




TIG welding torches

For manual welding applications

A detailed photograph of a Fronius VIZOR 4000 AIR TIG torch in use. The torch is silver and red, with a bright blue and white arc visible at the nozzle. A welder's gloved hand is holding the torch, and a metal workpiece is being welded. The background is dark, emphasizing the bright light of the weld.

Unleash your
welding potential

The right welding torch
for every application –

with just one hosepack

That's possible because the new TIG welding torches can be individually adjusted to suit your personal preferences or the application at hand.

Do you find a large or small handle easier to hold? Or would you prefer to control your power source from the torch? Maybe you want to improve component accessibility through the wide range of gas nozzles and torch bodies? Regardless of your needs, our TIG welding torches offer you maximum flexibility.



The advantages for you



Modular
design



Ergonomic
and non-slip



Cost saving
and sustainable



Longer wearing
part lifetimes

In addition to different power categories, there are two handle versions that can be equipped with different operating elements and torch body versions.

The ergonomically designed handles of our new TIG welding torches protect users from fatigue, while soft components guarantee a non-slip, secure grip. The ball joint and the materials used make the hosepack very flexible and easy to handle, especially when the component is difficult to access.

The welding torch does not have to be thrown away if requirements change or in the event of damage. Instead, modules can simply be replaced. The component can be changed directly on site, without the help of a service technician, saving resources, time, and costs.

Perfect cooling right to the head of the torch body ensures reliable heat dissipation. This significantly increases the service life of the torch's wearing parts.



For further information, visit:
www.fronius.com/tig-torches

Easy operation

Standard Handle

One handle for all versions. Removing just one screw allows you to change out the interface of your standard grip torch.*

*Option for standard grip only



Up/Down

Potentiometer

JobMaster

- 1 Start welding
- 2 Change the welding power using the up/down key (+/-)
- 3 LED can be used to light up the welding area
- 4 Cap-shaping in connection with the TIG AC welding process
- 5 Intermediate lowering in connection with 4-step operating mode ($I_1 > I_2$)
- 6 Display for reading essential parameters
- 7 Adjust the essential parameters such as main current, lowering current, or final current directly on the welding torch



Fronius welding torches represent the perfect blend of technology and ergonomics. The ergonomic handle with non-slip components sits comfortably and securely in your hand, allowing the torch to be guided with ease. Various operating concepts take care of the most varied welding requirements. Depending on the application, welders can choose between a standard or a small handle hosepack.

Small Handle

The Small Handle is a convenient alternative to the standard version. It is particularly well-suited to difficult-to-access weld locations in less power-intensive applications and is the more ergonomic choice for smaller hands. Despite its smaller size, it still offers a variety of different control options too.

Standard



UpDown



Long Trigger



Potentiometer



More than
40 different
torch bodies



Optimum

Accessibility

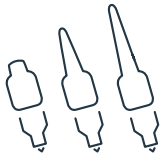
Multilock: patented interface

When time is of the essence,
the torch body can be changed quickly,
easily, and without needing any tools.

360°
rotation



The torch body can be turned
through 360° for an optimum
welding position every time.



Torch caps

Depending on the application
and component condition,
torch caps of various sizes
can be used.



Flexible torch bodies

The flexible torch bodies
can be bent into the desired
position for difficult to access
welding points.*



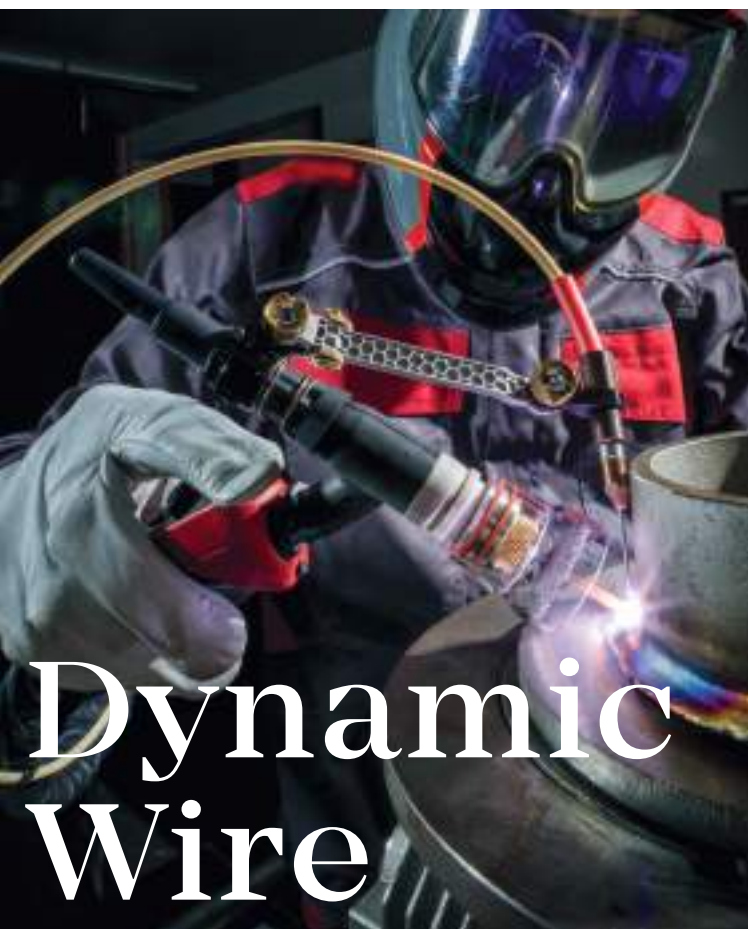
Torch body lengths

Different torch body lengths ensure
maximum flexibility while welding,
allowing the right geometry to be
chosen for every welding application.

More than
80
gas nozzles

*Tested under standardized test conditions
according to a defined test procedure, gas/air
cooled torch bodies can be bent up to 1,000
times and water cooled torch bodies up to
200 times.





Dynamic Wire

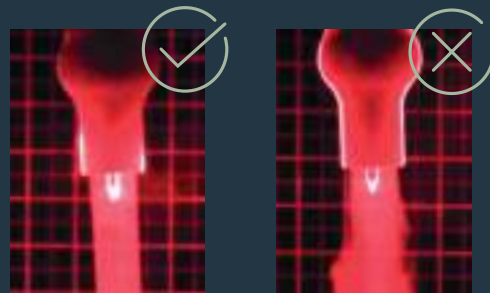
Active wire control –
TIG cold wire welding made easy

The innovative advantage of Fronius TIG DynamicWire, when compared to a conventional continuous wire feed in cold wire systems, lies in its automatic self-regulation. The power source actively adjusts the wire speed to the welding behavior, torch position, and current conditions, even compensating automatically for component tolerances of up to 30%. The result? Perfect welds every time. Existing iWave cold wire systems can be easily upgraded with the patented TIG DynamicWire welding package through software activation.



For further information, visit:
www.fronius.com/tig-dynamicwire

The welding



Gas lens option

- Better gas shield
- Turbulence-free gas flow
- Optimum weld seam quality
- Gas savings of 1-2 l/min
- Low oxidation in high alloy materials

Central connector F/F++

- Tool-free mounting
- Shielding gas directly at the power connection
- External water connections
- Water cooled bayonet connection for high performance

TMC control plug



torch

in detail



Torch body versions

- Gas nozzle (push-on type) (A)
- Gas nozzle (screw type) (P)

Water cooling

The service life of the wearing parts is increased by cooling right to the head of the torch body

Illumination

Illuminate the welding area before and after welding.

User interface

The control units can be replaced at any time with just a few simple steps.

Multilock: patented interface

- Quick and easy torch body changes
- Torch body can be turned through 360°
- Over 40 different torch bodies

Non-slip

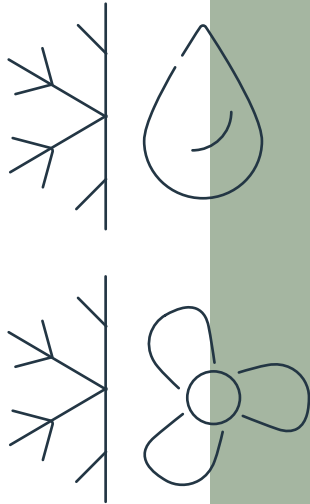
Soft components in the handle

Ball joint

Flexible hosepack

For optimum handling – flexible and abrasion-resistant leather protection tube

TIG welding torch



Overview

The Multilock welding torches can be fitted with different torch bodies and are available as gas/air cooled or water cooled versions. Different torch geometries ensure maximum flexibility.

Economical and sustainable

This saves time, costs, and resources

Low storage costs

The welding torches are modular and can be configured in a variety of ways.

Easy to repair

Individual components such as torch bodies can be replaced easily by customers if required, without the need for a service technician. Thanks to the modular design and the Multilock System, you do not always need to replace the entire welding torch when worn.

10-kV
compatible

Compatible
with Fronius
digital products

Extension hose package

water cooled	HPT	
	AC	DC
HPT 400i EXT W	350A 60 % D.C. 270A 100 % D.C.	400A 60 % D.C. 300A 100 % D.C.
gas/air cooled	HPT	
	AC	DC
HPT 220i EXT G	180A 35 % D.C. 130A 60 % D.C. 100A 100 % D.C.	220A 35 % D.C. 170A 60 % D.C. 130A 100 % D.C.

Multilock-torch body

		TTB	
		AC	DC
water cooled	TTB 180P W ML	140A 60 % D.C. 110A 100 % D.C.	180A 60 % D.C. 140A 100 % D.C.
	TTB 300 W ML	250A 60 % D.C. 190A 100 % D.C.	300A 60 % D.C. 230A 100 % D.C.
	TTB 300 W ML flexibel	250A 60 % D.C. 190A 100 % D.C.	300A 60 % D.C. 230A 100 % D.C.
	TTB 400 W ML	320A 60 % D.C. 250A 100 % D.C.	400A 60 % D.C. 300A 100 % D.C.
	TTB 400 W ML flexibel	320A 60 % D.C. 250A 100 % D.C.	400A 60 % D.C. 300A 100 % D.C.
	TTB 500 W ML	400A 60 % D.C. 300A 100 % D.C.	500A 60 % D.C. 400A 100 % D.C.
gas/air cooled	TTB 80P G ML	30A 35 % D.C.	80A 35 % D.C. 60A 60 % D.C. 50A 100 % D.C.
	TTB 160 G ML	120A 35 % D.C. 90A 60 % D.C. 70A 100 % D.C.	160A 35 % D.C. 120A 60 % D.C. 90A 100 % D.C.
	TTB 160A G ML flexibel	120A 35 % D.C. 90A 60 % D.C. 70A 100 % D.C.	160A 35 % D.C. 120A 60 % D.C. 90A 100 % D.C.
	TTB 160P G ML flexibel	120A 35 % D.C. 90A 60 % D.C. 70A 100 % D.C.	160A 35 % D.C. 120A 60 % D.C. 90A 100 % D.C.
	TTB 220 G ML	180A 35 % D.C. 130A 60 % D.C. 100A 100 % D.C.	220A 35 % D.C. 170A 60 % D.C. 130A 100 % D.C.
	TTB 220A G ML flexibel	180A 35 % D.C. 120A 60 % D.C. 100A 100 % D.C.	220A 35 % D.C. 170A 60 % D.C. 130A 100 % D.C.
	TTB 220P G ML flexibel	170A 35 % D.C. 120A 60 % D.C. 100A 100 % D.C.	220A 35 % D.C. 160A 60 % D.C. 130A 100 % D.C.
	TTB 260 G ML	200A 35 % D.C. 160A 60 % D.C. 120A 100 % D.C.	260A 35 % D.C. 200A 60 % D.C. 150A 100 % D.C.

Multilock hosepacks

		THP	
		AC	DC
water cooled	THP 300i W ML	250A 60 % D.C. 190A 100 % D.C.	300A 60 % D.C. 230A 100 % D.C.
	THP 400i W ML	350A 60 % D.C. 270A 100 % D.C.	400A 60 % D.C. 300A 100 % D.C.
	THP 500i W ML	400A 60 % D.C. 300A 100 % D.C.	500A 60 % D.C. 400A 100 % D.C.
	THP 300 W SH ML	250A 60% D.C. 190A 100% D.C.	300A 60 % D.C. 230A 100 % D.C.
gas/air cooled	THP 160i G ML	120A 35% D.C. 90A 60% D.C. 70A 100% D.C.	160A 35 % D.C. 120A 60 % D.C. 90 A 100 % D.C.
	THP 220i G ML	180A 35 % D.C. 130A 60 % D.C. 100A 100 % D.C.	220A 35 % D.C. 170A 60 % D.C. 130A 100 % D.C.
	THP 260i G ML	200A 35% D.C. 160A 60% D.C. 120A 100% D.C.	260A 35% D.C. 200A 60% D.C. 150A 100% D.C.
	THP 120 G SH ML	90A 35 % D.C. 70A 60 % D.C. 50A 100 % D.C.	120A 35 % D.C. 100A 60 % D.C. 80A 100 % D.C.
	THP 180 G SH ML	120A 35 % D.C. 90A 60 % D.C. 70A 100 % D.C.	180A 35 % D.C. 130A 60 % D.C. 100A 100 % D.C.
	THP 150 G SH ML/FS *	110A 25 % D.C. 90A 35 % D.C. 70A 60 % D.C. 50A 100 % D.C.	150A 25 % D.C. 120A 35 % D.C. 100A 60 % D.C. 80A 100 % D.C.
		Small Handle	

- The welding current specifications apply to welding torches with a torch body length of 65 mm or more.
- When using shorter torch bodies, the welding current is reduced by 30%.
- The welding current specifications only apply when using the standard wearing parts.
- When using gas lenses and shorter gas nozzles, the welding current is reduced.

ML Multilock
FS Fronius Small
SH Small Handle
EXT Extension
G Gas/air cooled

W Water cooled
TTB TIG Torch Body
THP TIG Hose Pack
A Gas nozzle (push-on type)
P Gas nozzle (screw type)

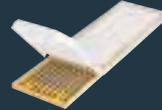
Options and accessories



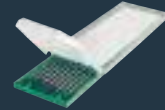
WS2 Tungsten
with ~ 2.0% rare-earth



WC20 Tungsten
with ~ 2.0% cerium oxide



GP/WL15 Tungsten
with ~ 1.5% lanthanum



WP
Pure tungsten



Locking device Multilock coupling

Prevents improper use of the Multilock System



Extension hosepack

Extends standard hosepacks by up to 10 meters



TFC

Quicker electrode changes with the "mechanical pencil system"



No Trigger

Advantages when combined with a foot pedal or touch HF ignition



Button operation

Optional for hosepacks of the digital generation with functions such as start and end of welding as well as intermediate lowering



TIG-CW-Feeding

Upgradeable cold wire feed system for intelligent TIG welding torches

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