



Weiss Powder Applicator series (WPA)

State of the art powder application system





Weiss Powder Application (WPA)

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APPLICATION

- ▶ Screen print production on heat-transfer sheets.

KEY FACTS

- ▶ Automates the process of applying adhesive powder on heat-transfer sheets.
- ▶ Recycles the powder
- ▶ Does not touch the printed side of the transfer sheet. (No marks on the surface of the prints)
- ▶ The three sizes of the WPA series support production with respectively 50, 70, and 103 cm wide heat-transfer sheets.
- ▶ Filters the processed air with the best air filtration system on the market today.
- ▶ Reduce high levels of static electricity stored in the heat-transfer sheets.
- ▶ Build with Danish ingenuity and sense of quality.

With production stability, machine reliability and the production workers' health in mind, the engineering team at Weiss Machines has developed the high quality and unique Weiss Powder Applicator series.

The WPA series is designed to support screen print production on heat-transfer sheets. The automation of the powder application process ensures a consistency of the powder application that is required when producing high quality transfers. The design and quality the powder scattering machines make it incredibly stable, remarkably reliable, and it ensures powder application of the highest quality, while keeping the maintenance costs extremely low.



The WPA series is manufactured in accordance with the CE regulation and the series is CE marked.

- ▼ Weiss Powder Applicator (WPA series)



Advantages

- ▶ Ensures a steady and high quality transfer product.
- ▶ Radically improves production speed from manual powder application.
- ▶ Is easily calibrated to different tasks requirements.
- ▶ Handles paper and foil.
- ▶ Reduces levels of static electricity stored in the heat-transfer sheets.
- ▶ Recycles the adhesive powder.
- ▶ Support small, medium, large, and non-stop production runs.



- ▶ Can be refilled with adhesive powder while operating.
- ▶ Radically limits the pollution of the production environment.
- ▶ Designed with the most effective air filtration system on the market.
- ▶ Makes the process of powder application an easy and healthy task to comprehend.

Cost of ownership is very economic and the system is well proven in the marketplace. The WPA offers transfer productions a true cost saving solution.

Construction

Danish craftsmanship and quality electronics. As a Danish machine manufacturing firm, we manufacture all of our WPAs at our workshop in Denmark. We take pride in great craftsmanship at Weiss Machines and we design our machines to last for many years. To do so, we over-engineer the construction to ensure a stable and reliable product. We only use high quality components and quality electronics. This makes the WPA series remarkably reliable, with extremely low servicing and maintenance costs.

Production stability

Automating the process of producing high quality prints on heat-transfer sheets can be tremendously challenging. There are several stages within this process and a small error can have major consequences. The quality and uniformity of the powder application has to be consistent at all times. To achieve this, the WPA is designed to have a minimal number of moving parts, with a simplicity that will provide the quality, uniformity and consistency you need.

Heat-transfer sheet sizes

The 3 sizes of the WPA series are designed in correlation to the 3 most common sizes of heat-transfer sheets.

MAX. sheet width:	WPA Model:
54cm	WPA54
80cm	WPA80
110cm	WPA110



WORKERS HEALTH

The risks of inhaling airborne powder from applying powder on heat-transfer sheets represents a major health risk. The WPA technology radically decreases this health risk by creating a vacuum down through the conveyor belt. This traps the powder inside the machine and it's prevented from becoming airborne. A highly effective air filtration system is then used to filter the polluted air before it is led out again. This air filtration system is without a doubt, the most effective air filtration system on the market today.

The WPA's air filtration system is designed to improve working conditions, while automating the powder application process.

ADHESIVE POWDER

The WPA series is only designed to handle adhesive powders, which is designed to heat-transfer production.

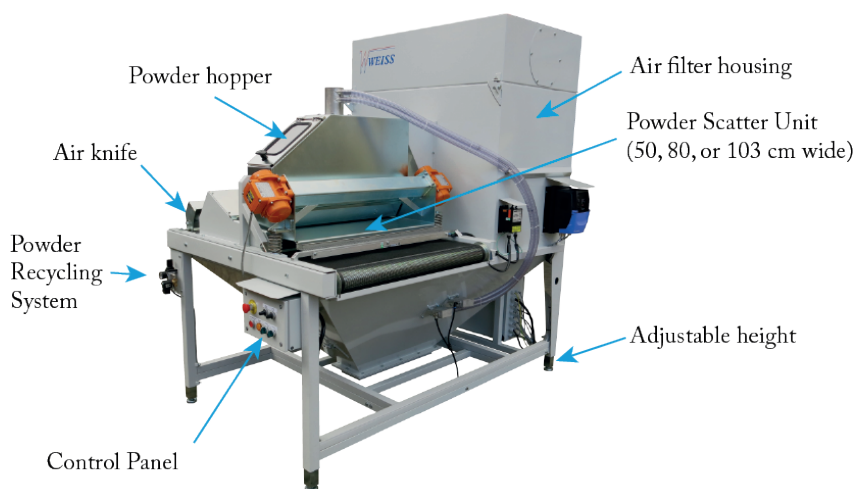
The powder grain sizes must be within the range of 80 to 200 microns.

For automation, it is important that the powder is dry, has a similar texture as sugar, and contains an anti-static compound to avoid any additional buildup of static electricity in the process.

Technology

Fixation of the heat-transfers. Through the process of powder application, the heat-transfer sheets are vacuum fixated on the moving conveyor belt. This principal ensures the fragile screen prints are kept intact and untouched throughout the entire process of powder application and excess powder removal.

Powder application. The maintenance-free powder scattering technology is designed to apply an even layer of powder all across the heat-transfer sheets. It's easy to adjust the amount of powder applied onto the heat-transfers with a simple turn of a switch. In cases of production of multiple colour prints, the powder scattering unit can be turned off and the WPA can be used as a simple conveyor between the screen printing station and the dryer.



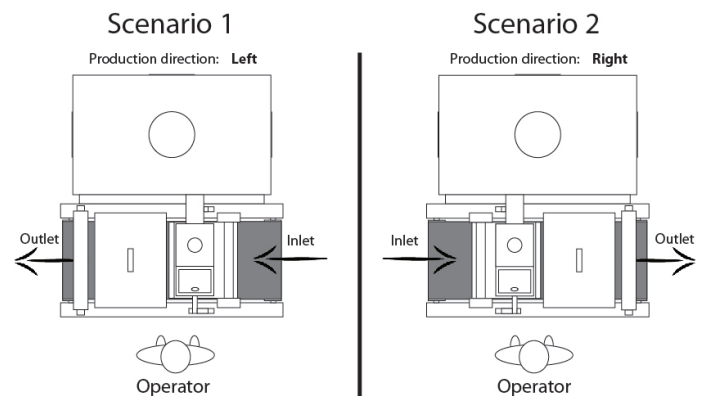
Excess powder removal. With vibrations, air pressure, vacuum and a combination of different antistatic technologies, the WPA clean the excess powder of the heat-transfers with ease. This combination of technologies ensures a steady and streamlined production process with a high quality end-product.

Powder recycling. A powder container on top of the conveyor belt is used when loading the WPA with powder. As the excess powder is removed from the heat-transfers, it is transported back to the powder canister via a pneumatic system. The size of the powder container and the pneumatic system ensures the WPA will run for several hours without being refilled.

Air filtration: Throughout the process of powder application and removal, there is a large airstream going down through the mesh in the conveyor belt. The airstream keeps the excess powder inside the boundaries of the machine and prevent it from becoming airborne in the production facility. This feature is vital to sustaining a healthy production environment. The polluted air stream is filtered in a large air filtration system. This filtration system is highly effective, self-cleaning, and has a remarkably long lifespan.

Production direction

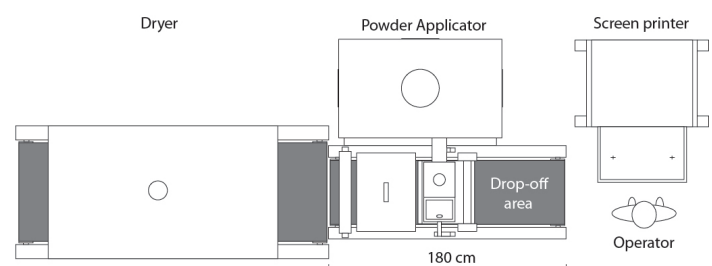
As a unique option, the WPA series can be set up to support either a left or right production direction. This flexibility is beneficial if you want all the control panels of an entire production line at one side or if you only have limited production space and need to take advantage of every square meter you have.



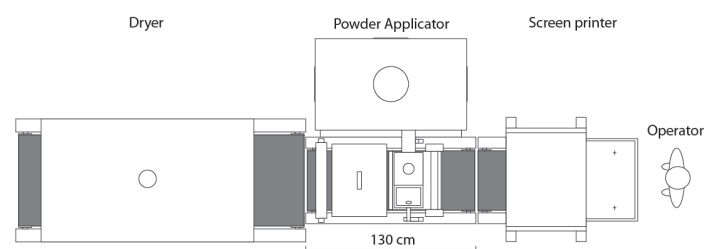
Scenario 1 illustrates a left production direction and scenario 2 illustrates a right production direction.

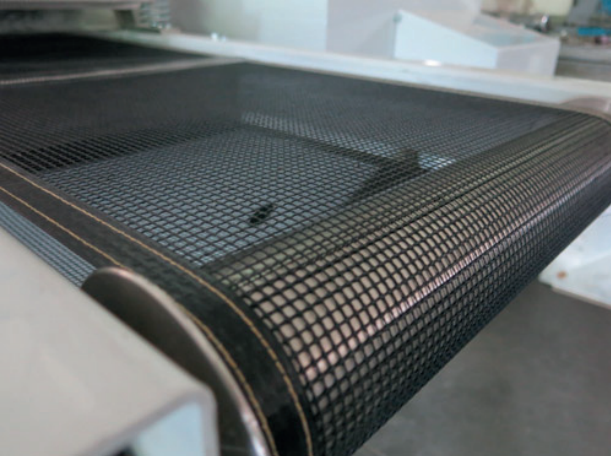
Sheet drop-off area

If you produce screen prints manually by hand the WPA54 and WPA80 can be purchased with an extra-long conveyor belt (180cm). This extra conveyor length is used as a “drop-off” area for you to manually place the heat-transfers on the conveyor belt.



If you produce your screen prints automatically on a conveyor, there is no need of a drop-off area and the conveyor belt is shortened to a length of 130 cm.





ADDITIONS

Pre-heater - As an option we manufacture a WEISS pre-heater station to be installed between the screen print station and the WPA unit. This preheating station will make the already dried screen prints sticky enough for the adhesive powder to attach.

Conveyor extension - We manufacture custom inlet and outlet conveyors to the WPA series for customers with unique production requirements. These conveyors are manufactured to the customer's specific length and height requirements. In most cases, we offer the option to incorporate the speed regulation of the additional conveyor into the WPA control panel.

Please contact us if you are interested in a preheating station or an additional conveyor.

OUR LOCATION

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In view of continuous research and development we reserve the right to modify specifications and dimensions without prior notice. For quoted standards, the issue valid at the print date of this leaflet is relevant.

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Technical data

WPA54 WPA80 WPA110

Adhesive powder

Grain size range (Micron)	80-200	80-200	80-200
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Power requirement

Phases	3	3	3
Volt	400	400	400
kW	2,2	3,0	4,0

Compressed air requirement

Air capacity (L/min)	2-300	3-400	4-500
Air pressure (Bar)	6	6	6

Ventilation

Exhaust piping diameter (mm)	250	250	315
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Types

	Max. sheet width	Dimensions (L x D x H)	Drop-off area	Production direction
WPA54	54cm			
WPA54/130-SR	-	130x180x200	No	Right
WPA54/180-SR	-	180x180x200	Yes	Right
WPA54/130-SL	-	130x180x200	No	Left
WPA54/180-SL	-	180x180x200	Yes	Left
WPA80	80cm			
WPA80/130-SR	-	130x200x200	No	Right
WPA80/180-SR	-	180x200x200	Yes	Right
WPA80/130-SL	-	130x200x200	No	Left
WPA80/180-SL	-	180x200x200	Yes	Left
WPA110	103cm			
WPA110/150-SR	-	150x220x200	No	Right
WPA110/150-SL	-	150x220x200	No	Left

