

CAPACITY NOZZLE CAPACITY VARIES WITH SPRAYING PRESSURE.

In general, the relationship between flow rate and pressure is as follows:

$$\frac{Q_1}{Q_2} = \frac{(P_1)^n}{(P_2)^n}$$

Q: Flow rate (in gpm or l/min)

P: Liquid pressure (in psi or bar)

n: Exponent applying to the specific nozzle type

All capacity tabulations in this catalog are based on water. Since the specific gravity of a liquid affects its flow rate, tabulated catalog capacities must be multiplied by the conversion factor that applies to the specific gravity of the liquid being sprayed as explained in the Specific Gravity section below.

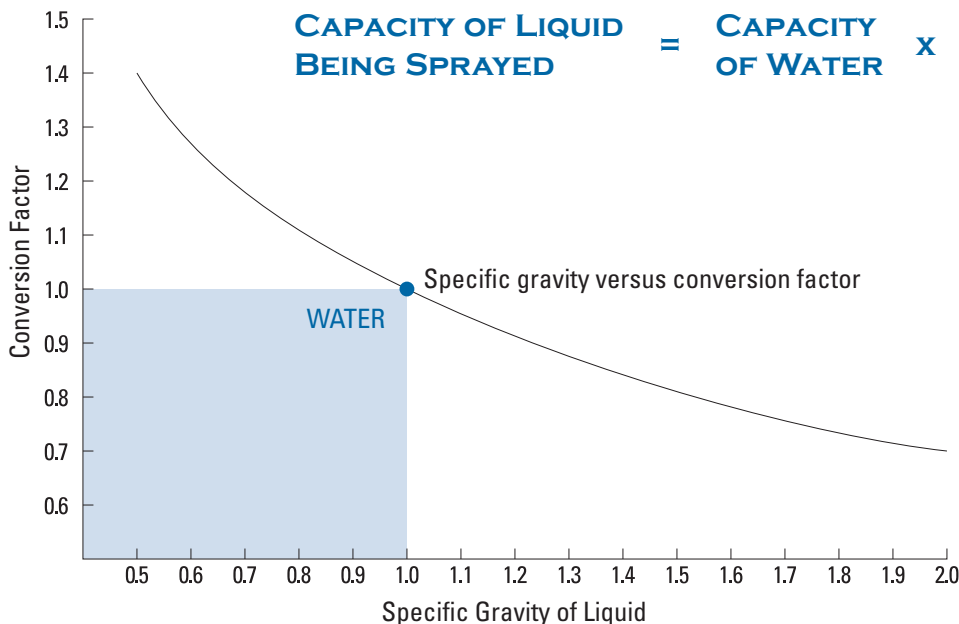
CAPACITY FACTORS FOR SPECIFIC NOZZLE TYPES

Nozzle Type	Exponent "n"
Hollow Cone Nozzles (All) Full Cone Nozzles (Vaneless) Full Cone Nozzles (15° and 30° Series) Flat Spray Nozzles (All) Solid Stream Nozzles (All) Spiral Nozzles (All)	.50
Full Cone Nozzles (Standard) Full Cone Nozzles (Square Spray) Full Cone Nozzles (Oval Spray) Full Cone Nozzles (Large Capacity)	.46
Full Cone Nozzles (Wide Spray) Full Cone Nozzles (Wide Square Spray)	.44

SPECIFIC GRAVITY

Specific gravity is the ratio of the mass of a given volume of liquid to the mass of the same volume of water. In spraying, the main effect of the specific gravity of a liquid (other than water) is on the capacity of the spray nozzle. Since the values in this catalog are based on spraying water, a conversion factor or formula can be applied to determine the nozzle capacity when using a liquid other than water.

$$\text{CAPACITY OF LIQUID BEING SPRAYED} = \text{CAPACITY OF WATER} \times \frac{1}{\sqrt{\text{SPECIFIC GRAVITY}}}$$



KEY: Conversion factor multiplied by the capacity of the nozzle when spraying water gives the capacity of the nozzle when spraying a liquid with a specific gravity corresponding to the conversion factor. This conversion factor accounts only for the effect of specific gravity on capacity and does not account for other factors affecting capacity.

