

CALCULATING FORMULAE

GAS	VAPORE - STEAM	LIQUIDO - LIQUID	ACQUA SURRISCALDATA SUPERHEATED WATER
$Q_m = p_o C A K_{dr} \sqrt{\frac{M}{Z T_o}} \text{ Kg/h}$	$Q_m = 0.2883 C A K_{dr} \sqrt{\frac{P_o}{V}} \text{ Kg/h}$	$Q_m = 1.61 K_{dr} K_v A \sqrt{\frac{P_o - P_b}{V}} \text{ Kg/h}$	$Q_m = 0.2883 C A K_{dr} \sqrt{\frac{P_o}{V}} r \text{ Kcal/h}$

LEGEND:

Symbol	Description	Symbol	Description
A	Flow area or a safety valves (not curtain area)	M	Molar mass
C	Function of the isentropic exponent	Po	Relieving pressure
Kd	Coefficient of discharge °)	Pb	Back pressure
Kdr	Certified derated coefficient of discharge (Kdx0.9) °)	V	Specific volume at actual relieving pressure and temperature
KV	Viscosity correction factor	r	Vaporisation heat (referred to absolute pressure)
K	Isentropic exponent	Z	Compressibility factor at actual relieving pressure and temperature