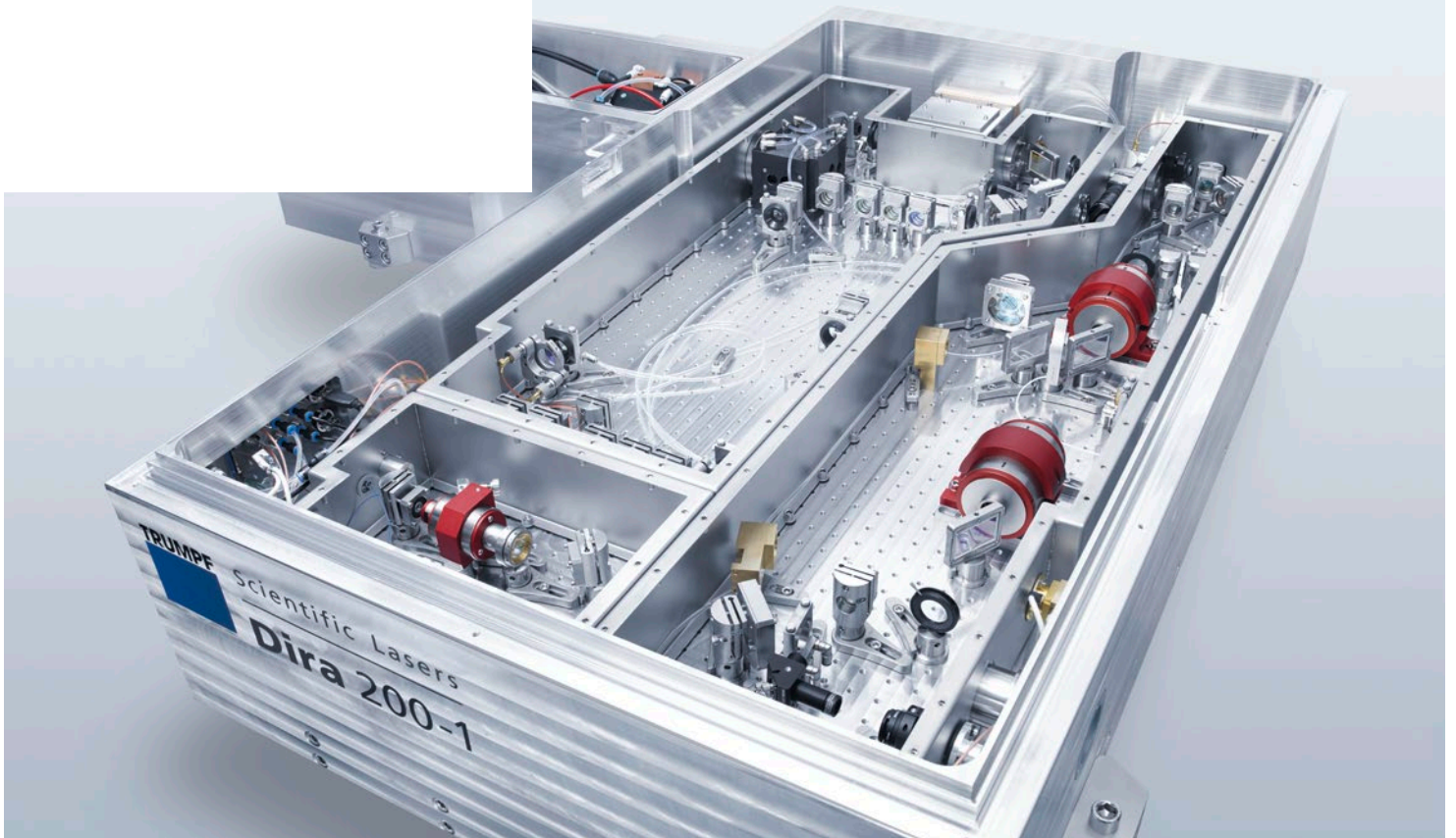




## Dira Series



## TRUMPF Scientific Lasers

TRUMPF Scientific Lasers GmbH + Co. KG was founded in May 2012 as a joint venture between the TRUMPF Group, the world leader in machine tools and industrial lasers, and Professor Ferenc Krausz, executive director of the Max Planck Institute of Quantum Optics in Garching and professor of physics at Ludwig Maximilians University Munich.

TRUMPF is a high-tech company with two divisions: Machine Tools and Laser Technology/Electronics. A global network of production, sales and service companies supports the business activities of all business divisions.

TRUMPF Scientific Lasers also draws upon the scientific expertise and network of its minority shareholder Professor Ferenc Krausz. His research background provides invaluable support for TRUMPF Scientific Lasers.

TRUMPF Scientific Lasers focuses on high-energy picosecond lasers and on high-power femtosecond laser technology especially on optic parametric amplifiers. Base technology is the TRUMPF thin-disk laser technology. TRUMPF Scientific Lasers offers customized, innovative and high-quality products for scientific and industrial applications.

## Dira Series

Laser systems by TRUMPF Scientific Lasers are indispensable tools for the generation of high-power and high-energy picosecond and femtosecond laser pulses.

These robust next-generation light sources provide laser pulses with highest energy or only a few oscillations of the electric field. Numerous versions and options ensure that you will always get a system custom-designed for your project.

The lasers of the Dira series (disk regenerative amplifiers) deliver pulses of picosecond duration with up to 200 mJ pulse energy – the highest pulse energy rate extracted from a regenerative amplifier available today. The product portfolio covers the repetition range from one to a few hundred kilohertz. The flexible design of the Dira series allows for the customization of systems according to user requirements.

Special models with a pulse energy up to the joule level or average powers of a kilowatt are available upon request.

These lasers are the ideal pump laser for parametric amplification stages for high-power, few-cycle femtosecond pulse generation, or a perfect driver laser for secondary sources like X-rays.

## Product Portfolio

Dira Series		Dira 200-100	Dira 200-5	Dira 200-1	Dira 500-10	Dira 750-5
Wavelength	nm	1030	1030	1030	1030	1030
Max. average power	W	200	200	200	500	750
Max. pulse energy	mJ	2	40	200	50	150
Pulse duration	ps	< 2	< 2	< 2	< 2	< 2
Repetition rate	kHz	≥ 100	1–100	1–100	10–100	5–100
Beam quality	M <sup>2</sup>	< 1.2	< 1.3	< 1.4	< 1.4	< 1.4



Subject to alteration. Only specifications in our offer and order confirmation are binding.