



POWERSEAL™ Sealer/Divider Curved Jaw, Double-Action

The clinical performance you expect with unmatched versatility and comfort

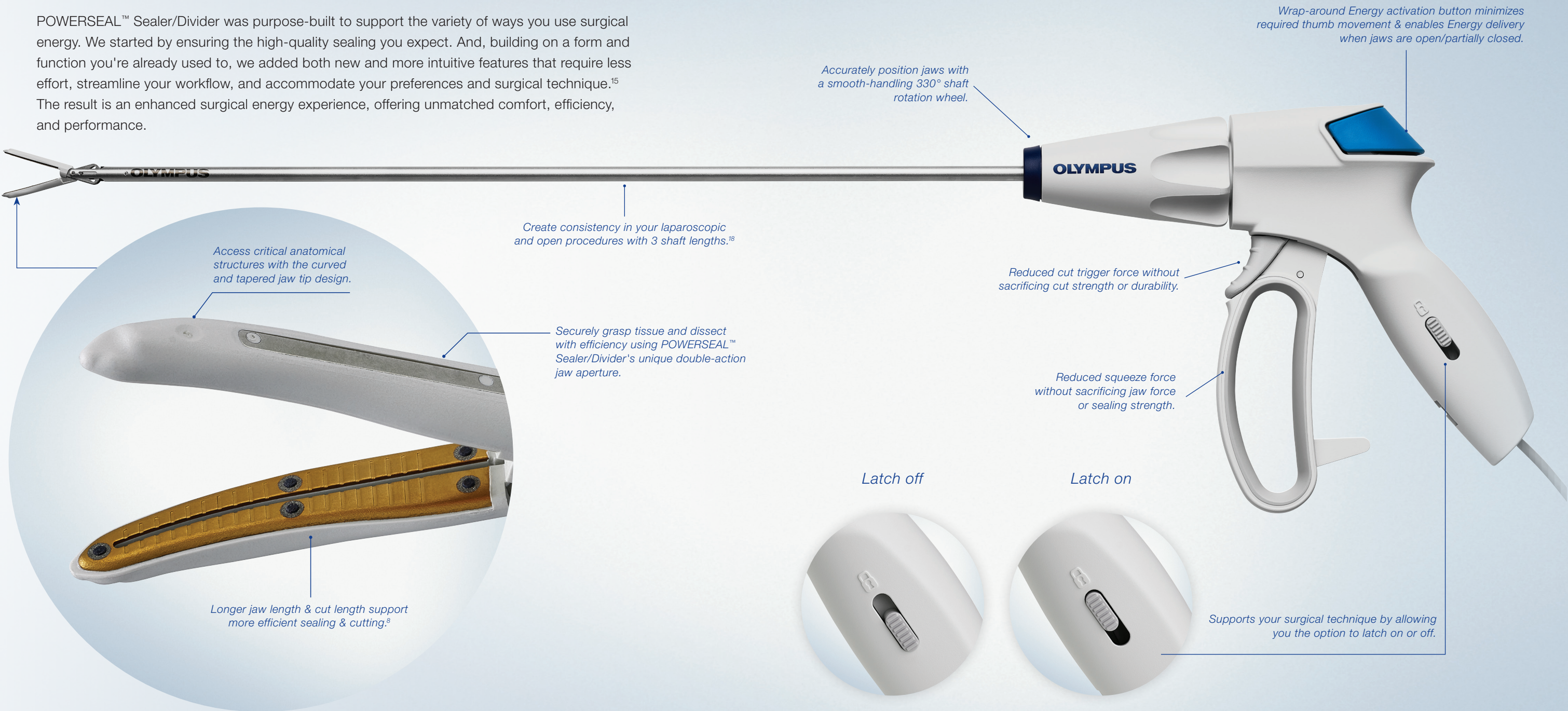


Product Overview

POWERSEAL™ Sealer/Divider

A better surgical experience.

POWERSEAL™ Sealer/Divider was purpose-built to support the variety of ways you use surgical energy. We started by ensuring the high-quality sealing you expect. And, building on a form and function you're already used to, we added both new and more intuitive features that require less effort, streamline your workflow, and accommodate your preferences and surgical technique.¹⁵ The result is an enhanced surgical energy experience, offering unmatched comfort, efficiency, and performance.



Confident Vessel Sealing

POWERSEAL™ Sealer/Divider

A better workflow meets uncompromising performance.⁹

Your surgical energy device shouldn't slow you down or interrupt your in-procedure momentum.

POWERSEAL™ Sealer/Divider delivers consistently strong vessel sealing throughout the procedure.

- Vessel sealing up to and including 7 mm, including pulmonary vessels, tissue bundles, and lymphatics.¹
- In side-by-side GLP animal lab testing, POWERSEAL™ Sealer/Divider showed significantly better seal integrity performance.²
- No statistical difference in thermal spread when compared to the LigaSure™ Maryland Jaw.⁴



Maintains effective jaw force after repeated cycles.⁶

POWERSEAL™ Sealer/Divider's higher jaw force enables consistent sealing across the longer jaw.⁷



SECURE SEALING

Greater than 99% probability of vessel burst pressure above 360 mmHg, regardless of vessel size³



FAST SEALING

Average seal time is 2.8 seconds on vessels with a diameter up to 7 mm.¹⁷

Multifunctional Design

POWERSEAL™ Sealer/Divider



Supports the many ways you use surgical energy.

Not only do the familiar features of POWERSEAL™ Sealer/Divider make it easy to adopt, its versatility delivers exceptional dissection, gives you flexibility to adjust settings to your surgical preference, and may ultimately increase your productivity.

- **15% wider jaw aperture than LigaSure Maryland Jaw** for enhanced grasping & dissection capability¹⁵
- **Unique latch-on/latch-off setting capability** adjusts to your surgical technical & preference
- **Off-Latch setting provides audible and tactile feedback** to signal sufficient jaw pressure to confidently achieve 7mm vessel sealing⁶
- **Energy activation without the requirement to fully close the jaws**, when desired by the surgeon
- Waveform and jaw construction combine to yield **resistance to tissue sticking that is comparable to the nano-coated LigaSure Maryland Jaw⁵**

7% longer jaw length & 6% longer cut length require fewer Energy and cut blade activations when compared to the LigaSure Maryland Jaw.⁸

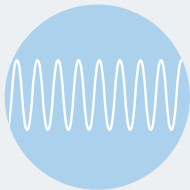


POWERSEAL™ Sealer/Divider	LigaSure™ Maryland Jaw
19.1 mm Jaw aperture	16.6 mm Jaw aperture
22.5 mm Jaw length	21.0 mm Jaw length
19.3 mm Cut length	18.2 mm Cut length

Based on internal Olympus test methods

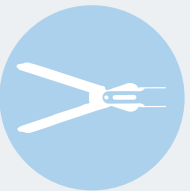
Energy Activation

Energy activation without requirement to fully close the jaws facilitates activation on thick tissue or spot coagulation of surface bleeders



A True Maryland Dissector

A true curved, tapered, and double-action Maryland dissector/grasper design



Independent surgeons surveyed indicated:

Better usability and overall performance⁹

POWERSEAL™ Sealer/Divider wider jaw aperture provides enhanced dissection capability¹⁰

Easier to separate tissue planes by opening the jaws¹⁰

Better ability to perform fine tissue dissection¹¹

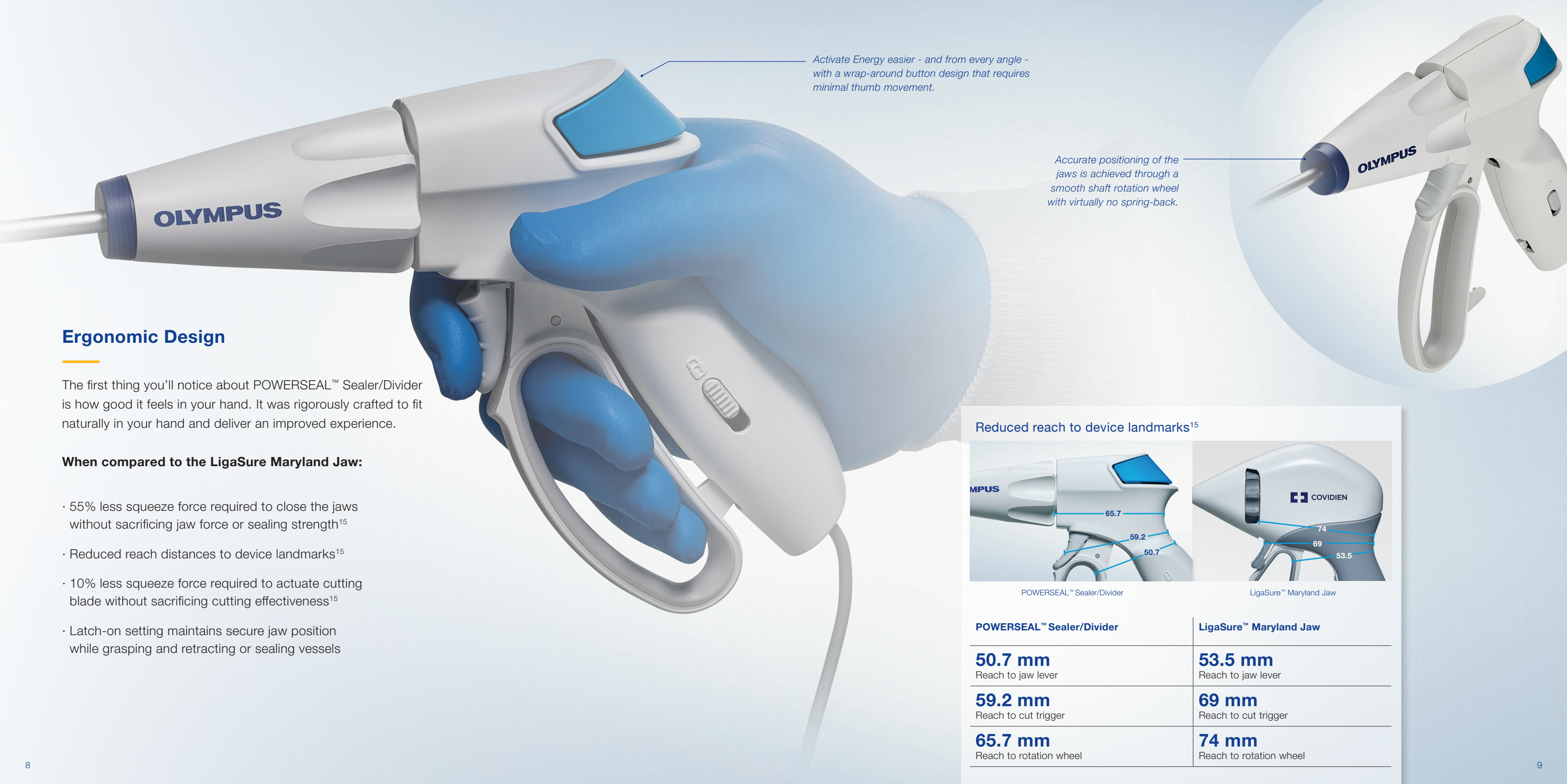
Better ability to coagulate small bleeders using the device tips¹²

Atraumatic jaw design provides strong grasping capability¹³

Effective for blunt dissection¹⁴

Improved Ergonomics

POWERSEAL™ Sealer/Divider



Activate Energy easier - and from every angle - with a wrap-around button design that requires minimal thumb movement.

Accurate positioning of the jaws is achieved through a smooth shaft rotation wheel with virtually no spring-back.

Ergonomic Design

The first thing you'll notice about POWERSEAL™ Sealer/Divider is how good it feels in your hand. It was rigorously crafted to fit naturally in your hand and deliver an improved experience.

When compared to the LigaSure Maryland Jaw:

- 55% less squeeze force required to close the jaws without sacrificing jaw force or sealing strength¹⁵
- Reduced reach distances to device landmarks¹⁵
- 10% less squeeze force required to actuate cutting blade without sacrificing cutting effectiveness¹⁵
- Latch-on setting maintains secure jaw position while grasping and retracting or sealing vessels

Reduced reach to device landmarks¹⁵

POWERSEAL™ Sealer/Divider	LigaSure™ Maryland Jaw
50.7 mm Reach to jaw lever	53.5 mm Reach to jaw lever
59.2 mm Reach to cut trigger	69 mm Reach to cut trigger
65.7 mm Reach to rotation wheel	74 mm Reach to rotation wheel

Generator Platform

POWERSEAL™ Sealer/Divider

Elevated Performance Through Optimized Energy Delivery

The Olympus ESG-400 and ESG-410 Electrosurgical Generators elevate performance through intelligent Energy delivery. The cornerstone of this technology is the proprietary POWERSEAL™ Sealer/Divider waveform that continually responds and adjusts to changing tissue conditions.

As a result, POWERSEAL™ Sealer/Divider delivers the optimal amount of energy at the right time resulting in reliable sealing throughout the surgical procedure.

- Eliminates the guess-work associated with vascular control and tissue sealing¹⁹
- Continuously monitors tissue conditions throughout the seal cycle¹⁹
- Preserves tissue moisture during collagen remodeling to minimize sticking¹⁹

Olympus customers with the EPF-1 system can access POWERSEAL™ Sealer/Divider capability via an in-house software upgrade to their system.



Olympus has designed the linkage between POWERSEAL™ Sealer/Divider devices and the ESG generator platforms with the future in mind. Every POWERSEAL™ Sealer/Divider Gravity Plug enables an ESG-400 generator with software 4.12-A or later, and every ESG-410 generator, to recognize the device and drive it with all the latest performance parameters via our proprietary Mode Tuner capability.

This technology also enables seamless recognition of future POWERSEAL™ Sealer/Divider devices without the need for further generator updates.



Generator Comparison	
ESG-410	ESG-400
Two Universal output sockets	One Universal output socket
8.4" touchscreen	5.7" touchscreen
Generator control via touch screen only	Generator control via touch screen & buttons
Eight monopolar cut modes	Five monopolar cut modes
Six monopolar coag modes	Four monopolar coag modes
Six bipolar cut modes	Six bipolar cut modes
Six bipolar coag modes	Eight bipolar coag modes
Evaluates tissue conditions 6667 times per second, adjusting to changing tissue conditions ¹⁹	Evaluates tissue conditions 1000 times per second, adjusting to changing tissue conditions ¹⁹
Wireless & wired footswitch options	Wired footswitch only
Footswitch toggle button	No toggle button
On-site service upgrades procedures via USB interface	No USB interface
Import and export of individual settings and procedures via USB interface	Manual configuration of settings & procedures
New modes (Fulgurate, Pure, Spray, Blend) offer quick access and fast procedure start due to reduced number of submenus	Not applicable

Designed and tested to be the most comfortable, responsive, high performance instrument in your energy arsenal, **POWERSEAL™ Sealer/Divider** delivers an unmatched surgical experience. You've got to feel it to believe it.

Introduce **POWERSEAL™ Sealer/Divider** vessel sealing, efficiency, and ergonomics to your O.R. Call your local Olympus sales representative at 800.848.9024 or visit www.medical.olympusamerica.com

Ordering Information

POWERSEAL™ Sealer/Divider Curved Jaw, Double-Action Handpieces

Order #	Description
PS-0523CJDA	POWERSEAL™ Sealer/Divider 5 mm, 23 cm, curved jaw sealer & divider, double-action
PS-0537CJDA	POWERSEAL™ Sealer/Divider 5 mm, 37cm, curved jaw sealer & divider, double-action
PS-0544CJDA	POWERSEAL™ Sealer/Divider 5 mm, 44cm, curved jaw sealer & divider, double-action

Reference Citation

1	Based on internal test reports, and Acute & Chronic animal studies reports - DN0044705, DN0044706.
2	Based on GLP Acute & Chronic animal studies reports - DN0044705, DN0044706.
3	Based on Internal Design Verification tests - DN0044249, DN0044289.
4	Based on Internal tissue testing with Histology reports - DN0044287, DN0044290.
5	Based on internal vessel sealing report - DN0044404.
6	Based on internal Design Verification electrical & mechanical test reports - DN0042457, DN0044073.
7	Based on internal Design Verification electrical & mechanical test reports - DN0046457.
8	Based on internal side-by-side testing measuring time, & number of seal/cut cycles to seal/transect 20cm of porcine mesentery - DN0044405.
9	12 of 12 surgeons evaluated POWERSEAL™ Sealer/Divider usability & overall performance as significantly better than LigaSure Maryland Jaw. Design Validation study with independent surgeons - DN0044403.
10	77% of surgeons indicated enhanced dissection capability & better ability to separate tissue planes by opening the jaws, compared to LigaSure Maryland Jaw. Design Validation animal labs with independent surgeons, 2020 - DN0044691.
11	65% of surgeons indicated better fine dissection capability when compared to LigaSure Maryland Jaw. Design Validation animal labs with independent surgeons, 2020 - DN0044691.
12	61% of surgeons indicated better ability when compared to LigaSure Maryland Jaw. Design Validation animal labs with independent surgeons, 2020 - DN0044691.
13	97% of surgeons indicated POWERSEAL™ Sealer/Divider is effective for atraumatic grasping. Design Validation animal labs with independent surgeons, 2020 - DN0044691.
14	29 of 31 surgeons surveyed agreed POWERSEAL™ Sealer/Divider is effective for blunt dissection. Design Validation animal labs with independent surgeons, 2020 - DN0044691.
15	Internal test report DN0046457.
16	Based on Design Verification system test reports - DN0043724, DN0044130.
17	Based on internal test reports - DN0044249
18	Internal test reports DN0042457, DN0044403
19	Based on internal test reports DN0043725, DN0044288, DN0044291, DN0044706, DN0046942, DN0044249

Manufactured by Gyrus ACMI, Inc. 9600 Louisiana Avenue, North Brooklyn Park, MN 55445

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