

TruPulse

The New Generation of Pulsed Solid-State Lasers



TruPulse 556

The right laser for each application – the finely graded TruPulse product range

Category	Pulsed solid-state lasers
Products	TruPulse 21, TruPulse 33, TruPulse 44, TruPulse 62, TruPulse 74, TruPulse 103, TruPulse 106, TruPulse 124, TruPulse 156, TruPulse 203, TruPulse 304, TruPulse 556
Application fields	Spot welding, Seam welding, (Fine) Cutting, Drilling
Machines	Integration into production lines, in laser machines of the TruLaser Laser Cell Series 3000 and other installations



TruPulse operator panel with touchscreen and turn-push button

The new generation of pulsed lasers from TRUMPF combines decades of experience with the very latest technology. All parameter ranges were extended. The rapid real-time power control guarantees high pulse-to-pulse stability and exact repeatability of all saved laser data. The parameter selections in each TruPulse laser allow an optimized adaption for the respective application. The new control offers extended pulse shaping and also a power regulated burst.

Operation via touchscreen and turn-push button is very simple and intuitive. The operator panel can also be removed for direct use at the processing location. The compact mobile devices are suitable for any production environment and also have an optional water or air heat exchanger. Totally new applications will also be possible with the TruPulse lasers.



Optics layout in a TruPulse laser

Laser device	TruPulse			
	21	33	44	62
Average power ¹ [W]	20	30	40	60 65
Max. pulse power [kW]	1.5	3	3	3 5
Max. pulse energy [J]	15	30	30	20 50
Pulse duration [ms]	0.2 – 50			
Beam quality [mm•mrad]	4	12	16	8
Minimal diameter of laser light cable [µm]	100	300	400	200

Laser device	TruPulse				
	74	103	106	124	156
Average power ¹ [W]	70 70	95 95 90	110	140 125 110	150 160 140
Max. pulse power [kW]	4 6	5 6 8	4	6 6 9	6 6 10
Max. pulse energy [J]	30 60	30 60 90	30	30 70 90	30 80 120

Business

The laser is growing in many branches. In these sectors, you can find out more about the laser.

The laser

TruLaser

TruLaser

Focusing

Laser Workstation manual laser welding

Brochure

Pulse duration [ms]	0.3 – 50				
Beam quality [mm•mrad]	16	12	25	16	25
Minimal diameter of Laser light cable [µm]	400	300	600	400	600

Laser device	TruPulse		
	203	304	556
Average power ¹ [W]	200	300	530
Max. pulse power [kW]	6 8	10 10	10 10
Max. pulse energy [J]	55 90	60 90	60 100
Pulse duration [ms]	0.3 – 50		
Beam quality [mm•mrad]	12	16	25
Minimal diameter of laser light cable [µm]	300	400	600

¹ At workpiece, controlled over the entire life of lamps, depending on pulse duration and pulse power setting.

Subject to technical modifications.

