Our best gas solutions for TIG welding of austenitic stainless steel

Inomaxx® TIG (R1 ArH2)*

With 2% hydrogen added to pure argon, the best gas for TIG welding austenitic stainless steel**.

- Increased welding speed
- Improved penetration
- Less surface oxidation
- Lower gas consumption and overall costs
- Less post-weld cleaning
- Lower ozone emissions

And now it’s available in our high-volume 300 bar packages including our Integra® cylinder.

Improved productivity
Fewer rejects
A better working environment

Photos taken at Amazon Filters
N5 NH5*: Protect the underside of the weld

Air Products recommended purging and backing gas for austenitic stainless steel**.

If you are still using pure argon as a purging or backing gas, we recommend you switch to N5 NH5 (5% hydrogen in nitrogen) mixture. You’ll notice the difference immediately: the hydrogen scavenges any remaining oxygen inside the pipe or object being welded to avoid contamination, while improving root bead penetration at lower amperage.

ISO14175/AWS 5.32 uses a logical convention to allocate a designation to identify weld process gases and categorise them into logical groups.

<table>
<thead>
<tr>
<th>Name</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Ar</td>
<td>Argon</td>
</tr>
<tr>
<td>He</td>
<td>Helium</td>
</tr>
<tr>
<td>C</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>O</td>
<td>Oxygen</td>
</tr>
<tr>
<td>H</td>
<td>Hydrogen</td>
</tr>
<tr>
<td>N</td>
<td>Nitrogen</td>
</tr>
</tbody>
</table>

The subgroup helps to identify the range of suitable applications and the additional gases in descending order of each additional gas. N5 NH5 is a mixture of 5% hydrogen in nitrogen.

Seeing is believing

Get a free expert assessment

Experience Inomaxx® TIG and N5 NH5 in action at your site, and get expert advice on optimising your operational performance with a comprehensive, objective and confidential evaluation of your processes and practices.

* All Air Products weld process gases meet or exceed the requirements of ISO 14175/AWS A5.32 Welding consumables – Gases and gas mixtures for fusion welding and allied processes.

** Common grades include: 304 also known as X2CrNi18-10 and 316 also known as X5CrNiMo 18-14-3.

For more information, please contact us at:

Air Products PLC
2 Millennium Gate
Westmere Drive
Crewe CW1 6AP
UK
T 0800 389 0202
apukinfo@airproducts.com

Air Products Ireland Ltd
Unit 950, Western Industrial Estate
Killeen Road
Dublin 12
Ireland
T 1800 99 50 29
ieinfo@airproducts.com

tell me more
airproducts.co.uk/welding
airproducts.ie/welding