NIPPON GASES

Sanarc® HL-1

Gas application technology for oxy-fuel cutting

Index

Who we are

We are “The Gas Professionals”. This is not only our slogan, but also a promise to which we are committed throughout all our activities. Yesterday, today and tomorrow.

We are part of Nippon Sanso Holdings Corporation - the parent company to the Taiyo Nippon Sanso industrial gas business in Japan, the US Matheson Tri-Gas Group, the European Nippon Gases, the Asia/Oceania Regional Group and Thermos Business Group.

Together, we are all working towards the same goal:
Making life better through gas technology.

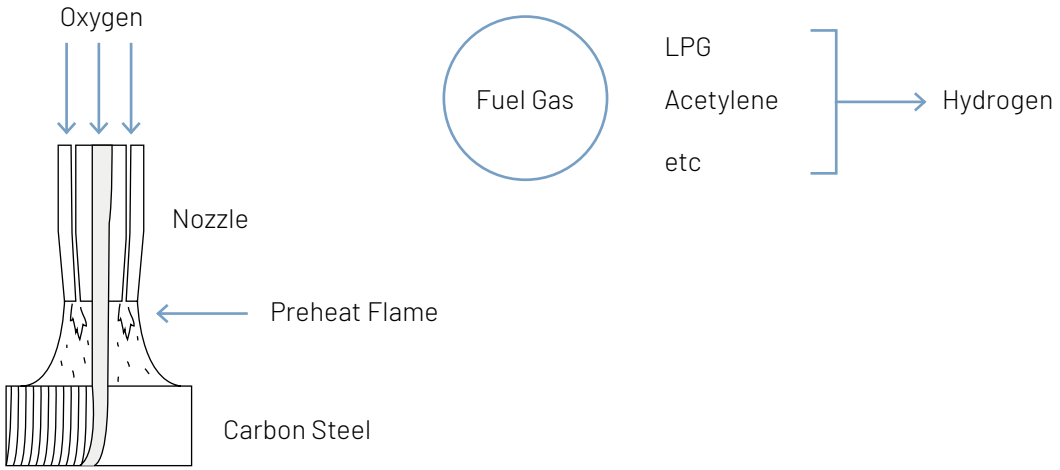
Today, we not only have an extensive range of industrial, special and electronic gases, but also related materials and solutions for standard applications. In addition, we develop customised concepts in close cooperation with our customers.

Our state-of-the-art and customised solutions and technologies make us a strategic partner for the entire industry. We are therefore at your service at all times to find a solution to your challenges.

Sanarc® HL-1
Gas application technology for oxy-fuel cutting

Sanarc® gas mixtures are designed to increase the productivity of your processes.

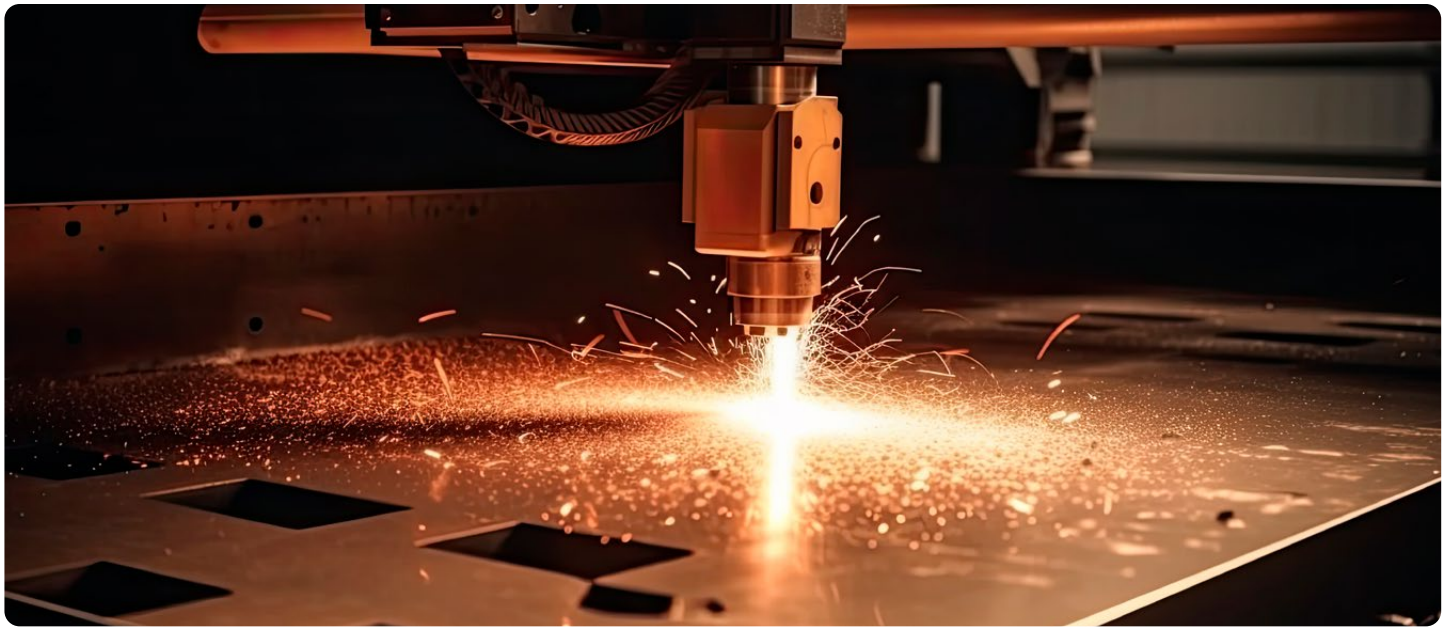
Sanarc® HL-1 is a patented technology by Taiyo Nippon Sanso Corporation, the Japanese company of the Nippon Sanso Holdings group.Sanarc® HL-1 is an example of the group's advanced engineering and redefines the oxy-fuel gas landscape. With performance that surpasses that of traditional LPG, this advanced gas opens the door to exceptional efficiency and effectiveness.



Advantages

- Higher production output using high-speed cutting
- Up to 1.5 times higher cutting speed
- 25% total cost saving
- More than 50% decrease in radiant heat compared to other gases
- Saving of total operation costs
- Cut face is straighter and smoother
- Improved roughness of the cut face
- Smaller HAZ and less distortion
- Effortless removal of slag
- Improved quality without the need for post-repair work
- Improved working environment

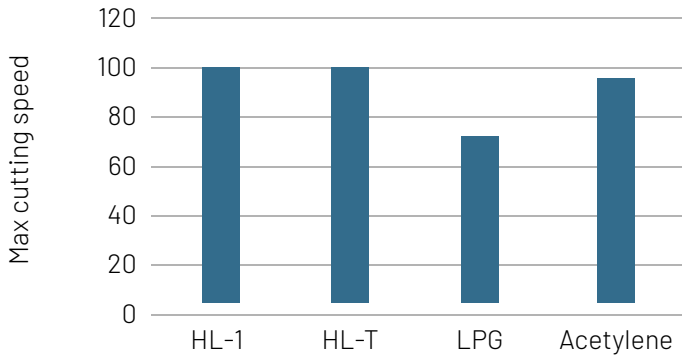
Increasing cutting speed
CO_2 -Free



Fuel Gas
Comparison table

Kind of fuel gas	HL-1	LPG	Acethylene
Cutting speed	Best	NG	Better
Radiant heat	Best	NG	NG
CO_2 generation	Best	NG	NG
Gas cost	Good	Better	NG

Cutting speed



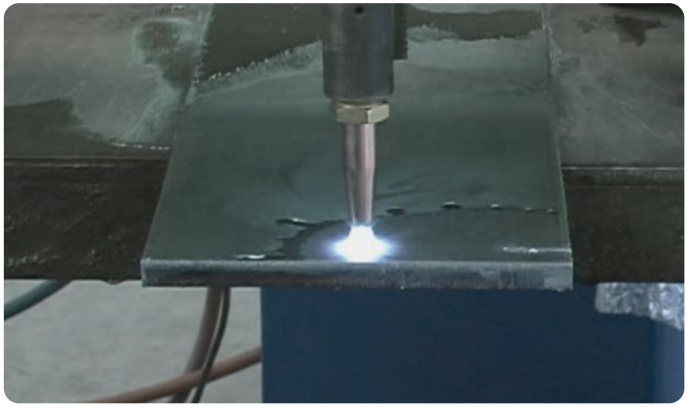
Base material: SS400 tl12
Combustion heat input: 25MJ/h

HL-1 can increase cutting speed by 30% compared with LPG

Sanarc® HL-1 still cutting at 800mm/min

HL-1

LPG



Cutting quality

- Smooth surface and reduced post-repair times
- Improved work environment by heat radiation reduction
- Approx. 1.6 times higher cutting speed
- Cut face is straighter and smoother
- Improved roughness of the cut face
- Smaller HAZ and less distortion
- Effortless removal of slag

HL-1

LPG

Quality improvement:
respective surface after groove cutting

Safety

- LEL and UEL are better than with acetylene
- Small chance of gas accumulation due to low density
- HL-1 has a visible flame in comparison with hydrogen

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