



### Description

The SJH6 is steam-jacketed humidifier which is designed to inject dry steam into a ducted air system or air handling unit (AHU). The steam-jacket construction preheat the lance, to ensure the steam quality (dryness) with no condensate carryover. The SJH6 is fully made by stainless steel material with accurate nozzles calculation for hygienic applications with minimum noise and efficient mixing of the steam and air.

### Fluids handled

Saturated steam

### Sizes and connections

Screwed - BSP 1/2" to 1 1/2"

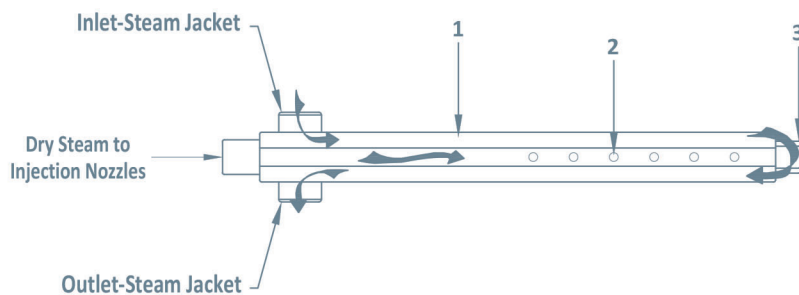
### Materials

| NO. | Part             | Material        |     |
|-----|------------------|-----------------|-----|
| 1   | Body / Jacket    | Stainless Steel | 304 |
| 2   | Injection nozzle | Stainless Steel | 304 |
| 3   | Support          | Stainless Steel | 304 |

\* 316 stainless steel material is applicable, upon request.

### Limiting Conditions

|                                     |                  |
|-------------------------------------|------------------|
| Design conditions                   | PN6              |
| Maximum allowable pressure (PMA)    | 6 bar g @ 165 °C |
| Maximum allowable temperature (TMA) | 165 °C @ 6 bar g |
| Maximum operating pressure (PMO)    | 3 bar g          |
| Maximum operating temperature (TMO) | 144 °C           |
| Cold hydraulic test pressure        | 9 bar g          |



### Safety information, installation and maintenance

The SJH6 steam injection humidifier is specifically designed for high-efficiency mixing of steam and air; thus, it is highly required for full correct installation. To prevent condensate carryover, SCSEP16 separator with proper steam trap is required.

\* For full details, see the Installation and Maintenance Instructions, supplied with the product.

**How to size SJH6:**


---

**A) Steam Capacity Chart for Air Handling Units (A.H.U)**


---

| Lance Model | A.H.U Air Flow (CFM) | A.H.U Width (mm) | Steam Flowrate - kg/hr |      |      |     |       |     |
|-------------|----------------------|------------------|------------------------|------|------|-----|-------|-----|
|             |                      |                  | Steam Pressure – Bar g |      |      |     |       |     |
|             |                      |                  | 0.5                    | 1    | 1.5  | 2   | 2.5   | 3   |
| SJH15-A3    | 1500                 | 770              | 2                      | 5    | 7.5  | 9   | 11.5  | 12  |
| SJH15-A6    | 2100                 | 1050             | 4                      | 10   | 15   | 18  | 22.5  | 24  |
| SJH15-A7    | 3200                 | 1100             | 5                      | 11.5 | 17.5 | 21  | 26.5  | 28  |
| SJH15-A8    | 4000                 | 1260             | 5.5                    | 13   | 20   | 24  | 30    | 32  |
| SJH20-A10   | 5000                 | 1400             | 7                      | 16   | 25   | 30  | 37.5  | 40  |
| SJH20-A13   | 6500                 | 1770             | 9                      | 21   | 32.5 | 39  | 48.5  | 52  |
| SJH20-A14   | 7600                 | 2000             | 9.5                    | 22.5 | 35   | 42  | 52.5  | 56  |
| SJH20-A15   | 8700                 | 1800             | 10                     | 24   | 37.5 | 45  | 56    | 60  |
| SJH20-A16   | 10500                | 2000             | 11                     | 26   | 40   | 48  | 60    | 64  |
| SJH20-A17   | 13000                | 2000             | 11.5                   | 27.5 | 42.5 | 51  | 63.5  | 68  |
| SJH25-A18   | 15500                | 2300             | 12                     | 29   | 45   | 54  | 67.5  | 72  |
| SJH25-A19   | 18500                | 2350             | 13                     | 30.5 | 47.5 | 57  | 71    | 76  |
| SJH25-A23   | 21500                | 2700             | 15.5                   | 37   | 57.5 | 69  | 86    | 92  |
| SJH32-A25   | 24500                | 2900             | 16.5                   | 40   | 62.5 | 75  | 93.5  | 100 |
| SJH32-A31   | 27500                | 3500             | 20.5                   | 50   | 77.5 | 93  | 116   | 124 |
| SJH40-A35   | 32000                | 3900             | 23.5                   | 56   | 87.5 | 105 | 131   | 140 |
| SJH40-A39   | 35500                | 4360             | 26                     | 62.5 | 97.5 | 117 | 145.5 | 156 |

\*Above values are based on normal manufacturing of A.H.U.s. However, lance customization is possible based on various working pressure, capacity and the required relative humidity.

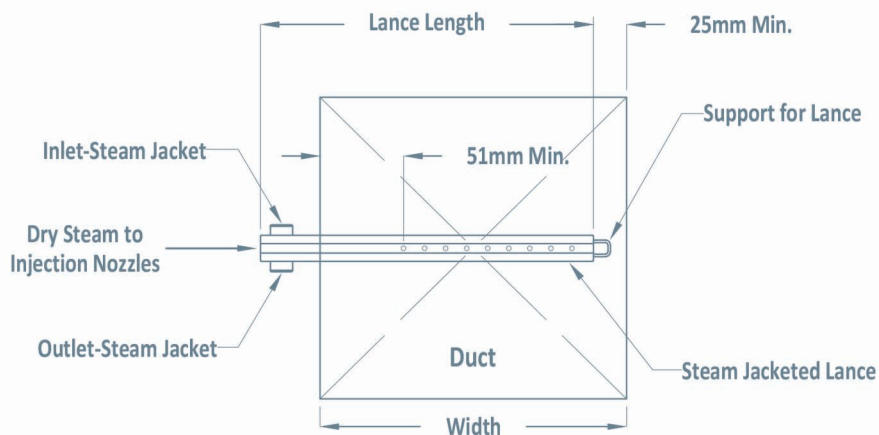
B) Steam Capacity Chart for Ducted Air System

1. Find the quantity of lances, based on duct height:

| Duct height (mm) | Quantity of lances |
|------------------|--------------------|
| Up to 1000       | 1                  |
| 1000 to 1700     | 2                  |
| 1700 to 2200     | 3                  |
| 2200 to 2600     | 4                  |
| 2600 and above   | 5                  |

2. Select the lance length, based on duct width:

| Range of duct width (mm) | Lance length (mm) |
|--------------------------|-------------------|
| 200 to 360               | 300               |
| 380 to 510               | 450               |
| 530 to 760               | 610               |
| 790 to 1070              | 910               |
| 1090 to 1320             | 1220              |
| 1360 to 1630             | 1520              |
| 1660 to 1930             | 1830              |
| 1970 to 2240             | 2130              |
| 2270 to 2540             | 2440              |
| 2580 to 2840             | 2740              |
| 2880 to 3150             | 3050              |
| 3180 to 3450             | 3350              |
| 3490 to 3760             | 3660              |



**3. Select the proper model, based on steam pressure and flowrate:**

| Lance Model | Steam Flowrate - kg/hr |      |      |     |       |     |
|-------------|------------------------|------|------|-----|-------|-----|
|             | Steam Pressure – Bar g |      |      |     |       |     |
|             | 0.5                    | 1    | 1.5  | 2   | 2.5   | 3   |
| SJH15-D3    | 2                      | 5    | 7.5  | 9   | 11.5  | 12  |
| SJH15-D6    | 4                      | 10   | 15   | 18  | 22.5  | 24  |
| SJH15-D7    | 5                      | 11.5 | 17.5 | 21  | 26.5  | 28  |
| SJH15-D8    | 5.5                    | 13   | 20   | 24  | 30    | 32  |
| SJH20-D10   | 7                      | 16   | 25   | 30  | 37.5  | 40  |
| SJH20-D13   | 9                      | 21   | 32.5 | 39  | 48.5  | 52  |
| SJH20-D14   | 9.5                    | 22.5 | 35   | 42  | 52.5  | 56  |
| SJH20-D15   | 10                     | 24   | 37.5 | 45  | 56    | 60  |
| SJH20-D16   | 11                     | 26   | 40   | 48  | 60    | 64  |
| SJH20-D17   | 11.5                   | 27.5 | 42.5 | 51  | 63.5  | 68  |
| SJH25-D18   | 12                     | 29   | 45   | 54  | 67.5  | 72  |
| SJH25-D19   | 13                     | 30.5 | 47.5 | 57  | 71    | 76  |
| SJH25-D23   | 15.5                   | 37   | 57.5 | 69  | 86    | 92  |
| SJH32-D25   | 16.5                   | 40   | 62.5 | 75  | 93.5  | 100 |
| SJH32-D31   | 20.5                   | 50   | 77.5 | 93  | 116   | 124 |
| SJH40-D35   | 23.5                   | 56   | 87.5 | 105 | 131   | 140 |
| SJH40-D39   | 26                     | 62.5 | 97.5 | 117 | 145.5 | 156 |