




# Harmonic™ 1100 Shears

Is designed to deliver fast transection speeds, low maximum blade temperature & precise dissection capabilities<sup>1-5\*</sup>



 Has a next generation Adaptive Tissue Technology algorithm that actively controls blade heat to lower the maximum blade temperature of the device<sup>3¥</sup>

 Had transection speeds statistically faster than HARMONIC™ ACE+7\* for shorter tissue exposure<sup>1-3,6,7#</sup>

 Curved, tapered tip has enabled more precise dissection than HARMONIC™ ACE+7<sup>3,5,8#</sup>

	HARMONIC™ ACE+7	HARMONIC™ 1100
Unique blade design delivered secure seals <sup>3,9,10†</sup>		●
Had transection speeds statistically faster than HARMONIC™ ACE+7 <sup>1-3,6,7#</sup>		●
Improved temperature control <sup>3¥</sup>		●

## HARMONIC™ 1100 Shears has an improved Adaptive Tissue Technology algorithm that actively controls blade heat to lower the maximum blade temperature of the device<sup>4¥</sup>

### HARMONIC™ 1100 Shears had a lower maximum blade temperature than ACE+7<sup>4\*\*</sup>

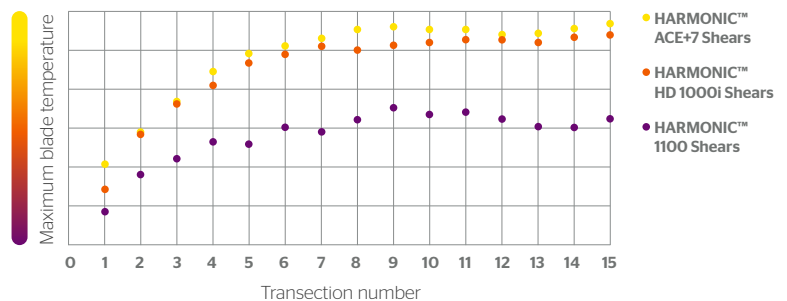
- Maintains blade temperature when prolonged activation is required<sup>4</sup>
- Had improved tissue pad life compared to HARMONIC™ HD 1000i Shears for continued reliability throughout the procedure<sup>11,12‡</sup>

### Had transection speeds statistically faster than HARMONIC™ ACE+7<sup>1-3,6,7#</sup>

- The Energy button is designed to provide the reliable sealing of the MIN button on ACE+7 with the cutting speed of the MAX button on ACE+7<sup>1-3,6,13,14‡</sup>

### HARMONIC™ 1100 Shears

- had a lower maximum blade temperature than ACE+7<sup>4\*\*</sup>
- had a lower maximum blade temperature than HD 1000i<sup>4ff</sup>



\* Compared to HARMONIC™ ACE+7 Shears as demonstrated in engineering and pre-clinical studies

¥ Compared to previous generations of HARMONIC™ devices

≠ Based on bench top study with porcine vessels 3-5 mm in diameter

# Based on a Pre-Clinical evaluation

† Based on a benchtop study with 5-7mm porcine carotid arteries. (Burst pressure:1878 mmHg)

\*\*Based on benchtop study that showed HARMONIC™ 1100 had significantly lower maximum blade temperature than Harmonic HD 1000i Shears after 15 tip bite transections

‡ Based on testing at Power Level 5

∂ Seal reliability at 240 mm Hg of 98.2% vs. 98.4% for HARMONIC™ ACE+7 MIN button. Speed based on average time to transect 150mm of porcine jejunum (p>0.001)

ff Based on benchtop study that showed HARMONIC™ 1100 had significantly lower maximum blade temperature than Harmonic HD 1000i Shears after 15 tip bite transections

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# Harmonic™ 1100 Shears

## More precise dissection with curved, tapered tip<sup>3,5,8\*¥</sup>

- Curved, tapered tip has enabled more precise dissection than HARMONIC™ ACE+7<sup>3,5,8\*</sup>
- With a unique blade design, HARMONIC™ 1100 shears delivered secure seals<sup>3,9,10#</sup>

### End effector profile differences:

#### HARMONIC™ 1100 Shears vs HARMONIC™ ACE+7 Shears



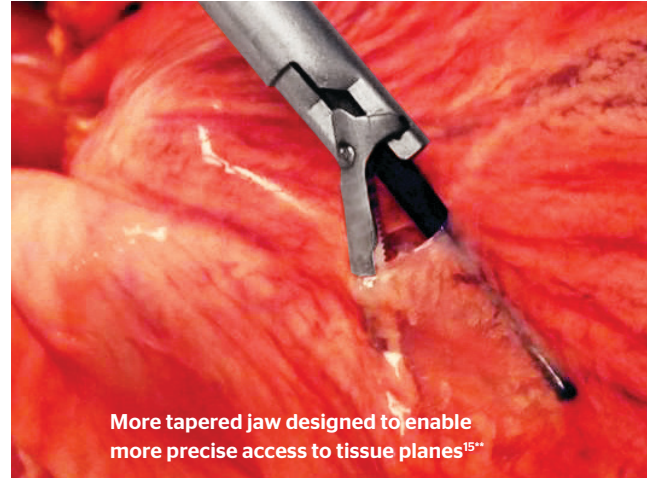
Side profile view



Top profile view

- HARMONIC™ ACE+7 Shears
- HARMONIC™ 1100 Shears

### Improved precision<sup>3,5,8\*\*¥</sup>



More tapered jaw designed to enable more precise access to tissue planes<sup>15\*\*</sup>

## The next generation of HARMONIC™ 1100 Shears is designed to deliver fast transection speeds, low maximum blade temperature & precise dissection capabilities<sup>1-5#</sup>

### Ordering Information

PRODUCT CODES	DESCRIPTION	QUANTITY/SALES UNIT
HAR1120	HARMONIC™ 1100 Shears, 20 cm length	6
HAR1136	HARMONIC™ 1100 Shears, 36 cm length	6

For ordering or other questions about HARMONIC™ 1100 Shears, contact your local Ethicon Sales Representative

\* Based on a Pre-Clinical evaluation

¥ Compared to HARMONIC™ ACE+7

# Based on a benchtop study with 5-7mm porcine carotid arteries. (Burst pressure:1878 mmHg)

≠ Compared to HARMONIC™ ACE+7 Shears as demonstrated in engineering and pre-clinical studies

\*\* Device measurements based on a metrology study

**References:** **1.** Ethicon, PRC74432B, Buccaneer Energy Button Vessel Claims, April 2016, Data on File (176074-210507, 173359-210409, 117220-210514) **2.** Ethicon, PRC094080B, Scarlet DV- Vessel Transection Speed (and Burst Pressure), March 2020, Data on File (176074-210507, 173359-210409, 117220-210514) **3.** Ethicon, SCNO75090A, Scarlet Witch Physical Equivalence memo, April 2020, Data on File (176074-210507, 176071-210507, 173359-210409, 173360-210409, 118720-210507, 117220-210514) **4.** Ethicon, PRC095370A, Project Scarlet: Blade Temperature, May 2020, Data on File (176074-210507, 1173361-210409) **5.** Ethicon, PSPO04888A, HARMONIC™ HD 1000i Open Shears (HARHD20) and HARMONIC™ HD, 1000i Laparoscopic Shears (HARHD36): Design Verification Acute Study in the Pig, March 2016, Data on File (176074-210507, 173360-210409) **6.** Ethicon, PRC092654A, Buccaneer Harmonic Burst Pressure Investigation, Nov 2019, Data on File (173359-210409, 117220-210514) **7.** Ethicon, PRC051292A, Vic - transection time evaluation with surgeons, June 2011, Data on File (173359-210409) **8.** Welling AL et al, Superior dissecting capability of a new ultrasonic device improves efficiency and reduces adhesion formation, Glob Surg. 2017;3(1):1-5 (173360-210409) **9.** Ethicon, PRC074054A, Buccaneer Thermal Spread And Burst Claims, Feb 2016, Data on File (118720-210507) **10.** Ethicon, PSB004423A, Project Buccaneer HARMONIC™ HD 1000i Laparoscopic Shears (HARHD36): Design Verification Chronic (30 day) Survival Study in the Pig, March 2016, Data on File (118720-210507) **11.** Ethicon, PRC093983B, Scarlet 510k and Design Verification - Pad Life, March 2020, Data on File (176081-210507) **12.** Ethicon, DR000290S, Quality Record, June 2018, Data on File (176081-210507) **13.** Ethicon, PRC074127B, Buccaneer DV- Transection Speed (Marching & Tip Bite), March 2016, Data on File (117220-210514) **14.** Ethicon, PRC094084B, Project Scarlet - Marching Transection Speed (Full & Tip), March 2020, Data on File (117220-210514) **15.** Ethicon, PRC074607, Buccaneer Metrology Claims, March 2016, Data on File (118655-190715)

Please refer always to the Instructions for Use / Package Insert that come with the device for the most current and complete instructions.

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