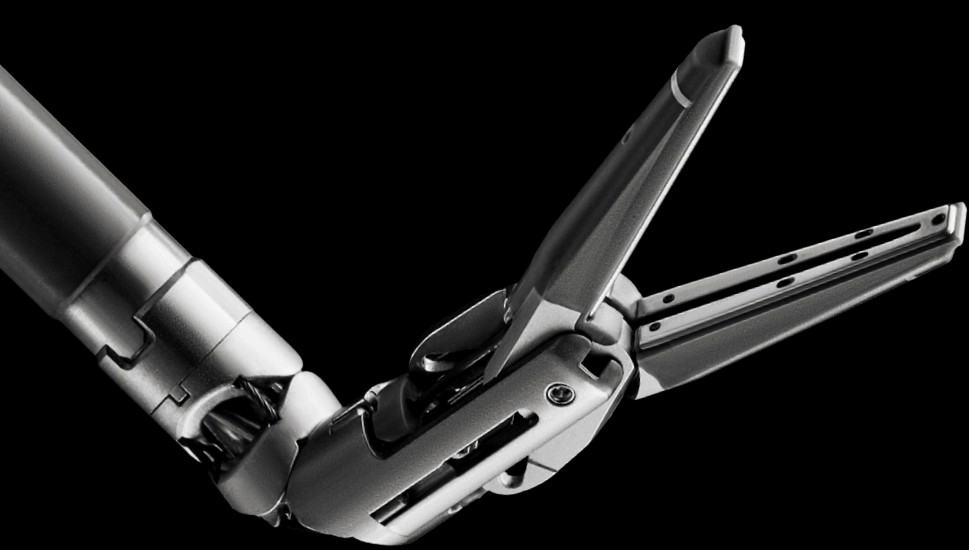


Da Vinci Energy

**SynchroSeal  
Vessel Sealer Extend  
E-100 Generator**

Amplified performance.  
Precise control.





# Da Vinci Energy<sup>1</sup>

## Amplified performance.<sup>2</sup>

## Precise control.<sup>1</sup>

Increase efficiency<sup>3</sup> without sacrificing results with the speed<sup>4</sup>, precision<sup>1</sup>, and versatility offered by da Vinci Energy from Intuitive.

Start with a generator and instruments that enable rapid sealing while keeping temperatures low.<sup>3</sup> Select from unique, multifunctional instruments designed to streamline procedures. All seamlessly integrated to enable controlled energy delivery<sup>5</sup> and optimized performance for strong, secure seals with minimal lateral thermal spread.<sup>1</sup>

With da Vinci Energy, take charge of smart energy that's quicker, cooler, and effective in more ways than one.



1. Da Vinci Energy includes: SynchroSeal™ with E-100 and Vessel Sealer Extend® with E-100.
2. Based on analysis of sealing cycle time differences between SynchroSeal with E-100 compared to Harmonic ACE®+7 and Vessel Sealer Extend with E-100 compared to Vessel Sealer Extend with ERBE VIO devices. P <0.05. Data on file.

3. Based on activation times and cool down temperatures: SynchroSeal with E-100 is compared to Harmonic ACE+7, VSE with E-100 is compared to VSE with ERBE VIO dV.
4. Compared to ERBE VIO dV.
5. Data on file.

# SynchroSeal

Streamline sealing.<sup>5</sup> Optimize performance.<sup>6</sup>

Get enhanced efficiency<sup>7</sup> and versatility<sup>8</sup> from a single instrument with an average seal time of fewer than two seconds.<sup>9</sup> With a single pedal press, SynchroSeal enables you to confidently seal and cut vessels up to 5 mm in diameter and tissue bundles that fit in the jaws.



Use the refined, curved jaw for enhanced dissection<sup>8</sup> and secure grasping.<sup>10</sup>

Achieve single-step transection with a raised cut electrode.

Create strong, reliable seals with 1-2 mm of lateral thermal spread.<sup>1</sup>

Approach anatomy at your preferred angle with 60° fully wristed articulation.<sup>3</sup>

5. Data on file.

6. Compared to HARMONIC ACE+7.

7. Compared to Vessel Sealer Extend with ERBE VIO dV in terms of faster estimated workflow and seal activation times.

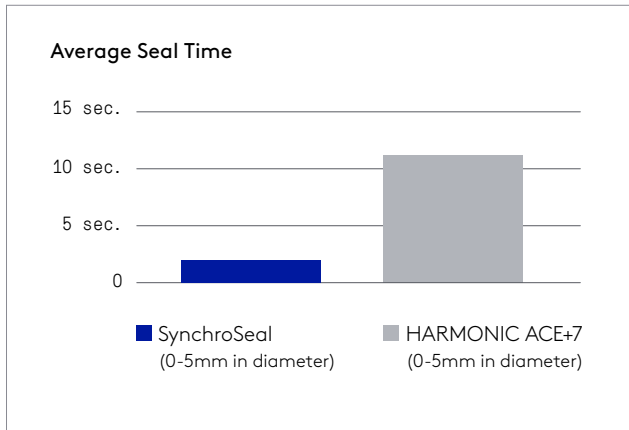
8. Compared to Vessel Sealer Extend with ERBE VIO dV.

9. Mean seal time based on seal time from seal and sync mode.

10. Compared to HARMONIC ACE+7. Based on benchtop testing performed using a Tekscan pressure-mapping sensor and a force gauge.



# Seal faster while keeping your cool

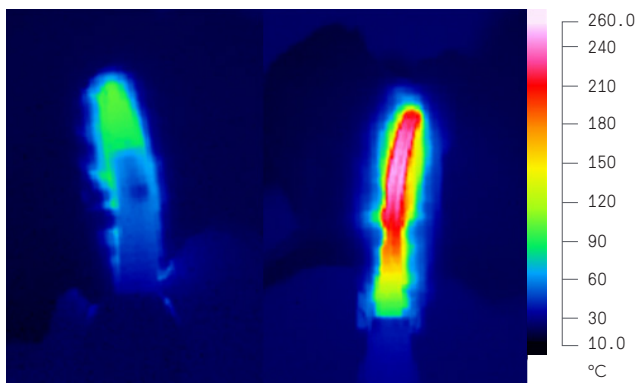


## Accelerate your sealing<sup>11</sup>

SynchroSeal offers improved efficiency through simplified operation and fast activation times. When paired with the E-100 generator from da Vinci Energy, SynchroSeal saves 9.90 seconds per seal, compared to HARMONIC ACE+7 Shears with Advanced Hemostasis.

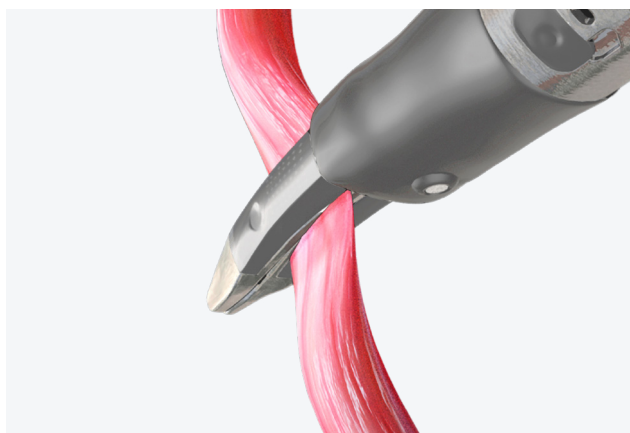
SynchroSeal

Harmonic ACE+7



## Keep your peak temperatures low<sup>12</sup>

A cooler thermal profile allows the jaws to quickly seal and cut tissue, then cool down faster—helping you move on to the next task.



## Take advantage of grasping capabilities

The textured jaws of SynchroSeal grip with greater force, which may potentially reduce tissue slippage,<sup>13</sup> while applying less overall pressure for potentially less stress on tissue within the jaws.<sup>14</sup>

11. Compared to HARMONIC ACE+7. Data based on testing of Ex-vivo tissue from 0-5mm in diameter. Average seal times required to seal arteries for SynchroSeal and HARMONIC ACE+7 were measured.

12. Compared to HARMONIC ACE+7. Ex vivo testing performed using porcine small bowel mesentery.

13. Compared to HARMONIC ACE+7. Results of testing on file. Benchtop testing performed using uniform synthetic material.

Forces at which the material slipped from the grasped jaws of SynchroSeal and HARMONIC ACE+7 were measured. Slip forces for SynchroSeal were significantly greater than HARMONIC ACE+7.

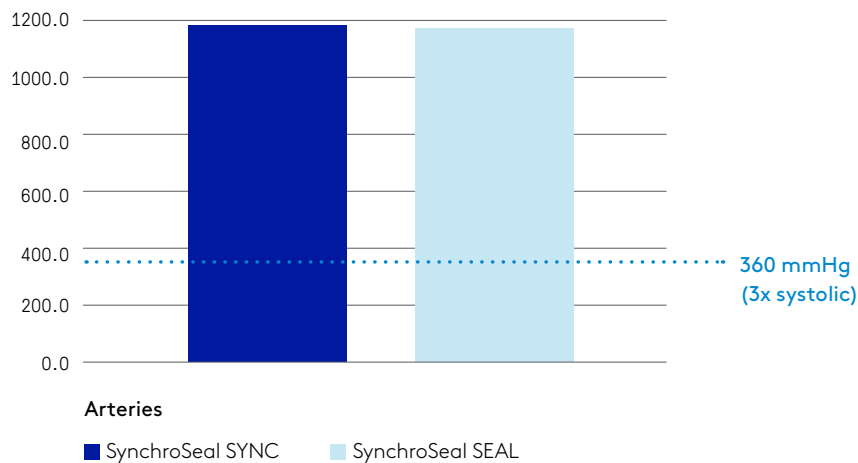
14. Compared to HARMONIC ACE+7. Results of testing on file. Benchtop testing performed using a Tekscan pressure-mapping sensor. Pressures applied by the gripped jaws of SynchroSeal and HARMONIC ACE+7 were measured. Grip pressures for SynchroSeal were significantly less than HARMONIC ACE+7.

# Control energy with confidence

## Achieve strong, secure seals

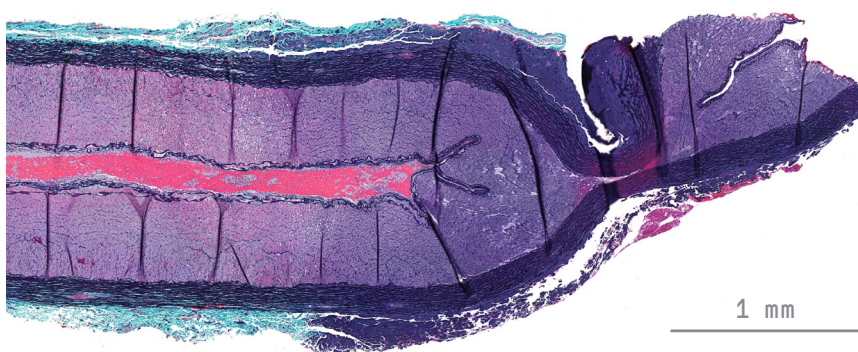
Using SynchroSeal, create seals that consistently withstand more than three times normal systolic burst pressure.<sup>5</sup>

### Mean Burst Pressure (mmHg)



## Minimize lateral thermal spread

SynchroSeal enables you to seal vessels up to 5 mm in diameter and tissue bundles that fit in the jaws with 1-2 mm of lateral thermal spread.<sup>5</sup>



In vivo porcine artery pictured above has been sealed and transected with a single pedal press with Sync mode on SynchroSeal.

5. Data on file.

# Vessel Sealer Extend

Performance you expect. Speed that you don't.<sup>8</sup>

Securely seal and cut vessels up to 7 mm in diameter and tissue bundles that fit in the jaws. With an average sealing time of fewer than three seconds<sup>5</sup>, Vessel Sealer Extend may potentially improve efficiency during your surgical case.<sup>15</sup>



Optimize dissection and tissue manipulation with a 30% slimmer jaw profile.<sup>16</sup>

Extend your seal and spot coagulate with a 3 mm longer electrode.<sup>16</sup>

Reduce the need for an extra grasper with the stronger grip provided by a textured surface.<sup>16</sup>

Access vessels with 60° of fully wristed articulation, and create secure 90° seals and effective cuts.<sup>16</sup>

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5. Data on file.

8. Compared to Vessel Sealer Extend with ERBE VIO dV.

15. Compared to Vessel Sealer Extend with ERBE VIO dV in terms of seal activation times.

16. Compared to EndoWrist® Vessel Sealer. Data on file.

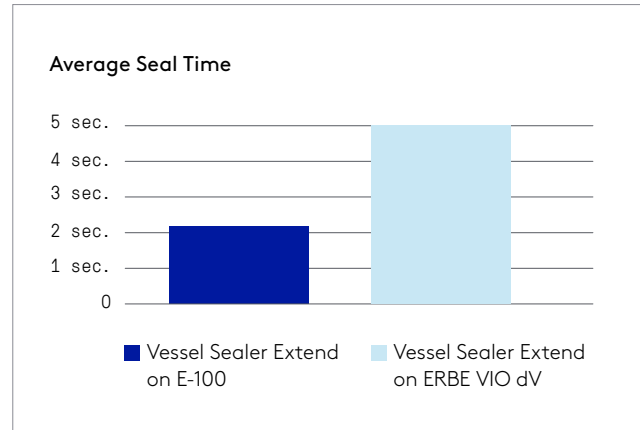




# See what sets Vessel Sealer Extend on E-100 apart

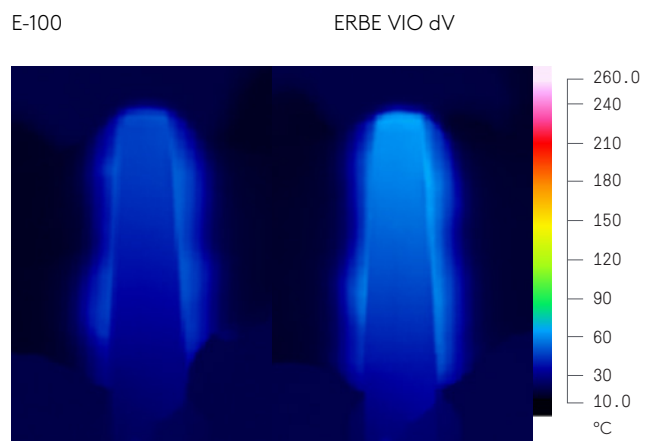
## Maximize efficiency

With the E-100 generator from da Vinci Energy, Vessel Sealer Extend can seal twice as fast compared to Vessel Sealer Extend with the ERBE VIO dV generator.<sup>17</sup>



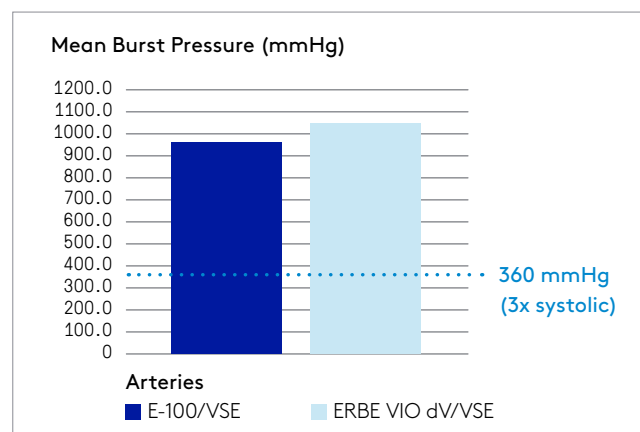
## Keep your temperatures even lower

Vessel Sealer Extend operates at a cooler jaw temperature with E-100 than with ERBE VIO dV.<sup>18</sup>



## Continue creating strong, secure seals

When using Vessel Sealer Extend with E-100, you can rely on strong seals<sup>8</sup> that will withstand more than three times normal systolic burst pressure with minimal lateral thermal spread.<sup>5</sup>



5. Data on file.

8. Compared to Vessel Sealer Extend with ERBE VIO dV.

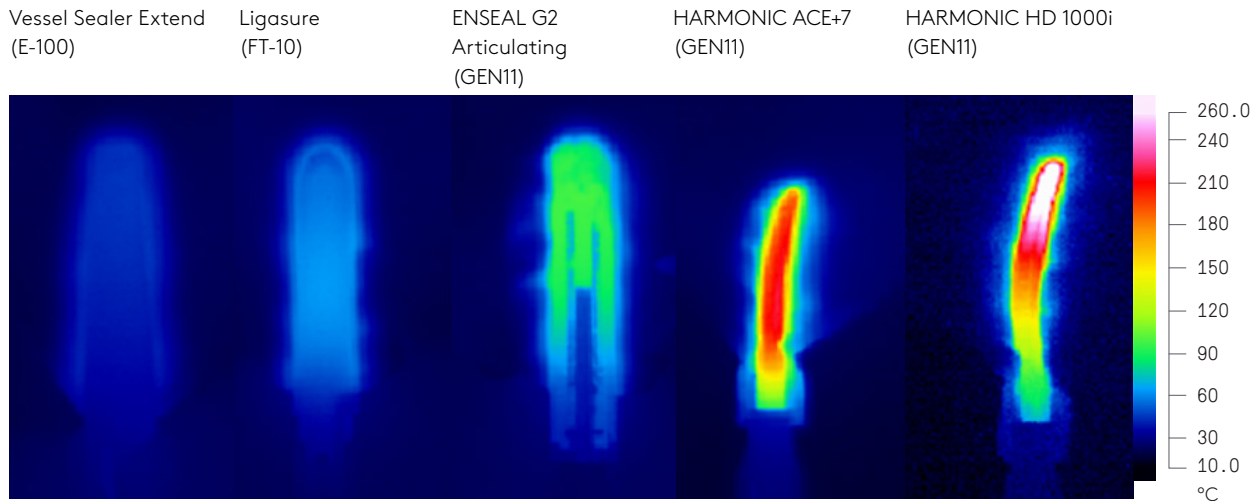
17. Compared to Vessel Sealer Extend with ERBE VIO dV in terms of seal activation times.

18. Compared to LigaSure® Blunt Tip, ENSEAL G2® ENSEAL Articulating, HARMONIC ACE®+7 and HARMONIC HD1000i®. Data on file.

# Operate at a cooler temperature

When compared with competitive sealers, Vessel Sealer Extend shows the coolest peak temperature and the shortest cooling time.<sup>18</sup>

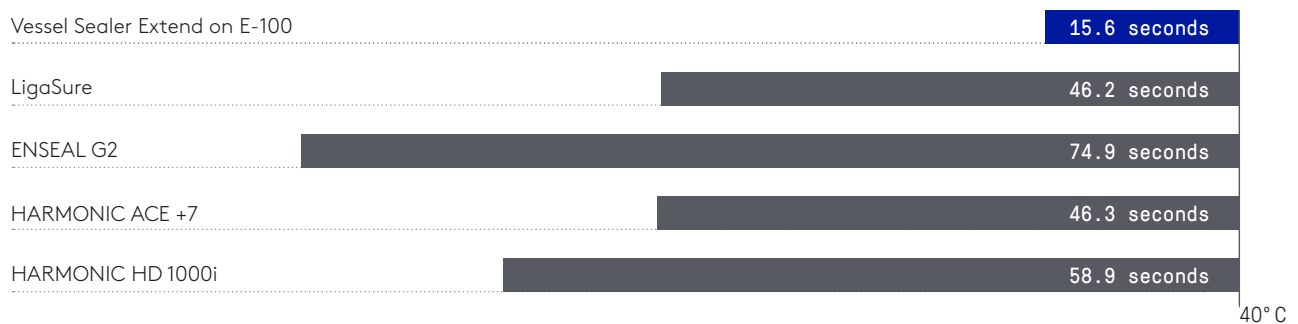
## Peak jaw temperature comparison



The peak jaw temperature for Vessel Sealer Extend on E-100 is:



## Cool down time from maximum jaw temperature



18. Compared to LigaSure Blunt Tip, ENSEAL G2® Articulating, HARMONIC ACE +7 and HARMONIC HD1000i. Data on file.

# Notice a difference in speed with the E-100 generator<sup>4</sup>

Move from one task to the next with agility. The E-100 generator from da Vinci Energy seamlessly integrates with the da Vinci X™ and da Vinci Xi® surgical systems to help enable rapid sealing times<sup>4</sup> at low temperatures.<sup>19</sup> Combine with SynchroSeal or Vessel Sealer Extend, and take full advantage of the speed and versatility offered by da Vinci Energy.

E-100 offers three energy modes for Vessel Sealer Extend and SynchroSeal, including advanced bipolar sealing and coagulation, and a unique mode for single-step sealing and transection with SynchroSeal.<sup>5</sup>



4. Compared to ERBE VIO dV.

5. Data on file.

19. Vessel Sealer Extend with E-100 compared to Vessel Sealer Extend with ERBE VIO dV.

# Improve your workflow

Discover what amplified performance and precise control means with cooler, faster, more versatile capabilities enabled by the da Vinci Energy portfolio.

## **With da Vinci Energy, now you can:**

Complete seals with SynchroSeal and Vessel Sealer Extend in less time and potentially improve efficiency during your cases with E-100.

With cooler thermal profiles and less than 2 mm lateral thermal spread, move to the next task with low potential for heat damage using SynchroSeal and Vessel Sealer Extend.

Seal, cut, dissect, and grasp with the built-in versatility of SynchroSeal and Vessel Sealer Extend.



# Instruments and Accessories

To learn more about da Vinci Energy products, visit:

<https://www.intuitive.com/en-us/products-and-services/da-vinci/energy>

To contact a representative or receive additional information visit [www.intuitive.com](http://www.intuitive.com) or call Intuitive Customer Service in the U.S. at 1.877.408.3872, in Europe at +41.21.821.2020 or +800.0821.2020 or in the rest of the world, 1.408.523.2100.



## SynchroSeal from da Vinci® Energy

6 units per box	480440
da Vinci X and da Vinci Xi	



## Vessel Sealer Extend from da Vinci Energy

6 units per box	480422
da Vinci X and da Vinci Xi	



## E-100 from da Vinci Energy

1 unit	378848
da Vinci X and da Vinci Xi	

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### Important safety information

Serious complications may occur in any surgery, including da Vinci® surgery, up to and including death. Examples of serious or life-threatening complications, which may require prolonged and/or unexpected hospitalization and/or reoperation, include but are not limited to, one or more of the following: injury to tissues/organs, bleeding, infection and internal scarring that can cause long-lasting dysfunction/pain.

Risks specific to minimally invasive surgery, including da Vinci surgery, include but are not limited to, one or more of the following: temporary pain/nerve injury associated with positioning; a longer operative time, the need to convert to an open approach, or the need for additional or larger incision sites. Converting the procedure could result in a longer operative time, a longer time under anesthesia, and could lead to increased complications. Contraindications applicable to the use of conventional endoscopic instruments also apply to the use of all da Vinci instruments.

For Important Safety Information, indications for use, risks, full cautions and warnings, please also refer to [www.intuitive.com/safety](http://www.intuitive.com/safety).

Individuals' outcomes may depend on a number of factors, including but not limited to patient characteristics, disease characteristics, and/or surgeon experience.

### Instrument & Accessory Care

It is the responsibility of the owner of the da Vinci surgical system to properly train and supervise its personnel to ensure that the instruments and accessories are properly cleaned, disinfected and sterilized as required by the User's Manual. The da Vinci products should not be used in a clinical setting unless the institution has verified that these products are properly processed in accordance with the da Vinci System User's Manual.

SynchroSeal is a bipolar electro-surgical instrument for use with a compatible da Vinci Surgical System and a compatible electro-surgical generator. It is intended for grasping, dissection, sealing and transection of tissue. SynchroSeal can be used to seal vessels up to and including 5 mm in diameter and tissue bundles that fit in the jaws of the instrument. SynchroSeal has not been shown to be effective for tubal sterilization or tubal coagulation for sterilization procedures and should not be used for these procedures.

The E-100 is an electro-surgical generator for use with a compatible da Vinci Surgical System. It is an electro-surgical unit intended to deliver high frequency energy (HF) for cutting, coagulation and vessel sealing of tissues.

The EndoWrist® Vessel Sealer Extend is a bipolar electro-surgical instrument for use with a compatible da Vinci surgical system and the ERBE VIO® dV electro-surgical generator. It is intended for grasping and blunt dissection of tissue and for bipolar coagulation and mechanical transection of vessels up to 7 mm in diameter and tissue bundles that fit in the jaws of the instrument. The EndoWrist Vessel Sealer Extend has not been shown to be effective for tubal sterilization or tubal coagulation for sterilization procedures, and should not be used for these procedures.

Unless otherwise noted, all people depicted are models.

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