

# The V Series

Dreams become reality.

At least if you are a TIG welder.

**Outstanding TIG technology – in groundbreaking industrial design.** The design was created by our engineers in 2,562 hours and oriented to practical requirements without compromise. The internal values are also impressive due to the most modern inverter technology with **top duty cycles**. Together with the “3 steps to weld” operating concept, the V series is pursuing one objective: to provide optimum practical compatibility and maximum productivity. Irrespective whether in DC or AC/DC version. And regardless if used in manual operation or in a automated system. **SmartBase**, the Lorch expert database, expertly controls the arc. And nevertheless **all parameters can be changed individually**. So every professional finds his optimum settings for each material & application.

The pulsing function is also impressive: Thanks to less heat, the root pass and difficult positions are clearly better mastered. Also the Tiptronic function. You can store all values of repeatable welding tasks with this. Up to 100 jobs can be called up at any time. What more could a TIG welder want?



Stay flexible – the **V mobile** the **complete system** for your business

Admittedly, it does not fit in your pocket, but on a man’s arm. Thus all features of a modern industrial system follow you wherever you want to go.

With **Mobile-Car** and **water recirculation cooling unit** – you are ready to roll. The V mobile thus sits at an ideal working height, the gas cylinder is fixed in its support and the torch is water-cooled for optimum performance. The V remains “mobile” and at the same time has the same functionality of a large compact system.



**Water cooling unit WUK 5:** High performance cooling unit for water-cooled TIG torch

**Mobile Car:** Carriage for supporting the V mobile and the water recirculation cooling unit WUK 5

Everything to benefit your **TIG productivity**

## 1. Remote control directly at the torch



Using the **Up-Down remote control torch**, you are at the place where things happen – directly at the workpiece. You have the torch in your hand, control the welding process from there and also regulate the exact welding current with it. If Tiptronic mode is activated, you even select the stored jobs directly using the torch. So you can concentrate on what matters: the perfect weld seam.

## 2. Cold wire feeder “Feed”



The automatic **cold wire feeder** automates the manual feeding of filler material. As soon as high volume is required during TIG welding and the supply of additional filler material is needed, the Lorch Feed provides maximum TIG productivity. Also over long working times.

## 3. TIG perfectly automated



The V has **LorchNet**, a modern communications system. This digital data highway provides standardised communication and ensures that all components located in a Lorch automation system understand each other perfectly. The result is “Plug & Weld” and makes the V the perfect power source for your TIG automation.



## The V Series at a glance

- ✓ outstanding TIG weld characteristics
  - ✓ complete professional TIG functionality
  - ✓ with non-contact HF ignition (can be changed over to ContacTIG)
  - ✓ SmartBase expert database regulates the parameters for the optimum arc
  - ✓ Tiptronic job memory for up to 100 welding tasks
  - ✓ Pulse and FastPulse function bring additional benefits for the welding of thin plates; FastPulse up to 2 kHz
  - ✓ in robust, completely transportable industrial case
  - ✓ gas or water cooled
  - ✓ connection for hand and foot remote control
  - ✓ secondary current, prevents failure during heating of the workpiece
  - ✓ automatic final current reduction (downslope) for a perfect weld end
  - ✓ “3 steps to weld” operating concept
  - ✓ plain text display with language selection
  - ✓ high efficiency and low energy consumption due to the most modern power electronics and the fan standby function
  - ✓ manufactured and tested according to DIN EN 60974-1, with CE mark, S-symbol and IP 23
  - ✓ can be completely automated (LorchNet connection or robot interface)
- Additional in the AC/DC
- ✓ changeover DC to AC
  - ✓ more cleaning using Square wave current (AC variant) for welding aluminium
  - ✓ “dB down” function (40% less noise exposure)
  - ✓ positive pole ignition and automatic cap shape



## Professional TIG without compromises

The V is the professional Industrial TIG system. The state-of-the-art, digital TIG inverter welding system welds steel, stainless steel, copper and aluminium in AC/DC version without compromises and all this with the simplest operation. Also completely automated if required.

## 3 steps to achieve weld perfection – the operating concept of the V

1. Operating mode: select AC or DC
2. Specify electrode diameter
3. Adjust welding current



clearly arranged operating panel with plain text display

## The power variants



	V 24 mobile 240 A	V 30 mobile 300 A	V 24 240 A	V 27 270 A	V 30 300 A	V 40 400 A	V 50 500 A
<b>Welding range</b>	DC or AC/DC	DC or AC/DC	DC or AC/DC	DC or AC/DC	DC or AC/DC	DC or AC/DC	DC or AC/DC
TIG	3 – 240 A	3 – 300 A	3 – 240 A	3 – 270 A	3 – 300 A	3 – 400 A	3 – 500 A
Electrode	20 – 200 A	20 – 250 A	20 – 200 A	20 – 220 A	20 – 250 A	20 – 250 A	20 – 250 A
<b>Weldable electrodes</b>							
TIG Ø in mm	1,0 – 3,2	1,0 – 3,2	1,0 – 3,2	1,0 – 3,2	1,0 – 4,0	1,0 – 4,0	1,0 – 4,8
Electrode Ø in mm	1,5 – 4,0	1,5 – 4,0	1,5 – 4,0	1,5 – 4,0	1,5 – 6,0	1,5 – 6,0	1,5 – 6,0
<b>Practical duty cycle for TIG welding at 25° C ambient temperature</b>							
Duty cycle 100% (DC /AC/DC)	240 A	300 A / 280 A	240 A	270 A	300 A	400 A	480 A
Duty cycle 60% (DC /AC/DC)	240 A	300 A / 300 A	240 A	270 A	300 A	400 A	500 A
Duty cycle I max. (DC /AC/DC)	100%	100% / 60%	100%	100%	100%	100%	80%
<b>Standard duty cycle for TIG welding measured according to German quality standard DIN EN 60974-1 at 40° C ambient temperature</b>							
Duty cycle 100% (DC /AC/DC)	220 A / 190 A	270 A / 240 A	220 A / 210 A	250 A	250 A	360 A	380 A
Duty cycle 60% (DC /AC/DC)	240 A / 220 A	300 A / 280 A	240 A / 230 A	270 A	300 A	400 A	500 A
Duty cycle I max. (DC /AC/DC)	60% / 50%	60% / 50%	60% / 50%	60%	60%	60%	60%
<b>Machine</b>							
Mains voltage	3–400 V	3–400 V	3–400 V	3–400 V	3–400 V	3–400 V	3–400 V
Permitted mains tolerance	+/- 15%	+/- 15%	+/- 15%	+/- 15%	+/- 15%	+/- 15%	+/- 15%
Mains fuse, delayed action	16 A	16 A	16 A	16 A	32 A	32 A	32 A
Dimensions in mm (L x W x H)	812 x 283 x 518	812 x 283 x 518	1130 x 450 x 815	1130 x 450 x 815	1130 x 450 x 815	1130 x 450 x 815	1130 x 450 x 815
Weight in kg (DC /AC/DC)	29,4 / 35,1	31 / 37	84,6 / 90,5	85 / 92	86,4 / 93,6	107,6 / 121,5	108,7 / 123,2