot/flame detector holes occasionally presents problems in mounting pilots and flame detectors clear of furnace buckstays or other structural members.

6422-2 through -6 Burners can be furnished with a 4-hole OC3-2042 burner body that has a set of pilot and flame detector holes on each side. Either set can be used and one on the other side used for an observation port--plug any unused holes.



To order, specify: 6422D-(code) Burner complete. (Order 1813 Sensitrol Oil Valve separately--it is not included in complete burner assembly.)

Example: Line Item 10 = 6422D-2 Burner complete with Special Double-Boss Body
Line Item 20 = 1813-02-A Sensitrol Oil Valve

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 urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.

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