

**GSD<sup>®</sup>**  
Global Skin Dermatologist

## Refine

Super Pulsed CO<sub>2</sub> Laser



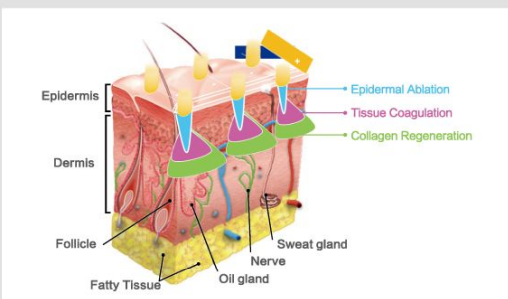
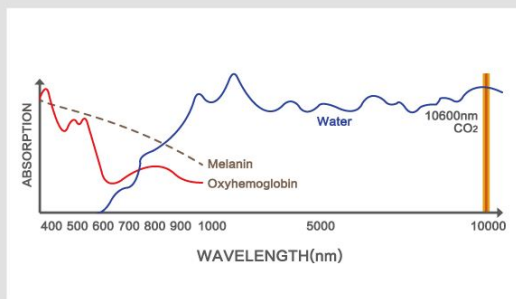
*A versatile platform for  
aesthetic and feminine health*

# Brief Introduction

Fractional CO<sub>2</sub> laser is considered as indispensable method for laser surgery. Refine, a super pulsed CO<sub>2</sub> fractional laser, delivers micro pulsed laser on skin lesions via controllable and adjustable spot size, energy density, distance, depth for accurate treatment. It creates strong epidermal ablation to realize skin resurfacing effects. In the meanwhile, it stimulates collagen regeneration by delivering fractional laser beams deep into dermis to realize multiple clinical applications.

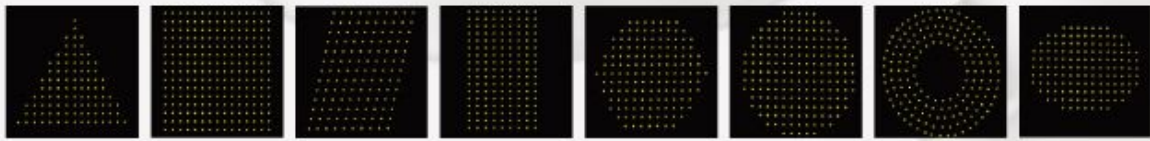
## Working Principle

CO<sub>2</sub> laser have a high absorption of water while low absorption of melanin and hemoglobin. It generates heat to coagulate content in water and produce epidermal ablation on targeted area accurately. Refine can deliver multiple laser beams in fractional pattern which create a MTZ (Micro Thermal Zone). The laser pulses penetrate deep into dermis to produce vaporization, coagulation and carbonization in skin tissues. Undamaged skin tissues between laser beams act as “heal server” to increase the recovering process. Thus, fractional CO<sub>2</sub> is an optimal solution for complete skin resurfacing and skin rejuvenation.



## Advantages

- ◆ Minimal invasive for skin resurfacing, skin rejuvenation and pigment lesions.
- ◆ Minimal thermal impacts, no downtime, little pain, no bleeding.
- ◆ A wide applications for dermatology, gynecology, general surgery, ENT and anorectal etc.
- ◆ Adjustable spot size, energy density, scanning times with synchronic indication light, to ensure precise treatment.
- ◆ Multiple working modes with smart scanning directions.
- ◆ Various spot shapes for different skin lesions, to reduce the overlapping on treatment area.



## Applications

### ◆ Laser Resurfacing

Skin resurfacing, Pores refining, Tone & texture improvement, Wrinkle reduction

### ◆ Pigmented Lesions

Pigmented nevus, Pigmented spot, Lentigo, Hyper-pigmentation

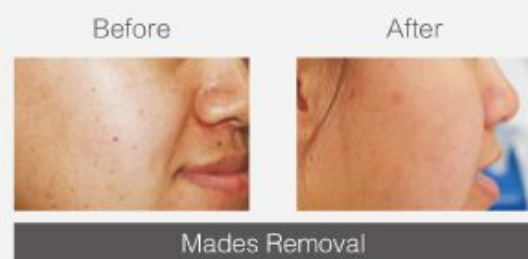
### ◆ Hyperplastic skin disease

Nevus, Wart, Syringoma, Seborrheic keratoses etc

### ◆ Scar repair

Scar & acne scar, Surgical scar, Stretch marks, Hyperplastic scar

## Clinical Results

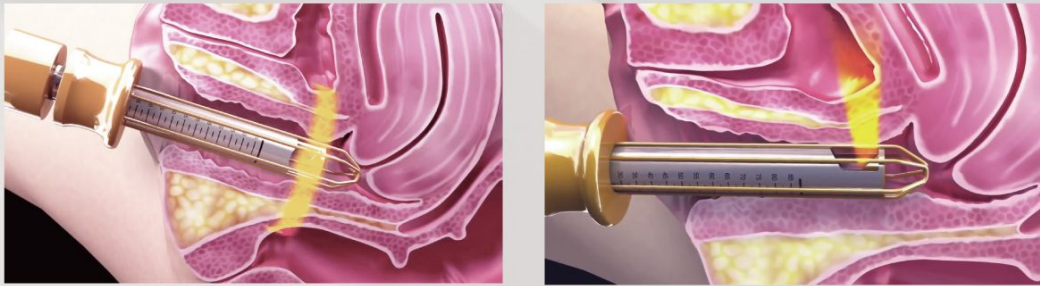




## \* Optional Module for Intimate Health

### How does Refine work to improve intimate health?

The sterilized probe will be inserted into the vulva and move along the vaginal canal, releasing laser energy in a 360° way onto the vaginal tissues, which create collagen reconstruction and regeneration. This non-invasive, gentle procedure will achieve the vaginal tightening effects without pain.



### Features

- ◆ No anesthesia required, No consumables
- ◆ Long lasting result only after a short procedure
- ◆ Painless, no bleeding, no downtime treatment
- ◆ High rate of patient's satisfaction



## Applications

Vaginal tightening

Restore vaginal tone and shape

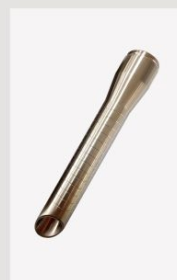
Stress urinary incontinence



For 360° vaginal tightening



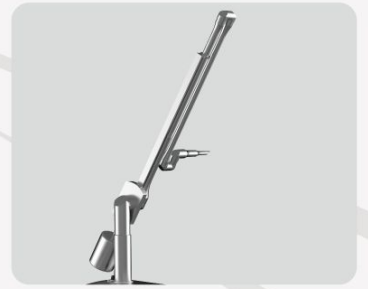
For stress urinary incontinence



For restoring vaginal tone

## Technical Parameters

Laser wavelength:	10600nm
Output power:	Regular mode 1–30W      Fractional mode 0.1–300mj
Laser source	Glass 、 RF tube optional
Laser output mode:	Super pulse, CW, Single pulse, Repeated pulse
Working mode:	Fractional mode、 Regular mode
Scanning direction:	Sequence, Divergence, Random scanning
Scanning size:	Up to 20*20mm
Spot diameter:	0.08–0.12mm
Penetration depth:	9–4800um
Aiming beam:	650nm red diode laser, laser power 0.1–5mW
Optical transmission system:	7 joints、 360° rotation
Cooling system:	Water cooling
Input power:	≤600W



# GSD<sup>®</sup>

Global Skin Dermatologist

Shenzhen GSD Tech Co.,Ltd. is a leading professional manufacturer of hi-tech aesthetic and medical equipment, combined with research, production, distribution and service with its own patents. It has been keeping pace with the international standard on technology, introducing innovative concepts continuously from RF to HIFU, from IPL to diode laser, erbium glass fractional laser, excimer light and pico laser. Under strict standards of FDA, Medical CE, ISO13485, ISO9001, GSD products have covered more than 120 countries and regions. Welcome to join us.

#### Headquarters

703, Building A, Futian TianAn Hi-Tech Venture Park, Shenzhen,  
GuangDong, China

Tel: +86-755-82049682/82049307 Fax: +86-755-82049676  
Email: [info@gsd.com.cn](mailto:info@gsd.com.cn) Website: [www.gsdaesthetic.com](http://www.gsdaesthetic.com)

#### Japan

4-14-4, Shinkoiwa, Katsushika-ku, Tokyo, Japan. Post code: 124-0024  
Tel: +81(03)-5879-4015 Fax: +81(03)-5879-4016



V2016.11