

# ➤ Pneumatic atomizing nozzles, flat fan, pressure principle, internal mixing Series 166.4

### Features:

- Version with magnetic valve
- Fine flat fan atomization
- Liquid pressure principle
- Internal mixing

### Applications:

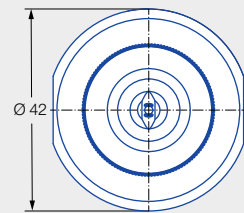
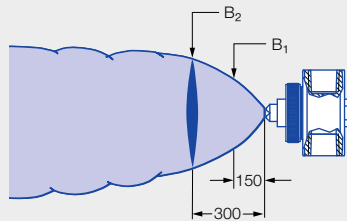
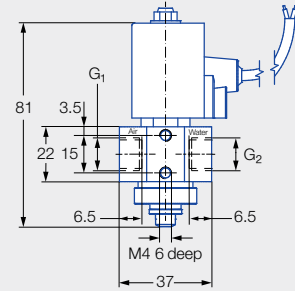
- Belt humidification
- Cooling
- Humidification of goods

### 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 166.4



Air connection G <sub>1</sub>	Water connection G <sub>2</sub>	Weight [g]
1/4 BSPP	1/4 BSPP	410

Spray angle	Ordering no.		Narrowest free cross section Ø [mm]	Liquid pressure p [bar]												Spray dimensions							
	Type	Mat. no.		0.7				1.5				3.0				4.0				p [bar]	p [bar]	B <sub>1</sub> [mm]	B <sub>2</sub> [mm]
		16		p air [bar]	v water [l/h]	v air [m <sup>3</sup> /h]	p air [bar]	v water [l/h]	v air [m <sup>3</sup> /h]	p air [bar]	v water [l/h]	v air [m <sup>3</sup> /h]	p air [bar]	v water [l/h]	v air [m <sup>3</sup> /h]								
45°	166.414.xx.A2	●	0.7	1.0	<b>7.7</b>	1.3	1.4	<b>14.3</b>	1.5	2.2	<b>22.4</b>	2.0	3.0	<b>25.1</b>	2.5	1.4	0.7	85	125				
				1.2	<b>6.0</b>	1.5	1.6	<b>13.0</b>	1.6	2.6	<b>20.0</b>	2.3	3.4	<b>23.0</b>	2.8	2.4	1.5	100	145				
				1.4	<b>4.2</b>	1.7	1.8	<b>11.6</b>	1.8	3.0	<b>17.7</b>	2.6	3.8	<b>20.9</b>	3.1	3.2	2.0	105	155				
				1.6	<b>2.7</b>	1.9	2.0	<b>10.2</b>	2.0	3.4	<b>15.5</b>	3.0	4.2	<b>18.9</b>	3.5	3.8	3.0	120	170				
				1.8	<b>1.3</b>	2.1	2.2	<b>8.9</b>	2.2	3.8	<b>13.3</b>	3.4	4.6	<b>16.9</b>	3.8	4.6	4.0	130	210				
				-	-	-	2.4	<b>7.4</b>	2.4	4.2	<b>11.0</b>	3.7	5.0	<b>14.9</b>	4.2	-	-	-	-	-			
				-	-	-	2.6	<b>5.9</b>	2.6	4.6	<b>8.8</b>	4.1	5.4	<b>12.8</b>	4.6	-	-	-	-	-			
				-	-	-	2.8	<b>4.6</b>	2.8	5.0	<b>6.6</b>	4.5	5.8	<b>10.8</b>	5.0	-	-	-	-	-			
				-	-	-	3.0	<b>3.2</b>	3.0	5.4	<b>4.3</b>	4.9	6.0	<b>9.8</b>	5.2	-	-	-	-	-			
				-	-	-	3.2	<b>2.1</b>	3.2	5.8	<b>2.5</b>	5.3	-	-	-	-	-	-	-	-			
	-	-	-	3.4	<b>1.1</b>	3.4	6.0	<b>1.6</b>	5.5	-	-	-	-	-	-	-	-						
	166.462.xx.A2	●	1.5	1.2	<b>19.0</b>	2.6	2.0	<b>22.0</b>	2.0	3.0	<b>61.8</b>	4.0	3.8	<b>76.1</b>	4.6	1.2	0.7	120	140				
				1.6	<b>12.2</b>	3.4	2.4	<b>18.0</b>	2.4	3.4	<b>51.9</b>	4.8	4.0	<b>70.4</b>	5.1	2.4	1.5	120	170				
				2.0	<b>9.4</b>	4.1	2.8	<b>14.4</b>	2.8	3.8	<b>44.6</b>	5.8	4.2	<b>65.6</b>	5.5	3.2	2.0	120	175				
				2.4	<b>7.1</b>	4.8	3.2	<b>11.3</b>	3.2	4.2	<b>39.0</b>	6.6	4.4	<b>61.3</b>	5.9	3.8	3.0	140	205				
				2.8	<b>5.7</b>	5.4	3.6	<b>8.8</b>	3.6	4.6	<b>33.4</b>	7.4	4.6	<b>57.3</b>	6.4	6.0	4.0	145	205				
				3.2	<b>5.0</b>	6.0	4.0	<b>8.1</b>	3.9	5.0	<b>29.4</b>	8.1	4.8	<b>54.1</b>	6.7	-	-	-	-				
				3.6	<b>3.6</b>	6.6	4.4	<b>6.2</b>	4.3	5.4	<b>25.5</b>	8.9	5.0	<b>51.3</b>	7.2	-	-	-	-				
				4.0	<b>3.2</b>	7.2	4.8	<b>4.6</b>	4.6	5.8	<b>22.0</b>	9.6	5.2	<b>49.3</b>	7.7	-	-	-	-				
				4.4	<b>2.2</b>	7.8	5.2	<b>3.2</b>	4.9	6.0	<b>20.6</b>	9.9	5.4	<b>46.5</b>	8.2	-	-	-	-				
-				-	-	5.6	<b>1.6</b>	5.3	-	-	-	5.6	<b>43.7</b>	8.6	-	-	-	-					
-	-	-	5.8	<b>0.8</b>	5.4	-	-	-	5.8	<b>41.3</b>	8.9	-	-	-	-								
-	-	-	-	-	-	-	-	-	6.0	<b>39.0</b>	9.3	-	-	-	-								





Spray angle	Ordering no.		Narrowest free cross section Ø [mm]	Liquid pressure p [bar]												Spray dimensions				
	Type	Mat. no.		0.7			1.5			3.0			4.0			p air [bar]	p water [bar]	B <sub>1</sub> [mm]	B <sub>2</sub> [mm]	
		16		p air [bar]	V <sub>w</sub> water [l/h]	V <sub>a</sub> air [m <sup>3</sup> /h]	p air [bar]	V <sub>w</sub> water [l/h]	V <sub>a</sub> air [m <sup>3</sup> /h]	p air [bar]	V <sub>w</sub> water [l/h]	V <sub>a</sub> air [m <sup>3</sup> /h]	p air [bar]	V <sub>w</sub> water [l/h]	V <sub>a</sub> air [m <sup>3</sup> /h]					
60°	166.425.xx.A2	●	0.5	0.8	<b>6.5</b>	1.2	1.4	<b>9.4</b>	1.7	2.4	<b>13.2</b>	2.5	2.4	<b>16.1</b>	2.5	1.2	0.7	155	195	
				1.2	<b>5.5</b>	1.6	1.8	<b>8.7</b>	2.1	2.6	<b>12.9</b>	2.7	2.8	<b>15.5</b>	2.9	2.2	1.5	165	255	
				1.6	<b>4.7</b>	1.9	2.2	<b>7.9</b>	2.4	3.0	<b>12.3</b>	3.0	3.2	<b>15.0</b>	3.2	3.0	2.0	170	265	
				2.0	<b>4.0</b>	2.3	2.6	<b>7.2</b>	2.7	3.4	<b>11.8</b>	3.4	3.6	<b>14.5</b>	3.5	3.4	3.0	200	330	
				2.4	<b>3.2</b>	2.6	3.0	<b>6.4</b>	3.1	3.8	<b>11.1</b>	3.7	4.0	<b>13.9</b>	3.8	5.6	4.0	200	330	
				2.8	<b>2.6</b>	2.9	3.4	<b>5.7</b>	3.4	4.2	<b>10.4</b>	4.0	4.4	<b>13.4</b>	4.1	-	-	-	-	-
				3.0	<b>2.2</b>	3.1	3.8	<b>5.1</b>	3.7	4.6	<b>9.8</b>	4.3	4.8	<b>12.8</b>	4.5	-	-	-	-	-
				-	-	-	4.0	<b>4.8</b>	3.9	5.0	<b>9.2</b>	4.6	5.2	<b>12.2</b>	4.8	-	-	-	-	-
				-	-	-	4.4	<b>4.2</b>	4.2	5.4	<b>8.6</b>	5.0	5.6	<b>11.7</b>	5.1	-	-	-	-	-
				-	-	-	4.8	<b>3.6</b>	4.5	5.8	<b>8.1</b>	5.3	6.0	<b>11.2</b>	5.4	-	-	-	-	-
	-	-	-	5.2	<b>2.8</b>	4.8	6.0	<b>7.8</b>	5.4	-	-	-	-	-	-	-	-			
	-	-	-	5.6	<b>2.2</b>	5.1	-	-	-	-	-	-	-	-	-	-	-			
	-	-	-	6.0	<b>1.6</b>	5.5	-	-	-	-	-	-	-	-	-	-	-			
	166.452.xx.A2	●	1.5	1.0	<b>18.8</b>	3.9	1.8	<b>31.0</b>	5.3	3.2	<b>50.1</b>	7.7	3.8	<b>70.7</b>	8.2	1.0	0.7	130	185	
				1.4	<b>8.6</b>	5.7	2.0	<b>25.4</b>	6.3	3.6	<b>39.5</b>	9.4	4.2	<b>58.6</b>	9.6	1.8	1.5	150	240	
				1.8	<b>7.4</b>	7.0	2.2	<b>20.1</b>	7.2	4.0	<b>31.3</b>	11.2	4.6	<b>48.6</b>	11.2	2.6	2.0	155	245	
				2.2	<b>4.1</b>	8.4	2.4	<b>15.5</b>	8.0	4.4	<b>24.0</b>	12.9	5.0	<b>41.2</b>	13.1	3.6	3.0	175	280	
				2.6	<b>1.0</b>	9.8	2.6	<b>12.4</b>	8.9	4.8	<b>17.7</b>	14.5	5.4	<b>33.6</b>	14.8	5.0	4.0	180	285	
				2.8	<b>0.1</b>	10.3	2.8	<b>10.4</b>	9.6	5.2	<b>13.4</b>	16.0	5.8	<b>27.5</b>	16.4	-	-	-	-	-
				-	-	-	-	-	-	5.6	<b>10.6</b>	17.5	6.0	<b>24.4</b>	17.2	-	-	-	-	-
-				-	-	-	-	-	6.0	<b>8.6</b>	18.8	-	-	-	-	-	-	-	-	
166.433.xx.A2	●	0.4	1.0	<b>11.6</b>	2.0	1.8	<b>18.3</b>	2.8	3.0	<b>31.0</b>	3.7	3.8	<b>37.5</b>	4.4	1.4	0.7	150	210		
			1.2	<b>8.1</b>	2.4	2.0	<b>15.3</b>	3.2	3.4	<b>25.4</b>	4.4	4.2	<b>32.4</b>	5.0	2.2	1.5	185	255		
			1.4	<b>5.3</b>	2.8	2.2	<b>12.2</b>	3.6	3.8	<b>20.6</b>	5.1	4.6	<b>27.7</b>	5.7	3.0	2.0	205	300		
			1.6	<b>3.7</b>	3.2	2.4	<b>9.8</b>	4.0	4.2	<b>16.3</b>	5.9	5.0	<b>23.4</b>	6.5	3.8	4.0	300	485		
			-	-	-	2.6	<b>7.6</b>	4.3	4.6	<b>12.5</b>	6.6	5.4	<b>19.4</b>	7.2	5.2	4.0	260	395		
			-	-	-	2.8	<b>5.9</b>	4.7	5.0	<b>9.3</b>	7.3	5.8	<b>15.9</b>	7.9	-	-	-	-	-	
			-	-	-	3.0	<b>4.4</b>	5.0	5.4	<b>6.5</b>	8.0	6.0	<b>14.2</b>	8.3	-	-	-	-	-	

Ordering Type + Material no. = Ordering no.  
 example: 166.425.xx.A2 + 16 = 166.425.16.A2