

Characteristics

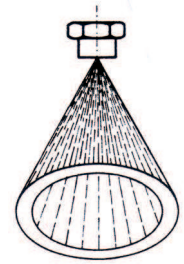
Inside of MC's hollow cone return nozzles **HR** a part of the liquid amount is discharged via a valve in the return, which decreases the liquid outlet of the nozzle without noteworthy fluctuations in spray angle and droplet size. The atomizing quality depends on nozzle size, control range and special operating conditions. Pressures above 40 bar result in finer droplets than the other way around.

Application

Gas treatment
Desuperheating steam

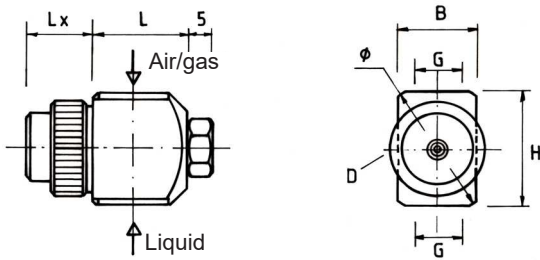
Material

Stainless steel,
Acid and heat resistant stainless steels



Hollow cone spray pattern

1. Dimensions

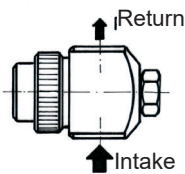


Type	G	L	L1*	H	B	Ø	Varies with air cap L x	D
HR 1-2	1/8" or 1/4"	25	45	30	20	34	17 to 21	24
HR 3-6	3/8" or 1/2"	38	68	50	30	52	20 to 28	33

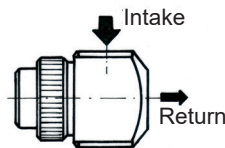
* Length of variant 3

2. Connection variants

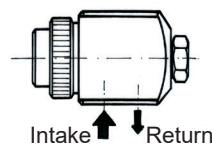
Variant 1 Standard



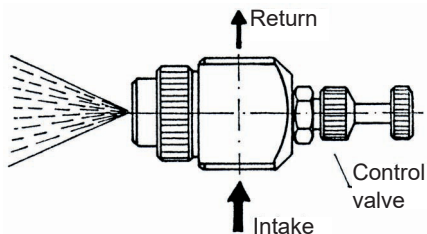
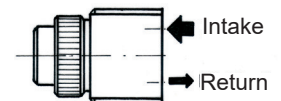
Variant 2 Most inexpensive variant; however, no control needle possible



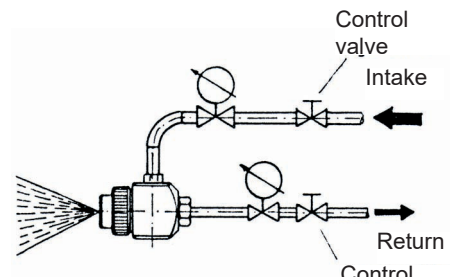
Variant 3 Both connections on one side



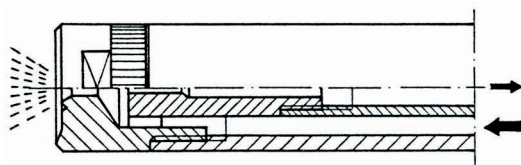
Variant 4 With connections on the backside



HR nozzle with integrated control valve



Rule example without integrated control valve



Rule example with nozzle lance
ZL 1/2" - HR-2
(other see page 11.1-11.4)

3. Dimensioning tool

Type	Flow rate at 42 bar		Control range	Spray angle
	min.	max.		
HR-1	1.13	11.3	10:01	75
HR-2	0.76	11.3	15:01	80
HR-3	1.89	18.9	10:01	85
HR-4	1.21	18.9	15:01	80
HR-5	2.65	26.5	10:01	85
HR-6	2.19	26.5	12:01	80