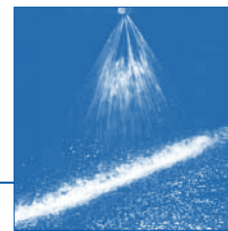
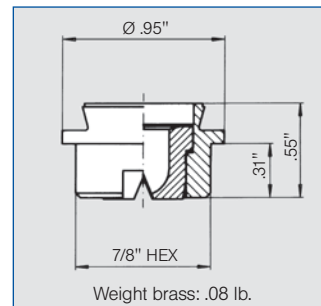




Flat fan nozzle tips with dovetail guide Series 664 / 665



Automatic jet alignment due to dovetail guide (this tip requires dovetail base). Stable spray angle. Uniform parabolic distribution of liquid. With appropriate spray height and distance between centers on spray bar, provides an even total liquid distribution. Assembles with 3/4" retaining nut.



Orifice offset from dovetail by 15°

Applications:

- Cleaning installations
- Cooling headers
- Spray pipes
- Roll cooling
- Cooling of rolled stock

| Spray angle | Ordering no. | | | | Equivalent Orifice diam. (in.) | Free passage (in.) | Flow Rate (Gallons Per Minute) | | | | | | | Spray Coverage @ 30 psi | |
|-------------|--------------|--------------|----------------------------|-------------|--------------------------------|--------------------|--------------------------------|--------|----------------------------|--------|--------|--------|---------|-------------------------|-------|
| | Type | Material no. | | | | | 10 psi | 20 psi | liters per minute 2 bar | 40 psi | 60 psi | 80 psi | 100 psi | H=10" | H=20" |
| | | 303 SS 16 | 316 SS 17 ¹⁾ | Brass 30 | | | | | | | | | | | |
| 20° | 664. 721 | ○ | ○ | ○ | .118 | .099 | .98 | 1.4 | 6.3 | 2.0 | 2.4 | 2.8 | 3.1 | 4 | 8 |
| | 664. 801 | ○ | ○ | ○ | .158 | .126 | 1.6 | 2.2 | 10.0 | 3.1 | 3.8 | 4.4 | 4.9 | 4 | 8 |
| | 664. 881 | ○ | ○ | ○ | .197 | .158 | 2.5 | 3.5 | 16.0 | 5.0 | 6.1 | 7.0 | 7.8 | 4 | 8 |
| | 664. 921 | ○ | ○ | ○ | .217 | .173 | 3.1 | 4.4 | 20.0 | 6.2 | 7.6 | 8.8 | 9.8 | 4 | 8 |
| | 664. 961 | ○ | ○ | ○ | .236 | .201 | 3.9 | 5.5 | 25.0 | 7.8 | 9.5 | 11.0 | 12.3 | 4 | 8 |
| 30° | 664. 722 | ○ | ○ | ○ | .118 | .095 | .98 | 1.4 | 6.3 | 2.0 | 2.4 | 2.8 | 3.1 | 6 | 11 |
| | 664. 762 | ○ | ○ | ○ | .138 | .106 | 1.2 | 1.8 | 8.0 | 2.5 | 3.0 | 3.5 | 3.9 | 6 | 11 |
| | 664. 802 | ○ | ○ | ○ | .158 | .122 | 1.6 | 2.2 | 10.0 | 3.1 | 3.8 | 4.4 | 4.9 | 6 | 11 |
| | 664. 882 | ○ | ○ | ○ | .197 | .158 | 2.5 | 3.5 | 16.0 | 5.0 | 6.1 | 7.0 | 7.8 | 6 | 11 |
| | 664. 922 | ○ | ○ | ○ | .217 | .173 | 3.1 | 4.4 | 20.0 | 6.2 | 7.6 | 8.8 | 9.8 | 6 | 11 |
| | 664. 962 | ○ | ○ | ○ | .236 | .197 | 3.9 | 5.5 | 25.0 | 7.8 | 9.5 | 11.0 | 12.3 | 6 | 11 |
| | 665. 042 | ○ | - | ○ | .315 | .252 | 6.2 | 8.8 | 40.0 | 12.4 | 15.2 | 17.6 | 19.6 | 6 | 11 |
| 665. 122 | - | - | ○ | .394 | .323 | 9.8 | 13.8 | 63.0 | 19.5 | 23.9 | 27.6 | 30.9 | 6 | 11 | |
| 45° | 664. 723 | ○ | ○ | ○ | .118 | .095 | .98 | 1.4 | 6.3 | 2.0 | 2.4 | 2.8 | 3.1 | 10 | 19 |
| | 664. 763 | ○ | ○ | ○ | .138 | .102 | 1.2 | 1.8 | 8.0 | 2.5 | 3.0 | 3.5 | 3.9 | 10 | 19 |
| | 664. 803 | ○ | ○ | ○ | .158 | .118 | 1.6 | 2.2 | 10.0 | 3.1 | 3.8 | 4.4 | 4.9 | 10 | 19 |
| | 664. 843 | ○ | ○ | ○ | .177 | .134 | 1.9 | 2.7 | 12.5 | 3.9 | 4.8 | 5.5 | 6.1 | 10 | 19 |
| | 664. 883 | ○ | ○ | ○ | .197 | .150 | 2.5 | 3.5 | 16.0 | 5.0 | 6.1 | 7.0 | 7.8 | 10 | 20 |
| | 664. 923 | ○ | ○ | ○ | .217 | .165 | 3.1 | 4.4 | 20.0 | 6.2 | 7.6 | 8.8 | 9.8 | 11 | 20 |
| | 664. 963 | ○ | ○ | ○ | .236 | .043 | 3.9 | 5.5 | 25.0 | 7.8 | 9.5 | 11.0 | 12.3 | 11 | 20 |
| | 665. 043 | - | - | ○ | .315 | .232 | 6.2 | 8.8 | 40.0 | 12.4 | 15.2 | 17.6 | 19.6 | 11 | 20 |
| 60° | 664. 724 | ○ | ○ | ○ | .118 | .083 | .98 | 1.4 | 6.3 | 2.0 | 2.4 | 2.8 | 3.1 | 12 | 22 |
| | 664. 764 | ○ | ○ | ○ | .138 | .091 | 1.2 | 1.8 | 8.0 | 2.5 | 3.0 | 3.5 | 3.9 | 12 | 22 |
| | 664. 804 | ○ | ○ | ○ | .158 | .102 | 1.6 | 2.2 | 10.0 | 3.1 | 3.8 | 4.4 | 4.9 | 12 | 22 |
| | 664. 844 | ○ | ○ | ○ | .177 | .118 | 1.9 | 2.7 | 12.5 | 3.9 | 4.8 | 5.5 | 6.1 | 12 | 22 |
| | 664. 884 | ○ | ○ | ○ | .197 | .134 | 2.5 | 3.5 | 16.0 | 5.0 | 6.1 | 7.0 | 7.8 | 12 | 22 |
| | 664. 924 | ○ | ○ | ○ | .217 | .162 | 3.1 | 4.4 | 20.0 | 6.2 | 7.6 | 8.8 | 9.8 | 12 | 23 |
| | 664. 964 | ○ | ○ | ○ | .236 | .165 | 3.9 | 5.5 | 25.0 | 7.8 | 9.5 | 11.0 | 12.3 | 12 | 23 |
| | 665. 044 | ○ | ○ | ○ | .315 | .217 | 6.2 | 8.8 | 40.0 | 12.4 | 15.2 | 17.6 | 19.6 | 12 | 23 |
| | 665. 084 | ○ | ○ | ○ | .355 | .244 | 7.8 | 11.0 | 50.0 | 15.5 | 19.0 | 21.9 | 24.5 | 13 | 23 |
| | 665. 124 | - | - | ○ | .394 | .292 | 9.8 | 13.8 | 63.0 | 19.5 | 23.9 | 27.6 | 30.9 | 13 | 24 |

Example Type + Material no. = Ordering no.
for ordering: 664. 721 + 16 = 664. 721. 16

Continued on next page.

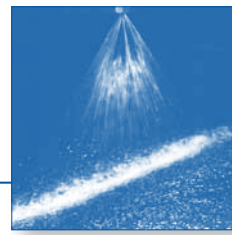
1) We reserve the right to deliver material 316 SS or 316L SS, if we show the material code 17.

A listing of alternatives for various assembly possibilities is shown in the Accessories section beginning on page 123.





Flat fan nozzle tips with dovetail guide Series 664 / 665

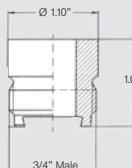


| Spray angle | Ordering no. | | | | Equivalent Orifice diam. (in.) | Free passage (in.) | Flow Rate (Gallons Per Minute) | | | | | | | Spray Coverage @ 30 psi | |
|-------------|--------------|--------------|----------------------------|-------------|--------------------------------|--------------------|--------------------------------|--------|----------------------------|--------|--------|--------|---------|-------------------------|-------|
| | Type | Material no. | | | | | 10 psi | 20 psi | liters per minute 2 bar | 40 psi | 60 psi | 80 psi | 100 psi | H=10" | H=20" |
| | | 303 SS 16 | 316 SS 17 ¹⁾ | Brass 30 | | | | | | | | | | | |
| 90° | 664. 726 | ○ | ○ | ○ | .118 | .200 | .98 | 1.4 | 6.3 | 2.0 | 2.4 | 2.8 | 3.1 | 17 | 31 |
| | 664. 766 | ○ | ○ | ○ | .138 | .300 | 1.2 | 1.8 | 8.0 | 2.5 | 3.0 | 3.5 | 3.9 | 17 | 31 |
| | 664. 806 | ○ | ○ | ○ | .158 | .095 | 1.6 | 2.2 | 10.0 | 3.1 | 3.8 | 4.4 | 4.9 | 17 | 31 |
| | 664. 846 | ○ | ○ | ○ | .177 | .095 | 1.9 | 2.7 | 12.5 | 3.9 | 4.8 | 5.5 | 6.1 | 17 | 31 |
| | 664. 886 | ○ | ○ | ○ | .197 | .122 | 2.5 | 3.5 | 16.0 | 5.0 | 6.1 | 7.0 | 7.8 | 17 | 31 |
| | 664. 926 | ○ | ○ | ○ | .217 | .142 | 3.1 | 4.4 | 20.0 | 6.2 | 7.6 | 8.8 | 9.8 | 17 | 31 |
| | 664. 966 | ○ | ○ | ○ | .236 | .154 | 3.9 | 5.5 | 25.0 | 7.8 | 9.5 | 11.0 | 12.3 | 17 | 31 |
| | 665. 046 | - | - | ○ | .315 | .193 | 6.2 | 8.8 | 40.0 | 12.4 | 15.2 | 17.6 | 19.6 | 17 | 31 |
| | 665. 126 | - | - | ○ | .394 | .252 | 9.8 | 13.8 | 63.0 | 19.5 | 23.9 | 27.6 | 30.9 | 17 | 31 |
| 120° | 664. 727 | ○ | ○ | ○ | .118 | .063 | .98 | 1.4 | 6.3 | 2.0 | 2.4 | 2.8 | 3.1 | 49 | 85 |
| | 664. 767 | ○ | ○ | ○ | .138 | .067 | 1.2 | 1.8 | 8.0 | 2.5 | 3.0 | 3.5 | 3.9 | 49 | 85 |
| | 664. 807 | ○ | ○ | ○ | .158 | .079 | 1.6 | 2.2 | 10.0 | 3.1 | 3.8 | 4.4 | 4.9 | 49 | 85 |
| | 664. 887 | ○ | ○ | ○ | .197 | .102 | 2.5 | 3.5 | 16.0 | 5.0 | 6.1 | 7.0 | 7.8 | 49 | 85 |
| | 664. 927 | ○ | ○ | ○ | .217 | .114 | 3.1 | 4.4 | 20.0 | 6.2 | 7.6 | 8.8 | 9.8 | 49 | 85 |
| | 664. 967 | - | - | ○ | .236 | .126 | 3.9 | 5.5 | 25.0 | 7.8 | 9.5 | 11.0 | 12.3 | 49 | 85 |
| | 665. 047 | - | - | ○ | .315 | .173 | 6.2 | 8.8 | 40.0 | 12.4 | 15.2 | 17.6 | 19.6 | 49 | 85 |

Example **Type** + **Material no.** = **Ordering no.**
for ordering: **664. 727** + **16** = **664. 727. 16**

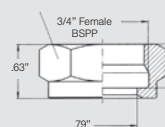
1) We reserve the right to deliver material 316 SS or 316L SS, if we show the material code 17.

Accessories



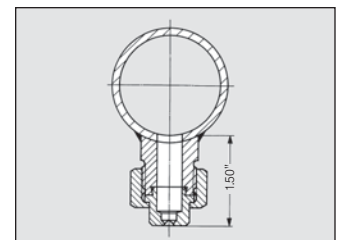
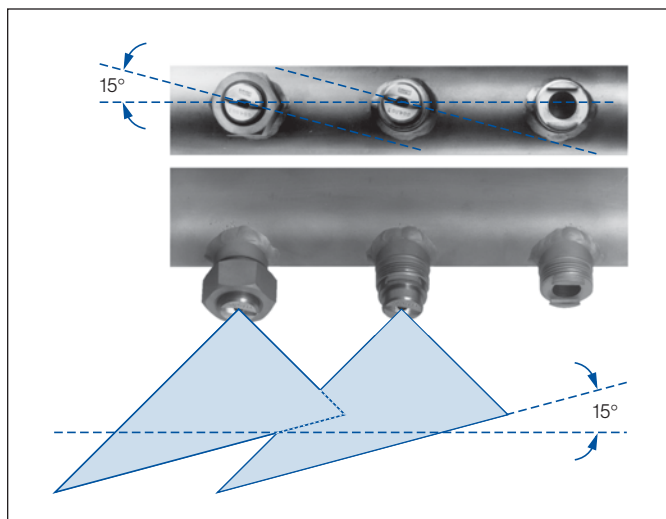
Weight: .14 lb.

Nipple **066. 410. 17** (316 SS)



Weight: .13 lb.

Retaining nut **065. 600. 16** (303 SS)
065. 600. 17 (316 SS)
065. 600. 30 (Brass)



Standard accessories, alignment, and installation for the Series 664 dovetail nozzle tip

A listing of alternatives for various assembly possibilities is shown in the Accessories section beginning on page 123.

Conversion formula for the above series: $V_2 = V_1 \sqrt{\frac{P_2}{P_1}}$
 (See page 12 for symbol definitions.)

