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Valk Welding Beam Welder





As a fabricator of steel structures, you need:

- Sufficient and varying welding capacity to deliver your projects as scheduled.
- The flexibility of a manual welder to provide customized services.
- Independence from availability of welders on the market.
- Consistent and high quality despite the tolerances on the products.
- Assurance and monitoring of quality to meet ever increasing demands and expectations.
- A reliable partner that supports you not only in the short but also in the long term with maintenance, service and continues to innovate in order to further increase your distinctiveness in the market.

Valk Welding Beam Welder

As the market leader in Europe in the field of flexible welding robot systems, we have carefully examined these questions. A huge advantage is that we already have a lot of technology and experience ready on the shelf and that the new coming developments also fit perfectly with the needs of you as fabricator. The birth of our latest development APG (Automatic Program Generator) was the final link we needed to bring you a unique total solution: the Valk Welding Beam Welder.

Because the market is changing ever more rapidly, we have also paid a great deal of attention to the payback time, which may only be 3 to 4 years. And precisely because of this changing market, we are also very consciously opting for a growth model. Our first step is to weld your pre-assembled beams. With a relatively limited investment you can already earn most of your money. A possible second step is the assembly of your beams. Our Valk Welding Beam Welder can later be expanded to this level without any problems, or possibly be linked to another system.

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Key components 4

Welding technology

Quality

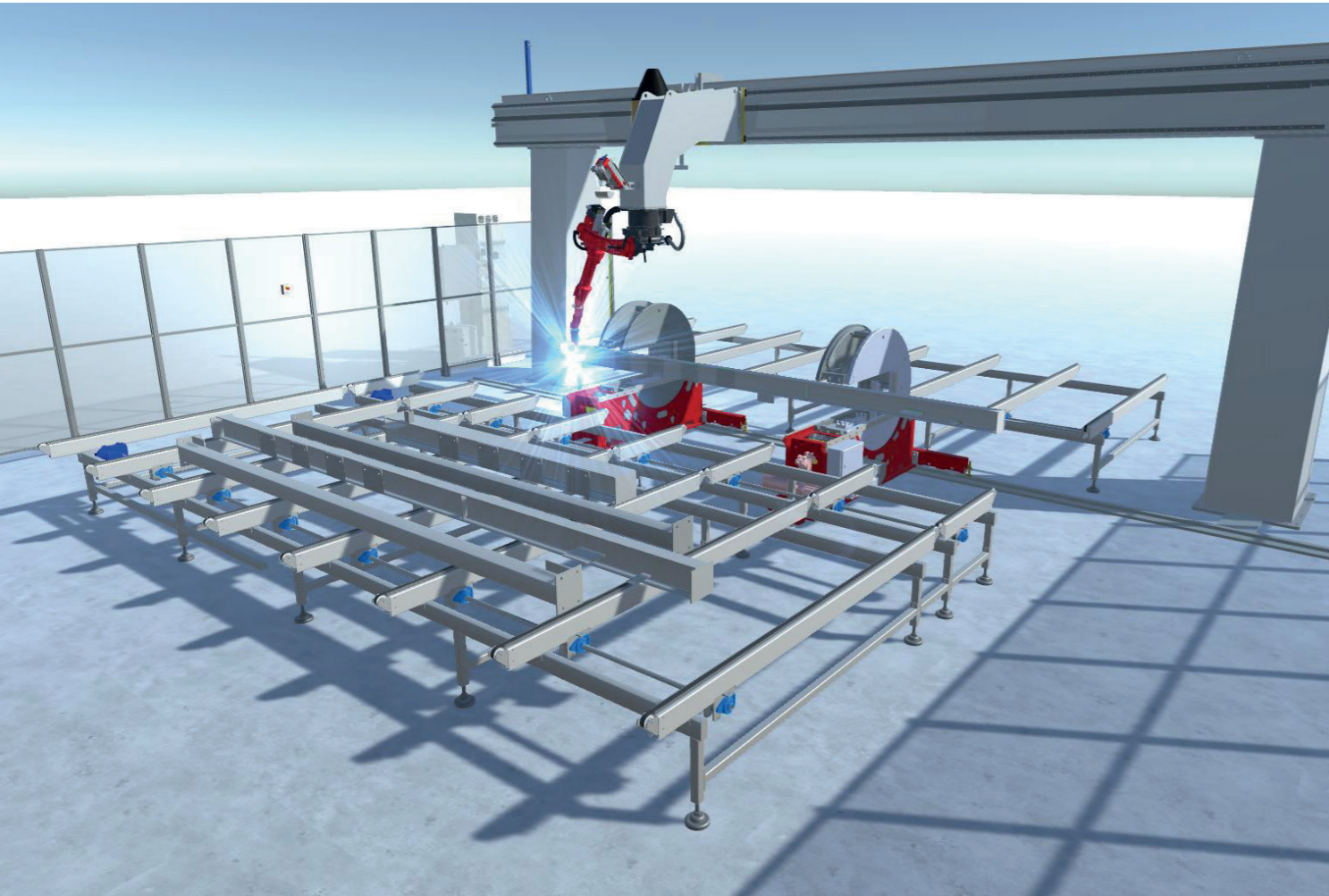
System design

Automatic programming

The most popular configurations 4

Technical blueprint 6

The Valk Welding Beam Welder is a total solution where we support everything from A to Z for you.



PHM9000

The key components of this solution are in the basic version

Welding technology

- The very latest Panasonic welding robot with a high-tech welding power source including the Hyper Dip Pulse welding process which allows you to deposit more at a higher quality and thus weld faster. The standard compressor cooling increases the life time of your wear parts considerably so that you can obtain more output.
- A perfect match with our Valk Welding V2L5, V3L5, V3L5 HD Super or other steel grade wires. One drum of 250 kg is standard supplied with the system to get immediately the maximum quality and performance out of your new system.
- The Valk Welding VWPR welding equipment with fully integrated cable assembly for optimal accessibility to your beams. The mechanical cleaner takes care of automatic cleaning of your welding torch, which also increases the performance considerably.
- Perfect welding wire feeding thanks to the well-known Wire Wizard solutions so that not only the welding quality is higher but also your productivity.



Quality

- To ensure the welding quality even more, there is also a gas control system present for the shielding gas of the welding process.
- Product deviations are automatically taken care of by the Valk Welding Quick Touch wire search system and the Panasonic TAST (Through the Arc Seam Tracking) weld seam tracking system. Optionally, the system can also be expanded with the Arc-Eye CSS laser tracking system with the Adaptive Welding upgrade. For assembled beams, this may be of interest.

System design

- For optimal accessibility to your beam, the robot is mounted hanging from a gantry (PHM version as you see on this page) or on a longitudinal track on the floor (FSNM version). With the PHM version it is also very easy to remove the welded products through the installation if required.
- Complete safety in accordance with the CE guidelines which in many cases is accepted everywhere. Optionally, we can also take care of the project in UL version.
- The beams are taken in 2 Valk Welding "PacMan" PMPOS-positioners which, as external axes, move perfectly synchronously with each other and, thanks to the Harmonizer software, can also do this with the robot in order to weld a complete contour without stopping. Welding quality and productivity also increase. Up to 600 mm x 400 mm beams are standard possible. The clamping of the beams is hydraulic with each positioner having its own hydraulic group. Both positioners are on a manual track with grounding for optimal arc stability.
- Remote Function per axis using Single Axis Control in free positions to use the positioners also in a manual mode if requested.

Automatic programming

- A real time connection with your network so all data can be placed safely on your server. Loading of the programs to the robots happens via the standard Robot Communication Utility software.
- Automatic programming thanks to our newest ARP (Automatic Robot Programming). From a 3D file such as STEP for example, most of your product can be programmed automatically. If you have TEKLA software and can generate WISCON files with it, it is even possible to deliver all programs to the robot completely automatically.



FHN21000

- To link the virtual world to the real world, a perfectly calibrated robot installation is absolutely necessary. The well-known and unique Valk Welding PPS calibration system, together with the Panasonic DTSPS offline programming system, is also a standard part of the Valk Welding Beam Welder. So if you don't have TEKLA you can program your welding robot completely offline from almost any other 3D CAD software.

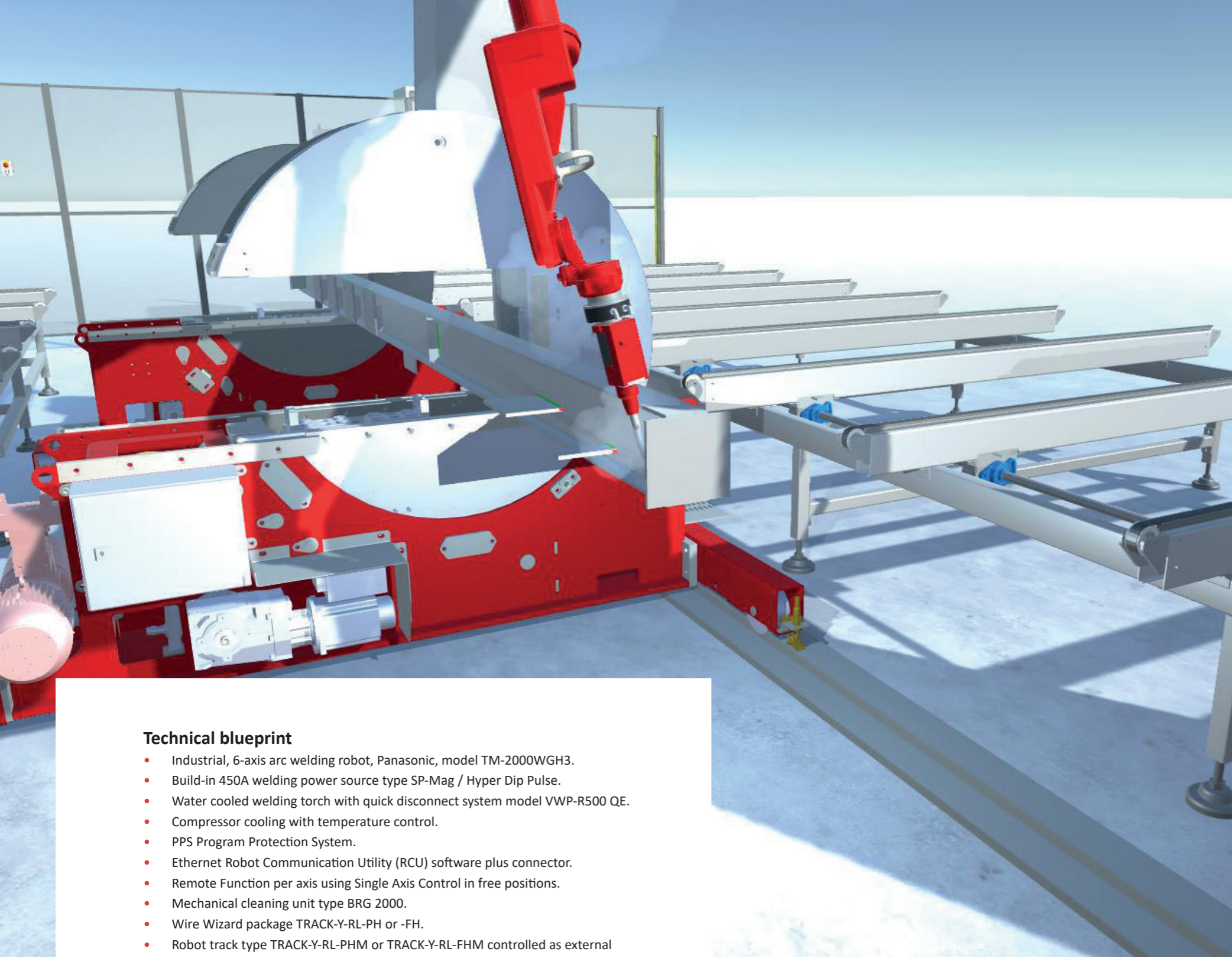
Our Valk Welding Beam Welder is a standard concept which we take care of on a tailor-made basis.

The most popular configurations

- Single Station PHM9000 easy to extend by a conveyor supplied by your local supplier to feed your beams "in line".
- Single Station FHN9000 with the track on the floor.
- Double Station FHN21000 for more output.

Each system is fully assembled and extensively tested by our robot engineers. Before going on transport, we organize for each project a factory acceptance test at Valk Welding where you are present and can already admire your new investment. After the preliminary inspection, the installation is fully assembled by the same team and tested again together with you in your own production. Parallel to this process, your team is also fully trained to get the maximum return from your investment, together with you.

Valk Welding, join us with "The Strong Connection"



Technical blueprint

- Industrial, 6-axis arc welding robot, Panasonic, model TM-2000WGH3.
- Build-in 450A welding power source type SP-Mag / Hyper Dip Pulse.
- Water cooled welding torch with quick disconnect system model VWP-R500 QE.
- Compressor cooling with temperature control.
- PPS Program Protection System.
- Ethernet Robot Communication Utility (RCU) software plus connector.
- Remote Function per axis using Single Axis Control in free positions.
- Mechanical cleaning unit type BRG 2000.
- Wire Wizard package TRACK-Y-RL-PH or -FH.
- Robot track type TRACK-Y-RL-PHM or TRACK-Y-RL-FHM controlled as external axis.
- Valk Welding positioners "PacMan" PMPOS2000-600-400 controlled as external axis and hydraulic clamping. Payload up to 4.000 kg for 2 positioners.
- Manual track for Valk Welding positioners "PacMan" PMPOS2000-600-400 for optimal positioning and grounding.
- Quick Touch touch sensing (120 V) through the welding wire.
- Automatic Torch Control (ATC).
- Complete safety according to CE or UL (optional).
- Harmonizer software and Gaintry-pair software.
- Through the arc seam sensing system for WG and WGH series.
- DTPS G3 off-line programming package.
- ARP - Automatic Robot Programming solution.



The strong connection



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