

# > PR-Q HT



Ventilatori centrifughi pale rovesce F400 - Certificati secondo la EN 12101-3

Backward curved centrifugal fans F400 - Certified according to EN 12101-3



**Applus<sup>+</sup>**

**F400**

Certificato / *Certificate*  
nr. 0370-CPD-1357

## DESCRIZIONE GENERALE

Ventilatori centrifughi a pale rovesce adatti all'evacuazione di fumi ad alta temperatura.

La caratteristica peculiare della serie è data dalla costruzione quadrangolare grazie alla quale è possibile ottenere quattro orientamenti (0°-90°-180°-270°) con lo stesso ventilatore e con un ingombro limitato grazie all'eliminazione della sedia porta motore.

La serie è idonea al funzionamento alla temperatura di +100°C in servizio S1ed è certificata CE in classe F400 dal laboratorio terzo indipendente Applus secondo la normativa EN 12101-3.

## COSTRUZIONE

- Cassa a spirale con fiancate quadrangolari, realizzata in lamiera d'acciaio zincato e protetta contro gli agenti atmosferici con vernicia a polveri epossidiche.
- Girante a semplice aspirazione, con pale rovesce curve ad alto rendimento aeraulico, realizzata in lamiera d'acciaio e mozzo in acciaio zincato elettroliticamente.
- Bocche premente e aspirante realizzate secondo norma UNI EN ISO 13351
- Esecuzione 5 (accoppiamento diretto con girante a sbalzo su motore fl angiato), rotazione RD.
- Motore asincrono trifase a norme internazionali IEC 60034, IEC 60072, EMC 2004/108/CE, LVD 2006/95/CE, marcato CE, IP55, classe F. Doppia velocità mediante commutatore stella/triangolo. Alimentazione: 400V, 50Hz trifase.

## ACCESSORI

- Giunto antivibrante bocca aspirante e premente
- Rete di protezione per bocche aspirante e premente e protetta contro gli agenti atmosferici.
- Contro flangia bocca aspirante e premente
- Supporti antivibranti
- Regolatori di velocità ad autotrasformatore o inverter.

## A RICHIESTA

- Versione 2V con motore a doppia polarità.

## GENERAL DESCRIPTION

Backward curved centrifugal fans suitable for high temperature smoke extraction.

The main characteristic of the PR-Q series is the quadrangular construction, which allows to obtain four orientations (0°-90°-180°-270°) with the same fan. The dimensions are reduced tank to the absence of the motor support.

The series is suitable for running at the temperature of +100°C in S1 service and CE certified to F400 by the independent notified body Applus according to EN 12101-3.

## CONSTRUCTION

- Volute casing with quadrangular frame, manufactured in galvanized steel sheet protected against atmospheric agents.
- Single inlet, backward curved wheel with high efficiency, manufactured in galvanized steel sheet and steel hub.
- Inlet/outlet made according to UNI EN ISO 13351
- Execution 5 (impeller directly coupled to flanged motor), rotation RD.
- Double speed asynchronous three-phase motor manufactured according to international standards IEC 60034, IEC 60072, EMC 2004/108/CE, LVD 2006/95/CE, CE marked, IP 55, class F. Electric supply: 400V / 50 Hz three phase.

## ACCESSORIES

- Inlet/outlet flexible connectors
- Inlet and outlet guard protected against atmospheric agents.
- Inlet/outlet counterflange
- Antivibration supports
- Self transformer or inverters speed controllers

## UPON REQUEST

- 2 speed version (double polarity motor).

## ORIENTAMENTI Discharge angles

PR-Q HT-2V

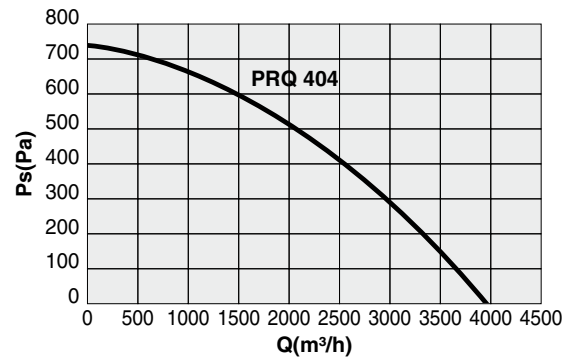
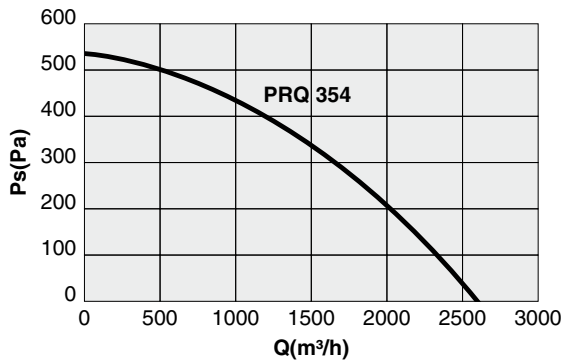
|                                 |    |     |      |      |
|---------------------------------|----|-----|------|------|
| Rotazione<br>Rotation<br><br>RD |    |     |      |      |
| Forma/Form                      | 0° | 90° | 180° | 270° |

Le prestazioni aerodinamiche sono rilevate in conformità alla norma EN ISO 5801/AMCA 210 con densità dell'aria standard avente peso specifico 1.2 Kg/m<sup>3</sup>. Alimentazione 230V/1Ph/50Hz e 400V/3Ph/50Hz.

Air performances measured according to EN ISO 5801 / AMCA 210 standard with air density with 1.2 kg/m<sup>3</sup> specific weight. Power supply 230V/1Ph/50Hz or 400V/3Ph/50Hz.

**Lp:** Livello di pressione sonora rilevato in condizioni di campo libero, propagazione semisferica, categoria di misura C a norma EN ISO 13349, nel punto di massimo rendimento, alla distanza di 1,5 metri dal lato aspirazione e si presenta solo per fini comparativi.  
**Lw:** Livello di potenza sonora ottenuto secondo norma ISO 3746. Tolleranza +/- 3 dB(A).

**Lp:** Sound pressure level measured in free field, hemispherical propagation, measurement category C according to EN ISO 13349, at the maximum output rate, at a distance of 1.5 m from inlet side. Data given only for comparative purpose.  
**Lw:** Sound power level according to ISO 3746. Tolerance +/- 3 dB(A).



## PR-Q HT 350

| Cod.    | Tipo Type | Modello Model | U | rpm  | Pm (kW) | In (A) | IP/CL | Mot. (Gr) |
|---------|-----------|---------------|---|------|---------|--------|-------|-----------|
| 1RQ3503 | PR-Q HT   | 354           | T | 1400 | 0,25    | 0,80   | 55/F  | 71        |

### Livelli sonori - Sound levels / dB(A)

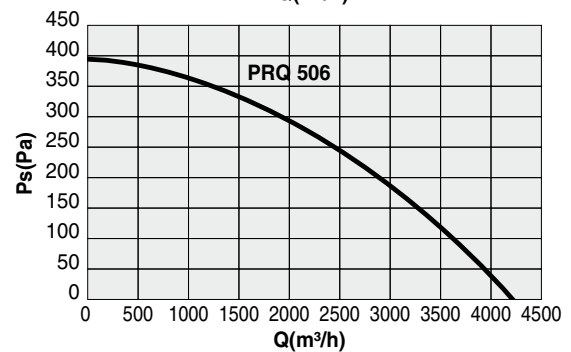
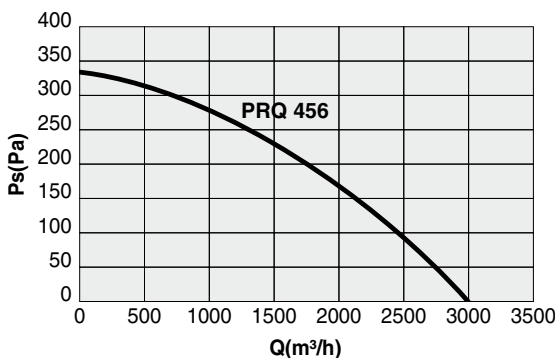
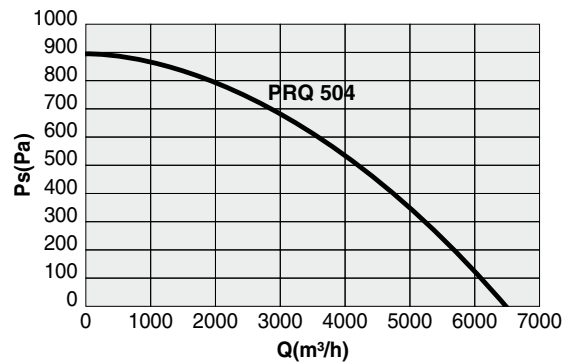
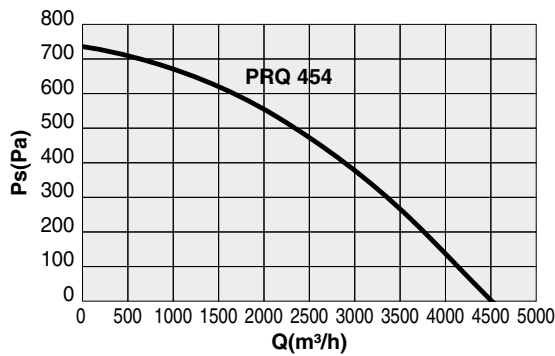
| Size     | db(A) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | TOT |
|----------|-------|----|-----|-----|-----|------|------|------|------|-----|
| PRQ 354T | Lw    | 56 | 71  | 73  | 77  | 79   | 75   | 67   | 57   | 83  |
|          | Lp    | 44 | 59  | 61  | 65  | 67   | 63   | 55   | 45   | 71  |

## PR-Q HT 400

| Cod.    | Tipo Type | Modello Model | U | rpm  | Pm (kW) | In (A) | IP/CL | Mot. (Gr) |
|---------|-----------|---------------|---|------|---------|--------|-------|-----------|
| 1RQ4003 | PR-Q HT   | 404           | T | 1400 | 0,55    | 1,60   | 55/F  | 80        |

### Livelli sonori - Sound levels / dB(A)

| Size     | db(A) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | TOT |
|----------|-------|----|-----|-----|-----|------|------|------|------|-----|
| PRQ 404T | Lw    | 56 | 71  | 74  | 77  | 79   | 75   | 67   | 57   | 83  |
|          | Lp    | 44 | 59  | 62  | 65  | 67   | 63   | 55   | 45   | 72  |



## PR-Q HT 450

| Cod.    | Tipo Type | Modello Model | U | rpm  | Pm (kW) | In (A) | IP/CL | Mot. (Gr) |
|---------|-----------|---------------|---|------|---------|--------|-------|-----------|
| 1RQ4504 | PR-Q HT   | 454           | T | 1400 | 0,75    | 1,90   | 55/F  | 80        |

### Livelli sonori - Sound levels / dB(A)

| Size     | db(A) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | TOT |
|----------|-------|----|-----|-----|-----|------|------|------|------|-----|
| PRQ 454T | Lw    | 58 | 73  | 76  | 79  | 81   | 77   | 69   | 59   | 85  |
|          | Lp    | 46 | 61  | 64  | 67  | 69   | 65   | 57   | 47   | 74  |
| PRQ 456T | Lw    | 52 | 61  | 66  | 70  | 72   | 68   | 60   | 50   | 76  |
|          | Lp    | 40 | 49  | 54  | 58  | 60   | 56   | 48   | 38   | 64  |

## PR-Q HT 500

| Cod.    | Tipo Type | Modello Model | U | rpm  | Pm (kW) | In (A) | IP/CL | Mot. (Gr) |
|---------|-----------|---------------|---|------|---------|--------|-------|-----------|
| 1RQ5003 | PR-Q HT   | 504           | T | 1400 | 1,10    | 2,50   | 55/F  | 90S       |

### Livelli sonori - Sound levels / dB(A)

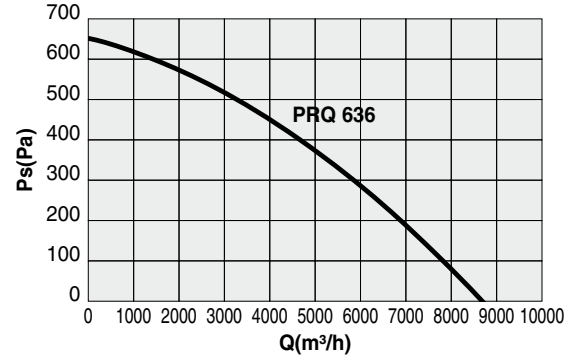
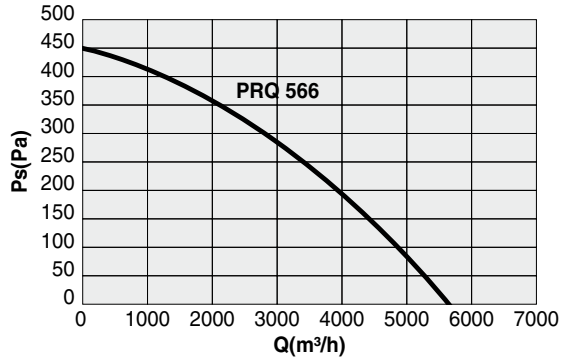
| Size     | db(A) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | TOT |
|----------|-------|----|-----|-----|-----|------|------|------|------|-----|
| PRQ 504T | Lw    | 60 | 75  | 78  | 81  | 83   | 79   | 71   | 61   | 87  |
|          | Lp    | 48 | 63  | 66  | 69  | 71   | 67   | 59   | 49   | 76  |
| PRQ 506T | Lw    | 51 | 66  | 69  | 72  | 74   | 70   | 62   | 52   | 78  |
|          | Lp    | 40 | 55  | 58  | 61  | 63   | 59   | 51   | 41   | 67  |

Le prestazioni aerodinamiche sono rilevate in conformità alla norma EN ISO 5801/AMCA 210 con densità dell'aria standard avente peso specifico 1.2 Kg/m<sup>3</sup>. Alimentazione 230V/1Ph/50Hz o 400V/3Ph/50Hz.

Air performances measured according to EN ISO 5801 / AMCA 210 standard with air density with 1.2 kg/m<sup>3</sup> specific weight. Power supply 230V/1Ph/50Hz or 400V/3Ph/50Hz.

**Lp:** Livello di pressione sonora rilevato in condizioni di campo libero, propagazione semisferica, categoria di misura C a norma EN ISO 13349, nel punto di massimo rendimento, alla distanza di 1.5 metri dal lato aspirazione e si presenta solo per fini comparativi.  
**Lw:** Livello di potenza sonora ottenuto secondo norma ISO 3746. Tolleranza +/- 3 dB(A).

**Lp:** Sound pressure level measured in free field, hemispherical propagation, measurement category C according to EN ISO 13349, at the maximum output rate, at a distance of 1.5 m from inlet side. Data given only for comparative purpose.  
**Lw:** Sound power level according to ISO 3746. Tolerance +/- 3 dB(A).



## PR-Q HT 560

| Cod.    | Tipo Type | Modello Model | U | rpm | Pm (kW) | In (A) | IP/CL | Mot. (Gr) |
|---------|-----------|---------------|---|-----|---------|--------|-------|-----------|
| 1RQ5602 | PR-Q HT   | 566           | T | 960 | 0,55    | 1,80   | 55/F  | 80        |

### Livelli sonori - Sound levels / dB(A)

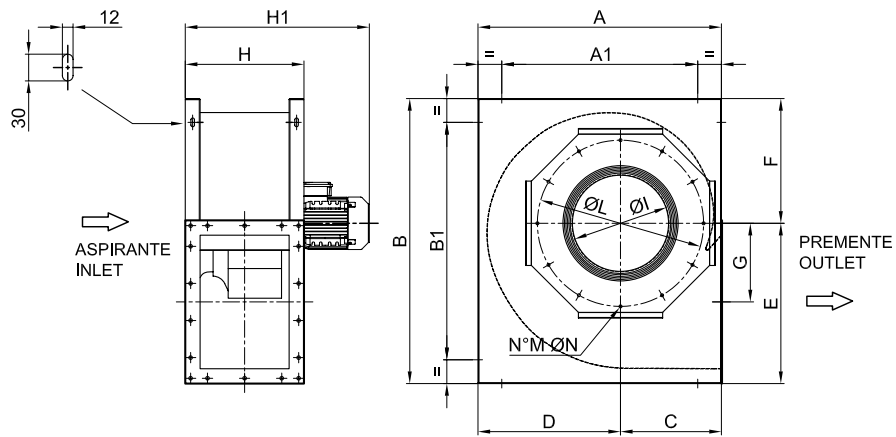
| Size     | db(A) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | TOT |
|----------|-------|----|-----|-----|-----|------|------|------|------|-----|
| PRQ 566T | Lw    | 60 | 69  | 75  | 78  | 80   | 76   | 68   | 58   | 84  |
|          | Lp    | 48 | 57  | 63  | 66  | 68   | 64   | 56   | 46   | 72  |

## PR-Q HT 630

| Cod.    | Tipo Type | Modello Model | U | rpm | Pm (kW) | In (A) | IP/CL | Mot. (Gr) |
|---------|-----------|---------------|---|-----|---------|--------|-------|-----------|
| 1RQ6002 | PR-Q HT   | 636           | T | 960 | 1,10    | 2,74   | 55/F  | 90L       |

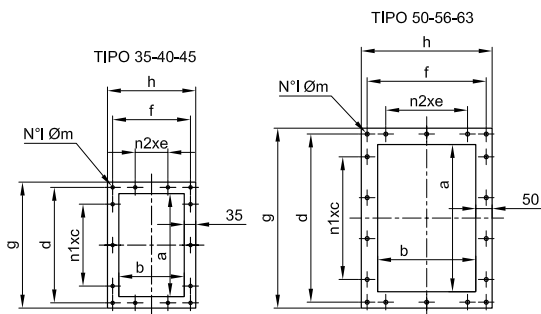
### Livelli sonori - Sound levels / dB(A)

| Size     | db(A) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | TOT |
|----------|-------|----|-----|-----|-----|------|------|------|------|-----|
| PRQ 636T | Lw    | 63 | 72  | 78  | 81  | 83   | 79   | 71   | 61   | 87  |
|          | Lp    | 51 | 60  | 66  | 69  | 71   | 67   | 59   | 49   | 75  |



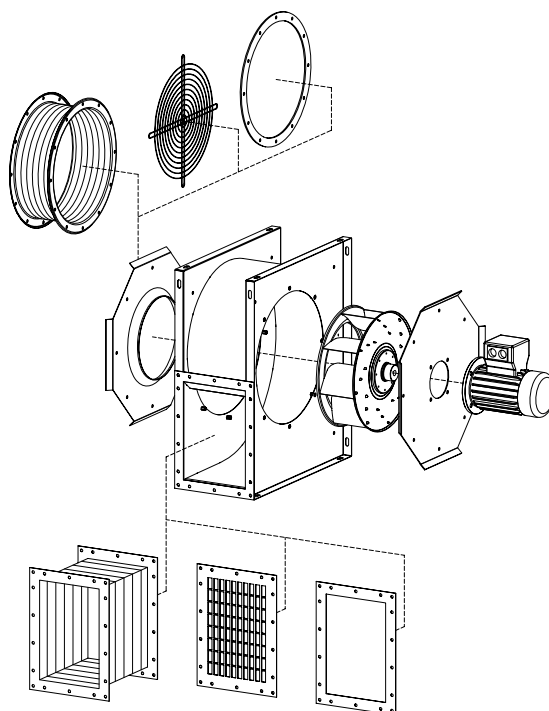
| TIPO / TYPE | A   | A1  | B    | B1  | C   | D   | E   | F   | G   | H   | H1  | ASPIRANTE / INLET |     |    |    | kg  |
|-------------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-------------------|-----|----|----|-----|
|             |     |     |      |     |     |     |     |     |     |     |     | I                 | L   | M  | N  |     |
| PR-Q HT 350 | 620 | 520 | 650  | 55  | 295 | 325 | 370 | 280 | 177 | 270 | 450 | 270               | 450 | 8  | M8 | 35  |
| PR-Q HT 400 | 680 | 580 | 790  | 690 | 305 | 375 | 440 | 350 | 277 | 320 | 520 | 296               | 500 | 8  | M8 | 45  |
| PR-Q HT 450 | 740 | 640 | 880  | 780 | 305 | 435 | 490 | 390 | 255 | 320 | 520 | 296               | 500 | 8  | M8 | 50  |
| PR-Q HT 500 | 820 | 660 | 960  | 800 | 340 | 480 | 540 | 420 | 265 | 400 | 620 | 327               | 560 | 12 | M8 | 75  |
| PR-Q HT 560 | 890 | 730 | 1040 | 880 | 370 | 520 | 600 | 440 | 300 | 400 | 585 | 370               | 620 | 12 | M8 | 80  |
| PR-Q HT 630 | 910 | 750 | 1100 | 940 | 410 | 500 | 650 | 450 | 320 | 455 | 675 | 430               | 690 | 12 | M8 | 100 |

Dimensioni in mm / Dimensions in mm

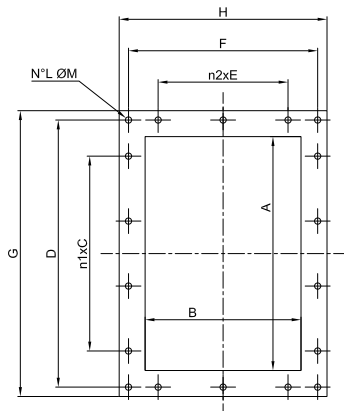


| TIPO / TYPE | PREMENTE / OUTLET |     |         |     |         |     |     |     |    |    |
|-------------|-------------------|-----|---------|-----|---------|-----|-----|-----|----|----|
|             | a                 | b   | n1 x c  | d   | n2 x e  | f   | g   | h   | i  | m  |
| PR-Q HT 350 | 315               | 200 | 2 x 125 | 353 | 1 x 100 | 238 | 385 | 270 | 14 | 10 |
| PR-Q HT 400 | 355               | 250 | 2 x 125 | 393 | 1 x 125 | 288 | 425 | 320 | 14 | 10 |
| PR-Q HT 450 | 400               | 250 | 2 x 125 | 438 | 1 x 125 | 288 | 470 | 320 | 14 | 10 |
| PR-Q HT 500 | 450               | 300 | 3 x 125 | 514 | 2 x 125 | 364 | 550 | 400 | 18 | 12 |
| PR-Q HT 560 | 500               | 300 | 3 x 125 | 564 | 2 x 125 | 364 | 600 | 400 | 18 | 12 |
| PR-Q HT 630 | 560               | 355 | 4 x 125 | 624 | 2 x 125 | 419 | 660 | 455 | 20 | 12 |

Dimensioni in mm / Dimensions in mm



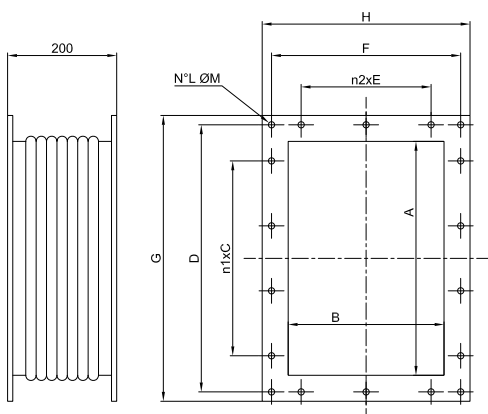
**CONTROFLANGIA PREMENTE / OUTLET CONNECTOR FLANGE**



| Cod.    | TIPO<br>TYPE | A   | B   | n1xC  | D   | n2xE  | F   | G   | H   | L  | M  | Sp.   | Kg   |
|---------|--------------|-----|-----|-------|-----|-------|-----|-----|-----|----|----|-------|------|
| 5B01370 | 35           | 315 | 200 | 2x125 | 353 | 1x100 | 238 | 385 | 270 | 14 | 10 | 15/10 | 0,47 |
| 5B01371 | 40           | 355 | 250 | 2x125 | 393 | 1x125 | 288 | 425 | 320 | 14 | 10 | 15/10 | 0,55 |
| 5B01372 | 45           | 400 | 250 | 2x125 | 438 | 1x125 | 288 | 470 | 320 | 14 | 10 | 15/10 | 0,58 |
| 5B01373 | 50           | 450 | 300 | 3x125 | 514 | 2x125 | 364 | 550 | 400 | 18 | 12 | 20/10 | 1,30 |
| 5B01374 | 56           | 500 | 300 | 3x125 | 564 | 2x125 | 364 | 600 | 400 | 18 | 12 | 20/10 | 1,38 |
| 5B01375 | 63           | 560 | 355 | 4x125 | 624 | 2x125 | 419 | 660 | 455 | 20 | 12 | 20/10 | 1,56 |

Dimensioni in mm / Dimensions in mm

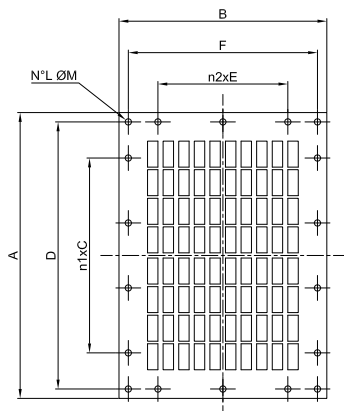
**GIUNTO ANTIVIBRANTE PREMENTE / OUTLET GUARD**



| Cod.    | TIPO<br>TYPE | A   | B   | n1xC  | D   | n2xE  | F   | G   | H   | L  | M  | Sp.   | Kg  |
|---------|--------------|-----|-----|-------|-----|-------|-----|-----|-----|----|----|-------|-----|
| 5SU1070 | 35           | 315 | 200 | 2x125 | 353 | 1x100 | 238 | 385 | 270 | 14 | 10 | 15/10 | 3,5 |
| 5SU1071 | 40           | 355 | 250 | 2x125 | 393 | 1x125 | 288 | 425 | 320 | 14 | 10 | 15/10 | 4   |
| 5SU1072 | 45           | 400 | 250 | 2x125 | 438 | 1x125 | 288 | 470 | 320 | 14 | 10 | 15/10 | 4,5 |
| 5SU1073 | 50           | 450 | 300 | 3x125 | 514 | 2x125 | 364 | 550 | 400 | 18 | 12 | 20/10 | 5   |
| 5SU1074 | 56           | 500 | 300 | 3x125 | 564 | 2x125 | 364 | 600 | 400 | 18 | 12 | 20/10 | 5,5 |
| 5SU1075 | 63           | 560 | 355 | 4x125 | 624 | 2x125 | 419 | 660 | 455 | 20 | 12 | 20/10 | 6   |

Dimensioni in mm / Dimensions in mm

**RETE PROTEZIONE BOCCA PREMENTE / OUTLET PROTECTION GUARD**



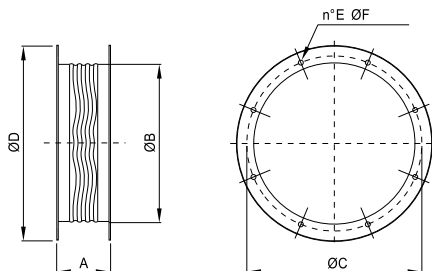
| Cod.    | TIPO<br>TYPE | A   | B   | n1xC  | D   | n2xE  | F   | L  | M  | Sp.   | Kg   |
|---------|--------------|-----|-----|-------|-----|-------|-----|----|----|-------|------|
| 5RE7735 | 35           | 385 | 270 | 2x125 | 353 | 1x100 | 238 | 14 | 10 | 15/10 | 0,49 |
| 5RE7740 | 40           | 425 | 320 | 2x125 | 393 | 1x125 | 288 | 14 | 10 | 15/10 | 0,58 |
| 5RE7745 | 45           | 470 | 320 | 2x125 | 438 | 1x125 | 288 | 14 | 10 | 15/10 | 0,61 |
| 5RE7750 | 50           | 550 | 400 | 3x125 | 514 | 2x125 | 364 | 18 | 12 | 20/10 | 1,33 |
| 5RE7756 | 56           | 600 | 400 | 3x125 | 564 | 2x125 | 364 | 18 | 12 | 20/10 | 1,41 |
| 5RE7800 | 63           | 660 | 455 | 4x125 | 624 | 2x125 | 419 | 20 | 12 | 20/10 | 1,59 |

Dimensioni in mm / Dimensions in mm

**GIUNTO ANTIVIBRANTE IN ASPIRAZIONE CCga-HT / INLET FLEXIBLE CONNECTORS CCGA-HT**

Impedisce la propagazione delle vibrazioni sulla canalizzazione. Costruito con due flange in lamiera d'acciaio, realizzate a norma UNI ISO 6580 – EUROVENT per il fissaggio al ventilatore e al canale, ed un nastro di collegamento flessibile e robusto. Adatto all'utilizzo ad alte temperature. Parti in lamiera verniciate a polveri epossipoliestiriche.

*It prevents the propagation of vibrations along the ducted system. Manufactured with two flanges in steel sheet, according to UNI ISO6580 – EUROVENT standard for fixing to the fan and to the duct, and a strong flexible fabric joint. Suitable for high temperature working. Components in steel sheet protected against atmospheric agents by epoxy paint.*



| Cod.    | TIPO TYPE | Modello Model | A   | ØB  | ØC  | ØD  | E  | ØF | kg |
|---------|-----------|---------------|-----|-----|-----|-----|----|----|----|
| 1SU5313 | CCga 40   | PR-Q 35       | 200 | 400 | 450 | 496 | 8  | 12 | 7  |
| 1SU5401 | CCga 45   | PR-Q 40       | 200 | 450 | 500 | 546 | 8  | 12 | 8  |
| 1SU5451 | CCga 45   | PR-Q 45       | 200 | 450 | 500 | 546 | 8  | 12 | 8  |
| 1SU5501 | CCga 50   | PR-Q 50       | 200 | 500 | 560 | 598 | 12 | 12 | 9  |
| 1SU5562 | CCga 56   | PR-Q 56       | 200 | 560 | 620 | 658 | 12 | 12 | 10 |
| 1SU5632 | CCga 63   | PR-Q 63       | 200 | 630 | 690 | 730 | 12 | 12 | 11 |

Dimensioni in mm / Dimensions in mm

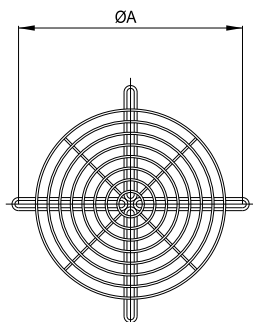
**RETE PROTEZIONE BOCCA ASPIRANTE CCr / INLET PROTECTION GUARD CCr**

Salvaguarda dal contatto accidentale con le parti in movimento del ventilatore.

Realizzata in filo d'acciaio e protetta contro gli agenti atmosferici.

CCr: versione piana (per cassa lunga e cassa corta lato girante),

*It prevents from casual contact with moving parts of the fan. Manufactured in steel rod and protected against atmospheric agents. CCr: flat version (for long case and short case on impeller side)*



| Cod.    | TIPO TYPE | Modello Model | ØA  | kg  |
|---------|-----------|---------------|-----|-----|
| 5RE1583 | CCr 40    | PR-Q 35       | 450 | 0,8 |
| 5RE1584 | CCr 45    | PR-Q 40-45    | 500 | 1,0 |
| 5RE1585 | CCr 50    | PR-Q 50       | 560 | 1,3 |
| 5RE1586 | CCr 56    | PR-Q 56       | 620 | 1,6 |
| 5RE1587 | CCr 63    | PR-Q 63       | 690 | 1,9 |

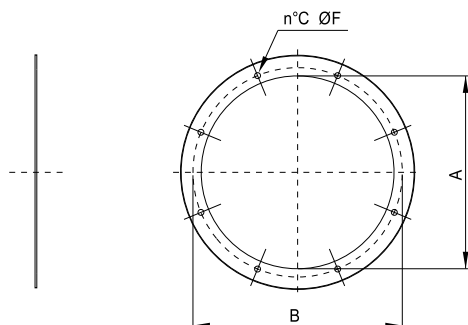
Dimensioni in mm / Dimensions in mm

**CONTROFLANGIA CCf / COUNTER FLANGE CCf**

Piastra a forma di anello provvista di fori a norma UNI ISO 6580 - EUROVENT.

Viene utilizzata per facilitare il collegamento tra il canale ed il ventilatore.

*Ring plate with holes EUROVENT standard, compatible with fan flange. It is used for easier connection between the CC fan and the duct.*



| Cod.    | TIPO TYPE | Modello Model | ØA  | ØB  | C  | ØD | kg  |
|---------|-----------|---------------|-----|-----|----|----|-----|
| 5B01040 | CCf 40    | PR-Q 35       | 400 | 450 | 8  | 12 | 1,7 |
| 5B01045 | CCf 45    | PR-Q 40-45    | 450 | 500 | 8  | 12 | 1,9 |
| 5B01050 | CCf 50    | PR-Q 50       | 500 | 560 | 12 | 12 | 2,1 |
| 5B01056 | CCf 56    | PR-Q 56       | 560 | 620 | 12 | 12 | 2,4 |
| 5B01063 | CCf 63    | PR-Q 63       | 630 | 690 | 12 | 12 | 2,7 |

Dimensioni in mm / Dimensions in mm