

# Product Information Bulletin 24-003

13<sup>th</sup> November 2024

## POWERSHOT X





## Document background

This Product Information Bulletin (PIB) is a comprehensive document created to introduce new products to our sales teams and resellers. It is an internal-use document (not customer-facing material), meaning that it shouldn't be shared *directly* with customers.

It outlines all essential aspects of the product, including a detailed product description, key features and benefits, specifications, pricing, availability, and relevant market information. Additionally, the PIB provides service offerings, such as training and after-sales support, to ensure a complete understanding of the product at launch.

Pricing and information presented in the PIB reflect the status at the time of the product's introduction and may be subject to change over time. The PIB is intended to equip our partners with the necessary knowledge to effectively promote and sell the product.

## Confidentiality

Please note that this PIB contains proprietary information protected by our non-disclosure agreements. Unauthorized distribution or sharing of this document may result in a breach of confidentiality. You are encouraged to use the insights gained from this document in customer conversations, provided they align with our standard communication guidelines.



## Contents

Document background .....	2
Confidentiality .....	2
Summary.....	4
Product description.....	5
Key features and benefits .....	8
Specifications .....	9
Competition and market .....	10
SAP numbers and pricing .....	11
Service offerings.....	12
Availability.....	12
Discontinuation Powershot S .....	12
Documents .....	12
Marketing activities.....	13



## Summary

Powershot X is DyeMansion's latest advancement in blasting technology, offering a comprehensive, flexible solution for diverse post-processing needs. Designed as a single system with three key functions—PolyShot Cleaning (PSC), PolyShot Surfacing (PSS), and combined PolyShot Cleaning & Surfacing (PS C&S) – the Powershot X provides versatility that allows customers to easily switch between processes based on their requirements.

With several new features - new basket design, fixed nozzle mount, automated antistatic injection- this system ensures cleaner processing and consistently high-quality results.

The Powershot X is priced competitively, starting at 35,500€ (or \$43,700 in the US), making it accessible for both small-scale users and larger production operations seeking efficient, adaptable equipment with a strong ROI.

Positioned against competing systems like AM Solutions' S1, the Powershot X offers distinct advantages in terms of adaptability, low initial costs, and reliability, making it a strong choice for additive manufacturing workflows.

With its established reputation for low downtime and the flexibility to scale up with minimal setup changes, Powershot X is well-suited for customers who prioritize both immediate productivity gains and long-term adaptability in their production lines.

The system is going to be presented officially on Formnext 2024 (Nov. 19-22) and planned to be shipped starting February 2025.

## Product description

The new Powershot X represents DyeMansions latest addition to the Powershot product portfolio. The System can run any of DyeMansions three blasting processes (PSC, PSS, PS C&S) on the same machine. DyeMansion discontinues the Powershot S by end of 2024 (more information will follow in a separate bulletin). Powershot C will remain in the portfolio for its known capabilities and reputation in the market as the leading depowdering system, offered for even more competitive pricing as soon as Powershot X is officially launched.






The combined PolyShot Cleaning & Surfacing process enables users to achieve surface-homogenized parts with a single-machine setup. This setup ensures consistent coloring within each batch of colored parts. However, minor color variations may occur between batches processed with the combined Cleaning & Surfacing (C&S) method.

For maximum quality in cleaning, surfacing, and coloring, DyeMansion recommends separating the PolyShot Cleaning and PolyShot Surfacing processes across dedicated machines. This avoids the need to constantly switch media and settings, providing optimal results, particularly for challenging geometries, intricate corners, and fine structures. Dedicated machines for each process ensure consistent coloring across different batches, which is essential for high-quality series production.

Minimal effort is required to switch between the cleaning and surfacing processes or media, allowing users to maintain flexibility in their workflow. The Powershot X is versatile, functioning as a standalone solution for smaller operations and as part of a multi-system layout with dedicated machines for scaling and series production.

## Media overview:

POLYSHOT CLEANING		POLYSHOT CLEANING & SURFACING		POLYSHOT SURFACING
				
GLASS	PC4*	PS3*	PS6*	PS6
~6000g/h	~200 g/h	~300 g/h	170 g/h	200 g/h

\*Use of Antistatic Agent recommended

DyeMansion recommends using PS6 in the PolyShot Cleaning & Surfacing process to achieve optimal surface homogenization. For customers encountering media retention in gaps or imprints, PS3 can be used as an optional media with smaller grain size. The reduced surfacing homogenization effect can be compensated up to a certain level by increasing the process time.

## Time to switch between processes:

Before	After	Time and tasks
Glass Beads (PSC)	PC4 (PSC)	30 min <ul style="list-style-type: none"> <li>- Remove old media</li> <li>- Run blow-off process</li> <li>- Add/Remove Cyclone tube extension</li> <li>- Clean system</li> <li>- Adjust process parameters</li> <li>- Add new media</li> </ul>
	PS3 / PS6 (PS C&S)	
	PS6 (PSS)	
PC4 (PSC)	Glass Beads (PSC)	30 min <ul style="list-style-type: none"> <li>- Remove old media</li> <li>- Run blow-off process</li> <li>- Add/Remove Cyclone tube extension</li> <li>- Clean system</li> <li>- Adjust process parameters</li> <li>- Add new media</li> </ul>
	PS3 / PS6 (PS C&S)	
	PS6 (PSS)	
PS3 (PS C&S)	Glass Beads (PSC)	30 min <ul style="list-style-type: none"> <li>- Remove old media</li> <li>- Run blow-off process</li> <li>- Add/Remove Cyclone tube extension</li> <li>- Clean system</li> <li>- Adjust process parameters</li> <li>- Add new media</li> </ul>
	PC4 (PSC)	
	PS6 (PS C&S)	
	PS6 (PSS)	
PS6 (PS C&S)	Glass Beads (PSC)	30 min <ul style="list-style-type: none"> <li>- Remove old media</li> <li>- Run blow-off process</li> <li>- Add/Remove Cyclone tube extension</li> <li>- Clean system</li> <li>- Adjust process parameters</li> <li>- Add new media</li> </ul>
	PC4 (PSC)	
	PS3 (PS C&S)	

	PS6 (PSS)	
PS6 (PSS)	Glass Beads (PSC)	30 min <ul style="list-style-type: none"> <li>- Remove old media</li> <li>- Run blow-off process</li> <li>- Add/Remove Cyclone tube extension</li> <li>- Clean system</li> <li>- Adjust process parameters</li> <li>- Add new media</li> </ul>
	PC4 (PSC)	
	PS3 (PS C&S)	
	PS6 (PS C&S)	10 min <ul style="list-style-type: none"> <li>- Adjust process parameters</li> </ul>

## Key features and benefits



### Process Flexibility:

The system offers unmatched adaptability, allowing users to tailor the post-processing setup precisely to their current production demands. This flexibility is ideal for evolving workflows and supports a range of applications, from initial cleaning to detailed surface finishing. Operators can adjust the system's parameters to meet specific requirements, ensuring optimized performance for each production stage.

### New Basket and Lining Design:

Our latest basket and lining enhancements are designed to elevate the cleanliness and efficiency of the process chamber. The design not only minimizes residual particles but also ensures the chamber remains pristine, reducing downtime for cleaning and maintenance. This innovation leads to a more consistent, high-quality finish on each processed part.



**Antistatic Injection Nozzle:**

The introduction of the antistatic injection nozzle marks a significant advancement for post-processing, especially in the combined PolyShot Cleaning & Surfacing process. By reducing static buildup, the antistatic agent prevents powder and media from adhering to parts and chamber surfaces, which enhances the overall quality and efficiency of the cleaning process.

**Fixed Nozzle Mount:**

The new fixed nozzle mount ensures a precise, stable setup that maintains the optimal distance and alignment of the nozzles. This setup consistency directly impacts the quality of the final product, delivering reliable, repeatable results across batches. By eliminating variability in nozzle placement, the mount simplifies system adjustments and guarantees that operators achieve the highest cleaning and surfacing quality with every run.




**Vacuum Cleaner Interface:**

The new vacuum cleaner interface allows for easy, contact-free cleaning of the dust container. By connecting effortlessly to the vacuum cleaner, operators can remove accumulated dust without direct handling, reducing exposure to particles and enhancing safety. This feature minimizes maintenance efforts and contributes to a cleaner work environment, which is essential for maintaining the quality and longevity of the equipment.

**Specifications**

Performance	Cycle time	PSC (glass)	5-10 min
		PSC (PC4)	10-15 min
		PSS (PS6)	15-20 min
		PS C&S (PS3 / PS6)	30-40 min
	Capacity	Up to: 3/4 EOS P396, 1x HP Jet Fusion 4200/5200, 1,5x Stratasys H350 build job	
Dimension	System (LxWxH)	1700mm x 1310mm x 2030mm 66.9inch x 51.6inch x 79.9inch	
	Work space (LxWxH)	2500mm x 2915mm x 2300mm 98.4inch x 114.8inch x 90.6inch	
Weight	System	480kg   1058lb	
Power	Supply	1kW	
	Requirement	400V, 50Hz, 16A or 208V, 60Hz, 20A	
Compressed air	Supply pressure	Min. 6 bar   87 psi (consistent) Max. 8 bar   116 psi	
	Consumption	2,0 m <sup>3</sup> /min at 6 bar   71 cfm at 87 psi	

## Competition and market

S1 (AM SOLUTIONS)	SMALL SIZE AUTOMATED BLASTERS (AMT/ FORMLABS/ AM EFFICIENCY)	MEDIUM SIZED AUTOMATED BLASTERS (AMT/ NORMFINISH/ NORBLAST)
		
<ul style="list-style-type: none"> <li>• Most expensive system in the medium range segment (40-45k€), higher CAPEX than PSX (12-26% more expensive than PSX)</li> <li>• Offers some more (partly unnecessary) features than PSX (e.g. sieve unit, digital pressure settings, ATEX compliance) <i>ATEX compliance not relevant for 99% of customers - often misunderstood - would only be relevant if machine is placed in an ATEX rated environment or room</i></li> <li>• Often state the availability for governmental funding in Germany for 2in1 blasting - same is possible for PSX in C&amp;S mode</li> <li>• Significant air consumption (4-6€ per run acc. to S1 presentation)</li> </ul>	<ul style="list-style-type: none"> <li>• Low investment (11-15k€)</li> <li>• Enough to cover 1-2 printers</li> <li>• Small footprint</li> <li>• Small blasting basket</li> <li>• Often just 1 blasting nozzle → limited performance</li> </ul>	<ul style="list-style-type: none"> <li>• Same Price area as PSX</li> <li>• Basic machine layout somewhat similar → often don't offer the possibility to have a combined cleaning and surfacing process</li> <li>• Often available from local suppliers</li> <li>• Suppliers usually only operate in the blasting business → lack of 3D printing adaptability &amp; know-how</li> </ul>
<b>Focus points when in competition with these machines</b>		
<ul style="list-style-type: none"> <li>• Price</li> <li>• Compressed air consumption per run (PSX):               <ul style="list-style-type: none"> <li>○ PSC Glass beads - 0,5-1€ / 12-24m<sup>3</sup></li> <li>○ PSC PC4 - 1-2€ / 22-32m<sup>3</sup></li> <li>○ PSS PS6 - 1,5-3€ / ~35m<sup>3</sup></li> <li>○ PS C+S PS6 3-4€ / ~70m<sup>3</sup></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• User friendliness via display and program storage (not applicable vs FuseBlast)</li> <li>• Processability of various part geometries and size</li> <li>• Scalability with PSX</li> <li>• Productivity of PSX with basket size and nozzle setup (2x blasting)</li> </ul>	<ul style="list-style-type: none"> <li>• Possibility to use the combined process for cleaning and surfacing in one machine</li> <li>• Proven track record of the Powershot Classic systems</li> <li>• DyeMansion know-how in the blasting area</li> </ul>

To compete effectively with other automated blaster systems, highlight PSX's affordability and scalability. PSX offers a streamlined design focused on essential functions, making it a practical choice for any user. The system's user-friendly interface and programmability make it adaptable to various part geometries and sizes, enhancing versatility. With a strong performance record backed by DyeMansion's expertise in post-processing 3D printed parts, Powershot Classic systems stand out when it comes to longevity and customer support.

## SAP numbers and pricing

### Machine:

Article number	Name	Price	Price US	Notes
19508	Powershot X - 400V / 50Hz	35.500€	43.700\$	NEW
19509	Powershot X - 208V / 60Hz	35.500€	43.700\$	NEW
10226	Powershot C - 400V / 50Hz	29.900€	36.700\$	Price reduction
10227	Powershot C - 208V / 60Hz	29.900€	36.700\$	Price reduction
18598	Powershot C - 208V / 60Hz - TÜV certified special version (OSHA)	-	39.800\$	Price reduction

### Starterkit:

Article number	Name	Price EU	Price US	Notes
18887	Starterkit Blasting Media Glass Beads	45€	54\$	No price change
15857	Starterkit Blasting Media PC4	275€	346\$	No price change
19532	Starterkit Blasting Media PS3	250€	470\$	NEW
14879	Starterkit Blasting Media PS6	250€	470\$	No price change
19510	Starterkit Antistatic Agent	25€	30\$	NEW

### Process media:

Article number	Name	Price EU	Price US	Notes
18755	Blasting Media Glass Beads (12,5l / 3,3gal)	45€	54\$	No price change
15856	Blasting Media PC4	275€	346\$	No price change
19531	Blasting Media PS3	250€	470\$	NEW
13563	Blasting Media PS6	250€	470\$	No price change
19524	Antistatic Agent	25€	30\$	NEW

### Process media (US exception)

Article number	Name	Price EU	Price US	Notes
14878	Starterkit Blasting Media Glass Beads (10l / 2,64gal)	-	45\$	No price change
13561	Blasting Media Glass Beads (10l / 2,64gal)	-	45\$	No price change

### Packaging:

Article number	Name	Price EU	Price US	Notes
19527	Powershot X packaging (IPPC-certified)	940€	1140\$	No price change



## Service offerings

Technically enabled partners that have already been trained on Powershot C/S via our on-site training will receive a training webinar from a DyeMansion service instructor. The webinar will cover the technical updates and changes to the machine compared to the existing Powershot C/S. There will be multiple dates for the webinar to give our partners the chance to participate. Detailed information regarding the date and time will follow later this year.

### DMCare

DMCare is available according to the regular plans for Powershot products.

### Unified Service Articles for all Powershot machines (including discontinued Powershot S):

Article number	Name	Price EU	Price US	Notes
10240	Powershot Installation	790€	1040\$	No price change
15434	Powershot Remote Installation	1.075€	1430\$	No price change
16142	Maintenance Kit Powershot Reseller	475€	570\$	No price change
16837	Maintenance Powershot One Year	2410€	3050\$	No price change

### Discontinued service articles:

Article number	Name
16143	Maintenance Kit Powershot S Reseller
16838	Maintenance Powershot S One Year

### Availability

- Powershot X - Planned start of shipping is February 2025
- Powershot C - no limitation

### Discontinuation Powershot S

- Powershot S - last orders accepted on December 31, 2024

More information regarding the discontinuation of the Powershot S will be sent out in a Product Discontinuation Bulletin before the end of the year.

### Documents

Updated documents are going to be shared as soon as they are available.

- Operating instructions
- Installation requirements
- Installation checklist
- Service protocols



## Marketing activities

- 18 Nov - Go Live PSX on DM Website (evening)
- 18 Nov - Customer information on PSX launch and PSS discontinuation
- 19 Nov - Official launch at Formnext 2024 → Press release, machine on-site on DM partner booths (Matsuura Europe / Bechtle Additive Manufacturing)