

## Frese OPTIMA Compact Ultra

DN50-DN125



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**Frese OPTIMA Compact Ultra**

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7

m<sup>3</sup>/h  
l/s  
GPM

TECH NOTE

8

9

100%

10

$\Delta P$   
kPa  
bar  
PSI

P<sub>1</sub> P<sub>2</sub>

$\Delta P = P_1 - P_2$

11

$\Delta P_{max}$   
 $\Delta P_{min}$

TECH NOTE

$\Delta P_{min} < \Delta P < \Delta P_{max}$

P<sub>1</sub> P<sub>2</sub>

$\Delta P = P_1 - P_2$

12

PN16/PN25  
0°C - 120°C  
-10°C - 0°C

TECH NOTE

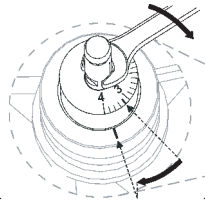
$\Delta P_{max} = 800 \text{ kPa} = 8 \text{ bar}$   
 $\Delta P_{max} = 116 \text{ PSI}$

❄️ ✓ 🔥 ✓ 🚰 ✗

💧 → VDI 2035

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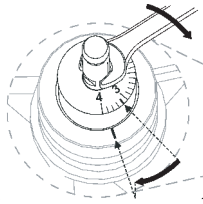
| Dim.    | DN50 HF   |          |          |            |
|---------|-----------|----------|----------|------------|
| Pre-set | Flow m³/h | Flow l/s | Flow gpm | Min.Δp kPa |
| 0.6     | 1.40      | 0.389    | 6.16     | 10         |
| 0.8     | 1.71      | 0.474    | 7.52     | 11         |
| 1.0     | 2.05      | 0.569    | 9.03     | 11         |
| 1.2     | 2.42      | 0.673    | 10.7     | 11         |
| 1.4     | 2.82      | 0.783    | 12.4     | 11         |
| 1.6     | 3.24      | 0.900    | 14.3     | 12         |
| 1.8     | 3.68      | 1.02     | 16.2     | 12         |
| 2.0     | 4.15      | 1.15     | 18.3     | 13         |
| 2.2     | 4.64      | 1.29     | 20.5     | 14         |
| 2.4     | 5.17      | 1.44     | 22.8     | 16         |
| 2.6     | 5.73      | 1.59     | 25.2     | 17         |
| 2.8     | 6.34      | 1.76     | 27.9     | 20         |
| 3.0     | 7.00      | 1.94     | 30.8     | 22         |
| 3.2     | 7.72      | 2.15     | 34.0     | 25         |
| 3.4     | 8.52      | 2.37     | 37.5     | 28         |
| 3.6     | 9.40      | 2.61     | 41.4     | 30         |
| 3.8     | 10.4      | 2.89     | 45.8     | 33         |
| 4.0     | 11.5      | 3.19     | 50.6     | 36         |

| Dim.    | DN65 LF   |          |          |            | DN65 HF   |          |          |            |
|---------|-----------|----------|----------|------------|-----------|----------|----------|------------|
| Pre-set | Flow m³/h | Flow l/s | Flow gpm | Min.Δp kPa | Flow m³/h | Flow l/s | Flow gpm | Min.Δp kPa |
| 0.6     | 3.00      | 0.833    | 13.2     | 10         | 4.20      | 1.17     | 18.5     | 19         |
| 0.8     | 3.80      | 1.06     | 16.7     | 10         | 5.48      | 1.52     | 24.1     | 19         |
| 1.0     | 4.50      | 1.25     | 19.8     | 10         | 6.60      | 1.83     | 29.1     | 19         |
| 1.2     | 5.13      | 1.43     | 22.6     | 10         | 7.60      | 2.11     | 33.5     | 19         |
| 1.4     | 5.73      | 1.59     | 25.2     | 10         | 8.53      | 2.37     | 37.6     | 19         |
| 1.6     | 6.31      | 1.75     | 27.8     | 11         | 9.42      | 2.62     | 41.5     | 20         |
| 1.8     | 6.89      | 1.92     | 30.4     | 11         | 10.3      | 2.86     | 45.4     | 20         |
| 2.0     | 7.50      | 2.08     | 33.0     | 11         | 11.2      | 3.11     | 49.3     | 20         |
| 2.2     | 8.14      | 2.26     | 35.8     | 11         | 12.1      | 3.37     | 53.4     | 20         |
| 2.4     | 8.83      | 2.45     | 38.9     | 11         | 13.1      | 3.65     | 57.8     | 21         |
| 2.6     | 9.56      | 2.66     | 42.1     | 11         | 14.2      | 3.95     | 62.5     | 22         |
| 2.8     | 10.4      | 2.88     | 45.6     | 12         | 15.4      | 4.27     | 67.6     | 23         |
| 3.0     | 11.2      | 3.11     | 49.3     | 12         | 16.6      | 4.61     | 73.1     | 24         |
| 3.2     | 12.1      | 3.36     | 53.3     | 13         | 17.9      | 4.98     | 78.9     | 26         |
| 3.4     | 13.0      | 3.62     | 57.4     | 13         | 19.3      | 5.37     | 85.2     | 29         |
| 3.6     | 14.0      | 3.89     | 61.7     | 15         | 20.8      | 5.79     | 91.7     | 32         |
| 3.8     | 15.0      | 4.17     | 66.1     | 17         | 22.4      | 6.22     | 98.6     | 37         |
| 4.0     | 16.0      | 4.44     | 70.4     | 19         | 24.0      | 6.67     | 106      | 43         |

| Dim.    | DN80 LF   |          |          |            | DN80 HF   |          |          |            |
|---------|-----------|----------|----------|------------|-----------|----------|----------|------------|
| Pre-set | Flow m³/h | Flow l/s | Flow gpm | Min.Δp kPa | Flow m³/h | Flow l/s | Flow gpm | Min.Δp kPa |
| 0.6     | 4.40      | 1.22     | 19.4     | 15         | 6.00      | 1.67     | 26.4     | 27         |
| 0.8     | 5.53      | 1.54     | 24.4     | 15         | 7.61      | 2.11     | 33.5     | 27         |
| 1.0     | 6.60      | 1.83     | 29.1     | 15         | 9.10      | 2.53     | 40.1     | 27         |
| 1.2     | 7.61      | 2.12     | 33.5     | 15         | 10.5      | 2.92     | 46.3     | 27         |
| 1.4     | 8.60      | 2.39     | 37.8     | 16         | 11.9      | 3.30     | 52.3     | 27         |
| 1.6     | 9.56      | 2.66     | 42.1     | 17         | 13.2      | 3.68     | 58.3     | 27         |
| 1.8     | 10.5      | 2.92     | 46.3     | 17         | 14.6      | 4.06     | 64.3     | 27         |
| 2.0     | 11.5      | 3.19     | 50.6     | 18         | 16.0      | 4.44     | 70.4     | 27         |
| 2.2     | 12.5      | 3.47     | 55.1     | 19         | 17.4      | 4.85     | 76.8     | 27         |
| 2.4     | 13.6      | 3.77     | 59.7     | 19         | 19.0      | 5.27     | 83.5     | 28         |
| 2.6     | 14.7      | 4.07     | 64.6     | 19         | 20.6      | 5.72     | 90.6     | 29         |
| 2.8     | 15.8      | 4.40     | 69.7     | 20         | 22.3      | 6.19     | 98.1     | 30         |
| 3.0     | 17.1      | 4.75     | 75.3     | 20         | 24.1      | 6.69     | 106      | 32         |
| 3.2     | 18.5      | 5.13     | 81.2     | 20         | 26.0      | 7.23     | 115      | 35         |
| 3.4     | 19.9      | 5.53     | 87.7     | 21         | 28.1      | 7.80     | 124      | 38         |
| 3.6     | 21.5      | 5.97     | 94.6     | 22         | 30.3      | 8.41     | 133      | 42         |
| 3.8     | 23.2      | 6.44     | 102      | 23         | 32.6      | 9.05     | 143      | 48         |
| 4.0     | 25.0      | 6.94     | 110      | 25         | 35.0      | 9.72     | 154      | 55         |

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DN50-DN125



| Dim.    | DN100 LF  |          |          |            | DN100 HF  |          |          |            |
|---------|-----------|----------|----------|------------|-----------|----------|----------|------------|
| Pre-set | Flow m³/h | Flow l/s | Flow gpm | Min.Δp kPa | Flow m³/h | Flow l/s | Flow gpm | Min.Δp kPa |
| 0.6     | 5.30      | 1.47     | 23.3     | 13         | 7.00      | 1.94     | 30.8     | 20         |
| 0.8     | 6.86      | 1.90     | 30.2     | 15         | 9.08      | 2.52     | 40.0     | 20         |
| 1.0     | 8.30      | 2.31     | 36.5     | 16         | 11.0      | 3.06     | 48.4     | 21         |
| 1.2     | 9.66      | 2.68     | 42.5     | 17         | 12.8      | 3.56     | 56.4     | 21         |
| 1.4     | 11.0      | 3.05     | 48.3     | 17         | 14.5      | 4.04     | 64.0     | 22         |
| 1.6     | 12.2      | 3.40     | 53.9     | 18         | 16.2      | 4.51     | 71.5     | 22         |
| 1.8     | 13.5      | 3.75     | 59.5     | 18         | 17.9      | 4.97     | 78.8     | 22         |
| 2.0     | 14.8      | 4.11     | 65.2     | 18         | 19.6      | 5.44     | 86.3     | 22         |
| 2.2     | 16.1      | 4.48     | 71.0     | 18         | 21.3      | 5.93     | 94.0     | 22         |
| 2.4     | 17.5      | 4.87     | 77.2     | 18         | 23.2      | 6.43     | 102      | 22         |
| 2.6     | 19.0      | 5.29     | 83.8     | 19         | 25.1      | 6.97     | 110      | 22         |
| 2.8     | 20.6      | 5.74     | 90.9     | 19         | 27.1      | 7.53     | 119      | 22         |
| 3.0     | 22.4      | 6.22     | 98.6     | 20         | 29.3      | 8.14     | 129      | 22         |
| 3.2     | 24.3      | 6.75     | 107      | 21         | 31.6      | 8.79     | 139      | 23         |
| 3.4     | 26.4      | 7.34     | 116      | 22         | 34.2      | 9.49     | 150      | 24         |
| 3.6     | 28.7      | 7.97     | 126      | 23         | 36.9      | 10.3     | 162      | 26         |
| 3.8     | 31.2      | 8.68     | 138      | 24         | 39.8      | 11.1     | 175      | 29         |
| 4.0     | 34.0      | 9.44     | 150      | 25         | 43.0      | 11.9     | 189      | 33         |

| Dim.    | DN125 LF  |          |          |            | DN125 HF  |          |          |            |
|---------|-----------|----------|----------|------------|-----------|----------|----------|------------|
| Pre-set | Flow m³/h | Flow l/s | Flow gpm | Min.Δp kPa | Flow m³/h | Flow l/s | Flow gpm | Min.Δp kPa |
| 0.6     | 12.1      | 3.36     | 53.3     | 15         | 14.8      | 4.11     | 65.2     | 22         |
| 0.8     | 15.3      | 4.24     | 67.2     | 18         | 18.9      | 5.25     | 83.2     | 22         |
| 1.0     | 18.1      | 5.03     | 79.7     | 20         | 22.6      | 6.28     | 99.5     | 22         |
| 1.2     | 20.7      | 5.75     | 91.1     | 21         | 26.0      | 7.22     | 114      | 22         |
| 1.4     | 23.1      | 6.42     | 102      | 22         | 29.1      | 8.09     | 128      | 22         |
| 1.6     | 25.4      | 7.07     | 112      | 22         | 32.2      | 8.93     | 142      | 22         |
| 1.8     | 27.7      | 7.70     | 122      | 22         | 35.1      | 9.75     | 155      | 22         |
| 2.0     | 30.0      | 8.33     | 132      | 22         | 38.1      | 10.6     | 168      | 22         |
| 2.2     | 32.4      | 8.99     | 143      | 22         | 41.2      | 11.4     | 181      | 22         |
| 2.4     | 34.9      | 9.69     | 154      | 22         | 44.5      | 12.4     | 196      | 22         |
| 2.6     | 37.6      | 10.5     | 166      | 23         | 48.2      | 13.4     | 212      | 23         |
| 2.8     | 40.6      | 11.3     | 179      | 24         | 52.2      | 14.5     | 230      | 24         |
| 3.0     | 44.0      | 12.2     | 194      | 25         | 56.7      | 15.7     | 250      | 25         |
| 3.2     | 47.8      | 13.3     | 210      | 27         | 61.8      | 17.2     | 272      | 27         |
| 3.4     | 52.0      | 14.4     | 229      | 28         | 67.6      | 18.8     | 298      | 30         |
| 3.6     | 56.7      | 15.8     | 250      | 30         | 74.1      | 20.6     | 326      | 33         |
| 3.8     | 62.0      | 17.2     | 273      | 33         | 81.6      | 22.7     | 359      | 38         |
| 4.0     | 68.0      | 18.9     | 299      | 35         | 90.0      | 25.0     | 396      | 44         |

