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Double Effect, Double Safety





WORLD'S FIRST
SYNFRGY DOTTING TECHNOLOGY

MFU RF SYNERGY

Achieving amazing therapeutic effects

by fusion of the two world's most famous fting treatments n one technology.





ONESMULTIPLE

SKIN GOALS

Tightening Contouring Elasticity Texture Moisturizing



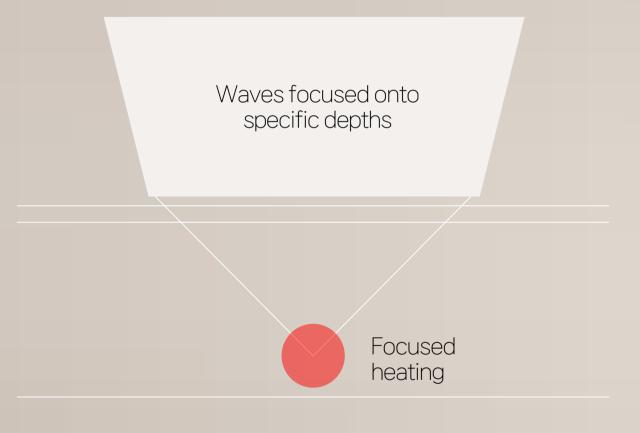
MFU

High-frequency ultrasound produce controlled heat

Microthermal coagulation

Neocollagenesis

Natural healing response





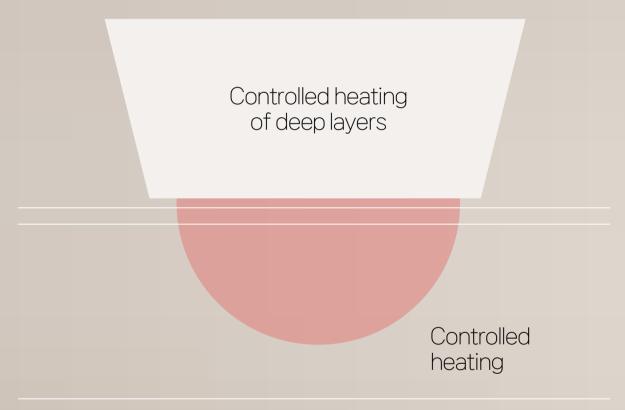
RF

Electrical currents produce controlled heat

Collagen denaturation

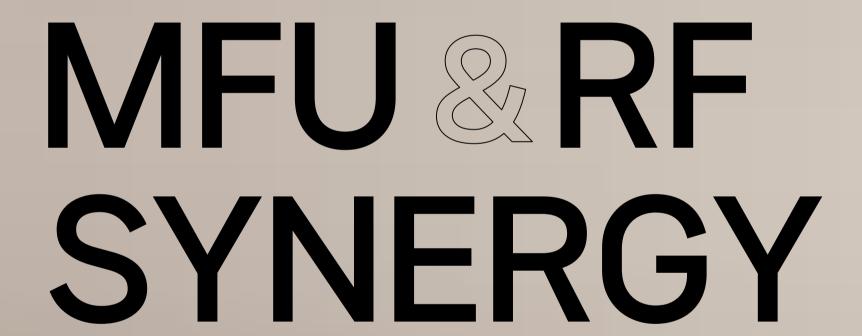
Neocollagenesis

Natural healing response

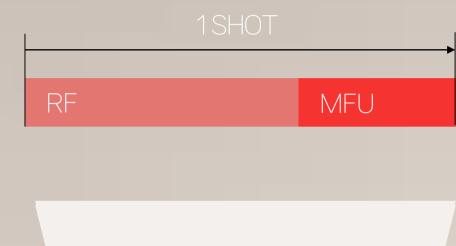


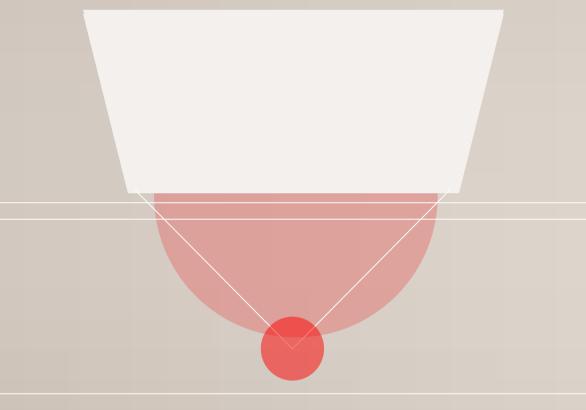


WORLD'S FIRST SYNERGY DOTTING TECHNOLOGY

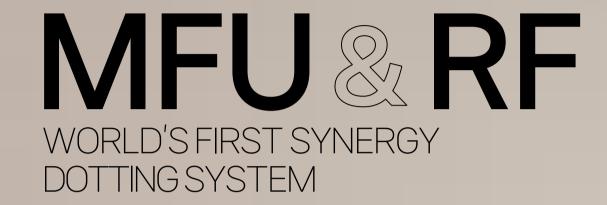


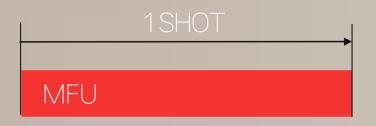
One hand piece for cross-irradiation of MFU and RF

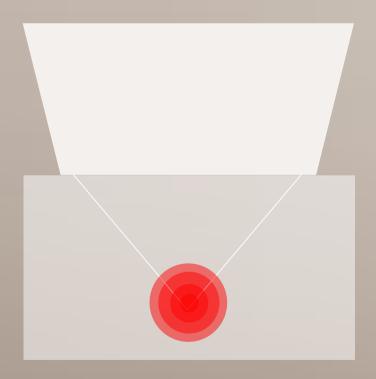






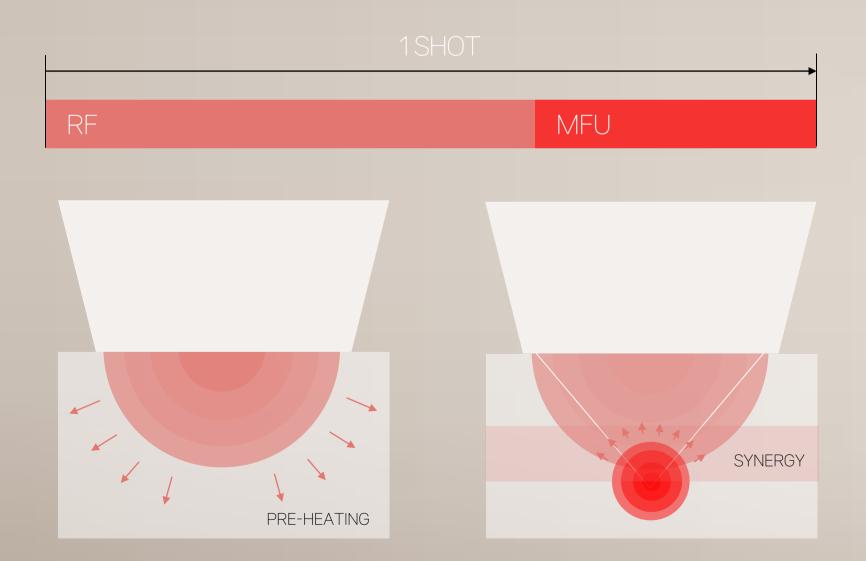




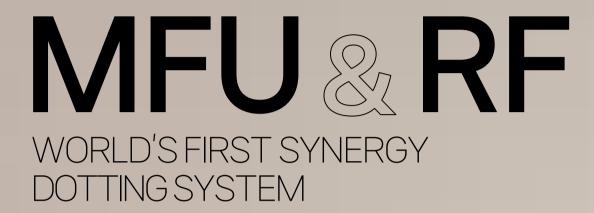




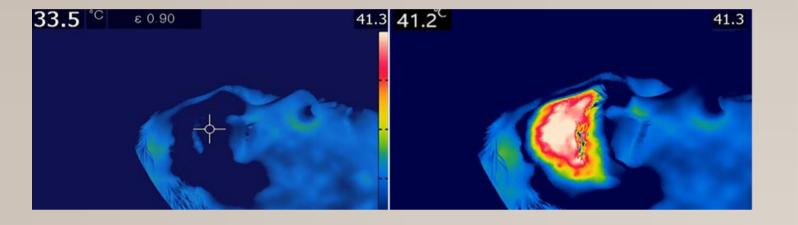
PRE-HEATING EFFECT





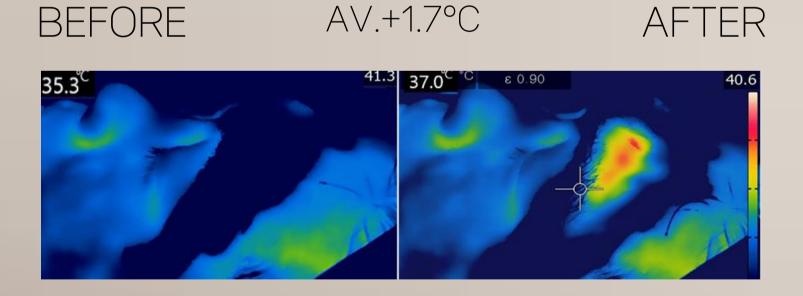


BEFORE AV.+7.7°C AFTER

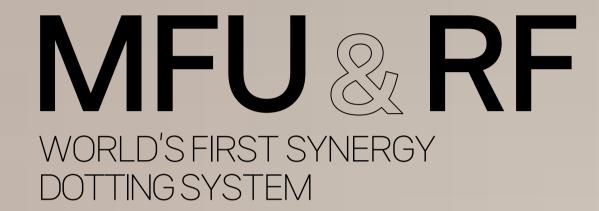


HIGHER HEATING EFFECT

VS. MFU ONLY







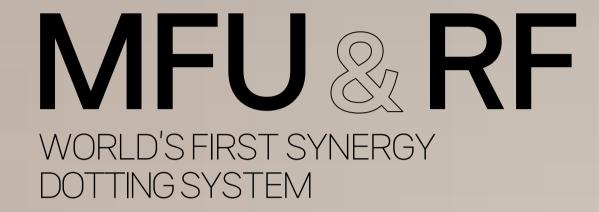
BEFORE AFTER BEFORE AFTER

HIGHER COLLAGEN ACTIVITY

VS. MFU ONLY

Preclinical Performance and Safety Evaluation Tests for Focused Ultrasound Stimulator System (Model: NEW DOUBLO / V-RO). Seoul National University Bundang Hospital. 2021.





TRIGGERING HEALING RESPONSE X 2

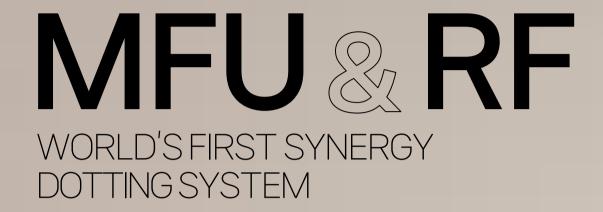
TRIGGER 1

MFU Microthermal Coagulation TRIGGER 2

RF Controlled
Bulk
Heating

MORE
PRONOUNCE
NEOCOLLAGENESIS





ENHANCING HEALING PROCESS X2

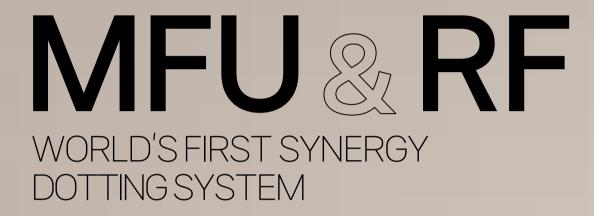
The heat generated during RF treatments can lead to vasodilation, which is the widening of blood vessels. This dilation can enhance blood flow to the treated area, improving oxygen and nutrient delivery to the cells.

Blood Circulation Improvement

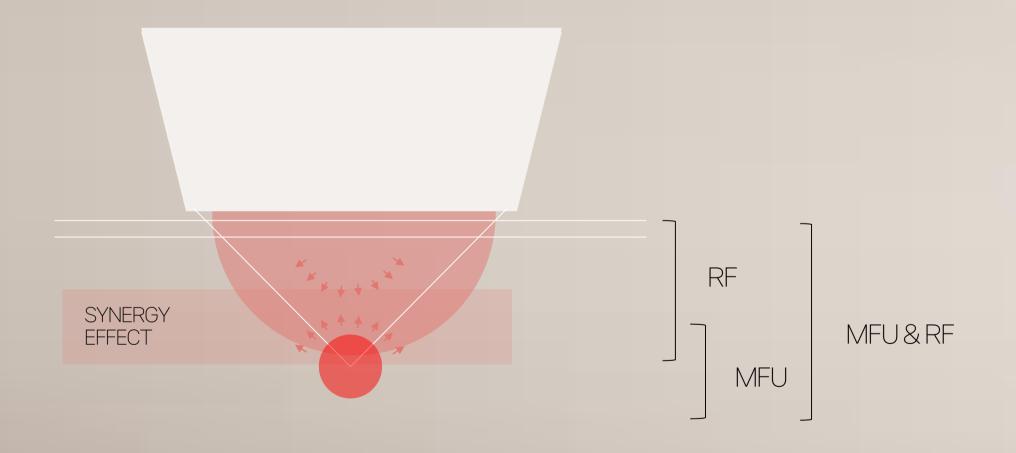
Cells
Metabolism
Enhancement

The increase in temperature within the targeted skin tissue can stimulate cellular metabolic activity. As cells become more active, they may require more oxygen for their functions.





EFFECT X2 EXPANSION X2



ORIGINAL ARTICLE

Efficacy of radiofrequency combined with single-dot ultrasound efficacy for skin rejuvenation: A non-randomized split-face trial with blinded response evaluation

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- ²Clinical Trial Division, Human Co., Ltd. Skin Clinical Trial Center, Seoul, South Korea
- ³Department of Dermatology, Human Dematology Clinic, Gangseo, Seoul, South
- ⁴Department of Dermatology, Human Dematology Clinic, Cheong-la, Incheon, South

Correspondence

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Email: hwk0417@gmail.com

Funding information

the Human Co., Ltd. Skin Clinical Trial Center

Background: High-intensity focused ultrasound (HIFU) and radiofrequency (RF) are non-invasive modalities for skin rejuvenation, but their combined effects have not been

Objective: We evaluated and compared the efficacy of HIFU alone and combined HIFU and bipolar RF using a newly designed probe.

Methods: Twenty-two Korean adults with facial wrinkles and aging underwent treatment on both sides of their face: HIFU-only on the left and HIFU combined with RF on the right. Skin parameters were measured at different time points to evaluate the improvement in skin rejuvenation.

Results: HIFU treatment significantly improved skin parameters, including pore volume and number, skin elasticity, depth of eye wrinkles, degree of sagging in the eye area, nasolabial folds and cheeks, volume of the jawline, skin density, and permittivity. Furthermore, combining bipolar RF with HIFU treatment enhanced efficacy in reducing pore number, improving skin elasticity, diminishing eye wrinkle depth, and increasing skin moisturization. These findings indicate that bipolar RF can synergically improve skin rejuvenation by providing a thermal effect to the upper papillary dermis, which is more superficial than the target area of HIFU.

Conclusion: Combining HIFU with bipolar RF synergistically improves skin rejuvenation, including pore reduction, periorbital wrinkle improvement, skin elasticity, and skin moisturization.

bipolar radiofrequency, facial lifting, high intensity focused ultrasound, skin rejuvenation

INTRODUCTION

Various non-ablative modalities have been developed for skin rejuvenation, including High-intensity focused ultrasound (HIFU) and

radiofrequency (RF) are non-invasive modalities for skin rejuvenation that selectively induce thermal injury in the dermis while sparing the overlying epidermis.^{1,2} These techniques target dermal collagen for remodeling and have been used for lifting eyebrows, nasolabial folds,

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Skin Res Technol. 2023:29:e13452. https://doi.org/10.1111/srt.13452 wileyonlinelibrary.com/journal/srt 1 of 8

WILEY

SYNERGISTICALLY **IMPROVES SKIN** REJUVENATION, including pore

Combining HIFU

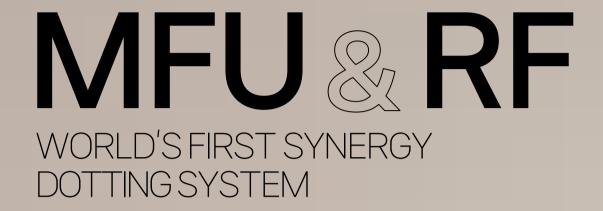
with bipolar RF

reduction, periorbital wrinkle improvement, skin elasticity, and skin moisturization.

¹Department of Dermatology, INHA University School of Medicine, Incheon, South







BEFORE

AFTER

AFTER





EFFECTIVE

EYE **WRINKLES IMPROVEMENT**

*8 WEEKS

BEFORE



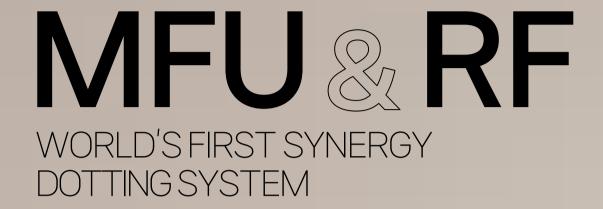




WS. MFU **ONLY**

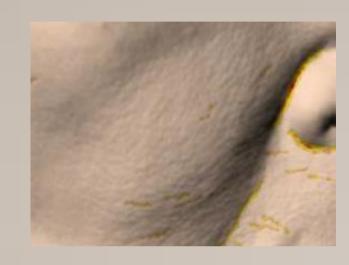
> Superiority of HIFU + RF Synergy compared to HIFU. Human body application test results from Human Skin Clinical Trial Center. August 2022.





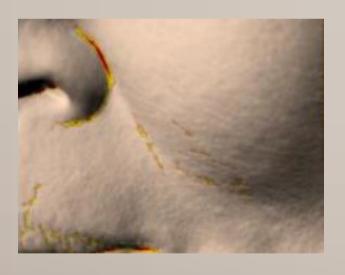
BEFORE

AFTER



BEFORE

AFTER





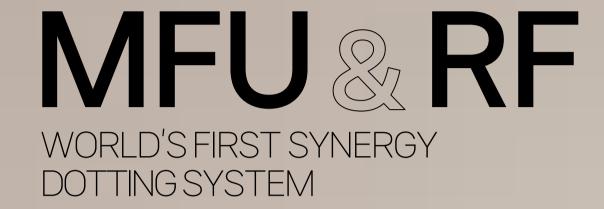
VS. MFU ONLY

Superiority of HIFU + RF Synergy compared to HIFU. Human body application test results from Human Skin Clinical Trial Center. August 2022.

27%
MORE
EFFECTIVE
SMILE
LINES
IMPROVEMENT

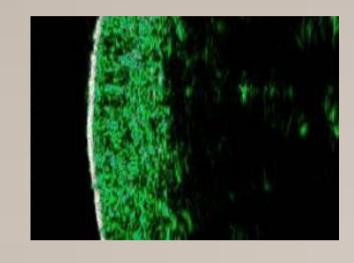
*8 WEEKS

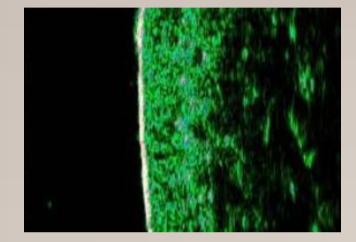




BEFORE

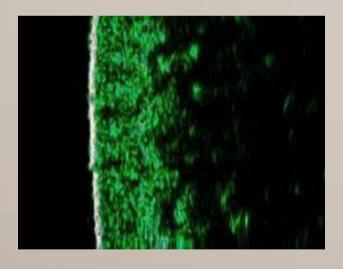
AFTER

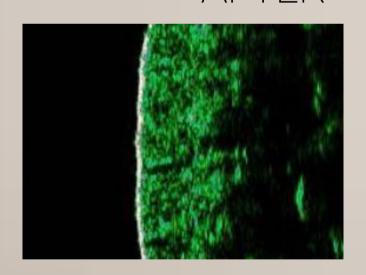




BEFORE

AFTER





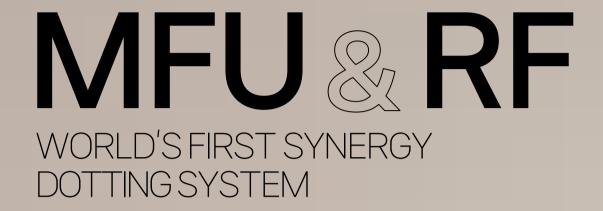
VS. MFU ONLY

Superiority of HIFU + RF Synergy compared to HIFU. Human body application test results from Human Skin Clinical Trial Center. August 2022.

43%
MORE
EFFECTIVE
INNER SKIN
DENSITY
IMPROVEMENT

*8 WEEKS



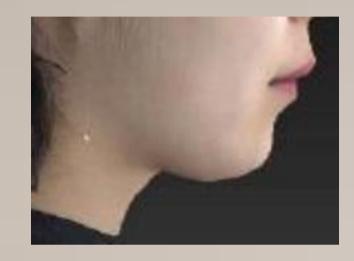


WS. MFU

ONLY

BEFORE

AFTER

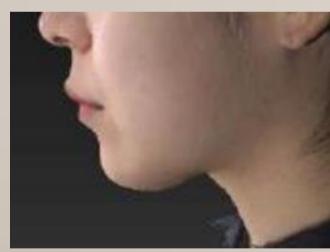


BEFORE

2022.

AFTER





Superiority of HIFU + RF Synergy compared to HIFU. Human body

application test results from Human Skin Clinical Trial Center. August

31%
MORE
EFFECTIVE

JAWLINE LIFTING EFFECT

*8 WEEKS



MFU&RF

WORLD'S FIRST SYNERGY DOTTING SYSTEM

Average comparative advantage of Synergy Dotting (MFU&RF) of the New Doublo to MFU treatment in terms of effects

Superiority of HIFU + RF Synergy compared to HIFU. Human body application test results from Human Skin Clinical Trial Center. August 2022.

Category	Parameter	MFU	MFU & RF Synergy
	Eye Wrinkle Improvement	×1	× 1.6
Skin Tightaning 9	Smile Lines Improvement	×1	x 1.3
Tightening & Contouring	Inner Skin Density	×1	x 1.8
	Jawline Improvement	×1	× 1.4
Elasticity	Elasticity of Outer Skin	×1	× 1.4
	Elasticity of Inner Skin	×1	× 1.3
	Elasticity Recovery	×1	× 1.2
	Pores Density	×1	x 1.8
	Pores Count	×1	x 2.0
Skin Texture	Pores Depth	×1	× 1.6
	Pores Volume	×1	× 1.2
	Skin Irregularity	×1	× 1.7
Skin	Outer Skin	×1	× 1.7
Moisturizing	Inner Skin	×1	x 4.8



MORLD'S FIRST SYNERGY DOTTING SYSTEM

EYE WRINKLES
SMILE LINES
JAWLINE







MORLD'S FIRST SYNERGY DOTTING SYSTEM

EYE WRINKLES
SMILE LINES
JAWLINE











VERSATILITY

Tailor treatments to each patient's unique needs.



4 HANDPIECES CONNECTION

2 Synergy Dotting Handpieces, 2 Focused Linear Handpieces



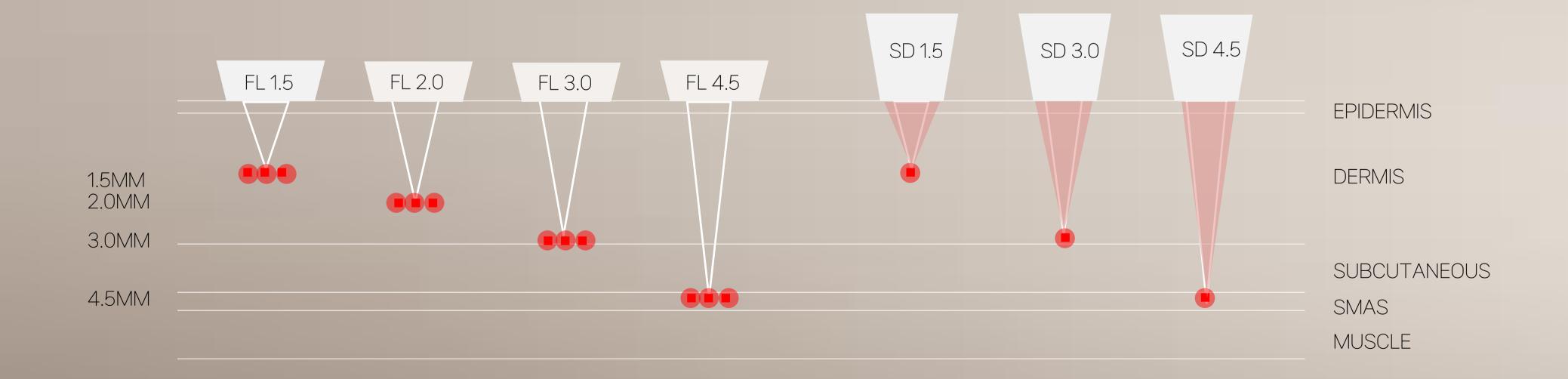
20 TYPES OF CARTRIDGES FOR FACE AND BODY

4 SD 1.5, 3.0, 4.5. 9.0 4 SD Long 1.5, 3.0, 4.5, 9.0 6 FL 1.5, 2.0, 3.0, 4.5, 6.0, 9.0 6 FL Advanced 1.5, 2.0, 3.0, 4.5, 6.0, 9.0



Targeted treatments require precision to avoid affecting surrounding healthy tissue. Cartridges with adjustable penetration depth settings can help practitioners tailor the treatment to the specific area they want to address.

PRECISION IN TARGETING





Tailor treatments to suit individual needs, ensuring a more personalized and patient-centered approach to care.

ULTIMATE CUSTOMIZATION

LAYERED TREATMENTS

Layered treatments with cartridges of different penetration depths may be employed. This approach allows for comprehensive and multi-level treatment for complex conditions.

Choose between advanced and standard cartridges, switch between LINE and DOT modes, layer your treatments, adjust power, spacing, frequency, offer your patients ultimate customization





EFFECTIVENESS PROVED BY CLINICAL STUDIES

Superiority of HIFU + RF Synergy compared to HIFU. Human body application test results from Human Skin Clinical Trial Center. August 2022.

+83%

SMILE LINES IMPROVEMENT

+29%

JAWLINE IMPROVEMENT +25%

DENSITY OF INNER SKIN

+10%

EYE WRINKLES IMPROVEMENT



EFFECTIVENESS PROVED BY CLINICAL STUDIES

Superiority of HIFU + RF Synergy compared to HIFU. Human body application test results from Human Skin Clinical Trial Center. August 2022. +22%

SKIN ELASTICITY IMPROVEMENT

+35%

MOISTURIZING OF OUTER SKIN

+24%

SKIN PORES IMPROVEMENT

+6%

SKIN TEXTURE IMPROVEMENT



FULL-BODY MFU SCULPTING & SKIN TIGHTENING

The 4 cartridges for body application allow to offer your customers ultimate body sculpting treatments.

IMMEDIATE RESULTS

NO DOWNTIME

NO PAIN

- Abdomen
- Flanks
- Bra Line
- Neck
- Decolletage
- Arms
- Underarms

- Back
- Buttocks
- Hips
- Thighs
- Knees
- Calves
- Ankles

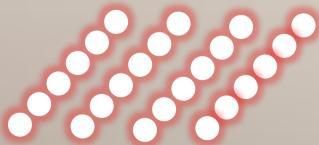




100% COVERAGE WITH LINE MODE

N3





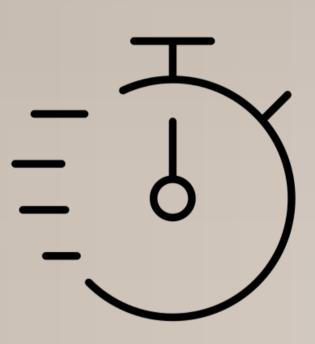


AUTO DOT Mode

^{*} One-touch switch between modes



EXTREMELY FAST TREAMENT



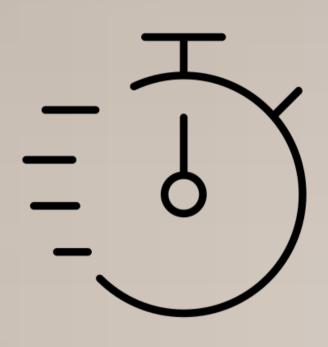
Standard 300 shots treatment for facial skin, depending on parameters settings, starting from

3 MINUTES

Treating the face for facial skin tightening and lifting, a basic MFU treatment might involve around 300 to 400 individual ultrasound shots. On the other hand, when treating larger areas or areas with more significant laxity, such as the neck or decolletage, the number of shots may increase to 500 or more.



EXTREMELY FAST TREAMENT



TIME SAVING SOLUTIONS



4 HANPIECES CONNECTED NO NEED TO SWITCH CARTRIDGES



AUTOMATIC RECOGNITION OF HANDPIECE



EASY POWER ADJUSTMENT VIA SUB LCD DISPLAY ON THE HANDPIECE



SAFETY

CONTACT SENSOR

The cartridge will stop operating when it is not contacted with the skin





MOVEMENT SENSOR

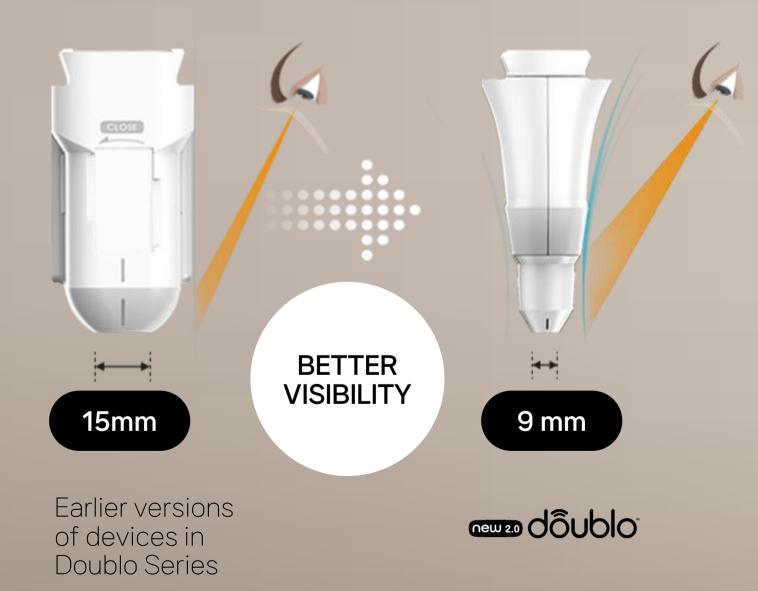
The movement sensor prevents consecutive shots in one place

PATENTED





SAFETY



SLIMMER AND LIGHTER CARTRIDGES

GREATER MANEUVERABILITY, PRECISION, AND OBSERVATION ANGLE

make it easier to target specific areas accurately, reducing the risk of unintended treatment in surrounding regions and minimize the potential for injury or discomfort to the patient.

REDUCED WEIGHT AND SIZE

of cartridges can lead to less fatigue for practitioners during extended procedures, helping maintain consistent treatment quality and safety.









2 TYPES OF HANDPIECES

Synergy Dotting HP – MFU & RF Synergy Dotting Focused Liner HP – Classic MFU



QUATTRO HANDPIECES

2 Synergy Dotting HP, 2 Focused Linear HP



20 TYPES OF CARTRIDGES FOR FACE AND BODY

4 SD 1.5, 3.0, 4.5. 9.0 4 SD Long 1.5, 3.0, 4.5, 9.0 6 FL 1.5, 2.0, 3.0, 4.5, 6.0, 9.0 6 FL Advanced 1.5, 2.0, 3.0, 4.5, 6.0, 9.0







SYNERGY DOTTING HANDPIECE





1 DOT MFU MULTIPOLAR RF



FOCUSED LINEAR HANDPIECE

The handpiece for application of the classis MFU, DOTs and LINE modes available







APPLICATION		BODY		
DEPTH	1.5 mm	3.0 mm	4.5 mm	9.0 mm
P – PEN TYPE	P1.5		P4.5	THE THE LEGAL OF THE PARTY OF T
L – LONG TYPE	L15	Tall Talletting	LA.5	



APPLICATION		FA	BODY			
DEPTH	1.5 mm	2.0 mm	3.0 mm	4.5 mm	6.0 mm	9.0 mm
CURVATURE	SL	IM	NOR	MAL	WI	DE
	<i>51.5</i>	52	N3 8	N4.5	W5	WS
CARTRIDGES			ADVA	NCED		
	A1.5	AZ	A3	A4.5	AE	AS





CONVENIENCE SYSTEM

12.1" WIDE DISPLAY

- 1. Easy and intuitive GUI
- 2. Easy parameter setting

HANDPIECE SUB LCD DISPLAY

- 1. Check parameters
- 2. Check shots count
- 3. Regulate power
- 4. Intuitive GUI



2-WAY SHOOTING METHOD

- 1. Foot switch
- 2. Handpiece Sub LCD Display



Type	Depth, Frequency	Model Na	me	DOT Mode	LINE Mode	Spacing	Length
	1.5mm, 7MHz	S1.5 A	1.5	0.1J - 0.5J	0.1J - 0.5J		
	2.0mm, 7MHz	S2.0 A	2.0	0.1J - 1.0J	0.1J - 0.8J		
FL	3.0mm, 7MHz	N3.0 A	3.0	0.1J - 1.0J	0.1J - 1.0J	1.0 - 5.0mm	5.0 - 25mm
(MFU)	4.5mm, 4MHz	N4.5	4.5	0.1J - 1.5J	0.1J - 1.0J		
	6.0mm, 2MHz	W6.0 A6	6.0	0.1J - 3.0J	0.1J - 2.0J		
	9.0mm, 2MHz	W9.0	9.0	0.1J - 3.0J	0.1J - 2.0J		

Туре	Depth, Frequency	RF Frequency	Model Name			Power	Hz	
SD (MFU+ RF)	1.5mm, 7MHz	2MHz Bipolar RF	P1.5		L1.5			Max. 10Hz*
	3.0mm, 7MHz	2MHz Bipolar RF	P3.0		L3.0		Lv 1 - 10	
	4.5mm, 4MHz	2MHz Bipolar RF	P4.5		L4.5			
	9.0mm, 2MHz	2MHz Bipolar RF	W9.0		L9.0			

^{* 7 - 10} Hz depending on power level



ABOUT HIRONIC

HIRONIC is an medical aesthetics equipment manufacturer from South Korea, an industry leader, known for our innovative, hightech medical and aesthetic energy-based devices, such as New Doublo, Silkro, PICOHI, and others. We prioritize research and development to create cutting-edge solutions that deliver safe and effective treatments, benefiting both practitioners and patients.

FIND OUT MORE

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Double Effect, Double Safety