HARMONIC™ HD 1000i Shears:

Learn more inside ▶
The HARMONIC™ HD 1000i

Improved performance and usability in a single device

Designed to address unique challenges in complex open and laparoscopic procedures, the HARMONIC™ HD 1000i offers a seamless combination of precision and strength for improved dissection, faster transection, and more secure sealing.1,7,10,16,19,20

DISSECTING JAWS
- The improved dissection capability of the fine jaw design may allow for precise dissection similar to that of a mechanical dissector.1,4
- In a design validation study, 79% of surgeons indicated that HARMONIC™ HD 1000i may reduce instrument exchanges.2

SEALING
- HARMONIC™ HD 1000i provides the longest ultrasonic blade on the market to encapsulate large vessels and tissue bundles prior to transection.4,5

WIDER, FLATTER, CURVED BLADE
- Exceptional sealing strength as evidenced by burst pressures of 150% relative to Competitor's small and large jaw devices.
- HARMONIC™ HD 1000i Energy button offers consistent, reliable seals on vessels up to 5 mm in diameter 35% faster than the MIN button on the HARMONIC™ ACE™+7.5
- The strong tip grasping of HARMONIC™ HD 1000i is designed to minimize tissue slippage and may aid tissue manipulation and control.3

INTUITIVE INTERACTION
- Scissor-like control allows for finer adjustments during blunt and active dissection.
- Single energy button.

ADVANCED HEMOSTASIS MODE
- HARMONIC™ HD 1000i transects 40% faster than HARMONIC™ ACE™+7 when transecting vessels 5-7mm in diameter using Advanced Hemostasis mode.7

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INTEGRATED TRANSDUCER
- Integrated handpiece provides consistent performance by simplifying device setup and reducing cord tangling.

* In a pre-clinical study, for both iliac dissection and lymph node dissection, the HD1000i was significantly superior to HARMONIC™ ACE™+7 in dissecting capability (p<0.001 in all cases).
** In a design validation study with surgeons (n=33) operating in simulated procedures in an animate porcine laboratory model (26/33).
† Based on a benchtop study with 5-7mm porcine carotid arteries. HARMONIC™ HD (1878 mmHg) vs. Competitor’s (1171 mmHg) and Competitor’s (1224 mmHg). (p<0.05).
‡ In a benchtop study, versus HARMONIC™ ACE™+7 with porcine vessels 3-5 mm in diameter (p=0.0000).
‡‡ Based on average device tip grasping force (distal 5mm of the jaw).
§ In a porcine 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).
§§ Device measurements based on a metrology study (median cut length 18.87mm vs. 14.80mm for Competitor’s and 16.90mm for Competitor’s). In a pre-clinical study, 100% (54/54) of porcine blood vessels, up to and including 7mm vessels, remained hemostatic over a 30 day survival period.
Harmonic™ HD 1000i: A step forward in the evolution of HARMONIC™ advanced energy devices

Blade Designed For ...

- **Unmatched precision**\(^{12,10-16}\)
- **Unparalleled strength**\(^{4,19,10-18,20,21}\)
- **Optimal efficiency**\(^{3,6,7,20,21}\)
Harmonic™ HD 1000i: A step forward in the evolution of HARMONIC™ advanced energy devices

Blade Designed For ...

Unmatched precision 1,2,10-16

Unparalleled strength 4,19,10-18,20,21

Optimal efficiency 3,6,7,20,21

The improved dissection capability of the fine jaw design may allow for precise dissection similar to that of a mechanical dissector.1,2*

* In a pre-clinical study, for both iliac dissection and lymph node dissection, the HD1000i was significantly superior to HARMONIC™ ACE™+7 in dissecting capability (p<0.001 in all cases).

** Based on benchtop metrology and porcine comparative studies vs. legacy HARMONIC™, Competitor’s Blade Designed For ...

Blade designed for unmatched precision, seal strength, and efficiency - powered by an integrated transducer.10-16 **

HARMONIC™ HD1000i vs Competitor’s Dissector

Jaws Closed: Side  

Jaws Closed: Top  

Jaws Closed: Front

- HARMONIC™ HD1000i  
- Competitor’s
Harmonic™ HD 1000i: A step forward in the evolution of HARMONIC™ advanced energy devices

Blade Designed For...

Unique blade design delivers secure seals.\(^{17,18}\)

HARMONIC™ HD 1000i produces consistent and reliable hemostasis.\(^{19,20,21}\)**

Exceptional sealing strength as evidenced by burst pressures of 150% relative to Competitor’s small and large jaw devices.\(^{4,19,10,18,20,21}\)

Unmatched precision\(^{12,10-16}\)

Unparalleled strength\(^{4,19,10-18,20,21}\)

Optimal efficiency\(^{3,6,7,20,21}\)

* Based on a benchtop study with 5-7mm porcine carotid arteries. HARMONIC™ HD (1878 mmHg) vs. Competitor’s (1171 mmHg) and Competition™ Impact (1224 mmHg). (p<0.05).

** In a pre-clinical study, 100% (56/56) of porcine blood vessels remained hemostatic over a 30 day survival period.

† Based on a benchtop study with 5-7mm porcine carotid arteries. HARMONIC™ HD (1878 mmHg) vs. Competitor’s (1171 mmHg) and Competitor’s (1224 mmHg). (p<0.05).
Harmonic™ HD 1000i: A step forward in the evolution of HARMONIC™ advanced energy devices

Increased sealing speed, multi-functionality, and simplified steps for use allows for optimal efficiency.24-28 *

Simple energy activation utilising a single energy button
- HARMONIC™ HD1000i has single energy button that produces the same reliable sealing as the MIN button on HARMONIC™ ACE™+7.29,30*

- Indicated for vessels up to and including 7 mm diameter
- HARMONIC™ HD1000i transects 40% faster than HARMONIC™ ACE™+7 when transecting vessels 5-7mm in diameter using Advanced Hemostasis mode.7 **

- HARMONIC™ HD 1000i cuts 30% longer than HARMONIC™ ACE™+7. 22 †
- The strong tip grasping of HARMONIC™ HD 1000i is designed to minimize tissue slippage and may aid tissue manipulation and control.23 ††

Integrated transducer offers potential efficiencies through eliminating the need to order, manage or clean a separate item.

* Design Validation Study with surgeons (n=33) operating in simulated procedures in an animate porcine laboratory model (33/33).
** Based on a benchtop study.
† Device measurements based on a metrology study (median cut length of 18.87mm vs. 14.56mm).
†† Based on average device tip grasping force (distal 5mm of the jaw).
Well suited for use in a variety of surgically complex procedures

The distinct performance features of the HARMONIC™ HD 1000i are particularly well-suited for a number of surgical settings.

**Hepato-pancreato-biliary**
HARMONIC™ Technology allowed for less intraoperative blood loss, fewer surgical complications during liver resection.\(^{31}\)

**Colorectal**
The longer, more tapered blade design and dissection capabilities of the HARMONIC™ HD 1000i may provide visibility and access in the pelvis in colorectal procedures.

**GYN Oncology and Lymphadenectomy**
HARMONIC™ HD 1000i may be used in GYN oncology procedures including hysterectomy and to dissect lymph nodes in procedures such as lymphadenectomy.

**Thoracic**
Jaw design, device ergonomics, and modulated energy delivery of Adaptive Tissue Technology enable the HARMONIC™ technology to be used in thoracic procedures to dissect lymph nodes, seal lymphatic ducts. HARMONIC™ HD 1000i is indicated for vessels up to and including 7mm diameter using the Energy with Advanced Hemostasis button.\(^{32}\)

* Based on average device tip grasping force (distal 5mm of the jaw).
The complete HARMONIC™ portfolio

Devices that build on the performance and precision of previous generations

**HD 1000i Platform**
Blade designed for unmatched precision, seal strength, and efficiency - powered by an integrated transducer.\(^*\)

**Advanced Hemostasis**
HARMONIC™ HD1000i transects 40% faster than HARMONIC™ ACE™+7 when transecting vessels 5-7mm in diameter using Advanced Hemostasis mode.\(^**\)

**Adaptive Tissue Technology**
System enables surgical precision by delivering energy intelligently

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\(^*\) Design Validation Study with surgeons (n=33) operating in simulated procedures in an animate porcine laboratory model (33/33).

\(^**\) Based on a benchtop study.
References

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2. Ethicon, HARMONIC™ HD 1000i Competitive Overlays, July 2016, Data on File. (C2072)
4. Ethicon, PRC074054A Buccaneer Thermal Spread and Burst Claims, Jan 2018, Data on File. (C2552)
5. Ethicon, PRC074432A Buccaneer Energy Button Vessel Claims, Jan 2018, Data on File. (C2556)
6. Ethicon, PRC074111B Buccaneer DV- Grasping Force (Tip & Full Bite), July 2016, Data on File. (C2060)
7. Ethicon, PRC074125B Buccaneer DV- Vessel Transection Speed, July 2016, Data on File. (C2071)
8. Ethicon, PRC074607, Buccaneer Metrology Claims, July 2016, Data on File. (C2074)
9. Ethicon, PSB004423A, HARMONIC™ HD 1000i Laparoscopic Shears (HARHD36): Design Verification Chronic (30 day) Survival Study in the Pig, July 2016, Data on File. (C2074)
10. Ethicon, PRC074127B Buccaneer DV- Transection Speed (Marching & Tip Bite), Jan 2018, Data on File. (C2551)
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15. Ethicon, PRC074432A Buccaneer Energy Button Vessel Claims, Jan 2018, Data on File. (C2551)
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19. Ethicon, PRC074111B Buccaneer DV- Grasping Force (Tip & Full Bite), Sept 2016, Data on File. (C2087)
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25. Ethicon, Internal Email Correspondence From: John Schulte Sent: Thursday, April 14, 2016 3:07 PM To: Jennifer Martini CC: Allison Mooney Subject: BUC Copy Review Question, July 2016, Data on File (C2073)
26. Ethicon, PRC074054A Buccaneer Thermal Spread and Burst Claims, July 2016, Data on File. (C2032)
27. Ethicon, PRC074054A Buccaneer Thermal Spread and Burst Claims, July 2016, Data on File. (C2035)
28. Ethicon, PRC074127B Buccaneer DV- Transection Speed (Marching & Tip Bite), Sept 2016, Data on File. (C2087)
29. Ethicon, PRC074125B Buccaneer DV- Vessel Transection Speed, Sept 2016, Data on File. (C2087)
30. Ethicon, PRC074607A Buccaneer Metrology Claims, Sept 2016, Data on File. (C2087)
32. As per HARMONIC™ HD 1000i Instructions For Use. (C2061)
Ordering information

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<th>PRODUCT CODES</th>
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<tr>
<td>HARHD20, HARHD36</td>
<td>HARMONIC™ HD 1000i</td>
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HARMONIC™ HD 1000i is supplied sterile for single-patient use. It is compatible with the existing Ethicon Generator G11 (software version 2016-1 or later versions).

For more information or product support, contact your Ethicon Sales Representative.