



Optimize your Performance with MACH1 Equipment

MACH1 Cutting Tips: Hand & Machine Cutting

Faster preheat
Longer shell life
Stainless inserts available for hand & machine cutting applications.



MACH1 Ripper

Scrap Cutting
Bevel Cutting

MACH1 Multipurpose Gouger

Performs as 3 different gougers simply by changing the oxygen pressure.



MACH1 Heating Heads



Heating Heads
BTU output range from 120,000 to 1.2 million BTUs

Cost Evaluation

Acetylene Cost:

$$\begin{aligned}
 &\text{Acetylene @ } \underline{\hspace{2cm}} \text{ per 100 cu. ft.} \\
 &\quad \times \quad \underline{3.3} \text{ (330 cu. ft./cyl)} \\
 &= \$ \underline{\hspace{2cm}} \text{ per cylinder} \\
 &\quad \times \quad \underline{5} \text{ cylinders} \\
 &= \$ \underline{\hspace{2cm}}
 \end{aligned}$$

Propylene Cost:

$$\begin{aligned}
 &\text{Propylene @ } \underline{\hspace{2cm}} \text{ per lbs.} \\
 &\quad \times \quad \underline{105} \text{ lbs.} \\
 &= \$ \underline{\hspace{2cm}}
 \end{aligned}$$

Your Savings

$$= \$ \underline{\hspace{2cm}}$$

For a free Fuel Gas comparison & demo contact GAS INNOVATIONS or authorized GAS INNOVATIONS Propylene distributor.

GAS INNOVATIONS

18005 E. Highway 225 LaPorte, Texas 77571
Tel: 281.471.2200
gasinnovations.com



The Innovative Fuel

- Faster Preheats
- Increased Safety
- More Productive Cutting Speeds
- Slag Free Cuts
- No Flashback

GAS INNOVATIONS

Independent Wholesale Provider of Gases & Services
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Propylene

The Safe, Proven, and Productive Fuel

Propylene is a dominant fuel gas used in the U.S metal working market. It is the most efficient fuel being used for cutting, heating, gouging, brazing, flame hardening, and metalizing.

WHY?

Because Propylene provides slag free cuts, faster preheat, reduced flashback, less handling, more productive cutting speeds and it costs less than acetylene! Increased safety, increased production, increased quality cuts, at a substantial cost savings.

Propylene is Safer

Propylene is 20 times more stable than acetylene, contains no asbestos filler inside the cylinder like acetylene and has a much lower tendency to flashback than acetylene. Because of Propylene's stability it can be used at full cylinder pressure. Acetylene's maximum usable pressure is limited to 15 PSIG.*

Cylinders are lighter and a comparable size cylinder will do the work of 5 acetylene cylinders. This allows for easier handling with less change out frequency, reduced storage space, & reduced rental charges.

Propylene is the Fastest

Increased cutting speed is money. In a comparison of physical constants Propylene's values surpass those of Acetylene and Natural Gas, making Propylene the fastest.

Physical Constants*

	Propylene	Acetylene	Natural Gas
UN Number	1077	1001	1971
Flame Temp F	5312	5589	4460
Secondary Flame Temp F	1938	963	989
Heat of Combustion	2372	1436	910.7
Heat Value BTU/lb	21,111	20,822	21,494
Lbs/Gas Liquid	4.35	----	3.552
Explosive Limits in Air %	1.9-11.1	2.5-100	5.0-15
Max Usable Pressure @ 70 F	133 psig	15 psig	Compressor
Carbon Bond	Double	Triple	Single
Tendency to Flashback	Very Low	Extreme	Low

* DATA: CRC Handbook of Chemistry 82 Edition CGAING: Fourth Edition

One Propylene Cylinder does the work of 5 Acetylene Cylinders



(1) 105 lbs Propylene Cylinder
105 lbs. of product / cyl.

(5) 360 cu. ft Acetylene Cylinder
20 lbs. of product / cyl.

Vaporization Rate of Propylene



VAPOR PRESSURE vs. TEMPERATURE

