

# HELPING SHAPE THE FUTURE OF ADDITIVE MANUFACTURING

Russell Finex has been working with key partners in all areas of the industry since its conception. The Russell AMPro® range is a culmination of this experience and learning, designed to meet your current and future needs, and make sure your powder is qualified for use quickly and safely at every stage of the process.



## PREVENT CROSS-CONTAMINATION

Uses minimal contact parts and is tool-free making disassembly extremely easy. All contact parts are crevice-free, finished to the highest standard for fast and effective cleaning.



## CONTROLLABLE & REPEATABLE

Designed to provide optimum sieving efficiency, allowing you to recover all of your reusable powder so that only contaminated powder is removed, minimizing loss of good powder.



## MINIMAL OPERATOR INVOLVEMENT

Allows operators to focus on value added tasks such as finishing components or preparing the build chamber. This also minimizes operator exposure to powders and manual handling.



## FULLY MODULAR SYSTEM

Flexibility allows use for numerous powder handling tasks with any 3D printer on the market. From small batch to full production scale, in an inert gas atmosphere or build with multiple materials.

## SPECIFICATIONS

Model	Dimensions, mm (w, d, h)	Weight (kg)	Power supply	Air supply
AMPro 400H (E*)	1493 x 898 x 2121	550	3ph, 400VAC, 9.5A	6bar (30l/min)
AMPro 400H (V*)	1493 x 898 x 2121	480	3ph, 400VAC, 3A	6bar (1500l/min)
AMProLite	673 x 1200 x 1795	285	3ph, 400VAC, 2A	6bar (30l/min)
AMPro 400S (E*)	1100 x 700 x 1944	335	3ph, 400VAC, 9.5A	6bar (30l/min)
AMPro 400S (V*)	1100 x 700 x 1944	335	3ph, 400VAC, 3A	6bar (1500l/min)
AMProLab	274 x 674 x 1000	26	1ph, 230VAC, 1A	N/A
PM Sieve	350 x 350 x 290	26	1ph, N/A	N/A
Bulk Storage Tank	1119 x 559 x 1612	70	N/A	N/A

\*E = Electric pump / V = Venturi

## WHY PARTNER WITH RUSSELL FINEX?



Established in 1934, Russell Finex is a worldwide leader in fine mesh separation technology and has been designing and manufacturing high quality vibratory sieves, separators and ultrasonic mesh deblinding systems for 85 years. Russell Finex puts a strong focus on innovation as well as forging strong customer relationships to ensure your powder handling requirements are met at each step of the process.

Our equipment is engineered for a global market and is supplied to over 140 countries. We have companies in the UK, USA, Belgium, India and China as well as a far reaching network of experienced agents and distributors across the world. In addition, Russell Finex also sees the importance of customer service to ensure you can be supported anywhere in the world. Therefore, as you develop and grow AM throughout your business, Russell Finex will be there to support you anywhere in the world.

Russell Finex is the only supplier to manufacture both sieving and ultrasonic technology, providing full system support. Paired with our worldwide presence, you can be assured of the best service wherever you are.

## WHAT MAKES US SPECIALISTS?

Worldwide presence

85 years' experience

Solutions customized for you

Comprehensive customer service

Focused on innovation

Long-term partnerships

## WHAT OUR CLIENTS SAY...

“Using the AMPro has made the turnaround time for builds faster and more efficient. This has been a brilliant investment for our production process, as it has allowed our operators to concentrate on other tasks, speeding up our overall process and improving our material's quality.”

**Ross Studzinski, Chief Manufacturing Engineer at GKN**



## SUPPORTING YOU ACROSS THE WORLD...

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Russell Finex AMPro-01-01/19 ©  
Specification subject to change.

# THE RUSSELL AMPro® SIEVE STATION PRODUCT RANGE



Market-leading powder handling solutions for every stage of the AM industry



### Recover

Quick and safe transportation of AM powders



### Re-qualify

Virgin and reclaimed powders qualified with maximum yield



### Reuse

Compatible for use with all powder vessels

Global powder handling specialists



# THE RUSSELL AMPRO® SIEVE STATION

A modular fully-automated powder handling system for the AM industry providing consistent quality and purity of your AM powders

There are many AM technologies which require a powder management system. Powder bed fusion technologies such as EBM, DMLS or SLM heavily rely on a robust powder recovery solution due to the amount of powder left after each build. The Russell AMPro® Sieve Station has been designed to fit seamlessly with any powder transfer system, whether using powder containers or a fully integrated closed-loop powder recovery system, and can be configured to suit any configuration.

## KEY FEATURES

### Easy to operate user interface

Simple one-button operation and fully programmable for multiple settings

### Rapid changeover of parts

Quick-release clamping system and minimal contact parts

### Smart Flow™ technology

Automated feed control with intelligent weigh system for complete automation

Patent Pending

### High performance ultrasonic mesh deblinding system

Providing high flow rates with long mesh life for all powders

### Modular convey system

Vacuum Venturi or exhaustor with purge options available

### Services multiple printers

Castor mounted to allow one unit to service several printers

### Hygienic robust sieving system

Incorporating industry proven Russell Compact Sieve® technology



# CHOOSE THE SYSTEM THAT SUITS YOUR EXACT REQUIREMENTS

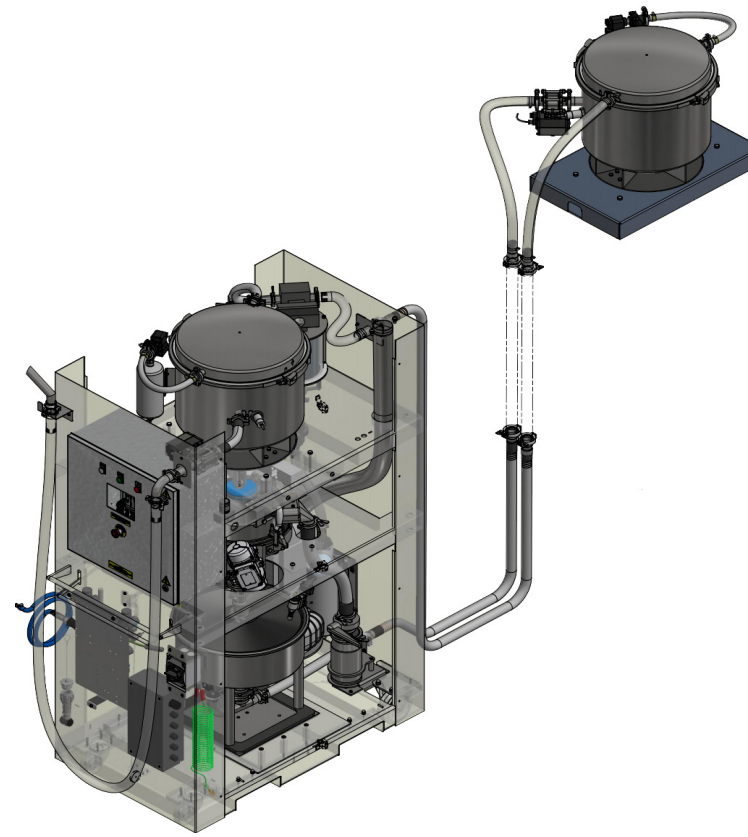
## RUSSELL AMPRO® 400H

Powder management system with in-built convey system

With an integrated storage hopper and convey system, this all-in-one powder management system includes Smart Flow™ (patent pending) technology for autonomous sieving as well as data logging capabilities for process validation. Includes options for connecting directly to your 3D printer for a fully closed-loop powder handling system.

Configurations:

- Closed-loop powder transfer
- Fully automated powder management
- Inert gas purging with O<sub>2</sub> monitoring for powder conditioning
- Suitable for use with multiple printers



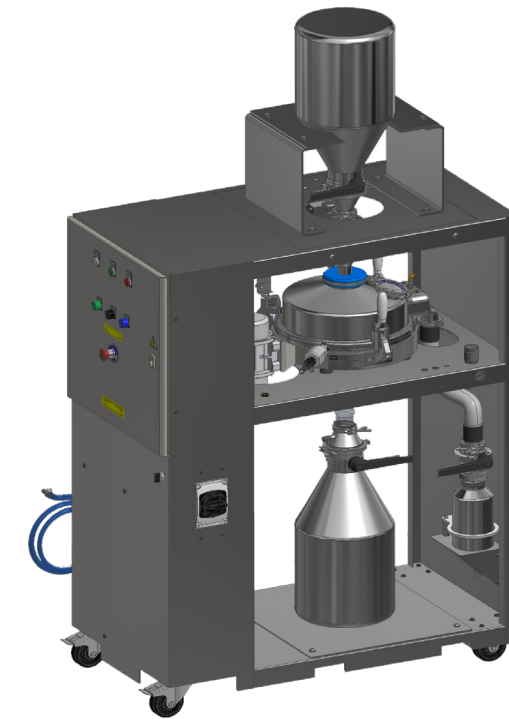
## RUSSELL AMPRO® LITE

Sieve station for powder vessel transfer

The ideal sieve station for entry level users or for those using powder vessels/bottles. Suitable for connecting most bottle sizes and incorporates the unique AMPro® feed system and integrated oversize removal as well as optional ultrasonic deblinding system and O<sub>2</sub> monitoring.

Configurations:

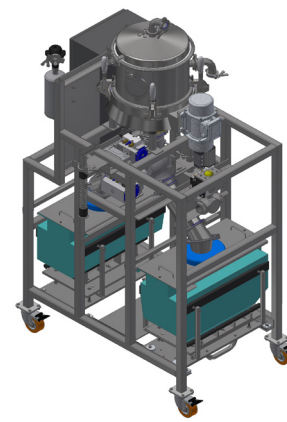
- Bottle to bottle powder transfer
- O<sub>2</sub> monitoring for powder conditioning
- Oversize powder removal
- Optional powder convey module



## RUSSELL AMPRO® 400S

Powder recovery sieve station to connect with depowder stations

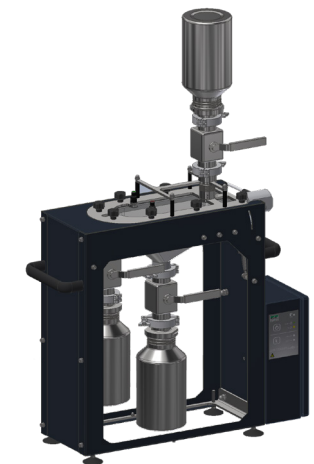
Utilizing the unique Self-Loading Russell Compact Sieve™ technology, this provides an on-demand sieve unit which can be easily integrated into a depowder station for requalifying recovered powders. Configurable to suit EBM printing processes.



## RUSSELL AMPRO® LAB

Laboratory scale table-top sieve station

A non-vibratory sieve unit for recovering small batches of powder utilizing the Russell Vibrasonic® Deblinding system. Includes 3 modes of adjustment to ensure optimum sieving of any powder. Suitable for connecting most bottle sizes and includes gas purging. Also suitable for integrating into printers for sieving powder during the build process.



## RUSSELL AMPRO® BULK STORAGE TANK

For rapid evacuation of large volumes of powder

With an integrated cyclone specifically designed for conveying AM powders, this storage tank is ideal for evacuating large volumes of powder. Can be used in conjunction with the Russell AMPro® Sieve Station or a separate vacuum source such as an industrial vacuum cleaner.



## RUSSELL PRECIOUS METAL SIEVE

Sanitary laboratory sieve for precious metal powders

A 250mm (10") sieve station designed to eliminate any product loss, finished to the highest standard with no crevices or seals. Available for two or three stage powder separations.

