

| 8 Series HE-VAN                                                                            |                 |               |             |                  |                  |
|--------------------------------------------------------------------------------------------|-----------------|---------------|-------------|------------------|------------------|
| 24° Trajectory                                                                             |                 |               |             |                  |                  |
| Nozzle                                                                                     | Pressure<br>psi | Radius<br>ft. | Flow<br>gpm | ■ Precip<br>In/h | ▲ Precip<br>In/h |
|  360° Arc | 15              | 5             | 0.83        | 3.19             | 3.68             |
|                                                                                            | 20              | 6             | 0.96        | 2.56             | 2.95             |
|                                                                                            | 25              | 7             | 1.07        | 2.10             | 2.42             |
|                                                                                            | 30              | 8             | 1.17        | 1.76             | 2.03             |
|  270° Arc | 15              | 5             | 0.62        | 3.19             | 3.68             |
|                                                                                            | 20              | 6             | 0.72        | 2.56             | 2.95             |
|                                                                                            | 25              | 7             | 0.80        | 2.10             | 2.42             |
|                                                                                            | 30              | 8             | 0.88        | 1.76             | 2.03             |
|  180° Arc | 15              | 5             | 0.41        | 3.19             | 3.68             |
|                                                                                            | 20              | 6             | 0.48        | 2.56             | 2.95             |
|                                                                                            | 25              | 7             | 0.53        | 2.10             | 2.42             |
|                                                                                            | 30              | 8             | 0.59        | 1.76             | 2.03             |
|  90° Arc  | 15              | 5             | 0.21        | 3.19             | 3.68             |
|                                                                                            | 20              | 6             | 0.24        | 2.56             | 2.95             |
|                                                                                            | 25              | 7             | 0.27        | 2.10             | 2.42             |
|                                                                                            | 30              | 8             | 0.29        | 1.76             | 2.03             |

| 8 Series HE-VAN                                                                            |                 |             |              |             |                  | METRIC           |
|--------------------------------------------------------------------------------------------|-----------------|-------------|--------------|-------------|------------------|------------------|
| 24° Trajectory                                                                             |                 |             |              |             |                  |                  |
| Nozzle                                                                                     | Pressure<br>bar | Radius<br>m | Flow<br>m³/h | Flow<br>l/m | ■ Precip<br>mm/h | ▲ Precip<br>mm/h |
|  360° Arc | 1.03            | 1.52        | 0.19         | 3.14        | 82               | 95               |
|                                                                                            | 1.38            | 1.83        | 0.22         | 3.62        | 66               | 76               |
|                                                                                            | 1.72            | 2.13        | 0.25         | 4.05        | 54               | 62               |
|                                                                                            | 2.07            | 2.44        | 0.27         | 4.43        | 45               | 52               |
|  270° Arc | 1.03            | 1.52        | 0.14         | 2.35        | 82               | 95               |
|                                                                                            | 1.38            | 1.83        | 0.16         | 2.72        | 66               | 76               |
|                                                                                            | 1.72            | 2.13        | 0.18         | 3.04        | 54               | 62               |
|                                                                                            | 2.07            | 2.44        | 0.20         | 3.33        | 45               | 52               |
|  180° Arc | 1.03            | 1.52        | 0.10         | 1.57        | 82               | 95               |
|                                                                                            | 1.38            | 1.83        | 0.11         | 1.81        | 66               | 76               |
|                                                                                            | 1.72            | 2.13        | 0.12         | 2.02        | 54               | 62               |
|                                                                                            | 2.07            | 2.44        | 0.13         | 2.22        | 45               | 52               |
|  90° Arc  | 1.03            | 1.52        | 0.05         | 0.78        | 82               | 95               |
|                                                                                            | 1.38            | 1.83        | 0.05         | 0.91        | 66               | 76               |
|                                                                                            | 1.72            | 2.13        | 0.06         | 1.01        | 54               | 62               |
|                                                                                            | 2.07            | 2.44        | 0.07         | 1.11        | 45               | 52               |

| 10 Series HE-VAN                                                                             |                 |               |             |                  |                  |
|----------------------------------------------------------------------------------------------|-----------------|---------------|-------------|------------------|------------------|
| 27° Trajectory                                                                               |                 |               |             |                  |                  |
| Nozzle                                                                                       | Pressure<br>psi | Radius<br>ft. | Flow<br>gpm | ■ Precip<br>In/h | ▲ Precip<br>In/h |
|  360° Arc | 15              | 7             | 1.26        | 2.48             | 2.86             |
|                                                                                              | 20              | 8             | 1.46        | 2.19             | 2.53             |
|                                                                                              | 25              | 9             | 1.63        | 1.94             | 2.24             |
|                                                                                              | 30              | 10            | 1.78        | 1.72             | 1.98             |
|  270° Arc | 15              | 7             | 0.95        | 2.48             | 2.86             |
|                                                                                              | 20              | 8             | 1.09        | 2.19             | 2.53             |
|                                                                                              | 25              | 9             | 1.22        | 1.94             | 2.24             |
|                                                                                              | 30              | 10            | 1.34        | 1.72             | 1.98             |
|  180° Arc | 15              | 7             | 0.63        | 2.48             | 2.86             |
|                                                                                              | 20              | 8             | 0.73        | 2.19             | 2.53             |
|                                                                                              | 25              | 9             | 0.81        | 1.94             | 2.24             |
|                                                                                              | 30              | 10            | 0.89        | 1.72             | 1.98             |
|  90° Arc  | 15              | 7             | 0.32        | 2.48             | 2.86             |
|                                                                                              | 20              | 8             | 0.36        | 2.19             | 2.53             |
|                                                                                              | 25              | 9             | 0.41        | 1.94             | 2.24             |
|                                                                                              | 30              | 10            | 0.45        | 1.72             | 1.98             |

| 10 Series HE-VAN                                                                             |                 |             |              |             |                  | METRIC           |
|----------------------------------------------------------------------------------------------|-----------------|-------------|--------------|-------------|------------------|------------------|
| 27° Trajectory                                                                               |                 |             |              |             |                  |                  |
| Nozzle                                                                                       | Pressure<br>bar | Radius<br>m | Flow<br>m³/h | Flow<br>l/m | ■ Precip<br>mm/h | ▲ Precip<br>mm/h |
|  360° Arc | 1.03            | 2.13        | 0.29         | 4.78        | 64               | 74               |
|                                                                                              | 1.38            | 2.44        | 0.34         | 5.52        | 56               | 65               |
|                                                                                              | 1.72            | 2.74        | 0.37         | 6.17        | 50               | 57               |
|                                                                                              | 2.07            | 3.05        | 0.41         | 6.76        | 44               | 51               |
|  270° Arc | 1.03            | 2.13        | 0.22         | 3.59        | 64               | 74               |
|                                                                                              | 1.38            | 2.44        | 0.25         | 4.14        | 56               | 65               |
|                                                                                              | 1.72            | 2.74        | 0.28         | 4.63        | 50               | 57               |
|                                                                                              | 2.07            | 3.05        | 0.31         | 5.07        | 44               | 51               |
|  180° Arc | 1.03            | 2.13        | 0.15         | 2.39        | 64               | 74               |
|                                                                                              | 1.38            | 2.44        | 0.17         | 2.76        | 56               | 65               |
|                                                                                              | 1.72            | 2.74        | 0.19         | 3.09        | 50               | 57               |
|                                                                                              | 2.07            | 3.05        | 0.21         | 3.38        | 44               | 51               |
|  90° Arc  | 1.03            | 2.13        | 0.07         | 1.20        | 64               | 74               |
|                                                                                              | 1.38            | 2.44        | 0.08         | 1.38        | 56               | 65               |
|                                                                                              | 1.72            | 2.74        | 0.09         | 1.54        | 50               | 57               |
|                                                                                              | 2.07            | 3.05        | 0.10         | 1.69        | 44               | 51               |

**Note:** Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

| 12 Series HE-VAN                                                                                     |                 |               |             |                  |                  |  |
|------------------------------------------------------------------------------------------------------|-----------------|---------------|-------------|------------------|------------------|--|
| 23° Trajectory                                                                                       |                 |               |             |                  |                  |  |
| Nozzle                                                                                               | Pressure<br>psi | Radius<br>ft. | Flow<br>gpm | ■ Precip<br>In/h | ▲ Precip<br>In/h |  |
| <b>360° Arc</b><br> | 15              | 9             | 1.67        | 1.99             | 2.30             |  |
|                                                                                                      | 20              | 10            | 1.93        | 1.86             | 2.15             |  |
|                                                                                                      | 25              | 11            | 2.16        | 1.72             | 1.99             |  |
|                                                                                                      | 30              | 12            | 2.37        | 1.58             | 1.83             |  |
| <b>270° Arc</b><br> | 15              | 9             | 1.25        | 1.99             | 2.30             |  |
|                                                                                                      | 20              | 10            | 1.45        | 1.86             | 2.15             |  |
|                                                                                                      | 25              | 11            | 1.62        | 1.72             | 1.99             |  |
|                                                                                                      | 30              | 12            | 1.77        | 1.58             | 1.83             |  |
| <b>180° Arc</b><br> | 15              | 9             | 0.84        | 1.99             | 2.30             |  |
|                                                                                                      | 20              | 10            | 0.97        | 1.86             | 2.15             |  |
|                                                                                                      | 25              | 11            | 1.08        | 1.72             | 1.99             |  |
|                                                                                                      | 30              | 12            | 1.18        | 1.58             | 1.83             |  |
| <b>90° Arc</b><br>  | 15              | 9             | 0.42        | 1.99             | 2.30             |  |
|                                                                                                      | 20              | 10            | 0.48        | 1.86             | 2.15             |  |
|                                                                                                      | 25              | 11            | 0.54        | 1.72             | 1.99             |  |
|                                                                                                      | 30              | 12            | 0.59        | 1.58             | 1.83             |  |

| 12 Series HE-VAN                                                                                     |                 |             |              |             |                  |                  | METRIC |
|------------------------------------------------------------------------------------------------------|-----------------|-------------|--------------|-------------|------------------|------------------|--------|
| 23° Trajectory                                                                                       |                 |             |              |             |                  |                  |        |
| Nozzle                                                                                               | Pressure<br>bar | Radius<br>m | Flow<br>m³/h | Flow<br>l/m | ■ Precip<br>mm/h | ▲ Precip<br>mm/h |        |
| <b>360° Arc</b><br> | 1.0             | 2.7         | 0.38         | 6.33        | 50.5             | 58.3             |        |
|                                                                                                      | 1.4             | 3.0         | 0.44         | 7.31        | 47.3             | 54.6             |        |
|                                                                                                      | 1.7             | 3.4         | 0.49         | 8.18        | 43.7             | 50.4             |        |
|                                                                                                      | 2.1             | 3.7         | 0.54         | 8.96        | 40.2             | 46.4             |        |
| <b>270° Arc</b><br> | 1.0             | 2.7         | 0.28         | 4.75        | 50.5             | 58.3             |        |
|                                                                                                      | 1.4             | 3.0         | 0.33         | 5.48        | 47.3             | 54.6             |        |
|                                                                                                      | 1.7             | 3.4         | 0.37         | 6.16        | 43.7             | 50.4             |        |
|                                                                                                      | 2.1             | 3.7         | 0.40         | 6.72        | 40.2             | 46.4             |        |
| <b>180° Arc</b><br> | 1.0             | 2.7         | 0.19         | 3.17        | 50.5             | 58.3             |        |
|                                                                                                      | 1.4             | 3.0         | 0.22         | 3.66        | 47.3             | 54.6             |        |
|                                                                                                      | 1.7             | 3.4         | 0.25         | 4.09        | 43.7             | 50.4             |        |
|                                                                                                      | 2.1             | 3.7         | 0.27         | 4.48        | 40.2             | 46.4             |        |
| <b>90° Arc</b><br>  | 1.0             | 2.7         | 0.09         | 1.58        | 50.5             | 58.3             |        |
|                                                                                                      | 1.4             | 3.0         | 0.11         | 1.83        | 47.3             | 54.6             |        |
|                                                                                                      | 1.7             | 3.4         | 0.12         | 2.04        | 43.7             | 50.4             |        |
|                                                                                                      | 2.1             | 3.7         | 0.13         | 2.24        | 40.2             | 46.4             |        |

**Note:** Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions



| 15 Series HE-VAN                                                                              |                 |               |             |                  |                  |
|-----------------------------------------------------------------------------------------------|-----------------|---------------|-------------|------------------|------------------|
| 25° Trajectory                                                                                |                 |               |             |                  |                  |
| Nozzle                                                                                        | Pressure<br>psi | Radius<br>ft. | Flow<br>gpm | ■ Precip<br>In/h | ▲ Precip<br>In/h |
| 360° Arc<br> | 15              | 11            | 2.62        | 2.08             | 2.40             |
|                                                                                               | 20              | 12            | 3.02        | 2.02             | 2.33             |
|                                                                                               | 25              | 14            | 3.38        | 1.66             | 1.92             |
|                                                                                               | 30              | 15            | 3.70        | 1.58             | 1.83             |
| 270° Arc<br> | 15              | 11            | 1.96        | 2.08             | 2.40             |
|                                                                                               | 20              | 12            | 2.27        | 2.02             | 2.33             |
|                                                                                               | 25              | 14            | 2.53        | 1.66             | 1.92             |
|                                                                                               | 30              | 15            | 2.78        | 1.58             | 1.83             |
| 180° Arc<br> | 15              | 11            | 1.31        | 2.08             | 2.40             |
|                                                                                               | 20              | 12            | 1.51        | 2.02             | 2.33             |
|                                                                                               | 25              | 14            | 1.69        | 1.66             | 1.92             |
|                                                                                               | 30              | 15            | 1.85        | 1.58             | 1.83             |
| 90° Arc<br>  | 15              | 11            | 0.65        | 2.08             | 2.40             |
|                                                                                               | 20              | 12            | 0.76        | 2.02             | 2.33             |
|                                                                                               | 25              | 14            | 0.84        | 1.66             | 1.92             |
|                                                                                               | 30              | 15            | 0.93        | 1.58             | 1.83             |

| 15 Series HE-VAN                                                                              |                 |             |                           |             |                  | METRIC           |
|-----------------------------------------------------------------------------------------------|-----------------|-------------|---------------------------|-------------|------------------|------------------|
| 25° Trajectory                                                                                |                 |             |                           |             |                  |                  |
| Nozzle                                                                                        | Pressure<br>bar | Radius<br>m | Flow<br>m <sup>3</sup> /h | Flow<br>l/m | ■ Precip<br>mm/h | ▲ Precip<br>mm/h |
| 360° Arc<br> | 1.0             | 3.4         | 0.59                      | 9.91        | 52.9             | 61.1             |
|                                                                                               | 1.4             | 3.7         | 0.69                      | 11.44       | 51.3             | 59.3             |
|                                                                                               | 1.7             | 4.3         | 0.77                      | 12.79       | 42.2             | 48.7             |
|                                                                                               | 2.1             | 4.6         | 0.84                      | 14.01       | 40.2             | 46.5             |
| 270° Arc<br> | 1.0             | 3.4         | 0.45                      | 7.43        | 52.9             | 61.1             |
|                                                                                               | 1.4             | 3.7         | 0.51                      | 8.58        | 51.3             | 59.3             |
|                                                                                               | 1.7             | 4.3         | 0.58                      | 9.59        | 42.2             | 48.7             |
|                                                                                               | 2.1             | 4.6         | 0.63                      | 10.51       | 40.2             | 46.5             |
| 180° Arc<br> | 1.0             | 3.4         | 0.30                      | 4.95        | 52.9             | 61.1             |
|                                                                                               | 1.4             | 3.7         | 0.34                      | 5.72        | 51.3             | 59.3             |
|                                                                                               | 1.7             | 4.3         | 0.38                      | 6.39        | 42.2             | 48.7             |
|                                                                                               | 2.1             | 4.6         | 0.42                      | 7.00        | 40.2             | 46.5             |
| 90° Arc<br>  | 1.0             | 3.4         | 0.15                      | 2.48        | 52.9             | 61.1             |
|                                                                                               | 1.4             | 3.7         | 0.17                      | 2.86        | 51.3             | 59.3             |
|                                                                                               | 1.7             | 4.3         | 0.19                      | 3.20        | 42.2             | 48.7             |
|                                                                                               | 2.1             | 4.6         | 0.21                      | 3.50        | 40.2             | 46.5             |

**Note:** Turning the radius reduction screw may be required to achieve catalog radius and flow when the arc is set at less than maximum arc

■ Square spacing based on 50% diameter of throw

▲ Triangular spacing based on 50% diameter of throw

Performance data taken in zero wind conditions

