LOW EXPANSION FOAM SPRAY NOZZLE U3 TYPE

Foam spray nozzles U3 type are mounted on low expansion foam systems for protection of loading bays, airport hangars and large depots of flammable liquids.
They produce a low expansion foam rain (expansion rate 1 : 6.5).
Low expansion foam spray nozzles U3 type are equipped with inlet threading ½" or ¾" GAS male UNI338 or on request ½" or ¾" NPT ANSI B 2.1
Caccialanza low expansion foam spray nozzles U3 type are available for flowrates 30 ÷ 200 lt./min. at the working pressure of 5 bar.
On request a special copper filter can be mounted on the spray nozzle inlet nipple in order to collect eventual impurities in the water.

SPRAY ANGLE

Spray angle of these spray nozzles is 90°.

SPRAY NOZZLE MATERIAL

Caccialanza spray nozzles U3 type are in brass.

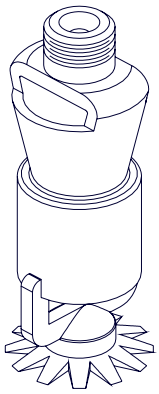
PIPE FLOWRATE

It is known that pressure drops increase with pumped liquid speed.
In order to reduce pressure drops, pipe sizes have to be defined considering a liquid speed between 2 and 3 m/sec.

FLOWRATE OF CACCIALANZA SPRAY NOZZLES

Caccialanza low expansion foam spray nozzles U3 type deliver foam compound as soon as they feeded by the distribution line.
Foam compound flowrate of the spray nozzle depends on feeding pressure; the higher the feeding pressure is, the higher the flowrate will be.
Flowrates are calculated with water at 20°C and can change depending on conditions of the jet and of the lines the spray nozzles are mounted on.

FEATURES OF LOW EXPANSION FOAM SPRAY NOZZLES U3 TYPE

Type	Description	
U3	It consists of cast brass body made up of a upper chamber in which, when in operation, speed of the liquid flowing out of the spray nozzle aspirates air through two slits in the upper part, this creates a first expansion of the foam compound and the jet-breaker is lower. This jet-breaker has a double function, to further expand the foam coumpound inside the chamber till the proper rate is reached and to spread foam on the surface to be protected with a preset spray angle. The nozzle threading is GAS male (on request the spray nozzle can be supplied also NPT male).	

DESIGNATION EXAMPLE

Spray nozzle type: **U3 x / xx xx**

- xx — Threading
- xx — Threading diameter
- x — Nominal flowrate l/min. at 5 bar

Designation examples:

- Foam spray nozzle type U3, required flowrate 60.0 *l/min*. at 5 *bar,* standard threading.

Model: **U3 60 / ½" GAS**

- Foam spray nozzle type U3, required flowrate 90.0 *l/min*. at 5 *bar*, optional threading ½" NPT male.

Model: **U3 90 / ½" NPT**

- Foam spray nozzle type U3, required flowrate 140.0 *l/min*. at 5 *bar,* threading NPT.

Model: **U3 140 / ¾" NPT**

LOW EXPANSION FOAM SPRAY NOZZLE U3 TYPE

Technical data

Spray nozzle			Flowrate *(l/min.)* at the pressure of *(bar)*							
Type	**Orifice** *(mm)*	**Threading**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
U3 / 30	4.75	½”	13	19	23	26	30	32	35	37
U3 / 40	5.50	½”	18	25	31	35	40	43	47	50
U3 / 50	6.00	½”	22	30	36	42	50	52	56	60
U3 / 60	6.50	½”	27	38	46	54	60	66	71	76
U3 / 80	7.50	½” / ¾”	36	52	64	74	80	90	97	104
U3 / 90	8.00	½” / ¾”	40	59	73	84	90	103	111	118
U3 / 100	8.50	½” / ¾”	45	67	82	95	100	116	125	134
U3 / 120	9.00	¾”	54	75	92	106	120	130	140	150
U3 / 140	10.00	¾”	63	93	113	131	140	160	173	185
U3 / 150	10.25	¾”	67	97	119	138	150	168	182	195
U3 / 200	11.75	¾”	90	127	156	180	200	220	237	254