

ENERCON INDUSTRIES

White Paper

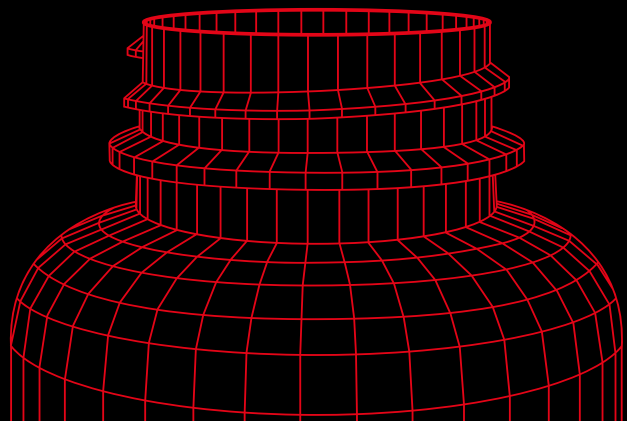
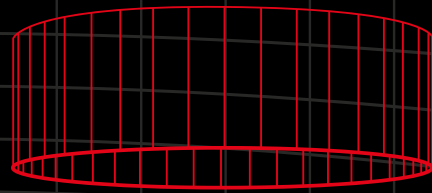
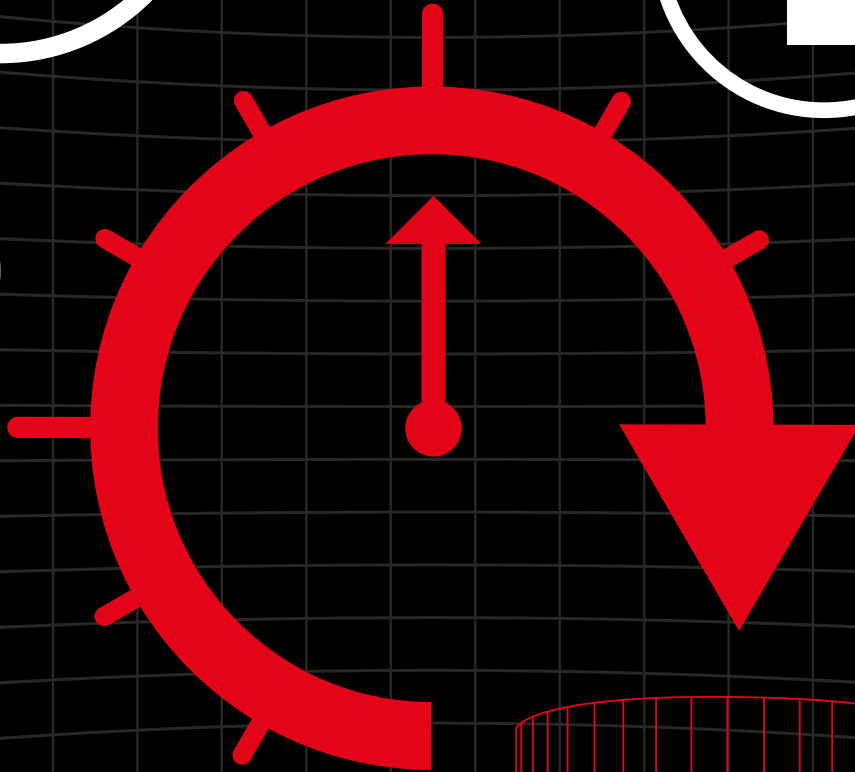
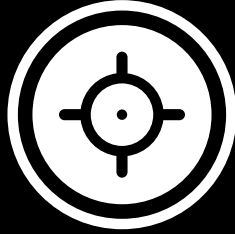
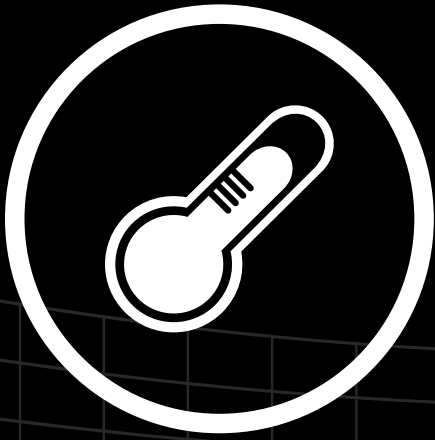


# A Quick Guide to Enercon's Operating Window



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THE GLOBAL LEADER IN INDUCTION CAP SEALING





# What is an operating window?

**An operating window is the range between the minimum and maximum power levels that your induction sealer should be set to in order to achieve a good seal for your product every time.**

Anything below the minimum power level could result in a partial seal, while anything above the maximum power level can cause an overheated seal.

There is no standard operating window; each operating window is specific to your product, bottle, cap, liner, induction sealing equipment and production speed.

Therefore trials need to take place to determine the correct operating window.

This step-by-step guide will show you how to find your operating window.





# How to establish an operating window for your induction cap sealer

Once the cap, liner and induction sealing equipment have been selected, setting up an operating window for the induction sealer is the next step.

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## Step one

Ensure that the orientation and the alignment of the sealing head are correct. The air gap between the sealing head and the foil liner must be consistent. It is also important to make sure that the bottle path is controlled and travels under the centre of the sealing head.



## Step two

Check the variables including conveyor speed, which should be a fixed value for a better result (if the operation requires sealing over variable conveyor speeds, ask the induction sealer manufacturer about a variable sealing control option). Ensure that closures and containers are compatible, examine containers and caps for defects; and check that your capping method meets the required torque (10in lbs/0.8nm) and that it is consistent.





## Step three

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

Set your induction sealer's output percentage to 50% and ensure your conveyor speed is set to your actual production rate. Then run a single container under the sealer. Leave the container for one minute before unscrewing the cap and checking for a seal.

Once you have unscrewed the cap, follow the instructions in the diagram on the left based on your results until you determine the minimum power level that achieved a good seal.

If no seal or a partial seal was achieved, you will need to increase the power level. If the liner shows signs of overheating, you will need to decrease the power level.

Once you have reached the minimum power that achieves a good seal, you have determined the minimum set point.



## Step four

### 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 on the left based on your results until you determine the maximum power level that achieves a good seal.



## Step five

Now take the lowest and highest power levels that produced a good seal – this is your operating window.

Once you've determined this window, it is recommended that you select a power level midway between the minimum and maximum set points. This midpoint will be the power setting for production.

To speak to a member of our technical team for further support and guidance, contact us today on [info@enerconind.co.uk](mailto:info@enerconind.co.uk).



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