

TECHNOLOGY FOR THE WELDER'S WORLD.

ABIMIG[®] AT



www.binzel-abicor.com

One welding torch – three advantages

- Flexible
- Light
- Cost-effective

Welding professionals do some of the most physically demanding jobs in the metalworking sector.

Welders have to constantly adapt their posture to enable effective access to the work at hand, whilst simultaneously keeping a concentrated eye on the welding arc, at all times.

This heavy physical strain can lead to bone and joint illnesses and potentially chronic damage.

For this reason, every welder would like to work with a robust welding torch, yet one that is both **light** and **powerful** and where possible is equipped with a torchneck that has been optimised for the job.

Impossible? Not now!

The new air-cooled welding torch series ABIMIG® A T LW makes these wishes come true!

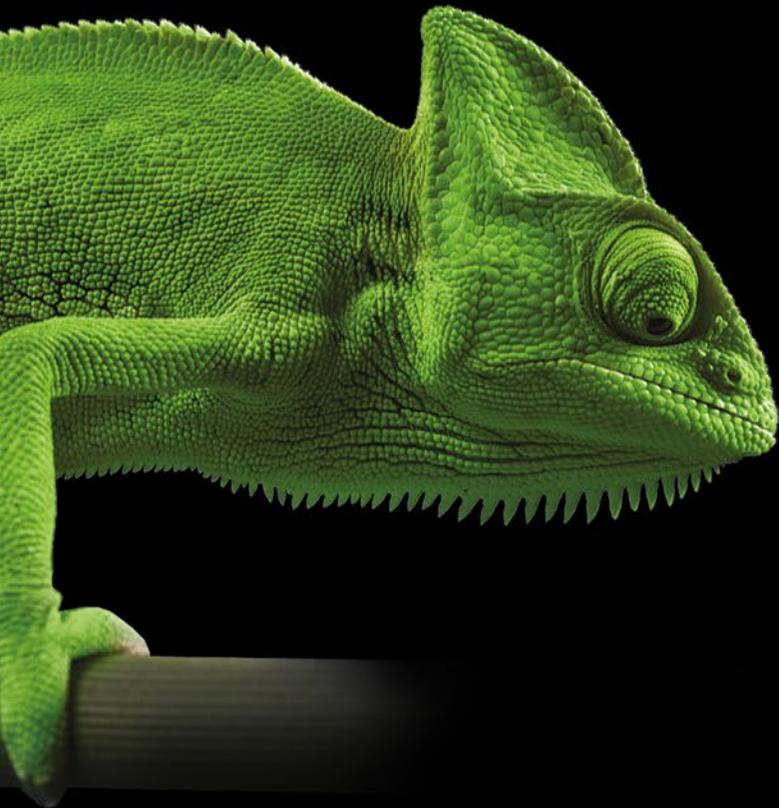
The »T« interface system allows the use of torch necks whose geometry and alignment are matched as close as possible to the actual welding job.



Arguments that speak for themselves:

- Flexibility: Numerous torch neck geometries – for optimum accessibility in all welding positions
- Light weight: Up to 50 % lighter than comparable standard torches and with a handle design which, when combined with the rotatable torch neck, enables reduced welder fatigue
- Robustness, durability and cost-effectiveness that bear comparison with the best on offer from the competition
- Whether for industrial or workshop applications – the ABIMIG® A T always provides the ideal customised tool

Flexibility that leaves nothing to be desired ...

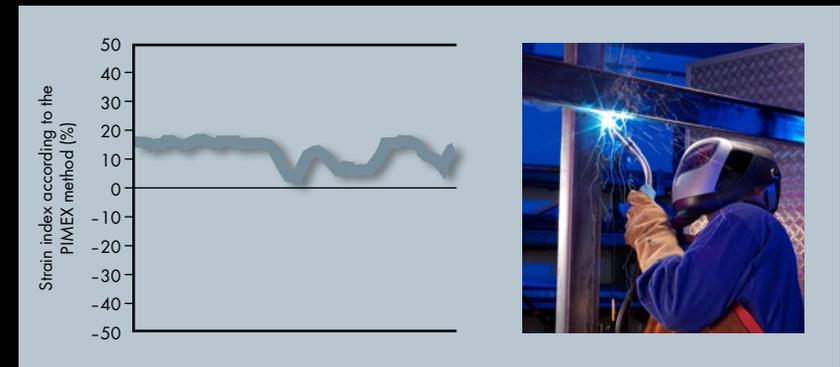


Significant strain relief!

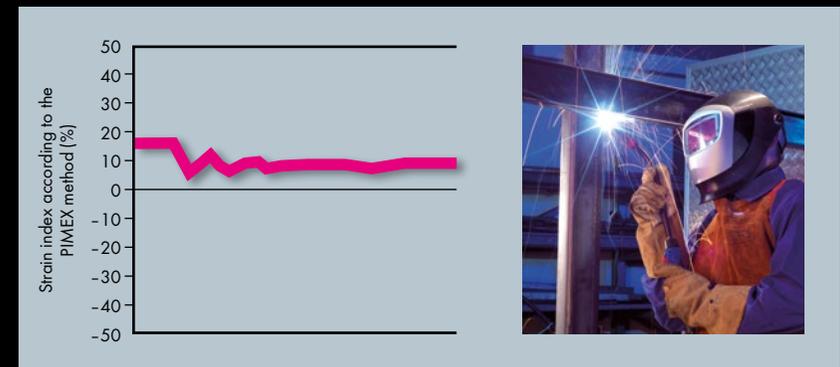
Scientific studies taking measurements according to the PIMEX method* document a significant reduction in musculoskeletal load, when the right torch neck was selected.

*The **PIMEX method** (**P**icture **M**ixed **E**xposure) is the term used to describe the synchronous recording and visual presentation of work load and employees' medical data in real time.

Measured results with standard torch neck: The welder is more often working in non-ergonomic positions

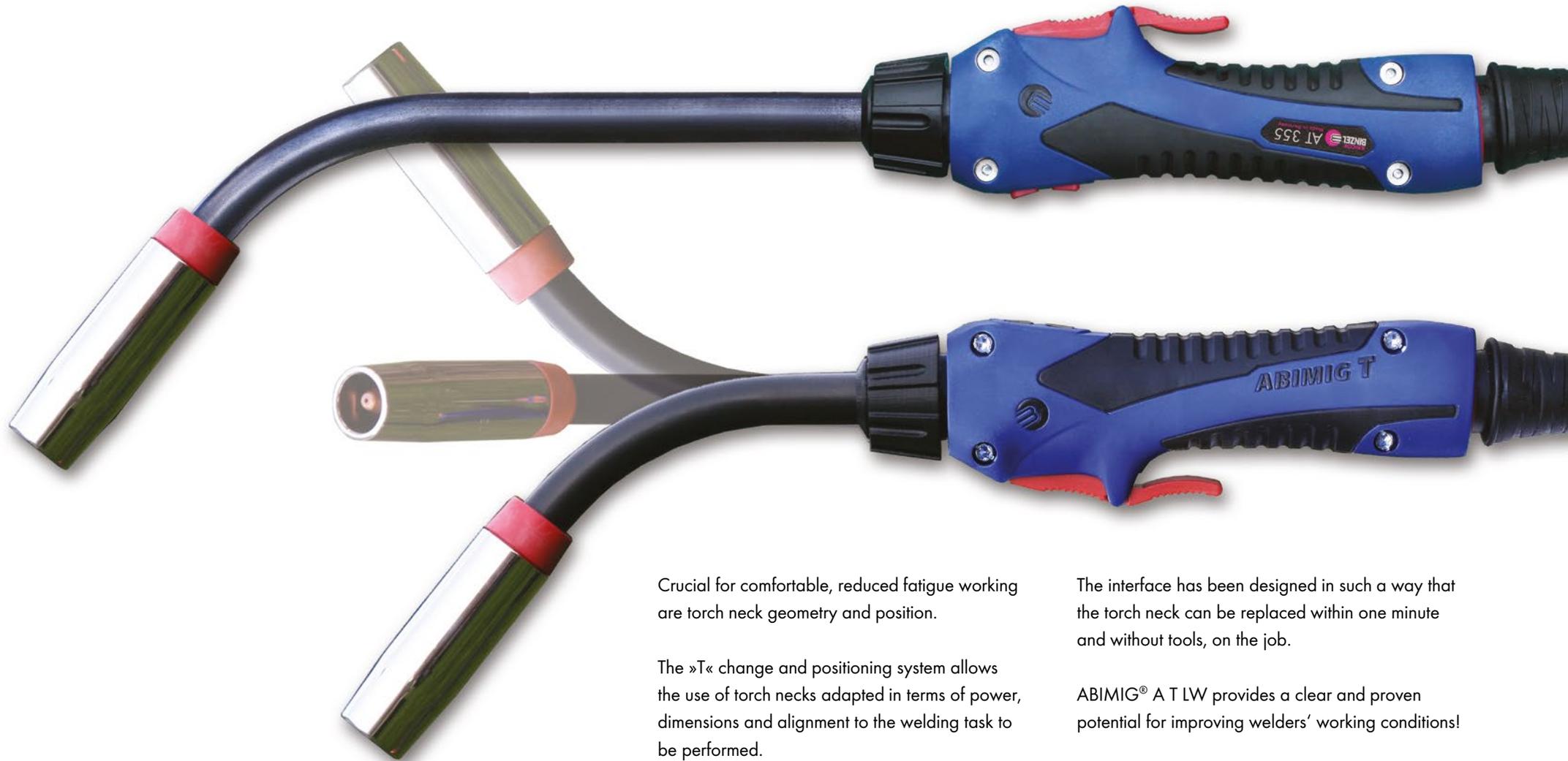


Measured result with adapted torch neck¹: Thanks to the adapted torch neck, the welder avoids a straining posture



¹ Determined by ABICOR BINZEL in cooperation with a scientific partner

Adaptation makes welding easier



Crucial for comfortable, reduced fatigue working are torch neck geometry and position.

The »T« change and positioning system allows the use of torch necks adapted in terms of power, dimensions and alignment to the welding task to be performed.

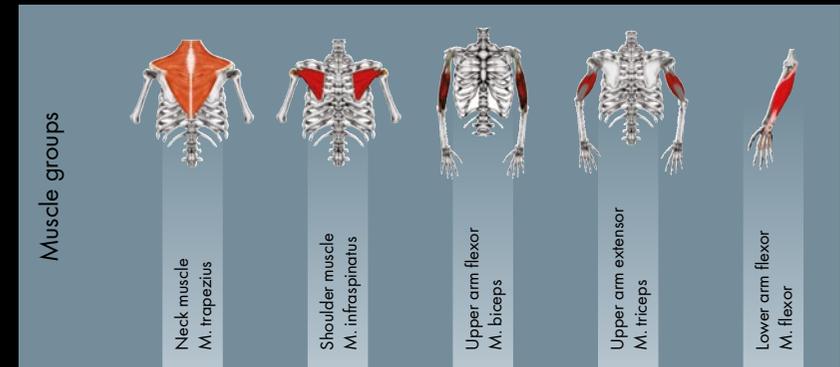
The interface has been designed in such a way that the torch neck can be replaced within one minute and without tools, on the job.

ABIMIG® A T LW provides a clear and proven potential for improving welders' working conditions!

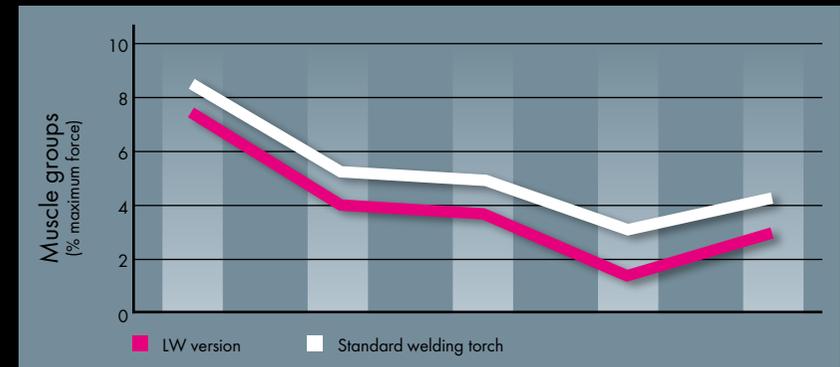
Lightweight and powerful ...

Scientific studies prove the benefits

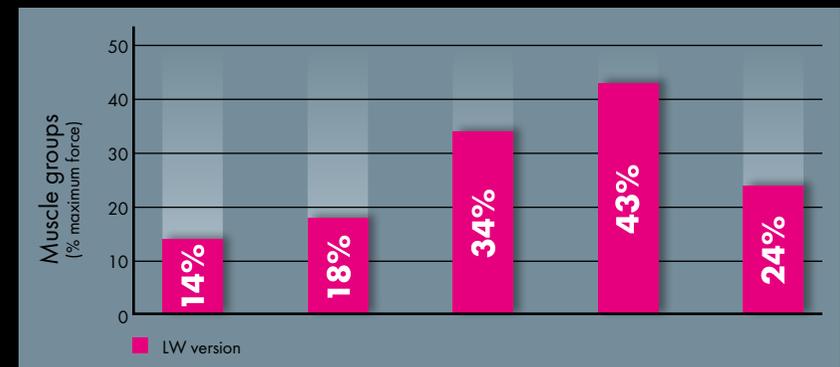
The muscle groups examined (EMG measurements made by the Sport Medicine Institute at JLU in Giessen)



Muscle strain in % when welding overhead



Relief on the muscles when BIKOX®LW is used on the same job



Low-Weight

The most important factor for welder physical strain is the handling weight of the torch, which has to be used throughout the working day. Thanks to specially selected alloy components, which have been optimised in terms of conductivity and elasticity, BIKOX® LW cable assemblies are up to 50 % lighter than standard equivalents.

The results are impressive:

Long-term studies at the sports science institute of The Justus-Liebig-University in Giessen have shown that the degree of muscle load on welders working with BIKOX® LW cable assemblies is perceptibly reduced both subjectively and objectively when compared with conventional cable assemblies. Shoulder and arm muscles are under significantly less strain.

The results are greater precision and efficiency at work and, in the longer term, less welder downtime due to work-related strain and illness.



Convincing efficiency ...

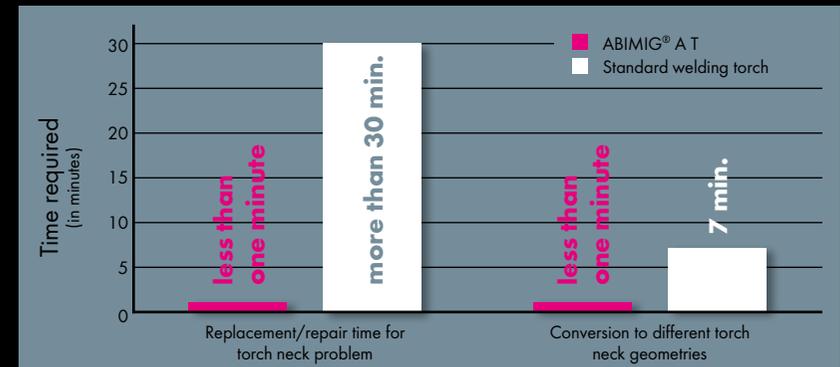


Example repair costs:

1. Downtime in the event of torch problem:	15 min.
2. Replacement of torch neck:	30 min.
3. Repairs/month:	5 pcs.
<hr/>	
= Time required for repairs/year:	45 h
Saving potential:	x €

Productivity

Downtime comparison in the event of problems with the torch neck and conversion to other torch neck geometries



Time is money! As competitive pressures increase, the demands for the optimum use of time and the reduction of downtime also increase.

The quick-change system »ABIMIG® A T« enables the torch neck to be replaced quickly thanks to a standard interface with a simple design – whether replacement is on account of repair or for adaptation to a different welding task.

Complicated, time-consuming wear part replacement on site becomes a thing of the past. Dead capital in the form of expensive special welding torches only occasionally used is minimised. A clever solution for all those who think economically.

Time for essentials

Never before has there been such a versatile welding torch

The front-end of the torch is subject to extreme mechanical and thermal load, as well as the adhesion of spatter. As a result, the torch neck is the part that fails the most.

The time required to replace a standard, fixed torch neck is somewhere between thirty minutes and one hour, which can easily result in significant repair costs every year, even in smaller companies.



The worn torch neck can be replaced within a very short time

More than 1000 possibilities ...



Easily modified

The welding torch system ABIMIG® AT LW leaves nothing to be desired in terms of equipment.

Alongside the catalogue series of **»BASIC«** standard torches, the **»COMBI«** modular system offers the possibility to adapt various pre-defined necks with standard cable assemblies. Even more options are provided by the **»VARIO«** kit system with an additional choice of wearing parts and cable assembly components, as well as machine connections.

And if all this is not enough, the **»FREE STYLE«** system available on request allows every technically feasible torch to be delivered according to your specific requirements.

You don't think that's possible?

Put us to the test. We will design the optimum solution for you!



Variation possibility -
short or long trigger



Up-down function -
possible as an option
for all torch types



Standard welding torch, Technical data according to EN 60 974-7:

ABIMIG® A T 155 LW		Type:	45°
			
Rating:	190 A CO ₂ 180 A Mixed Gases M 21 (DIN EN ISO 14175)	Part-No.:	3 m: 006.D8T0.1 4 m: 006.D811.1 5 m: 006.D812.1
Duty cycle:	60%		
Wire-Ø:	0.8-1.0 mm		

ABIMIG® A T 255 LW		Type:	45°
			
Rating:	240 A CO ₂ 220 A Mixed Gases M 21 (DIN EN ISO 14175)	Part-No.:	3 m: 004.D850.1 4 m: 004.D851.1 5 m: 004.D852.1
Duty cycle:	60%		
Wire-Ø:	0.8-1.2 mm		

ABIMIG® A T 305 LW		Type:	45°
			
Rating:	290 A CO ₂ 260 A Mixed Gases M 21 (DIN EN ISO 14175)	Part-No.:	3 m: 018.D960.1 4 m: 018.D961.1 5 m: 018.D962.1
Duty cycle:	60%		
Wire-Ø:	0.8-1.2 mm		

ABIMIG® A T 355 LW		Type:	45°
			
Rating:	340 A CO ₂ 320 A Mixed Gases M 21 (DIN EN ISO 14175)	Part-No.:	3 m: 014.H390.1 4 m: 014.H391.1 5 m: 014.H392.1
Duty cycle:	60%		
Wire-Ø:	1.0-1.6 mm		

ABIMIG® A T 405 LW		Type:	45°
			
Rating:	400 A CO ₂ 370 A Mixed Gases M 21 (DIN EN ISO 14175)	Part-No.:	3 m: 015.D070.1 4 m: 015.D071.1 5 m: 015.D072.1
Duty cycle:	60%		
Wire-Ø:	1.0-1.6 mm		



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