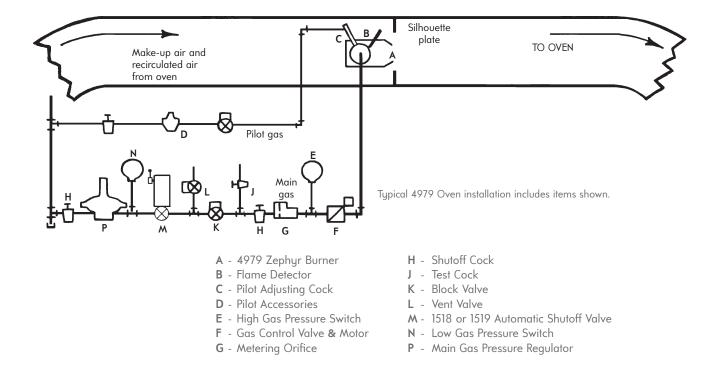
## HOW TO ORDER

- 1. Calculate required heat input. *Example:* See the sample problem on a paint baking oven, North American Reprint 94, which requires 2 030 000 Btu/h HHV gross input (2030 cfh natural gas), 788 scfm make-up air, and 39 200 scfm recirculated. For this example, assume the available gas pressure is 1½ psi.
- 2. Select individual burner sections to obtain this rating from Table 2. Each lineal foot of burner is rated at 1 000 000 Btu/h HHV. Include enough feed connections to supply rated volume of gas--a 2" connection supplies 3 feet of burner; a 2½" connection supplies 5 feet of burner, but should be centered to assure proper gas distribution. Example: The next largest burner input is 2 500 000 Btu/hr, which could be obtained by using one 4979-6-B and two 4979-12's (one on each side of the -6-B). This arrangement would give a good temperature distribution in a rectangular duct.
- 3. Select 8522 Fast Engineered<sup>™</sup> fluid control system.
- 4. Select ignition method--either gas pilot (Assembly 4-5257-1) or direct spark electrode (Part No. 4-3681-1).
- 5. Select endplates--either for gas connection or blank. *Example:* Two 4979-SEP endplates. (From Table 2.)

## CURTAIN SIZING PROCEDURE

- Total burner area perpendicular to air flow (0.5 sq ft per lineal foot) = 0.5 × ft of burner. *Example:* 0.5 × 2.5 = 1.25 sq ft.
- 2. Total open area required at burner = (scfm recirculated + scfm make-up) ÷ 3500 fpm. *Example:* (39 200 + 788) ÷ 3500 = 11.4 sq ft.
- 3. Curtain opening = total burner area (1) + open area (2). *Example:* 11.4 + 1.2 = 12.6 sq ft.



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. Components in combustion systems may exceed 160°F (71°C) surface temperatures and present hot surface contact hazard. Fives North American Combustion, Inc. suggests the use of combustion systems that are in compliance with all Safety Codes, Standards, Regulations and Directives; and care in operation.