

The HandyTIG, T, TF-Pro & V series

# TECHNOLOGY FOR PRODUCTIVITY: BOTH BIG & SMALL



## The Lorch TIG Welding portfolio at a glance

Lorch has a very broad portfolio of TIG welding products to cover the wide range of market applications, from light duty DIY with 240V input power to the toughest heavy duty industrial 415V systems for applications needing output power up to 500 Amps.

Products are available in DC and ACDC configurations and have multiple options for the front control panel where the operator can have full adjustability (ControlPro) or a more simplified version that pre-sets many of the background parameters (BasicPlus).

The Lorch way is not to just build a great power source but to build a leading, fully integrated, complete functional workstation. Integrated watercoolers, cart systems and smart controlled TIG torches (up to 16 metres from the power source), are some of the optional accessories available to create the best custom end-user solution.

### Series Overview

#### HandyTIG

The entry level HandyTIG series has 240V input and is available in 180 and 200 Amp DC and ACDC configurations. Systems are light weight and highly portable from 5.7kg. Operation is intuitive and easy to use. Rating is IP23S for indoor & outdoor use.



#### T Series

The industrial grade T Series has 240V and 415V input and is available in 180, 220, 250 and 300 Amp DC and ACDC configurations. Systems are light weight and highly portable from 12.2kg. Fully featured for professional use with a full line of accessories available to create optimised end-user solutions. Rating is IP23S for indoor & outdoor use.



#### T-Pro & TF-Pro Series

The industrial grade TF-Pro Series 415V input and is available in 250 and 300 Amp DC and ACDC configurations. TF-Pro system incorporates a fully integrated cold wire feed system, feeding wire into the weld pool from a MIG wire spool to drive productivity. Fully featured for professional use with a full line of accessories available to create optimised end-user solutions.



#### V Series

The V series represents the flagship top of the range, fully featured 415V input, DC or ACDC systems. Available in 240, 270, 300, 400 and 500 Amp outputs, designed for medium to heavy industrial production use. Fully integrated water cooling and ultra-fast pulse capability up to 20kHz.



## The HandyTIG series at a glance

MADE IN GERMANY



- **Mobile TIG welding inverter.**  
Since HandyTIG machines boast similar performance characteristics as large industrial TIG systems, both when connected to the 230V mains and used on generators at the construction site, your workshop will always be afforded the performance necessary to complete all TIG welding jobs.
- **Automatic gas management.** Automatic gas management is applied to automatically regulate the gas pre-flow and post-flow, thereby protecting tungsten electrode and weld pool against oxidation.



- **Intuitive operation.** Offering exceptional ease of use and intuitive operation, the Lorch HandyTIG series allows you to produce outstanding welding results in no time thanks to its automatic setting control.
- **Changeover DC to AC.** Offering you an effortless way to toggle between DC and AC, the Lorch HandyTIG 180 AC/DC and the HandyTIG 200 AC/DC allows you to also weld on aluminium.
- **Pulse and fast pulse.** The integrated pulse function with up to 2 kHz and up to 500 Hz, which comes standard, respectively, in the AC/DC and DC variants of the Lorch HandyTIG, offers you additional benefits when welding thin sheets.
- **Connection for hand or foot remote control.** We offer a variety of hand or foot remote controls for the Lorch HandyTIG series that allow you to adjust the welding current.
- **Electrode welding function.** Electrode welding with Hotstart, Anti-Stick and Arc-Force regulation: The automatic Hotstart feature guarantees perfect ignition every time, while the Anti-Stick system reliably prevents the electrode from sticking, and Arc-Force regulation supports the welding process by providing for increased arc stability and optimised metal transfer.
- **Energy-efficient.** The Lorch HandyTIG utilises cutting-edge industrial electronics and fan-on-demand technology to achieve a superior level of efficiency and exceptionally low power consumption.
- **Intelligent Torch Control.** Intelligent Torch Control enables Lorch HandyTIG 180 AC/DC and HandyTIG 200 AC/DC machines to automatically detect whether the welder uses a standard torch or one of the fully digital Lorch i-Torch torches with Powermaster remote control.
- **Job memory.** You can use the job memory (ControlPro) to store 2 welding jobs each for electrode and TIG welding.
- **Safety.** Bearing the IP23 and S-symbol, the series is ideal for outside applications.

## Versions

|                            |   | Handy 180                 | HandyTIG 180 DC           | HandyTIG 180 AC/DC   | HandyTIG 200 AC/DC   |
|----------------------------|---|---------------------------|---------------------------|--|--|
| Welding range              | A | 5-180                     | 5-180                     | 3-180  | 3-200  |
| Mains connection 1~230 V   |   | ●                         | ●                         | ●  | ●  |
| <b>Operating concept</b>   |   |                           |                           |  |  |
| BasicPlus                  |   | ●                         | ●                         | –  | –  |
| ControlPro                 |   | –                         | ●                         | ●  | ●  |
| <b>Variants</b>            |   |                           |                           |  |  |
| DC system                  |   | –                         | ●                         | –  | –  |
| AC/DC system               |   | –                         | –                         | ●  | ●  |
| <b>Equipment</b>           |   |                           |                           |  |  |
| High-frequency ignition    |   | –                         | ●                         | ●  | ●  |
| ContactTIG ignition        |   | ●                         | ●                         | ●  | ●  |
| Gas management             |   | ●                         | ●                         | ●  | ●  |
| Electrode welding function |   | –                         | ●                         | ●  | ●  |
| <b>Application</b>         |   |                           |                           |  |  |
| Area                       |   | steel and stainless steel | steel and stainless steel | steel and stainless steel with up to 10mm and aluminium with up to 5mm | steel and stainless steel with up to 10mm and aluminium with up to 5mm |

● Configuration options    ● Standard equipment

## Operating concepts



### BasicPlus

- “3 steps to weld” operating concept
- Infinitely variable current setting
- Switch 2-stroke/4-stroke
- Remote control connection



### ControlPro

- “3 steps to weld” operating concept
- Infinitely variable current setting
- Exact-ampere digital display
- Switch 2-stroke/4-stroke
- Remote control connection
- Pulse function
- Job memory for 2 TIG and 2 electrode welding tasks each
- Suitable for use with Lorch's UpDown remote control torch



## Highlights

### Aluminium welding with AC/DC

TIG-AC  
welding

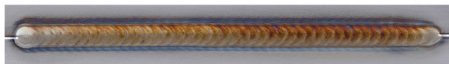


### Stainless steel welding with AC/DC

TIG-DC  
welding



TIG-DC pulse  
welding



### Non-contact HF ignition



HF ignition

The TIG arc is ignited without direct contact by high-voltage pulses. Ignition is triggered with the press of a button to ensure that the tungsten electrode does not come into contact with the workpiece. Putting an end to welds with tungsten inclusions, this technology reduces the strain on the electrode.

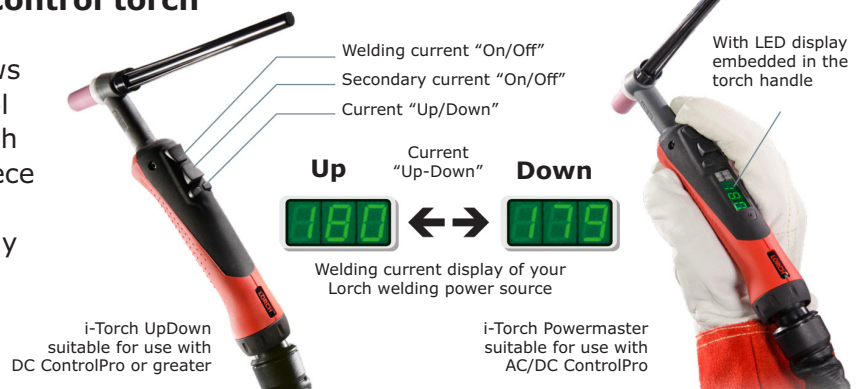


ContactTIG

When working in HF-sensitive environments or on tools, the operator has the additional option of switching to ContactTIG (contact ignition).

### Can also be used with remote control torch

The ControlPro operating system allows you to use the UpDown remote control torch as well as the classic double push button torch. Moving between workpiece and welding machine is in the past. You control the welding current skilfully and easily from the torch.



### Technical data

|                                  |    | Handy 180                        | HandyTIG 180 DC                  | HandyTIG 180 AC/DC                          | HandyTIG 200 AC/DC                          |
|----------------------------------|----|----------------------------------|----------------------------------|---|---|
| Welding process                  |    | TIG   Electrode                  | TIG   Electrode                  | TIG   Electrode                             | TIG   Electrode                             |
| Electrode Ø                      | mm | 1.0 - 2.4   1.5 - 4.0            | 1.0 - 3.2   1.5 - 4.0            | 1.0 - 3.2   1.5 - 4.0                       | 1.0 - 4.0   1.5 - 4.0                       |
| Weldable material TIG            |    | Steel, stainless steel<br>copper | Steel, stainless steel<br>copper | Steel, stainless steel<br>copper, aluminium | Steel, stainless steel<br>copper, aluminium |
| Weldable material Electrode      |    | Steel, stainless steel           | Steel, stainless steel           | Steel, stainless steel                      | Steel, stainless steel                      |
| Welding range                    | A  | 5 - 180   10 - 150               | 5 - 180   10 - 150               | 3 - 180   10 - 150                          | 3 - 200   10 - 170                          |
| Duty cycle I max. (40°C)         | %  | 30   40                          | 30   40                          | 35   35                                     | 45   45                                     |
| Current at 60% duty cycle (40°C) | A  | 150   135                        | 150   135                        | 150   110                                   | 180   120                                   |
| HF ignition                      |    | –                                | ●                                | ●   | ●   |
| Mains voltage                    | V  | 1~230                            | 1~230                            | 1~230                                       | 1~230                                       |
| Dimensions (L x W x H)           | mm | 337 x 130 x 211                  | 337 x 130 x 211                  | 480 x 185 x 326                             | 480 x 185 x 326                             |
| Weight                           | kg | 5.7                              | 6.5                              | 13.3  | 13.4  |

● Standard equipment



## The T series at a glance

- **Mobile TIG welding inverter.** Jobs that used to require enormous welding machines are mastered with ease today by our T-series machines, which take up only minimal space and boast superior technology as well as extraordinary TIG welding characteristics. Good ergonomics and easy to carry from only 12kg. Ideal for applications on the go.



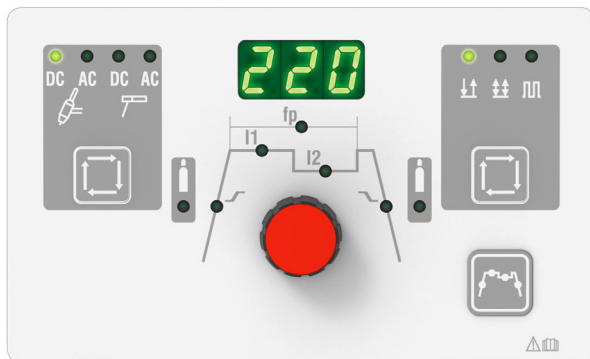
- **Pulse and fast pulse up to 2kHz.** The standard pulse function with up to 2kHz that is built into every machine offers you additional benefits when welding thin plates.
- **Low energy consumption.** The on-demand function automatically turns the components of the unit on and off as needed. Thermal control sensors monitor the temperature of the machine and regulate the speed of the fan accordingly. This smart technology reduces fan noise and dust levels in the machine compartment and helps conserve energy.
- **First-rate welding performance.** High-end technology and the SmartBase parameter database control the arc to produce flawless results.
- **Changeover from DC to AC (AC/DC only).** Available as DC and AC/DC versions in all power variants, Lorch's T series provides you with maximum flexibility even during aluminium welding.
- **Non-contacting HF ignition.** The TIG arc is ignited without direct contact by high-voltage pulses. Ignition is triggered with the press of a button to ensure that the tungsten electrode does not come into contact with the workpiece. Putting an end to welds with tungsten inclusions, this technology reduces the strain on the electrode. When working in HF-sensitive environments or on tools, the operator has the additional option of switching to ContactTIG (contact ignition).
- **Tiptronic.** Using the Tiptronic facility in the ControlPro version, you save your ideal setting for each weld so that you can effortlessly retrieve the settings one at a time using the Up-Down or Powermaster torch when performing recurring welding tasks.
- **Optional equipment.** While designed for mobile applications, the Lorch T series can be converted into a handy, yet fully capable machine suitable for use in the workshop by upgrading it with an optional water cooling system. When mounted on an optional Maxi Trolley, it fully retains its mobile capabilities even with the water cooling system fitted.
- **Intelligent Torch Control.** Thanks to Intelligent Torch Control (ITC), Lorch's smart torch control system, the machines included in the T series are capable of detecting whether the inserted torch is a standard torch or one of Lorch's i-Torch torches. These systems offer an extensive range of protective features for the torch and afford the welder a significant amount of added convenience.
- **Protected against falls from a height of up to 60cm.** Thanks to its exceptionally low weight, the Lorch T series is easy to carry yet fully protected against falls from a height of up to 60cm.

## Versions

|                           |   | T 180   | T 220   | T250    | T 300   |
|---------------------------|---|---------|---------|---------|---------|
| Welding range             | A | 3 – 180 | 3 – 220 | 5 – 250 | 5 – 300 |
| Mains connection 1~230 V  |   | ●       | ●       | –       | –       |
| Mains connection 3~400 V  |   | –       | –       | ●       | ●       |
| <b>Operating concepts</b> |   |         |         |         |         |
| BasicPlus                 |   | ●       | ●       | ●       | ●       |
| ControlPro                |   | ●       | ●       | ●       | ●       |
| <b>Variants</b>           |   |         |         |         |         |
| DC system                 |   | ●       | ●       | ●       | ●       |
| AC/DC system              |   | ●       | ●       | ●       | ●       |

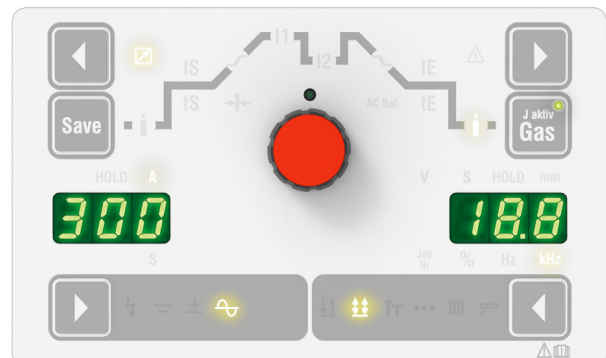
● Configuration options ● Standard equipment

## Operating concepts



### BasicPlus

- “3 steps to weld” operating concept
- User-oriented guidance using illuminated symbols and welding sequence control
- Infinitely variable current setting
- Exact-ampere digital display
- Switch 2-stroke/4-stroke
- Remote control connection
- LorchNet, e.g. for controlling the optional water cooling unit
- Pulse function
- Possibility for connection of the Lorch Powermaster remote control torch



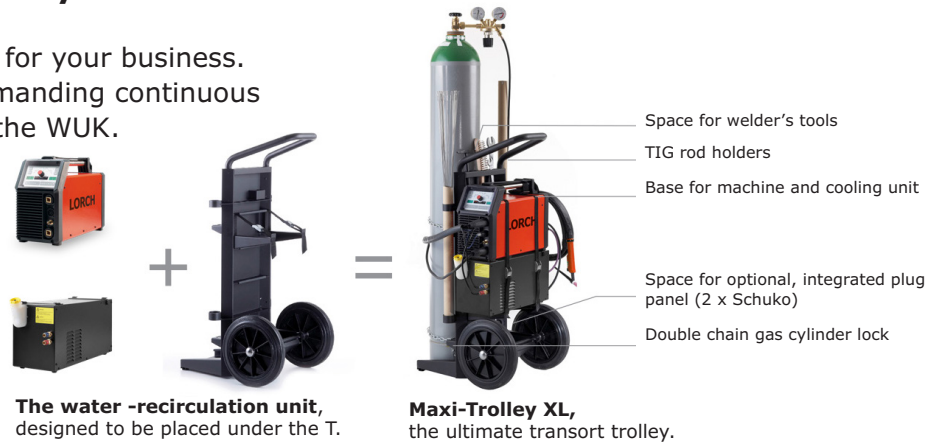
### ControlPro

- “3 steps to weld” operating concept
- User-oriented guidance using illuminated symbols and welding sequence control
- Infinitely variable current setting
- Digital display for welding current and welding voltage
- Switch 2-stroke/4-stroke
- Remote control connection
- LorchNet, e.g. for controlling the optional water cooling unit
- Pulse function
- Tiptronic job memory for 100 welding tasks
- Possibility for connection of the Lorch Powermaster remote control torch

## Highlights

### Everything you need, perfectly stowed

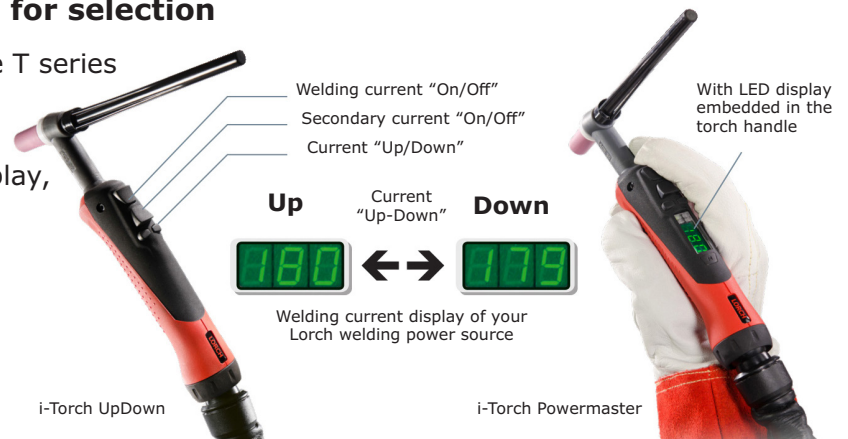
It is "the" complete TIG system for your business. You also overcome the most demanding continuous use with the watercooling unit, the WUK. The system is quickly fixed and the accessories perfectly stowed on the Maxi Trolley, the stable transport carriage.



### ITC makes it possible: 2 torches for selection

ITC, intelligent torch control, allows the T series to detect whether a standard torch is connected or a Lorch i-Torch, such as a Powermaster with digital display, consequently causing the machine to automatically provide the corresponding functionality.

**i-Torch**



## Technical data

|                                       |    | T 180             |                   | T 220             | T 250             | T 300 |
|---------------------------------------|----|-------------------|-------------------|-------------------|-------------------|-------|
| Welding current – TIG                 | A  | 3 – 180           | 3 – 220           | 5 – 250           | 5 – 300           |       |
| Welding current – electrode           | A  | 10 – 150          | 10 – 180          | 10 – 200          | 10 – 200          |       |
| Current at 100% duty cycle(DC  AC/DC) | A  | 130               | 160               | 175               | 200   180         |       |
| Current at 60% duty cycle (DC  AC/DC) | A  | 150               | 180               | 200               | 250   220         |       |
| Duty cycle I max. (DC  AC/DC)         | %  | 35                | 40                | 35                | 35   30           |       |
| Mains voltage                         | V  | 1~230             | 1~230             | 3~400             | 3~400             |       |
| Permitted mains tolerance             | %  | ± 15              | ± 15              | ± 15              | ± 15              |       |
| Mains fuse, delayed action            | A  | 16                | 16                | 16                | 16                |       |
| Dimensions (L x W x H) (DC  AC/DC)    | mm | 430   483x185x325 | 430   483x185x325 | 430   483x185x325 | 430   483x185x325 |       |
| Weight (DC  AC/DC)                    | kg | 12.2   13.3       | 12.3   13.4       | 14.3   16.3       | 14.5   16.3       |       |



## The T-Pro/TF-Pro series at a glance

MADE IN GERMANY



- **Unrivalled TIG welding characteristics thanks to inverter technology.**

Distinguished by their high efficiency and superb welding characteristics, inverters utilise digital software control technology that has a significant influence on the outcome of the welding process.

- **Pulse and fast pulse up to 2kHz.**

The standard pulse function with up to 2kHz that is built into every machine offers you additional benefits when welding thin plates.

- **Also available with integrated water cooling.**

The water-cooled variants of the Lorch T-Pro series come with a water cooling system that is housed in a compact mobile case, making it perfectly suited for use at workshops on site.



- **Changeover DC to AC.** Available as DC and AC/DC versions in all power variants, Lorch's T series provides you with maximum flexibility even during aluminium welding.

- **TF-Pro.** The wire feeder integrated into the TF-Pro 300 reliably feeds the filler metal to the weld pool. A 4-roll feed motor with a specially tuned gearbox combination is in charge of guiding the wire along. The cold wire feed is controlled using the removable operating panel.

- **Remote control.** Welders often find that the conditions on site do not allow them to place their welding machine right beside them. A remote control is helpful as it allows them to easily intervene and adjust the welding current if necessary. This is why Lorch offers a large variety of different hand and foot remote controls that are ready for use right away thanks to their plug & play support.

- **Low energy consumption.** The on-demand function automatically turns the components of your Lorch T-Pro 250 on and off as needed. Thermal control sensors monitor the

temperature of the machine and regulate the speed of the fan accordingly. This smart technology reduces fan noise and dust levels in the machine compartment and helps conserve energy.

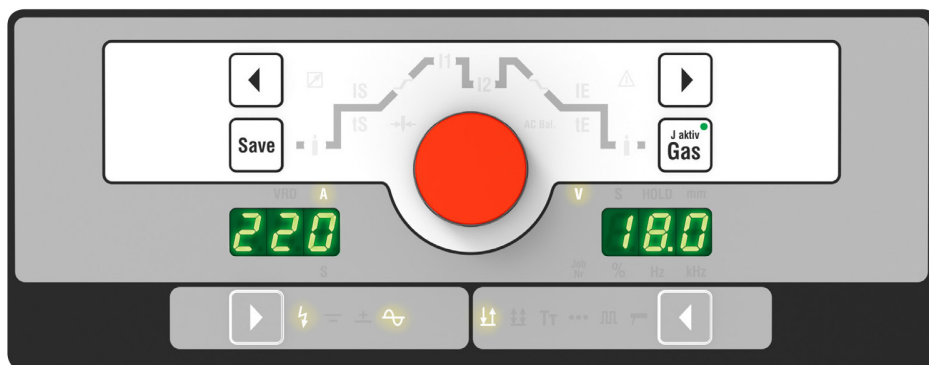
- **Interval-spot function.** Lorch's interval-spot function reduces distortion during thin sheet metal welding.
- **Non-contacting HF ignition.** The TIG arc is ignited without direct contact by high-voltage pulses. Ignition is triggered with the press of a button to ensure that the tungsten electrode does not come into contact with the workpiece. Putting an end to welds with tungsten inclusions, this technology reduces the strain on the electrode. When working in HF-sensitive environments or on tools, the operator has the additional option of switching to ContacTIG (contact ignition).
- **Intelligent Torch Control.** Intelligent Torch Control enables each machine to automatically detect whether the welder uses a standard torch or one of the latest, fully digital Lorch i-Torches including Powermaster remote control.

## Versions

|  | T-Pro 250 | T-Pro 300 | TF-Pro 300 |
|--|-----------|-----------|------------|
| Welding range  | A 5 – 250 | 5 – 300   | 5 – 300    |
| Mains connection 3~400 V                             | ●         | ●         | ●          |
| <b>Operating concepts</b>                            |           |           |            |
| ControlPro   | ●         | ●         | ●          |
| <b>Variants</b>                                      |           |           |            |
| DC system  | ●         | ●         | ●          |
| AC/DC system   | ●         | ●         | ●          |
| <b>Cooling variants</b>                              |           |           |            |
| Gas  | ●         | ●         | ●          |
| Water  | ●         | ●         | ●          |
| <b>Equipment</b>                                     |           |           |            |
| Integrated 4-roll wire feeder for TIG cold wire feed | – –       | ●         |            |
| Removable operating panel for setting the wire feed  | –         | –         | ●          |

● Configuration options ● Standard equipment

## Operating concept



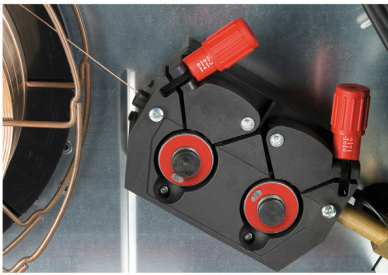
### ControlPro

- “3 steps to weld” operating concept
- User-oriented guidance using illuminated symbols and detailed welding sequence control
- Infinitely variable current setting
- Switch 2-stroke/4-stroke
- Remote control connection
- Tiptronic job memory for 100 welding tasks
- TF-Pro also comes with a removable manual operating panel that controls the TIG cold wire feed

## Highlights

### Maximum TIG productivity thanks to integrated cold wire feed

The fully integrated wire feeder of the TF-Pro with its separate, removable operating panel and special cold wire controller reliably feeds the filler metal to the weld pool. The high-quality 4-roll feed motor with its specially tuned gearbox combination is in charge of feeding the wire in a reliable manner. The wire outlet, which is pointing down diagonally, combined with the Fast Connect System (FCS) of Lorch's TIG cold wire torch ensures that the wires are threaded in easily and unwind in a reliable manner even when made of aluminium.



Quality wire feeder with 4 rollers.



Resistance-optimised wire guide thanks to angled torch connection.



Removable control panel for controlling the cold wire feed.

### Water cooling including fill level indicator

Well thought out in every detail. The level gauge built into systems that are cooled by water recirculation makes it a breeze to check the fill level of the coolant. Coolant can be refilled through the filler plug installed at the rear.



### TOP performance with SmartBase

SmartBase, the Lorch expert database, perfectly controls the arc. The user-oriented guidance uses an array of illuminated symbols to allow for detailed welding sequence control. The Tiptronic facility allows you to store an additional 100 welding jobs.

## Technical data

|                                       |    | T-Pro 250       | T-Pro 300       | TF-Pro 300      |
|---------------------------------------|----|-----------------|-----------------|-----------------|
| Welding current – TIG                 | A  | 5 – 250         | 5 – 300         | 5 – 300         |
| Welding current – electrode           | A  | 10 – 200        | 10 – 200        | 10 – 200        |
| Current at 100% duty cycle(DC  AC/DC) | A  | 180   200       | 230   200       | 230   200       |
| Current at 60% duty cycle (DC  AC/DC) | A  | 250   230       | 270   230       | 270   230       |
| Duty cycle I max. (DC  AC/DC)         | %  | 60   45         | 45   30         | 45   30         |
| Mains voltage                         | V  | 3~400           | 3~400           | 3~400           |
| Permitted mains tolerance             | %  | ± 15            | ± 15            | ± 15            |
| Mains fuse, delayed action            | A  | 16              | 16              | 16              |
| Dimensions (L x W x H)                | mm | 880 x 400 x 755 | 880 x 400 x 755 | 880 x 400 x 755 |
| Weight, gas cooled (DC  AC/DC)        | kg | 43.4   45.5     | 43.6   45.5     | 52   53.5       |
| Weight of the water cooling unit      | kg | 15.2            | 15.2            | 15.2            |

## The V series at a glance

MADE IN GERMANY



**3** YEARS  
INDUSTRIAL  
WARRANTY  
LORCH  
Conditions apply



- Powerful TIG.** Unrivalled TIG technology squeezed into a robust industrial housing and combined with tried-and-tested inverter technology guarantees unsurpassed real world performance and maximum productivity.
- Plain text display with language selection and Tiptronic.** Thanks to the clearly structured user interface and the slanted operating panel, the device control remains well visible throughout operation and affords the user an ergonomic operating position. You select the AC or DC function, the electrode diameter and the welding current based on the machine you are using. When working in Tiptronic mode, you can then save your ideal setting for each weld.
- Aluminium welding (AC/DC variant).** Positive polarity ignition and automatic cap shape produce a perfectly shaped arc during aluminium welding. The special amplitude of the alternating current combined with an optimised current balance yields an excellent cleaning effect and a manageable weld pool.
- Pulsing and ultra-fast pulsing up to 20kHz.** The standard pulse function with up to 20kHz that is built into every machine offers you additional benefits when welding thin sheets and delivers greater welding speeds during automated applications.
- In a robust, completely transportable industrial housing.** The tough metal housing safely protects the high-end technological innards of your system. Completely transportable at the handles, it is also suitable for crane transport.
- Remote control.** Welders often find that the conditions on site do not allow them to place their welding machine right beside them. A remote control is helpful as it allows them to easily intervene and adjust the welding current if necessary. This is why Lorch has included a large variety of different hand and foot remote controls in their V series, which are ready for use right away thanks to their plug & play support.
- Automatic final current reduction.** Lorch's automatic final current reduction produces perfectly clean weld ends by filling the end crater.
- Low energy consumption.** The included on-demand function automatically turns the components of the unit on and off as needed. Thermal control sensors monitor the temperature of the components and regulate the speed of the fan accordingly. This smart technology reduces fan noise and dust levels in the machine compartment and helps conserve energy.
- Mobility.** The mobile version of the V series comes with a trolley wheelset, allowing you to carry the unit or to move it on its wheels.

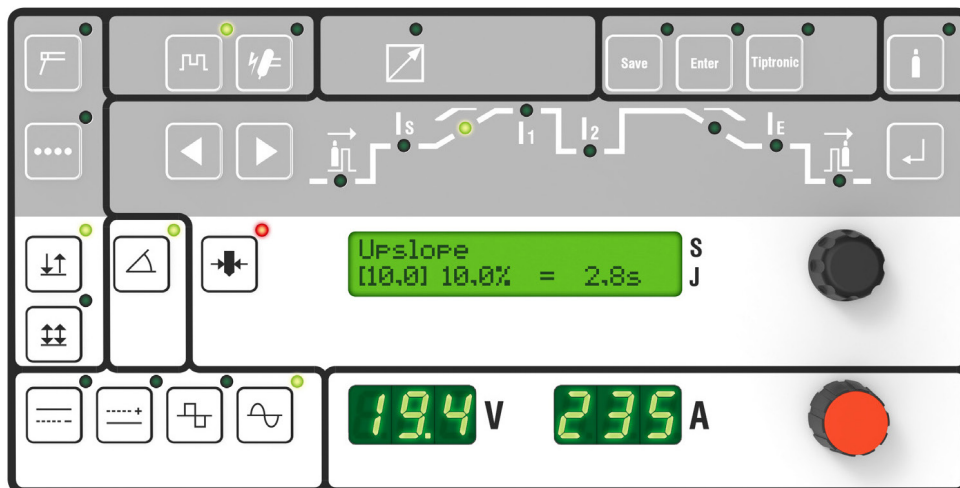


## Versions

|                                     |   | V24<br>mobile | V30<br>mobile | V24   | V27   | V30   | V40   | V50   |
|-------------------------------------|---|---------------|---------------|-------|-------|-------|-------|-------|
| Welding range                       | A | 3-240         | 3-300         | 3-240 | 3-270 | 3-300 | 3-400 | 3-500 |
| Mains connection 3~400 V            |   | ●             | ●             | ●     | ●     | ●     | ●     | ●     |
| <b>Operating concept</b>            |   |               |               |       |       |       |       |       |
| V standard                          |   | ●             | ●             | ●     | ●     | ●     | ●     | ●     |
| <b>Variants</b>                     |   |               |               |       |       |       |       |       |
| DC system                           |   | ●             | ●             | ●     | ●     | ●     | ●     | ●     |
| AC/DC system                        |   | ●             | ●             | ●     | ●     | ●     | ●     | ●     |
| with a Lorch Feed cold wire feeder  |   | ○             | ○             | ○     | ○     | ○     | ○     | ○     |
| <b>Cooling variants</b>             |   |               |               |       |       |       |       |       |
| Gas                                 |   | ●             | ●             | ●     | ●     | ●     | ●     | ●     |
| Water                               |   | ●*            | ●*            | ●     | ●     | ●     | ●     | ●     |
| <b>Machine variants</b>             |   |               |               |       |       |       |       |       |
| Mobile system with trolley wheelset |   | ●             | ●             | –     | –     | –     | –     | –     |
| Compact system                      |   | –             | –             | ●     | ●     | ●     | ●     | ●     |
| Feeder system                       |   | –             | –             | ●     | ●     | ●     | ●     | ●     |

\* with Mobile-Car transport trolley and separate water cooling unit    ● Configuration options    ● Standard equipment    ○ Optionally available

## Operating concept



### V standard

- “3 steps to weld” operating concept
- User-oriented guidance using illuminated symbols and detailed welding sequence control
- Infinitely variable current setting
- Digital display for welding current and welding voltage.
- Plain text display with language selection.
- Switch 2-stroke/4-stroke
- Remote control connection
- LorchNet, e.g. for controlling the optional Feed wire feeder and connecting Lorch automation components
- Pulse function
- Tiptronic job memory for 100 welding tasks

## Highlights

### The V mobile as a complete system

With Mobile Car and water-cooling unit – you are ready to roll. The V mobile sits at an ideal working height, the gas cylinder is fixed in its support and the torch is watercooled for optimum performance. The V remains “mobile” and at the same time has the 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  
re-circulation cooling unit WUK 5

### Everything to benefit your TIG productivity

Using the UpDown remote control torch, you are at the place where things happen – directly at your workpiece. You have the torch in your hand, control the welding process from there and also regulate the welding current with it.



The automatic cold wire feeder, Lorch Feed, automates the manual feeding of filler material.



### Pulsing and fast pulsing with up to 20kHz

Every Lorch V-series offers a pulse function for high-frequency pulses with up to 20kHz. The result is a focused arc with exceptional stability. The unit makes it possible to attain higher welding speeds at reduced heat input – especially for automated applications. The speed increase is particularly beneficial on thin metal sheets as it reduces warpage. The higher the pulse frequency, the more pleasant the welding noise. Depending on the base material, the unit may also help reduce temper colours during TIG welding with high-frequency pulses.

## Technical data

|                                       |    | V 24<br>mobile  | V 30<br>mobile  | V 24             | V 27             | V 30             | V 40             | V 50             |
|---------------------------------------|----|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|
| Welding current – TIG                 | A  | 3 – 240         | 3 – 300         | 3 – 240          | 3 – 270          | 3 – 300          | 3 – 400          | 3 – 500          |
| Welding current – electrode           | A  | 20 – 200        | 20 – 250        | 20 – 200         | 20 – 220         | 20 – 250         | 20 – 300         | 20 – 400         |
| Current at 100% duty cycle(DC  AC/DC) | A  | 220 190         | 270 240         | 220 210          | 250              | 250              | 360              | 380              |
| Current at 60% duty cycle (DC  AC/DC) | A  | 240 220         | 300 280         | 240 230          | 270              | 300              | 400              | 500              |
| Duty cycle I max. (DC  AC/DC)         | %  | 60   50         | 60   50         | 60   50          | 60               | 60               | 50               | 60               |
| Mains voltage                         | V  | 3~400           | 3~400           | 3~400            | 3~400            | 3~400            | 3~400            | 3~400            |
| Permitted mains tolerance             | %  | ± 15            | ± 15            | ± 15             | ± 15             | ± 15             | ± 15             | ± 15             |
| Mains fuse, delayed action            | A  | 16              | 16              | 16               | 16               | 32               | 32               | 32               |
| Dimensions (L x W x H)                | mm | 812x283x<br>518 | 812x283x<br>518 | 1130x450x<br>815 | 1130x450x<br>815 | 1130x450x<br>815 | 1130x450x<br>860 | 1130x450x<br>860 |
| Weight, gas cooled (DC  AC/DC)        | kg | 29.4 35.1       | 31 37           | 84.6 90.5        | 85 92            | 86.4 93.6        | 107.6 121.5      | 108.7 123.2      |
| Weight of the water cooling unit      | kg | 24.1            | 24.1            | 14.7             | 14.7             | 14.7             | 14.7             | 14.7             |



# FEED. TIG COLD WIRE FEEDER FOR AUTOMATION & MANUAL WELDING.

## The Feed

**Maximum TIG productivity.**  
**The TIG cold-wire feeder automates the manual feeding operation.**

The Lorch Feed delivers superior TIG quality and high speed with absolute precision. The Feed has a completely digital controller, a tachometer-regulated feed motor and a 4-roll precision feeder for the exact wire delivery for this.



## The Feed at a glance

- **Wire feeder.** The 4-roll precision feeder with tachometer-regulated feed motor provides for exact wire delivery.
- **Digital speed feedback.** For perfectly accurate wire delivery.
- **Plain text display with language selection and Tiptronic.** Thanks to the clearly structured user interface and the slanted operating panel, the device control remains well visible throughout operation

and affords the user an ergonomic operating position. When working in Tiptronic mode, you can then save your ideal setting for each weld.

- **Plug&Weld: LorchNet.** The one cable that connects everything: both during manual and automated welding.
- **Feed 2.** Cold wire feed with separate, removable power supply unit for work in electrically sensitive areas.



Feed application area: to perform manual welding tasks, simply adapt it to your Lorch V-series using the LorchNet interface.



Range of feed applications: as a fully integrated part of Lorch's automation solutions.

## Technical data

|                        |       | Feed 1  | Feed 2  |
|------------------------|-------|---|---|
| Feeder speed           | m/min | 0.1 - 6.0 or 0.5 - 20.0                                 | 0.1 - 6.0 or 0.5 - 20.0                                 |
| Drive/feeder           |       | 4-roll/tacho-regulated motor/<br>digital speed feedback | 4-roll/tacho-regulated motor/<br>digital speed feedback |
| Mains voltage          | V     | 230   | 42/230  |
| Mains plug             |       | Schuko  | detachable power supply unit/Schuko                     |
| Dimensions (L x W x H) | mm    | 670 x 270 x 500   | 670 x 270 x 500   |
| Weight                 | kg    | 21.5  | 21.5*   |

\* Excluding power supply unit

## LORCH TIG TORCHES. PERFECT CONTROL MADE SIMPLE

### The TIG torch series at a glance

- **Ergonomics.** The unique design of the torch made it possible to reduce the distance between control button and arc. The elevated secondary current button is sure to avoid any unintended adjustments of the welding current and other parameters. Available in 2 sizes.
- **HeatProtect.** A heat sensor provides thermal protection and safeguards the high-quality electronic control system against overheating. (i-version)
- **TorchProtect.** When activated in the welding machine, the optional Torch-Protect automatically detects the connected TIG torch and prevents the torch from being subjected to a current that exceeds the maximum rating of that particular torch. This feature protects the torch against overload. (i-version)



- **Equally comfortable for lefties.** A simple press and hold of the Mode button for seven seconds in the Powermaster variant will switch the display to a view that is appropriate for left-handed users.
- **Powermaster control.** The Powermaster variant lets you control all essential parameters of your welding jobs directly at the torch
- **Cold wire torch.** Integrated, automatic cold wire feed.
- **Tiptronic.** Using the Tiptronic facility, you simply save the ideal setting for each weld in the required sequence. The job memory makes it quick and easy to load up to 100 work values one after the other when you need them.
- **Flexibility.** The ball joint found at the handle and the resilient leather flex hose package guarantee superior freedom of movement and ease of use.
- **Stability.** The decreased distance between the controls of the torch, which optimises the torch's centre of gravity, allows the operator to control the torch in a safe and reliable manner and to keep the arc steady whilst manipulating the torch.
- **Safety.** The elevated secondary current button reliably prevents any inadvertent operation of the UpDown button.
- **Versatile.** The hose package included with the TIG torch is available as a 4m and an 8m option.



## Versions

|                           |   | a-LTG/i-LTG<br>900 | a-LTG/i-LTG<br>1700 | a-LTG/i-LTG<br>2600 | a-LTG/i-LTG<br>2800 | LTV 1700 | LTV 2600 |
|---------------------------|---|--------------------|---------------------|---------------------|---------------------|----------|----------|
| Welding range up to       | A | 110                | 140                 | 180                 | 300                 | 150      | 200      |
| <b>Operating concepts</b> |   |                    |                     |                     |                     |          |          |
| Double push button (DD)   |   | ●                  | ●                   | ●                   | ●                   | –        | –        |
| UpDown (UD)               |   | ●                  | ●                   | ●                   | ●                   | –        | –        |
| Powermaster (PM)          |   | ●                  | ●                   | ●                   | ●                   | –        | –        |
| Valve setting dial        |   | –                  | –                   | –                   | –                   | ●        | ●        |
| <b>Cooling</b>            |   |                    |                     |                     |                     |          |          |
| Gas                       |   | ●                  | ●                   | ●                   | ●                   | ●        | ●        |

|                           |   | a-LTW/i-LTW<br>2000 | a-LTW/i-LTW<br>3000 | a-LTG/i-LTW<br>1800 | a-LTW/i-LTW<br>1800 SC | a-LTW/i-LTW<br>4500 |
|---------------------------|---|---------------------|---------------------|---------------------|------------------------|---------------------|
| Welding range up to       | A | 220                 | 320                 | 320                 | 400                    | 450                 |
| <b>Operating concepts</b> |   |                     |                     |                     |                        |                     |
| Double push button (DD)   |   | ●                   | ●                   | ●                   | ●                      | ●                   |
| UpDown (UD)               |   | ●                   | ●                   | ●                   | ●                      | ●                   |
| Powermaster (PM)          |   | ●                   | ●                   | ●                   | ●                      | ●                   |
| <b>Cooling</b>            |   |                     |                     |                     |                        |                     |
| Gas                       |   | ●                   | ●                   | ●                   | ●                      | ●                   |

● Configuration options ● Standard equipment

## Operating concepts



### Double Push button (DD)

- Two ergonomically shaped push buttons
- Button 1: Switch current On/Off
- Button 2: Trigger secondary current
- Available as a-version and i-version



### UpDown (UD)

- Two ergonomically shaped push buttons
- Button 1: Switch current On/Off
- Button 2: Trigger secondary current
- Now including remote power source control
- Available as a-version and i-version



### Powermaster (PM)

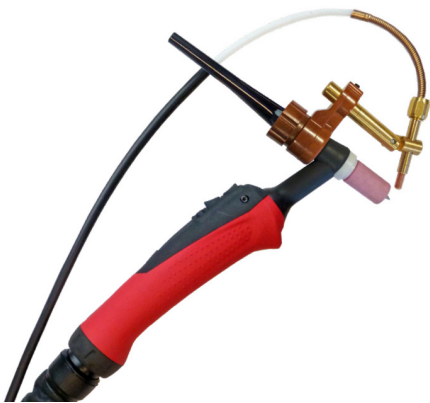
- Two ergonomically shaped push buttons
- Button 1: Switch current On/Off
- Button 2: Trigger secondary current
- Now including remote power source control
- With integrated display of various welding parameters
- Including toggle feature for left and right-handed operators
- Mode button: toggle between amperage control and Tiptronic job mode
- Option to freely select two additional features (can be anything able to be adjusted at the machine)
- Available as i-version

## Highlights

### Powermaster

When used in combination with UpDown torch functionality, the digital display shows you everything you need at a glance and lets you control the welding current with one-amp accuracy. What is more, the job memory allows you to load the settings you used during your best welding jobs in a flash. You can also adjust any two parameters you previously set for your system and customise them on the control panel of the torch (AC Bal, AC Freq, Pulse Freq etc).

You can enjoy Powermaster functionality on all Lorch machines that are equipped with ITC-Inside. (MicorTIG series, HandyTIG AC/DC , T series and T-Pro-/TF-Pro series)



### Cold wire torch

- Integrated, automatic cold wire feed
- Available as UD, DD and PM i-Torch torches
- Wide-ranging cold wire feed adjustment and setting options
- For TIG DC and AC cold wire welding
- Adapter ring rotates and can be locked into place

## Technical data

|                      |    | a-LTG 900<br>i-LTG 900 | a-LTG 1700<br>i-LTG 1700 | a-LTG 2600<br>i-LTG 2600 | a-LTG 2800<br>i-LTG 2800 | LTV 1700  | LTV 2600  |
|----------------------|----|------------------------|--------------------------|--------------------------|--------------------------|-----------|-----------|
| Type of cooling      |    | Gas                    | Gas                      | Gas                      | Gas                      | Gas       | Gas       |
| Load DC   AC         | A  | 110   80               | 140   100                | 180   130                | 300   250                | 150   120 | 200   160 |
| Duty cycle           | %  | 35                     | 35                       | 35                       | 35                       | 60        | 60        |
| Electrode Ø          | mm | 1.0 - 1.6              | 1.0 - 2.4                | 1.0 - 4.0                | 1.0 - 4.0                | 1.0 - 2.4 | 1.0 - 4.0 |
| Hose package lengths | m  | 4   8                  | 4   8                    | 4   8                    | 4   8                    | 4   8     | 4   8     |
| Handle recess size   |    | 1                      | 1                        | 2                        | 2                        | –         | –         |
| as a cold wire torch |    | –                      | –                        | ○                        | ○                        | –         | –         |

|                      |    | a-LTW 2000<br>i-LTW 2000 | a-LTW 3000<br>i-LTW 3000 | a-LTW 1800<br>i-LTW 1800 | a-LTW 1800 SC<br>i-LTW 1800 SC | a-LTW 4500<br>i-LTW4500 |
|----------------------|----|--------------------------|--------------------------|--------------------------|--------------------------------|-------------------------|
| Type of cooling      |    | Water                    | Water                    | Water                    | Water                          | Water                   |
| Load DC   AC         | A  | 220   165                | 320   230                | 320   230                | 400   280                      | 450   360               |
| Duty cycle           | %  | 100                      | 100                      | 100                      | 100                            | 100                     |
| Electrode Ø          | mm | 1.0 - 3.2                | 1.0 - 3.2                | 1.0 - 4.0                | 0.5 - 4.0                      | 1.6 - 6.4               |
| Hose package lengths | m  | 4   8                    | 4   8                    | 4   8                    | 4   8                          | 4   8                   |
| Handle recess size   |    | 1                        | 1                        | 2                        | 2                              | 2                       |
| as a cold wire torch |    | –                        | ○                        | ○                        | –                              | –                       |

○ Optionally available

## Notes

**Lorch South Pacific Pty Ltd**

A subsidiary of

Lorch Schweißtechnik GmbH

Im Anwänder 24-26 · 71549 Auenwald · Germany

T +49 7191 503-0 · F +49 7191 503-199

info@lorch.eu · www.lorch.com.au

**LORCH**  
smart welding