

**OMEGA VANZETTI®**  
The Leader in Infrared  
Temperature Measurement  
and Control

Sales and Service  
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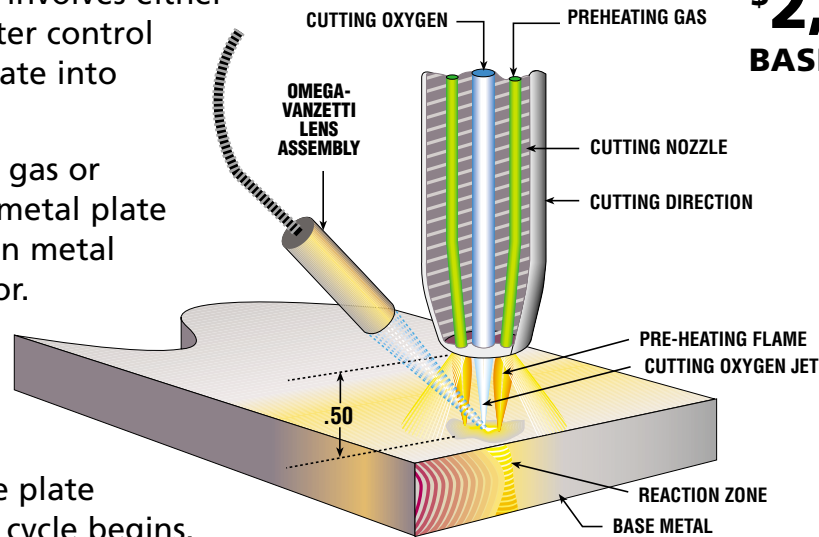
## CONTROLLING OF FLAME CUTTING

Automated flame cutting involves either pattern tracing or computer control to repetitively cut steel plate into a variety of shapes.

During start up, a natural gas or propane flame heats the metal plate until a "puddle" of molten metal is detected by the operator. The puddle having been formed, oxygen is injected into the gas stream and blows the molten metal through the plate at which time the cutting cycle begins.

If the oxygen is injected prematurely a defective cut is made leaving an objectionable rough and wide pit-like depression in the plate.

By positioning an **OMEGA VANZETTI®** fiber optic bundle with lens assembly to look through the "clean" flame at the plate surface, the temperature is monitored and controlled to maintain the necessary temperature. By multiplexing and using hi-low logic with relays tied in series, the oxygen is not turned on until all set points and associated relays are closed insuring high quality cuts.



**\$2,800.00**  
**BASIC SYSTEM**

### Advantages of the fiber optic infrared approach as illustrated are:

- Fast response time to 10 mSec (0 to 63%)
- Adjustable emissivity control
- Increase productivity and quality
- Decrease waste and rejected parts
- Wide range to temperatures (in sub range)
- Ability to control the oxygen so not to turn on until the puddle is detected
- Optional output include: 4-20 md, 0-10 vdc and thermocouple types "J" or "K"



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