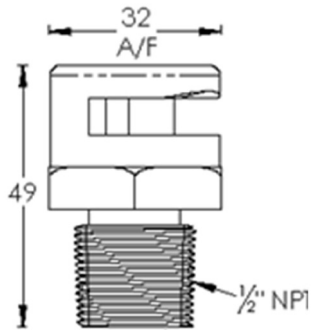
TANK COOLING

WATER SPRAY NOZZLE

Standard Nozzle Range				
K–Factor (Metric) Tol. ± 5%	**K–Factor** (US) Tol. ± 5%	**Thread** (Male)	**Approval**	**Brass** Part number (w.o. strainer**)
25	1,74	1/2" NPT	FM APPROVED	D372510N
45	3,13	1/2" NPT		D374510N
60	4,14	1/2" NPT		D376010N
85	5,86	1/2" NPT		D378510N

Alternative materials and K-factors (available on request)							
K–Factor. (Metric) ± 5%	**K–Factor. (US)** ± 5%	**Thread (Male)**	**Approval**	**Brass** Part number (w.o. strainer**)	**Alu.Bronze** Part number (w.o. strainer**)	**SS 316, St.Steel** Part number (w.o. strainer**)	**SMO, St.Steel** Part number (w.o. strainer**)
7	0,48	1/2" NPT	No approval	D370710N	D370770N	D370720N	D370709N
25	1.74	1/2" NPT	FM APPROVED		D372570N	D372520N	D372509N
29	2.02	1/2" NPT		D372910N	D372970N	D372920N	D372909N
45	3.13	1/2" NPT			D374570N	D374520N	D374509N
48	3.34	1/2" NPT		D374810N	D374870N	D374820N	D374809N
60	4.14	1/2" NPT			D376070N	D376020N	D376009N
70	4.82	1/2" NPT		D377010N	D377070N	D377020N	D377009N
77	5.31	1/2" NPT		D377710N	D377770N	D377720N	D377709N
85	5.86	1/2" NPT			D378570N	D378520N	D378509N



Recommended working pressure		
Min.	1 bar	14,5 PSI
Max.	9 bar	130,5 PSI

**)
STRAINER
According to FM standard 2021/2025, the Tankcool nozzle (all K-factors) must be provided with an individual, integral, or main line strainer, as the nozzle waterway is less than 11/32 inch (8,7mm).

NOTE :
When ordering, please specify if the nozzle is reguired with an inlet strainer fitted ! (strainer is not standard).

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The GW Tankcool nozzle is designed primarily for protection and cooling of fuel storage tank walls. Where possible, nozzles should be connected to the top of water lines, with the nozzles upright. The placement of nozzles surrounding process equipment is an essential feature of a water spray system.

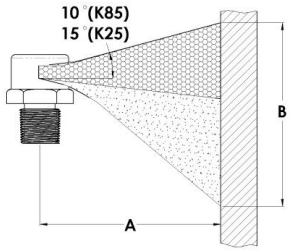
The nozzle configuration should direct water spray onto all exposed surfaces of the equipment to absorb heat from the fire and keep the equipment at a safe temperature.

Dry areas occurring because of incomplete nozzle coverage can result in the development of “hot spots”. Overheating of metal at hot spots reduces metal strength which might cause a pressurized vessel or pipeline to rupture, or a structure to collapse.

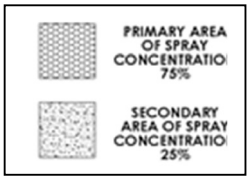
For system design guidance refer to e.g. NFPA 15 (National Fire Protection Association) or API (American Petroleum Institute).

Spray Pattern

Side view

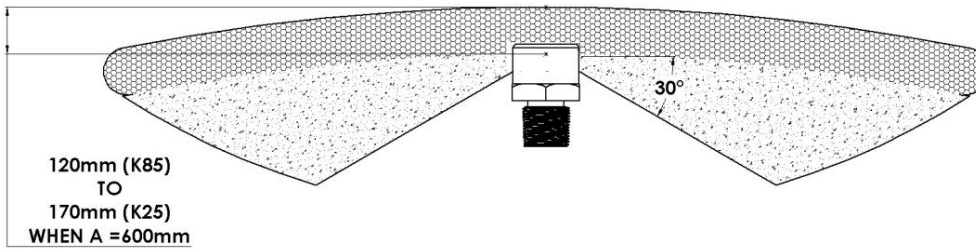


A max = 600 mm
B = 0.75 x A
C = 7.50 x A
D = 5.00 x A

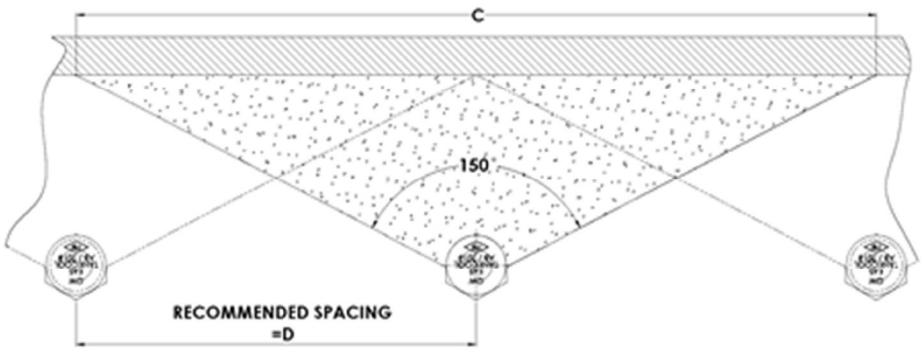


Water loss from tank wall
10 – 14 %

Back view



Top view



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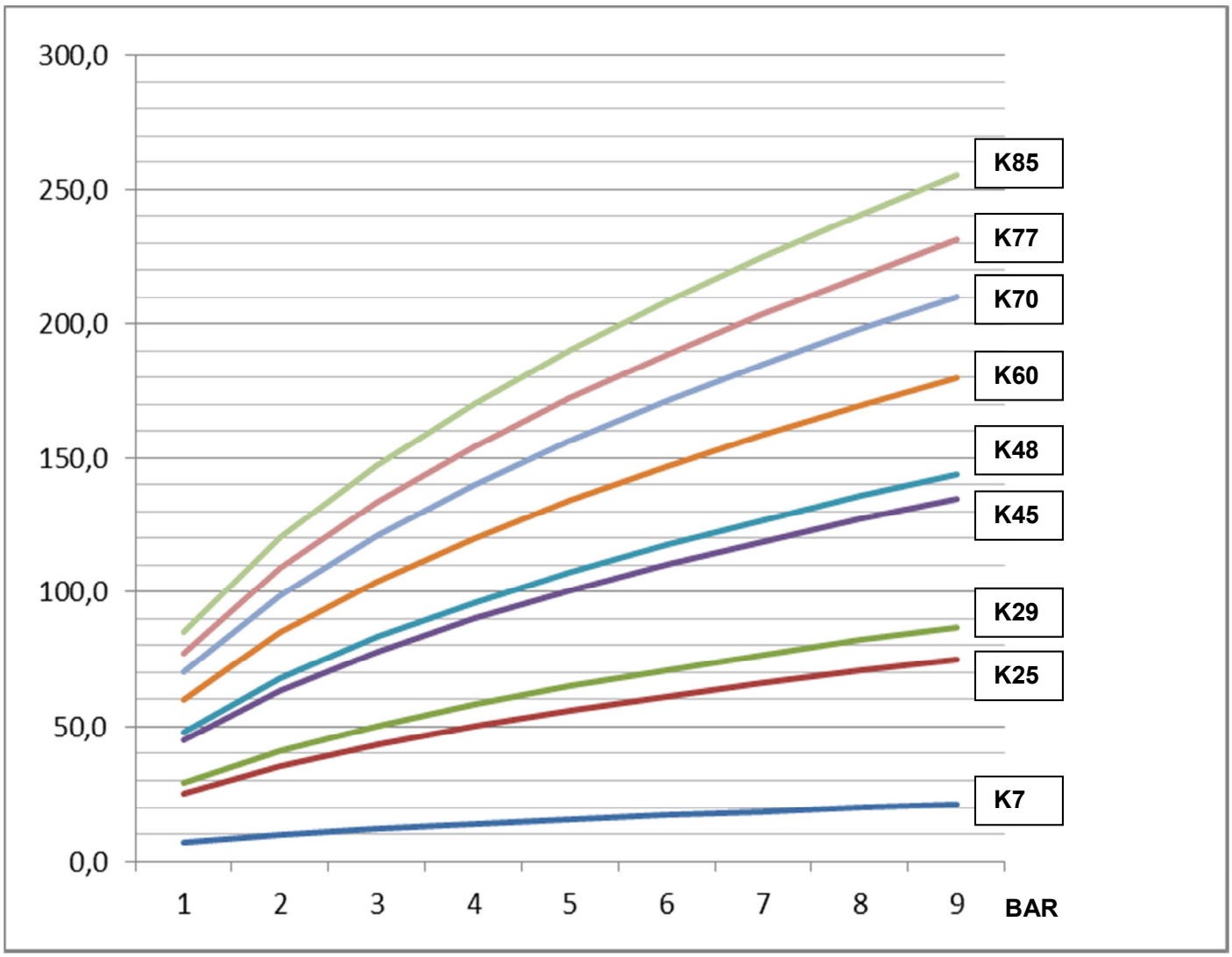
TANK COOLING

WATER SPRAY NOZZLE

Pressure / Flow



The pressure / flow relation is calculated based on the formula: **Q = K x √P**

Q = flow (l/min)
K = nozzle K-factor
P = water pressure at nozzle (Bar)

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