



**Thin Sections. Great Insights.**

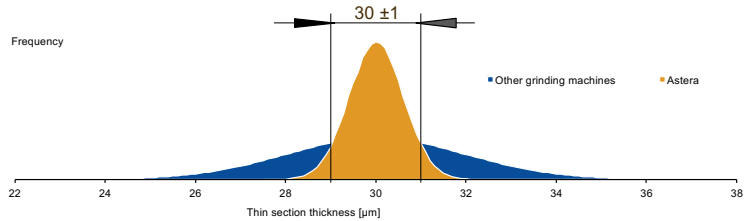
## High quality with minimum effort

At Astera Solutions we understand that the most precious resource in the lab is your valuable time. Since 1994, we have designed our solutions in close collaboration with leading experts to deliver unprecedented thin section quality and accuracy, while increasing efficiency and ease-of use. High precision, high reliability and trouble free processing let you focus on what really matters – great sample results.

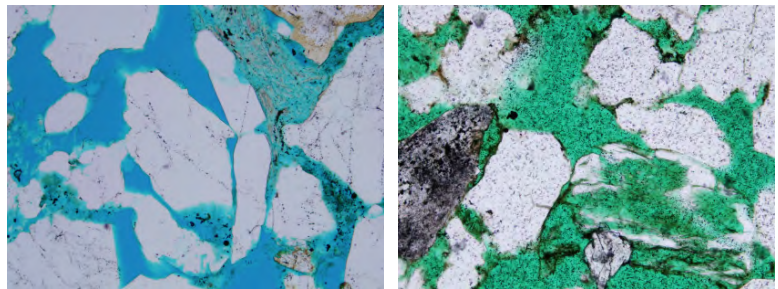
### Higher Quality

High precision is of utmost importance to ensure robust thin section analysis. Astera Solutions provides best in class precision of  $\pm 1 \mu\text{m}$  through our breakthrough machine design.

Since no abrasive is needed, your thin sections remain clean and don't necessarily need to be lapped. You will notice a distinct quality improvement from day 1, easing the thin section analysis.



The Astera machine is proven to be much more precise than comparable grinding machines



**State-of-the-art Astera Solution** - pore spaces are clear and evenly colored, allowing highest quality analysis.

**Previous thin section equipment** - pore spaces contain large quantities of abrasive powder, the dark grains on the picture, thereby complicating analysis.

### Improved Productivity

Consistently high quality ensures high yield by reducing rejects. With up to 16 thin sections per batch and fast and automatic processing, the GRN16 offers truly outstanding performance. With the ability to switch quickly between the grinding and polishing wheel, operator intervention is kept to a minimum, while the color touch screen interface ensures constant control over the process.

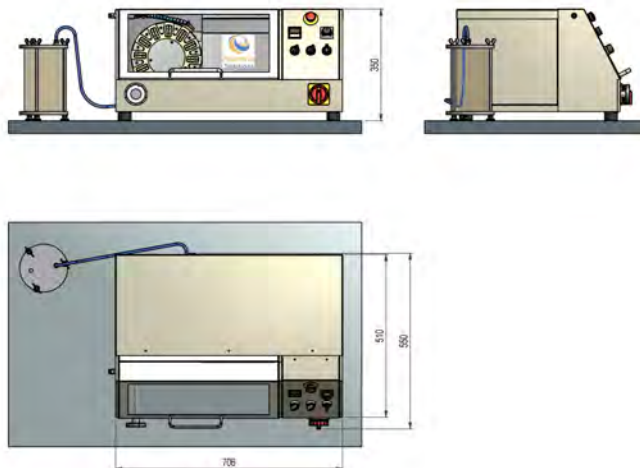
### Higher Reliability

Almost 20 years of continuous trouble-free operational experience in thin sample preparation makes Astera™ the industry standard for reliability. Process control includes an automatic calibration, increasing consistency and eliminating the need for maintenance by a service technician. Absence of abrasive also means lower maintenance, as machine wear and tear is reduced. Nevertheless, in the event of any technical issue, our support team is available on the phone and can even provide direct support through the optional remote web-based connection.

### Lower Cost

The high productivity of Astera machines combined with low operating costs will result in the lowest cost per sample in the industry. Full automation reduces processing time. Low operating costs are achieved through the absence of abrasive in the process and negligible maintenance. In addition, the high precision makes lapping unnecessary, thus saving the need for an additional machine.

# CUT 8

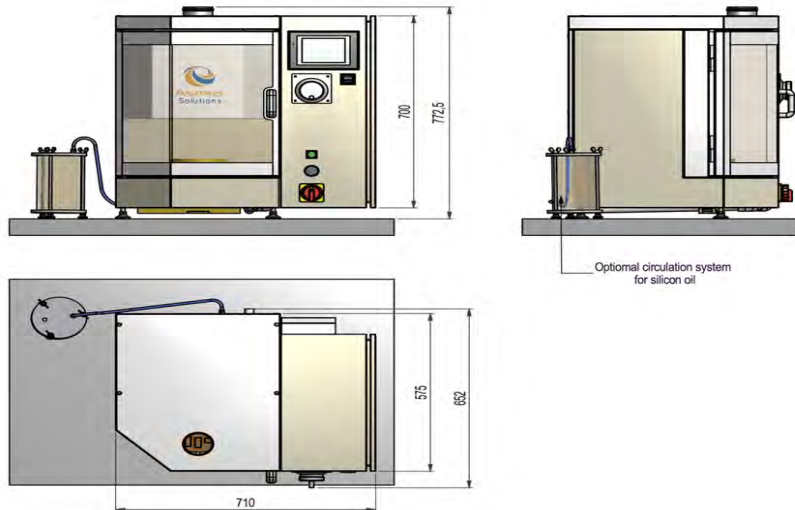


## Characteristics

Capacity	8 samples	Mounting	Desktop model
Standard sample size	1" x 2"	Dimensions	705 x 550 x 350 mm
Precision	+/-0.010 mm	Weight	70 kg
Cycle time per batch	25'	Power supply	230V 50Hz
Spindle speed	0-1800 rpm, adjustable	Control	PLC; automatic
Diamond blade	Electrolytically bounded	Vacuum system	Included

*Precision is depending on the stone quality.*

# GRN 16

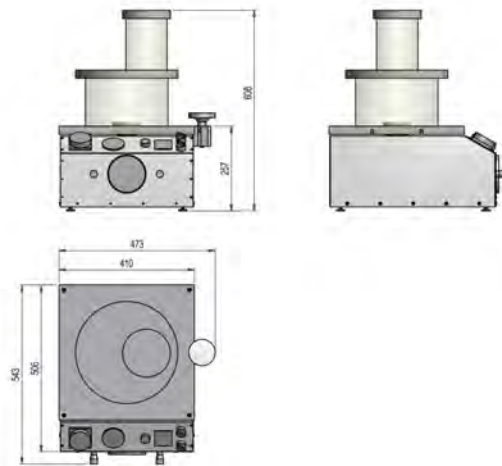


## Characteristics

Capacity	16 samples	Mounting	Desktop model
Standard sample size	1" x 2"	Dimensions	710 x 650 x 775 mm
Precision	+/-0.001 mm	Weight	275 kg
Cycle time per batch	60'	Power supply	230V 50Hz
Spindle speed	0-1600 rpm, adjustable	Vacuum system	Included
Stroke z-axis	60 mm	Remote support	Internet
Grinding cup wheel	140 / 400 / 1500	Control	PLC, automatic

*Precision is depending on the stone quality.*

# VAC 12



## Characteristics

Capacity	12	Dimensions	505 x 403 x 600 mm
Standard sample size	1" x 2"	Weight	40 kg
Cycle time per batch	25'	Power supply	230V 50Hz
Mounting	Desktop model	Vacuum system	Included

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# Accessories & options

## **Grinding Wheel sharpening tool:**

A set of tools to sharpen the grinding cup wheel. The tools are positioned on the grinding table with a help of vacuum. One pack includes five tools.

## **Frost Glasses GLA:**

Glasses are grinded from one side, the other side is clear. Glass thickness variation is max +/- 2 microns.

## **Silicone oil circulation system:**

Silicone oil circulation system for Astera saw CUT8 and grinders GRN16/40. The system has 35 liters oil tank, circulation pump and connection hoses.

## **Additional grinding wheel:**

Grinding wheels for grinders GRN16/40. Wheel types 140/400/600/800/1200/1500/3000.

## **Additional saw blade:**

Saw blade for saw CUT8.

*"As an university lab, precision and thin section quality are very important to us. Astera machines have proven to be an outstanding solution, allowing very precise and detailed sample analysis. "*

**Irina Maria Dumitru, Research Technician  
Institute for Earth Science, University of Bergen**

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*"Prior to 1994 our thin sections had abrasive residue which degraded their quality, especially for impregnated sandstone. Working together, Statoil and Astera Solutions solved the problem. The innovative technology co-developed with Astera has been a game changer, allowing us to prepare samples with no abrasive residue. With the Astera machine, we are now able to prepare clean thin sections of superior quality that fully meet our demanding specifications."*

**Geir Torkildsen, Laboratory Manager, Statoil**

## Contact

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