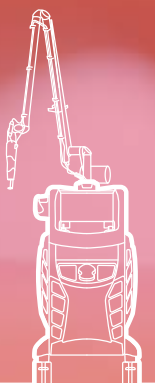
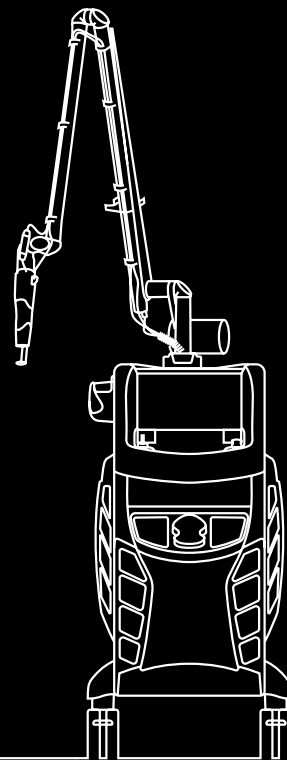
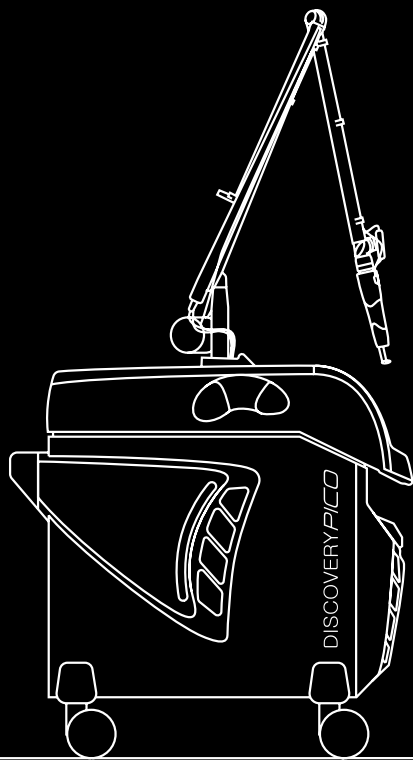


Quanta System

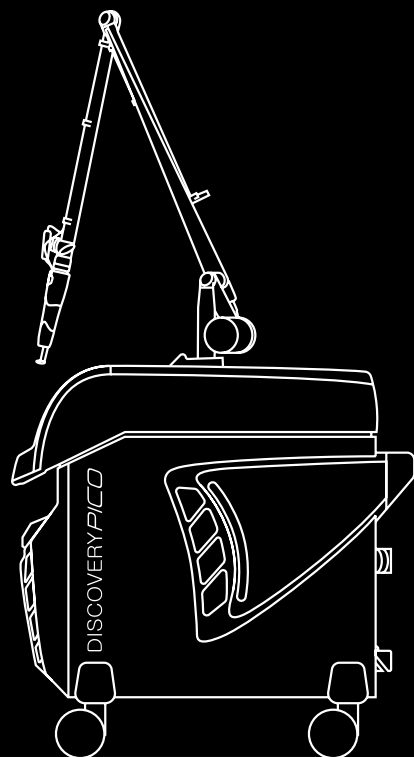
# Discovery PICO Series



— AESTHETICS & DERMATOLOGY —



DISCOVERY *PICO*





# Discovery PICO Series

*The New Era of Tattoo Removal,  
Pigmented Lesions and Skin Treatments*

The current market trend is actually focused on the **restoration** of the **natural skin appearance** with non-invasive and no down-time treatments. For this purpose Quanta System has developed this laser series based on an extremely innovative technology for excellent clinical results and extraordinary patient's safety.

**Discovery PICO Series** includes up to 3 wavelengths,

**FD Nd:YAG 532 nm** - **Nd:YAG 1064 nm**

- **Ruby 694 nm** and up to 4 emission modes to perform a wide range of treatments.

Three laser models are available according to specific wavelengths and emission models: **Discovery PICO**, **Discovery PICO Plus** and **Discovery PICO Derm**.

## Indications

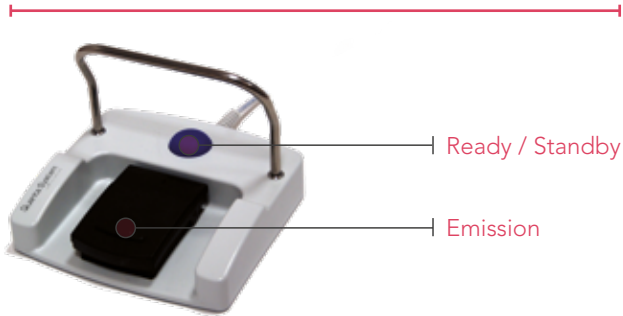
- Skin resurfacing / rejuvenation
- Benign pigmented lesions
- Multicolor tattoo removal
- Onychomycosis
- Inflammatory acne

## General Overview

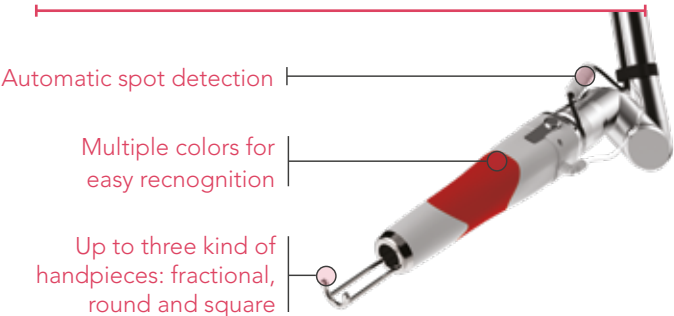
- Up to **1.8 GW** of laser power by the exclusive PicoBoost Technology
- Up to **4 emission modes** in pico, nano and micro-second ranges to combine the maximum clinical benefits
- Flexible **fractional handpiece** (Optibeam II line) for multi-level skin treatments
- Flat-top round and square handpieces (Optibeam II line) for ink and pigmentation treatment
- Expandable with **Twain IPL** and **Twain 2940** (not available for Discovery PICO Derm)



## Footswitch



## Optibeam II



# Multiple Wavelengths

## FD Nd:YAG 532 nm

- | Effective on red, orange, yellow, brown and purple tattoo inks
- | High melanin absorption for great effects on epidermal skin pigmentations

## Nd:YAG 1064 nm

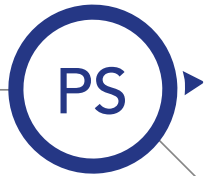
- | Effective on black, dark blue and dark brown tattoo inks
- | Efficiently absorbed by water for excellent results on skin resurfacing and rejuvenation procedures
- | Great penetration into the skin and gently absorbed by melanin being useful especially in dermal pigmentations

## Ruby 694 nm

- | Effective on blue, black, brown, green and violet tattoo inks
- | Good melanin absorption and penetration into the skin for gentle and efficient removal of skin pigmentations



# QuattroPulse Function



## PICOSECOND

- Picosecond pulses guarantee the most powerful and pure photo-acoustic effect
- Very efficient even on the smallest ink particles and skin pigmentations



## Q-SWITCHED

(Not available for Discovery PICO Derm)

- Nanosecond pulses are useful especially in the very first tattoo removal sessions to effectively hit big tattoo ink clusters



## OPTIPULSE

(Not available for Discovery PICO Derm)

- A long nanosecond pulse is perfect to perform gentle treatments in easily-harming and sensitive skin conditions



## PHOTO-THERMAL

- Microsecond pulses to apply thermal diffusion for direct collagen stimulation, treatment of inflammatory acne and onychomycosis



# Photo-Acoustic Effect

## PICOSECOND AND NANOSECOND PULSES

*The leap forward in Fragmentation Power*

### ① Why Picosecond and Nanosecond pulse ranges?

- | The use of picosecond pulses instead of nanosecond ones permits to direct the same amount of energy in shorter times for the maximum photo-acoustic performances
- | Picosecond pulses are ideal for fragmentation of very small tattoo ink and pigmentations particles
- | Nanosecond pulses instead are ideal for the treatment of clusters of tattoo ink
- | Photo-acoustic treatment range leaves the tissues surrounding tattoo inks or pigmentations unharmed for the best confinement of the thermal effect within the target particles



PICO

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## Deep Penetration

The elevate power levels in **ultra-short emission times** make possible to obtain high fluence values even with big spot sizes.

The spot size dimension is directly connected with penetration depth into the skin.

The bigger the spot, the deeper the penetration, the more powerful the **fragmentation effect** on deep targets.



## ② Why do you need GW range of Power?

### | HIGH ENERGY

High values of laser energy are important to maintain the same fluence range even with big spot sizes. This is guaranteed by the highest peak power on the market

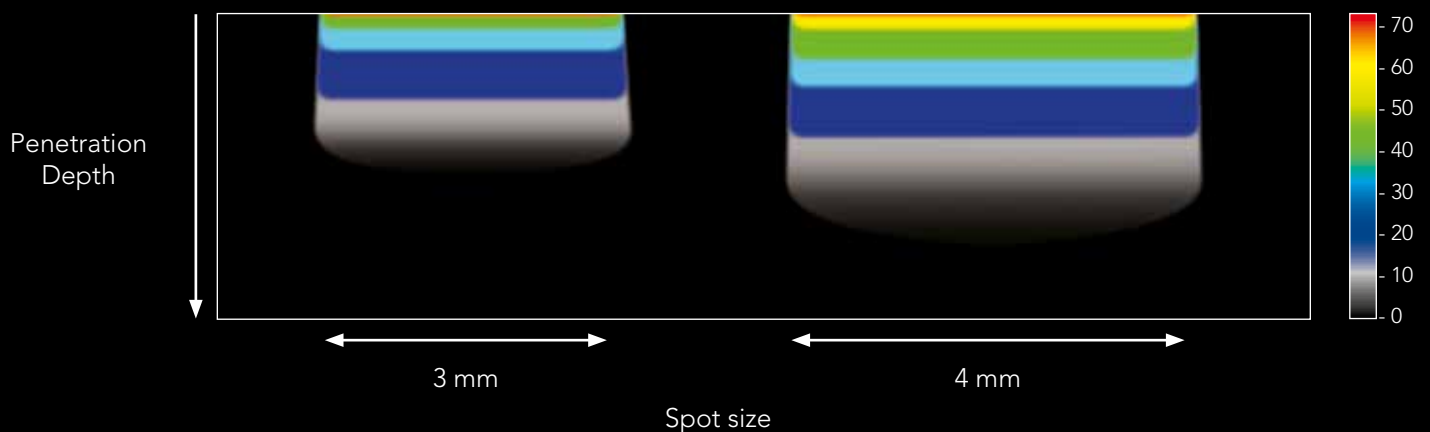
### | BIGGER SPOT SIZES

Big spot sizes are necessary to permit a very deep laser penetration into the skin. The bigger the spot the deeper the penetration

## ③ More Fragmentation Power

| The combination of picosecond or nanosecond pulses with high energy and big spot sizes permits to get great performances to pulverize even the smallest and deepest target particles

**Q-SWITCHED**



# Tattoo Removal



## SQUARE SPOTS

To easily control overlapping degree during treatment, especially in high fluence procedures



## HOMOGENEOUS ENERGY PROFILE

Flat-top beam profile for the maximum laser efficacy and patient's safety



### TATTOO REMOVAL - 4 TREATMENTS

Courtesy Nicola Zerbinati MD



### TATTOO REMOVAL - 7 TREATMENTS

Courtesy Valerio Pedrelli MD



### TATTOO REMOVAL - 5 TREATMENTS

Courtesy Valerio Pedrelli MD



# Optibeam II

*Full Spot and Fractional Handpiece*

## Benign Pigmented Lesions



### ROUND SPOTS & DIFFRACTIVE OPTICAL ELEMENT

Shape that naturally resembles pigmented lesion profile. A flat-top energy pattern on the spot makes it possible to avoid high power peaks on the skin and increase patient's safety



### FRACTIONAL HANDPIECE

9 mm HC handpiece for high coverage fractional effect. Microlens array to specifically target a reduced treatment area for more gentle effect and super-fast healing times



### MULTIPLE INDICATIONS

It is possible to treat with high efficacy a wide range of indications among which lentigos, freckles, café au-lait spots and Ota & Ito nevus



### BENIGN PIGMENTED LESIONS

*Courtesy Nicola Zerbinati MD*



### BENIGN PIGMENTED LESIONS

*Courtesy Tetsuo Kinugasa MD*

# OPTIBEAM II

## Deep Fractional Handpiece

*All the power of 8 mm DF fractional handpiece in your hands.  
Discovery PLICO is your best and trusted ally*





Discovery PICO fractional handpiece ensures extremely effective  
skin treatments with fast healing times and increased  
patient's safety. This fractional pattern generates laser effects concentrated  
into the skin at different levels (LIOBs).

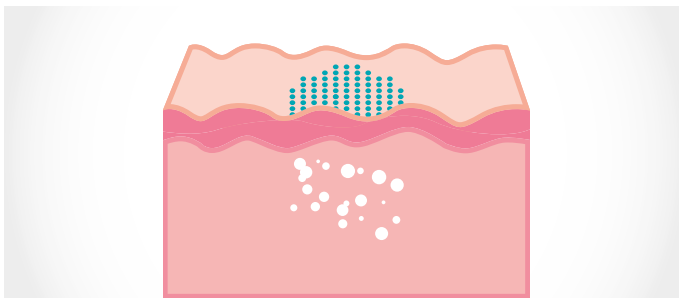
# Fractional Multi-Level Skin Stimulation

Unique technology on the market able to generate a **multi-level effect** on the skin. Discovery PICO fractional beam profile is able to perform a double skin stimulation allowing the creation of **LIOBs** in upper dermis for **collagen remodeling** and **gentle "cold" ablation** of damaged skin.

Different fluence settings can originate specific clinical benefits:

## Collagen Remodelling

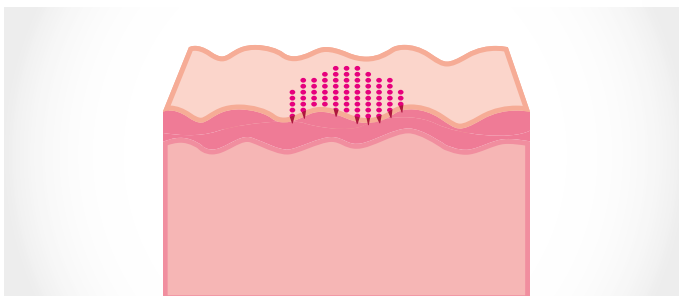
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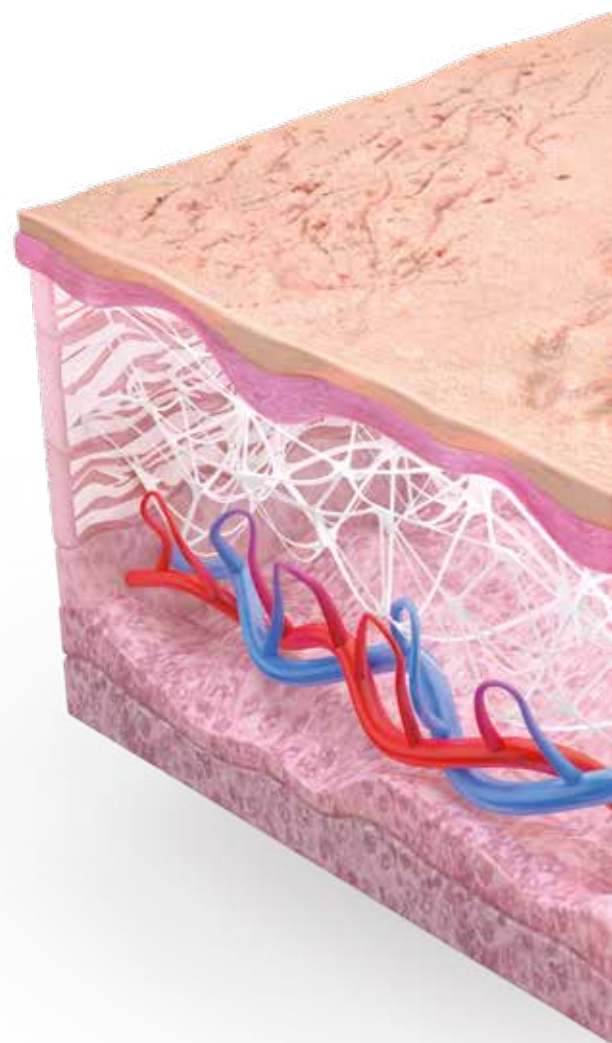
Only deep LIOBs generation occurs to stimulate collagen remodeling

## Fractional Ablation

2



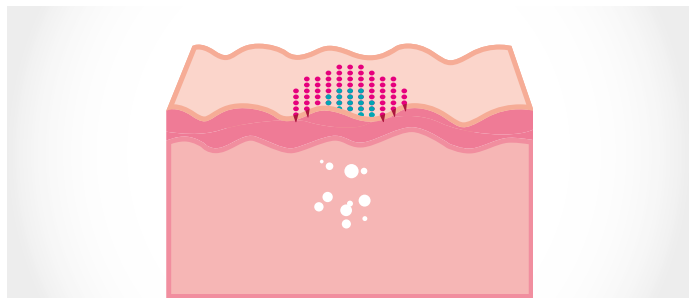
Only "cold" skin ablation occurs for an efficient and safe removal of damaged skin



Multiple overpasses of fractional handpiece are ideal for a **full skin stimulation**.  
The fluences used in this procedure make possible to perform very effective treatments with increased safety, tunability and **fast recovery** with **limited down-time** for the patient.

3

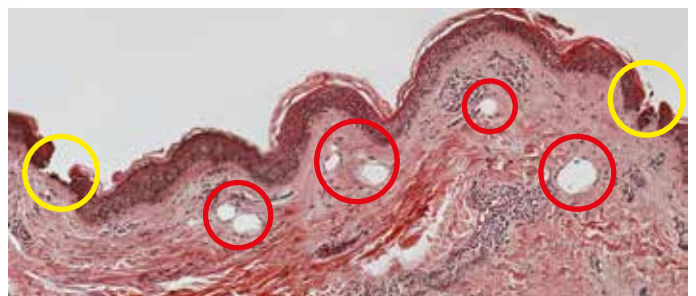
## Dual-Level Stimulation



The effect on the skin is both collagen remodeling and skin ablation

This effect is necessary in all those procedures where they are needed simultaneously

## Histological Picture



 Ablation

 LIOB

# Skin Resurfacing & Rejuvenation

**Multiple wavelengths, QuattroPulse** function and the combination of **full and fractional spots** are the keys of success to perform the most complete range of dermatological procedures of Skin Resurfacing and Rejuvenation



## MULTIPLE INDICATIONS

The different features of this laser series are perfect to get excellent results in the treatment of scars and acne scars, fine lines and wrinkles



## LIMITED DOWN-TIME

Extremely fast healing times are now really possible because of the limited and controlled skin damage due to laser application



## GENTLE EFFECT

The treatment of very sensitive skins easily inclined to hyperpigmentation gets very high benefits from this innovative technology. The controlled thermal diffusion ensures utmost safety for all the kind of patients



## SKIN REJUVENATION

*Courtesy Jeng Hsien Lin MD*



## SKIN RESURFACING

*Courtesy Paolo Sbano MD*





**ACNE SCARS**  
*Courtesy Celina Chuang MD*



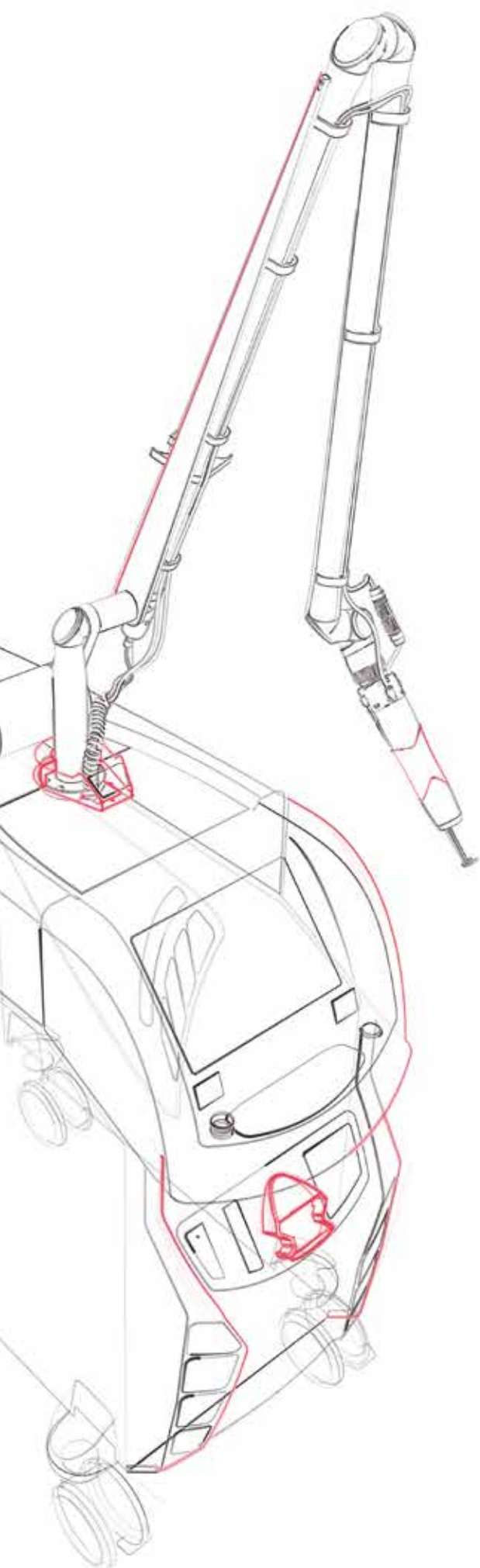
**ACNE SCARS**  
*Courtesy Celina Chuang MD*



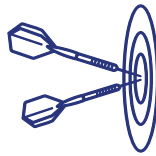
**ACNE SCARS**  
*Courtesy Celina Chuang MD*



# Advantages



Exclusive and patented technology for unparalleled performances



Assorted handpieces for the maximum precision and specificity of application



Very high peak power for unprecedented treatment results



Great flexibility of use because of multiple wavelengths, emission modes and options



Ultimate reliability on safety conditions of the patients and limited down-time

# Technical Specifications

	DISCOVERY PICO				
	DISCOVERY PICO PLUS			DISCOVERY PICO DERM	
SOURCES	Nd:YAG	FD Nd:YAG	Ruby	Nd:YAG	FD Nd:YAG
Wavelength (nm)	1064	532	694	1064	532
PICO Pulse duration (ps) Max Fluence (J/cm²)	450 18.25	370 7.5	- -	450 15	370 7.5
Q-SWITCHED Pulse duration (ns) Max Fluence (J/cm²)	6 20	6 10	30 30	- -	- -
OPTIPULSE Pulse duration (ns) Max Fluence (J/cm²)	6+6 30	6+6 11.25	- -	- -	- -
PHOTO-THERMAL Pulse duration (µs) Max Fluence (J/cm²)	300 50	- -	2000 50	300 50	- -
Repetition rate (Hz)	up to 10		up to 3	up to 10	
Beam delivery	Articulated arm with detachable handpieces				
Twain Handpieces	available			not available	
Available handpieces** (optional)	2x2, 3x3, 4x4, 5x5, 7x7 mm square 3, 4.5, 6, 7.5, 9, 10.5* mm round 8 mm DF and 9 mm HC fractional round				
Electrical requirements	3.7 kVA; 200-240 Vac; 50/60 Hz				
Dimensions and Weight	530 mm (W) x 1043 (D) x 1060 (H); 150 kg				
Note	*not available for Discovery PICO Derm **some handpieces may not be available in certain Countries				

This brochure is not intended for the U.S. market.  
Certain Intended Uses/Configurations/Models/Accessories are not cleared for U.S.

**VISIBLE AND INVISIBLE LASER RADIATION**

Avoid eye skin exposure to direct or scattered radiation

Laser product: Class 4

Aiming beam: Class 3R



CAUTION - Laser radiation

CE  
0123

*Note: National local authorities may put restrictions to the parameters indicated in the above table, or may limit or remove certain intended uses. Specifications are subject to change without notice.*

Quanta System products are manufactured according to the International standards and have been cleared by the most important International notified bodies.

The Company is UNI EN ISO 9001:2015 and EN ISO 13485:2016 certified. Quanta System S.p.A. was founded in 1985 and belongs to the El. En. Group (a public company listed in the Star segment of the Italian Stock Exchange) since January 2004.

The company, divided into three business units (medical, scientific and industrial) is specialized in manufacturing of laser and opto-electronic devices.

# Quanta System

