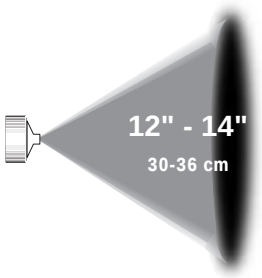
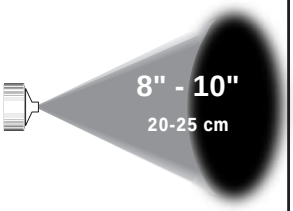
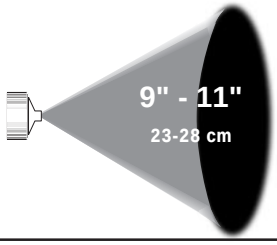
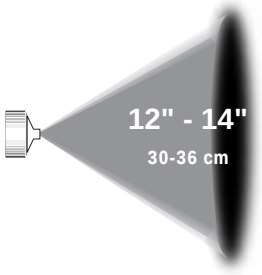
# FLUID NOZZLE INFORMATION

## Air Cap CFM Rating & Spray Pattern Chart

| Air Cap Type | Part Number | Material Type | 3 PSI (.2 bar) | 5 PSI (.3 bar) | Gun Distance | Approximate Fan Size |
|---|---|---|---|---|---|---|
| **GuideRing**™ w/Black Ring w/Gold Ring | 7042 7043 | Full Range | 11 CFM 306 L/min | 15 CFM 417 L/min | 6" - 8" 15-20 cm |   |
| **AIR-MISER**™ w/Blue Ring | 7002 | Base & Clear Coat Low to Med. Solids | 9 CFM 250 L/min | 12 CFM 333 L/min | 8" - 10" 20-25 cm |   |
| **HO**™ **High Output** w/Red Ring | 7008 | Primer & Sealer Med. to High Solids | 12 CFM 333 L/min | 16 CFM 444 L/min | 6" - 8" 15-20 cm |   |
| **Primer** w/Green Ring | 7045 | Primer Primer Surfacer | 11 CFM 306 L/min | 15 CFM 417 L/min | 6" - 8" 15-20 cm |   |

NOTE: For best results, adjust the PSI setting after changing air caps.

# IQ™/LP-DC™ Performance Settings Chart

| Paint Material Type | Fluid Tip Size & Pressure | | | | | |
|---|---|---|---|---|---|---|
| | .032" .8 mm | | .040" 1.0 mm | | .043" 1.1 mm | |
| | Cup PSI (bar) | Air Cap PSI (bar) | Cup PSI (bar) | Air Cap PSI (bar) | Cup PSI (bar) | Air Cap PSI (bar) |
| ***UNDERCOATS*** | | | | | | |
| Lacquer Primer Surfacer | | | | | 5-6 (.34-.41) | 3-4 (.2-.27) |
| 2-Component Primer Surfacer | | | | | 5-9 (.34-.61) | 3-5 (.2-.41) |
| Primer Sealer | 5-6 (.34-.41) | 3-5 (.2-.34) | 5-7 (.34-.48) | 4-5 (.27-.34) | | |
| Epoxy | | | 5-7 (.34-.48) | 4-5 (.27-.34) | | |
| ***COLOR SYSTEMS*** | | | | | | |
| Acrylic Lacquer | 4-5 (.27-.34) | 3-4 (.2-.27) | | | | |
| Acrylic/Synthetic Enamels | | | 5-8 (.34-.54) | 6-8 (.41-.54) | | |
| Acrylic Urethane | 4-5 (.27-.34) | 4-5 (.27-.34) | 5-6 (.34-.41) | 5-6 (.34-.41) | | |
| Base Coat | 4-5 (.27-.34) | 4-5 (.27-.34) | | | | |
| Polyurethane | 5-6 (.34-.41) | 5-6 (.34-.41) | 5-6 (.34-.41) | 5-7 (.34-.48) | | |
| Low V.O.C. | 6-8 (.41-.54) | 6-8 (.41-.54) | 6-8 (.41-.54) | 7-9 (.48-.61) | | |
| Waterborne | 4-5 (.27-.34) | 4-5 (.27-.34) | 4-5 (.27-.34) | 5-6 (.34-.41) | | |
| ***CLEAR COATS*** | | | | | | |
| Acrylic Lacquer | 4-5 (.27-.34) | 4-5 (.27-.34) | 4-5 (.27-.34) | 4-5 (.27-.34) | | |
| Acrylic Urethane | 4-5 (.27-.34) | 4-5 (.27-.34) | 4-5 (.27-.34) | 5-6 (.34-.41) | | |
| High Solids Urethane | | | 6-8 (.41-.54) | 6-9 (.41-.61) | 6-8 (.41-.54) | 7-9 (.48-.61) |

**IQ PERFORMANCE NOTES:**

1. To achieve maximum flow-out without orange peel, use the next slower solvent temperature, especially in high volume paint booths and in high temperatures.
2. Apply clear coats and acrylic enamels in two **full** wet coats. Medium wet coats do not contain enough material for proper flow-out, giving an orange peel appearance.
3. For the best possible atomization, start with a smaller fluid tip size. For increased fluid delivery and production speed, increase cup pressure and / or fluid tip size.
4. As fluid tip size increases, atomizing air cap psi may need to be increased. Always follow the paint manufacturer's ratios for reduction and catalyzation. Use a viscosity cup whenever possible.
5. For maximum fluid flow, the TotalFlow® knob should always be set at the full open position.
6. For an accurate air cap reading, use a pressure calibration gauge (order #81415).



MATTSON SPRAY EQUIPMENT
DIVISION OF RICE LAKE WEIGHING SYSTEMS, INC.

# FLUID NOZZLE INFORMATION

## Power-Pack™ Performance Settings Chart

| Material Type* (Ready-to-Spray) | Fluid Tip Size | Cup PSI (bar) | Air Cap PSI** (bar) | |
|---|---|---|---|---|
| | | | AIR-MISER™ (blue) | HO™ (red) |
| ***UNDERCOATS*** | | | | |
| Lacquer Primer Surfacer | .032" (.8 mm)<br>.040" (1.0 mm)<br>.043"† (1.1 mm) | 5-6 (.34-.41) | 3-4 (.2-.27) | 3-4 (.2-.27) |
| 2-Component Primer Surfacer | .032" (.8 mm)<br>.040" (1.0 mm)<br>.043"† (1.1 mm) | 5-9 (.34-.61) | 4-5 (.27-.34) | 3-4 (.2-.27) |
| Primer Sealer | .032" (.8 mm)<br>.040"† (1.0 mm) | 5-6 (.34-.41) | 3-4 (.2-.27) | 3-5 (.2-.34)<br>4-5 (.27-.34) |
| ***COLOR SYSTEMS*** | | | | |
| Acrylic Lacquer | .032" (.8 mm)<br>.040"† (1.0 mm) | 5 (.34) | 3-4 (.2-.27) | 3-4 (.2-.27) |
| Acrylic/Synthetic Enamels | .032" (.8 mm)<br>.040"† (1.0 mm) | 5-8 (.34-.54) | 6-9 (.41-.61) | 6-9 (.41-.61) |
| Acrylic Urethane | .032" (.8 mm)<br>.040"† (1.0 mm) | 5 (.34)<br>6-7 (.41-.48) | 3-4 (.2-.27) | 3-4 (.2-.27)<br>3-5 (.2-.34) |
| Base Coat | .032" (.8 mm) | 5 (.34) | 3-4 (.2-.27) | **Not Recommended** |
| Polyurethane | .032" (.8 mm)<br>.040"† (1.0 mm) | 5-6 (.34-.41)<br>6-7 (.41-.48) | 3-5 (.2-.34) | 3-5 (.2-.34)<br>4-6 (.27-.41) |
| Low V.O.C. | .032" (.8 mm)<br>.040"† (1.0 mm) | 6-8 (.41-.54) | 6-9 (.41-.61) | 6-9 (.41-.61) |
| Waterborne | .032" (.8 mm) | 4-5 (.27-.34) | 4-5 (.27-.34) | 5-6 (.34-.41) |
| ***CLEAR COATS*** | | | | |
| Acrylic Lacquer | .032" (.8 mm)<br>.040"† (1.0 mm) | 5 (.34) | 3-4 (.2-.27) | 3-4 (.2-.27) |
| Acrylic Urethane | .032" (.8 mm)<br>.040"† (1.0 mm) | 5 (.34)<br>5-7 (.34-.48) | 4-5 (.27-.34 | 5-6 (.34-.41) |
| High-Solids Urethane | .032" (.8 mm)<br>.040" (1.0 mm)<br>.043"† (1.1 mm) | 6-10 (.41-.68) | 6-8 (.41-.54) | 6-9 (.41-.61) |

* Always follow paint manufacturer's ratios for reduction and catalyzation. Use a viscosity cup when possible.

** Calibrate your shop air system's adjustable regulator with the Calibration Gauge included as part of the Power-Pack.

† Optional .040 and .043 fluid tips are available for use with high-solids material. We do not recommend the .040 fluid tip or HO air cap for application of base coats.

TO ACHIEVE MAXIMUM FLOW-OUT WITHOUT ORANGE PEEL, USE THE NEXT SLOWER SOLVENT TEMPERATURE, ESPECIALLY IN HIGH VOLUME PAINT BOOTHS AND HIGH TEMPERATURES.

*NOTE: CHANGING THE AIR CAP AFFECTS AIR CAP PSI. REMEMBER TO ADJUST THE PRESSURE WHEN SWITCHING THE AIR CAPS.*

# IQ™ Top-Load Performance Settings Chart

| Paint Material Type | Fluid Tip Size & Air Cap PSI (bar) | | |
|---|---|---|---|
| | .032" .8 mm | .040" 1.0 mm | .043" 1.1 mm |
| ***UNDERCOATS*** | | | |
| Lacquer Primer Surfacer | | | 3-4 (.2-.27) |
| 2-Component Primer Surfacer | | | 3-5 (.2-.34) |
| Primer Sealer | 3-5 (.2-.34) | 3-5 (.2-.34) | |
| Epoxy | | 3-5 (.2-.34) | |
| ***COLOR SYSTEMS*** | | | |
| Acrylic Lacquer | 3-4 (.2-.27) | | |
| Acrylic/Synthetic Enamels | | 6-7 (.41-.48) | |
| Acrylic Urethane | 4-5 (.27-.34) | 5-6 (.34-.41) | |
| Base Coat | 3-5 (.2-.34) | | |
| Polyurethane | 4-6 (.27-.41) | 6-7 (.41-.48) | |
| Low V.O.C. | 6-7 (.41-.48) | 7-8 (.48-.54) | |
| Waterborne | 4-5 (.27-.34) | 5-6 (.34-.41) | |
| ***CLEAR COATS*** | | | |
| Acrylic Lacquer | 3-4 (.2-.27) | 4-5 (.27-.34) | |
| Acrylic Urethane | 4-5 (.27-.34) | 5-6 (.34-.41) | |
| High Solids Urethane | | 6-7 (.41-.48) | 7-8 (.48-.54) |

To achieve maximum flow-out without orange peel, use the next slower solvent temperature, especially in high volume paint booths and in high temperatures.

Apply clear coats and acrylic enamels in two **full** wet coats. Medium wet coats do not contain enough material for proper flow-out, giving an orange peel appearance.

For the best possible atomization, start with a smaller fluid tip size. For increased fluid delivery and production speed, increase fluid tip size.

As fluid tip size increases, atomizing air cap psi may need to be increased.

Always follow the paint manufacturer's ratios for reduction and catalyzation. Use a viscosity cup whenever possible.

**IQ TOP-LOAD PERFORMANCE NOTES:**

1. If the gun's air cap gauge does not maintain your pressure setting, your shop air system is not maintaining the air caps CFM requirements.
2. When changing air caps, the air cap pressure setting may require adjustment for best results.
3. For maximum fluid flow, the TotalFlow® knob should always be set at the full open position.
4. To get maximum leveling flow-out with heavy-bodied materials, use the full open fan setting, full open fluid knob position, and the lowest air cap pressure which gives good atomization.
5. For increased application rates with heavy-bodied materials, a separate cup pressure regulator is available to pressurize the cup independent of the air cap setting. Contact your Mattson distributor for information.



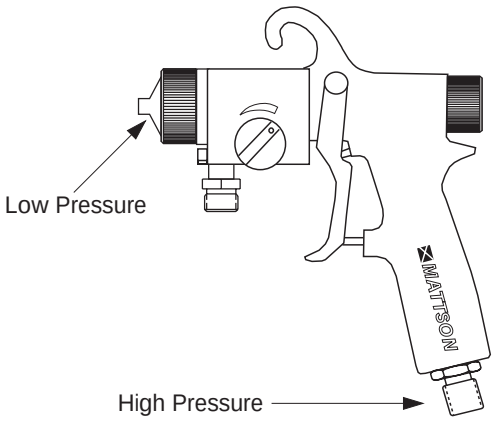
MATTSON SPRAY EQUIPMENT
DIVISION OF RICE LAKE WEIGHING SYSTEMS, INC.

# FLUID NOZZLE INFORMATION

## High Pressure to Low Pressure Conversion Chart

The following chart provides the necessary pressure (PSI) requirements at the regulator to obtain a desired air cap pressure (PSI). Conversions are provided for all Atom-miser® air cap types.

The results listed in the chart were obtained with a Mattson 5050 Filter Regulator, 2 Milton Quick Connect Couplers and 30 feet of 3/8" ID B.F. Goodrich hose. The gun was adjusted to full fluid and full fan settings.




| Desired Air Cap PSI (bar) | Required Air Inlet PSI (bar) | | | | |
|---|---|---|---|---|---|
| | Round Air Cap | AIR-MISER™ Air Cap | High Output Air Cap | GuideRing™ Air Cap | 65 Offset Air Cap |
| 2 PSI (.14) | 7 (.5) | 18 (1.2) | 25 (1.7) | 32 (2.2) | 18 (1.2) |
| 3 PSI (.2) | 11 (.8) | 25 (1.7) | 32 (2.2) | 39 (2.6) | 25 (1.7) |
| 4 PSI (.27) | 14 (1.0) | 30 (2.0) | 40 (2.7) | 47 (3.2) | 30 (2.0) |
| 5 PSI (.34) | 16 (1.1) | 36 (2.4) | 47 (3.2) | 55 (3.7) | 36 (2.4) |
| 6 PSI (.41) | 19 (1.3) | 40 (2.7) | 56 (3.8) | 63 (4.3) | 40 (2.7) |
| 7 PSI (.48) | 21 (1.4) | 45 (3.1) | 62 (4.2) | 70 (4.8) | 45 (3.1) |
| 8 PSI (.54) | 24 (1.6) | 50 (3.4) | 68 (4.6) | 77 (5.2) | 50 (3.4) |
| 9 PSI (.61) | 26 (1.8) | 54 (3.7) | 75 (5.1) | 83 (5.6) | 54 (3.7) |
| 10 PSI (.7) | 28 (1.9) | 58 (3.9) | 80 (5.4) | 80 (5.4) | 58 (3.9) |

NOTE: Use of a 5/16" ID hose, a hose longer than 30 feet, or additional quick connects will result in higher values at the 5050 Regulator to achieve the same air cap readings.

The *Pressure Calibration Gauge* (Part #81415) is the **best** way to determine exact regulator settings on your Mattson system. The Pressure Calibration Gauge actually reads the pressure at the air cap dynamically (as the spray gun is working) and accounts for all the variables present in your air delivery system.