## HARMONIC™ 1100 Shears

Ultrasonic leader proven to minimize the impact on tissue<sup>18-27\*\*</sup>

# Fast transection, precise dissection and Improved temperature control<sup>1-5\*</sup>





Improved Adaptive tissue technology that actively controls blade heat for lower maximum blade temperature<sup>3¥</sup>



Had transection speeds statistically faster than HARMONIC™ ACE+7\* for shorter tissue exposure<sup>2,3,6-8†</sup>



More precise dissection with curved, tapered tip 34,9#≤

	HARMONIC™ ACE+7	HARMONIC™ 1100
Strong sealing <sup>3,10,11**</sup>	•	•
Fast Transection <sup>3,7,8,12</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>3</sup>\*

#### Smart Energy delivery3¥

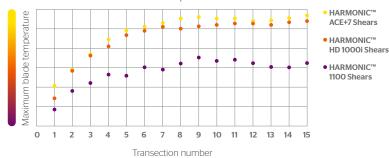
- Maintains blade temperature when prolonged activation is required4
- Had improved tissue pad life compared to HARMONIC™ HD 1000i Shears. 13,14+±

#### Fast transection<sup>3,7,8,12∂</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™+71-3,7,15,16∂

#### HARMONIC™ 1100 Shears

- had a lower maximum blade temperature than ACE+7 4\*\*
- 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
- 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
- ≤ Compared to HARMONIC™ACE+7
- ± Compared to HARMONIC™ HD 1000i Shears
- $\delta$  In a bench top study comparing sealing times of HARMONIC ACE+7 and HARMONIC HD1000i. HARMONIC HD1000i Shears transected vessels faster than HARMONIC ACE+7 (mean vessel transection time of 9.186 seconds vs 15.291 seconds)
- \*\* As per designed and internal market share data.

#### **Ethicon Energy Solutions. Healing first**



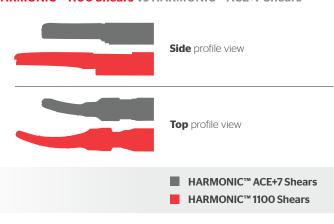
## HARMONIC™ 1100 Shears

### More precise dissection with curved, tapered tip<sup>3,5,9\*\*</sup>

- Curved, tapered tip has enabled more precise dissection than HARMONIC™ ACE+7<sup>3.59\*</sup>
- With a unique blade design, HARMONIC™ 1100 shears delivered secure seals<sup>310,11#</sup>

#### End effector profile differences:

HARMONIC™ 1100 Shears vs HARMONIC™ ACE+7 Shears



#### Improved precision3,5,9\*\*



## The next generation of HARMONIC<sup>™</sup> 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 (176074-210823. 117220-210514) 2. Ethicon, PRC094080B, Scarlet DV- Vessel Transection Speed (and Burst Pressure), March 2020, Data on File (176074-210823, 173359-210409, 117220-210514) 3. Ethicon, SCN075090A, Scarlet Witch Physical Equivalence memo, April 2020, Data on File (176074-210823, 176071-210705, 173359-210409, 173360-210409, 118720-210705, 117222-210705, 117220-210514) 4. Ethicon, PRC095370C, Project Scarlet: Blade Temperature, May 2020, Data on File (176074-210823, 173361-210409, 173358-210409) 5. Ethicon, PSP004888A, 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 (176074-210823, 173360-210409) 6. Ethicon, PRC74432B, Buccaneer Energy Button Vessel Claims, April 2016, Data on File (173359-210409) 7. Ethicon, PRC092654A, Buccaneer Harmonic Burst Pressure Investigation, Nov 2019, Data on File (173359-210409, 117222-210705, 117220-210514) 8. Ethicon, PRCO51292A, Vic - transection time evaluation with surgeons, June 2011, Data on File (173359-210409, 117222-210705) 9. 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) 10. Ethicon, PRC074054A, Buccaneer Thermal Spread And Burst Claims, Feb 2016, Data on File (118720-210705) 11. 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 (118720-210705) 12. Ethicon, PRCO74125B, Buccaneer DV- Vessel Transection Speed, March 2016, Data on File (117222-210705) 13. Ethicon, PRCO93983B. Scarlet 510k and Design Verification - Pad Life, March 2020, Data on File (176081-210705) 14. Ethicon, DR000290S, Quality Record, June 2018, Data on File (176081-210705) 15. Ethicon, PRC074127B, Buccaneer DVTransection Speed (Marching & Tip Bite), March 2016, Data on File (117220-210514) 16. Ethicon, PRC094084B, Project Scarlet - Marching Transection Speed (Full & Tip), March 2020, Data on File (117220-210514) 17. Ethicon, PRC074607, Buccaneer Metrology Claims, March 2016, Data on File (118655-190715) 18. Ethicon, 01022019. Energy Devices Volume of Publications February 2019 - Literature Search Results, Feb 2019, Data on File (171107-210319) 19. Ethicon, 01022019, AE Publications, Feb 2019, Data on File (171107-210319) 20. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, Data on File (171107-210319) 21. Ethicon, 01022019, AE Publications Summary, Feb 2019, AE Publications Summary, Feb 2019 01122020, U.S. Market & Share Insights Report, Dec 2020, Data on File (171107-210319) 22. As Per Instructions For Use (171107-210319) 23. Ethicon, PRC042296A, Triton (FCS17) Thermal Spread in Feb 2010, Data on File (171107-210319) 24. Ethicon, SCN008558A Triton (FCS17) Test Procedure: Thermal Spread on Vessels Following In Vivo Transection, April 2009, Data on File (171107-210319) 25. Ethicon, SCNO49171A, Several HARMONIC FOCUS Shears, 9 cm Length (FCS9) approved claims shall also apply to HARMONIC FOCUS + Adaptive Tissue Technology, 9 cm Length (HAR9F) based on similarity of design memo, Feb 2017, Data on File (171107-210319) 26. Ethicon, 28082019, GBI Info - Harmonic Undisputed Claim memo, Aug 2019, Data on File (171107-210319) 27. Ethicon, 500660262B, HARMONIC Adaptive Tissue Technology memo, March 2021, Data on File (171107-210319)

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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