



## **Airless Spray Equipment Recommendations for the ARC “S” Series and Other Sprayable ARC Products**

Airless spray equipment recommendations for the ARC “S” series of products are listed on the following pages. Important recommendations for spray equipment and material temperatures are provided along with specific notes pertaining to spray application of these products. This bulletin provides recommendations for both airless and plural component airless spray equipment. Plural component airless spray equipment offers substantial advantages over conventional airless equipment. Plural component airless spray equipment permits heating of the individual components to reduce viscosity without reducing working time. The amount of solvent needed to flush the spray lines and risk of product curing in the equipment are both greatly reduced with plural component equipment. For these reasons, plural component airless spray equipment is recommended for spray application of ARC Composites.

The following recommendations and equipment information are designed as a guideline to assist contractors and applicators working with the ARC “S” series of Composites. Other equipment may be substituted as long as satisfactory results are obtained. It is expected that adjustment of spray equipment be made during operation according to the operator’s judgement.

## GRACO XP PLURAL COMPONENT AIRLESS SPRAY EQUIPMENT GUIDELINES

| ARC Product        | Volumetric Mix Ratios | Material Temperatures   | Feed Pump Motor / Material Supply | Proportioning Pump Motor | Fluid Hose Diameters/Maximum Length*/Temperature   | Solvent Flush Pump Motor | Gun/Tip/Pressures   |
|--------------------|-----------------------|---|-----------------------------------|--------------------------|--|--------------------------|---|
| <b>S1PW</b>        | <b>2;1</b>            | A:43°C (110°F)<br>B:43°C (110°F)<br><br>Viscon HF heaters recommended | Gravity Fed Hoppers               | 70-1                     | A 12.7mm (0.5") x 15m (50ft)<br>B 9.5mm (0.375") x 15m (50ft)<br><br>Mixed Material Hose: 12.7mm (0.5") x 15m (50ft)<br><br>Whip Hose: 6mm (0.25") x 7.5m (25ft) Max.<br>Heated to maintain 43°C (110°F) | 23-1                     | XTR-7 or XHF Gun / XHD 519-523 RAC Tip<br>Pressure at gun - 6200 psi / 427 Bar (static); 4900 psi / 338 Bar (flowing)   |
| <b>S1HB/S1PWHB</b> | <b>2;1</b>            | A:43°C (110°F)<br>B:43°C (110°F)<br><br>Viscon HF heaters recommended | Gravity Fed Hoppers               | 70-1                     | A 12.7mm (0.5") x 15m (50ft)<br>B 9.5mm (0.375") x 15m (50ft)<br><br>Mixed Material Hose: 12.7mm (0.5") x 15m (50ft)<br><br>Whip Hose: 6mm (0.25") x 7.5m (25ft) Max.<br>Heated to maintain 43°C (110°F) | 23-1                     | XTR-7 or XHF Gun / XHD 531 RAC Tip<br>Pressure at gun - 6200 psi / 427 Bar (static); 4900 psi / 338 Bar (flowing)       |
| <b>S2</b>          | <b>2;1</b>            | A:50°C(120°F)<br>B:25°C (77°F)<br><br>Viscon HF heaters recommended   | Gravity Fed Hoppers               | 70-1                     | A 12.7mm (0.5") x 15m (50ft)<br>B 9.5mm (0.375") x 15m (50ft)<br><br>Mixed Material Hose: 12.7mm (0.5") x 15m (50ft)<br><br>Whip Hose: 6mm (0.25") x 7.5m (25ft) Max.<br>Heated to maintain 43°C (110°F) | 23-1                     | XTR-7 or XHF Gun / XHD 519-523 RAC Tip<br>Pressure at gun - 6200 psi / 427 Bar (static); 4900 psi / 338 Bar (flowing)   |
| <b>S3</b>          | <b>4;1</b>            | A:50°C(120°F)<br>B:25°C (77°F)<br><br>Viscon HF heaters recommended   | Gravity Fed Hoppers               | 70-1                     | A 12.7mm (0.5") x 15m (50ft)<br>B 9.5mm (0.375") x 15m (50ft)<br><br>Mixed Material Hose: 12.7mm (0.5") x 15m (50ft)<br><br>Whip Hose: 6mm (0.25") x 7.5m (25ft) Max.<br>Heated to maintain 43°C (110°F) | 23-1                     | XTR-7 or XHF Gun / XHD 519-523 RAC Tip<br>Pressure at gun - 6200 psi / 427 Bar (static); 4900 psi / 338 Bar (flowing)   |
| <b>SD4i</b>        | <b>2;1</b>            | A:50°C (120°F)<br>B:43°C (110°F)<br><br>Viscon HF heaters recommended | Gravity Fed Hoppers               | 70-1                     | A 12.7mm (0.5") x 15m (50ft)<br>B 9.5mm (0.375") x 15m (50ft)<br><br>Mixed Material Hose: 12.7mm (0.5") x 15m (50ft)<br><br>Whip Hose: 6mm (0.25") x 7.5m (25ft) Max.<br>Heated to maintain 43°C (110°F) | 23-1                     | XTR-7 or XHF Gun / Tip XHD 531 RAC Tip<br><br>Pressure at Gun 4000 psi / 276 Bar (static); 2000 psi / 138 Bar (flowing) |
| <b>S4+</b>         | <b>2;1</b>            | A:43°C (110°F)<br>B:43°C (110°F)                                      | Gravity Fed Hoppers               | 70-1                     | A 12.7mm (0.5") x 15m (50ft)<br>B 9.5mm (0.375") x 15m (50ft)<br><br>Mixed Material Hose: 12.7mm (0.5") x 15m (50ft)<br>Whip Hose: 6mm (0.25") x 7.5m (25ft) Max.<br><br>Heated to maintain 43°C (110°F) | 23-1                     | XTR-7 or XHF Gun / Tip XHD 519-523 RAC<br>Pressure at gun - 6800 psi / 469 Bar (static); 4100 psi / 283 Bar (flowing)   |

Note: Detailed spray equipment set-up parameters are available for ARC S1PW, S1HB SD4i and S4+ from ARC Technical Services.

\* These are maximum hose length recommendations. For longer hose lengths contact Graco.

| S1PW / S1HB                            | S2  | S3  | SD4i   | S4+                                    |
|--|---|---|--|--|
| Use fluid filter with #60 mesh screen. | Reinforcements will cause wear to pump internals and tips. Remove fluid filter. | Reinforcements will cause wear to pump internals and tips. Remove fluid filter. | Reinforcements will cause wear to pump internals and tips. Remove fluid filter. Contact ARC Technical Services for special suction configuration and solvent flushing recommendations. | Use fluid filter with #60 mesh screen. |

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## WIWA DUOMIX 333 PLURAL COMPONENT AIRLESS SPRAY EQUIPMENT GUIDELINES

| ARC Product        | Volumetric Mix Ratios | Material Temperatures              | Feed Pump Motor / Material Supply | Proportioning Pump Motor | Fluid and Spray Hose Diameters / Length   | Solvent Flush Pump Motor | Gun/Tip/Pressure at Gun  |
|--------------------|-----------------------|------------------------------------|-----------------------------------|--------------------------|---|--------------------------|--|
| <b>S1PW</b>        | <b>2;1</b>            | A:43°C (110°F)<br>B:32°C (90°F)    | Hopper Feed                       | 58-1                     | A 9.5mm (0.375") x 30m (100') max.<br>B 9.5mm (0.375") x 30m (100') max.<br>Mixed Material hose 9.5mm (0.375") x 15m (50') max / Whip hose 6mm (0.25") x 1.8m (6') max. | 32-1                     | WIWA 500F<br>617 - 619 Tip<br>240 Bar (3485 psi) Spray<br>Pressure at unit |
| <b>S1HB/S1PWHB</b> | <b>2;1</b>            | A:43°C (110°F)<br>B:32°C (90°F)    | Hopper Feed                       | 58-1                     | A 9.5mm (0.375") x 30m (100') max.<br>B 9.5mm (0.375") x 30m (100') max.<br>Mixed Material hose 9.5mm (0.375") x 15m (50') max / Whip hose 6mm (0.25") x 1.8m (6') max. | 32-1                     | WIWA 500F<br>617 - 619 Tip<br>240 Bar (3485 psi) Spray<br>Pressure at unit |
| <b>S2</b>          | <b>2;1</b>            | A: 50°C (122°F)<br>B: 35°C (95°F)  | Hopper Feed                       | 58-1                     | A 9.5mm (0.375") x 30m (100') max.<br>B 9.5mm (0.375") x 30m (100') max.<br>Mixed Material hose 9.5mm (0.375") x 15m (50') max / Whip hose 6mm (0.25") x 1.8m (6') max. | 32-1                     | WIWA 500F<br>521 Tip<br>240 Bar (3485 psi) Spray<br>Pressure at unit       |
| <b>S3</b>          | <b>4;1</b>            | A: 50°C (122°F)<br>B: 35°C (95°F)  | Hopper Feed                       | 58-1                     | A 9.5mm (0.375") x 30m (100') max.<br>B 9.5mm (0.375") x 30m (100') max.<br>Mixed Material hose 9.5mm (0.375") x 15m (50') max / Whip hose 6mm (0.25") x 1.8m (6') max. | 32-1                     | WIWA 500F<br>521 Tip<br>240 Bar (3485 psi) Spray<br>Pressure at unit       |
| <b>SD4i</b>        | <b>2;1</b>            | A:50°C (120°F)<br>B:30°C (86°F)    | Hopper Feed                       | 58-1                     | A 9.5mm (0.375") x 30m (100') max.<br>B 9.5mm (0.375") x 30m (100') max.<br>Mixed Material hose 9.5mm (0.375") x 15m (50') max / Whip hose 6mm (0.25") x 1.8m (6') max. | 32-1                     | WIWA 500F<br>Tip 617-621<br>240 Bar (3485 psi) Spray<br>Pressure at unit   |
| <b>S4+</b>         | <b>2;1</b>            | A: 50°C (120°F)<br>B: 38°C (100°F) | Hopper Feed                       | 58-1                     | A 9.5mm (0.375") x 30m (100') max.<br>B 9.5mm (0.375") x 30m (100') max.<br>Mixed Material hose 9.5mm (0.375") x 15m (50') max / Whip hose 6mm (0.25") x 1.8m (6') max. | 32-1                     | WIWA 500F<br>Tip 617-619<br>240 Bar (3485 psi) Spray<br>Pressure at unit   |

| <b>S1PW</b>   | <b>S2</b>  | <b>S3</b>  | <b>SD4i</b>  | <b>S4+</b>  |
|---|--|--|--|---|
| Use 30 mesh high pressure fluid filter. 20 mesh filter on suction. Heated hose bundle required. | Reinforcement will cause wear to pump internals. Use 30 mesh high pressure fluid filter. 20 mesh filter on suction. Heated hose bundle required. | Reinforcement will cause wear to pump internals. Use 30 mesh high pressure fluid filter. 20 mesh filter on suction. Heated hose bundle required. | Reinforcement will cause wear to pump internals. Use 30 mesh high pressure fluid filter. 20 mesh filter on suction. Heated hose bundle required. | Use 30 mesh high pressure fluid filter. 20 mesh filter on suction. Heated hose bundle required. |

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## Airless Spray Equipment Guidelines

| Product  | Material Temperatures  | Pump Motor   | Hose Diameter/Length From Pump to Gun                              | Gun/Tip   | Recommended Atomizing Pressure  |
|--|--|--|--|---|---|
| <b>CS2</b>   | 32-35°C (90-95°F)  | 45:1 or larger   | Diameter - 6mm (.25") Length <15 meter (50')                       | XTR-7 Gun / GHD 519-523 RAC Tip   | 227 Bar (3300 psi)  |
| <b>CS4</b>   | 32-35°C (90-95°F)  | 45:1 or larger   | Diameter - 6mm (.25") Length <15 meter (50')                       | XTR-7 Gun / GHD 519-523 RAC Tip   | 227 Bar (3300 psi)  |
| <b>S7</b>  | 20-25°C ( 68 -77F)   | 70-1   | Diameter 9mm (3/8") Max Length 25m (75ft)                          | Graco Silver Plus/ silicon tungsten carbide Tip Size 521-524  | 200 Bar ( 2900 PSI )  |
| <b>HT-S</b>  | 20-25°C ( 68 -77F)   | 70-1   | Diameter 9mm (0.375") Length <15m (50')                            | Graco Silver Plus/ silicon tungsten carbide Tip Size 419-421  | Pressure at Gun - 5200 psi / 350 Bar  |
| <b>S5</b>  | 20-25°C ( 68 -77F)   | 70:1   | Diameter 9mm (0.375") Length <15m (50')                            | Graco Silver Plus/ silicon tungsten carbide Tip Size 421  | Pressure at Tip - 6500 psi-7000 psi ( 448 Bar-482 Bar)  |
| <b>Notes</b>                                       | <b>CS2</b>   | <b>CS4</b>   | <b>HT-S</b>  | <b>S5</b>   | <b>S7</b>   |
|  | Materials must be preheated to temperature before mixing. Use fluid filter with #60 mesh screen. | Materials must be preheated to temperature before mixing. Use fluid filter with #60 mesh screen. | Remove all fluid filters except for coarse screen on suction hose. | <b>5 liter kits</b> will require 14 fl.oz to 22 fl.oz ( 0.43L to 0.65L ) of MEK ( methyl ethyl ketone)<br><b>16 Liter Kits</b> will require 47 fl.oz to 70 fl.oz ( 1.39L to 2.08 L) of MEK See <b>Application Instructions</b> for additional information | Remove all fluid filters except for coarse screen on suction hose. If required up to 3% ( by volume) MEK per 14L kit may be added |
| Pot Life of 16 liters @ Spraying Temperature Range | 15 minutes   | Caution 10 minutes pot life approx.  | Approx 70 minutes  | Approx 70 minutes   | Approx 30 minutes. Catalyst addition may be adjusted depending on temperature. See PDS for info.                                  |

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