# Iris damper
# GBL


## Description

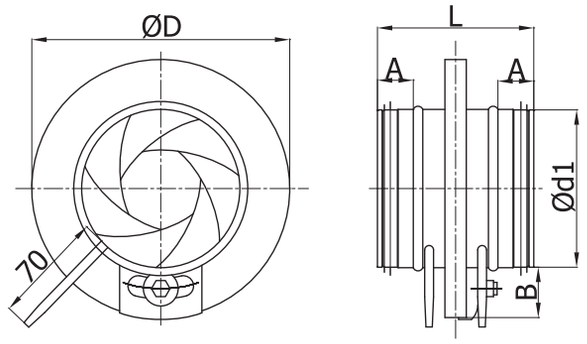
The GBL iris dampers are essential for smooth control of the duct air pressure. The lever and the iris blade mechanism allows changing the clear opening diameter in infinitely variable steps. The iris-type closure allows choking the air flow without turbulence or in-duct noise. The GBL iris damper can be installed both in air supply and air exhaust ducts.
This product features two output ports as an interface for an air flow meter.
The GBL can be opened to the full clear diameter for easier cleaning of the ductwork. The iris dampers, however, cannot be sealed shut (the maximum closing ratio is ca. 25% of the nominal clear diameter).

**Available materials — Product code examples**
GBL-... — galvanized steel sheet

**Product code example**
Product code: **GBL - aaa**

type
Ød$_1$

## Dimensions




| Ød$_{1\ nom}$ (mm) | ØD (mm) | L (mm) | A (mm) | B (mm) | Weight (kg) |
|---|---|---|---|---|---|
| 80 | 125 | 120 | 35 | 22 | 0.5 |
| 100 | 165 | 110 | 30 | 32 | 0.5 |
| 125 | 188 | 110 | 30 | 32 | 0.7 |
| 150 | 230 | 110 | 30 | 40 | 1.3 |
| 160 | 230 | 110 | 30 | 35 | 0.9 |
| 200 | 285 | 110 | 30 | 42 | 1.4 |
| 250 | 335 | 135 | 40 | 42 | 2.1 |
| 315 | 410 | 135 | 40 | 47 | 3.5 |
| 400 | 525 | 150 | 50 | 62 | 6.4 |
| 500 | 655 | 150 | 50 | 77 | 9.6 |
| 630 | 815 | 150 | 50 | 92 | 15.6 |
| 800 | 1015 | 285 | 100 | 107 | 25.0 |

## Technical specifications

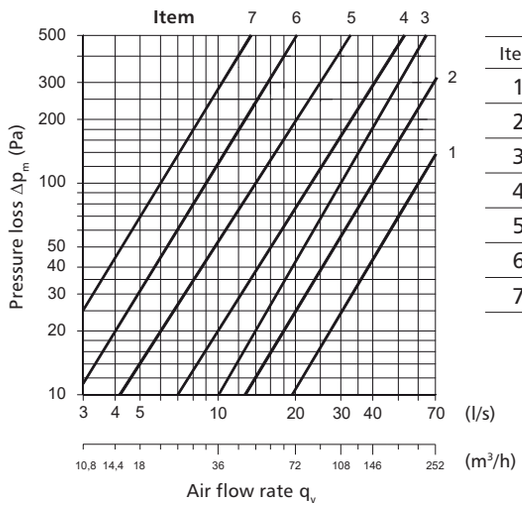
K-value for various damper settings

| | k | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Item | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| GBL 80 | 6.1 | 4.1 | 3.2 | 2.3 | 1.4 | 0.9 | 0.6 | – |
| GBL 100 | 10.4 | 7.5 | 6.0 | 4.5 | 3.4 | 2.5 | 1.7 | 0.9 |
| GBL 125 | 13.8 | 8.8 | 6.5 | 4.7 | 3.5 | 2.7 | 1.5 | – |
| GBL 150 | 24.1 | 16.5 | 13.4 | 11.0 | 8.9 | 6.9 | 5.2 | 3.7 |
| GBL 160 | 22.1 | 14.8 | 12.5 | 10.7 | 8.5 | 6.8 | 4.9 | 3.5 |
| GBL 200 | 44.2 | 30.9 | 23.2 | 18.2 | 14.0 | 11.0 | 8.4 | 5.0 |
| GBL 250 | 64.4 | 45.6 | 38.7 | 30.7 | 24.1 | 18.4 | 12.8 | 8.9 |
| GBL 315 | 118.0 | 70.0 | 58.7 | 45.1 | 37.0 | 30.0 | 21.8 | 15.8 |
| GBL 400 | 131.0 | 102.0 | 88.3 | 67.3 | 52.7 | 38.5 | 28.4 | 15.5 |
| GBL 500 | 230.0 | 177.0 | 146.0 | 112.0 | 88.5 | 66.6 | 48.0 | 30.0 |
| GBL 630 | 451.0 | 297.0 | 238.0 | 169.0 | 127.0 | 91.6 | 62.8 | 35.1 |
| GBL 800 | 489.0 | 402.0 | 344.0 | 267.0 | 217.0 | 170.0 | 122.0 | 73.7 |

## *Technical specifications*

### GBL 80

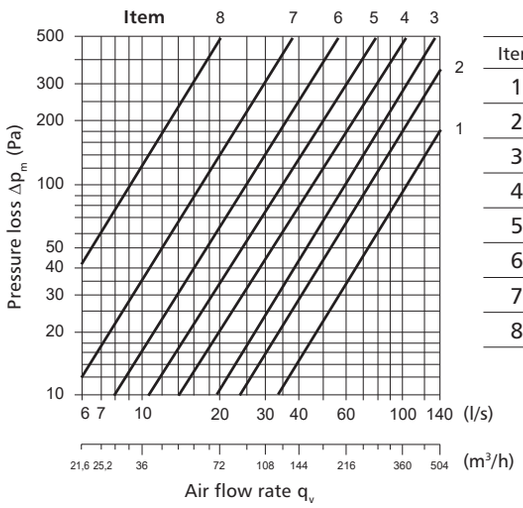
$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 6.1 |
| 2 | 4.1 |
| 3 | 3.2 |
| 4 | 2.3 |
| 5 | 1.4 |
| 6 | 0.9 |
| 7 | 0.6 |

### GBL 100

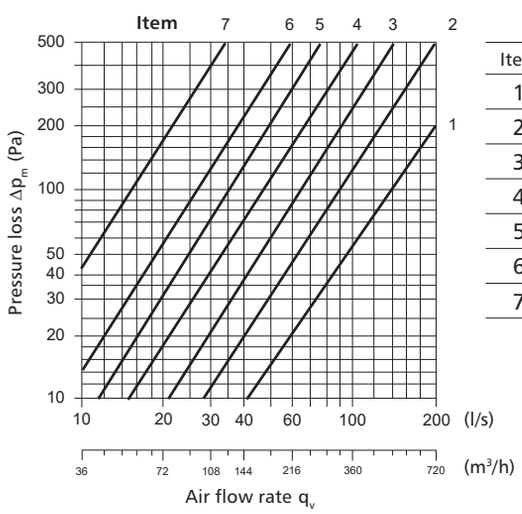
$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 10.4 |
| 2 | 7.5 |
| 3 | 6.0 |
| 4 | 4.5 |
| 5 | 3.4 |
| 6 | 2.5 |
| 7 | 1.7 |
| 8 | 0.9 |

### GBL 125

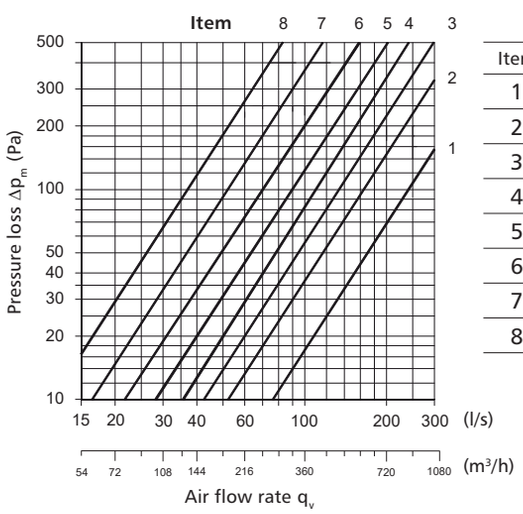
$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 13.8 |
| 2 | 8.8 |
| 3 | 6.5 |
| 4 | 4.7 |
| 5 | 3.5 |
| 6 | 2.7 |
| 7 | 1.5 |

### GBL 150

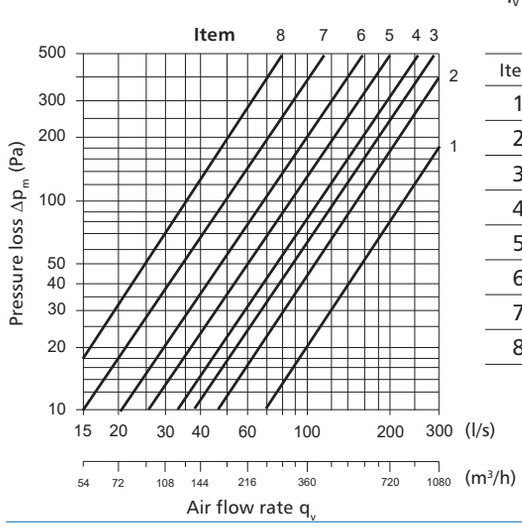
$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 24.1 |
| 2 | 16.5 |
| 3 | 13.4 |
| 4 | 11.0 |
| 5 | 8.9 |
| 6 | 6.9 |
| 7 | 5.2 |
| 8 | 3.7 |

### GBL 160

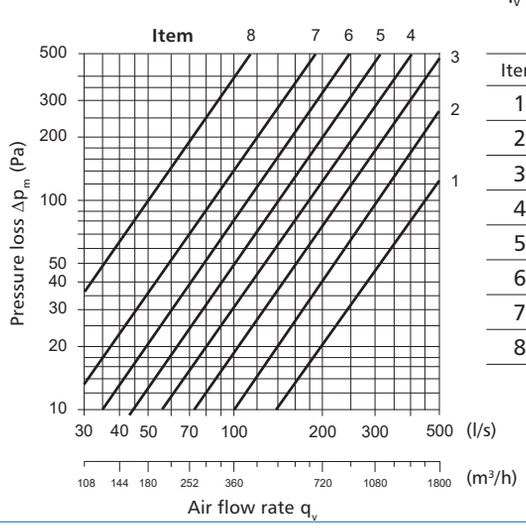
$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 22.1 |
| 2 | 14.8 |
| 3 | 12.5 |
| 4 | 10.7 |
| 5 | 8.5 |
| 6 | 6.8 |
| 7 | 4.9 |
| 8 | 3.5 |

### GBL 200

$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 44.2 |
| 2 | 30.9 |
| 3 | 23.2 |
| 4 | 18.2 |
| 5 | 14.0 |
| 6 | 11.0 |
| 7 | 8.4 |
| 8 | 5.0 |

# Iris damper
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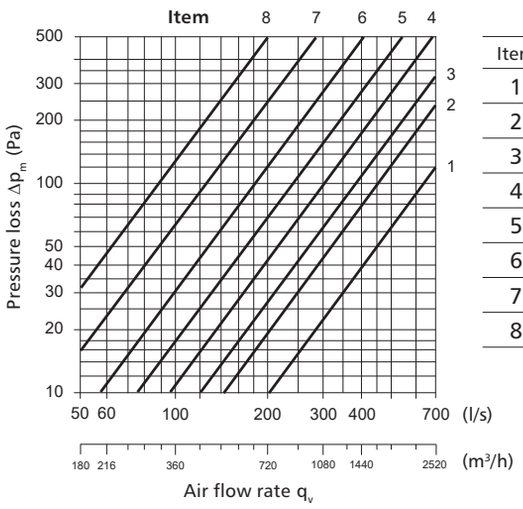
## *Technical specifications*

### GBL 250

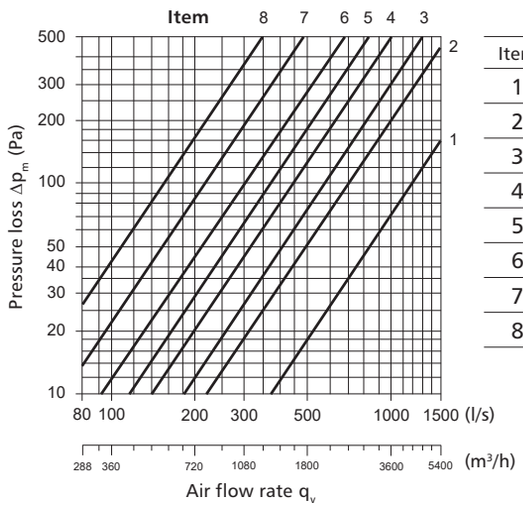
$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 64.4 |
| 2 | 45.6 |
| 3 | 38.7 |
| 4 | 30.7 |
| 5 | 24.1 |
| 6 | 18.4 |
| 7 | 12.8 |
| 8 | 8.9 |

### GBL 315

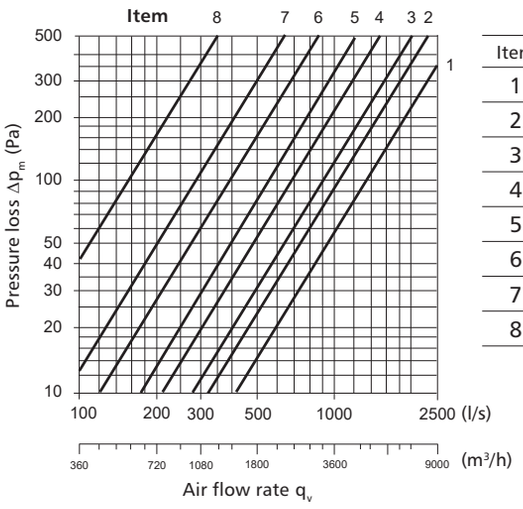
$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 118.0 |
| 2 | 70.0 |
| 3 | 58.7 |
| 4 | 45.1 |
| 5 | 37.0 |
| 6 | 30.0 |
| 7 | 21.8 |
| 8 | 15.8 |

### GBL 400

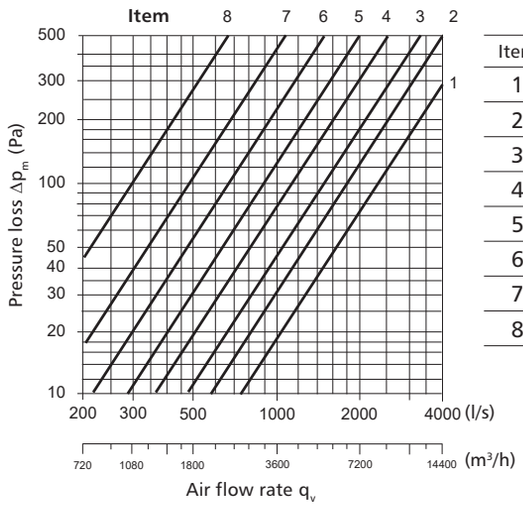
$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 131.0 |
| 2 | 102.0 |
| 3 | 88.3 |
| 4 | 67.3 |
| 5 | 52.7 |
| 6 | 38.5 |
| 7 | 28.4 |
| 8 | 15.5 |

### GBL 500

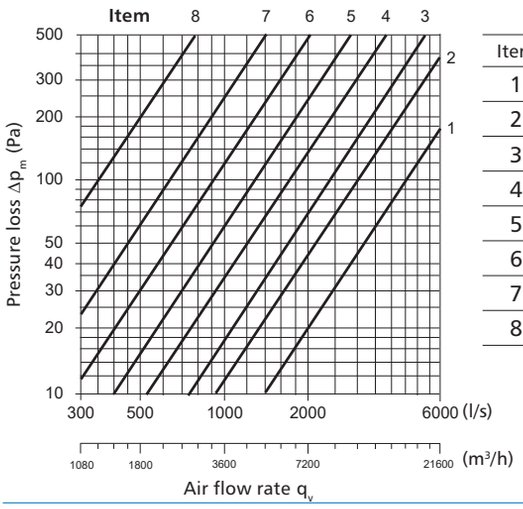
$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 230.0 |
| 2 | 177.0 |
| 3 | 146.0 |
| 4 | 112.0 |
| 5 | 88.5 |
| 6 | 66.6 |
| 7 | 48.0 |
| 8 | 30.0 |

### GBL 630

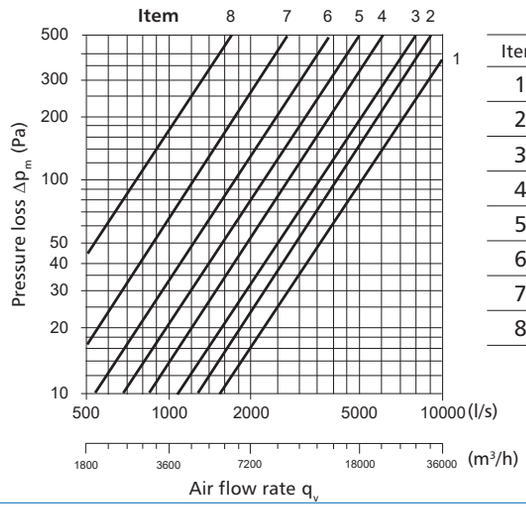
$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 451.0 |
| 2 | 297.0 |
| 3 | 238.0 |
| 4 | 169.0 |
| 5 | 127.0 |
| 6 | 91.6 |
| 7 | 62.8 |
| 8 | 35.1 |

### GBL 800

$q_v = k\sqrt{\Delta p_m}$ (l/s)




| Item | k |
|---|---|
| 1 | 489.0 |
| 2 | 402.0 |
| 3 | 344.0 |
| 4 | 267.0 |
| 5 | 217.0 |
| 6 | 170.0 |
| 7 | 122.0 |
| 8 | 73.7 |