## Cascade Nozzle



The Cascade Nozzle is the single most popular effect used in commercial and architectural fountains through modern times. They can be used in a wide vatiety of ways to achieve spectacular effects. Whatever your plan or imagination calls for, the Cascade can probably fill the bill. A waterentraining venturi type nozze, the Cascade augments its spout effect by adding water volume from the pool. In doing so, a very heavy, powerful effect is achieved with little aeration. Cascade nozzes are used widely in
architectural fountains due to their high visibility and good wind resistance, exhibiting a very "hard" visual and audible impact suitable for large pools and outdoor applications where noise-masking water effects are desired. The Cascade is water level dependent, and requires a controlled water level. In addition to single and grouped nozzle installations, opaque water walls are easily achieved when several nozles are placed in close proximity.


## Technical description:

- All Cascade nozzes are water level dependent venturi types. The surrounding pool water is drawn by venturi effect through the bottom of the nozzle.
- These nozzes can be completely submerged in water, but maximum efficiency is achieved if the water level is held to the dimensions given.
- If placed in fountains of more than one water level, check valves should be installed inline with the nozze. (The discharge orifice of the Cascade nozze is actually under water, and if installed in an upper pool of multi-level fountains, can cause the water of the upper level to drain back through the display pump to the lower level.)
- This type of nozze can set up a resonant wave action in certain pools. If an undesired wave action occurs, it can be eliminated by adding a copper surge tube around the nozle location. This is a copper tube, about 6 " in diameter, mounted from water level to about 1" above the pool floor.
- All Cascade nozzles are NPT thread.

| Visibility |  |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- |
| Noise Level |  |  |  |  |  |
| Splash |  |  |  |  |  |
| Wind Stability |  |  |  |  |  |
| Energy Efficiency |  |  |  |  |  |

## Cascade Nozzle

| Display Height | 50 T |  |  |  | 70 T |  |  |  | 90 T |  |  |  | 110 T |  |  |  | 130 T |  |  |  | Display Height |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Feet | GPM | TDH | LPM | BAR | GPM | TDH | LPM | BAR | GPM | TDH | LPM | BAR | GPM | TDH | LPM | BAR | GPM | TDH | LPM | BAR | Meters |
| 0'-10" | 7.6 | 6.0 | 28.7 | 0.18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.25 |
| 1'-8" | 9.1 | 8.7 | 34.5 | 0.26 | 21.0 | 9.0 | 79.7 | 0.27 |  |  |  |  |  |  |  |  |  |  |  |  | 0.50 |
| 2'-6" | 10.4 | 11.0 | 39.5 | 0.33 | 23.4 | 11.0 | 88.8 | 0.33 | 37.2 | 9.0 | 141.4 | 0.27 |  |  |  |  |  |  |  |  | 0.75 |
| 3'-3" | 11.6 | 13.7 | 43.9 | 0.41 | 25.5 | 13.3 | 97.0 | 0.40 | 41.3 | 11.0 | 157.1 | 0.33 | 62.2 | 12.0 | 236.2 | 0.36 | 99.9 | 12.0 | 379.6 | 0.36 | 1.00 |
| 4'-11" | 13.6 | 19.0 | 51.5 | 0.57 | 29.4 | 17.7 | 111.7 | 0.53 | 48.5 | 15.3 | 184.4 | 0.46 | 73.6 | 16.0 | 279.8 | 0.48 | 115.1 | 16.0 | 437.3 | 0.48 | 1.50 |
| 6'-7" | 15.3 | 24.3 | 58.2 | 0.73 | 32.8 | 22.0 | 124.7 | 0.66 | 54.8 | 19.3 | 208.2 | 0.58 | 83.5 | 20.0 | 317.4 | 0.60 | 128.5 | 20.0 | 488.3 | 0.60 | 2.00 |
| 8'-2" | 18.3 | 34.7 | 69.7 | 1.04 | 35.9 | 26.3 | 136.4 | 0.79 | 60.4 | 23.7 | 229.6 | 0.71 | 92.4 | 24.0 | 351.2 | 0.72 | 140.7 | 24.0 | 534.6 | 0.72 | 2.50 |
| 9'-10" | 19.7 | 40.0 | 74.8 | 1.20 | 38.8 | 30.7 | 147.3 | 0.92 | 65.6 | 27.7 | 249.2 | 0.83 | 100.5 | 28.0 | 382.0 | 0.84 | 151.9 | 28.0 | 577.2 | 0.84 | 3.00 |
| 13'-1" | 20.9 | 45.4 | 79.6 | 1.36 | 43.9 | 39.4 | 166.9 | 1.18 | 74.8 | 36.4 | 284.4 | 1.09 | 115.1 | 36.0 | 437.2 | 1.08 | 172.2 | 36.0 | 654.2 | 1.08 | 4.00 |
| 16'-5" | 23.3 | 56.0 | 88.4 | 1.68 | 48.6 | 48.0 | 184.5 | 1.44 | 83.1 | 44.7 | 315.8 | 1.34 | 128.0 | 44.7 | 486.4 | 1.34 | 190.4 | 44.7 | 723.4 | 1.34 | 5.00 |
| 19'-8" |  |  |  |  | 52.8 | 57.0 | 200.6 | 1.71 | 90.6 | 53.0 | 344.4 | 1.59 | 139.8 | 51.7 | 531.1 | 1.55 | 207.0 | 51.7 | 786.6 | 1.55 | 6.00 |
| 23'-0" |  |  |  |  | 56.7 | 65.7 | 215.5 | 1.97 | 97.6 | 61.7 | 370.9 | 1.85 | 150.7 | 59.7 | 572.5 | 1.79 | 222.4 | 59.7 | 845.3 | 1.79 | 7.00 |
| 26'-3" |  |  |  |  |  |  |  |  | 104.1 | 70.0 | 395.7 | 2.10 | 160.8 | 68.0 | 611.2 | 2.04 | 236.9 | 68.0 | 900.3 | 2.04 | 8.00 |
| 32'-10" |  |  |  |  |  |  |  |  | 116.2 | 87.0 | 441.4 | 2.61 | 179.6 | 84.0 | 682.3 | 2.52 | 263.6 | 84.0 | 1001.7 | 2.52 | 10.00 |
| 39'-4" |  |  |  |  |  |  |  |  |  |  |  |  | 196.6 | 100.4 | 747.1 | 3.01 | 288.0 | 100.4 | 1094.3 | 3.01 | 12.00 |
| 45'-11" |  |  |  |  |  |  |  |  |  |  |  |  | 212.3 | 116.7 | 806.9 | 3.50 | 310.6 | 116.7 | 1180.2 | 3.50 | 14.00 |
| 52'-6" |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 331.7 | 133.1 | 1260.6 | 3.99 | 16.00 |
| 59'-1" |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 351.7 | 149.7 | 1336.6 | 4.49 | 18.00 |
| 65'-7" |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 370.8 | 166.4 | 1408.9 | 4.99 | 20.00 |
| Mat'I | Brass |  |  |  | Brass |  |  |  | Brass |  |  |  | Brass |  |  |  | Brass |  |  |  | Mat'I |
| Weight | 1.00 Kg |  | 2.20 Lbs |  | 2.40 Kg |  | 5.28 Lbs |  | 3.60 Kg |  | 7.92 Lbs |  | 7.00 Kg |  | 15.40 Lbs |  | 11.00 Kg |  | 24.20 Lbs |  | Weight |
| Article \# | 670-550 |  |  |  | 670-551 |  |  |  | 671-550 |  |  |  | 671-551 |  |  |  | 671-552 |  |  |  | Article \# |
| ID \# | 50911 |  |  |  | 50912 |  |  |  | 50915 |  |  |  |  |  |  |  |  |  | 17 |  | ID \# |
| Part \# | 89051 |  |  |  | 89052 |  |  |  | 89053 |  |  |  | 89054 |  |  |  |  |  |  | 89055 | Part \# |



