







IMPORTANT DISCLAIMER: The below tip charts are based on commonly used Pulse Width Modulation ("PWM") spray systems, and the inherent pressures drops that occur through the solenoid associated with them. ENSURE your PWM system(s) follow the same gauge and tip pressure relationships. ALWAYS confirm pressure at spray tip corresponds with label requirements PRIOR to spraying any chemical. Proper maintenance and observation of system performance to maintain accurate pressures is recommended.

Tip Charts[§] for Pulse Width Modulation (PWM) Spraying of Xtendimax™ Herbicide¹


For use with COMBO-JET® Tip-Caps & PWM Spray Systems

[§]Charts based on application of water with 20" Nozzle Spacing, with 110° Spray Angle Tips

UR Dual Pre-orifices Series

| SPRAY TIP PICTURE & PART # | Gauge Pressure (PSI) | Tip Pressure (PSI) | FLOW RATE (US GPM) | 10 US Gallon/Acre Application | | | | 15 US Gallon/Acre Application | | | |
|--|--------------------------------|--------------------------|--------------------------|-------------------------------|-----------------|-----------------|-----------------|-------------------------------|------|-----------------|-----------------|
| | | | | SPEED (MPH) @ % DUTY CYCLE | | | | SPEED (MPH) @ % DUTY CYCLE | | | |
| | | | | 25% | 50% | 75% | 100% | 25% | 50% | 75% | 100% |
| UR110-05 - PART#40292-05 | UR110-05 Specifications | | | UR110-05 @ 10 US GPA | | | | UR110-05 @ 15 US GPA | | | |
|  UR DUAL PRE-ORIFICE DESIGN <small>- Patent Pending -</small> | 28 | 25 | 0.40 | 2.9 | 5.9 | 8.8 | 11.7 | 2.0 | 3.9 | 5.9 | 7.8 |
| | 33 | 30 | 0.43 | 3.2 | 6.4 | 9.6 | 12.9 | 2.1 | 4.3 | 6.4 | 8.6 |
| | 39 | 35 | 0.47 | 3.5 | 6.9 | 10.4 | 13.9 | 2.3 | 4.6 | 6.9 | 9.3 |
| | 44 | 40 | 0.50 | 3.7 | 7.4 | 11.1 | 14.9 | 2.5 | 5.0 | 7.4 | 9.9 |
| | 55 | 50 | 0.56 | 4.2 | 8.3 | 12.5 | 16.6 | 2.8 | 5.5 | 8.3 | 11.1 |
| | 65 | 60 | 0.61 | 4.5 | 9.1 | 13.6 | 18.2 | 3.0 | 6.1 | 9.1 | 12.1 |
| UR110-06 - PART#40292-06 | UR110-06 Specifications | | | UR110-06 @ 10 US GPA | | | | UR110-06 @ 15 US GPA | | | |
|  UR DUAL PRE-ORIFICE DESIGN <small>- Patent Pending -</small> | 29 | 25 | 0.47 | 3.5 | 7.0 | 10.6 | 14.1 | 2.3 | 4.7 | 7.0 | 9.4 |
| | 34 | 30 | 0.52 | 3.9 | 7.7 | 11.6 | 15.4 | 2.6 | 5.1 | 7.7 | 10.3 |
| | 40 | 35 | 0.56 | 4.2 | 8.3 | 12.5 | 16.7 | 2.8 | 5.6 | 8.3 | 11.1 |
| | 46 | 40 | 0.60 | 4.5 | 8.9 | 13.4 | 17.8 | 3.0 | 5.9 | 8.9 | 11.9 |
| | 57 | 50 | 0.67 | 5.0 | 10.0 | 14.9 | 19.9 | 3.3 | 6.6 | 10.0 | 13.3 |
| | 69 | 60 | 0.73 | 5.5 | 10.9 | 16.4 | 21.8 | 3.6 | 7.3 | 10.9 | 14.5 |
| UR110-08 - PART#40292-08 | UR110-08 Specifications | | | UR110-08 @ 10 US GPA | | | | UR110-08 @ 15 US GPA | | | |
|  UR DUAL PRE-ORIFICE DESIGN <small>- Patent Pending -</small> | 32 | 25 | 0.63 | 4.7 | 9.4 | 14.1 | 18.8 | 3.1 | 6.3 | 9.4 | 12.5 |
| | 38 | 30 | 0.69 | 5.1 | 10.3 | 15.4 | 20.6 | 3.4 | 6.9 | 10.3 | 13.7 |
| | 44 | 35 | 0.75 | 5.6 | 11.1 | 16.7 | 22.2 | 3.7 | 7.4 | 11.1 | 14.8 |
| | 51 | 40 | 0.80 | 5.9 | 11.9 | 17.8 | 23.8 | 4.0 | 7.9 | 11.9 | 15.8 |
| | 63 | 50 | 0.89 | 6.6 | 13.3 | 19.9 | 26.6 | 4.4 | 8.9 | 13.3 | 17.7 |
| | 76 | 60 | 0.98 | 7.3 | 14.5 | 21.8 | 29.1 | 4.8 | 9.7 | 14.5 | 19.4 |
| | 90 | 70 | 1.06 | 7.9 | 15.7 | 23.6 | 31.4 | 5.2 | 10.5 | 15.7 | 21.0 |
| UR110-10 - PART#40292-10 | UR110-10 Specifications | | | UR110-10 @ 10 US GPA | | | | UR110-10 @ 15 US GPA | | | |
|  UR DUAL PRE-ORIFICE DESIGN <small>- Patent Pending -</small> | 35 | 25 | 0.79 | 5.9 | 11.7 | 17.6 | 23.5 | 3.9 | 7.8 | 11.7 | 15.7 |
| | 42 | 30 | 0.87 | 6.4 | 12.9 | 19.3 | 25.7 | 4.3 | 8.6 | 12.9 | 17.1 |
| | 51 | 35 | 0.94 | 6.9 | 13.9 | 20.8 | 27.8 | 4.6 | 9.3 | 13.9 | 18.5 |
| | 57 | 40 | 1.00 | 7.4 | 14.9 | 22.3 | 29.7 | 5.0 | 9.9 | 14.9 | 19.8 |
| | 71 | 50 | 1.12 | 8.3 | 16.6 | 24.9 | 33.2 | 5.5 | 11.1 | 16.6 | 22.1 |
| | 86 | 60 | 1.22 | 9.1 | 18.2 | 27.3 | 36.2 | 6.1 | 12.1 | 18.2 | 24.2 |
| | 98 | 70 | 1.32 | 9.8 | 19.6 | 29.5 | 39.3 | 6.5 | 13.1 | 19.6 | 26.2 |

DR Single Pre-orifice Series

| SPRAY TIP PICTURE & PART # | Gauge Pressure (PSI) | Tip Pressure (PSI) | FLOW RATE (US GPM) | 10 US Gallon/Acre Application | | | | 15 US Gallon/Acre Application | | | |
|--|--------------------------------|--------------------------|--------------------------|-------------------------------|-----------------|-----------------|-----------------|-------------------------------|------|-----------------|-----------------|
| | | | | SPEED (MPH) @ % DUTY CYCLE | | | | SPEED (MPH) @ % DUTY CYCLE | | | |
| | | | | 25% | 50% | 75% | 100% | 25% | 50% | 75% | 100% |
| DR110-10 - PART#40286-10 | DR110-10 Specifications | | | DR110-10 @ 10 US GPA | | | | DR110-10 @ 15 US GPA | | | |
|  DR SINGLE PRE-ORIFICE DESIGN <small>- Patented -</small> | 35 | 25 | 0.79 | 5.9 | 11.7 | 17.6 | 23.5 | 3.9 | 7.8 | 11.7 | 15.7 |
| | 42 | 30 | 0.87 | 6.4 | 12.9 | 19.3 | 25.7 | 4.3 | 8.6 | 12.9 | 17.1 |
| | 51 | 35 | 0.94 | 6.9 | 13.9 | 20.8 | 27.8 | 4.6 | 9.3 | 13.9 | 18.5 |
| | 57 | 40 | 1.00 | 7.4 | 14.9 | 22.3 | 29.7 | 5.0 | 9.9 | 14.9 | 19.8 |
| | 71 | 50 | 1.12 | 8.3 | 16.6 | 24.9 | 33.2 | 5.5 | 11.1 | 16.6 | 22.1 |

LEGEND & NOTES:

GAUGE PRESSURE

Boom Pressure (PSI)
Gauge pressure is the boom pressure required to obtain the required tip pressure (PSI). Gauge pressure figures (due to solenoids) are for standard Capstan and Raven PWM solenoids. Check with PWM system supplier to confirm gauge/tip pressure relationship.

FLOW RATE

Flow Rate at Tip Pressure
The US Gallon/Minute flow rate of water at the tip at stated pressure.

OUTSIDE OPERATING RANGE

Outside label requirements
If a cell is crossed out, it signifies that the travel speed, pressure or droplet size is outside the required operating range by the chemical label.

Duty Cycle

Effective ON time of PWM
Since PWM systems hold pressure constant, the flow at the tip is adjusted by the length of time the solenoids stay open (the duty cycle). Ideal operating duty cycle range is 50-100%. At 100% duty cycle, solenoid is fully open and not pulsing.



IMPORTANT: Required Pre-orifices

Each DR & UR tip-caps include snap-in pre-orifices that MUST be used for proper spray operation. These pre-orifices are NOT interchangeable between sizes/series of tip-cap.

UR Dual Pre-orifices Series

The UR series tip-cap includes two snap-in orifices. One is short and snaps directly into the cap, the other is longer and snaps into the short orifice. NEVER operate UR series spray tips without BOTH orifices properly snapped in.



DR Single Pre-orifice Series

The DR series tip-cap includes a single pre-orifice that snaps into the tip-cap. NEVER operate DR series spray tips without the pre-orifice properly snapped in.

