Product Overview | Wafer Valves

North American Wafer Butterfly Valves are rugged, lightweight, and used for controlling low pressure combustion air* flow. They sandwich between companion flanges with two locating holes on the valve body (ANSI Class 150 style for 3" to 14" ; RPM style for 16" to 42"). All wafer valves have stainless steel shafts; bodies and discs are heat-resistant cast iron. All are suitable for inlet pressures up to 10 psig, provided differential pressures across valves, at high fire flow rate, are limited to 1 psi for 1145 and 1146 Valves, 2 psi for all others. No lubrication is required. Seven types are available.

1136A Motorized Reduced Port Valves, for combustion air* up to 250°F, have a port diameter one size less than line size to facilitate proper valve sizing without the expense of reducing pipes at the valve. These valves feature self-cleaning discs. 1136A Valves are available with bracket and linkage for most standard control motors. Available in 3" to 14" sizes. 1136A valves are not available for manual operation.

1145 (Manual) and 1146 (Motorized) Hot Air Valves, for combustion air* at temperatures from 250°F to 700°F, have adequate clearance to prevent binding due to thermal expansion. Clearance changes with temperature, so cold valves leak through the body/disc gap noticeably. To minimize leakage, the valves are not recommended for service below 250°F. 1145 Valves have locking handles for manual operation. 1146 Valves for motorized control are available (through 30") with bracket and linkage for most standard control motors. Larger valves require remote mounted operators. Available in 3" to 30" pipe sizes.

1145-H (Manual) and 1146-H (Motorized) High Temperature Air Valves: Identical to the 1145/1146 valves except for combustion air* at the temperature range of (700-1200°F), these valves have larger clearance to prevent binding due to thermal expansion at much higher temperatures. Clearance changes with temperature, so valves will leak noticeably through the body/disc gap at lower temperatures. To minimize leakage, the valves are not recommended for service below 700°F. Available with all options that are offered with the 1145/1146.

1155 (Manual) and 1156 (Motorized) Valves, for combustion air* up to 250°F, are available in 3" to 30" pipe sizes. Available with all options that are offered with the 1145/1146.

1145 or 1155 Manual Wafer Valve

Sizing. Full port wafer valves in lines of the same pipe size give increasing flow for a fixed pressure drop until they are about 60° or 70° open. At greater openings, flow dœs not increase appreciably, although pressure drop across the valve falls off rapidly--downstream piping or burners, not the valve, become the limiting resistance in the system. At 90° open, the valve's flow resistance is negligible--its pressure drop is practically zero, and it can be ignored in pressure drop calculations. For control sensitivity, wafer valves should be selected for maximum flow at not more than 70° open.

*** Not for use with fuel gases.**