PWM SPRAY TIP SELECTION
YOUR BEST OPTIONS FOR PULSE WIDTH MODULATION
SPRAY TIP CONTROL SYSTEMS

PWM spray tip control systems, like DynaJet®, use a PWM (pulse width modulation) valve located at the nozzle body to adjust spray tip flow rate when changes in speed are detected. Spray tips that are paired with PWM controls are serving two main purposes - the formation of the spray pattern and droplet size. Target droplet size selection should be based on providing sufficient coverage for proper pest control while balancing out needs for drift management.

With air induction tips air is mixed with water through a venturi air aspirator that produces large air-filled droplets. When a PWM valve is used in conjunction with certain air induction tips, the mixing chamber and air inlet can fill with water as the PWM valve cycles. This can then result in water escaping out the air inlet holes, which can lead to poor distribution. New designs in air-induction tips however, have been proven to work well with PWM valves and nozzle control systems.

WHAT MAKES A TEEJET SPRAY TIP “PWM APPROVED”
Based on a combination of field and laboratory testing, PWM approved spray tips must meet the following criteria at a variety of duty-cycles:

- Excellent spray distribution in the direction of travel
- Rapid and complete spray pattern formation
- Excellent spray distribution across the boom
- Skip-free application
- Droplet size consistency

PWM sprayer tip selection
Your best options for Pulse Width Modulation
Spray Tip Control Systems

PWM SPRAY TIPS

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<th>PRESSURE RANGE</th>
<th>QUICK TEEJET® CAP</th>
<th>HOW TO ORDER</th>
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<td>TURBO TEEJET® INDUCTION</td>
<td>015-15 (10 SIZES)</td>
<td>15-100 PSI</td>
<td>1-7 BAR</td>
<td>Example: TTI11004-VP – Polymer tip with VisiFlo® color-coding, includes Quick TeeJet cap and gasket</td>
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<td>TTI TWINJET®</td>
<td>02-08 (7 SIZES)</td>
<td>20-100 PSI</td>
<td>1.5-7 BAR</td>
<td>Example: TIT8-11004-VP – Polymer tip with VisiFlo® color-coding, includes Quick TeeJet cap and gasket</td>
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<td>AIR INDUCTION TURBO TWINJET®</td>
<td>02-15 (9 SIZES)</td>
<td>20-90 PSI</td>
<td>1.5-6 BAR</td>
<td>Example: AITT60-J60-11004-VP – Polymer tip with VisiFlo® color-coding, includes Quick TeeJet cap and gasket</td>
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<td>TURBO TWINJET®</td>
<td>02-10 (8 SIZES)</td>
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<td>Example: TTI11001/VIP – Polymer tip with VisiFlo® color-coding, includes Quick TeeJet cap and gasket</td>
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<td>TURBO TEEJET®</td>
<td>01-12 (11 SIZES)</td>
<td>15-90 PSI</td>
<td>1-6 BAR</td>
<td>Example: XR11010-SS – Stainless Steel tip with VisiFlo® color-coding</td>
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<td>XRC TEEJET®</td>
<td>015-20 (11 SIZES)</td>
<td>15-60 PSI</td>
<td>1-4 BAR</td>
<td>Example: XR11004-VS – Stainless Steel tip with VisiFlo® color-coding</td>
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<td>XR TEEJET®</td>
<td>01-15 (12 SIZES)</td>
<td>15-60 PSI</td>
<td>1-4 BAR</td>
<td>Example: XR11004-VK – Ceramic tip with VisiFlo® color-coding</td>
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<tr>
<td>TWINJET®</td>
<td>01-10 (8 SIZES)</td>
<td>30-60 PSI</td>
<td>2-4 BAR</td>
<td>Example: T110020S – Stainless Steel tip with VisiFlo® color-coding</td>
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</table>

Note: Only spray tips producing 110º or greater spray angles should be used with PWM control systems.
## DYNJET® FLEX 7140 APPLICATION CHART

### Speed Range Available for Various Application Rates - 50 cm Tip Spacing

- **Flow Rate**: Minimum Duty Cycle
- **Flow Rate**: Minimum Duty Cycle

### PWM Nozzle Selection

- **Application Rate**: 250 l/ha
- **Average Field Speed**: 125 l/ha
- **Optimum droplet size for chemical mode of action**: 50 cm
- **Maximum / Minimum field speeds**: 0.3

### TEEJET PWM APPROVED SPRAY TIPS - FULL RANGE OF DROPLET SIZES AVAILABLE

- **TeJet now offers eight different single spray tips that can be used with PWM systems and offer the following**: Single Flat Spray
- **Twist Flat Spray**: Air Induction or non-Air Induction

### Droplet Size Range

- **Very Fine (VF) to Ultra Coarse (UC)**

### HOW TO USE THIS CHART:

1. Select target application rate - 150 l/ha
2. Select your typical ground speed - 10 km/h
3. Choose a tip and pressure that produce the desired droplet size category or categories - UC & XC

### Droplet size specifications are shown in accordance with ASABE S57T1.