



**1 Entirely New Housing Design**  
Ergonomic microscope and arm position.  
Slender foot area offers comfortable seating position.  
Flat surface for placing workpieces and tools.  
Small footprint.



**2 Revolutionary Working Chamber Design**  
Easy, barrier-free access through wide opening door.  
Single-handed opening, other hand may stay in working position.  
Expanded workspace with flat processing surface.  
Removable bottom plate for huge and bulky workpieces.



**3 Quality Engineering**  
Meets latest German industrial standards.  
µC driven control board and state of the art power supply.  
Exhaust system with HEPA and integrated spark filter.



**4 Easy Access and Maintenance**  
Easy and fast exchange of flash lamp.  
Tool-free access to cooling water and exhaust filter.  
Exhaust system with filter diagnostics.  
Control board with easy diagnostics.



**5 SweetSpot®**  
Patented resonator design.  
No first-pulse effect.  
Constant weld quality from the very first pulse.  
Assures a reliable welding process.



**6 MicroWeld™**  
Weld spots with less than 0.1 mm diameter.  
For extremely fine welds and delicate workpieces.



**7 TrueView™**  
Ensures a 100 % hit-rate even when working out of focus.  
The laser beam is always aligned to the crosshair.  
No parallax misalignment.



**8 Strong and Reliable**  
Powerful power supply for high repetition rates.  
Generously sized cooling unit.  
Designed for 24/7 operation.



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## THE NEW PERFORMANCE

### Rethinking manual laser welding

Back in 1992 we pioneered manual laser welding. Now, after more than 20 years market leadership, we have rethought every single detail of this successful technology. The new Performance redefines the state-of-the-art of manual laser welding featuring many application-driven innovations and numerous technical refinements in an entirely newly designed housing.

### Smarter – weld-assist systems for new level of control

The new Performance is clever – it takes advantage of welding intermissions for workpiece handling. The new SPEEDmode™ increases the maximum pulse frequency significantly and uses work breaks for reloading. During longer intermissions the system switches to the energy saving ECOmode™.

The new BURSTmode™ and the new Pulse Ramping simplify welding tasks carried out by less experienced workers or jobs asking for high concentration, like welding of delicate medical devices. They offer a new level of control and sensitiveness, especially when combined with the new dynamic foot switch.

### Simpler – facilitating your everyday work

We have had a close look at how users are using it and entirely redesigned the working chamber and access to it. Time for a new standard! The new hinged cover provides wide and completely free access to a spacious working area and can be operated with one hand whilst using the other hand to hold the workpiece.

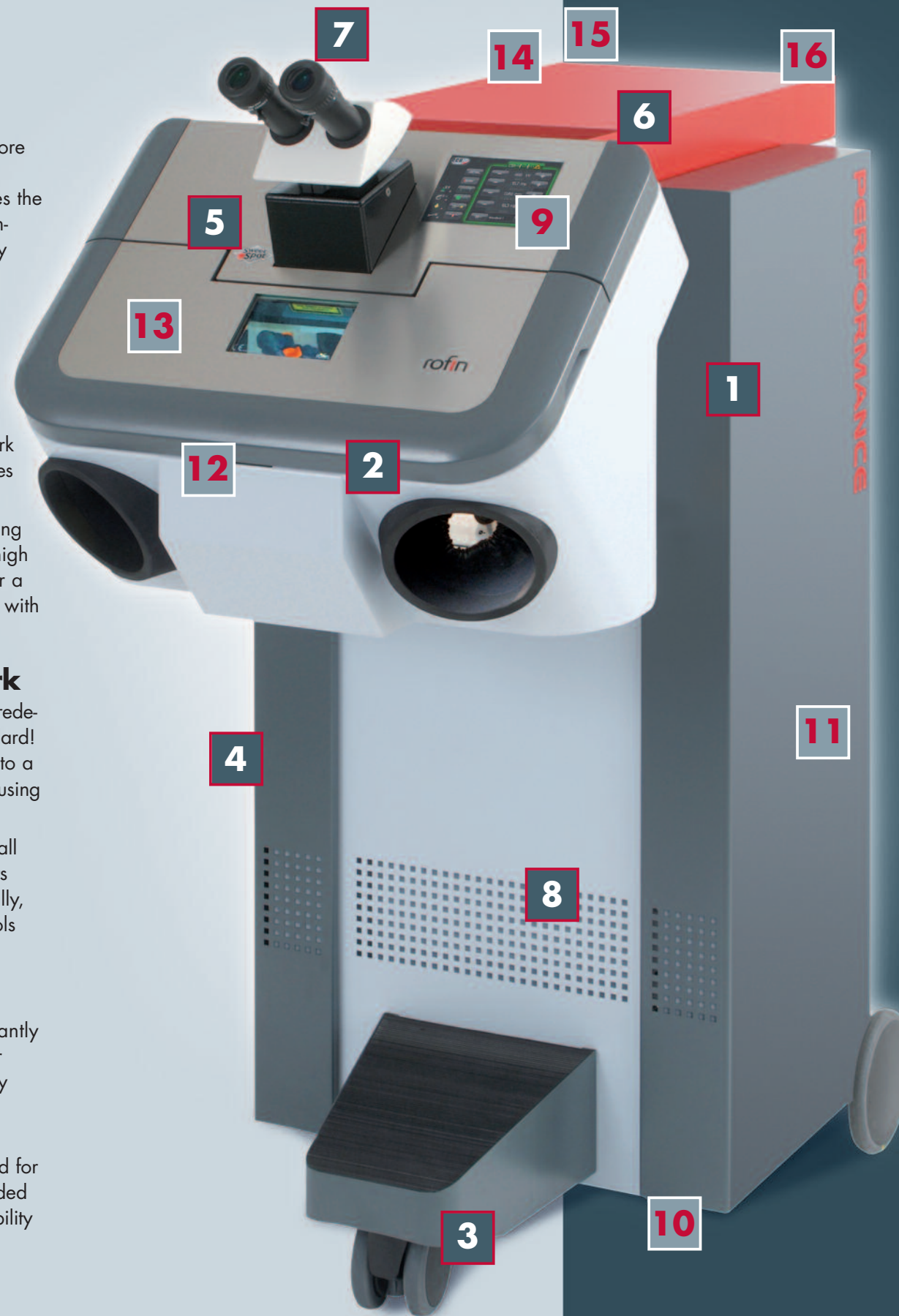
The high-contrast color touch screen offers menu-driven access to all laser functions. Comfortable memory functions with various presets and a graphic shape editor make laser set up a breeze. And finally, the flat top face offers plenty of space for placing workpieces, tools or certainly coffee cups.

### Stronger – enough power at any time

Up to 100 W output power and 50 Hz pulse frequency significantly increase welding speed. System self-diagnostics indicate regular maintenance tasks, like air filter replacement – without using any tools.

Manual laser welding systems are frequently used as workhorses in rough work shop environments. The new cooling unit is designed for a 100% duty cycle even at high ambient temperature. The embedded control unit and state-of-the-art power supply enhance long-term stability and reliability – safeguarding reliable 24/7 operation.

**Discover the benchmark of manual laser welding.**



**9 Large Color Touch Screen**  
Brilliant 5.7" screen with high contrast. Entirely menu-driven operation via touch screen. Laser status indicator, direct access to laser parameters. Comfortable graphic pulse-shape editor.



**10 Dynamic Foot Switch**  
Offers sensitive control of an arbitrary laser parameter. Acts like a foot throttle and is easy to configure. Triggers start- and end-ramp when using Pulse Ramping mode. Adjusts welding speed or power during welding.



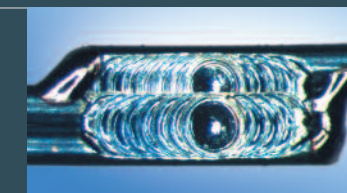
**11 ECOmode™**  
Switches off system parts during idle times. Only 10 W power consumption vs. 200 W in standby mode. Fast restart within less than 1 sec at any time. Reduced costs due to less lamp wear.



**12 SPEEDmode™**  
Significant power increase within a certain timespan. Shorter process time through higher pulse frequencies. System reloading during welding intermissions for workpiece handling.



**13 BURSTmode™**  
Fires laser pulses of a predefined number. Stops automatically when number of pulses is reached. Risk-free working with fast pulse sequences. Increased processing speed.



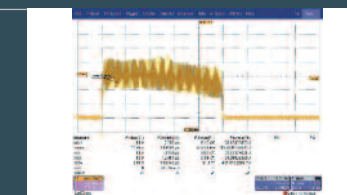
**14 Pulse Ramping**  
Successively increases/decreases the power of first/last laser pulses. Ideally suited for closed seam welds and gas-tight housings. A good choice for starting a weld on highly reflective material. Reduced risk of piercing thin material.



**15 Pulse Shaping**  
Graphic shape editor for defining the pulse intensity over time. Precise control of coupling, fusion and cooling phase. Preset pulse shapes for many materials. Perfect welds even of highly reflective metals and alloys.



**16 IPMmode™**  
Intelligent Pulse Management. Guarantees high pulse to pulse stability. Especially suited for micro welds. Optimized lamp operation due to sophisticated control.



PERFORMANCE			
Laser Source	Classic		SweetSpot®
Type	pulsed Nd:YAG; 1064 nm		
Nominal power	W	70	55
Max. power with SPEEDmode™	W	100	85
Pulse peak power	kW	8	6
Pulse energy	J	90	70
Pulse duration	ms	0,3 bis 50	
Pulse frequency	Hz	single pulse up to 50	
Focal diameter	mm	0,3 - 2	0,2 - 2,5
With MicroWeld™	mm		0,1 - 0,5
Pulse shaping		15, graphic editor	
Memory	kB	32	
User Interface			
Display and operation	5,7" color TFT touch display, joystick in working chamber		
Interfaces	USB Device optional		
Utilities			
Electrical	V	110/230	
	Hz	50/60	
	A	16/13	
	Ph	1	
Power consumption			
Nominal power	kW	2,2	
Standby	kW	0,2	
ECOmode™	kW	0,01	
Cooling	integrated water-air heat exchanger		
Measures			
Weight	kg	125	
Dimensions (wxhxd)	mm	530x1240x994	
Ambient temperature max.	°C	35	
Configuration			
Dynamic foot switch	optional		
MicroWeld™	optional		
ECOmode™	X		
SPEEDmode™	X		
Processing gas supply	fixed and flexible gas nozzle		
Cooling air	optional flexible cooling air nozzle		
LED ring light	optional		
Exhaust	integrated, filtration efficiency 99,997% acc. DIN24184		
Microscope	LEICA 10-x, optional 16-x		

