

Tank Cooling Nozzles



Description

Orion K-Series tank cooling nozzles are designed to apply cooling water efficiently to flat surfaces such as large flammable liquid storage tanks and ship's super structure. The nozzles produce a flat, wide-angle spray pattern that can efficiently apply water with very little water lost due to wind effects.

Orion K Series tank cooling nozzles are manufactured in Gunmetal and 316 stainless steel (other materials are also available) and have 15mm BSP Male inlet threads for nozzles with K-Factor up to 4.7 (litres per minute & kPa). Larger K-Factor nozzles (K-Factor up to 11) have a 20mm BSP Male inlet thread and up to a K-Factor of 21 for 25mm nozzles.

The spray pattern for the K Series nozzles is effectively 2400mm wide and has an included angle of 150° at a stand-off distance of 300mm. At a stand-off distance of 600mm the nozzle spray pattern is 3600mm wide. The standard discharge angle is at 90° to the nozzle axis.

The nozzles are recommended for use in tank cooling systems and other structural cooling applications involving relatively flat surfaces, including ship super-structure protection. With a 300mm stand-off distance the nozzles are spaced at two (2) meter centres and for a 600mm stand-off distance the nozzles can be spaced at three (3) meter centres. The spray should impact the surface at an angle of approximately 70°. If other stand-off distances are to be used contact us for engineering data.

ORION FIRE ENGINEERING PTY LIMITED

ABN 80 002 538 696

26A LYN PARADE PRESTONS NSW 2170 AUSTRALIA

Tel (61) 2 9426 7900

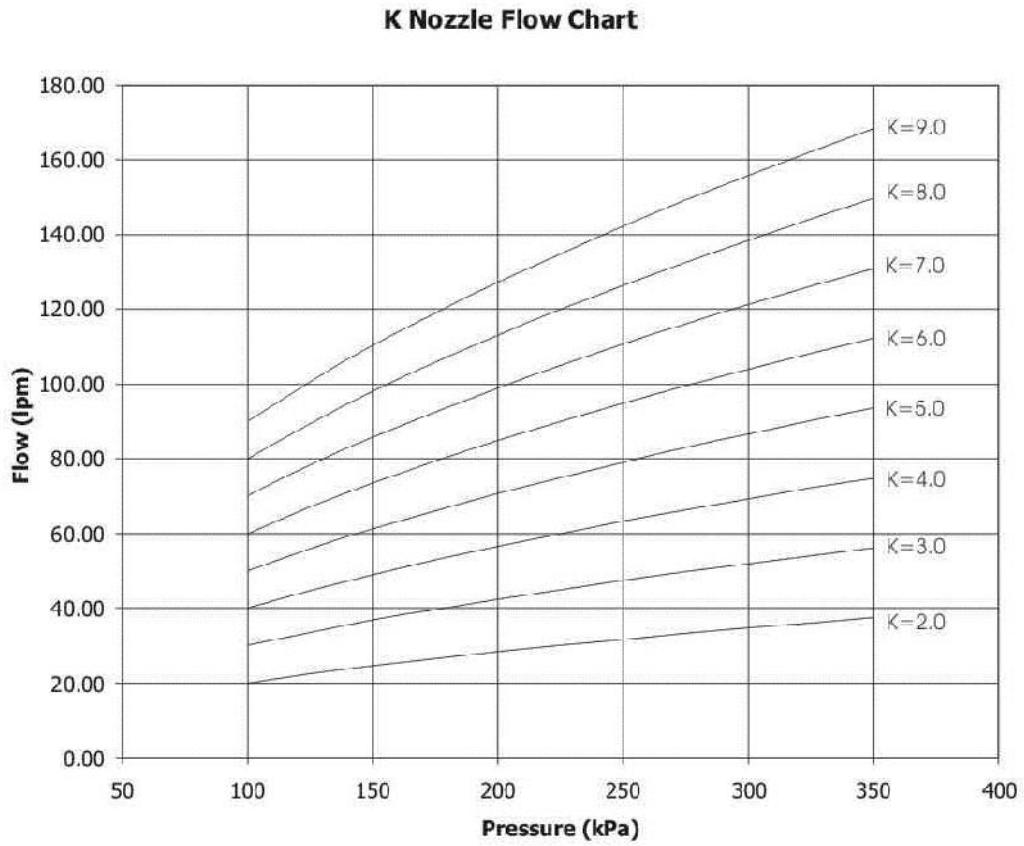
FAX (61) 2 8783 5400

Visit our Website www.orion-fire.com.au Email: sales@orion-fire.com.au

Performance Data

Flow determination

$$\text{Flow (lpm)} = \text{k-factor} \times (\text{pressure (kPa)})$$



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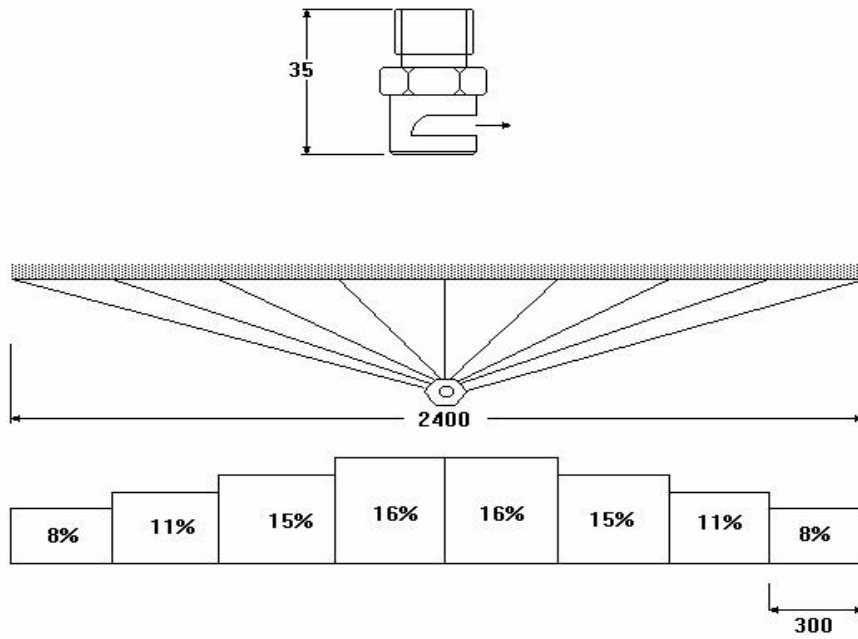
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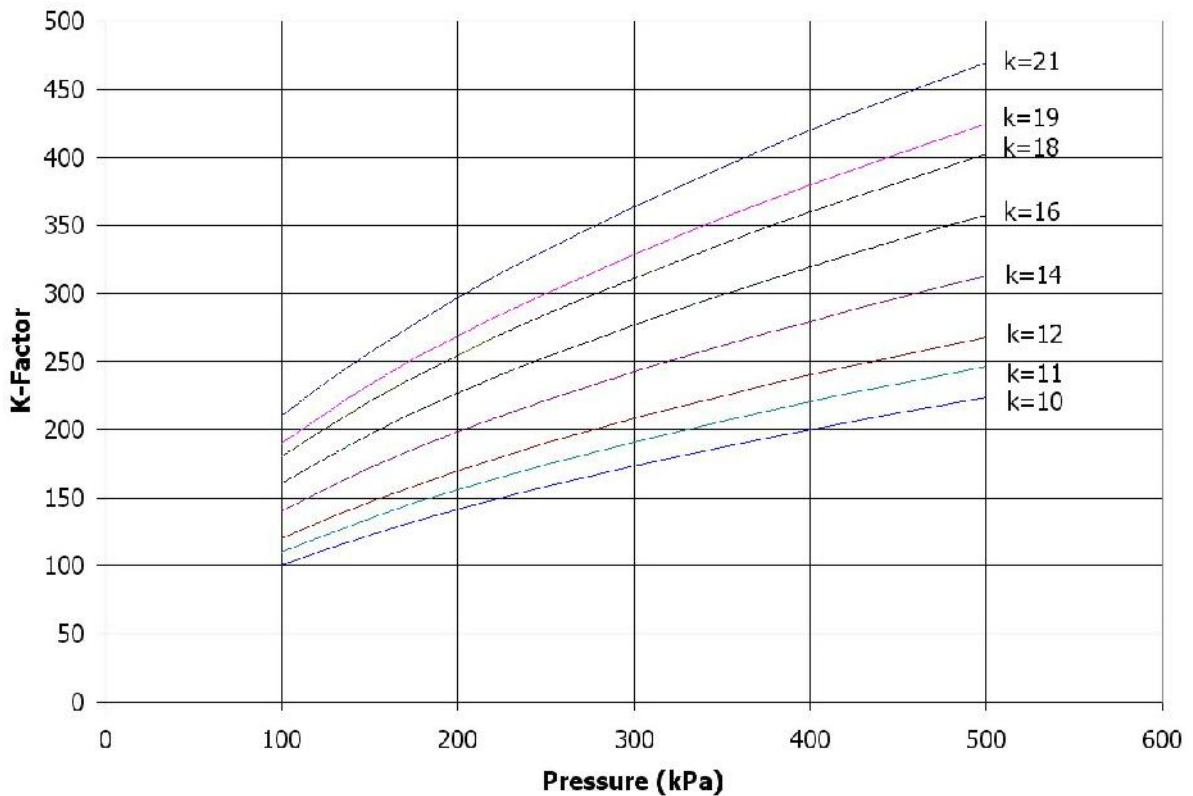
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Flow Chart 15 & 20mm Nozzles



Water distribution for 300mm Stand-off distance

K90 Nozzle Flow Chart



Flow Chart 25mm Nozzles

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