
Project No:	
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Lorch Hotwire System

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01	05.11.2015	Rebuild	HTR	Draft
02	18.03.2016	Update	HTR	Draft
03				
04				
05				

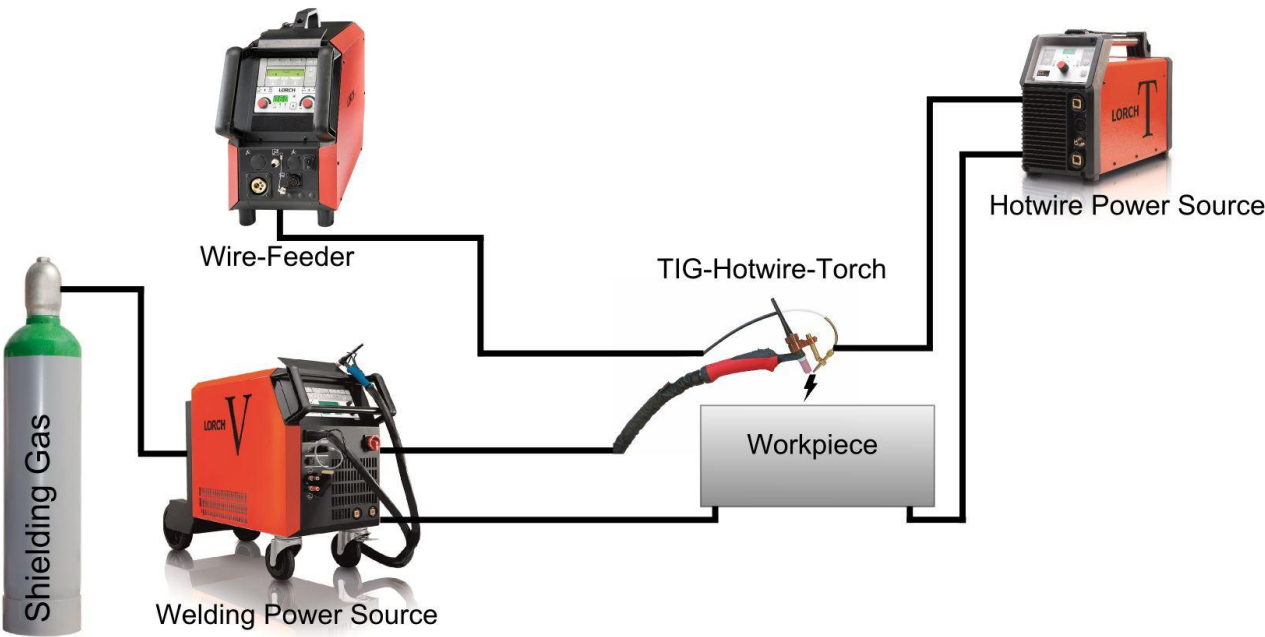
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1 Introduction

The Lorch Hotwire System consists of several individual devices. It is designed for maximum flexibility and efficiency. All parts of the system could be used as stand-alone-devices. To synchronize the process they can be connected via LorchNet. For automation applications the system can be connected to many field-bus-systems via the LorchNetConnector.

2 Overview of the System



3 Welding Power Source

The Lorch product portfolio includes a lot of different TIG power sources. From the portable T-Series through the T-Pro and TF-Pro with integrated water cooling and wire feeder to the high-end V-Series, all TIG power sources can be used for the Lorch Hotwire System.



<https://www.lorch.eu/en/productworld/t-300/>



<https://www.lorch.eu/en/productworld/t-pro-300/>



<https://www.lorch.eu/en/productworld/tf-pro-300/>



<https://www.lorch.eu/en/productworld/v-50/>

4 Wire Feeder

The Hotwire System can be used with the Lorch Feed 1 & 2 or with the Robo-Feeder RF05 CWT. The Lorch Feed 1 is build for manual and simple automation welding. For applications in environments with increased electrical hazard the Feed 2 with an external power supply is available.

The RF05 CWT is designed for robotic application, so is compact, lightweight, yet powerful and, of course, perfectly insulated to reliably protect the electronic system of the robot.



Lorch Feed 1 & 2



Lorch RF05 CWT

The Feed at a glance

- ✓ 4-rolls precision wire feeder
- ✓ Tacho-regulated feeder motor
- ✓ Electronically monitored and regulated wire feed speed
- ✓ Wire slip compensation
- ✓ Synchro Pulse, pulses the wire synchronously to the pulse of the welding current
- ✓ "3 steps to weld" operating concept
- ✓ Available with wire speed 0,1-6 m/min or with 0,5-20 m/min
- ✓ Plain text display with language selection
- ✓ Tiptronic job memory for up to 100 welding tasks
- ✓ Can be used for manual operation and as completely integrated part of the Lorch Automation construction kit
- ✓ Available with external power supply, for use in environments with increased electrical hazard (e.g. cramped conditions).
- ✓ Synergy function to control wire speed in dependence on the welding current

5 Hotwire Power Source

HWT220 DC
HWT220 AC/DC

- Synergy function
(wire feed speed / heating power)
- Voltage limitation
(max. 10V – no arc can be established)



6 LorchNetConnector for V-Series

The LorchNet Connector is responsible for establishing a perfect connection between the V-Series and the robot control. Effectively acting as an interpreter, the connector translates all signals and information of the internal LorchNet bus system into a language the robot can understand. This means that it converts the signals into one of the common field bus or industrial Ethernet protocols – from CANopen to DeviceNet and Ethernet / IP to Profi Net. The bus system also allows for the communication of all signals relevant to the control of the torch – blow-out function, anti-collision device and contact sensor. Its design makes it possible for you to integrate the V-Series into various different automation environments in a straightforward and flexible manner. What is more, the purely digital interface technology incorporated into LorchNet lets you connect the welding documentation system Lorch Q-Data or the welding data monitoring system Lorch Q-Sys by “plug and play”. You can use the operating panel of the power source, which also supplies the bus coupler with power, to control and configure the LorchNet Connector. Arranged externally at the rear of the power source housing, the LorchNet Connector can be switched to a different protocol swiftly and without big effort whenever the need arises. Another area in which Ready-to-Robot offers performance that is second to none is versatility as it allows companies, for instance, to use Lorch’s high-performance welding systems of the V-Series across all of their systems and, thereby, employ welding processes that increase their productivity despite the fact that they rely on different robotic systems for their production needs.

