

# Discovery Pico Plus Shatters the Competition

By John Jesitus, Contributing Editor

The Discovery Pico Plus laser by Quanta System (Milan, Italy) packs so much speed and power, some say it is the 'Dirty Harry' of tattoo removal lasers. The laser creates a bloodless fracturing effect that crushes pigment into microparticles by applying up to 0.8 GW at 532 nm and 1.8 GW at 1064 nm.

"This allows us to fire more energy, and disrupt some of the deeper pigments," said James Chao, M.D., a plastic surgeon in San Diego, Calif. "Think of it like a gun, you're using a 44 Magnum, so the bullet that you discharge is more powerful."

Having had a very good experience with Quanta's Q-switched Q-Plus C, Dr. Chao's practice moved up to the Discovery Pico Plus because of the exceptionally quick pulse durations available – 400 ps at 532 nm and 450 ps at 1064 nm.

The Discovery Pico Plus laser allows stacked treatments, cutting the number of sessions required in half. "While removing a tattoo with a Q-switched nanosecond laser takes up to 12 treatments for difficult



James Chao, M.D.  
Plastic Surgeon  
San Diego, CA

cases, the picosecond laser usually requires six to eight applications," said Dr. Chao.

According to Dr. Chao, "The concept behind stacking is that if you apply energy into the skin, the skin will resorb some of that energy." With many lasers, this dynamic creates collateral damage – a burn. "But now, hitting the ink with a faster picosecond pulse allows for two treatments at one sitting," he said.

"You can let the patient recover for 20 minutes, then treat the tattoo again without creating collateral damage. You want to selectively shatter those cells that

have ink in them while preserving those that do not," Dr. Chao further explained.

The 1064 nm wavelength targets dark green and black pigment. The 532 nm wavelength targets red, orange and yellow ink, and the 694 nm Q-switched ruby wavelength targets green and blue ink. "You need three active wavelengths to cover almost all colors," Dr. Chao stated. "Many lasers only have two, with the other wavelength deriving from inefficient dye conversion."

Dr. Chao likes Discovery Pico Plus's large spot sizes because many of his clients have full tattoo sleeves.

"Another unique aspect of this laser is that the spots are not only round, but also square and fractional," Dr. Chao continued. "It is very easy to line up squares and overlap very precisely, so you get a much more consistent treatment." He also likes the fact that the system needs no expensive dye packs or other consumables.

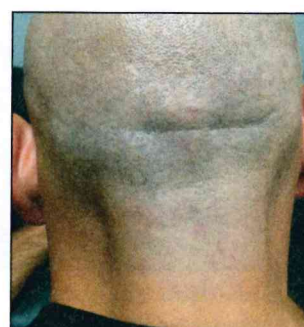
On average, Dr. Chao's practice performs around 100 Discovery Pico Plus treatments per week. "With the Quanta technology, we've been able to offer what we call 'we'll treat you for free.' If we tell a patient it will take a certain number of sessions to remove a tattoo and it actually takes more, I offer the patient free treatments for the next year. That's how much confidence we have in the laser. To date, no one has had to collect on this offer."

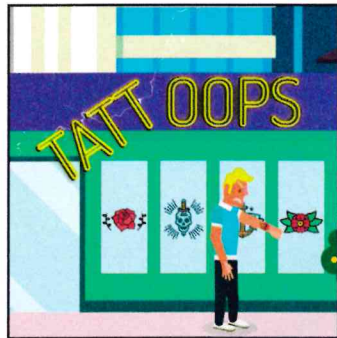
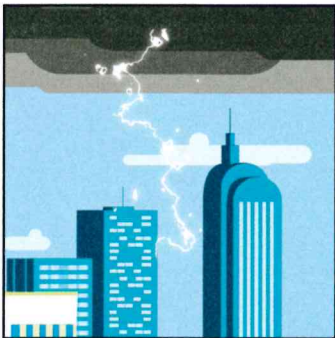
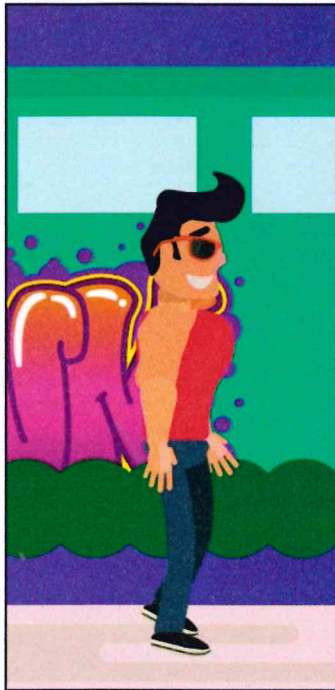
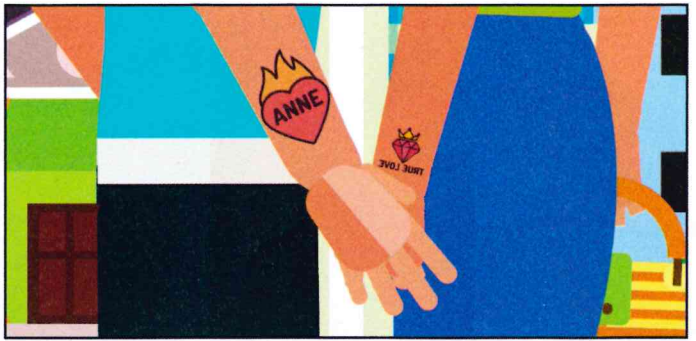
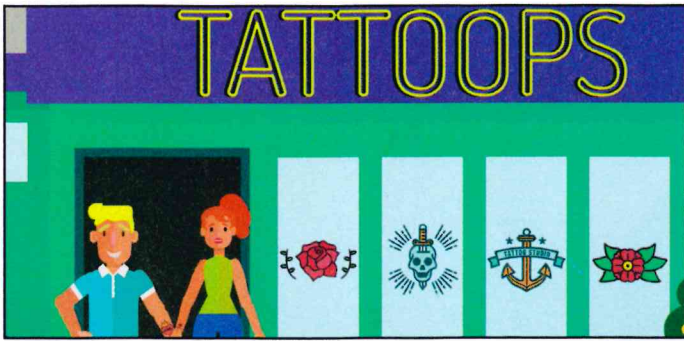


Before and after treatment with Discovery Pico Plus  
Photos courtesy of San Diego Laser Removal



Before and after treatment with Discovery Pico Plus  
Photos courtesy of San Diego Laser Removal





How does it end?



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