

# Achieve a Perfect Seal



## Induction Cap Sealing Best Practices

Packagers rely on hermetic induction seals to prevent containers from leaking, preserve freshness and to provide tamper evidence.

Packagers who Achieve a Perfect Seal understand the core principles of induction sealing (heat, pressure & time); ensure materials are compatible (caps, liners, bottles & products), and define the cap sealing operating window that is best for their application.

**PREVENT LEAKS, PROVIDE TAMPER EVIDENCE, & PRESERVE FRESHNESS**

**LEARN HOW INDUCTION CAP SEALERS CREATE HERMETIC SEALS**

**FIND OUT HOW CAPS, LINERS & CONTAINERS INTERACT**

**DISCOVER HOW AN OPERATING WINDOW OPTIMIZES SUCCESS**

**SEE CAP SEALER TECHNOLOGY AND INDUSTRY APPLICATIONS**



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Ensuring Your Sealing Success.**

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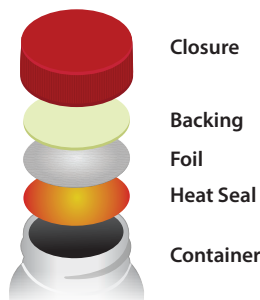
# How Induction Sealing Works

Induction sealing creates a hermetic seal by passing a capped bottle under the induction sealer in a non-contact process. The system's sealing head produces an electromagnetic field that heats up the foil liner inside the cap. The hot foil in turn melts the polymer coating on the inner-seal. The heat, coupled with the pressure of the cap, causes the inner-seal to bond to the lip of the container resulting in a hermetic seal.

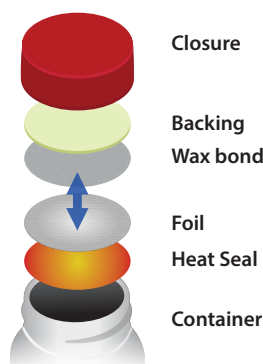


## Selecting the right liner for your application.

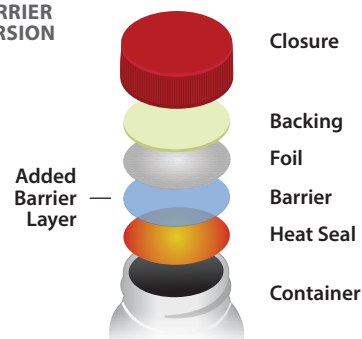
### ONE PIECE LINER



### TWO PIECE LINER



### HIGHER BARRIER VERSION



Induction seals prevent leaks and preserve product freshness. Packagers should specify whether the induction liner will peel away cleanly or leave indication of tamper evidence. Peelable liners can include tabs which make the liner easier to remove.

Some liners have a secondary function of resealing. These liners are referred to as two piece liners. They rely on a wax or mechanical bond between the foil liner and a foam or pulpboard backing piece which remains in the cap when it is removed.

Certain products containing oils and chemicals may require an additional barrier layer to protect the foil liner.

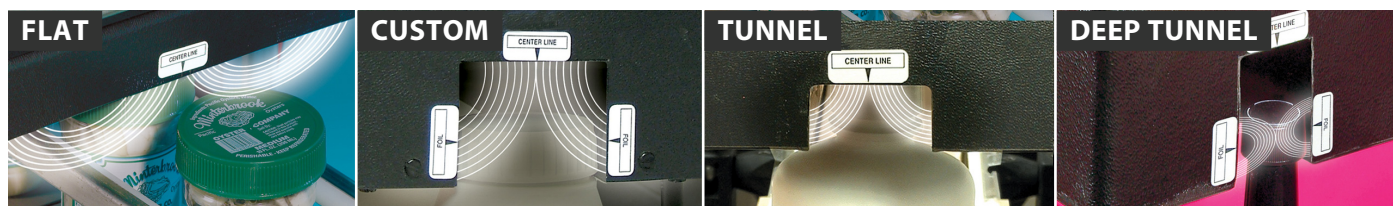
## Caps, Caps and more Caps

Virtually any cap that can apply adequate downward pressure on the liner to the land area can be used in the induction sealing process. The geometry of the cap, size of the liner and other factors can impact its ability to be induction sealed. Most Continuous Thread (CT) caps and Child Resistant Caps (CRC) have a minimal distance between the liner and the top of the cap. However Dispensing Caps (yorker, disc or flip top) have a larger distance between the top of the cap and induction liner and these may require the use of specially designed sealing heads.



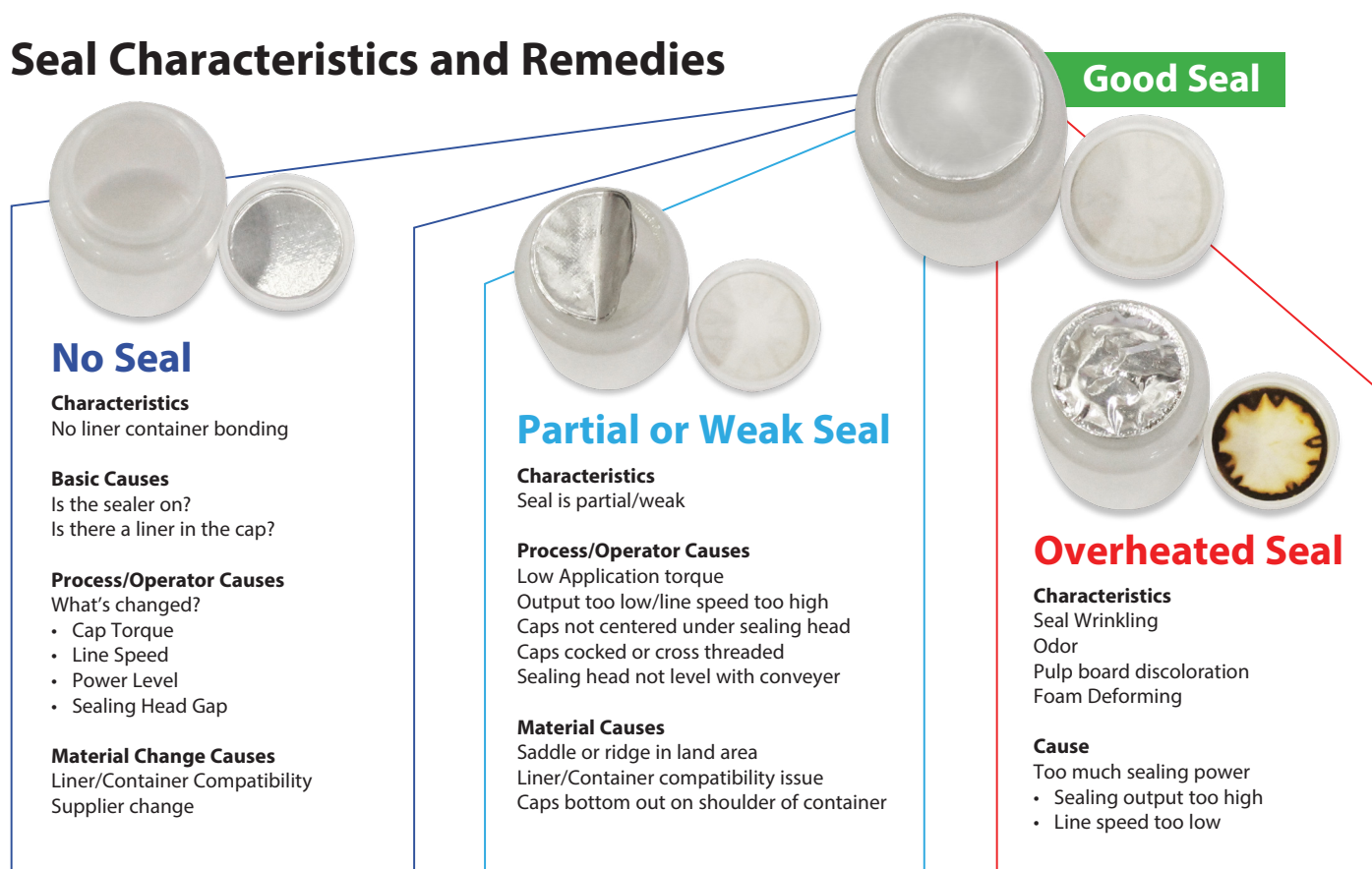
## Sealing Head Design

Not all sealing heads are created equal. Enercon has engineered a variety of sealing heads to optimize the induction field for different applications as shown below.



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# Seal Characteristics and Remedies



## How to find your induction sealing operating window

The window is the range between the minimum & maximum power levels that achieve a good seal. After determining your operating window, select a power level within this range to run production based on the desired seal strength and peelability your product requires.

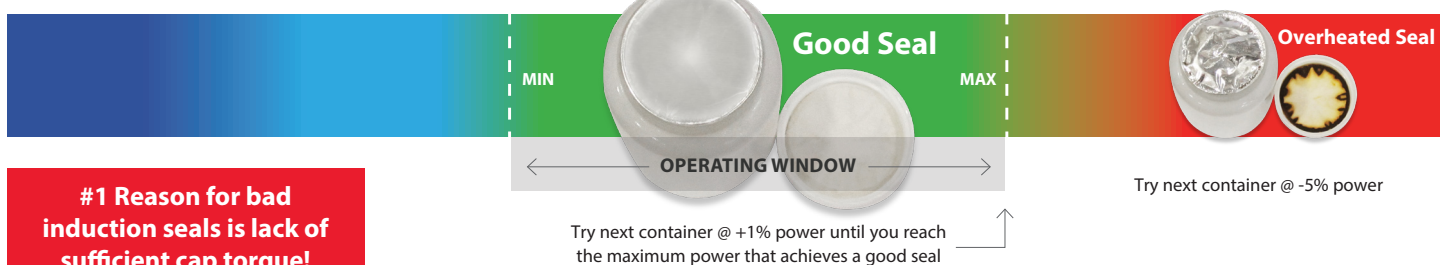
### 1 Find the Minimum Power Level that Produces a Good Seal

Try sealing your first container at 50% power. Follow the instructions below based on your results until you determine the minimum power level that achieves a good seal. Be sure your conveyor speed is set to your actual production rate.



### 2 Find the Maximum Power Level that Produces a Good Seal

Seal your first container at a power level that produces a good seal. Follow the instructions below based on your results until you determine the maximum power level that achieves a good seal.



**#1 Reason for bad induction seals is lack of sufficient cap torque!**

## Super Seal™ Max



# Induction Sealing Machines

Whether you need a cap sealing machine for high volume production or laboratory cap sealing, Enercon has an induction sealing equipment solution for you. Each of our induction sealing machines is designed for rugged and reliable field performance. Our experts can help guide you in selecting the perfect induction sealer to ensure you achieve a perfect induction seal.

## Super Seal™ Pro



## Super Seal™



## Super Seal™ Jr.



- For moderate to high speed applications
- Intuitive touchscreen control
- Includes set-up, operation & troubleshooting help
- Remote start/stop & power level control
- Recipe management & password protection
- Options for integrated inspection & line monitoring
- USB for downloading data & field software upgrades
- QR codes link to Enercon Support website

- For low, medium & high speed lines
- Microprocessor control
- Simple push button operation
- Digital power level meter
- Local/remote power on/off mode
- Wide range of sealing heads
- The industry workhorse

- For laboratory and manual production
- Compact yet powerful
- Set power & timer for perfect seals
- Missing foil indicator
- Base sealing head up to 83mm
- Wide sealing head up to 120mm

DAIRY

FOOD

CHEMICAL

BEVERAGE

PHARMACEUTICAL



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