Pneumatic atomizing nozzles, flat fan, pressure principle, external mixing
Series 166.6

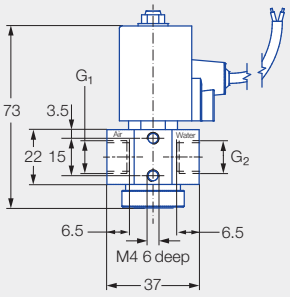
Features:
- Version with magnetic valve
- Fine flat fan atomization
- Liquid pressure principle
- External mixing

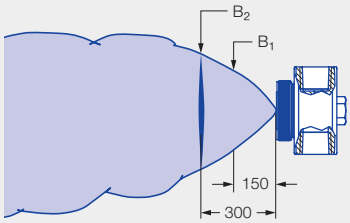
Applications:
- Belt humidification
- Cooling
- Humidification of goods
- Atomization of viscous liquids

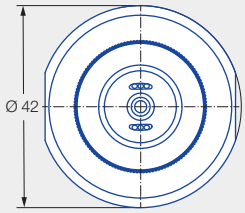
Technical data:
- Operating pressure: 0–6 bar
- Voltage: 24 V DC
- Power: 8 W
- Switching frequency: Approx. 500/min
- Protective system: IP 67
- Ambient temperature: +10 °C /+50 °C
- Cable length: 1,000 mm
- Material of gasket: EPDM



Series 166.6







Air connection G_1	Water connection G_2	Weight [g]
1/4 BSPP	1/4 BSPP	410

Spray angle	Ordering no. Type	Mat. no. 16 Stainless steel 303	Narrowest free cross section Ø [mm]	Liquid pressure p [bar] 0.07 p air [bar]	0.07 V̇ water [l/h]	0.07 V̇n air [m³/h]	0.15 p air [bar]	0.15 V̇ water [l/h]	0.15 V̇n air [m³/h]	0.30 p air [bar]	0.30 V̇ water [l/h]	0.30 V̇n air [m³/h]	0.35 p air [bar]	0.35 V̇ water [l/h]	0.35 V̇n air [m³/h]	Spray dimensions p air [bar]	p water [bar]	B1 [mm]	B2 [mm]
45°	166.616.xx.A2	●	0.40	0.80	**1.68**	2.50	0.80	**2.43**	2.40	0.80	**3.42**	2.50	1.00	**3.69**	2.80	1.40	0.07	80	115
				1.20	**1.80**	3.10	1.00	**2.46**	2.90	1.20	**3.48**	3.10	1.40	**3.81**	3.40	2.20	0.15	90	130
				1.60	**1.92**	3.70	1.40	**2.58**	3.60	1.60	**3.51**	3.70	1.80	**3.87**	4.00	3.20	0.20	90	135
				2.00	**2.10**	4.30	1.80	**2.61**	4.20	2.00	**3.63**	4.30	2.20	**3.84**	4.60	4.00	0.30	95	145
				2.40	**2.07**	4.90	2.20	**2.76**	4.80	2.40	**3.63**	4.90	2.60	**3.90**	5.20	5.00	0.35	100	145
				2.80	**2.19**	5.50	2.60	**2.73**	5.40	2.80	**3.63**	5.50	3.00	**3.93**	5.80	–	–	–	–
				3.20	**2.19**	6.10	3.00	**2.73**	6.00	3.20	**3.63**	6.10	3.40	**3.90**	6.40	–	–	–	–
				3.60	**2.22**	6.70	3.60	**2.76**	6.70	3.60	**3.66**	6.70	3.80	**3.93**	7.00	–	–	–	–
				4.00	**2.22**	7.30	4.00	**2.76**	7.30	4.00	**3.69**	7.30	4.20	**3.96**	7.60	–	–	–	–
				4.40	**2.22**	7.90	4.40	**2.76**	7.90	4.40	**3.69**	7.90	4.60	**3.93**	8.20	–	–	–	–
				4.80	**2.22**	8.50	4.80	**2.76**	8.50	4.80	**3.69**	8.40	5.00	**3.93**	8.80	–	–	–	–
				5.20	**2.22**	9.10	5.20	**2.76**	9.10	5.20	**3.66**	9.10	5.40	**3.93**	9.40	–	–	–	–
				5.60	**2.22**	9.60	5.60	**2.76**	9.70	5.60	**3.66**	9.60	5.80	**3.87**	10.00	–	–	–	–
				6.00	**2.22**	10.20	6.00	**2.73**	10.20	6.00	**3.66**	10.20	6.00	**3.87**	10.20	–	–	–	–
	166.654.xx.A2	●	0.70	0.80	**5.25**	2.40	0.80	**7.29**	2.40	1.20	**10.11**	3.10	1.60	**11.07**	3.70	1.40	0.07	95	135
				1.20	**5.64**	3.10	1.20	**7.44**	3.10	1.60	**10.23**	3.70	2.00	**11.22**	4.30	2.20	0.15	100	150
				1.60	**5.79**	3.70	1.60	**7.62**	3.70	2.00	**10.38**	4.30	2.40	**11.28**	4.90	3.20	0.20	105	160
				2.00	**6.18**	4.30	2.00	**7.86**	4.30	2.40	**10.47**	4.90	2.80	**11.31**	5.50	4.00	0.30	105	160
				2.40	**6.24**	4.90	2.40	**7.92**	4.90	2.80	**10.59**	5.50	3.20	**11.43**	6.10	5.00	0.35	105	160
				2.80	**6.27**	5.50	2.80	**8.04**	5.50	3.20	**10.59**	6.10	3.60	**11.46**	6.60	–	–	–	–
				3.20	**6.39**	6.10	3.20	**8.13**	6.10	3.60	**10.62**	6.70	4.00	**11.43**	7.20	–	–	–	–
				3.60	**6.42**	6.60	3.60	**8.13**	6.70	4.00	**10.62**	7.20	4.40	**11.37**	7.80	–	–	–	–
				4.00	**6.45**	7.20	4.00	**8.13**	7.20	4.40	**10.62**	7.80	4.80	**11.37**	8.40	–	–	–	–
				4.40	**6.42**	7.80	4.40	**8.07**	7.80	4.80	**10.59**	8.40	5.20	**11.34**	9.00	–	–	–	–
				4.80	**6.30**	8.40	4.80	**8.04**	8.40	5.20	**10.56**	9.00	5.60	**11.22**	9.60	–	–	–	–
				5.20	**6.24**	9.00	5.20	**7.86**	9.00	5.60	**10.50**	9.60	6.00	**11.16**	10.10	–	–	–	–
				5.60	**6.09**	9.60	5.60	**7.83**	9.60	6.00	**10.35**	10.20	–	–	–	–	–	–	–
				6.00	**5.85**	10.20	6.00	**7.59**	10.20	–	–	–	–	–	–	–	–	–	–

Spray angle	Ordering no.		Narrowest free cross section Ø [mm]	Liquid pressure p [bar]												Spray dimensions			
	Type	Mat. no. 16 Stainless steel 303		0.07			0.15			0.30			0.35						
				p air [bar]	**V̇** water [l/h]	$\dot{V}_n$ air [m³/h]	**p** air [bar]	**V̇** water [l/h]	$\dot{V}_n$ air [m³/h]	**p** air [bar]	**V̇** water [l/h]	$\dot{V}_n$ air [m³/h]	**p** air [bar]	**V̇** water [l/h]	$\dot{V}_n$ air [m³/h]	**p** air [bar]	**p** water [bar]	B_1 [mm]	B_2 [mm]
60°	**166.626.xx.A2**	●	0.40	0.80	**1.83**	2.80	0.80	**2.49**	2.80	0.80	**3.48**	2.80	0.80	**3.78**	2.80	1.60	0.07	85	135
				1.20	**1.98**	3.60	1.20	**2.58**	3.50	1.20	**3.60**	3.50	1.20	**3.87**	3.60	2.40	0.15	90	140
				1.60	**2.10**	4.30	1.60	**2.70**	4.20	1.60	**3.66**	4.30	1.60	**3.90**	4.20	3.20	0.20	90	140
				2.00	**2.16**	4.90	2.00	**2.82**	4.90	2.00	**3.69**	4.90	2.00	**3.96**	4.90	4.00	0.30	100	145
				2.40	**2.25**	5.60	2.40	**2.85**	5.60	2.40	**3.69**	5.60	2.40	**3.96**	5.60	5.20	0.35	105	150
				2.80	**2.34**	6.30	2.80	**2.88**	6.30	2.80	**3.72**	6.30	2.80	**4.02**	6.30	–	–	–	–
				3.20	**2.31**	7.00	3.20	**2.88**	7.00	3.20	**3.78**	7.00	3.20	**3.99**	7.00	–	–	–	–
				3.60	**2.34**	7.60	3.60	**2.88**	7.70	3.60	**3.78**	7.60	3.60	**4.02**	7.70	–	–	–	–
				4.00	**2.40**	8.40	4.00	**2.94**	8.40	4.00	**3.81**	8.30	4.00	**4.05**	8.30	–	–	–	–
				4.40	**2.40**	9.00	4.40	**2.91**	9.00	4.40	**3.81**	9.00	4.40	**4.02**	9.00	–	–	–	–
				4.80	**2.40**	9.70	4.80	**2.97**	9.70	4.80	**3.81**	9.70	4.80	**4.08**	9.70	–	–	–	–
				5.20	**2.43**	10.40	5.20	**2.97**	10.40	5.20	**3.81**	10.40	5.20	**4.05**	10.40	–	–	–	–
				5.60	**2.43**	11.20	5.60	**2.97**	11.10	5.60	**3.81**	11.10	5.60	**4.05**	11.00	–	–	–	–
				6.00	**2.43**	11.80	6.00	**2.97**	11.80	6.00	**3.81**	11.80	6.00	**4.05**	11.80	–	–	–	–
	166.682.xx.A2	●	1.50	1.00	**22.41**	7.50	1.40	**28.95**	9.30	1.80	**41.22**	11.10	2.00	**44.04**	11.80	1.60	0.07	110	155
				1.40	**20.19**	9.30	1.80	**26.07**	10.90	2.20	**34.92**	12.60	2.40	**39.09**	13.40	2.40	0.15	120	155
				1.80	**18.75**	11.00	2.20	**23.94**	12.50	2.60	**33.18**	14.20	2.80	**35.16**	15.10	3.20	0.20	120	160
				2.20	**17.88**	12.50	2.60	**22.23**	14.30	3.00	**30.45**	15.90	3.20	**32.22**	16.70	4.00	0.30	120	165
				2.60	**17.10**	14.20	3.00	**21.12**	15.90	3.40	**28.29**	17.50	3.60	**30.18**	18.30	5.20	0.35	120	175
				3.00	**16.47**	15.90	3.40	**20.10**	17.50	3.80	**26.64**	19.10	4.00	**28.32**	19.90	–	–	–	–
				3.40	**16.08**	17.50	3.80	**19.44**	19.10	4.20	**25.35**	20.70	4.40	**26.94**	21.50	–	–	–	–
				3.80	**15.90**	19.10	4.20	**18.99**	20.70	4.60	**24.24**	22.30	4.80	**25.59**	23.10	–	–	–	–
				4.20	**15.90**	20.70	4.60	**18.45**	22.30	5.00	**23.13**	24.00	5.20	**24.36**	24.80	–	–	–	–
				4.60	**15.81**	22.30	5.00	**18.18**	24.00	5.40	**22.14**	25.50	5.60	**23.28**	26.40	–	–	–	–
				5.00	**15.21**	23.90	5.40	**17.25**	25.40	5.80	**21.12**	27.20	6.00	**22.17**	28.00	–	–	–	–
				5.40	**13.92**	25.50	5.80	**15.72**	27.20	6.00	**20.67**	28.00	–	**–**	–	–	–	–	–
				5.80	**12.09**	27.20	6.00	**14.91**	28.00	–	**–**	–	–	**–**	–	–	–	–	–
				6.00	**11.07**	28.00	–	**–**	–	–	**–**	–	–	**–**	–	–	–	–	–
	166.691.xx.A2	●	2.50	1.40	**52.00**	13.80	2.00	**67.30**	17.50	2.60	**92.30**	21.20	2.60	**102.10**	21.20	1.60	0.07	150	200
				1.80	**50.00**	16.30	2.40	**64.60**	20.10	3.00	**87.70**	23.60	3.00	**97.20**	23.70	2.40	0.15	160	205
				2.20	**48.60**	18.80	2.80	**62.00**	22.50	3.40	**84.30**	26.00	3.40	**92.50**	26.10	3.20	0.20	160	205
				2.60	**47.50**	21.30	3.20	**60.40**	24.90	3.80	**80.70**	28.50	3.80	**88.40**	28.50	4.00	0.30	160	210
				3.00	**46.50**	23.70	3.60	**58.00**	27.30	4.20	**77.00**	30.90	4.20	**85.20**	31.00	5.20	0.35	150	210
				3.40	**45.40**	26.10	4.00	**56.20**	29.80	4.60	**74.40**	33.40	4.60	**81.30**	33.40	–	–	–	–
				3.80	**44.40**	28.60	4.40	**54.20**	32.10	5.00	**71.10**	35.90	5.00	**78.20**	35.80	–	–	–	–
				4.20	**42.90**	31.00	4.80	**52.40**	34.70	5.40	**68.10**	38.30	5.40	**74.30**	38.20	–	–	–	–
				4.60	**41.50**	33.40	5.20	**49.90**	37.10	5.80	**64.30**	40.80	5.80	**71.10**	40.70	–	–	–	–
				5.00	**39.90**	35.80	5.60	**48.10**	39.50	6.00	**63.20**	42.00	6.00	**68.90**	41.90	–	–	–	–
				5.40	**38.90**	38.30	6.00	**46.40**	42.00	–	**–**	–	–	**–**	–	–	–	–	–
				5.60	**38.50**	39.40	–	**–**	–	–	**–**	–	–	**–**	–	–	–	–	–

Ordering example:	Type	+	Material no.	=	Ordering no.
	166.626.xx.A2	+	16	=	166.626.16.A2