

## MZ 300 SERIES

# MZ301

## Micro Sprinkler

Orchards, Nurseries

Unique Rotor Design

Multiple Connection Options



The MZ301 is specially designed for orchards, nurseries, greenhouses, vegetable crops, and under-tree irrigation of banana plantations, table grapes, etc. Ideal for plants spaced up to 6m' apart, it features multiple connection options for ease of use and a robust, user-friendly structure. With only three parts, it allows for quick installation and low maintenance, and the unique swivel/rotor design guarantees excellent water distribution.

### HIGHLIGHTS

- **Versatile design:** User-friendly and sturdy, ideal for frost protection and overhead cooling
- **Insect-proof:** Unique anti-insect pop-up swivel design to protect against insects and prevent blockage of the nozzle.
- **Good coverage:** For proper distribution, the sprinklers can be spaced up to 6.0m (20.0 ft) apart
- **Low Angle:** Also available in a low angle version of 14°
- **Available connections:**
  - ✓ Push fit
  - ✓ Quick thread
  - ✓ 3/8" and 1/2" male thread

### TECHNICAL DATA

- Recommended working pressure: 15-25 m'
- Flow Rates: 31-450 lph
- Wetted diameter range: 6-13m'
- Recommended filtration:
  - Violet-Grey Nozzle: 200 microns (80 mesh)
  - Green-White Nozzle: 500 microns (30 mesh)

| Swivel Color | Nozzle Size & Colour | Pressure | Flow Rate | Wetted Diameter | Precipitation Rate (mm/hr) / Spacing (m) |       |       |       |           |       |
|--------------|----------------------|----------|-----------|-----------------|------------------------------------------|-------|-------|-------|-----------|-------|
|              |                      | m'       | lph       | m'              | 3 x 3                                    | 4 x 4 | 5 x 5 | 6 x 6 | 6.5 x 6.5 | 6 x 7 |
| ● Black      | 0.8 mm Violet        | 15       | 31        | 6.0             | 3.4                                      | 1.9   |       |       |           |       |
|              |                      | 20       | 36        | 6.5             | 4                                        | 2.2   |       |       |           |       |
|              |                      | 25       | 40        | 6.5             | 4.3                                      | 2.4   |       |       |           |       |
|              | 0.94 mm Brown        | 15       | 45        | 6.5             | 5.1                                      | 2.8   |       |       |           |       |
|              |                      | 20       | 52        | 7.0             | 5.8                                      | 3.3   | 2.1   |       |           |       |
|              |                      | 25       | 58        | 7.0             | 6.3                                      | 3.5   | 2.3   |       |           |       |
| ● Blue       | 1.14 mm Grey         | 15       | 61        | 7.0             | 6.8                                      | 3.8   | 2.4   |       |           |       |
|              |                      | 20       | 71        | 8.5             | 8                                        | 4.5   | 2.9   |       |           |       |
|              |                      | 25       | 79        | 8.5             | 8.8                                      | 4.9   | 3.2   |       |           |       |
|              | 1.4 mm Green         | 15       | 88        | 8.5             | 9.6                                      | 5.4   | 3.5   |       |           |       |
|              |                      | 20       | 102       | 9.0             | 11.2                                     | 6.3   | 4     |       |           |       |
|              |                      | 25       | 114       | 9.5             | 12.7                                     | 7.1   | 4.6   |       |           |       |
| ● Green      | 1.54 mm Orange       | 15       | 106       | 10.0            | 11.6                                     | 6.5   | 4.2   | 2.9   | 2.5       | 2.5   |
|              |                      | 20       | 122       | 10.5            | 13.5                                     | 7.6   | 4.8   | 3.4   | 2.9       | 2.9   |
|              |                      | 25       | 136       | 10.5            | 15.1                                     | 8.5   | 5.4   | 3.8   | 3.2       | 3.2   |
|              | 1.74 mm Black        | 15       | 141       | 10.5            | 15.7                                     | 8.8   | 5.6   | 3.9   | 3.3       | 3.4   |
|              |                      | 20       | 162       | 10.5            | 17.7                                     | 10    | 6.4   | 4.4   | 3.8       | 3.8   |
|              |                      | 25       | 181       | 11.0            | 20.1                                     | 11.3  | 7.2   | 5     | 4.3       | 4.3   |
|              | 1.98 mm Blue         | 15       | 177       | 11.5            | 19.8                                     | 11.1  | 7.1   | 4.9   | 4.2       | 4.2   |
|              |                      | 20       | 204       | 12.0            | 22.8                                     | 12.8  | 8.2   | 5.7   | 4.9       | 4.9   |
|              |                      | 25       | 225       | 12.0            | 25.2                                     | 14.2  | 9.1   | 6.3   | 5.4       | 5.4   |
|              | 2.2 mm Yellow        | 15       | 212       | 12.5            | 23.6                                     | 13.3  | 8.5   | 5.9   | 5         | 5.1   |
|              |                      | 20       | 245       | 12.5            | 27.2                                     | 15.3  | 9.8   | 6.8   | 5.8       | 5.8   |
|              |                      | 25       | 274       | 13.0            | 30.5                                     | 17.2  | 11    | 7.6   | 6.5       | 6.5   |
|              | 2.4mm Red            | 15       | 251       | 12.5            | 28                                       | 15.7  | 10.1  | 7     | 6         | 6     |
|              |                      | 20       | 290       | 12.5            | 32.1                                     | 18.1  | 11.6  | 8     | 6.8       | 6.9   |
|              |                      | 25       | 324       | 13.0            | 36.1                                     | 20.3  | 13    | 9     | 7.7       | 7.7   |
|              | 2.8mm White          | 15       | 350       | 13.0            | 39                                       | 21.9  | 14    | 9.7   | 8.3       | 8.4   |
|              |                      | 20       | 400       | 13.0            | 44.3                                     | 24.9  | 16    | 11.1  | 9.4       | 9.5   |
|              |                      | 25       | 450       | 13.0            | 50                                       | 28.1  | 18    | 12.5  | 10.6      | 10.7  |

- Tested under ideal laboratory conditions of temperature, wind, and humidity
- Riser height - 50cm

**Codes of Distribution of Uniformity**

|           |                 |                 |                 |           |
|-----------|-----------------|-----------------|-----------------|-----------|
| CDU < 75% | 75% ≤ CDU < 80% | 80% ≤ CDU < 85% | 85% ≤ CDU < 90% | CDU ≥ 90% |
|-----------|-----------------|-----------------|-----------------|-----------|

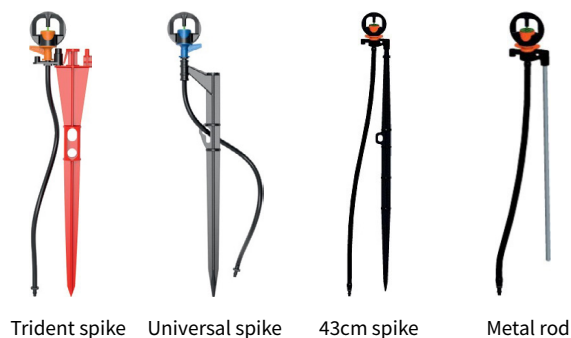
**Available Connections**


1/2" thread

3/8" thread

Push fit

Quick thread

**MZ301**


Trident spike

Universal spike

43cm spike

Metal rod

## PERFORMANCE TABLE MZ301 - LOW ANGLE

| Swivel Color | Nozzle Size & Colour | Pressure | Flow Rate | Wetted Diameter | Precipitation Rate (mm/hr) / Spacing (m) |           |       |           |       |           |       |
|--------------|----------------------|----------|-----------|-----------------|------------------------------------------|-----------|-------|-----------|-------|-----------|-------|
|              | mm                   | m'       | lph       | m'              | 3 x 3                                    | 3.5 x 3.5 | 4 x 4 | 4.5 x 4.5 | 5 x 5 | 5.5 x 5.5 | 6 x 6 |
| Grey         | 1.54 mm<br>Orange    | 15       | 106       | 9.5             | 11.8                                     | 8.6       | 6.6   | 5.2       | 4.2   | 3.5       | 2.9   |
|              |                      | 20       | 122       | 10.0            | 13.6                                     | 10        | 7.7   | 6         | 4.9   | 4         | 3.4   |
|              |                      | 25       | 136       | 10.0            | 15.2                                     | 11.2      | 8.6   | 6.8       | 5.5   | 4.5       | 3.8   |
|              | 1.74 mm<br>Black     | 15       | 141       | 10.0            | 15.6                                     | 11.5      | 8.8   | 7         | 5.6   | 4.7       | 3.9   |
|              |                      | 20       | 162       | 10.5            | 17.9                                     | 13.2      | 10.1  | 8         | 6.5   | 5.3       | 4.5   |
|              |                      | 25       | 181       | 11.0            | 20.2                                     | 14.9      | 11.4  | 9         | 7.3   | 6         | 5.1   |
|              | 1.98 mm<br>Blue      | 15       | 177       | 10.5            | 19.5                                     | 14.3      | 11    | 8.7       | 7     | 5.8       | 4.9   |
|              |                      | 20       | 204       | 11.0            | 22.6                                     | 16.6      | 12.7  | 10        | 8.1   | 6.7       | 5.6   |
|              |                      | 25       | 225       | 11.5            | 24.9                                     | 18.3      | 14    | 11.1      | 9     | 7.4       | 6.2   |
|              | 2.2 mm<br>Yellow     | 15       | 212       | 10.5            | 23.6                                     | 17.3      | 13.3  | 10.5      | 8.5   | 7         | 5.9   |
|              |                      | 20       | 245       | 11.5            | 27.1                                     | 19.9      | 15.2  | 12        | 9.7   | 8.1       | 6.8   |
|              |                      | 25       | 274       | 11.5            | 30.6                                     | 22.5      | 17.2  | 13.6      | 11    | 9.1       | 7.6   |
|              | 2.4 mm<br>Red        | 15       | 251       | 11.5            | 27.9                                     | 20.3      | 15.4  | 12.1      | 9.8   | 8.1       | 6.8   |
|              |                      | 20       | 290       | 12.0            | 32.2                                     | 23.6      | 18.1  | 14.3      | 11.6  | 9.6       | 8     |
|              |                      | 25       | 324       | 12.5            | 36.2                                     | 26.6      | 20.3  | 16.1      | 13    | 10.8      | 9     |

- Tested under ideal laboratory conditions of temperature, wind, and humidity
- Riser height - 30cm

### Codes of Distribution of Uniformity

|           |                 |                 |                 |           |
|-----------|-----------------|-----------------|-----------------|-----------|
| CDU < 75% | 75% ≤ CDU < 80% | 80% ≤ CDU < 85% | 85% ≤ CDU < 90% | CDU ≥ 90% |
|-----------|-----------------|-----------------|-----------------|-----------|

### NOZZLE SIZES



### Technical Data

- Recommended working pressure: 15-25 m'
- Flow rates: 106-325 l/h m'
- Wetted diameter range: 9.5-12.5 m'

### MZ301 - LA Assembly



## PERFORMANCE TABLE MZ301 HEAP LEACHING

| Nozzle Size & Color       | Pressure           | Discharge Rate | Wetted Diameter | Precipitation Rate (mm/hr) / Spacing (m) |           |       |           |
|---------------------------|--------------------|----------------|-----------------|------------------------------------------|-----------|-------|-----------|
| mm                        | kg/cm <sup>2</sup> | lph            | m               | 3 x 3                                    | 3.5 x 3.5 | 4 x 4 | 4.5 x 4.5 |
| <b>1.54 mm<br/>Orange</b> | 1.5                | 106            | 10              | 6.6                                      | 4.2       | 3.5   | 2.9       |
|                           | 2                  | 122            | 10              | 7.6                                      | 4.9       | 4.1   | 3.4       |
|                           | 2.5                | 136            | 10.5            | 8.4                                      | 5.4       | 4.5   | 3.7       |
| <b>1.74 mm<br/>Black</b>  | 1.5                | 140            | 10              | 8.8                                      | 5.6       | 4.7   | 3.9       |
|                           | 2                  | 162            | 10.5            | 10.1                                     | 6.5       | 5.4   | 4.5       |
|                           | 2.5                | 181            | 10.5            | 11.2                                     | 7.2       | 6     | 5         |
| <b>1.98 mm<br/>Blue</b>   | 1.5                | 175            | 10.5            | 10.9                                     | 7         | 5.8   | 4.8       |
|                           | 2                  | 202            | 11              | 12.5                                     | 8         | 6.7   | 5.6       |
|                           | 2.5                | 226            | 11              | 14.1                                     | 9         | 7.5   | 6.2       |
| <b>2.2 mm<br/>Yellow</b>  | 1.5                | 212            | 10.5            | 13.3                                     | 8.5       | 7.1   | 5.9       |
|                           | 2                  | 245            | 11.5            | 15.2                                     | 9.7       | 8.2   | 6.8       |
|                           | 2.5                | 274            | 11.5            | 17.2                                     | 11        | 9.1   | 7.6       |

- Tested at 50cm (1.6 ft) above the soil
- Tested in ideal laboratory conditions of temperature, wind, and humidity
- Performance table prepared under laboratory conditions
- For windy conditions, use closer spacing between sprinklers and laterals

### Codes of Distribution of Uniformity

|           |                 |                 |                 |           |
|-----------|-----------------|-----------------|-----------------|-----------|
| CDU < 75% | 75% ≤ CDU < 80% | 80% ≤ CDU < 85% | 85% ≤ CDU < 90% | CDU ≥ 90% |
|-----------|-----------------|-----------------|-----------------|-----------|

### Technical Data

- Working pressure range: 15-25 m'
- Flow rate : 106-226 lph
- Coverage diameter: 10-11 m'
- Recommended filtration: 300 micron (50 mesh)
- **Made of special material for acid/chemical resistance**

### Keep in touch!

 [info@metzerplas.com](mailto:info@metzerplas.com)  [metzer-group.com](http://metzer-group.com)

