

# Resin Pumping System FAQs

## Why did we change the name from HVRS?

In January 2023, we teased a product called High Volume Resin System as a part of the Automation Ecosystem with a target launch of Q4 2023.

We renamed the product to “Resin Pumping System” because many Formlabs customers do not identify as “High Volume” but will still benefit from the value offered by this system.

## Why is it a 5 L plastic container and not a cardboard box with a collapsible bag?

During the validation process for the Resin Pumping System, it was found that the lack of oxygen permeability of the collapsible bag caused unexpected interactions with the resin, making it incompatible for long term resin storage.

The new non-collapsible packaging still offers an 86% savings in plastic waste when compared with the current 1 L cartridges.

## What is the cost of the resin pump?

\$199 USD

## What resins will be available in 5 L Containers?

As of Q1 2024, the following Resins will be stocked and available globally in 5 L containers:

- Clear V4
- Grey V4
- Draft V2
- Model V3
- Tough 2000

These 5 L containers will be available through the wholesale store.

## What if a customer wants a resin that is not offered in 5 L Containers?

Resins outside of the five stocked resins can be custom ordered IF the order size is above a required minimum order quantity:

Product Name	MOQ	Product Name	MOQ
White Resin 5 L	30L	Durable Resin 5 L	30L
Tough 1500 Base	30L	Model V2 Resin 5 L	30L
Tough 1500 Resin 5 L	30L	Dental LT Comfort Resin 5 L	30L
Silicone 40A Resin 5 L	30L	Dental LT Clear V2 Resin 5 L	30L

Surgical Guide Resin 5 L	60L	Castable Wax Resin 5 L	30L
Rigid 4000 Resin 5 L	30L	Castable Wax 40 Resin 5 L	30L
Grey Pro Resin 5 L	30L	Custom Tray Resin 5 L	60L
IBT Flex Resin 5 L	60L	BioMed White Resin 5 L	60L
High Temp Resin 5 L	30L	BioMed Flex 80A Resin 5 L	60L
Black Resin 5 L	30L	BioMed Elastic 50A Resin 5 L	60L
Flame Retardant Resin 5 L	30L	BioMed Durable Resin 5 L	30L
Flexible 80A Resin 5 L	30L	BioMed Clear Resin 5 L	30L
ESD Resin 5 L	30L	BioMed Black Resin v1	60L
Elastic 50A Resin 5 L	30L	BioMed Amber Resin 5 L	60L

**Note:**

- These orders will have an 8-10 week lead time.
- MSRP will vary slightly from stocked resins due to additional costs associated with custom resin orders
- These 5 L containers will not be available through the wholesale store. Reach out to your channel sales manager to place an order.

**What materials cannot be used with this pump?**

Heavily Filled Resins, PU Family resins, and 3rd party resins are **incompatible** with Resin Pumping System. Several others are not compatible due to other reasons:

- Rigid 10K
- Denture Teeth V1
- Premium Teeth
- Temporary Crown and Bridge
- Permanent Crown
- Alumina 4N
- PU Rigid 650
- PU Rigid 1000
- Rebound
- Denture Base
- Color Base

**What is the cost of the 5-liter container of resin?**

Check the pricebook for more specifics on pricing, but the 5L containers are always at least 10% cheaper per liter than resin purchased in 1 L cartridges.

**Are the 5 L containers eligible for Bulk Resin discounts and Supply Agreement discounts?**

Yes! The Formlabs Global Discount Policy remains the same for 1 L Resin Cartridges and 5 L Resin Containers. The % discount and respective MSRP for AMER/ROW are outlined below for the 1 L and 5 L cartridge.

Bulk Orders							
		1 L Cartridge		5 L Container (AMER)		5 L Container (ROW)	
L/Order	Discount %	Order Value	\$/L	Order Value	\$/L	Order Value	\$/L
5	0%	\$745	\$149	\$670	\$134	\$595	\$119
10	0%	\$1,490	\$149	\$1,340	\$134	\$1,190	\$119
15	0%	\$2,235	\$149	\$2,010	\$134	\$1,785	\$119
20	0%	\$2,980	\$149	\$2,680	\$134	\$2,380	\$119
30	10%	\$4,023	\$134	\$3,618	\$121	\$3,213	\$107
60	15%	\$7,599	\$127	\$6,834	\$114	\$6,069	\$101
120	20%	\$14,304	\$119	\$12,864	\$107	\$11,424	\$95
300	30%	\$31,290	\$104	\$28,140	\$94	\$24,990	\$83
600	40%	\$53,640	\$89	\$48,240	\$80	\$42,840	\$71
Supply Agreement							
		1 L Cartridge		5 L Container (AMER)		5 L Container (ROW)	
L/Order	Discount %	Annual Value	\$/L	Annual Value	\$/L	Annual Value	\$/L
20	20%	\$28,608	\$119	\$25,747	\$107	\$22,886	\$95
50	30%	\$62,580	\$104	\$56,322	\$94	\$50,064	\$83
100	40%	\$107,280	\$89	\$96,552	\$80	\$85,824	\$72

The tiers are based on the number of liters ordered, so rather than 30 1 L cartridges, the first discount tier could be achieved with 6 5 L Resin Containers.

We are hoping that the additional discounting and operational streamlining offered by Resin Pumping System will significantly increase the number of customers who take advantage of our bulk pricing.

**Will Customers be able to fill the jug with their own resin?**

No. This system requires an RFID resin card, much like how the Fuse system operates with our powders. Because of this, customers cannot just attach a supply of any material they'd like to the end of the hose.

**What is the lifespan of the pump and do we have a warranty?**

Our resin pumps were tested for up to 600 hours of pumping without experiencing failure which translates to between 350 and 850 liters of resin depending on the resin viscosity.

The pumps have the same 1-year warranty that all Formlabs products fall under which covers failures due to manufacturing defects.

**What is the lifespan of the tubing?**

Over time, the pump's tubing will begin to wear out and pump performance will diminish resulting in slower fill rates. For this reason we recommend changing the pump tubing every 6 months.

**Can a user swap between materials on a single pump?**

Yes. The Resin Pump uses a peristaltic pump that isolates the resin from the mechanical components of the pump, meaning that the resin only comes in contact with the tubes in which it travels. If a user wants to change materials they will need to replace the pump tubing which will sell.

**What machines can this be used on?**

The Formlabs Resin Pumping System is compatible with Form 3/B/+L printers. At launch, only Form 3/B/+ printers will be supported, however we expect 3L support to follow shortly after in January/February 2024.

**Are there circumstances in which we wouldn't recommend the Resin Pump for someone?**

We have some resins which are not compatible with the resin pumping system (See list above).

**Which customers will find the most value from the Resin Pumping System? Are there customers who we do NOT recommend the system for?**

Most accounts, even fairly low volume accounts will see value from the Resin Pumping System due to the improvements in efficiency and workflow. There is the most overall value for our highest volume accounts, where we expect high attach rates, but we still expect some small and medium volume users to purchase and have a great experience.

**Can I buy resin in containers that are bigger than 5 L?**

Not presently. Just 5 L.

**When will Resin Pumping System be available? Will there be a lead time?**

They will be available to ship immediately upon launch (1/9/2024). We anticipate a small amount of lead time generated initial demand spike, but we expect this to never exceed 4 weeks.