PROPYLENE

Performance, Versatility & Economics
= Productivity + Savings

INUOVATIVE CUTTING TIPS

Compare the difference yourself .....
**Safety:** **POLYMER GRADE PROPYLENE.** When it comes to safety, Propylene is the industry leader. With Propylene, you have a lower chance of flashbacks and Propylene is 20 times more stable when compared to Acetylene.

The above properties translate into real safety advantages for personnel involved with Propylene as a fuel gas vs acetylene. 1-63 lb Propylene Cyl. is equivalent to 4 – 300 cuft. Acetylene Cyls. which reduces the labor of cylinder change outs by 75%

Gas stability issues with Acetylene prevent users from being able to increase pressure in acetylene applications i.e. (Heating) causing insufficient pressures for heating heads resulting in dangerous flashbacks while with Propylene this is a minimal concern.

**Compare the leading fuel gases:**

Why Fabricators, Contractors and Plumbers are Changing to PROPYLENE?

- SAFER.. Reduced chance of flashbacks, more stable
- 50%.. Reduction in cost over Acetylene
- 50%.. Reduction in gas pressure vs Propane... less gas
- 75% less cylinder change outs.. (1 -63 lb vs 4 - 300 cu ft. Acetylene)
- QUALITY CUTS.... Less grinding, better joint fit-up
- HIGHER Vapor Pressure in colder temperatures
- FASTER Cutting Speeds....productivity improvement
- LONGER TIP LIFE... less change out time
- HIGH BTU RATES....uniform heat transfer for heating and brazing

Handling:

PROPYLENE cylinders are the easiest to handle. The main reason for this is the weight of the cylinders. One 63 lb. cylinder of PROPYLENE weighs 111 pounds and contains 63 pounds of fuel. A single cylinder of acetylene weighs twice as much, but only contains 16 pounds of fuel. The reason for this is simple. A cylinder of PROPYLENE contains nothing but fuel, whereas an acetylene cylinder contains a porous filler material made of calcium silicate as well as acetone. This means that with a cylinder of acetylene you are storing 220 pounds of material that you can’t even use. The usable material is more than half of the weight of an PROPYLENE cylinder. CGA now says that you can only withdraw 1/10 of the capacity of an Acetylene cylinder at one time and in cold temperatures it is even more difficult to pull Acetylene out of the cylinder.

When you couple this with the superior efficiency of PROPYLENE, the reduction in handling requirements, the higher vapor pressure it becomes truly apparent this is a superior fuel gas. One Large cylinder of PROPYLENE, weighing 111 pounds, can do the work of four (4) acetylene cylinders, which have a total weight of an incredible 960 pounds. With PROPYLENE there are also no ancillary factors to consider.

PROPYLENE is the clear choice.
PROPYLENE is one of the cleanest burning, easiest to use, best performing and safest fuels available. With most products you have to pay extra to get the best, but with PROPYLENE you get this high level of quality and still save money. The average cost of PROPYLENE is typically 50% lower than the cost of acetylene. The versatility of PROPYLENE means that you only need to buy one fuel for many jobs. PROPYLENE can be used for hand cutting, machine cutting, flame hardening, metalizing, brazing, soldering, welding, pre-heating and stress relieving.

**Applications:**

<table>
<thead>
<tr>
<th>Applications</th>
<th>PROPYLENE</th>
<th>Acetylene</th>
<th>Propane</th>
<th>Natural Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flame cutting: Production (ipm) To Cut 1&quot; plate</td>
<td>19” – 23”</td>
<td>14” – 19”</td>
<td>12” – 16”</td>
<td>8” – 12”</td>
</tr>
<tr>
<td>Slag Free Cut</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Starting Time</td>
<td>Fast</td>
<td>Fast</td>
<td>Slow</td>
<td>Very Slow</td>
</tr>
<tr>
<td>Piercing Time</td>
<td>Fast</td>
<td>Fast</td>
<td>Slow</td>
<td>Very Slow</td>
</tr>
<tr>
<td>Beveling</td>
<td>Excellent</td>
<td>Good</td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>Gouging</td>
<td>Excellent</td>
<td>Good</td>
<td>Good</td>
<td>Slow</td>
</tr>
<tr>
<td>Flame Hardening</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Heating</td>
<td>Excellent</td>
<td>Poor</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td>Brazing</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Metalizing</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Powder Spraying</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Welding</td>
<td>Good</td>
<td>Excellent</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Equipment Life</td>
<td>Excellent</td>
<td>Poor</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Cylinder capabilities</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**STAINLESS CUTTING OXYGEN INSERTS PROVIDE INCREASED PERFORMANCE 15 TO 30% INCREASE IN CUTTING SPEEDS & 5 X LONGER TIP LIFE**

**COUPLING DISTANCE**
The distance between the end of the cutting flame and the work surface is forgiving with PROPYLENE (up to 4”). As a result, the operator can produce higher quality cuts, pierces and bevels with PROPYLENE vs any other fuel gas available.
PROPYLENE Gas COMPARISON


PROPYLENE: The safe high energy fuel for cutting, heating, brazing & welding.

GAS INNOVATIONS

PROPYLENE

HIGH SPEED LONG LIFE HAND & MACHINE CUTTING TIPS

25 to 30% Faster Cuts with Stainless Steel Cutting Oxygen Insert.

GAS INNOVATIONS

PROPYLENE

High Speed Tips cut Accurately, Safely and Economically. Designed to reduce production cutting costs when used with Propylene.

- Reduced preheat times and increased cutting speeds = reduced oxygen and fuel gas consumption.
- Increased tip life reduces tip costs.
- Slug-free cuts eliminates grinding.
- Long stand-off distance makes difficult cutting easy.
- One tip size will cut a range of steel sizes.

Made in the USA
Safetly First

18005 E. Hwy 225 La Porte, Texas 77571 Tel: 281-471-2200 www.gasinnovations.com
Performance, Versatility & Economics = Productivity + Savings

Compare the difference yourself …..

Calculate your cost of 300 cu.ft. Acetylene vs 63 lb PROPYLENE Gas

Acetylene Cost @ _____ per 100 cu.ft. X 3.0 (300 cu.ft./cyl.)
= $________ per cylinder X 4 cylinders.
= Total Acetylene cost $________.

PROPYLENE Cost @ _______ per lb. X 63 lb cylinder
= Total PROPYLENE Cost $________.

Your Savings = $________

Calculate your cost of 40 cu.ft. “B” Acetylene vs 6 lb PROPYLENE

Acetylene Cost @ _____ per 100 cu.ft. X 0.4 (40 cu.ft./cyl.)
= $________ per cylinder X 3 cylinders.
= Total “B” Acetylene cost $________.

PROPYLENE Cost @ _______ per lb. X 6 lb cylinder
= Total PROPYLENE Cost $________.

Your Savings = $________

Calculate your cost of 15 cu.ft. “MC” Acetylene vs 6 lb PROPYLENE

Acetylene Cost @ _____ per 100 cu.ft. X 0.15 (15 cu.ft./cyl.)
= $________ per cylinder X 6 cylinders.
= Total “MC” Acetylene cost $________.

PROPYLENE Cost @ _______ per lb. X 6 lb cylinder
= Total PROPYLENE Cost $________.

Your Savings = $________