

LaserHF® "comfort"

REF 452 471

Equipment and accessories:

- LaserHF fiber tip 320 µm (3 pcs.) REF 452 469
- LaserHF fiber tip 200 µm (3 pcs.) REF 452 470
- LaserHF hand piece (red) REF 452 467
- LaserHF hand piece (orange) REF 452 468
- 2 radio frequency hand pieces (autoclavable) REF 452 423 (yellow)
REF 452 425 (blue)

- Safety glasses Lambda One (800 – 980 nm) ① REF 355 630
- Safety glasses Skyline (green, 800 – 980 nm) ② REF 355 631
- Safety glasses Skyline (blue, 657 – 665 nm) ③ REF 355 632
- Safety glasses for patients ④ REF 355 633

- set of radio frequency electrodes REF 452 440
(no. 40,2,13,15,31,33)
- neutral electrode REF 452 421
- foot switch, user manual

other accessories (optional):

- radio frequency bipolar forceps (straight & bended)
- PDT substance
 - gel for periodontics
 - liquid for endodontics
- fiber tip bending aid
- fiber cutter
- lupe glasses (with laser protection) ⑤



Technical Data:

Laser aPDT: 660 nm/100 mW
 Laser: 975 nm/8 W - cw and pulsed
 RF 2.2 MHz/50 W - monopolar/bipolar
 Dimensions: W 300 x D 250 x H 121 mm
 Mains: 230 V/50 - 60 Hz (110 V available)
 Weight: about 3,5 kg



LaserHF standard, REF 452 462



Even more "comfort"!

LaserHF® Curver



Article description	REF
LaserHF Curver	452 480

LaserHF® Bleaching-hand piece



Article description	REF
LaserHF Bleaching-hand piece	452 472

Laser and RF surgery: Both technologies are important in modern dentistry. In oral surgery, in the field of cutting and coagulation, the well-established RF technology features clear advantages versus laser units. In other fields of application, such as endodontics, periodontology, and implantology as well as in relatively new applications, such as LLLT and aPDT, only laser technology can offer new and fascinating opportunities. Even though the laser has not become the all-round device for the dentist, the so-called diode and therapy lasers have been largely accepted as aids in the modern dental practice.

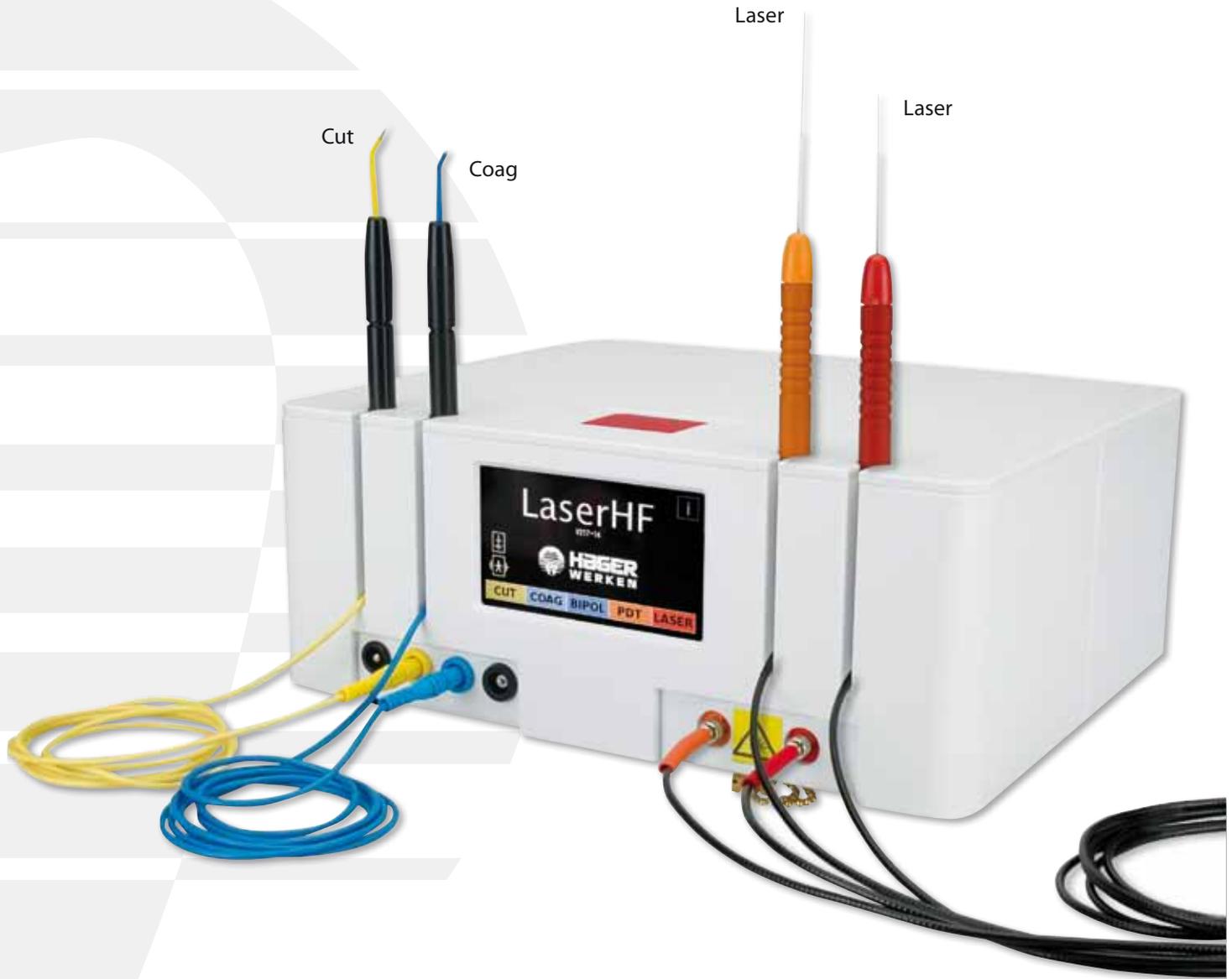
The time has come for a device combining the strength of both technologies. Hager & Werken has faced this challenge successfully and launched the first combination device of Laser and RF technology.

	For all applications:		
	Laser	HF	LaserHF*
Oral surgery	●	●	●
Periodontology	●	●	●
Implantology	●	●	●
Endodontics	●	●	●
aPDT	●	●	●
LLLT	●	●	●

The colored LaserHF touch-screen display leads quickly and clearly to 15 pre-set laser programs and 5 pre-set programs in the RF unit. Additional individual programming is possible for each indication.



Laser + Radio Frequency in daily dentistry



LaserHF "comfort"

Radio frequency Surgery: Optimal Cutting and Coagulation

Radio Frequency (RF) technology has been advancing consistently since the 1970s. It has been considered as basic technology widely accepted by dentists for oral surgery. Hager & Werken has been active in this field for a long time.

HF surgery produces fine, scalpel-like cuts without pressure and risk of necrosis. The wound edges are cut sharp and sterile, so healing is quick and virtually pain-free. RF surgery is ideal for gingivectomy and gingivoplasty. It is also perfect for quick fibroma removal as well as for frenectomy and frenotomy. It makes sulcus extensions (e.g. prior to perfect impressions) as easy as tissue removal for histological examination.

The RF component of the LaserHF device is equipped with two independent hand pieces, yellow for "cutting" and blue for "coagulation". Various electrodes and one bipolar forceps are available as optional extras.

*"Radio frequency surgery is the important completion of the techniques used for smaller surgical treatments in dentistry."**

*R. Mausberg, E. Hornecker, H. Visser, Periodontal Department, Georg-August University, Göttingen, Germany

Your Selection!

- Radio Frequency
- Diode Laser
- Therapy Laser



Coagulation



Cut

The control panel displays three modes:

- BIPOLAR MODE:** Shows a power level of 12 PØ. Includes icons for safety and a bipolar electrode symbol.
- COAG MODE:** Shows a power level of 8 PØ and a pulse width of 250 ms. Includes icons for safety and a coagulation electrode symbol.
- CUT MODE:** Shows a power level of 35 PØ and a pulse width of C 8. Includes icons for safety and a cutting electrode symbol.

At the bottom of the Cut Mode screen, there are buttons for CUT, COAG, BIPOL, PDT, and LASER.

Diode Laser 975 nm/6 W: Periodontology, Endodontics & More

The broad spectrum of applications for the diode laser means that it is now the most widely used device in laser dentistry. In endodontics, the diode laser can be applied for decontamination of the root canal and for treatment of periodontal diseases as bacteria are killed by the powerful radiation. Special fields of application in soft tissue surgery are implant exposure and periodontal germ reduction at metal crowns.

In cosmetic dentistry, the diode laser is used for activation of bleaching materials.

*"Diode lasers offer an interesting – but not unlimited – field of application in modern dentistry including periodontology, endodontics and soft tissue treatment."***

**Dr. med. Frank Liebaug, Steinbach-Hallenberg

Your Selection!

- Radio Frequency
- Diode Laser
- Therapy Laser



Root Canal Decontamination



Implant Exposure

P1 PER	coagulation	cw	1.5 W
P2 PER	bacteria reduction	cw	1.0 W
P3 PER	curetage	□□	2.0 W 20 ms 1:4
P4 ENDO	canal decontamin.	□□	2.0 W 5 ms 1:5
P5 DES	desensibilisation	cw	1.0 W

! LASER ! **! 60 !**

STOP □□ **2.0**
P max W

P 4 □_{CON} □□ ▼ ▲

canal de

LASER MODE

START □_{CW} **4.3**
P max W

P 2 ▼ ▲

implant recovery

CUT COAG BIPOL PDT **LASER**

Therapeutic Laser: LLLT, aPDT

The light of a soft laser (25 – 100 mW, 660 nm) has opened the spectrum of therapeutic applications, such as treatment of inflammations, aphthae, and herpes, to laser dentistry. The Low Level Laser Therapy (LLLT) uses monochromatic laser light in order to stimulate healing in microbial lesions.

By means of a photosensitizer, the antimicrobial Photodynamic Therapy (aPDT) allows destruction of microorganisms, even in hard-to-access areas, without harming the surrounding tissue.

The LLLT uses the biostimulating power of light to relieve pain, heal wounds and regenerate tissue. The soft laser offers the dentist several interesting fields of application.

Your Selection!

- Radio Frequency
- Diode Laser
- Therapy Laser



Aphthae Treatment



Antimicrobial Therapy

P1	PDT photodyn. therapy	50 mW	60 s
P2	acupuncture pain treatment	90 mW	180 s
P3	herpes	50 mW	240 s
P4	aphthae	100 mW	60 s
P5	pressure points	100 mW	120 s

PDT MODE

START TIME 120 s **50** P max mW

P 3 herpes

▼ ▲

CUT COAG BIPOL PDT LASER