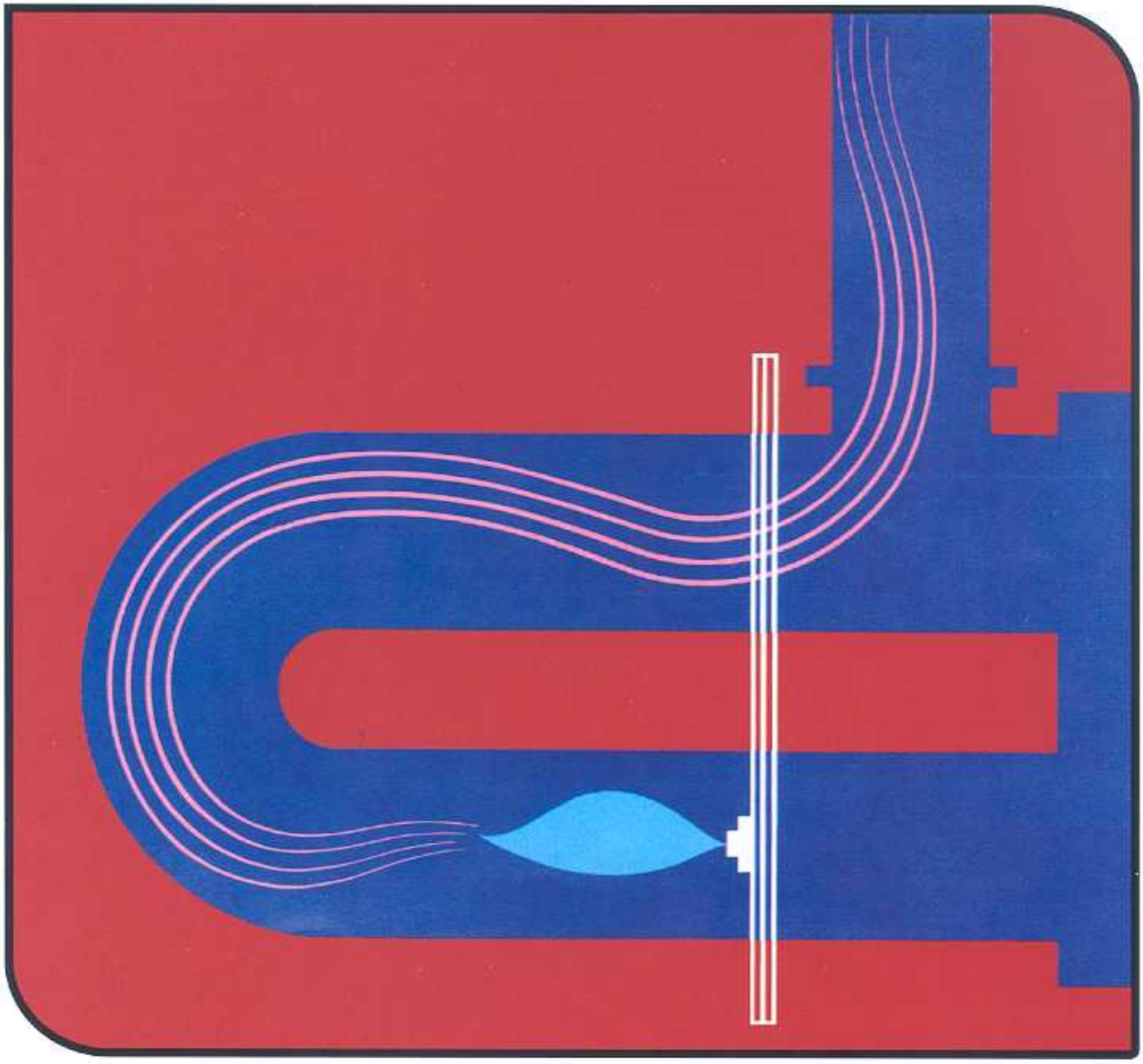
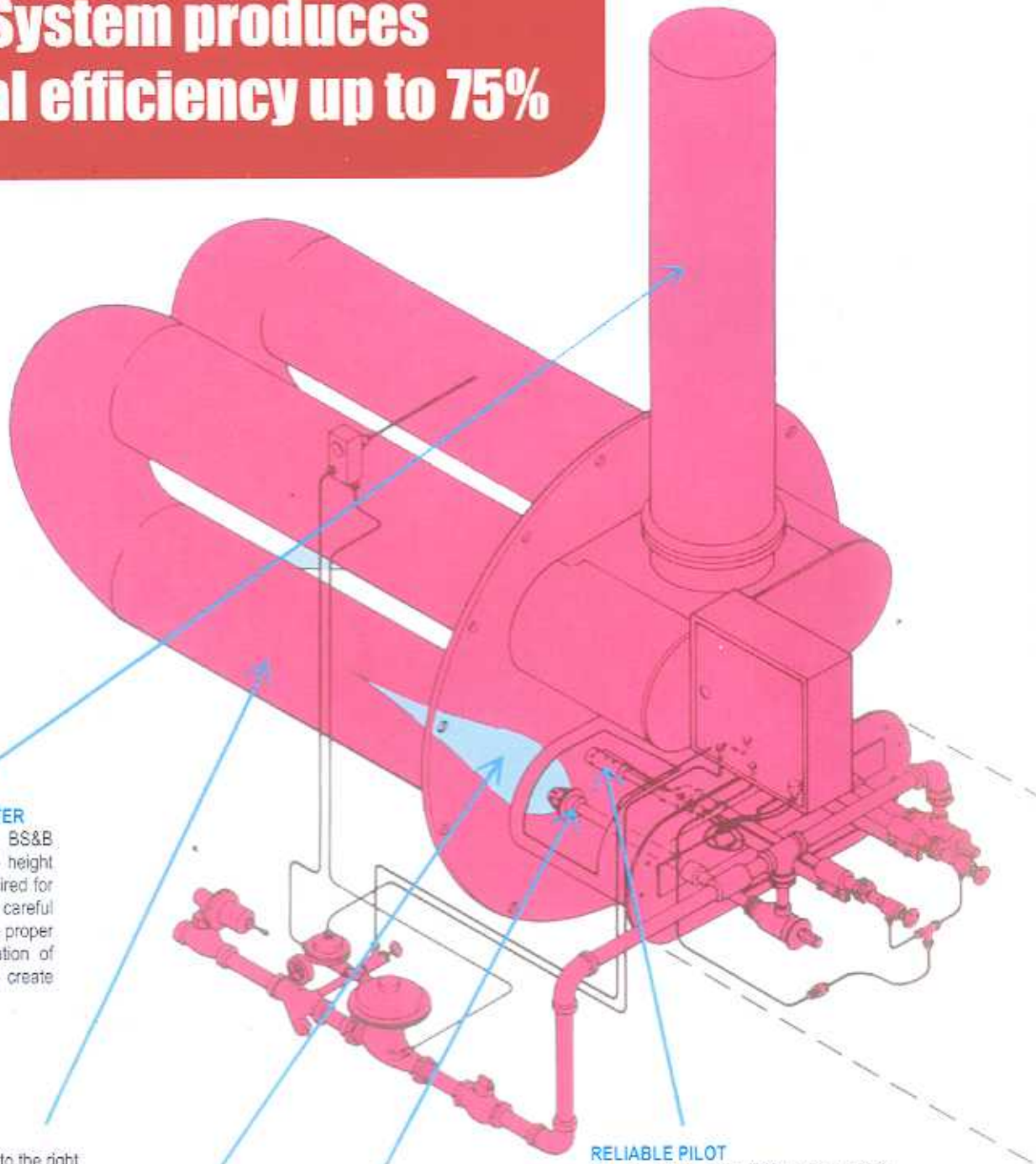
Full Octave Tuned Firing System and Flame Arrestor



a TOTAL concept
to up heating efficiency,
assure safety

BS&B®
PROCESS SYSTEMS

The BS&B Full Octave Tuned Firing System produces thermal efficiency up to 75%



Engineered for reliability.... for more profitable performance

STACK HEIGHT AND DIAMETER
For each specific installation, BS&B engineers calculate the exact height and diameter of the stack required for the particular operation. Such careful attention is warranted to assure proper escape of fumes and elimination of downdrafts that might possibly create flux variance in the fire tubes.

EVN-FLUX FIRE TUBE
Evn-Flux Fire Tubes, designed to the right length and right diameter, provide uniform flux rate throughout the fire tube length. This eliminates the usual high flux rate in the lower tube and lower flux rates on the upper tube; a problem usually resulting in excessive thermal stresses that cause fire tube failure.

RIGHT LENGTH AND COLOR OF FLAME
The fuel mixture is rigidly controlled to give optimum combustion efficiency. The right flame length assures high fuel to BTU conversion.

JET STREAM, NON-FLAMEOUT BURNER ASSEMBLY
This unique burner assembly operates over a fuel gas pressure range from ounces to 40 psi. The burner ignites easily, with complete stability. The smooth ignition eliminates pilot blow-out very often found in competitive burners. The precisely engineered construction of the burner tip* and its placement in the firetube are the secrets behind the burner's impressive efficiency.

RELIABLE PILOT
The internally firing "hot" pilot light is ingeniously placed to obtain rapid, foolproof reigniting of the burner. Flue gases cannot snuff out the pilot. Should the pilot ever fail, it is quickly relit by the optional automatic pilot light reignitor.

IDEAL REPLACEMENT:
BS&B Full Octave Tuned Firing Systems provide maximum efficiency with minimum maintenance. That should be carefully considered whenever replacement of a firing system for existing equipment is needed. BS&B has a model available for virtually any type of equipment that requires a heating system. We invite your inquiries.

*Patent Pending

That's right.
75%-The highest thermal efficiency available.
To assure this peak operation, BS&B engineers carefully coordinate-or "tune"-each element of the firing system to perform at maximum effiency with corresponding elements.
For each job, exacting 'tuning' of these 8 elements is done to meet exacting requirements:

1. Right color of flame (optimum combustion).
2. Right length of flame (no hot spots).
3. Right diameter of firetube.
4. Right length of firetube.
5. Right diameter of stack.
6. Right height of stack.
7. The right burner located...
8. ...in the right place in the firetube.

The BS&B Full Octave Tuned Firing System is used on all BS&B treaters, regenerators, indirect heaters, propane vaporizers, salt bath heaters and direct fired heaters.

Guard against flash outs with a BS&B Flame Arrestor.

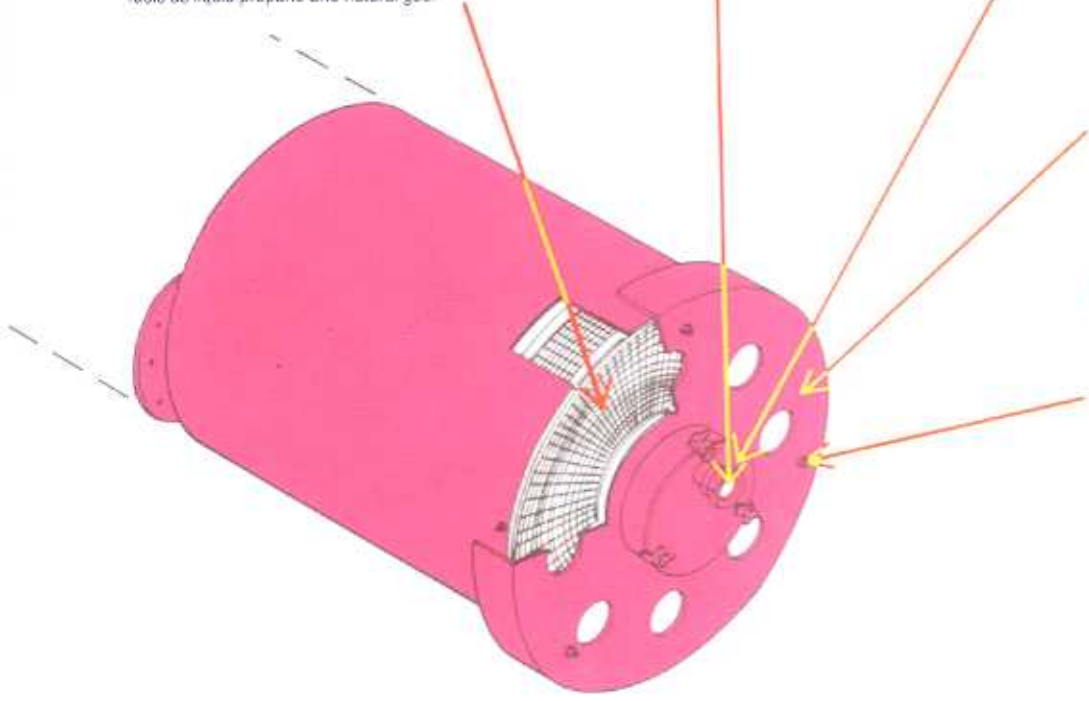
The BS&B Flame Arrestor is strongly recommended for all heating applications as a safeguard against dangerous and costly fires outside the burner assembly.

The BS&B Flame Arrestor consists of two components: The flame arrestor cell and a housing for the cell and burner assembly.

THE CELL is the heart of the flame arrestor. It is made of alternate layers of flat and precisely crimped sheet aluminum wound on an 8-inch pipe. It is designed to allow enough air to flow to the burners for combustion, while guarding against any flame propagation. The cell mass, plus its high thermal conductivity, conducts heat energy away from a flash flame at such a rate that flame propagation beyond the cell is prevented by the rapid cooling. This has been proved in field and laboratory tests with such fuels as liquid propane and natural gas.

COMPLETE INTERIOR VISIBILITY
The 8-inch handhole cover features an off-center peephole. The handhole cover can be rotated to permit viewing of the entire burner-pilot area. Simply loosen the three thumb screws and rotate the cover as desired.

EASY ACCESS TO BURNERS
Adjustments to the pilot and burners may be made easily through the handhole cover. Simply loosen three thumb screws and remove cover. No need to remove the cell or the entire flame arrestor housing to make adjustments.



PROTECTION FROM WIND, SUDDEN DRAFTS
The downdraft spoiler over the end of the housing protects the flame cell element from damage. Its first purpose, however, is to stop or dampen the effects of wind. It also separates and filters sand and foreign objects before they can enter through the flame cell.

EASY TO DISASSEMBLE
The flame cell bank need not be removed to make a burner or pilot light adjustment. However, the flame cell may be removed without taking down the entire housing. Simply remove the hold-down bar ring and cap screw, and slide the cell from its housing.

IMPORTANT NOTE:
When ordering flame arrestors for existing heating equipment, specify size of firetube and the rated capacity of heater, to provide adequate size flame arrestor and correct companion flange to the firetube.

Corporate Credentials

BS&B is a unique single source of supply for equipment and service to the international petroleum, petrochemical, chemical and power industries. All major components of process systems and products to supply these markets are designed by BS&B engineers, manufactured at BS&B facilities, and field tested by BS&B technologists. You can be assured that each BS&B recommendation is backed by drawing board-to-field knowledge of the products or services specified. The company maintains offices in most major cities throughout the United States and principal cities overseas. Translating special engineering and manufacturing projects into reality through working experience and know-how is a basic tenet of the BS&B corporate philosophy.

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