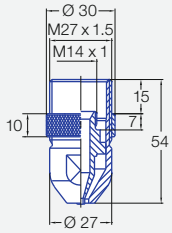
Twin-fluid atomizing nozzles for gas treatment
Series 76X

- Twin-fluid nozzle with external mixing for production of fine droplets
- Modular concept
- Wide range of combination options

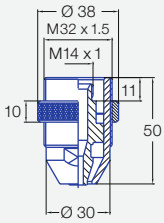
Applications:
Gas treatment, combustion processes.

Material:
Seawater-resistant stainless steels or stainless steels adapted to the combustion process.

- Solid stream nozzles for high-viscosity suspensions and fluids
- Nozzles with pre-atomization for high atomization efficiency



SN 1



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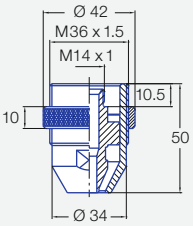
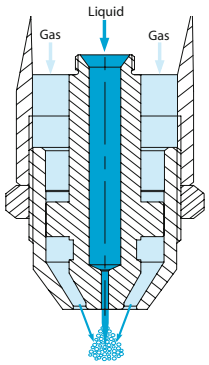
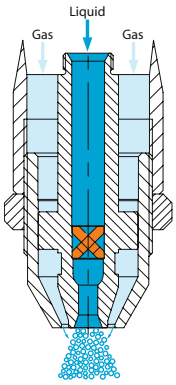


SN 3



Twin-fluid nozzle with external mixing and solid stream orifice

The delivered solid fluid stream is atomized by the gas into small droplets immediately outside the nozzle.



Twin-fluid nozzle with external mixing and pre-atomization

The fluid flows through an internal swirl insert, which causes the fluid to rotate. As a result, a full cone is formed at the orifice consisting of large droplets. These are then atomized into small droplets by the atomizing gas, which emerges from the annular gap. This is more efficient than solid stream atomization because the fluid is already in droplet form and the atomizing gas therefore has a greater attack surface area for the shear forces.

Overview of nozzle sizes

Nozzle/series		Size	Reference air pressure dp [bar]	Air flow rate [Nm³/h]
Solid stream orifice	**with pre-atomization**			
760.XX0.1Y	**761.XX6**	SN 1	3.0	25.00
762.XX0.1Y	**763.XX6**	SN 1	3.0	46.00
764.XX0.1Y	**765.XX6**	SN 2	3.0	110.00
–	**767.XX6**	SN 3	3.0	128.00
766.XX0.1Y	**–**	SN 3	3.0	180.00

Twin-fluid atomizing nozzles for lance mounting
Series 76X

Twin-fluid nozzle with external mixing and solid stream orifice

Flow rate								Atomizing air							
No.	Ordering no. / Type	B [mm]	$\dot{V}$ [l/min] l/min, p [bar]					Size	$\dot{V}$ [l/min] m³/h, p [bar]						Outside diameter of lance D [mm]
			1.00	0.7	0.5	0.3	0.1		1.00	2.00	3.00	4.00	5.00	6.00	
1	**760.050**	0.50	0.17	0.14	0.12	0.09	0.05	SN 1	12.50	18.75	25.00	31.25	37.50	43.75	30.00
	760.100	1.00	0.67	0.56	0.47	0.36	0.21								
	760.150	1.50	1.50	1.25	1.06	0.82	0.47								
	760.200	2.00	2.66	2.23	1.88	1.46	0.84								
	760.250	2.50	4.16	3.48	2.94	2.28	1.32								
	760.300	3.00	5.99	5.02	4.24	3.28	1.90								
2	**762.150**	1.50	1.50	1.25	1.06	0.82	0.47	SN 1	23.00	35.50	46.00	57.50	69.00	80.50	30.00
	762.200	2.00	2.66	2.23	1.88	1.46	0.84								
	762.250	2.50	4.16	3.48	2.94	2.28	1.32								
	762.300	3.00	5.99	5.02	4.24	3.28	1.90								
	762.320	3.20	6.82	5.71	4.82	3.74	2.16								
3	**764.300**	3.00	5.99	5.02	4.24	3.28	1.90	SN 2	55.00	82.50	110.00	137.50	165.00	192.00	38.00
	764.500	5.00	16.65	13.93	11.78	9.12	5.27								
4	**766.300**	3.00	5.99	5.02	4.24	3.28	1.90	SN 3	90.00	135.00	180.00	225.00	270.00	315.00	42.00
	766.500	5.00	16.65	13.93	11.78	9.12	5.27								

B = bore diameter
Materials on request

Twin-fluid nozzle with external mixing and pre-atomization

Flow rate										Atomizing air							
No.	Ordering no. / Type	B [mm]	E [mm]	$\dot{V}$ [l/min] l/min, p [bar]						Size	$\dot{V}$ [l/min] m³/h, p [bar]						Outside diameter of lance D [mm]
				1.00	2.00	3.00	4.00	5.00	6.00		1.00	2.00	3.00	4.00	5.00	6.00	
1	**761.446.1Y.00**	1.30	1.00	0.95	1.25	1.47	1.65	1.80	1.94	SN 1	12.50	18.75	25.00	31.25	37.50	43.75	30.00
	761.486.1Y.00	1.45	1.20	1.21	1.60	1.88	2.11	2.31	2.48								
	761.506.1Y.00	1.45	1.20	1.36	1.80	2.12	2.38	2.60	2.79								
	761.526.1Y.00	1.65	1.30	1.52	2.00	2.35	2.64	2.89	3.10								
	761.566.1Y.00	1.85	1.30	1.89	2.50	2.94	3.30	3.61	3.88								
	761.606.1Y.00	2.05	1.65	2.39	3.15	3.70	4.16	4.54	4.89								
2	**763.446.1Y.00**	1.30	1.00	0.95	1.25	1.47	1.65	1.80	1.94	SN 1	23.00	35.50	46.00	57.50	69.00	80.50	30.00
	763.486.1Y.00	1.45	1.20	1.21	1.60	1.88	2.11	2.31	2.48								
	763.506.1Y.00	1.45	1.20	1.36	1.80	2.12	2.38	2.60	2.79								
	763.526.1Y.00	1.65	1.30	1.52	2.00	2.35	2.64	2.89	3.10								
	763.566.1Y.00	1.85	1.30	1.89	2.50	2.94	3.30	3.61	3.88								
	763.606.1Y.00	2.05	1.65	2.39	3.15	3.70	4.16	4.54	4.89								
3	**765.486.1Y.00**	1.65	1.30	1.21	1.60	1.88	2.11	2.31	2.48	SN 2	55.00	82.50	110.00	137.50	165.00	192.00	38.00
	765.646.1Y.00	2.30	1.80	3.03	4.00	4.70	5.28	5.77	6.21								
	765.746.1Y.00	3.30	1.90	5.38	7.10	8.35	9.37	10.24	11.02								
4	**767.646.1Y.00**	2.30	1.80	3.03	4.00	4.70	5.28	5.77	6.21	SN 3	64.00	96.00	128.00	160.00	192.00	224.00	42.00
	767.766.1Y.00	3.30	2.40	6.06	8.00	9.41	10.56	11.54	12.41								
	767.846.1Y.00	4.05	3.20	9.47	12.50	14.70	16.49	18.03	19.40								

B = bore diameter · E = narrowest free cross section
Materials on request