



Physical Testing: Application of Film Pneumatic Panel Sprayers

Our fully air-operated Pneumatic Panel Sprayers have been developed in association with major coating manufacturers to produce perfectly reproducible sprayed samples.

We offer a wide range of options that customers can customise for individual requirements.

Consistency

The Sprayers remove the variations in consistency that is experienced when using hand held guns, thus offering a means to set optimum, repeatable, conditions to achieve consistent results.

Consistency in coating application is absolutely essential for subsequent evaluation of colour, gloss, opacity and general appearance, also physical properties including thickness, sagging, levelling and adhesion.

Evaluation of these properties is particularly important when applying high performance coatings such as metallic, pearlescent paints and specialist effect coatings.

Setting parameters

The Sprayers offer the means to set the atomisation, coating build, flash off timing, flow/levelling, film thickness, gun traverse speeds and accelerated drying, these settings are particularly important when defining the characteristics of new formulations.

Optimum Settings

Once the optimum settings for a product have been achieved they can be easily reproduced for quality control for further sampling, thus enabling identification of any inconsistencies in formulation or preparation.

Features

- Easy to operate controls
- All functions and movements are operated by compressed air
- Adjustable gun to panel distance, gun travel speed and spray pressure
- Adjustable panel lift increments (for achieving optimum over spray of previous pass of the spray gun)
- Flash off timer, to enable optimum setting of rest period between each coating
- Framework and panels are constructed from stainless steel, making for easy cleaning
- Magnetic Panel holders (Vacuum holders for non-metallic panels)
- Suitable for use in all spray booths Lockable castors are fitted to aid easy manoeuvrability
- Emergency and Reset button
- Easy access to internal parts/mechanism for simplified service and cleaning
- Fitted with integral air filters and regulators
- Compressed air connection by 12mm diameter tubing hose line, speed fit connectors, or 1/2" BSP connection. Spray guns are not fitted as standard, but can be supplied if requested at the time of ordering.



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Three model formats

SH4500N – Pneumatic Panel Sprayer

This single gun sprayer has maximum panel holding capacity of 4 standard panels (100 x 150 mm) with a maximum spray area of 350 x 500 mm. The operator is able to programme spray pressure, number of coats, traverse speed, lift increment and flash-off timer.

An accessory panel is supplied aside of the main control panel for the addition of optional functions and additional equipment. Most popular types of spray guns can be mounted onto the Sprayer, testing and setting is manually controlled.

SH4700N – Pneumatic Panel Sprayer

The intermediate model accommodates twin gun operation, capacity for 9 standard 100 x 150 mm panels and a maximum spray area of 500 x 500 mm (when using a single gun) Programmable spray pressure, accessory panels, one each side of the control panel for the addition of options and accessories.

SH4800N – Pneumatic Panel Sprayer

This top of the range Sprayer provides fully automatic control of two spray guns, plus the ability to operate with an electrostatic "Turbodisc" system. A capacity for up to 15 standard (100 x 150mm) test panels with a spray area of 700 x 600mm (when using a single gun).

Single or twin gun operation gun changeover, flash-off timing can be selected and panel lift increments can be set from 40 to 70 mm.

Two additional panels are supplied, one each side of the control panel for the addition of options and accessories.



Electrostatic spraying

We can offer the facility for the fitting of Electrostatic Spray Guns, to our Panel Sprayers, contact our Customer Services and your gun supplier before finalising requirements for this type of system.

International standards

ASTM D823/A

Notes

Spray Guns are not included as part of standard supply, a range of fittings are supplied with the Panel Sprayers to enable fitting of most popular types of guns, please advise Customer Services of the type you wish to use. We can supply popular guns of your choice if requested at the time of ordering. (Guns must be automatic).

Optional equipment listed below can be supplied at the time of order placement, to be incorporated into the Panel Sprayer. Alternative combinations of options equipment is available, please contact our Customer Services to discuss your requirements.

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Panel Sprayer selection chart

Function/model	SH4500N Panel Sprayer	SH4700N Panel Sprayer	SH4800N Panel Sprayer
Standard specification			
Spray gun(s) facility	1	2. Manual changeover	2. Manual & auto changeover
Spray gun selector switch	-	Manual switch	Manual or auto change
Spray gun to panel distance adjustable (mm)	✓	✓	✓
Spray stroke length (mm)	400 fixed	250 and 500 pre-sets	300-700 adjustable
Spray pressure	-	0.5-5 bar	-
Spray area (max with 1 gun mm)	350 x 500	500 x 500	700 x 600
Traverse speed	-	Adjustable to 20-800mm/sec	-
Standard panel list between coats (mm) (Alternatives available)	40 & 50	40 & 50	40, 50, 60 & 70 settings
1 flash-off timer (Minutes between coats)	-	0-10	0-10
1 auto flash-off timer (Minutes)	-	-	0-10 Auto change gun 1 to gun 2
Coats counter (adjustable 1-9999 coats)	1	1	2 Gun 1 & 2
Passes counter (adjustable 1-9999 coats)	1	1	1
Manual control	-	Spray on/off, traverse, lift	-
Magnetic panel holder	✓	✓	✓
Number of sample panels (100x150mm)	4	6	15 (gun 1) 12 (2 guns)
Power supply	Clean dry air not exceeding 10 bar (150psi) air capacity 35cfm	Clean dry air not exceeding 10 bar (150psi) air capacity 35cfm	Clean dry air not exceeding 10 bar (150psi) air capacity 35cfm
Dimensions (without optional equipment)	W 70cm x D 72cm x H 160cm (Panel at full height)	W 90cm x D 72cm x H 160cm (Panel at full height)	W 110cm x D 75cm x H 170cm
Weight	70kg	90kg	120kg

Optional equipment

Function/model	SH4500N Panel Sprayer	SH4700N Panel Sprayer	SH4800N Panel Sprayer
Optional functions			
Vacuum holder. For non-ferrous panels with individual quick release	✓	✓	✓
Dwell timer. Providing delay between each pass (adjustable 10s-10mins)	✓	✓	✓
Digital traverse time delay. For stroke speed calculation (In or mm)	✓	✓	✓

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Filtered air drying unit. To reduce drying time	✓	✓	✓
Wedge coat control. To spray 1, 2, 3 coats on different zones of the same panel	✓	✓	✓
Remote gun setting. Remote atomisation and fan width control	✓	✓	✓
Number of option(s) above selectable	1	2	2

Ordering information

Product Ref	Description
SH4500N	Small Automatic Panel Sprayer. Single gun facility
SH4700N	Medium Automatic Panel Sprayer. Twin gun facility, 2 flash-off timers, 1 coat coater
SH4800N	Large Automatic Panel Sprayer. Twin gun facility, 3 flash-off timers, 2 counters, adjustable spray
SH4500N	Optional equipment
SH4500N/ADU	Air drying unit
SH4500N/VPH	Vacuum panel holder
SH4500N/DTV	Digital traverse timer, includes sensors
SH4500N/DWT	Dwell timer assembly
SH4700N	Optional equipment
SH4700N/ADU	Air drying unit
SH4700N/VPH	Vacuum panel holder
SH4700N/DTV	Digital traverse timer, includes sensors
SH4700N/DWT	Dwell timer assembly
SH4700N/1/WEC3-step	Wedge coat controller
SH4700N/1/WEC4-step	Wedge coat controller
SH4800N	Optional equipment
SH4800N/ADU	Air drying unit
SH4800N/VPH	Vacuum panel holder
SH4800N/DTV	Digital traverse timer, includes sensors
SH4800N/DWT	Dwell timer assembly

Owing to continuous development, we reserve the right to introduce improvements and modify specifications without prior notice.