



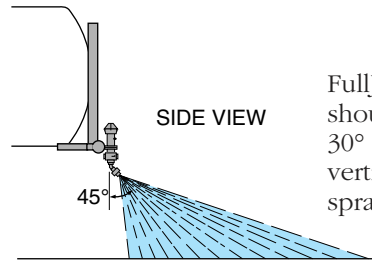
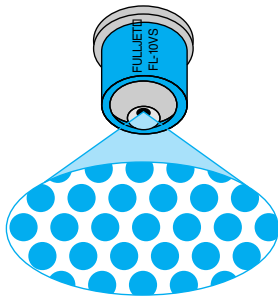
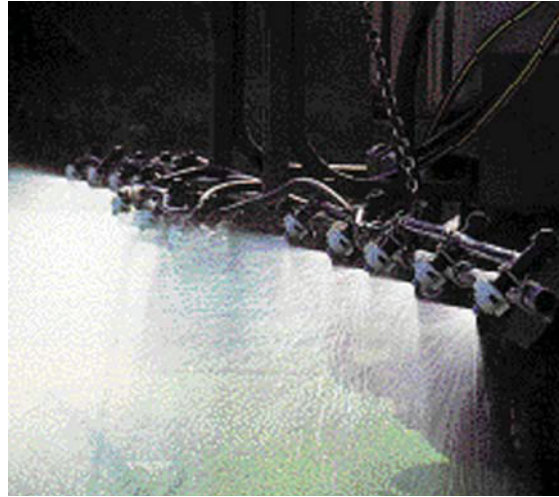
**FULLJET® - WIDE ANGLE FULL CONE**

**Typical Applications:**

**Excellent:** Systemic Pesticides – Widely used at lower pressures (15-25 PSI) to produce larger droplets and reduce drift. Lower pressures reduce pump and system wear. Typically mounted on 20" spacing. Angling nozzles 30-45° improves uniformity of coverage along boom. If used with contact pesticides, higher spray volumes may be needed to ensure adequate coverage.

**Features:**

- Large droplets to reduce drift.
- Excellent spray distribution over a range of pressures (15-40 PSI).
- Ideal for use on sprayers with automatic rate controllers.
- Wide spray angle allows use on wider nozzle spacings.
- Available in VisiFlo® color-coding system in all stainless steel.



FullJet® nozzles should be angled at 30° - 45° from vertical for uniform spray distribution.



| Tip Color | Tip No.  | Liquid Pressure in PSI | Capacity 1 Nozzle in GPM | Capacity 1 Nozzle in oz./min. | 20" Nozzle Spacing |       |       |       |                          |       |       |       |
|-----------|----------|------------------------|--------------------------|-------------------------------|--------------------|-------|-------|-------|--------------------------|-------|-------|-------|
|           |          |                        |                          |                               | Gallons Per Acre   |       |       |       | Gallons Per 1000 Sq. Ft. |       |       |       |
|           |          |                        |                          |                               | 2 MPH              | 3 MPH | 4 MPH | 5 MPH | 2 MPH                    | 3 MPH | 4 MPH | 5 MPH |
| BROWN     | FL-5VS   | 15                     | 0.34                     | 43                            | 50                 | 34    | 25    | 20.2  | 1.2                      | .77   | .58   | .46   |
|           |          | 20                     | 0.38                     | 49                            | 56                 | 38    | 28    | 22.6  | 1.3                      | .86   | .65   | .52   |
|           |          | 30                     | 0.46                     | 59                            | 68                 | 46    | 34    | 27    | 1.6                      | 1.0   | .78   | .63   |
|           |          | 40                     | 0.52                     | 67                            | 77                 | 51    | 39    | 31    | 1.8                      | 1.2   | .89   | .71   |
| GRAY      | FL-6.5VS | 15                     | 0.42                     | 54                            | 62                 | 42    | 31    | 25    | 1.4                      | 1.0   | .72   | .57   |
|           |          | 20                     | 0.48                     | 61                            | 71                 | 48    | 36    | 29    | 1.6                      | 1.1   | .82   | .65   |
|           |          | 30                     | 0.57                     | 73                            | 85                 | 56    | 42    | 34    | 1.9                      | 1.3   | 1.0   | .78   |
|           |          | 40                     | 0.65                     | 83                            | 97                 | 64    | 48    | 39    | 2.2                      | 1.5   | 1.1   | .89   |
| WHITE     | FL-8VS   | 15                     | 0.51                     | 66                            | 76                 | 50    | 38    | 30    | 1.7                      | 1.2   | .87   | .70   |
|           |          | 20                     | 0.58                     | 75                            | 86                 | 57    | 43    | 34    | 2.0                      | 1.3   | 1.0   | .79   |
|           |          | 30                     | 0.70                     | 89                            | 104                | 69    | 52    | 42    | 2.4                      | 1.6   | 1.2   | .95   |
|           |          | 40                     | 0.79                     | 101                           | 117                | 78    | 59    | 47    | 2.7                      | 1.8   | 1.3   | 1.1   |
| LT. BLUE  | FL-10VS  | 15                     | 0.67                     | 86                            | 97                 | 64    | 48    | 39    | 2.2                      | 1.5   | 1.1   | .89   |
|           |          | 20                     | 0.76                     | 97                            | 110                | 73    | 55    | 44    | 2.5                      | 1.7   | 1.3   | 1.0   |
|           |          | 30                     | 0.91                     | 116                           | 131                | 87    | 65    | 52    | 3.0                      | 2.0   | 1.5   | 1.2   |
|           |          | 40                     | 1.00                     | 128                           | 149                | 99    | 74    | 59    | 3.4                      | 2.3   | 1.7   | 1.4   |
| LT. GREEN | FL-15VS  | 15                     | 0.97                     | 125                           | 144                | 96    | 72    | 58    | 3.3                      | 2.2   | 1.7   | 1.3   |
|           |          | 20                     | 1.11                     | 142                           | 165                | 110   | 82    | 66    | 3.8                      | 2.5   | 1.9   | 1.5   |
|           |          | 30                     | 1.32                     | 169                           | 196                | 131   | 98    | 78    | 4.5                      | 3.0   | 2.2   | 1.8   |
|           |          | 40                     | 1.50                     | 192                           | 223                | 149   | 111   | 89    | 5.1                      | 3.4   | 2.6   | 2.0   |

| Suggested Minimum Spray Height |                                     |
|--------------------------------|-------------------------------------|
| Nozzle Spacing                 | Suggested Spray Height at 45° Angle |
| 20"                            | 10 - 18"                            |
| 40"                            | 14 - 18"                            |

**How to order:**  
Specify tip number

Example:  
**FL-5VS** - Stainless steel with VisiFlo® color-coding

# 1/4" RA RAINDROP® DRIFT-REDUCTION NOZZLE FOR BROADCAST SPRAYING



**Typical Applications:**

This is a wide-angle (120°), hollow-cone, drift reduction nozzle. Replaces conventional flooding nozzles in broadcast applications.



**Features:**

- Available in sizes 1/4" RA2 - 1/4" RA15
- Uniform spray distribution.
- A large orifice opening and passages minimize clogging.
- The Raindrop nozzle's patented design element, a secondary swirl chamber in the nozzle cap, alters the swirling action of the liquid so that fewer driftable "fines" are discharged from the secondary nozzle.

**MAX. RECOMMENDED PRESSURE**  
100 PSI

**MAX. RECOMMENDED TEMPERATURE**  
120°F

| Color Coding |             |                  |
|--------------|-------------|------------------|
| Nozzle #     | Old (Solid) | New (with Black) |
| 1/4RA-2      | Gray        | Yellow           |
| 1/4RA-4      | Yellow      | Red              |
| 1/4RA-5      | Drk. Blue   | Brown            |
| 1/4RA-6      | Drk. Green  | Grey             |
| 1/4RA-8      | Red         | White            |
| 1/4RA-10     | Tan         | Lt. Blue         |
| 1/4 RA-15    | Lt. Blue    | Lt. Green        |

| NOZZLE NUMBER         | PSI                  | GPM                      | GALLONS PER ACRE – BASED ON WATER |                             |                            |                              |                              |                            |                              |                              |                              |                              |                              |                              |                              |                              |                              |
|-----------------------|----------------------|--------------------------|-----------------------------------|-----------------------------|----------------------------|------------------------------|------------------------------|----------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
|                       |                      |                          | 20" SPACING                       |                             |                            |                              |                              | 30" SPACING                |                              |                              |                              |                              | 40" SPACING                  |                              |                              |                              |                              |
|                       |                      |                          | 4 MPH                             | 5 MPH                       | 6 MPH                      | 7.5 MPH                      | 10 MPH                       | 4 MPH                      | 5 MPH                        | 6 MPH                        | 7.5 MPH                      | 10 MPH                       | 4 MPH                        | 5 MPH                        | 6 MPH                        | 7.5 MPH                      | 10 MPH                       |
| RA-2<br>120°<br>1/4"  | 20<br>30<br>40<br>50 | .14<br>.17<br>.20<br>.22 | 10.5<br>12.9<br>14.9<br>16.6      | 8.4<br>10.3<br>11.9<br>13.3 | 7.0<br>8.6<br>9.9<br>11.1  | 5.6<br>6.9<br>7.9<br>8.9     | 4.2<br>5.1<br>5.9<br>6.6     | 7.0<br>8.6<br>9.9<br>11.1  | 5.6<br>6.9<br>7.9<br>8.9     | 4.7<br>5.7<br>6.6<br>7.4     | 3.7<br>4.6<br>5.3<br>5.9     | 2.8<br>3.4<br>4.0<br>4.4     | 5.3<br>6.4<br>7.4<br>8.3     | 4.2<br>5.1<br>5.9<br>6.6     | 3.5<br>4.3<br>5.0<br>5.5     | 2.8<br>3.4<br>4.0<br>4.4     | 2.1<br>2.6<br>3.0<br>3.3     |
| RA-4<br>120°<br>1/4"  | 20<br>30<br>40<br>50 | .28<br>.35<br>.40<br>.45 | 21<br>26<br>30<br>33              | 16.8<br>20<br>24<br>27      | 14.0<br>17.1<br>19.8<br>22 | 11.2<br>13.7<br>15.8<br>17.7 | 8.4<br>10.3<br>11.9<br>13.3  | 14.0<br>17.1<br>19.8<br>22 | 11.2<br>13.7<br>15.8<br>17.7 | 9.3<br>11.4<br>13.2<br>14.8  | 7.5<br>9.2<br>10.6<br>11.8   | 5.6<br>6.9<br>7.9<br>8.8     | 10.5<br>12.9<br>14.9<br>16.6 | 8.4<br>10.3<br>11.9<br>13.3  | 7.0<br>8.6<br>9.9<br>11.1    | 5.6<br>6.9<br>7.9<br>8.9     | 4.2<br>5.1<br>5.9<br>6.6     |
| RA-5<br>120°<br>1/4"  | 20<br>30<br>40<br>50 | .36<br>.44<br>.50<br>.6  | 26<br>32<br>37<br>42              | 21<br>26<br>30<br>33        | 17.5<br>21<br>25<br>28     | 14.0<br>17.1<br>19.8<br>22   | 10.5<br>12.9<br>14.9<br>16.6 | 17.5<br>21<br>25<br>28     | 14.0<br>17.2<br>19.8<br>22   | 11.7<br>14.3<br>16.5<br>18.4 | 9.3<br>11.4<br>13.2<br>14.8  | 7.0<br>8.6<br>9.9<br>11.1    | 13.1<br>16.1<br>18.3<br>21   | 10.5<br>12.9<br>14.9<br>16.6 | 8.8<br>10.7<br>12.4<br>13.8  | 7.0<br>8.6<br>9.9<br>11.1    | 5.3<br>6.4<br>7.4<br>8.4     |
| RA-6<br>120°<br>1/4"  | 20<br>30<br>40<br>50 | .43<br>.52<br>.60<br>.67 | 32<br>39<br>45<br>50              | 25<br>31<br>36<br>40        | 21<br>26<br>30<br>33       | 16.8<br>21<br>24<br>27       | 12.6<br>15.4<br>17.8<br>20   | 21<br>26<br>30<br>33       | 16.8<br>21<br>24<br>27       | 14.0<br>17.1<br>19.8<br>22   | 11.2<br>13.7<br>15.8<br>17.7 | 8.4<br>10.3<br>11.9<br>13.3  | 15.8<br>19.3<br>22<br>25     | 12.6<br>15.4<br>17.8<br>19.9 | 10.5<br>12.9<br>14.8<br>16.6 | 8.4<br>10.3<br>11.9<br>13.3  | 6.3<br>7.7<br>8.9<br>10.0    |
| RA-8<br>120°<br>1/4"  | 20<br>30<br>40<br>50 | .57<br>.70<br>.80<br>.90 | 42<br>51<br>59<br>66              | 34<br>41<br>48<br>53        | 28<br>34<br>40<br>44       | 22<br>27<br>32<br>35         | 16.8<br>21<br>24<br>27       | 28<br>34<br>40<br>44       | 22<br>27<br>32<br>35         | 18.7<br>23<br>26<br>30       | 14.9<br>18.3<br>21<br>24     | 11.2<br>13.7<br>15.8<br>17.7 | 21<br>26<br>30<br>33         | 16.8<br>20<br>24<br>27       | 14.0<br>17.1<br>19.8<br>22   | 11.2<br>13.7<br>15.8<br>17.7 | 8.4<br>10.3<br>11.9<br>13.3  |
| RA-10<br>120°<br>1/4" | 20<br>30<br>40<br>50 | .71<br>.87<br>1.0<br>1.1 | 53<br>64<br>74<br>83              | 42<br>51<br>59<br>66        | 35<br>43<br>50<br>55       | 28<br>34<br>40<br>44         | 21<br>26<br>30<br>33         | 35<br>43<br>50<br>55       | 28<br>34<br>40<br>44         | 23<br>29<br>33<br>37         | 18.7<br>23<br>26<br>30       | 14.0<br>17.2<br>19.8<br>22   | 26<br>32<br>37<br>42         | 21<br>26<br>30<br>33         | 17.5<br>21<br>25<br>28       | 14.0<br>17.1<br>19.8<br>22   | 10.5<br>12.9<br>14.9<br>16.6 |
| RA-15<br>120°<br>1/4" | 20<br>30<br>40<br>50 | 1.1<br>1.3<br>1.5<br>1.7 | 79<br>96<br>111<br>125            | 63<br>77<br>89<br>100       | 53<br>63<br>74<br>83       | 42<br>51<br>59<br>66         | 32<br>39<br>45<br>50         | 52<br>64<br>74<br>83       | 42<br>51<br>59<br>66         | 35<br>43<br>50<br>55         | 28<br>34<br>40<br>44         | 21<br>26<br>30<br>33         | 39<br>48<br>56<br>62         | 31<br>38<br>45<br>50         | 26<br>32<br>37<br>42         | 21<br>26<br>30<br>33         | 15.8<br>19.3<br>22<br>25     |

# TEEJET® - LOW-PRESSURE FLAT SPRAY TIPS



## 65°, 80° & 110° LP Series Stainless Steel and Brass

- Less clogging
- Longer wear life
- Larger droplets to reduce drift

How to order:

Example: TP8002LP-SS (Stainless Steel)  
TP6505LP (Brass)

The LP TeeJet® spray tips are designed specifically to operate as low as 15 PSI, providing the same spray performance, spray angle, flow rate and liquid distribution at 15 PSI, as the standard TeeJet® tips at 40 PSI. Lower operating pressures and larger orifices increase wear life of tips. This helps to diminish clogging problems and provides larger spray droplets than those from the standard tips. Patented orifice inlet design provides good tapered edge liquid distribution at lower pressures.

See capacity chart on page 106

# CONEJET® - #5500 ADJUSTABLE SPRAY TIP

| Adj. ConeJet Tip No.     | Performance    | Liquid Pressure in PSI |      |        |      |        |     |        |      |         |     |         |     |
|--------------------------|----------------|------------------------|------|--------|------|--------|-----|--------|------|---------|-----|---------|-----|
|                          |                | 20 PSI                 |      | 30 PSI |      | 40 PSI |     | 60 PSI |      | 100 PSI |     | 150 PSI |     |
|                          |                | A                      | B    | A      | B    | A      | B   | A      | B    | A       | B   | A       | B   |
| 5500-X1                  | Capacity-GPM   | —                      | .049 | .015   | .061 | .017   | .07 | .02    | .086 | .025    | .11 | .028    | .14 |
|                          | Spray Angle    | —                      | 38°  | —      | 54°  | —      | 71° | —      | 80°  | —       | 83° | —       | —   |
|                          | Max. Throw-Ft. | —                      | 19   | 1      | 22   | 1.5    | 24  | 1.5    | 26   | 1.5     | 26  | 1.5     | 26  |
| 5500-X2                  | Capacity-GPM   | .025                   | .091 | .03    | .11  | .033   | .13 | .04    | .16  | .05     | .20 | .058    | .25 |
|                          | Spray Angle    | 40°                    | —    | 60°    | —    | 68°    | —   | 75°    | —    | 80°     | —   | 83°     | —   |
|                          | Max. Throw-Ft. | 1.5                    | 23   | 1.5    | 26   | 2      | 27  | 2      | 28   | 2       | 28  | 2       | 28  |
| 5500-X3<br>5500-PPB-X3   | Capacity-GPM   | .037                   | .13  | .045   | .17  | .05    | .19 | .058   | .23  | .073    | .30 | .088    | .37 |
|                          | Spray Angle    | 57°                    | —    | 68°    | —    | 72°    | —   | 76°    | —    | 80°     | —   | 82°     | —   |
|                          | Max. Throw-Ft. | 2                      | 27   | 2      | 30   | 2      | 31  | 2      | 31   | 3       | 31  | 3       | 31  |
| 5500-X4                  | Capacity-GPM   | .05                    | .18  | .058   | .22  | .067   | .25 | .08    | .31  | .10     | .40 | .12     | .49 |
|                          | Spray Angle    | 61°                    | —    | 70°    | —    | 73°    | —   | 77°    | —    | 80°     | —   | 81°     | —   |
|                          | Max. Throw-Ft. | 2.5                    | 30   | 2.5    | 33   | 3      | 34  | 3      | 34   | 3       | 34  | 3       | 34  |
| 5500-X5<br>5500-PPB-X5   | Capacity-GPM   | .061                   | .21  | .076   | .26  | .082   | .30 | .10    | .37  | .13     | .48 | .15     | .58 |
|                          | Spray Angle    | 61°                    | —    | 70°    | —    | 74°    | —   | 77°    | —    | 80°     | —   | 81°     | —   |
|                          | Max. Throw-Ft. | 2.5                    | 31   | 2.5    | 34   | 3      | 35  | 3      | 35   | 3       | 35  | 3       | 35  |
| 5500-X6                  | Capacity-GPM   | .073                   | .26  | .087   | .32  | .10    | .37 | .12    | .45  | .15     | .58 | .19     | .71 |
|                          | Spray Angle    | 65°                    | —    | 71°    | —    | 74°    | —   | 77°    | —    | 80°     | —   | 80°     | —   |
|                          | Max. Throw-Ft. | 2.5                    | 32   | 3      | 35   | 3      | 36  | 3.5    | 36   | 3.5     | 36  | 3.4     | 36  |
| 5500-X8<br>5500-PPB-X8   | Capacity-GPM   | .097                   | .33  | .12    | .40  | .13    | .47 | .16    | .57  | .21     | .74 | .25     | .90 |
|                          | Spray Angle    | 66°                    | —    | 71°    | —    | 74°    | —   | 77°    | —    | 80°     | —   | 80°     | —   |
|                          | Max. Throw-Ft. | 3                      | 34   | 3      | 37   | 3      | 38  | 3      | 38   | 4       | 38  | 4       | 38  |
| 5500-X10                 | Capacity-GPM   | .12                    | .42  | .15    | .52  | .17    | .60 | .21    | .73  | .26     | .94 | .31     | 1.2 |
|                          | Spray Angle    | 68°                    | —    | 72°    | —    | 75°    | —   | 78°    | —    | 80°     | —   | 80°     | —   |
|                          | Max. Throw-Ft. | 3                      | 35   | 3.5    | 38   | 3.5    | 39  | 4      | 40   | 4       | 40  | 4       | 40  |
| 5500-X12<br>5500-PPB-X12 | Capacity-GPM   | .15                    | .49  | .18    | .60  | .20    | .69 | .24    | .84  | .31     | 1.1 | .38     | 1.3 |
|                          | Spray Angle    | 69°                    | —    | 73°    | —    | 76°    | —   | 78°    | —    | 80°     | —   | 80°     | —   |
|                          | Max. Throw-Ft. | 3.5                    | 36   | 4      | 39   | 4      | 40  | 4      | 41   | 4       | 41  | 4       | 41  |
| 5500-X14                 | Capacity-GPM   | .17                    | .55  | .20    | .67  | .23    | .78 | .29    | .95  | .37     | 1.2 | .45     | 1.5 |
|                          | Spray Angle    | 70°                    | —    | 74°    | —    | 76°    | —   | 78°    | —    | 80°     | —   | 80°     | —   |
|                          | Max. Throw-Ft. | 3.5                    | 37   | 4      | 40   | 4      | 41  | 4      | 41   | 4.5     | 41  | 4.5     | 41  |
| 5500-X18<br>5500-PPB-X18 | Capacity-GPM   | .21                    | .69  | .26    | .84  | .30    | .97 | .37    | 1.2  | .47     | 1.5 | .58     | 1.9 |
|                          | Spray Angle    | 71°                    | —    | 75°    | —    | 77°    | —   | 78°    | —    | 80°     | —   | 79°     | —   |
|                          | Max. Throw-Ft. | 4                      | 38   | 4      | 41   | 4      | 42  | 4      | 42   | 5       | 42  | 5       | 42  |
| 5500-X22                 | Capacity-GPM   | .26                    | .83  | .32    | 1.0  | .37    | 1.2 | .45    | 1.4  | .58     | 1.9 | .70     | 2.3 |
|                          | Spray Angle    | 71°                    | —    | 75°    | —    | 78°    | —   | 79°    | —    | 80°     | —   | 78°     | —   |
|                          | Max. Throw-Ft. | 4                      | 39   | 4.5    | 41   | 5      | 42  | 5      | 42   | 5       | 42  | 5       | 42  |
| 5500-X26                 | Capacity-GPM   | .31                    | .98  | .37    | 1.2  | .43    | 1.4 | .53    | 1.7  | .68     | 2.2 | .83     | 2.7 |
|                          | Spray Angle    | 72°                    | —    | 76°    | —    | 78°    | —   | 79°    | —    | 80°     | —   | 78°     | —   |
|                          | Max. Throw-Ft. | 4.5                    | 40   | 5      | 42   | 5      | 43  | 5.5    | 43   | 5.5     | 43  | 5.5     | 43  |



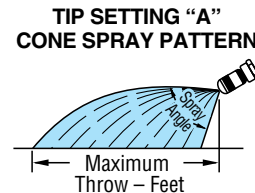
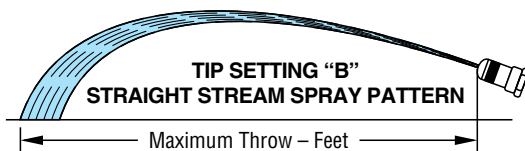
#5500-PP

The 5500 Adjustable ConeJet® tip is also available in a polypropylene version. The polypropylene tip has the same performance characteristics as the brass tip and provides excellent chemical resistance. This tip's light weight makes it well-suited for use on hand held and backpack type sprayers.



#5500 for  
Capacities from  
0.071 to 1.9 GPM

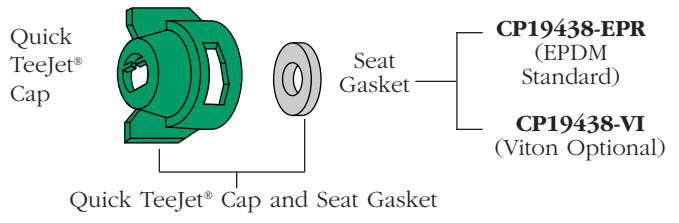
Knurled body of tip rotates through a half turn to provide spray selection from wide angle, finely atomized cone spray to a straight stream spray. Tip settings "A" and "B" represent two extreme points of rotation in tip adjustment.





## QUICK TEEJET® CAPS - ORDERING INFORMATION

The Quick TeeJet® caps are designed with grooves that fit locating lugs on the nozzle body. Caps are made of nylon and are available for use with all TeeJet® spray tips. Maximum operating pressure of 300 PSI.



| Quick TeeJet® Caps | Part Number                          | For Use with Spray Tips  |
|--------------------|--------------------------------------|--|
|                    | Quick TeeJet® Cap & Seat Gasket Set  |  |
|                    | 25612- * -NYR                        | <b>TeeJet Flat Spray Tips (Smaller Capacities)</b><br>Standard -0067 Thru -08               XR -01 Thru -08               DG -015 Thru -05               TT -01 Thru -08             |
|                    | 25610- * -NYR                        | <b>TeeJet Flat Spray Tips (Larger Capacities)</b><br>Standard -10 Thru -20               XR -10 Thru -15   |
|                    | 25598- * -NYR                        | <b>TJ TwinJet®</b> <b>AI TeeJet®</b><br>No. TJ60 Spray Tip               No. AI Spray Tip  |
|                    | 25600- * -NYR                        | <b>Turbo FloodJet®</b> <b>TK-VS FloodJet®</b><br>VisiFlow® Spray Tip               VisiFlow® Spray Tip   |
|                    | 25608- * -NYR                        | <b>TK FloodJet®</b> <b>FL FullJet®</b> <b>TX ConeJet®</b> <b>TG Full Cone</b><br>  |
|                    | CP25607- *-NY<br>CAP ONLY            | D-Disc               Core               Seal<br><b>CP18999-EPR†</b> (EPDM standard)    †Used with Disc-Core<br><b>CP18999-VI†</b> (Viton optional)    Sprays (Insert Core into Seal) |
|                    | QJ4676-1/8-NYR**<br>QJ4676-1/4-NYR** | Permits use of standard 1/8" and 1/4" nozzles. Can be used for mounting pressure gauge at the nozzle or threaded nozzles.  |
|                    | 19843-NYR**                          | Provides shutoff at nozzle for quick spacing change or change in spray swath.  |
|                    | QJ4676-45-1/4-NYR**                  | 45° Quick TeeJet cap for threaded nozzles.   |
|                    | QJ4676-90-1/4-NYR**                  | 90° Quick TeeJet cap for threaded nozzles.   |

\*Specify color-code (see chart).  
 \*\*These Quick TeeJet® caps available only in black.

| Colors of Quick TeeJet® Caps | Color Code | Colors of Quick TeeJet® Caps | Color Code |
|------------------------------|------------|------------------------------|------------|
| Black                        | 1          | Green                        | 5          |
| White                        | 2          | Yellow                       | 6          |
| Red                          | 3          | Brown                        | 7          |
| Blue                         | 4          | Orange                       | 8          |



# SPRAYER CALIBRATION

### Broadcast Application

Sprayer Calibration (1) **readies your sprayer for operation** and (2) **diagnoses tip wear**. This will give you optimum performance of your TeeJet® tips.

- Equipment Needed**
- TeeJet® Calibration Container
  - Calculator
  - TeeJet® Cleaning Brush
  - One new TeeJet® spray tip matched to the nozzles on your sprayer
  - Stopwatch or wristwatch with second hand

### Step No. 1

#### Check Your Sprayer Speed!

Knowing your real sprayer speed is essential for accurate spraying. Speedometer readings and some electronic measurement devices can be inaccurate because of wheel slippage. Check the time required to move over a 100 or 200 foot strip of turf similar to that which will be sprayed. If permanent markers are present, the starting marker should be positioned to allow the sprayer to reach desired spraying speed. Hold that speed as you travel between the “start” and “end” markers. Most accurate measurement will be obtained with the spray tank half full. Calculate your real speed. When the correct throttle and gear setting are identified, mark your tachometer or speedometer to help you control this **vital** part of accurate chemical application.

$$\text{Speed (mph)} = \frac{\text{Distance (ft)} \times 60}{\text{Time (seconds)} \times 88}$$

### Step No. 2

#### The Inputs

Before spraying, record the following: EXAMPLE

- Nozzle type on your sprayer . . . . . XR8002 Flat  
 (All nozzles must be identical) Spray Tip  
 Recommended application volume . . . 44 GPA or  
 (From manufacturer’s label) 1 GAL/1000FT<sup>2</sup>  
 Measured sprayer speed . . . . . 3 mph  
 Nozzle spacing . . . . . 20 inches “w”

### Step No. 3

#### Calculating Required Nozzle Output

Determine GPM nozzle output from formula.

$$\text{FORMULA: GPM} = \frac{\text{GPA} \times \text{MPH} \times \text{W}}{5940}$$

$$\text{EXAMPLE: GPM} = \frac{40 \text{ GPA} \times 3 \text{ MPH} \times 20 \text{ in}}{5940} = .4 \text{ GPM}$$

or

$$\text{GPA} = \frac{\text{GPM} \times 5940}{\text{MPH} \times \text{W}}$$

### Step No. 4

#### Setting the Correct Pressure

Turn on your sprayer and check for leaks or blockage. Inspect and clean, if necessary, all tips and strainers with a TeeJet® tip cleaning brush. Replace one tip and strainer **with an identical new tip and strainer** on sprayer boom.

Check appropriate tip selection table and determine the pressure required to deliver the nozzle output calculated from the formula in Step 3 for your new tip.

Since all the tabulations are based on spraying water, conversion factors must be used when spraying solutions which are heavier or lighter than water.

Turn on your sprayer and adjust pressure. Collect and measure the volume of the spray from the new tip for one minute in the collection jar. Fine tune the pressure until you collect 0.44 GPM.

You have now adjusted your sprayer to the proper pressure. It will properly deliver the application rate specified by the chemical manufacturer at your measured sprayer speed.

### Step No. 5

#### Calculating Required Nozzle Output

**Problem Diagnosis:** Now, check the flow rate of each tip. If the flow rate of any tip is 10 percent greater or less than that of the newly installed spray tip, recheck the output of that tip. If only one tip is faulty, replace with new tip and strainer and your system is ready for spraying. However, if a second tip is defective, **replace all tips on the entire boom**. This may sound unrealistic, but two worn tips on a boom are ample indication of tip wear problems. Replacing only a couple of worn tips invites potentially serious application problems.

### Suggested Minimum Spray Heights

| Spray Angle | Nozzle Height |             |
|-------------|---------------|-------------|
|             | 20" Spacing   | 30" Spacing |
| 65°         | 22" to 24"    | 33" to 35"  |
| 80°         | 17" to 19"    | 26" to 28"  |
| 110°        | 15" to 18"    | 14" to 18"  |

The diagram shows a spray tip at the top of a vertical line representing the spray height. A blue triangle represents the spray pattern, with the angle at the top labeled 'Spray Angle\*'. A vertical double-headed arrow to the left of the triangle is labeled 'Spray Height'.

\*Spray angles apply to flat spray tips spraying at a rated pressure of 40 PSI. Lower pressures will result in reduced spray angles, except for the XR TeeJet® tip.