

# KATALOG | CATALOG

2024



Wentylatory promieniowe | Radial fans

[www.konwektor.pl](http://www.konwektor.pl)

### Wentylatory promieniowe

Wśród oferowanych przez naszą firmę rozwiązań, znajdują się niezwykle wydajne wentylatory promieniowe. Umożliwiają one przetłaczanie dużych ilości powietrza, przy jednoczesnym dużym ciśnieniu. To z kolei sprawia, że modele te są często wykorzystywane jako elementy instalacji odprowadzających.

Na podstawie przeznaczenia wentylatorów promieniowych wyróżnić można warianty poprzeczne (wykorzystywane najczęściej w instalacjach chłodniczych bądź klimatyzacyjnych), transportowe (skuteczne w przypadku odciągów wiórów czy pozostałości po obróbce płyt drewnianych, wiórowych i innych), dachowe (stosowane przy toksycznym powietrzu), jak również przeciwwybuchowe (montuje się je w miejscach zagrożonych eksplozją).

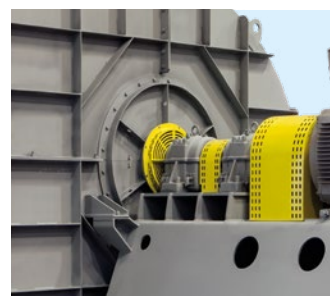
**DWULETANIA GWARANCJA  
ORAZ SERWIS NA TERENIE  
CAŁEGO KRAJU**



### Centrifugals fans

The range of solutions offered by our company includes extremely efficient centrifugal fans. They enable large volumes of air to be pumped at high pressure. This, in turn, means that these models are often used as part of extraction systems.

Based on the purpose of centrifugal fans, we can distinguish transverse variants (used mostly in cooling or air-conditioning systems), transport variants (effective in the case of extracting chips or residues from the processing of wood, chipboard and other boards), roof variants (used in toxic air), as well as explosion-proof variants (they are installed in explosion hazard areas).

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|   |   |                         |       |
|---|---|-------------------------|-------|
|    | Wentylatory promieniowe transportowe<br>Radial fans   | <b>WPT</b>              | VI-4  |
|    | Wentylatory promieniowe jednostrumieniowe<br>Single stream radial fans                                | <b>WPP</b>              | VI-9  |
|    | Wentylatory promieniowe jednostrumieniowe<br>Single stream radial fans                                | <b>WWO<sub>ax</sub></b> | VI-12 |
|    | Wentylatory promieniowe<br>Radial fans  | <b>WP-7,6</b>           | VI-34 |
|    | Wentylatory promieniowe<br>Radial fans  | <b>WP</b>               | VI-35 |
|    | Wentylatory promieniowe jednostrumieniowe<br>Single-inlet centrifugal fans                            | <b>FK</b>               | VI-47 |
|   | Wentylatory promieniowe jednostrumieniowe wysokoprężne<br>Single-inlet centrifugal high pressure fans | <b>WPO</b>              | VI-66 |
|  | Wentylatory promieniowe jednostrumieniowe wysokoprężne<br>Single-inlet centrifugal high pressure fans | <b>WPO-22,4</b>         | VI-70 |
|  | Wentylatory promieniowe dwustrumieniowe<br>Double-inlet centrifugal fans                              | <b>FKD</b>              | VI-72 |
|  | Wentylatory promieniowe jednostrumieniowe<br>Single jet centrifugal fans                              | <b>WPM<sub>s</sub></b>  | VI-86 |



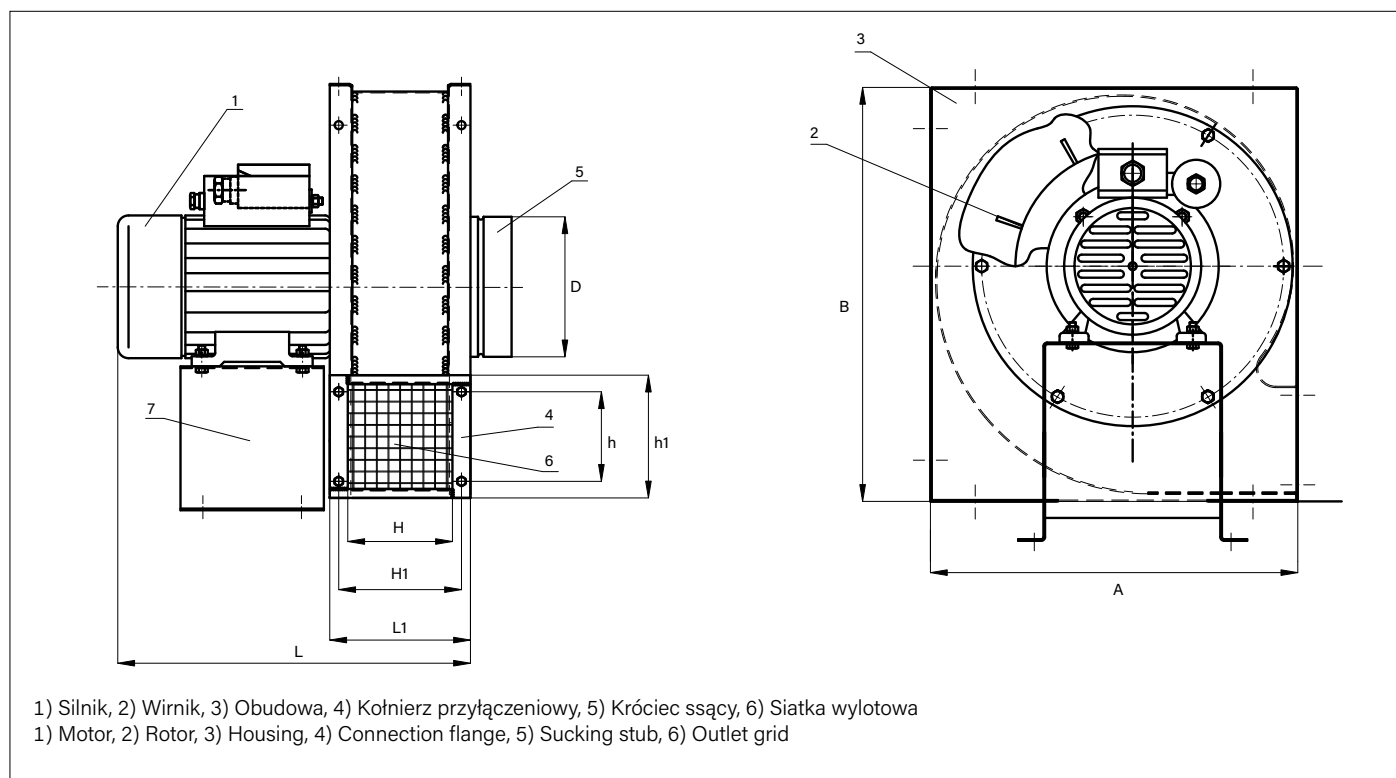
**WPT** – Wentylatory promieniowe przeznaczone są do transportu powietrza, wiórków, granulatów, styropianu, itp., w instalacjach o stosunkowo dużych oporach przepływu. Wykorzystywane są również do transportu w linii produkcyjnej butelek do napojów PET.

**WPT** - Centrifugal fans are intended for transport of air, chips, granulates, polystyrene, etc. in systems with relatively high flow resistance. They are also used for in-line transport of PET beverage bottles.

■ Zastosowane silniki mogą pracować w temperaturze otoczenia od -15°C do +40°C i wilgotności względnej do 95%.

■ The motors used can operate in ambient temperatures of -15°C to +40°C and relative humidity of up to 95%.

BUDOWA I WYMIARY | DESIGN AND DIMENSIONS



Wymiary | Dimensions

| Typ<br>Type    | Wymiary<br>Dimensions |            |           |            |            |           |           |           |            |
|----------------|-----------------------|------------|-----------|------------|------------|-----------|-----------|-----------|------------|
|                | L<br>[mm]             | L1<br>[mm] | H<br>[mm] | H1<br>[mm] | h1<br>[mm] | h<br>[mm] | A<br>[mm] | B<br>[mm] | ØD<br>[mm] |
| <b>WPT-100</b> | 345,5                 | 157        | 107       | 137        | 117        | 100       | 410       | 462       | 125        |
| <b>WPT-250</b> | 370                   | 160        | 110       | 134        | 100        | 110       | 410       | 462       | 125        |
| <b>WPT-280</b> | 390                   | 160        | 110       | 135        | 139        | 150       | 500       | 566       | 158        |
| <b>WPT-315</b> | 445                   | 190        | 140       | 165        | 139        | 150       | 500       | 566       | 198        |
| <b>WPT-500</b> | 594                   | 290        | 240       | 269,5      | 195        | 180       | 505       | 574       | 315        |
| <b>WPT-700</b> | 596,5                 | 294        | 244       | 274        | 290        | 240       | 679       | 832       | 315        |

Parametry techniczne | Technical parameters

| Typ<br>Type | Wydajność <sub>max</sub><br>Capacity <sub>max</sub> |                   | Śpiżnienie<br>Compress | Głośność*<br>Noise* | Masa<br>Weight | Moc<br>Power | Obroty<br>Rotations | Prąd IN<br>IN Current | Zasilanie<br>Feeding | St. ochrony<br>Protection<br>rate | Max. temp.pracy<br>Max working temp. |
|-------------|---|-------------------|------------------------|---------------------|----------------|--------------|---------------------|-----------------------|----------------------|-----------------------------------|--------------------------------------|
|             | m <sup>3</sup> /s                                   | m <sup>3</sup> /h |                        |                     |                |              |                     |                       |                      |                                   |                                      |
| WPT-100     | 0,36  | 1300              | 1800                   | 87                  | 15,5           | 0,55         | 2800                | 4,0                   | 1~                   | IP 54 <sup>1)</sup>               | 40                                   |
|             | 0,36  | 1300              | 1800                   | 87                  | 15             | 0,55         | 2800                | 1,35                  | 3~                   | IP 54 <sup>1)</sup>               | 40                                   |
| WPT-250     | 0,40  | 1450              | 1800                   | 92                  | 19             | 0,75         | 2820                | 5,2                   | 1~                   | IP 54 <sup>1)</sup>               | 40                                   |
|             | 0,40  | 1450              | 1800                   | 92                  | 17             | 0,75         | 2800                | 1,9                   | 3~                   | IP 54 <sup>1)</sup>               | 40                                   |
| WPT-280/a   | 0,69  | 2500              | 2000                   | 94                  | 28             | 1,1          | 2810                | 7,0                   | 1~                   | IP 54 <sup>1)</sup>               | 40                                   |
|             | 0,69  | 2500              | 2000                   | 94                  | 26             | 1,1          | 2780                | 2,5                   | 3~                   | IP 54 <sup>1)</sup>               | 40                                   |
| WPT-280     | 0,72  | 2600              | 2100                   | 94                  | 28             | 1,5          | 2800                | 3,2                   | 1~                   | IP 54 <sup>1)</sup>               | 40                                   |
|             | 0,72  | 2600              | 2100                   | 94                  | 26             | 1,5          | 2835                | 2,9                   | 3~                   | IP 54 <sup>1)</sup>               | 40                                   |
| WPT-315     | 0,83  | 3000              | 2600                   | 98                  | 41             | 2,2          | 2855                | 4,7                   | 3~                   | IP 54 <sup>1)</sup>               | 40                                   |
| WPT-500     | 1,89  | 6800              | 2440                   | 88                  | 58             | 4,0          | 2880                | 7,8                   | 3~                   | IP 54 <sup>1)</sup>               | 40                                   |
| WPT-700     | 2,22  | 8000              | 3350                   | 89                  | 80             | 7,5          | 2880                | 14,0                  | 3~                   | IP 54 <sup>1)</sup>               | 40                                   |

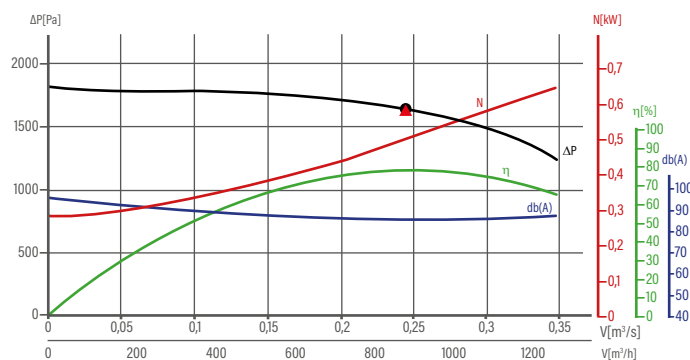
\*Pomiar w odległości 1m; Measured at 1m distance;

<sup>1)</sup>Na specjalne zamówienie IP 55 i IP 56 ; On demand IP 55 i IP 56

Charakterystyki | Characteristics

WPT-100

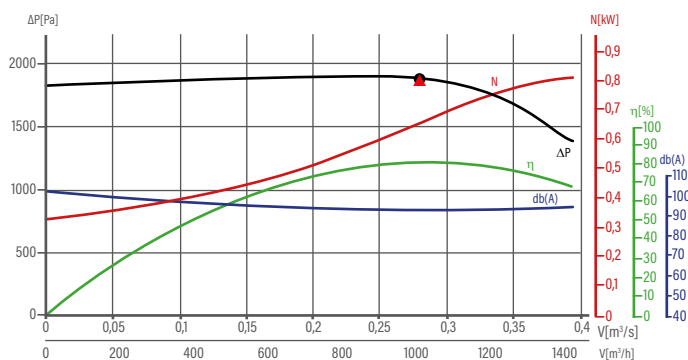
RPM: 2800 [min<sup>-1</sup>]



● Punkt pracy Working point    ▲ Punkt najwyższej sprawności Best efficiency point

WPT-250

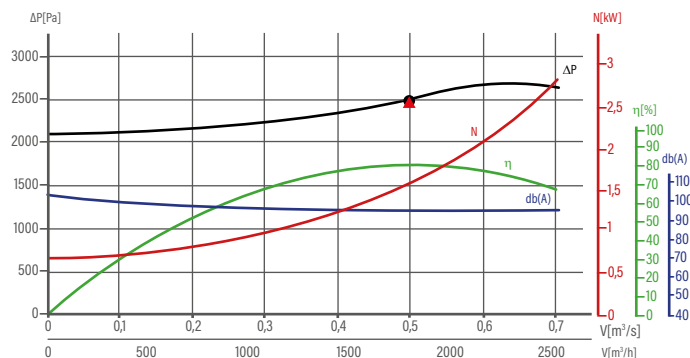
RPM: 2800 [min<sup>-1</sup>]



● Punkt pracy Working point    ▲ Punkt najwyższej sprawności Best efficiency point

WPT-280.A

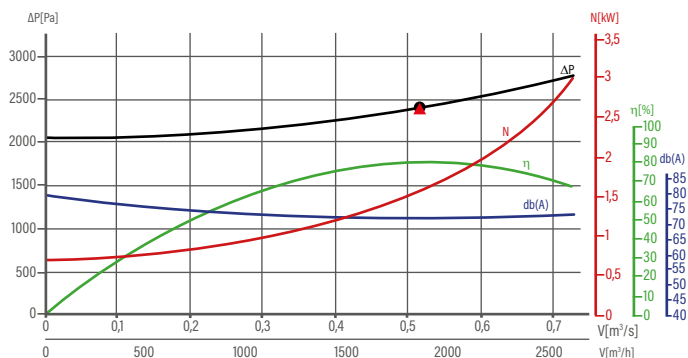
RPM: 2810 [min<sup>-1</sup>]



● Punkt pracy Working point    ▲ Punkt najwyższej sprawności Best efficiency point

WPT-280

RPM: 2835 [min<sup>-1</sup>]

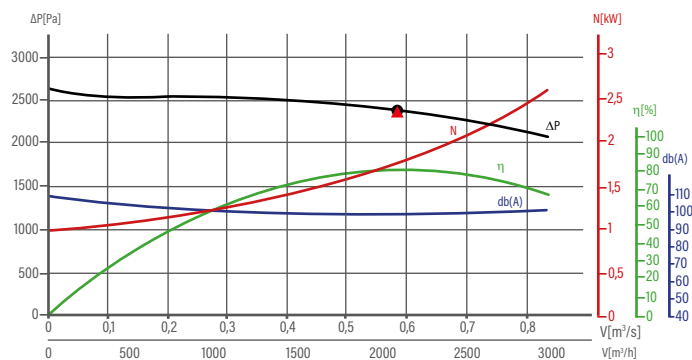


● Punkt pracy Working point    ▲ Punkt najwyższej sprawności Best efficiency point

### Charakterystyki | Characteristics

**WPT-315**

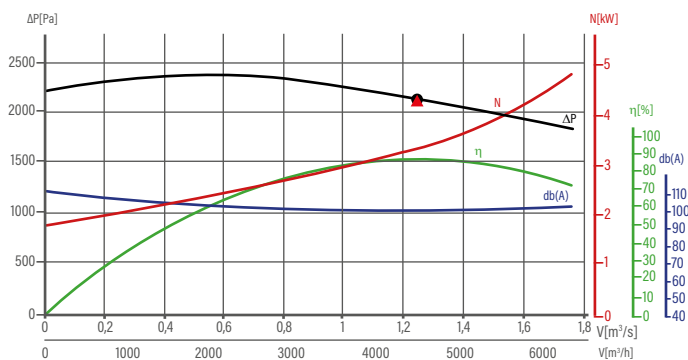
RPM: 2855 [min<sup>-1</sup>]



- Punkt pracy Working point
- ▲ Punkt najwyższej sprawności Best efficiency point

**WPT-500**

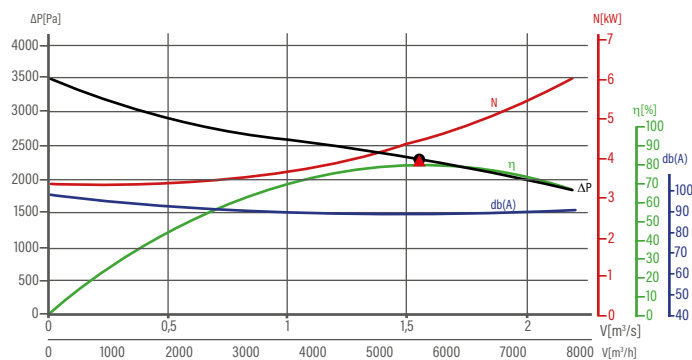
RPM: 2880 [min<sup>-1</sup>]



- Punkt pracy Working point
- ▲ Punkt najwyższej sprawności Best efficiency point

**WPT-700**

RPM: 2880 [min<sup>-1</sup>]



- Punkt pracy Working point
- ▲ Punkt najwyższej sprawności Best efficiency point

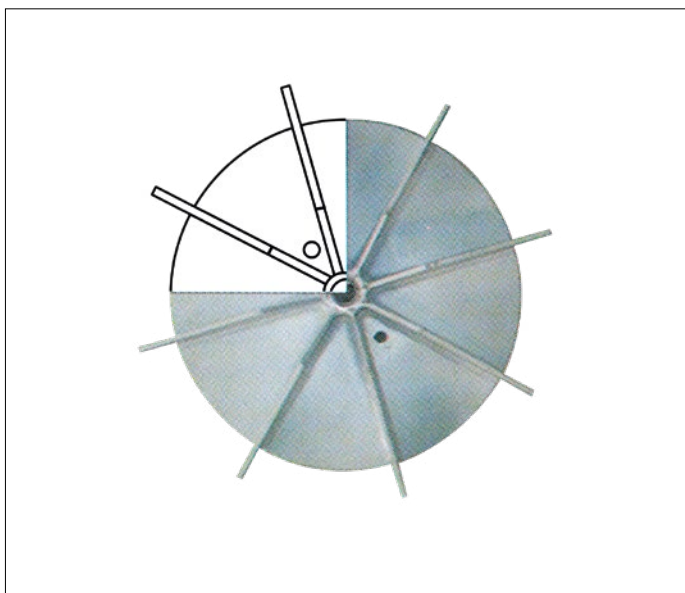
Fabryka wprowadziła do produkcji nowy wentylator WPT 280, który jest dostępny z jednym z trzech wirników.

Docelowo cały typoszereg wentylatorów WPT zostanie wyposażony w te wirniki.

Factory introduce new fan WPT 280, which is available in all three variations of rotors.

Eventually all types of WPT's will be supplied with this rotors.

### Wirnik otwarty typu A - łopatki odgięte do tyłu | Open rotor type A - blades straight located radially



#### Wirnik typu A

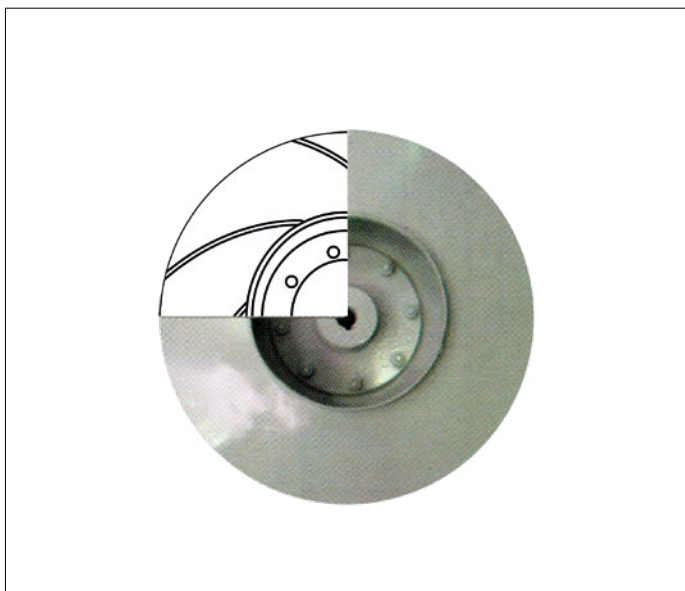
Wentylator WPT 280 wyposażony w wirnik typu A charakteryzuje się niską sprawnością, lecz umożliwia transportowanie dużych ilości materiału (do  $0,5 \text{ kg/m}^3$ ) i nadaje się zarówno do instalacji odciągu z maszyn drzewnych i meblarskich do filtra, jak również do instalacji transportowych (z filtra do silosu).

Wykorzystywany jest również do przetłaczania powietrza, transportu wiórów, granulatów, styropianu, itp. Wirnik ten charakteryzuje się bardzo solidną konstrukcją co sprawia, że może być eksploatowany w trudnych warunkach przez długi okres czasu.

#### Rotor type A

Rotor type A can be described as low efficiency, but is able to transport high amount of material (up to  $0,5 \text{ kg/m}^3$ ) and can be used to transportation from a filler to a storage as well as installation of exhale at the machines processing a wood.

### Wirnik zamknięty typu B - łopatki odgięte do tyłu | Closed rotor type B - rear deflected blades



#### Wirnik typu B

Wentylator WPT 280 z wirnikiem typu B charakteryzuje się wysoką sprawnością i przeznaczony jest do pracy z czystym powietrzem, a jego zastosowanie ogranicza się w przemyśle drzewnym i meblarskim do systemów podciśnieniowych (wentylator po tzw. czystej stronie).

#### Oszczędności

- Wentylator z wirnikiem typu B charakteryzuje się wysoką sprawnością rzędu 80%.
- Pobór mocy w stosunku do wentylatora z wirnikiem otwartym jest mniejszy o 35%.

#### Rotor type B

Fan with type B rotor is a heavy duty equipment designed to work with a clean air, and its usage is limited in wooden and furniture industry to vacuum systems.

#### Economy

- Fan with a type B rotor is highly effective (80%).
- Power consumption is 35% lower comparing to an open rotor.

**Wirnik zamknięty typu C- łopatki odgięte do tyłu | Closed rotor type C- blades directed diagonally heading towards rear end**

**Wirnik typu C**

Wentylator WPT 280 z wirnikiem typu C stosowany jest do pracy w instalacjach o stopniu zanieczyszczenia do  $0,5 \text{ kg/m}^3$  suchych trocin, wiórów, pyłów, których wielkość nie przekracza wymiaru  $20 \times 20 \times 40 \text{ mm}$ , nadaje się praktycznie do każdego zastosowania przy odciążu odpadów z maszyn obróbki drewna i płyt drewnopochodnych (nie nadaje się do zastosowania w przemyśle drzewnym, kiedy mamy do czynienia z odpadem mokrym). Użycie wentylatorów o wyższej sprawności może dać wymierne korzyści finansowe.

W przypadku istniejących instalacji, w których mamy do czynienia z niską jakością odciążu na maszynach, zastosowany jest wentylator z wirnikiem „otwartym” podobnym do wirnika typu A, - zastosowanie wentylatora WPT z wirnikiem typu C o tej samej mocy spowoduje znaczną poprawę jakości odciążu na maszynach.

**Oszczędności**

- Wentylator z wirnikiem typu C charakteryzuje się wysoką sprawnością rzędu 70%.

**Rotor type C**

Fan with a type C rotor is designed to work in installations contaminated by dry shavings, sawdust, and dust (up to  $0,5 \text{ kg/m}^3$  - pieces no bigger than  $20 \times 20 \times 40 \text{ mm}$ ). Fan is able to be used during exhaling a wastes from the machines processing wood and wood-like sheets (it cannot be used in wooden industry to exhale damp wastes). Usage of the fan with a higher efficiency can reduce a costs. In case of constructions with a low efficiency of exhaling at the machines and the open rotor (like in the fans type A, - usage of a fan WPT with rotor type C with the same power, will cause massive quality improvement of the exhaling at the equipment.

**Economy**

- Fan with a type C rotor is highly effective (70%).

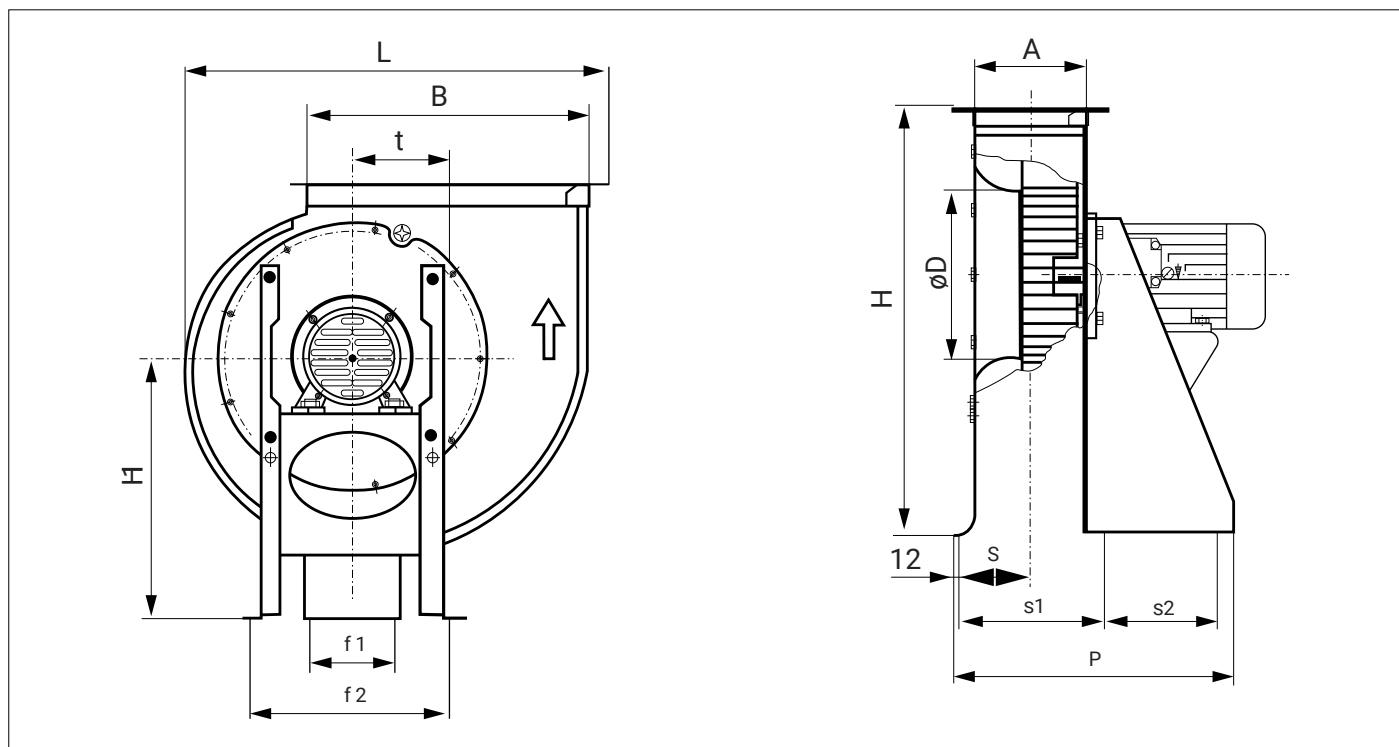


**WPP** - Wentylatory promieniowe jednostrumieniowe mają zastosowanie w układach wentylacyjnych, klimatyzacyjnych, suszarniczych, w procesach technologicznych do transportu gazów o gęstości do 1,2 kg/m<sup>3</sup> oraz urządzeniach grzewczych.

- Wszystkie elementy wentylatora wykonane są z blachy stalowej ocynkowanej, stanowiącej dobre zabezpieczenie antykorozyjne.
- Wentylatory mogą przetaczać powietrze o temperaturze do 80°C, gdyż nie ma ono kontaktu z silnikiem.
- Wentylatory WPP wyposażone są w wirniki promieniowe

**WPP** - Barrel fans can be used in ventilating, air conditioning and drying systems in technological processes for gas transportation of up to 1,2 kg/m<sup>3</sup> density, as well as in heating units.

- All elements are made of galvanized iron which is an excellent anti-corrosion protection.
- The fan is designed to force air of up to 80°C temperature as it does not have contact with the motor.
- WPP fans are equipped in centrifugal rotors



**Wymiary | Dimensions**

| Typ<br>Type    | L<br>[mm] | H<br>[mm] | A<br>[mm] | B<br>[mm] | t<br>[mm] | H1<br>[mm] | ØD<br>[mm] | P<br>[mm] | f1<br>[mm] | f2<br>[mm] | s<br>[mm] | s1<br>[mm] | s2<br>[mm] |
|----------------|-----------|-----------|-----------|-----------|-----------|------------|------------|-----------|------------|------------|-----------|------------|------------|
| <b>WPP-180</b> | 357       | 412       | 122       | 229       | 81        | 257        | 115        | 307(353)  | 117        | 222        | 81        | 187(198)   | 90(125)    |
| <b>WPP-225</b> | 436       | 466       | 150       | 288       | 100       | 280        | 145        | 406       | 117        | 218        | 95        | 195        | 180        |
| <b>WPP-280</b> | 535       | 561       | 187       | 361       | 123       | 337        | 180        | 443       | 149        | 269        | 113       | 233        | 180        |
| <b>WPP-315</b> | 600       | 615       | 210       | 404       | 139       | 379        | 205        | 463       | 149        | 269        | 122       | 252        | 180        |
| <b>WPP-355</b> | 671       | 695       | 233       | 453       | 158       | 418        | 230        | 489       | 296        | 324        | 136       | 279        | 180        |
| <b>WPP-400</b> | 743       | 778       | 260       | 507       | 179       | 488        | 355        | 516       | 296        | 324        | 148       | 304        | 180        |
| <b>WPP-450</b> | 841       | 842       | 292       | 569       | 202       | 516        | 290        | 611       | 410        | 411        | 166       | 341        | 242        |
| <b>WPP-500</b> | 939       | 978       | 322       | 638       | 220       | 614        | 325        | 712       | 430        | 447        | 188       | 384        | 280        |

( ) Dane dla 2800 obr/min; Data for 2800 rpm

### Parametry techniczne | Technical parameters

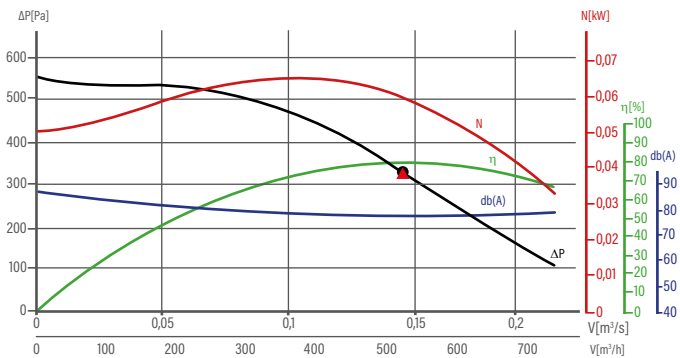
| Typ Type | Wydajność Capacity<br>[m³/s] | Spiężnienie Compress<br>[Pa] | Moc Power<br>[kW] | Obroty Rotations<br>[min⁻¹] | Prąd Current<br>[A] | Zasilanie Feeding<br>[V] | Stopień ochrony Protection rate | Max. temp. pracy Max. working temp.<br>[°C] | Sprawność Efficiency<br>[%] | Moc pobierania Input power<br>[kW] | Kategoria pomiarowa Measurement category | Kategoria sprawności (statyczna/całkowita) Category efficiency (static/total) | $\eta_{\text{target}}$ od 2015 | $N_{\text{actual}}$ | Głośność Noise $L_{\text{wa}}$<br>[dB(A)] | Waga Weight<br>[kg] |
|----------|------------------------------|------------------------------|-------------------|-----------------------------|---------------------|--------------------------|---------------------------------|---|-----------------------------|------------------------------------|--|---|--------------------------------|---------------------|---|---------------------|
| WPP-180  | 0,139                        | 370                          | 0,55              | 2765                        | 1,35                | 3~                       | IP 54                           | 80  | 69,0                        | 0,075                              | -  | -   | -                              | -                   | 78  | 17                  |
| WPP-225  | 0,278                        | 400                          | 0,75              | 2800                        | 1,09                | 3~                       | IP 54                           | 80  | 69,0                        | 0,600                              | B,D                                      | całkowita / total   | 51,2                           | 76,7                | 82  | 20                  |
| WPP-280  | 0,389                        | 820                          | 1,10              | 2800                        | 2,50                | 3~                       | IP 54                           | 80  | 76,0                        | 0,440                              | B,D                                      | całkowita / total   | 49,8                           | 84,6                | 85  | 30                  |
| WPP-315  | 0,556                        | 1150                         | 1,50              | 2800                        | 3,50                | 3~                       | IP 54                           | 80  | 79,0                        | 0,720                              | B,D                                      | całkowita / total   | 52,0                           | 86,2                | 90  | 35                  |
| WPP-355  | 0,694                        | 1625                         | 1,50              | 2800                        | 3,50                | 3~                       | IP 54                           | 80  | 79,0                        | 1,360                              | B,D                                      | całkowita / total   | 54,9                           | 84,5                | 92  | 50                  |
| WPP-400  | 0,500                        | 480                          | 0,75              | 1380                        | 1,90                | 3~                       | IP 54                           | 80  | 80,0                        | 0,480                              | B,D                                      | całkowita / total   | 50,2                           | 88,3                | 76  | 56                  |
| WPP-450  | 0,750                        | 600                          | 1,10              | 1380                        | 2,50                | 3~                       | IP 54                           | 80  | 81,0                        | 0,900                              | B,D                                      | całkowita / total   | 53,0                           | 87,6                | 80  | 60                  |
| WPP-500  | 1,000                        | 700                          | 1,50              | 1380                        | 3,70                | 3~                       | IP 54                           | 80  | 81,0                        | 1,500                              | B,D                                      | całkowita / total   | 55,3                           | 86,2                | 84  | 65                  |

W tabeli przedstawiono parametry urządzenia w optymalnym punkcie pracy; In the table are presented technical parameters of the unit in optimal working point

### Charakterystyki | Characteristics

#### WPP-180

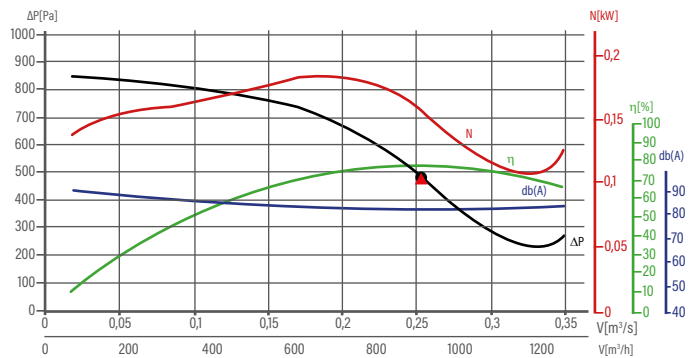
RPM: 2765 [min⁻¹]



● Punkt pracy Working point  
▲ Punkt najwyższej sprawności Best efficiency point

#### WPP-225

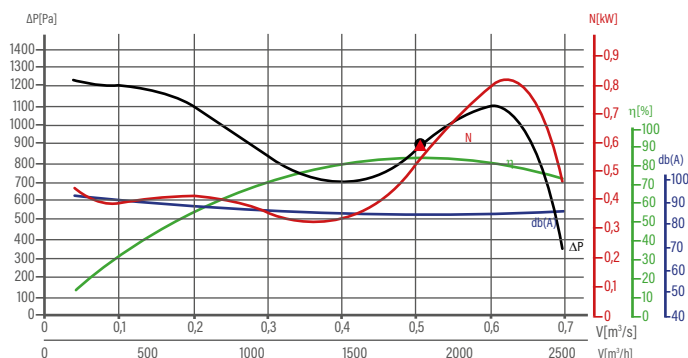
RPM: 2800 [min⁻¹]



● Punkt pracy Working point  
▲ Punkt najwyższej sprawności Best efficiency point

#### WPP-280

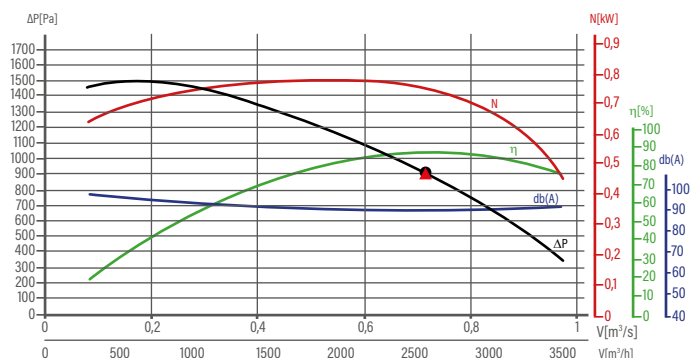
RPM: 2800 [min⁻¹]



● Punkt pracy Working point  
▲ Punkt najwyższej sprawności Best efficiency point

#### WPP-315

RPM: 2800 [min⁻¹]

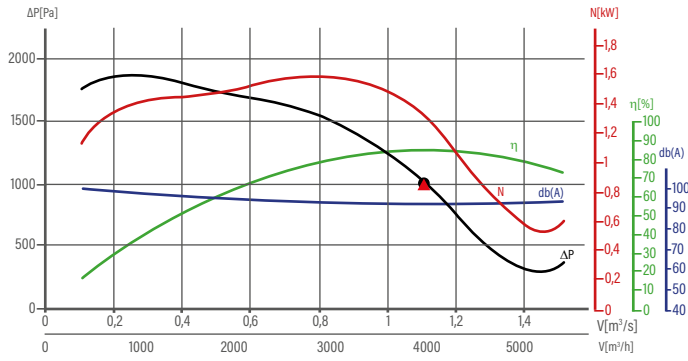


● Punkt pracy Working point  
▲ Punkt najwyższej sprawności Best efficiency point

Charakterystyki | Characteristics

WPP-355

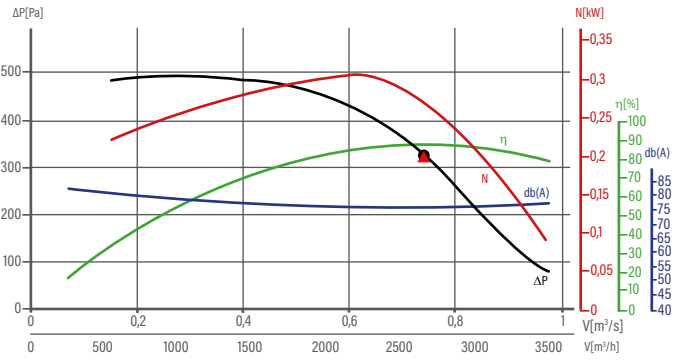
RPM: 2800 [min<sup>-1</sup>]



● Punkt pracy Working point      ▲ Punkt najwyższej sprawności Best efficiency point

WPP-400

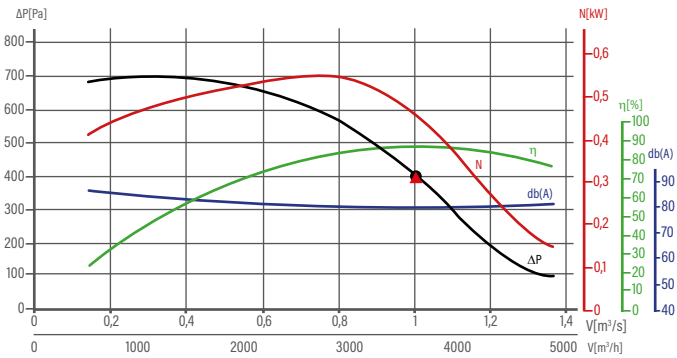
RPM: 1380 [min<sup>-1</sup>]



● Punkt pracy Working point      ▲ Punkt najwyższej sprawności Best efficiency point

WPP-450

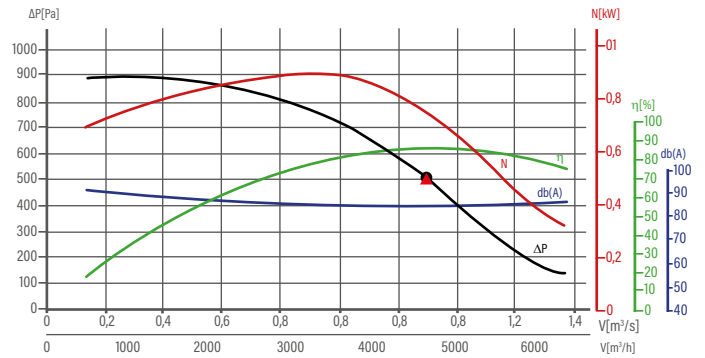
RPM: 1380 [min<sup>-1</sup>]



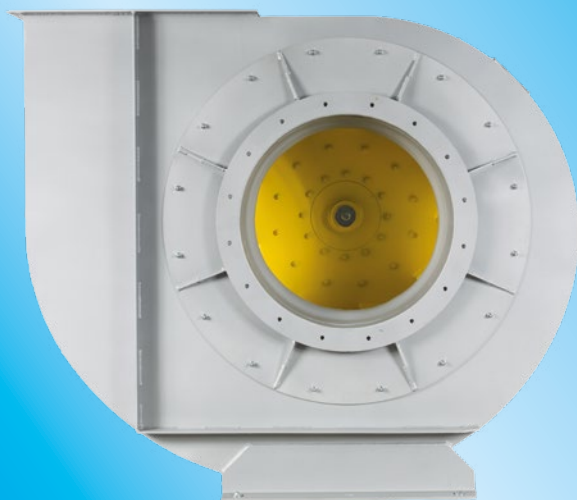
● Punkt pracy Working point      ▲ Punkt najwyższej sprawności Best efficiency point

WPP-500

RPM: 1380 [min<sup>-1</sup>]



● Punkt pracy Working point      ▲ Punkt najwyższej sprawności Best efficiency point



**Zastosowanie:**

- Wentylatory ogólnego przeznaczenia.
- Max temperatura przetwarzanego czynnika to 500°C.
- Max zapylenie przetwarzanego czynnika to 0,5 g/m<sup>3</sup>.

**Intended use:**

- General purpose fans.
- Maximum temperature of the pumped medium is 500°C.
- Maximum dust content of the pumped medium is 0.5 g/m<sup>3</sup>.

**Wentylator posiada następujące możliwe układy przeniesienia napędu:**

- Bezpośredni
- Sprzęgłowy
- Pasowy

**The fan has the following possible transmission systems:**

- Direct
- Clutch
- Belt

**Wyposażenie dodatkowe:**

- Wlot kolanowy
- Aparat regulacyjny
- Przemiennek częstotliwości
- Przeciwkołnierze
- Izolacja ciepłno-akustyczna
- Komora akustyczna na silnik lub na cały wentylator
- Tłumiki akustyczne na ssaniu lub tłoczeniu

**Additional equipment:**

- Elbow inlet
- Regulating apparatus
- Frequency converter
- Counter flanges
- Thermal and acoustic insulation
- Acoustic chamber for the motor or for the entire fan,
- Acoustic silencers on the suction or discharge side

**Dostępne wykonania wentylatora:**

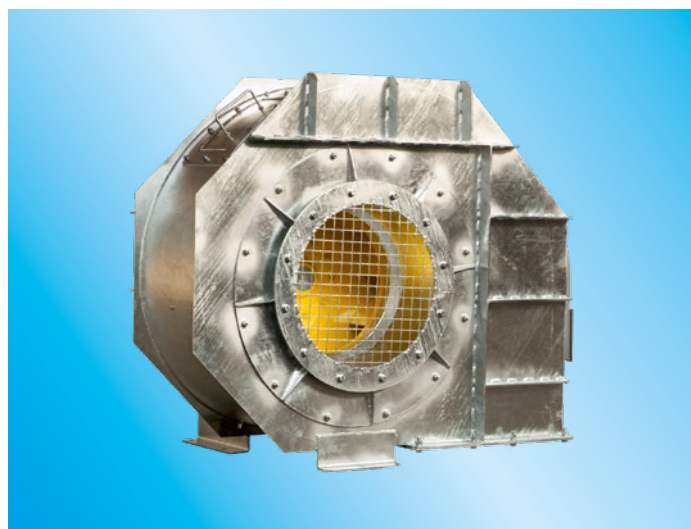
- Standardowe (wykonanie ze stali węglowej)
- Ze stali nierdzewnej (wykonanie ze stali 1.4301)
- Z stali nierdzewnej innej niż 1.4301 na specjalne zamówienie klienta
- Przeciwwybuchowe
- Transportowe
- Do przetwarzania czynnika zapylanego (>0,5 g/m<sup>3</sup>) na specjalne zamówienie klienta
- Chemoodporne

**Fan versions available:**

- Standard (carbon steel design)
- Stainless steel (1.4301 steel design)
- Execution from stainless steel other than 1.4301 is possible on special request
- Explosion-proof
- Transport
- For pumping of dusty medium (>0,5 g/m<sup>3</sup>) on special request of the customer
- Chemically resistant

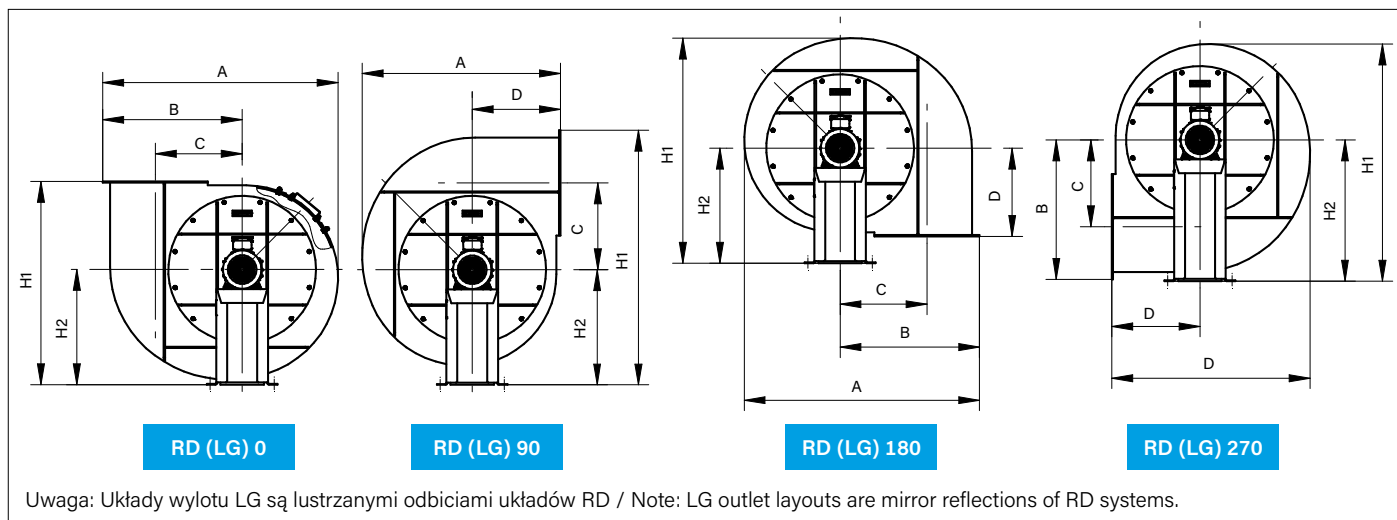
**Przykład wentylatora w całości ocynkowanego | Example of a fully galvanized fan**

**Przykład wentylatora wyposażonego w izolację ciepłno-akustyczną | Example of a fan with thermal and acoustic insulation**



WENTYLATOR PROMIENIOWY WWOax-20÷125 WYK. STANDARDOWE Z NAPĘDEM BEZPOŚREDNIM I SPRZĘGŁOWYM  
CENTRIFUGAL FAN WWOax-20÷125 STANDARD DESIGN WITH DIRECT AND CLUTCH DRIVE

Podstawowe figury pracy, wymiary gabarytowe wlk. 20÷125 | Basic working figures, overall dimensions 20÷125



Wymiary | Dimensions

| Układ wylotu<br>Outlet layout | WWOax-20 |      |      |      |      |      | WWOax-22.4 |      |      |      |      |      | WWOax-25 |      |      |      |      |      | WWOax-28 |      |      |      |      |      |
|-------------------------------|----------|------|------|------|------|------|------------|------|------|------|------|------|----------|------|------|------|------|------|----------|------|------|------|------|------|
|                               | H1       | H2   | A    | B    | C    | D    | H1         | H2   | A    | B    | C    | D    | H1       | H2   | A    | B    | C    | D    | H1       | H2   | A    | B    | C    | D    |
|                               | [mm]     | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]       | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]     | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]     | [mm] | [mm] | [mm] | [mm] | [mm] |
| RD(LG) 0                      | 569      |      | 570  |      |      |      | 636        |      | 629  |      |      |      | 711      |      | 697  |      |      |      | 788      | 500  | 747  |      |      |      |
| RD(LG) 90                     | 687      |      | 501  |      |      |      | 768        |      | 550  |      |      |      | 857      |      | 594  |      |      |      | 787      |      | 649  |      |      |      |
| RD(LG) 180                    | 642      | 355  | 570  | 332  | 200  | 214  | 714        | 400  | 629  | 368  | 224  | 236  | 783      | 450  | 697  | 407  | 250  | 261  | 716      | 355  | 747  | 457  | 280  | 288  |
| RD(LG) 270                    | 593      |      | 501  |      |      |      | 661        |      | 550  |      |      |      | 740      |      | 594  |      |      |      | 815      | 500  | 649  |      |      |      |

Wymiary | Dimensions

| Układ wylotu<br>Outlet layout | WWOax-31.5 |      |      |      |      |      | WWOax-35.5 |      |      |      |      |      | WWOax-40 |      |      |      |      |      | WWOax-45 |      |      |      |      |      |
|-------------------------------|------------|------|------|------|------|------|------------|------|------|------|------|------|----------|------|------|------|------|------|----------|------|------|------|------|------|
|                               | H1         | H2   | A    | B    | C    | D    | H1         | H2   | A    | B    | C    | D    | H1       | H2   | A    | B    | C    | D    | H1       | H2   | A    | B    | C    | D    |
|                               | [mm]       | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]       | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]     | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]     | [mm] | [mm] | [mm] | [mm] | [mm] |
| RD(LG) 0                      | 888        | 560  | 866  |      |      |      | 942        |      | 980  |      |      |      | 936      |      | 1084 |      |      |      | 1097     | 640  | 1222 |      |      |      |
| RD(LG) 90                     | 910        |      | 738  |      |      |      | 1155       |      | 829  |      |      |      | 1172     | 530  | 913  |      |      |      | 1267     | 540  | 1024 |      |      |      |
| RD(LG) 180                    | 810        | 400  | 866  | 510  | 315  | 328  | 1047       | 580  | 980  | 575  | 355  | 362  | 1037     |      | 1083 | 642  | 400  | 406  | 1037     | 470  | 1222 | 727  | 450  | 457  |
| RD(LG) 270                    | 917        | 560  | 738  |      |      |      | 985        |      | 829  |      |      |      | 1091     | 650  | 913  |      |      |      | 1235     | 740  | 1024 |      |      |      |

Wymiary | Dimensions

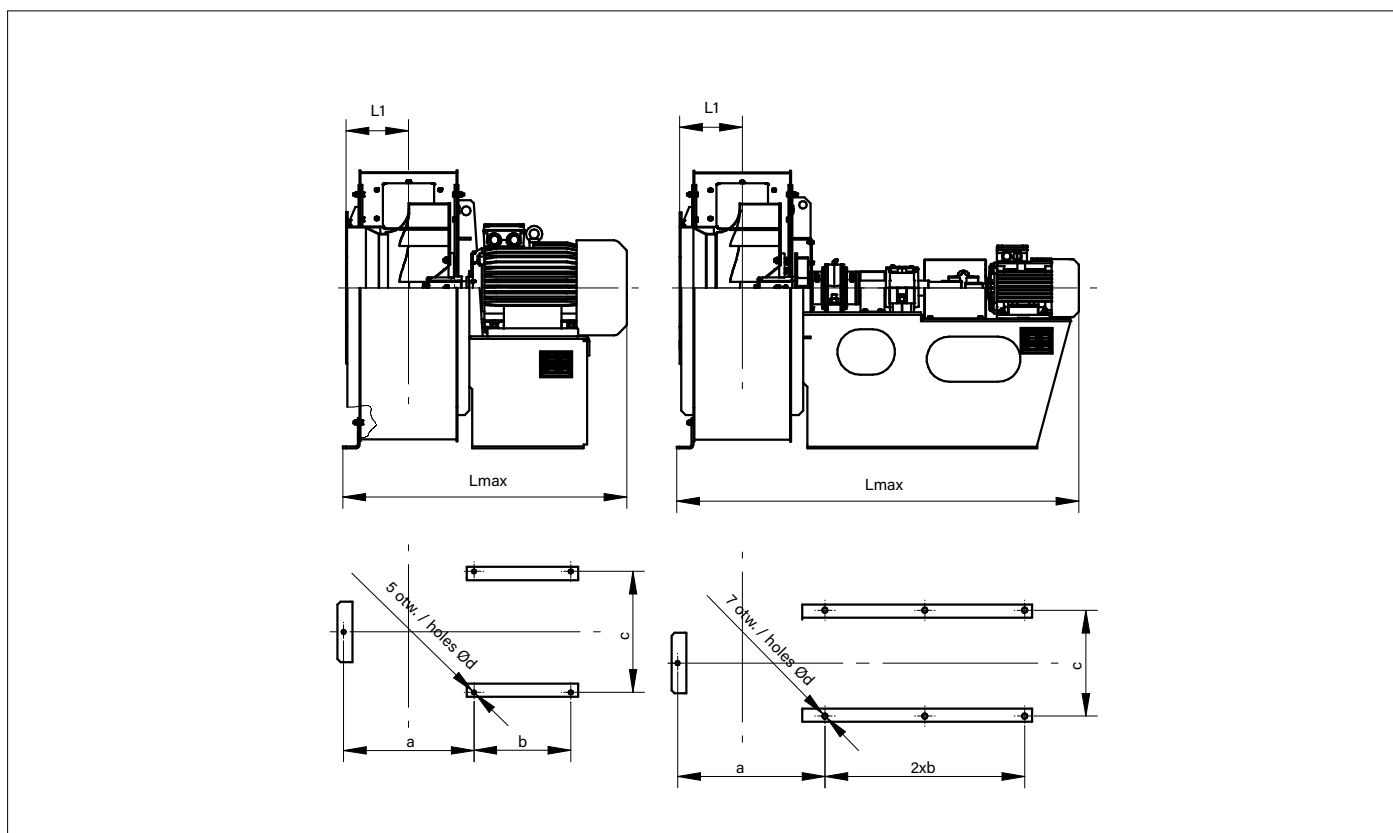
| Układ wylotu<br>Outlet layout | WWOax-50 |      |      |      |      |      | WWOax-56 |      |      |      |      |      | WWOax-63 |      |      |      |      |      | WWOax-80 |      |      |      |      |      |
|-------------------------------|----------|------|------|------|------|------|----------|------|------|------|------|------|----------|------|------|------|------|------|----------|------|------|------|------|------|
|                               | H1       | H2   | A    | B    | C    | D    | H1       | H2   | A    | B    | C    | D    | H1       | H2   | A    | B    | C    | D    | H1       | H2   | A    | B    | C    | D    |
|                               | [mm]     | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]     | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]     | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]     | [mm] | [mm] | [mm] | [mm] | [mm] |
| RD(LG) 0                      | 1160     | 660  | 1359 |      |      |      | 1298     | 740  | 1506 |      |      |      | 1449     | 820  | 1690 |      |      |      | 1840     | 1040 | 2151 |      |      |      |
| RD(LG) 90                     | 1377     | 580  | 1146 |      |      |      | 1534     | 640  | 1285 |      |      |      | 1718     | 720  | 1418 |      |      |      | 2190     | 920  | 1832 |      |      |      |
| RD(LG) 180                    | 1146     | 500  | 1359 | 797  | 495  | 500  | 1287     | 560  | 1506 | 893  | 560  | 558  | 1422     | 630  | 1690 | 998  | 630  | 626  | 2166     | 800  | 2151 | 1270 | 800  | 798  |
| RD(LG) 270                    | 1362     | 800  | 1146 |      |      |      | 1513     | 900  | 1285 |      |      |      | 1692     | 1000 | 1418 |      |      |      | 2140     | 1280 | 1832 |      |      |      |

Wymiary | Dimensions

| Układ wylotu<br>Outlet layout | WWOax-100 |      |      |      |      |      | WWOax-125 |      |      |      |      |      |
|-------------------------------|-----------|------|------|------|------|------|-----------|------|------|------|------|------|
|                               | H1        | H2   | A    | B    | C    | D    | H1        | H2   | A    | B    | C    | D    |
|                               | [mm]      | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]      | [mm] | [mm] | [mm] | [mm] | [mm] |
| RD(LG) 0                      | 2295      | 1320 | 2667 |      |      |      | 2881      | 1640 | 3420 |      |      |      |
| RD(LG) 90                     | 2707      | 1140 | 2230 |      |      |      | 3391      | 1430 | 2867 |      |      |      |
| RD(LG) 180                    | 2253      | 1000 | 2667 | 1567 | 1000 | 975  | 2875      | 1250 | 3420 | 1961 | 1250 | 1241 |
| RD(LG) 270                    | 2701      | 1600 | 2230 |      |      |      | 3460      | 2000 | 2867 |      |      |      |

WENTYLATOR PROMIENIOWY WVOax-20÷125 WYK. STANDARDOWE Z NAPĘDEM BEZPOŚREDNIM I SPRZĘGŁOWYM  
CENTRIFUGAL FAN WVOax-20÷125 EXEC. STANDARD WITH DIRECT AND CLUTCH DRIVE

Wymiary montażowe wlk. 20÷45 | Mounting dimensions 20÷45



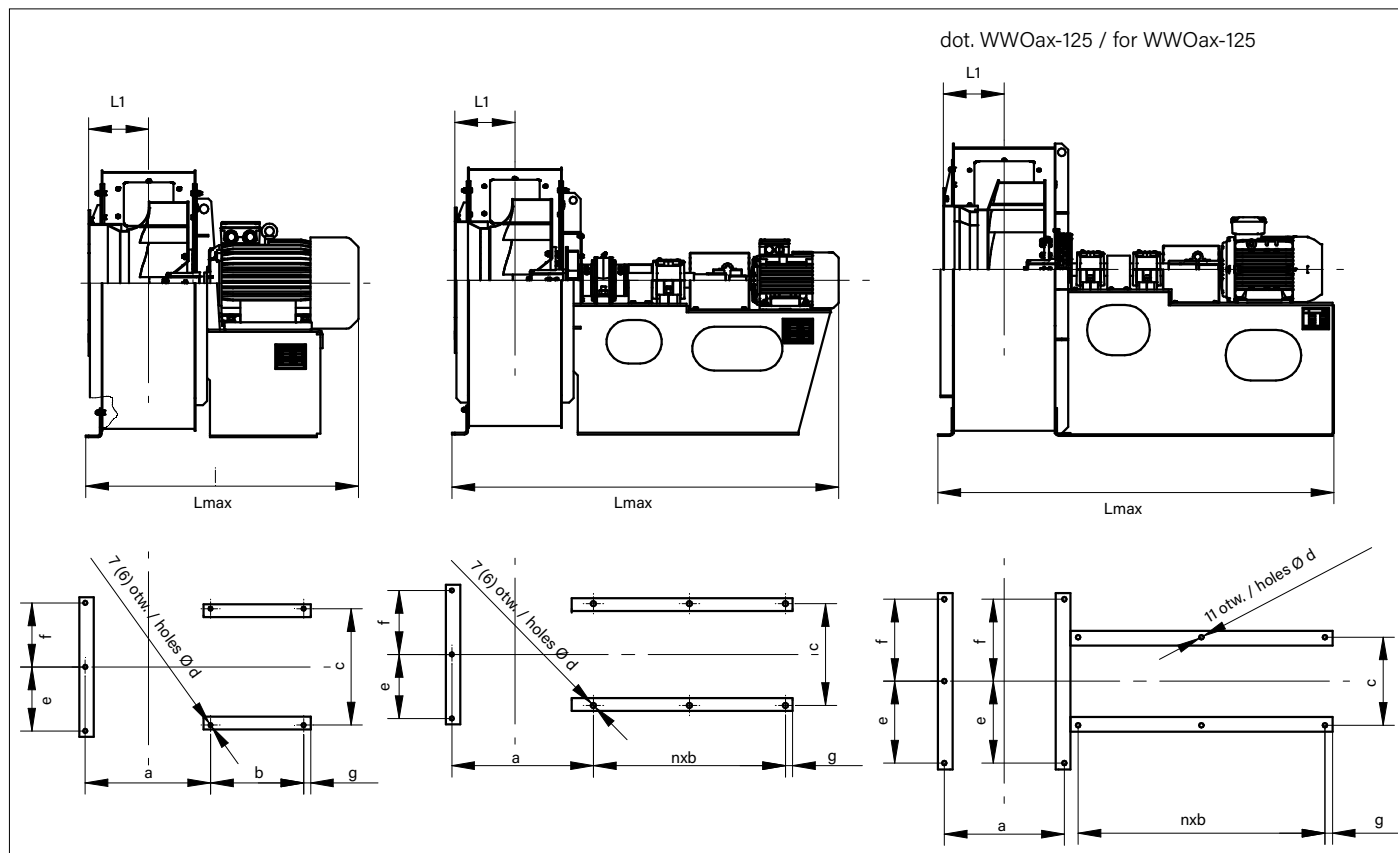
Wymiary | Dimensions

| Typ<br>Type | Silnik lub obroty wirnika<br>Motor or rotor rotational speed | Napęd bezpośredni / Direct drive |      |      |      |      | Napęd sprzęgłowy / Clutch drive |      |      |      |      |      |      |
|-------------|--|----------------------------------|------|------|------|------|---------------------------------|------|------|------|------|------|------|
|             |  | L1                               | a    | b    | c    | d    | Lmax                            | a    | b    | c    | d    | Lmax |      |
|             |  | [mm]                             | [mm] | [mm] | [mm] | [mm] | [mm]                            | [mm] | [mm] | [mm] | [mm] | [mm] |      |
| WVOax-20    | ≤ 3000   | 103                              | 245  | 157  | 280  | 12   | 450                             | 245  | 300  | 280  | 12   | 900  |      |
| WVOax-22.4  |  | 113                              | 268  | 190  |      |      | 505                             | 268  |      |      |      | 920  |      |
| WVOax-25    |  | 129                              | 292  | 190  |      |      | 536                             | 292  |      |      |      | 970  |      |
| WVax-28     | 3SIE 80-4A   | 144                              | 302  | 183  | 310  | 14   | 540                             | 302  | 335  | 310  | 14   | 1006 |      |
|             | 3SIE 100L2   |                                  |      |      |      |      | 585                             |      |      |      |      | 1065 |      |
| WVOax-31.5  | ≤ 1500   | 164                              | 357  | 200  | 350  | 14   | 600                             | 357  | 280  | 350  | 14   | 1005 |      |
|             | ≤ 3000   |                                  |      |      |      |      | 709                             |      | 350  |      |      | 1215 |      |
| WVOax-35.5  | ≤ 1500   | 188                              | 395  | 270  | 400  | 14   | 641                             | 395  | 300  | 400  | 14   | 1095 |      |
|             | 3SIE 160M2A  |                                  |      |      |      |      | 843                             |      | 450  |      |      | 1550 |      |
|             | 3SIE 132S2B  |                                  |      |      |      |      | 750                             |      | 400  |      |      | 1550 |      |
| WVO-40      | 3SIE 90S6  | 207                              | 431  | 150  | 295  | 14   | 662                             | 431  | 350  | 350  | 14   | 1330 |      |
|             | 3SIE 100L4A  |                                  |      |      |      |      | 698                             |      | 350  |      |      | 350  | 1635 |
|             | 3SIE 90L4  |                                  |      |      |      |      |                                 |      |      |      |      |      |      |
|             | 3SIE 160L2   |                                  |      |      |      |      | 884                             |      | 1590 |      |      |      |      |
| WVOax-45    | ≤ 1500   | 221                              | 483  | 200  | 350  | 18   | 745                             | 483  | 450  | 350  | 18   | 1410 |      |
|             | ≤ 3000   |                                  |      | 470  | 500  |      | 1125                            |      | 550  | 500  |      | 1825 |      |

Wentylatory promieniowe | Radial fans

WENTYLATOR PROMIENIOWY WWOax-20÷125 WYK. STANDARDOWE Z NAPĘDEM BEZPOŚREDNIM I SPRZĘGŁOWYM  
CENTRIFUGAL FAN WWOax-20÷125 EXEC. STANDARD WITH DIRECT AND CLUTCH DRIVE

Wymiary montażowe wlk. 50÷125 | Mounting dimensions 50÷125



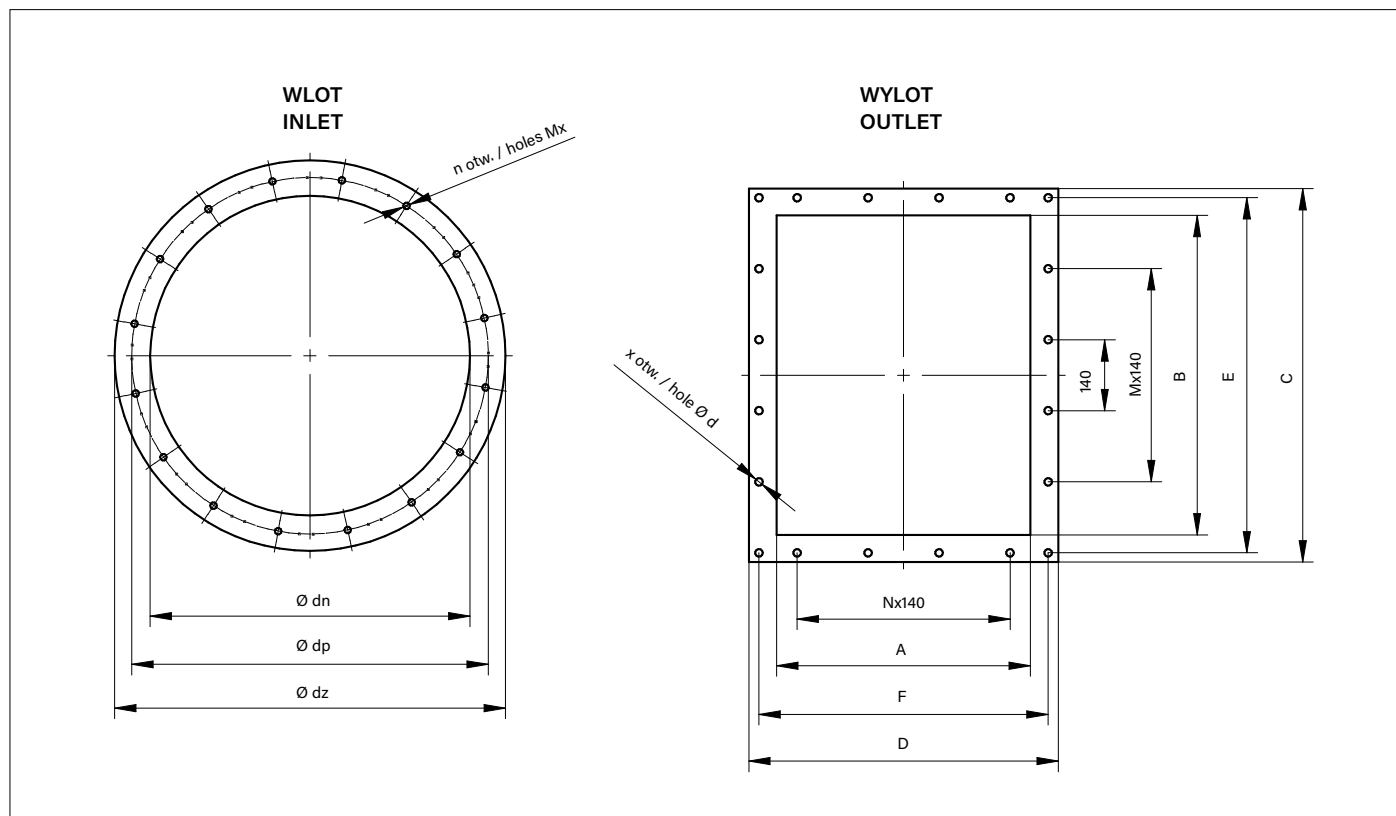
Wymiary | Dimensions

| Typ<br>Type | Silnik<br>Motor | Napęd<br>Drive       | Wymiary / dimensions [mm] |      |      |      |      |      |         |      |      |      |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
|-------------|-----------------|----------------------|---------------------------|------|------|------|------|------|---------|------|------|------|-----|-----------|---|----|------|-----|---------|---|----|------|----|------|------------|---|---|------|
|             |                 |                      | L1                        | a    | b    | c    | d    | e    | f       | n    | g    | Lmax |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
|             |                 |                      | [mm]                      | [mm] | [mm] | [mm] | [mm] | [mm] | [mm]    | [mm] | [mm] | [mm] |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
| WWOax-50    | ≤ 1500          | Bezpośredni / Direct | 242                       | 532  | 250  | 350  | 18   | 500  | 500 (-) | 2    | 30   | 897  |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
|             | ≤ 3000          |                      |                           | 559  | 495  | 385  |      |      |         |      |      | 1221 |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
|             | ≤ 1500          | Sprzęgłowy / Clutch  |                           | 540  | 500  | -    |      |      |         |      |      | 1571 |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
| WWOax-56    | ≤ 1500          | Bezpośredni / Direct | 269                       | 543  | 330  | 480  |      |      |         |      |      | 18   | 325 | 325 (-)   | 2 | 35 | 1045 |     |         |   |    |      |    |      |            |   |   |      |
|             | ≤ 1000          |                      |                           | 270  | 390  | 912  |      |      |         |      |      |      |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
|             | ≤ 1500          | Sprzęgłowy / Clutch  |                           | 600  | 450  | 390  |      |      |         |      |      |      |     |           |   |    | 1600 |     |         |   |    |      |    |      |            |   |   |      |
|             | ≤ 750           |                      |                           | 561  | 350  | 1300 |      |      |         |      |      |      |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
| WWOax-63    | ≤ 1500          | Bezpośredni / Direct | 294                       | 597  | 515  | 580  |      |      |         |      |      |      |     |           |   |    | 18   | 500 | 500 (-) | 2 | 35 | 1208 |    |      |            |   |   |      |
|             | ≤ 1000          |                      |                           | 270  | 480  | 1090 |      |      |         |      |      |      |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
|             | ≤ 1500          | Sprzęgłowy / Clutch  |                           | 690  | 500  | 580  |      |      |         |      |      |      |     |           |   |    |      |     |         |   |    | 1940 |    |      |            |   |   |      |
|             | ≤ 1000          |                      |                           | 1790 |      |      |      |      |         |      |      |      |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
| WWOax-80    | ≤ 1000          | Bezpośredni / Direct | 418                       | 723  | 580  | 604  | 18   | 500  | 500 (-) | 2    | 35   |      |     |           |   |    |      |     |         |   |    | 1440 |    |      |            |   |   |      |
|             |                 | Sprzęgłowy / Clutch  |                           | 813  | 600  | 615  |      |      |         |      |      |      |     |           |   |    |      |     |         |   |    | 2325 |    |      |            |   |   |      |
| WWOax-100   | 3SIE 315S6      | Sprzęgłowy / Clutch  | 505                       | 956  | 900  | 810  |      |      |         |      |      | 22   | 600 | 600 (360) | 3 | 4  |      |     |         |   |    | 3050 |    |      |            |   |   |      |
|             | 3SIE 250M8      |                      |                           | 926  | 600  | 2850 |      |      |         |      |      |      |     |           |   |    |      |     |         |   |    |      |    |      |            |   |   |      |
| WWOax-125   | 3SIE 315M; S    |                      |                           | 605  | 1100 | 630  |      |      |         |      |      |      |     |           |   |    |      |     |         |   |    | 810  | 22 | 1350 | 1350 (480) | 3 | 4 | 3450 |
|             | 3SIE 355M(L)8A  |                      |                           |      | 530  | 910  |      |      |         |      |      |      |     |           |   |    |      |     |         |   |    | 3680 |    |      |            |   |   |      |

Uwaga: wymiary w nawiasach dotyczą figur RD (LG) 180. / Note: dimensions in brackets refer to figures RD (LG) 180.

WENTYLATOR PROMIENIOWY WWOax-20÷125 WYK. STANDARDOWE Z NAPĘDEM BEZPOŚREDNIM I SPRZĘGŁOWYM  
CENTRIFUGAL FAN WWOax-20÷125 EXEC. STANDARD WITH DIRECT AND CLUTCH DRIVE

Połączenia z rurociągami | Connections to pipelines



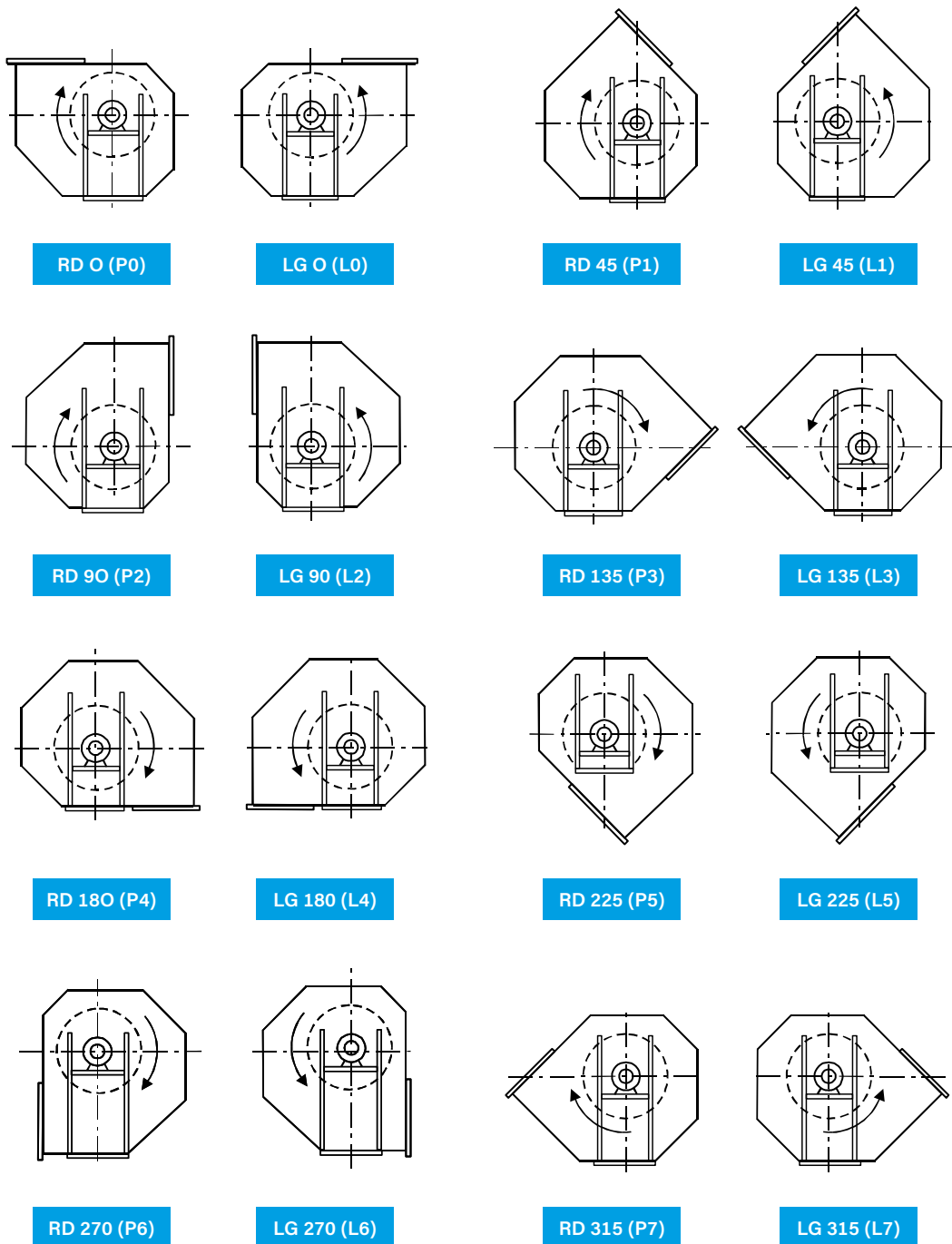
Wymiary | Dimensions

| Typ<br>Type | Wlot / Inlet |      |      |      |      | Wylot / Outlet |      |      |      |      |      |      |      |      |      |
|-------------|--------------|------|------|------|------|----------------|------|------|------|------|------|------|------|------|------|
|             | dn           | dp   | dz   | n    | Mx   | A              | B    | C    | D    | E    | F    | N    | M    | x    | d    |
|             | [mm]         | [mm] | [mm] | [mm] | [mm] | [mm]           | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] |
| WWOax-20    | 200          | 239  | 274  | 8    | M8   | 160            | 200  | 264  | 224  | 238  | 198  | -    | 1    | 8    | 8    |
| WWOax-224   | 224          | 263  | 290  |      |      | 180            | 224  | 288  | 242  | 262  | 218  |      |      |      |      |
| WWOax-25    | 250          | 289  | 324  |      |      | 200            | 250  | 315  | 264  | 288  | 238  |      |      |      |      |
| WWOax-28    | 280          | 326  | 356  | 12   | M10  | 220            | 280  | 354  | 300  | 324  | 268  | 1    | 12   | 12   |      |
| WWOax-31.5  | 315          | 361  | 403  |      |      | 250            | 315  | 389  | 326  | 359  | 294  |      |      |      |      |
| WWOax-35.5  | 355          | 401  | 455  |      |      | 282            | 355  | 439  | 368  | 399  | 324  |      |      |      |      |
| WWOax-40    | 400          | 446  | 500  | 16   | M12  | 317            | 400  | 484  | 403  | 444  | 359  | 3    | 16   | 15   |      |
| WWOax-45    | 450          | 523  | 580  |      |      | 355            | 450  | 554  | 463  | 520  | 425  |      |      |      |      |
| WWOax-50    | 500          | 573  | 645  |      |      | 400            | 500  | 604  | 500  | 570  | 470  |      |      |      |      |
| WWOax-56    | 560          | 633  | 675  | 20   | M12  | 500            | 560  | 666  | 550  | 630  | 520  | 3    | 20   | 15   |      |
| WWOax-63    | 630          | 703  | 770  |      |      | 560            | 630  | 736  | 600  | 700  | 570  |      |      |      |      |
| WWOax-80    | 800          | 873  | 918  |      |      | 630            | 800  | 904  | 730  | 870  | 700  |      |      |      |      |
| WWOax-100   | 1000         | 1073 | 1143 | 24   | M16  | 800            | 1000 | 1126 | 920  | 1126 | 870  | 5    | 7    | 32   | 15   |
| WWOax-125   | 1250         | 1345 | 1410 |      |      | 28             | 1000 | 1250 | 1422 | 1160 | 1422 |      |      |      |      |

Wentylatory promieniowe | Radial fans

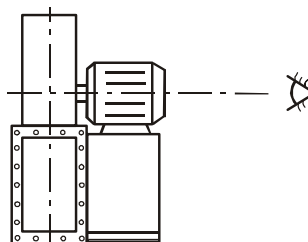


Oznaczenia układów wylotu wentylatora | Designations of fan outlet layouts

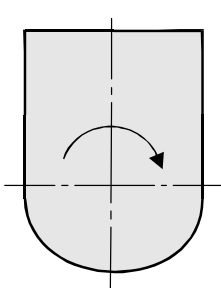


Układ określa się patrząc na wentylator od strony napędu.  
W nawiasie () podano oznaczenia wg PN-78/M-43012.

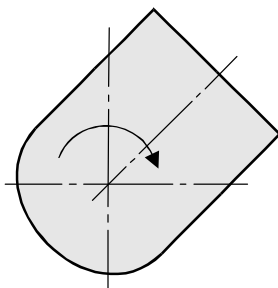
The layout is determined by looking at the fan from the drive side.  
Designations according to PN-78/M-43012 are given in brackets ().



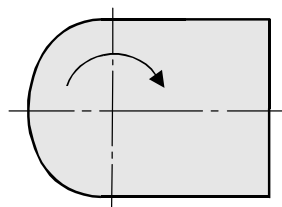
Położenie wlotu kolanowego | Location of elbow inlet



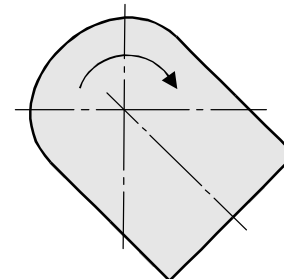
RD 0 (K0)



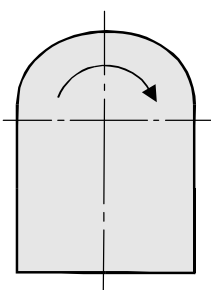
RD 45 (K1)



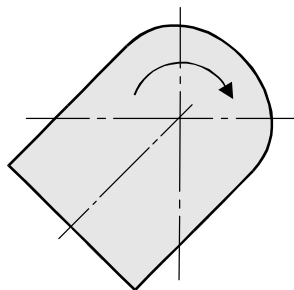
RD 90 (K2)



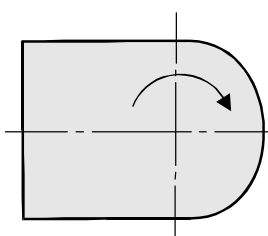
RD 135 (K3)



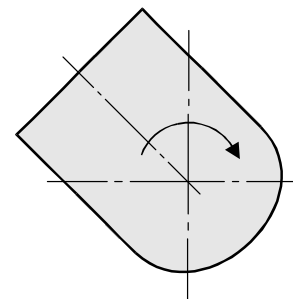
RD 180 (K4)



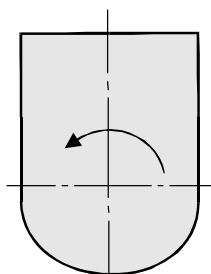
RD 225 (K5)



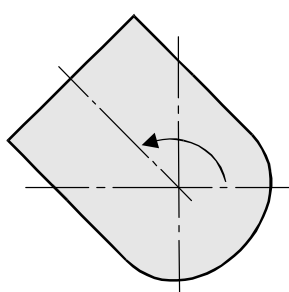
RD 270 (K6)



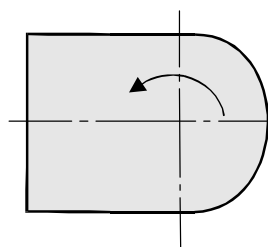
RD 315 (K7)



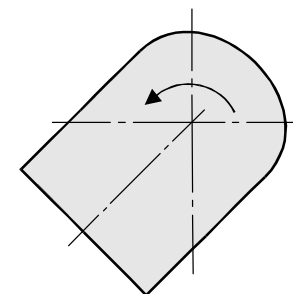
LG 0 (K0)



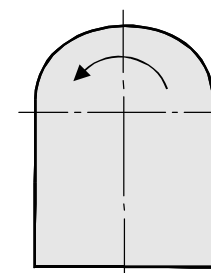
RD 45 (K1)



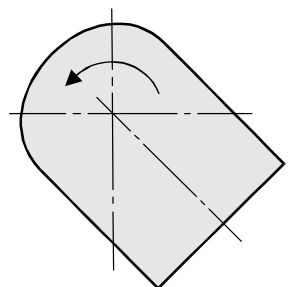
LG 90 (K2)



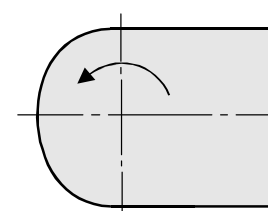
LG 135 (K7)



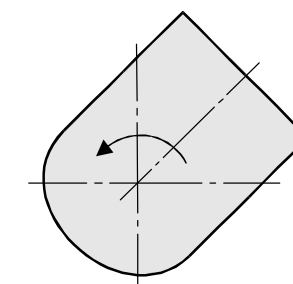
LG 180 (K4)



LG 225 (K5)



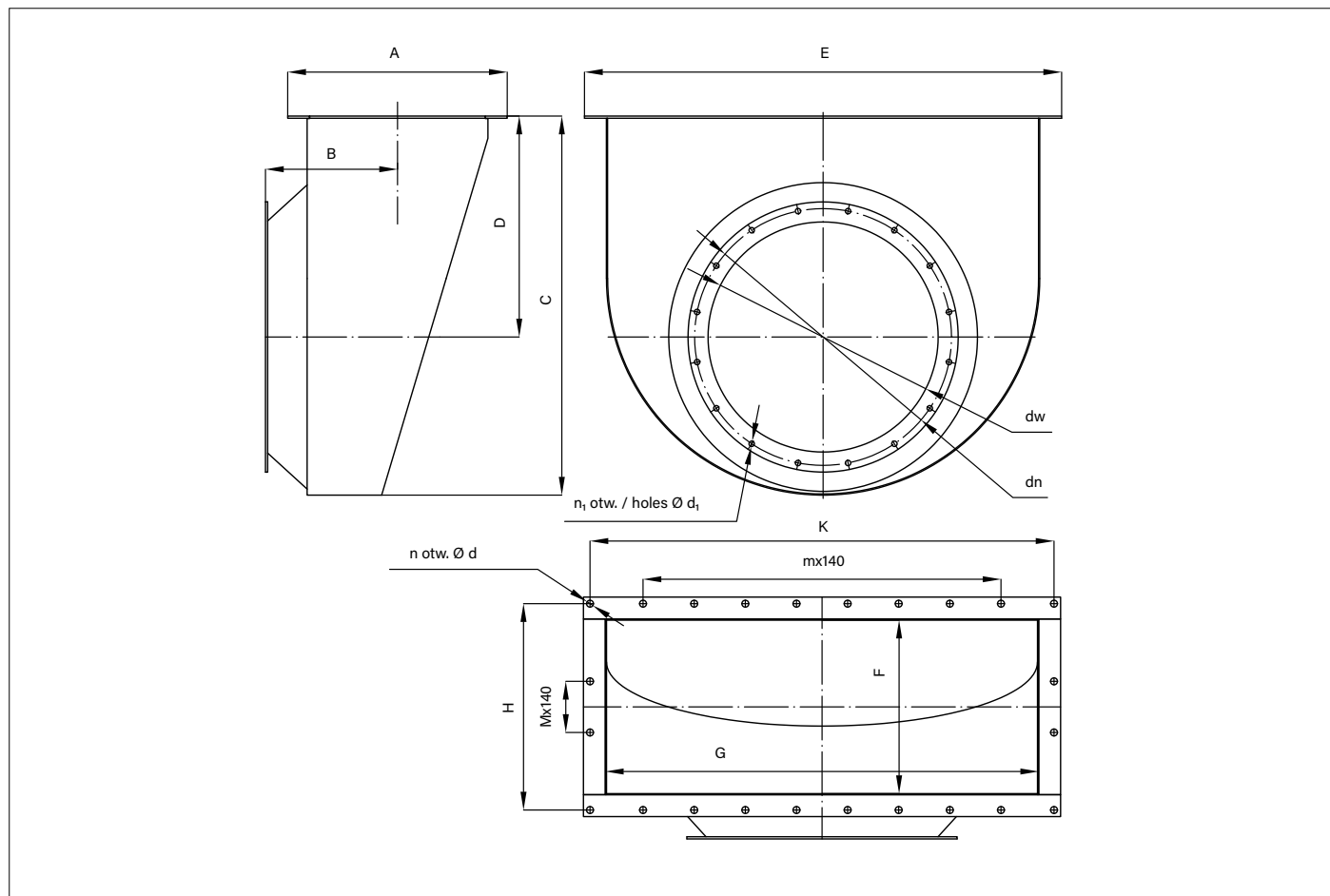
LG 270 (K6)



LG 315 (K7)

Wyposażenie | Equipment

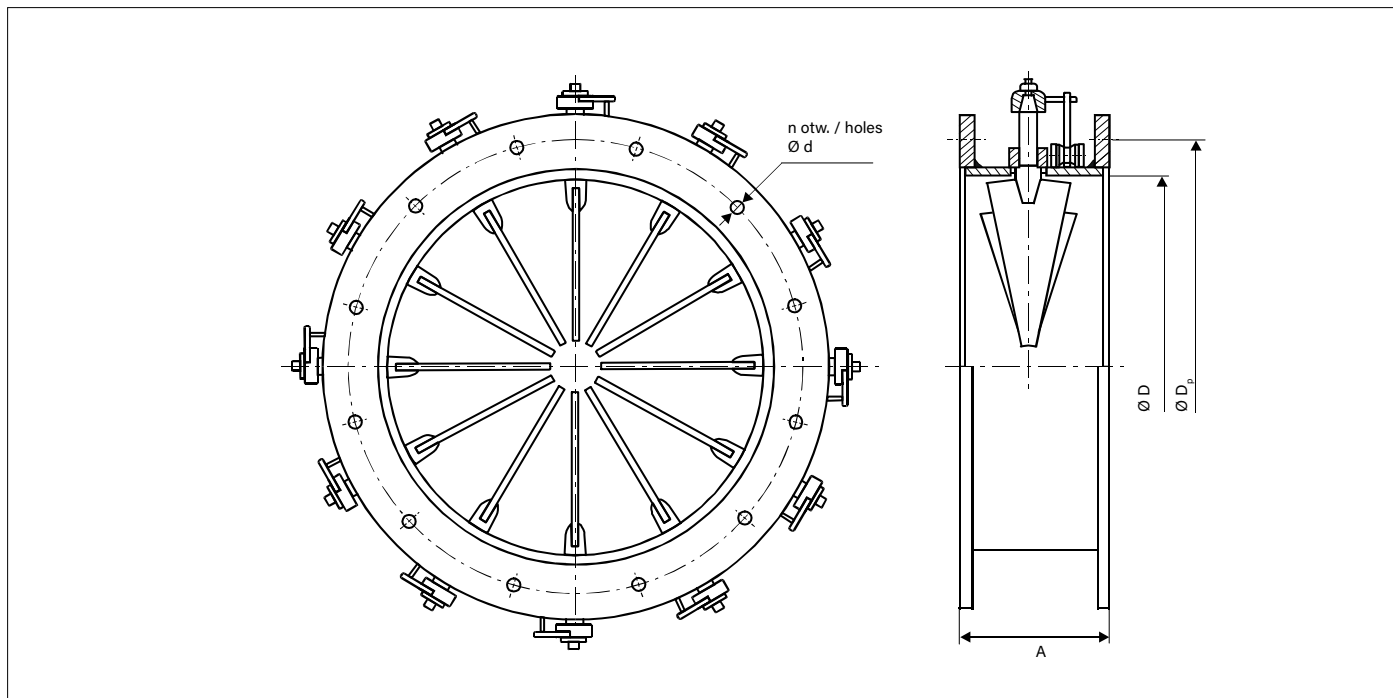
Wloty kolanowe - wymiary, masy | Elbow inlets - dimensions, weights



Wymiary | Dimensions

| Typ<br>Type  | Masa<br>Weight<br>[kg] | Wymiary / Dimensions |        |        |        |        |        |        |        |        |        |        |        |        |                     |                     |                     |                     |
|--------------|------------------------|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------|---------------------|---------------------|---------------------|
|              |                        | A [mm]               | B [mm] | C [mm] | D [mm] | E [mm] | F [mm] | G [mm] | H [mm] | K [mm] | m [mm] | M [mm] | n [mm] | d [mm] | n <sub>1</sub> [mm] | d <sub>1</sub> [mm] | d <sub>n</sub> [mm] | d <sub>w</sub> [mm] |
| WWOax - 25   | 8                      | 284                  | 180    | 390    | 260    | 314    | 220    | 254    | 262    | 288    |        |        |        | 10     | 8                   | 10                  | 289                 | 250                 |
| WWOax - 28   | 11                     | 320                  | 190    | 425    | 280    | 355    | 250    | 285    | 294    | 324    | 1      |        | 12     | 12     |                     | 326                 | 280                 |                     |
| WWOax - 31,5 | 12                     | 320                  | 190    | 460    | 300    | 390    | 250    | 320    | 294    | 359    |        |        | 16     | 14     | 12                  | 361                 | 315                 |                     |
| WWOax - 35,5 | 23                     | 384                  | 212    | 632    | 400    | 730    | 280    | 630    | 350    | 700    | 3      |        | 20     | 15     |                     | 446                 | 400                 |                     |
| WWOax - 40   | 29                     | 414                  | 235    | 710    | 425    | 864    | 300    | 750    | 370    | 820    | 3      |        | 32     | 19     |                     | 523                 | 450                 |                     |
| WWOax - 45   | 35                     | 445                  | 260    | 806    | 500    | 960    | 335    | 850    | 405    | 920    | 5      |        | 40     | 24     |                     | 573                 | 500                 |                     |
| WWOax - 50   | 45                     | 480                  | 230    | 907    | 552    | 1056   | 375    | 950    | 445    | 1020   | 5      |        | 44     | 24     | 16                  | 633                 | 560                 |                     |
| WWOax - 56   | 72                     | 560                  | 340    | 1000   | 605    | 1110   | 450    | 1000   | 520    | 1070   | 5      |        | 48     | 24     | 20                  | 703                 | 630                 |                     |
| WWOax - 63   | 85                     | 602                  | 369    | 1035   | 605    | 1307   | 475    | 1180   | 565    | 1270   | 7      |        | 50     | 24     | 24                  | 783                 | 710                 |                     |
| WWOax - 71   | 290                    | 658                  | 408    | 1514   | 1014   | 1448   | 538    | 1328   | 620    | 1410   | 9      |        | 50     | 28     | 24                  | 873                 | 800                 |                     |
| WWOax - 80   | 355                    | 728                  | 461    | 1704   | 1150   | 1628   | 600    | 1500   | 690    | 1590   | 9      |        | 50     | 28     | 24                  | 973                 | 900                 |                     |
| WWOax - 90   | 395                    | 808                  | 424    | 1724   | 1195   | 1828   | 688    | 1700   | 770    | 1790   | 11     |        | 50     | 28     | 24                  | 1073                | 1000                |                     |
| WWOax - 100  | 415                    | 910                  | 572    | 2130   | 1435   | 2035   | 750    | 1875   | 840    | 1965   | 13     |        | 50     | 28     | 24                  | 1213                | 1120                |                     |
| WWOax - 112  | 650                    | 1000                 | 642    | 2390   | 1620   | 2260   | 840    | 2100   | 930    | 2190   | 13     |        | 50     | 28     | 24                  | 1343                | 1250                |                     |
| WWOax - 125  | 730                    | 1048                 | 714    | 2594   | 1800   | 2388   | 900    | 2240   | 990    | 2330   | 15     |        | 50     | 32     | 19                  | 1493                | 1400                |                     |
| WWOax - 140  | 1120                   | 1210                 | 815    | 2992   | 2018   | 2795   | 1040   | 2625   | 1160   | 2745   | 17     |        | 50     | 32     | 19                  | 1493                | 1400                |                     |

Kierownica wstępna regulacyjna | Inlet variable guide vane



Wymiary | Dimensions

| Wielkość<br>Size | A    | D    | D <sub>p</sub> | n  | d    | Masa / Weight |
|------------------|------|------|----------------|----|------|---------------|
|                  | [mm] | [mm] | [mm]           |    | [mm] | [kg]          |
| 25               | 140  | 250  | 289            | 8  | 10   | 10            |
| 28               |      | 280  | 326            |    |      | 12            |
| 31,5             |      | 315  | 361            |    |      | 12            |
| 35,5             |      | 355  | 401            |    |      | 12,5          |
| 40               | 180  | 400  | 446            | 12 | 15   | 30            |
| 45               |      | 450  | 523            |    |      | 34            |
| 50               | 200  | 500  | 573            | 16 | 15   | 43            |
| 56               |      | 560  | 633            |    |      | 48            |
| 63               | 220  | 630  | 703            | 20 | 15   | 52            |
| 71               |      | 710  | 783            |    |      | 127           |
| 80               | 255  | 800  | 873            | 24 | 19   | 150           |
| 90               |      | 900  | 973            |    |      | 180           |
| 100              | 280  | 1000 | 1073           | 28 | 19   | 190           |
| 112              |      | 1120 | 1213           |    |      | 220           |
| 125              | 330  | 1250 | 1343           | 32 | 19   | 305           |
| 140              |      | 1400 | 1493           |    |      | 350           |

Kierownice regulacyjne montowane są również w wersji dzielonej, na specjalne życzenie klienta lub wynikające z konstrukcji wentylatora.

Siłowniki stosowane do sterowania łopatek kierownic

1. Siłownik pneumatyczny bez osprzętu.
2. Siłownik elektryczny liniowy lub wahliwy.
3. Siłownik hydrauliczny wraz z osprzętem.

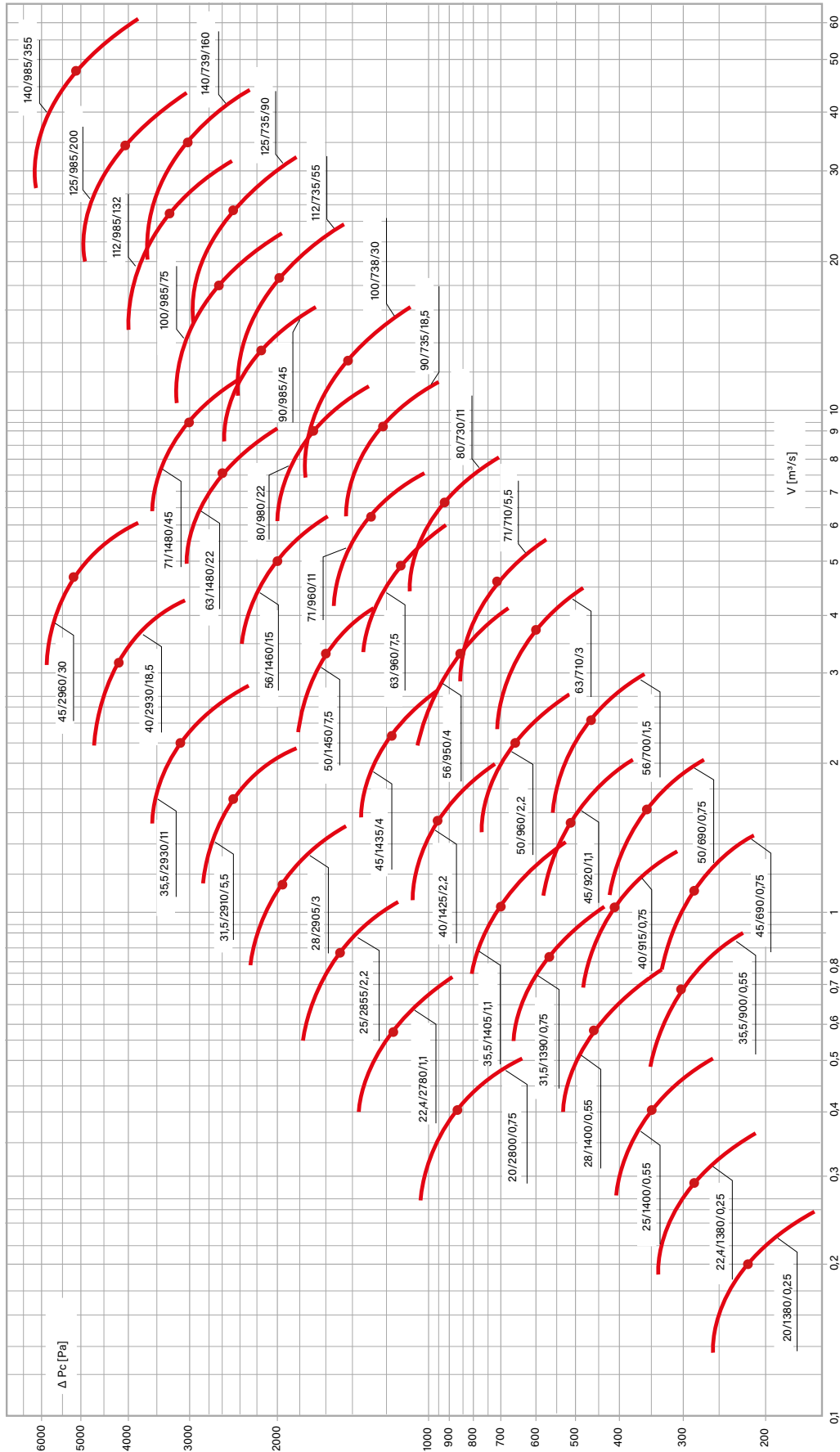
The variable guide vanes are also mounted in a split version, on special request of the customer or resulting from the fan design.

Actuators used for controlling the guide vane blades

1. Pneumatic cylinder without accessories.
2. Electric linear or swing actuator.
3. Hydraulic cylinder with accessories.

Charakterystyki przepływowe WWOax - 20 ÷ WWOax - 140 | Flow performance curves WWOax - 20 ÷ WWOax - 140

Charakterystyka przepływowa z kołem wirnikowym typu „a” ( $b_2 = 0,1786$ ) | Flow performance curve with rotor wheel type “a” ( $b_2 = 0.1786$ )

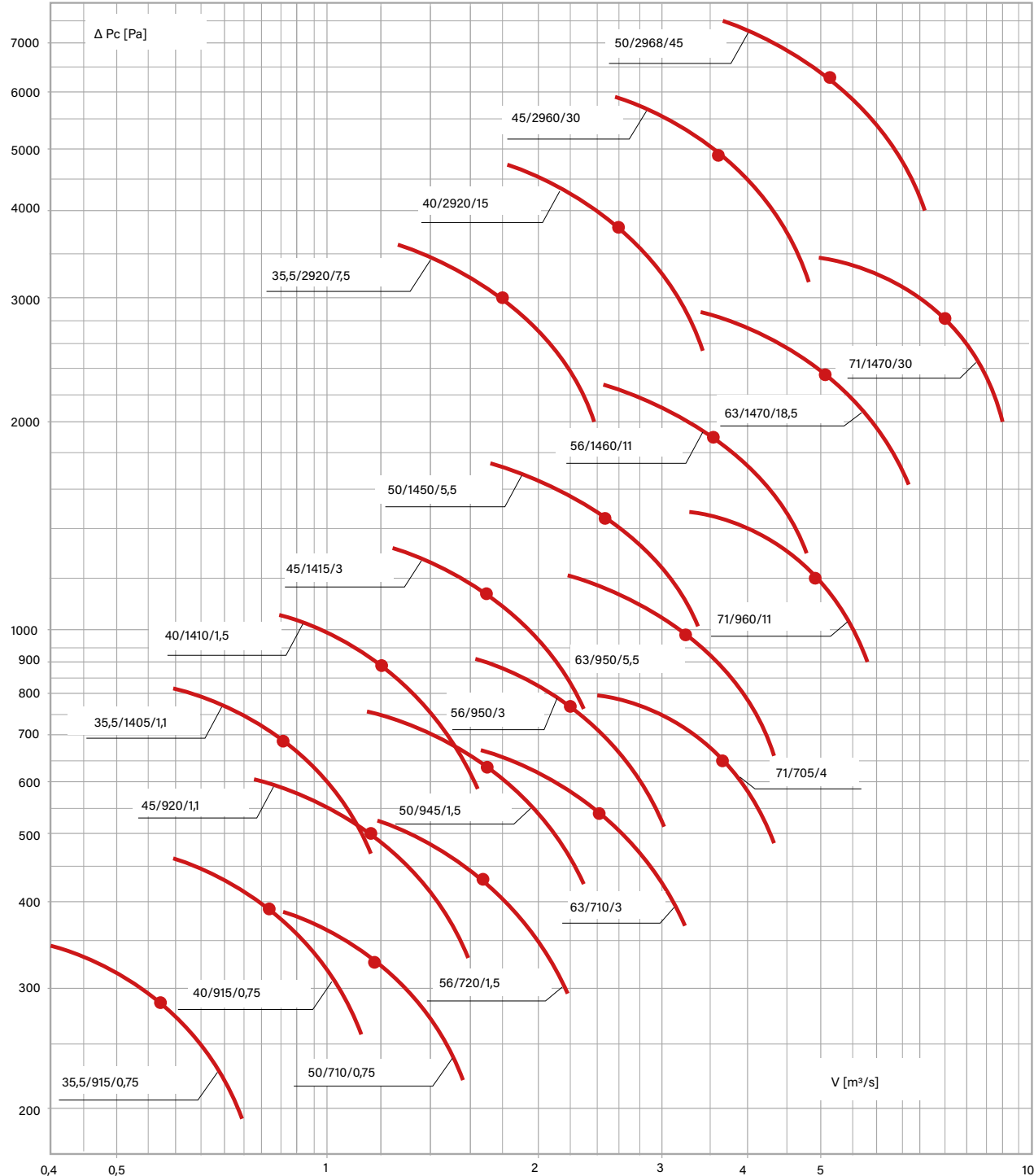


Śpiżnienie całkowite funkcji wydajności przy sprawności ogólnej wentylatora  $\eta > 0,75$   
 Parametry wentylatorów podane dla gęstości czynnika przepływowego:  $\zeta = 1,2$  [kg/m<sup>3</sup>]  
 Liczby na krzywych określają wielkość wentylatora, obroty wirnika [min<sup>-1</sup>] oraz moc silnika [kW]

Total pressure increase versus capacity at total fan efficiency  $\eta > 0,75$   
 Fan parameters given for the density of the flow medium:  $\zeta = 1,2$  [kg/m<sup>3</sup>]  
 The numbers on the curves indicate the fan size, the rotor rotational speed [min<sup>-1</sup>] and the motor power [kW]

Charakterystyki przepływowe WWOax - 35 ÷ WWOax - 71 | Flow performance curves WWOax - 35 ÷ WWOax - 71

Charakterystyka przepływowa z kołem wirnikowym typu „b” ( $b_2 = 0,134$ ) | Flow performance curve with rotor wheel type "b" ( $b_2 = 0.134$ )



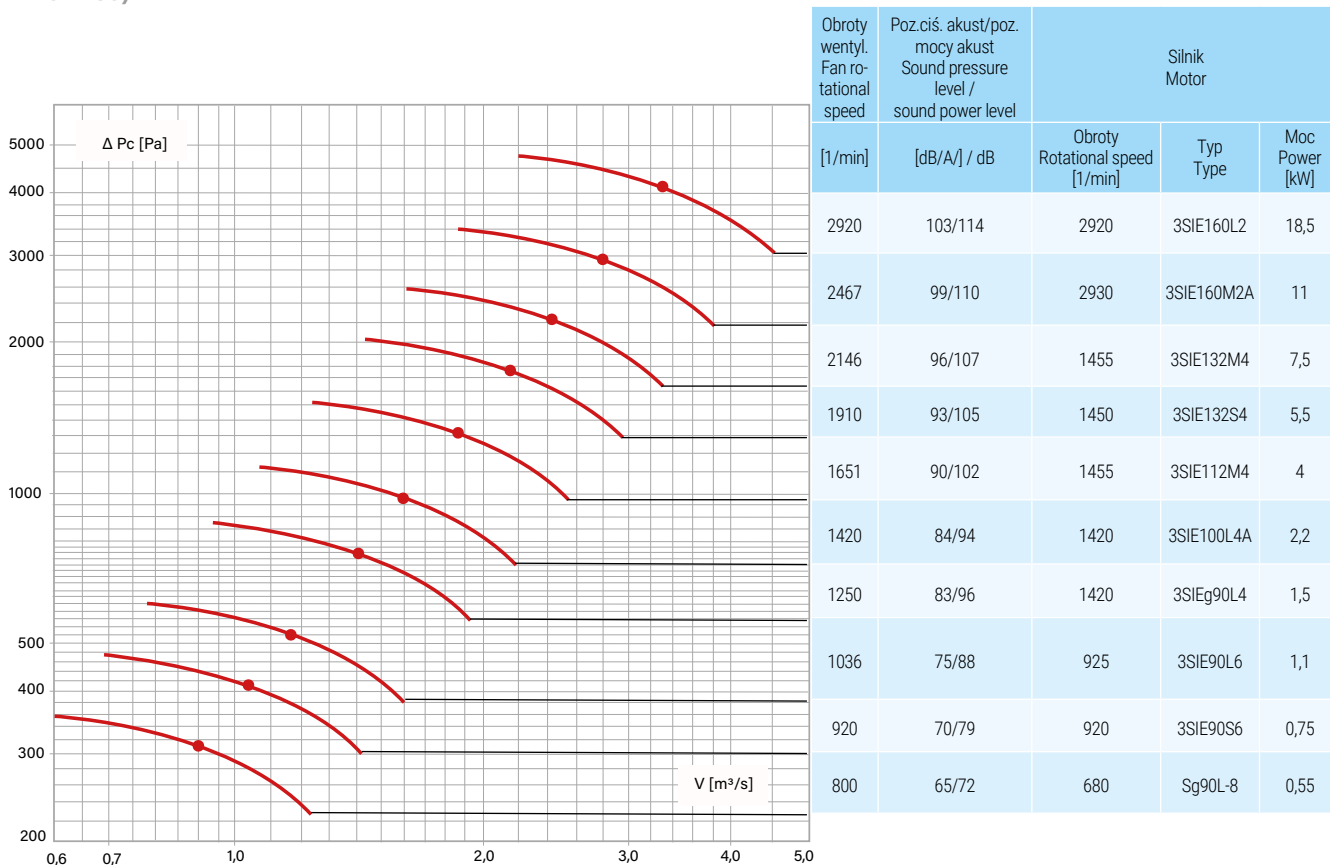
Parametry wentylatorów podane dla gęstości czynnika przepływowego:  $\eta = 1,2$  [kg/m<sup>3</sup>]  
 Śpiętnienie całkowite funkcji wydajności przy sprawności wentylatora  $\zeta > 0,75$   
 Liczby na krzywych określają wielkość wentylatora, obroty wirnika [min<sup>-1</sup>] oraz moc silnika [kW]

Fan parameters given for the density of the flow medium:  $\eta = 1.2$  [kg/m<sup>3</sup>]  
 Total pressure increase versus capacity at fan efficiency  $\zeta > 0.75$   
 The numbers on the curves indicate the fan size, the rotor rotational speed [min<sup>-1</sup>] and the motor power [kW]

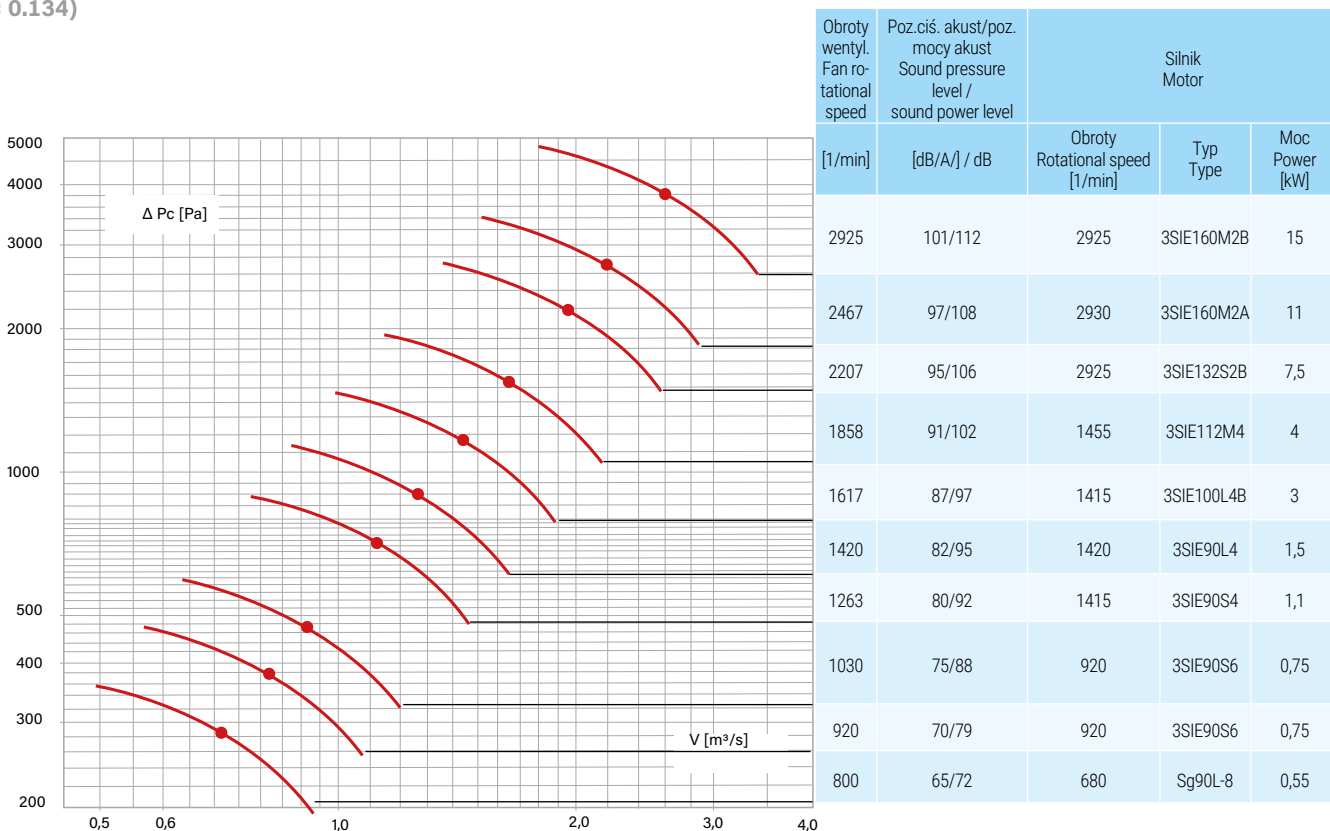
Wentylatory promieniowe | Radial fans

**WWOax - 40 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
**WWOax - 40 Flow performance curves at variable rotor speeds**

**Charakterystyka przepływowa z kołem wirnikowym typu „a” ( $b_2 = 0,1786$ ) | Flow performance curve with rotor wheel type “a” ( $b_2 = 0.1786$ )**

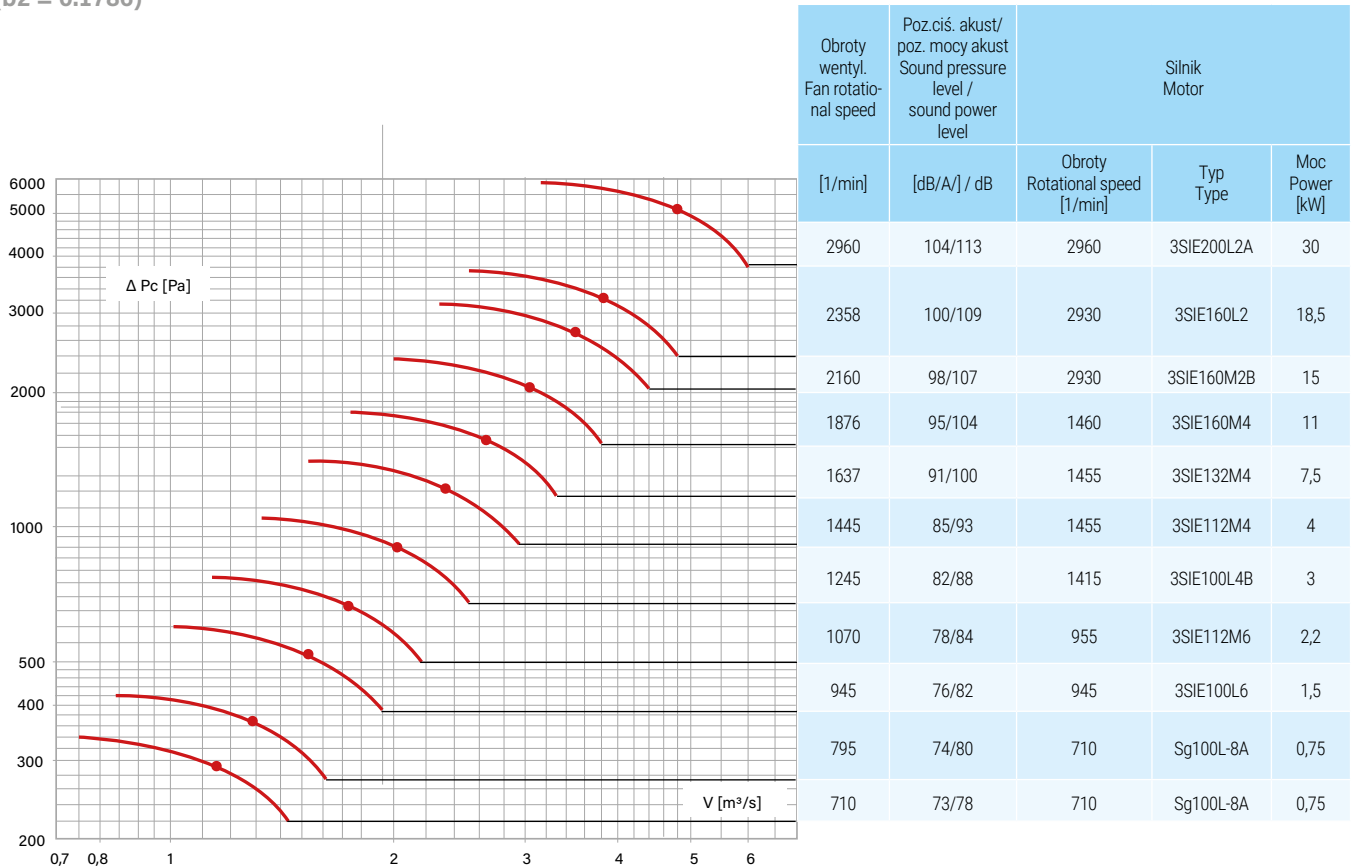


**Charakterystyka przepływowa z kołem wirnikowym typu „b” ( $b_2 = 0,134$ ) | Flow performance curve with rotor wheel type “b” ( $b_2 = 0.134$ )**

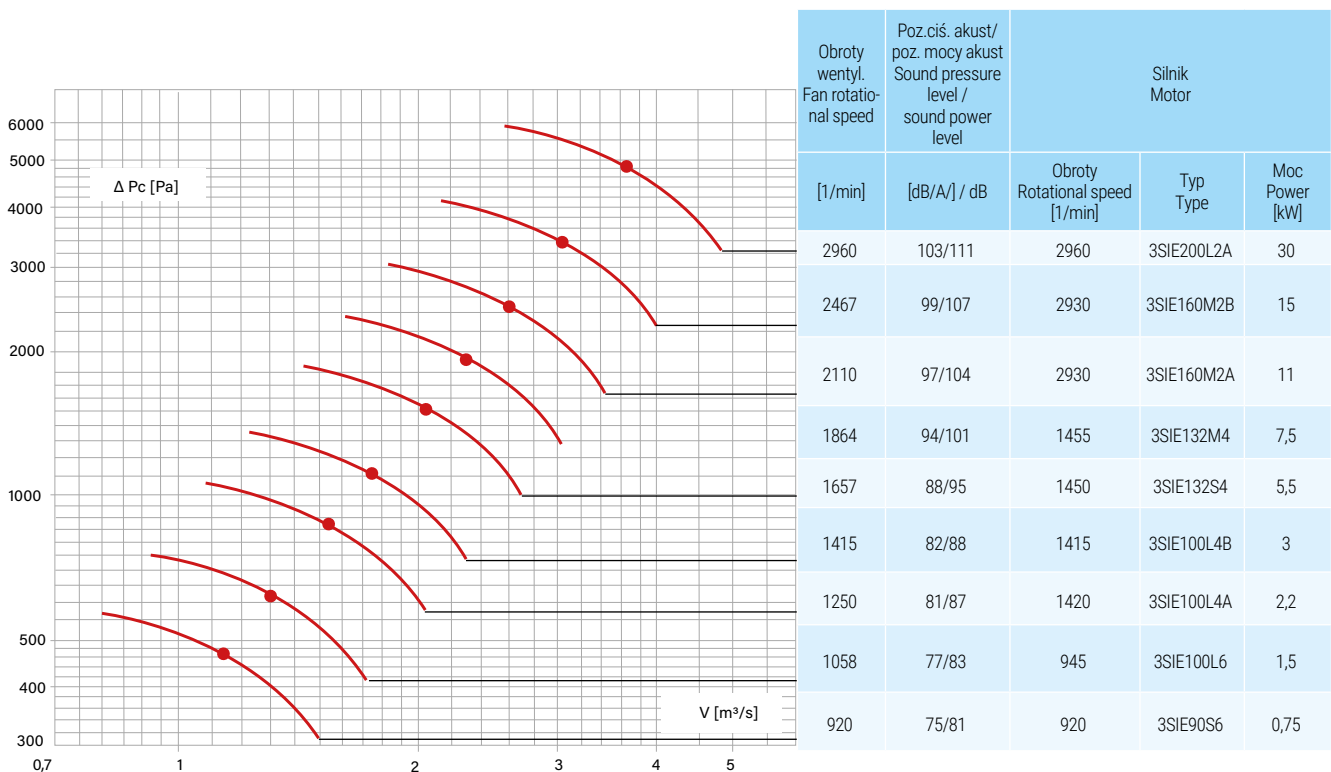


**WWOax - 45 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
**WWOax - 45 Flow performance curves at variable rotor speeds**

**Charakterystyka przepływowa z kołem wirnikowym typu „a” ( $b_2 = 0,1786$ ) | Flow performance curve with rotor wheel type “a” ( $b_2 = 0.1786$ )**



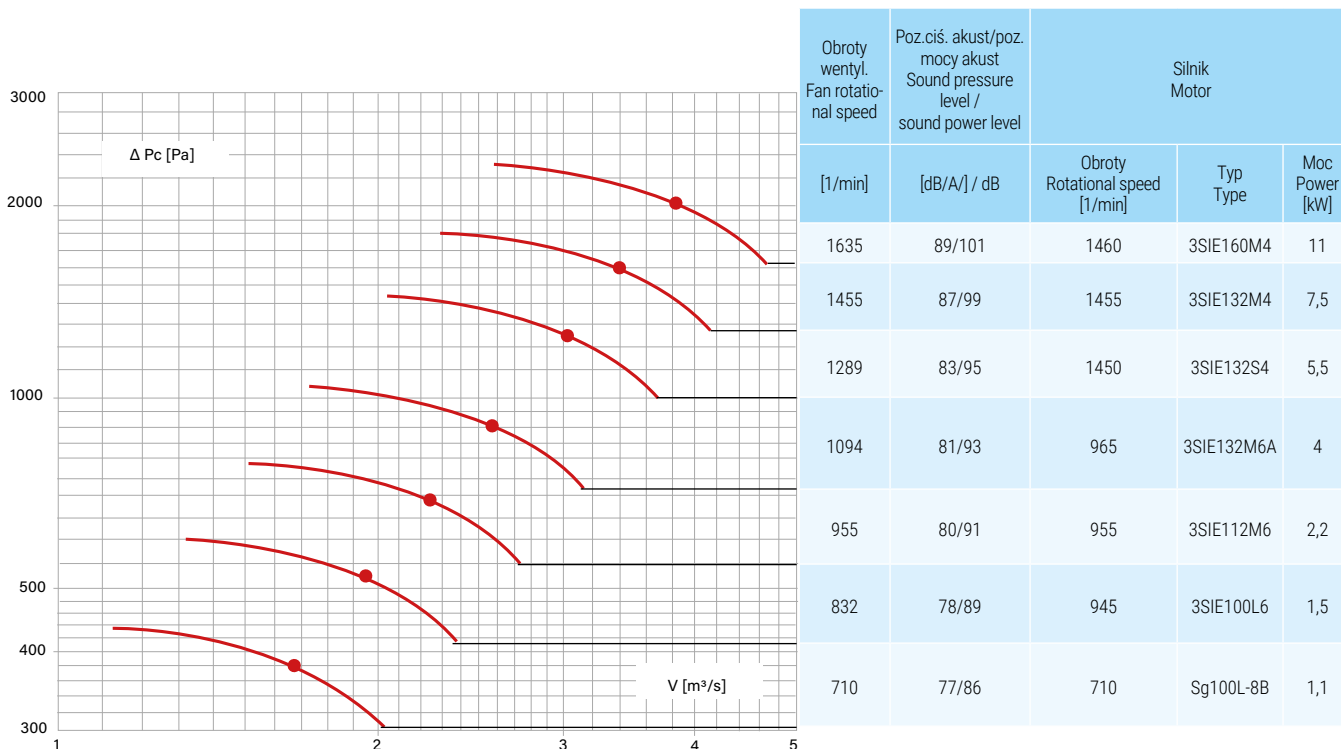
**Charakterystyka przepływowa z kołem wirnikowym typu „b” ( $b_2 = 0,134$ ) | Flow performance curve with rotor wheel type “b” ( $b_2 = 0.134$ )**



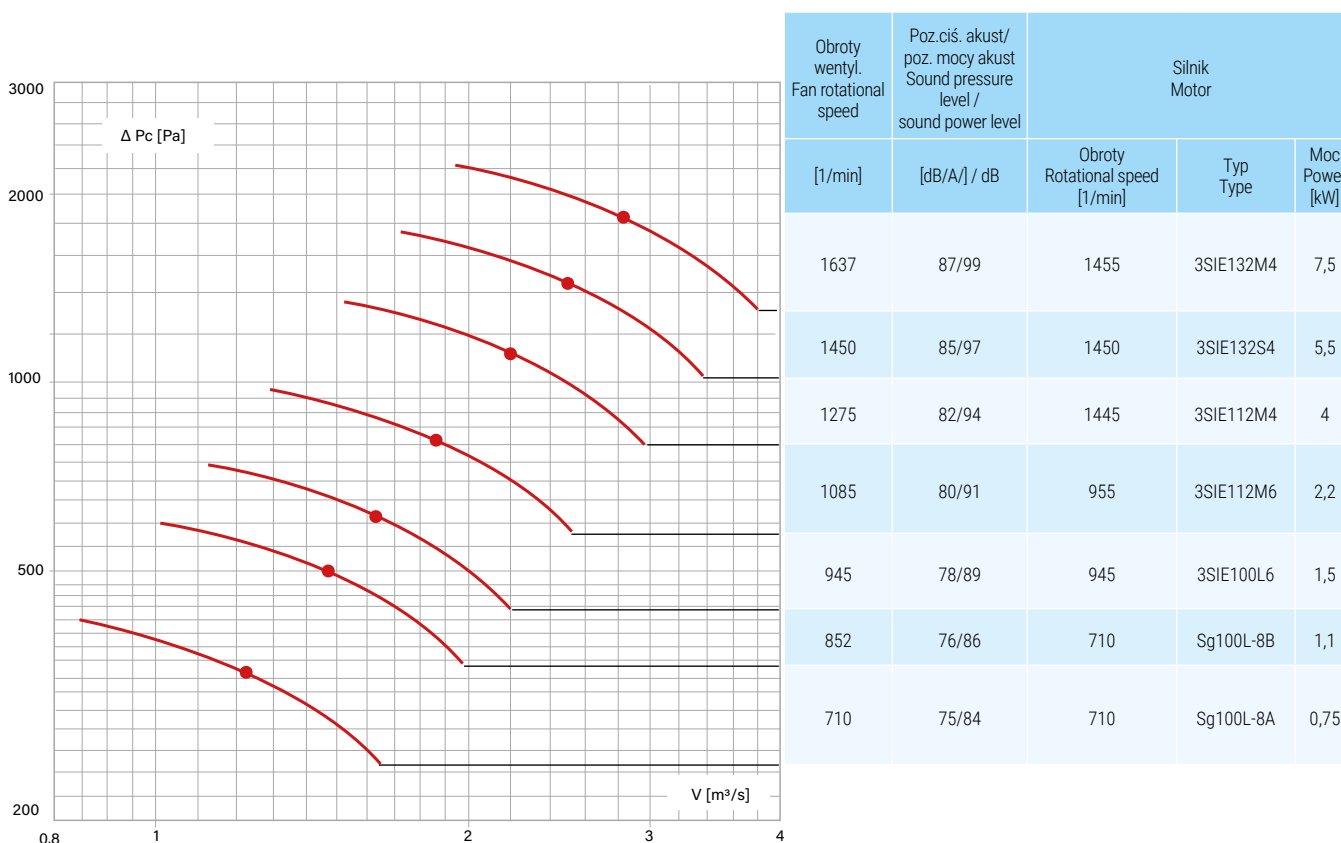


**WWOax - 50 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
WWOax - 50 Flow performance curves at variable rotor speeds

**Charakterystyka przepływowa z kołem wirnikowym typu „a” ( $b_2 = 0,1786$ ) | Flow performance curve with rotor wheel type “a” ( $b_2 = 0.1786$ )**

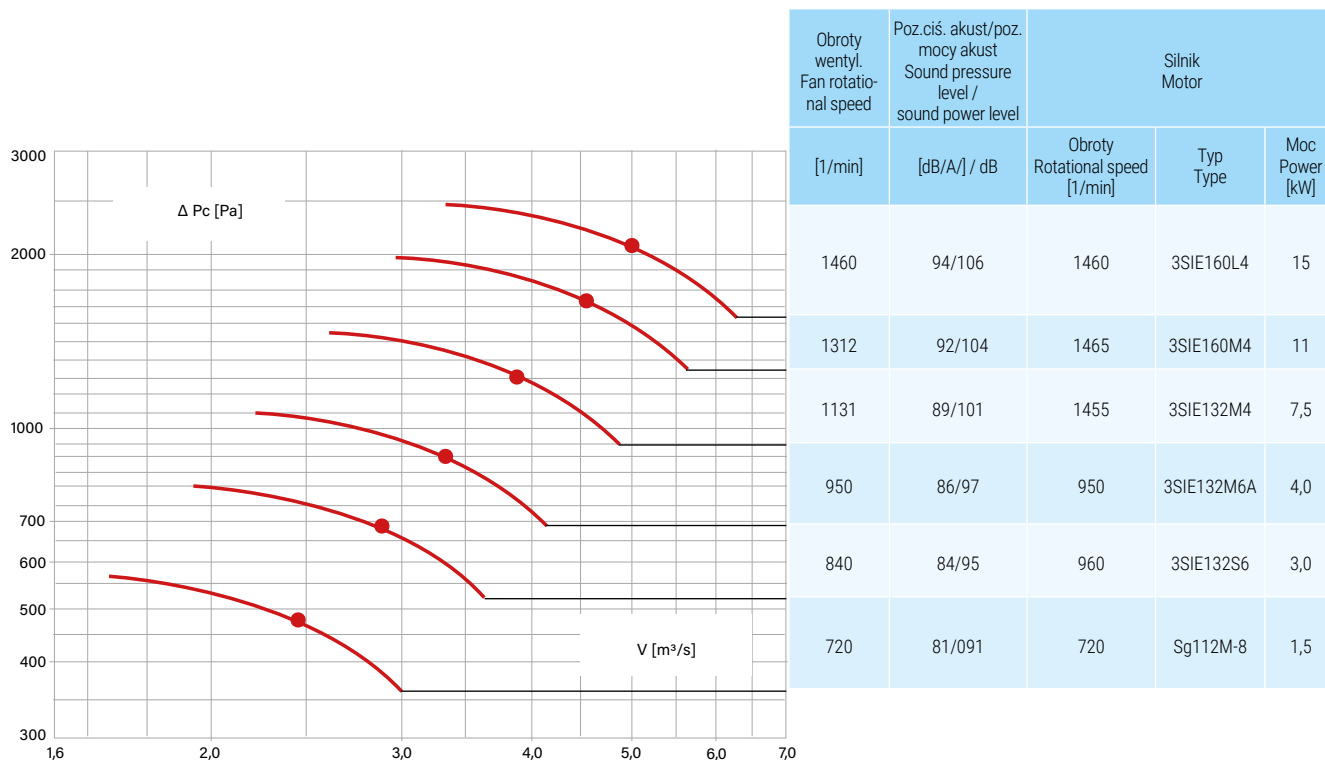


**Charakterystyka przepływowa z kołem wirnikowym typu „b” ( $b_2 = 0,134$ ) | Flow performance curve with rotor wheel type “b” ( $b_2 = 0.134$ )**

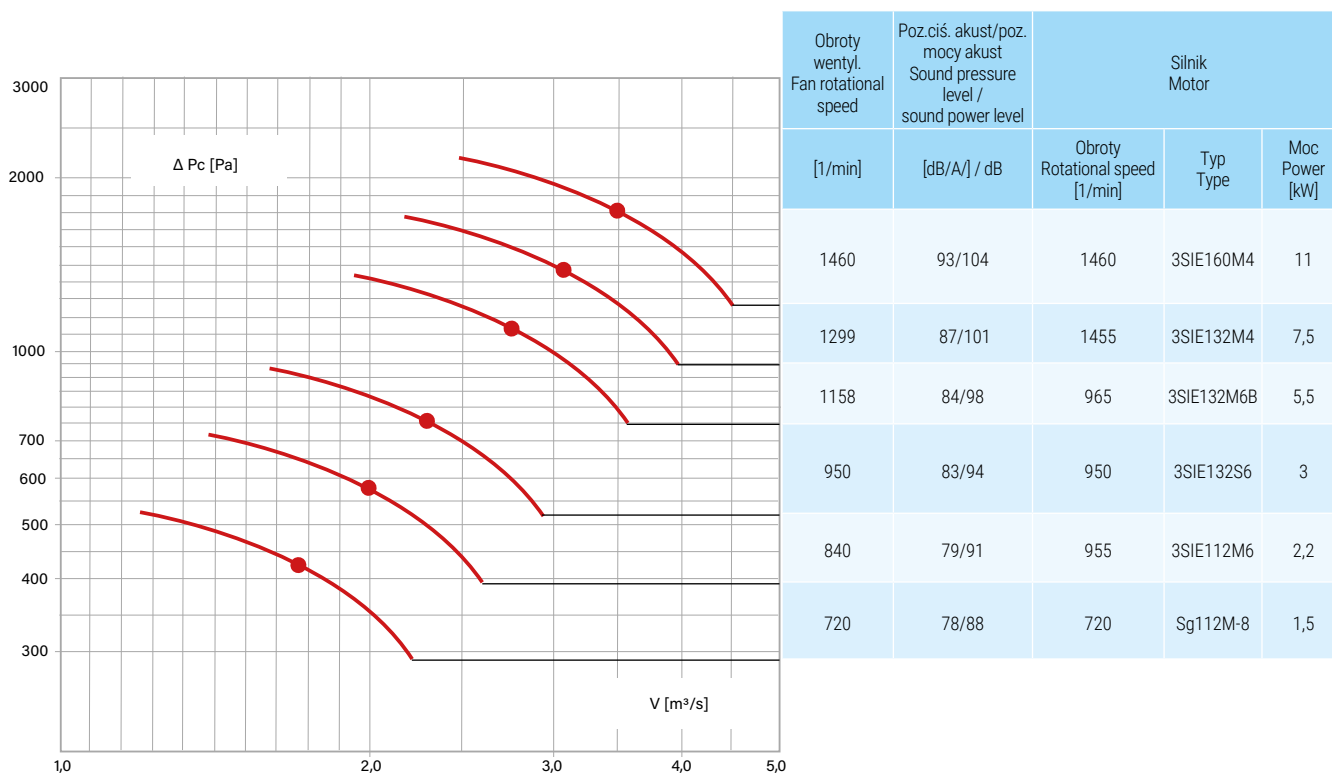


**WWOax - 56 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
**WWOax - 56 Flow performance curves at variable rotor speeds**

**Charakterystyka przepływowa z kołem wirnikowym typu „a” ( $b_2 = 0,1786$ ) | Flow performance curve with rotor wheel type “a” ( $b_2 = 0.1786$ )**

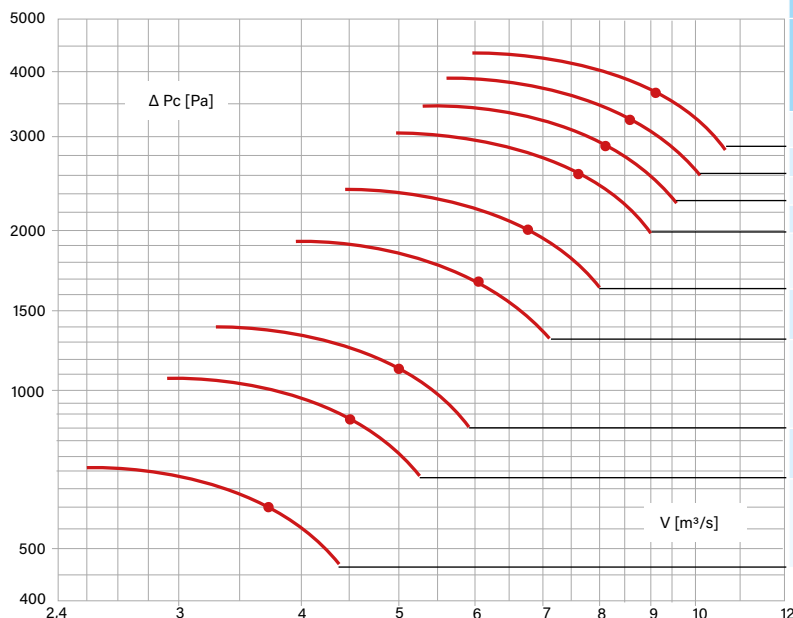


**Charakterystyka przepływowa z kołem wirnikowym typu „b” ( $b_2 = 0,134$ ) | Flow performance curve with rotor wheel type “b” ( $b_2 = 0.134$ )**



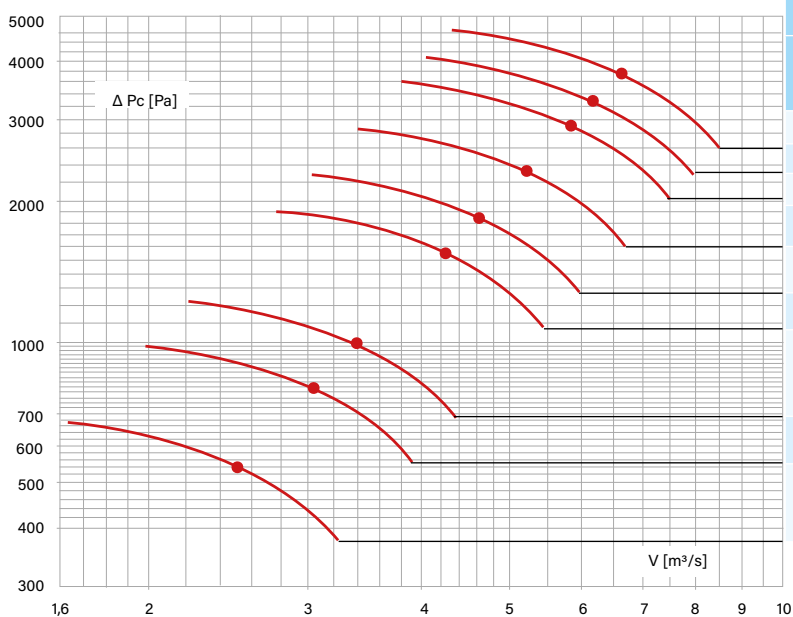
**WWOax - 63 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
WWOax - 63 Flow performance curves at variable rotor speeds

**Charakterystyka przepływowa z kołem wirnikowym typu „a” ( $b_2 = 0,1786$ ) | Flow performance curve with rotor wheel type “a” ( $b_2 = 0.134$ )**



| Obroty wentyl.<br>Fan rotational speed | Poz.ciś. akust./poz. mocy akust<br>Sound pressure level / sound power level | Silnik Motor                    |            |                |
|--|---|---------------------------------|------------|----------------|
| [1/min]                                | [dB/A/] / dB  | Obroty Rotational speed [1/min] | Typ Type   | Moc Power [kW] |
| 1750                                   | 104/114   | 1480                            | 3SIE225M4  | 45             |
| 1650                                   | 103/113   | 1475                            | 3SIE225S4  | 37             |
| 1560                                   | 98/112  | 1472                            | 3SIE200L4  | 30             |
| 1470                                   | 96/110  | 1465                            | 3SIE180L4  | 22             |
| 1310                                   | 94/108  | 1470                            | 3SIE180M4  | 18,5           |
| 1170                                   | 92/106  | 1460                            | 3SIE160L4  | 15             |
| 960                                    | 88/101  | 960                             | 3SIE160M6  | 7,5            |
| 860                                    | 85/98   | 950                             | 3SIE132M6B | 5,5            |
| 710                                    | 82/94   | 710                             | Sg132M-8   | 3              |

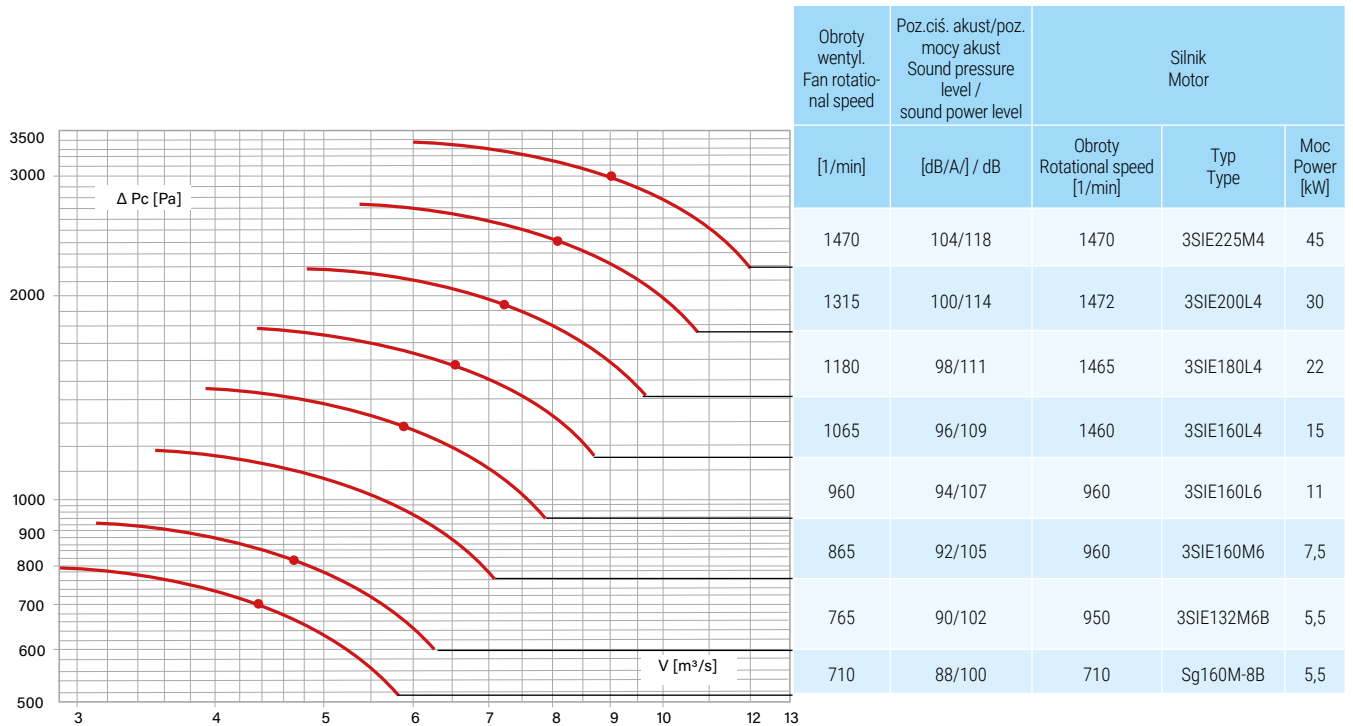
**Charakterystyka przepływowa z kołem wirnikowym typu „b” ( $b_2 = 0,134$ ) | Flow performance curve with rotor wheel type “b” ( $b_2 = 0.134$ )**



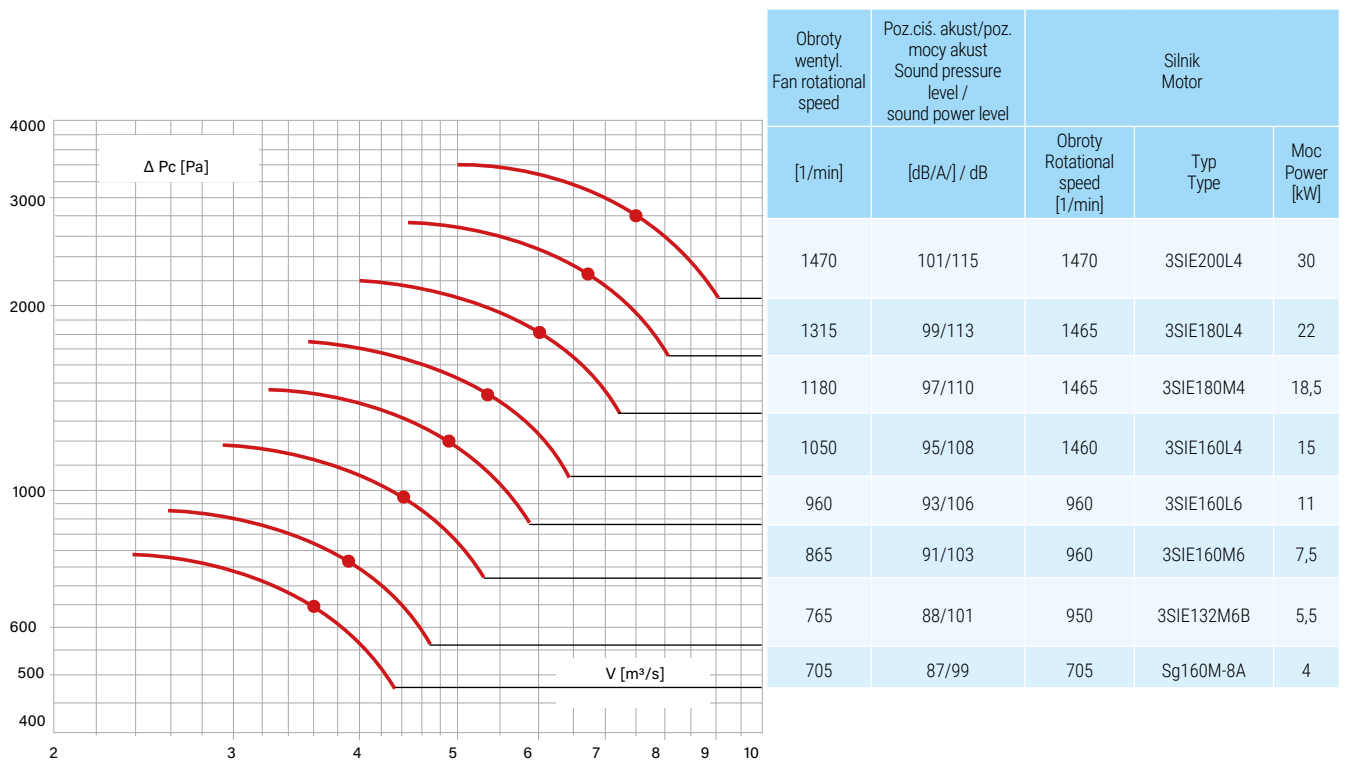
| Obroty wentyl.<br>Fan rotational speed | Poz.ciś. akust./poz. mocy akust<br>Sound pressure level / sound power level | Silnik Motor                    |            |                |
|--|---|---------------------------------|------------|----------------|
| [1/min]                                | [dB/A/] / dB  | Obroty Rotational speed [1/min] | Typ Type   | Moc Power [kW] |
| 1870                                   | 103/113   | 1475                            | 3SIE225S4  | 37             |
| 1750                                   | 102/112   | 1472                            | 3SIE200L4  | 30             |
| 1650                                   | 101/111   | 1472                            | 3SIE200L4  | 30             |
| 1470                                   | 94/108  | 1470                            | 3SIE180M4  | 18             |
| 1310                                   | 92/105  | 1460                            | 3SIE160L4  | 15             |
| 1200                                   | 90/103  | 960                             | 3SIE160L6  | 11             |
| 950                                    | 85/98   | 950                             | 3SIE132M6B | 5,5            |
| 850                                    | 84/96   | 950                             | 3SIE132M6A | 4              |
| 710                                    | 80/92   | 710                             | Sg132M-8   | 3              |

**WWOax - 71 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
**WWOax - 71 Flow performance curves at variable rotor speeds**

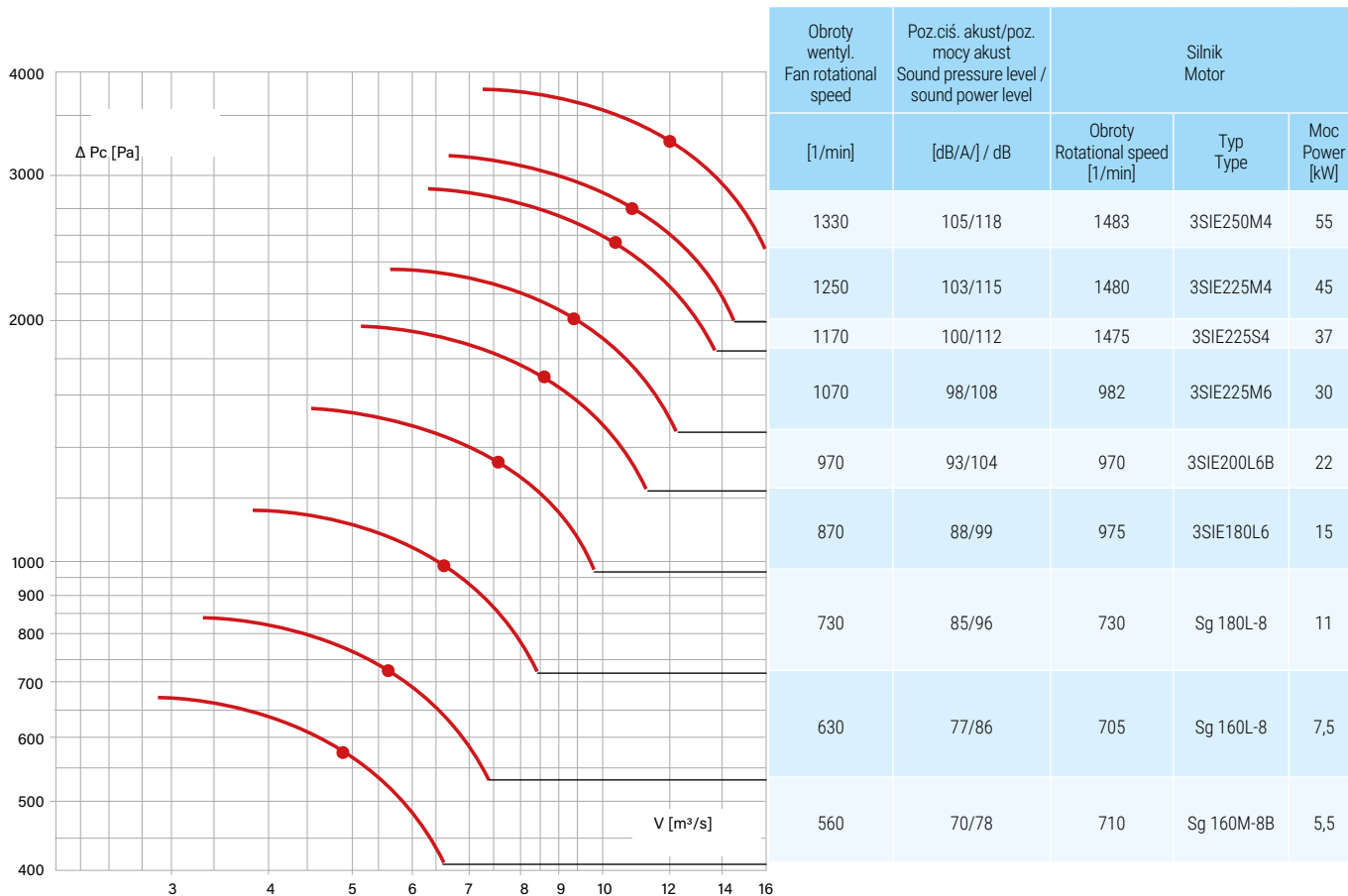
**Charakterystyka przepływowa z kołem wirnikowym typu „a” ( $b_2 = 0,1786$ ) | Flow performance curve with rotor wheel type “a” ( $b_2 = 0.1786$ )**



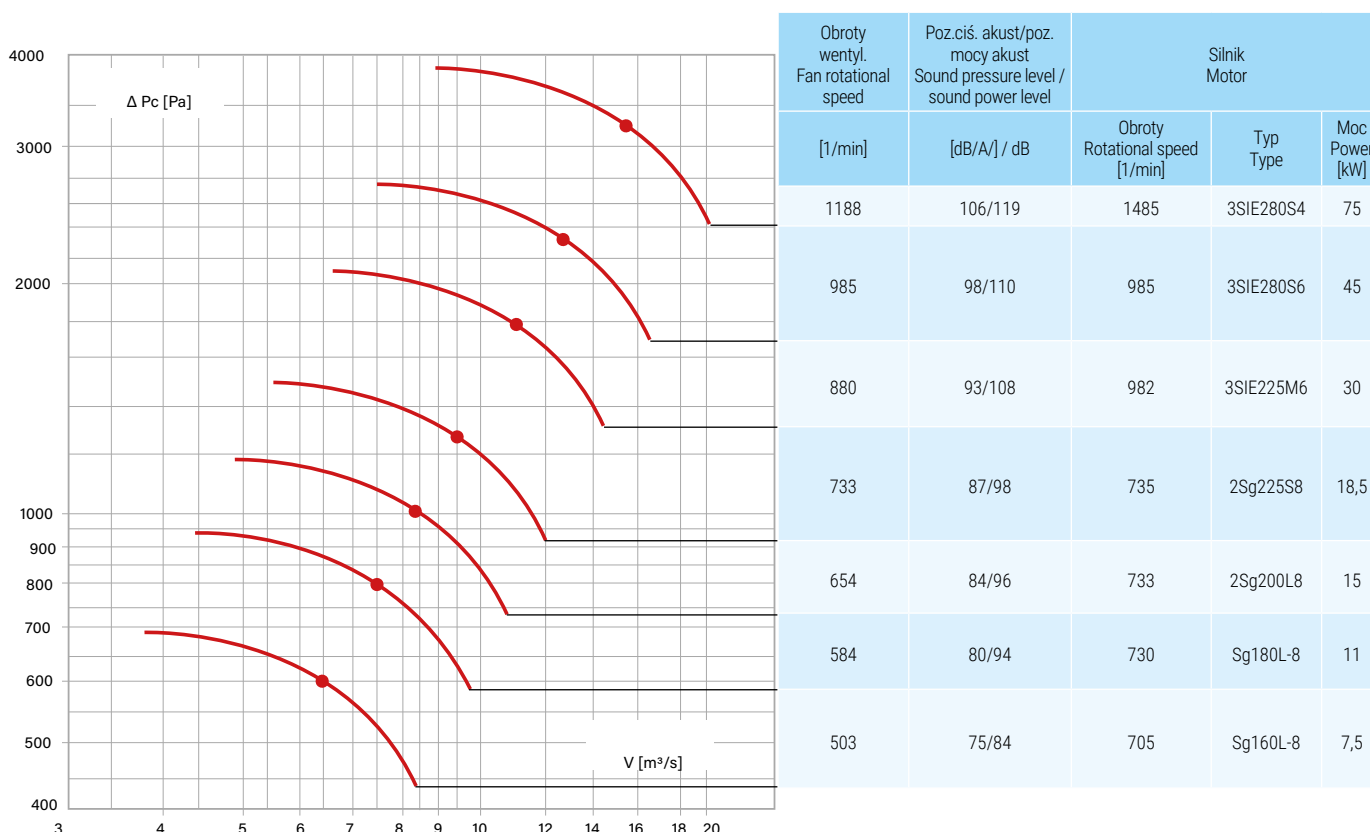
**Charakterystyka przepływowa z kołem wirnikowym typu „b” ( $b_2 = 0,134$ ) | Flow performance curve with rotor wheel type “b” ( $b_2 = 0.134$ )**



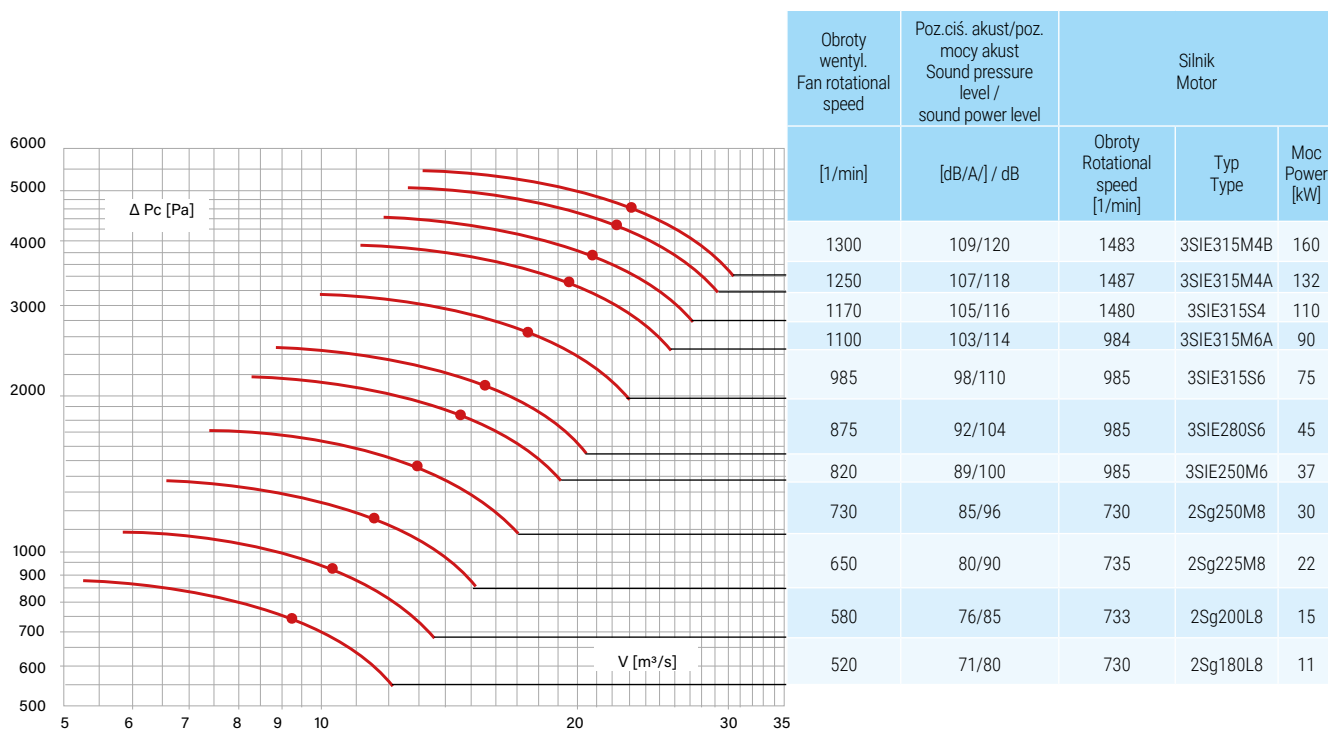
**WWOax - 80 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
WWOax - 80 Flow performance curves at variable rotor speeds



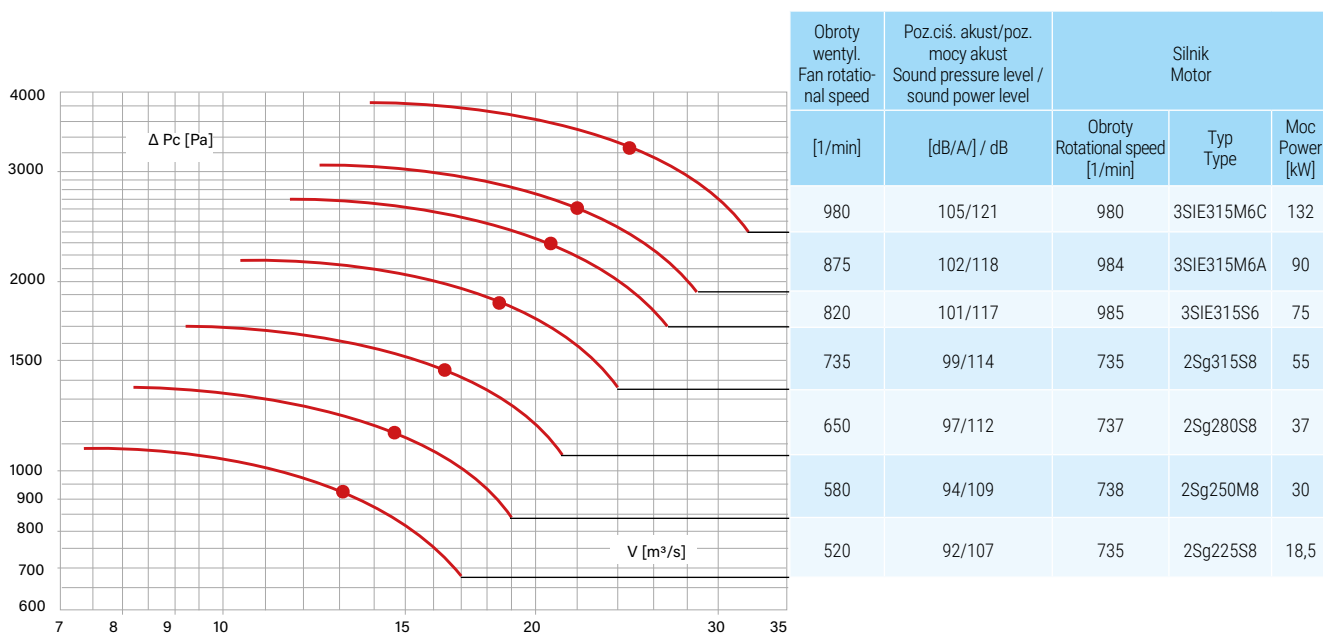
**WWOax - 90 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
WWOax - 90 Flow performance curves at variable rotor speeds



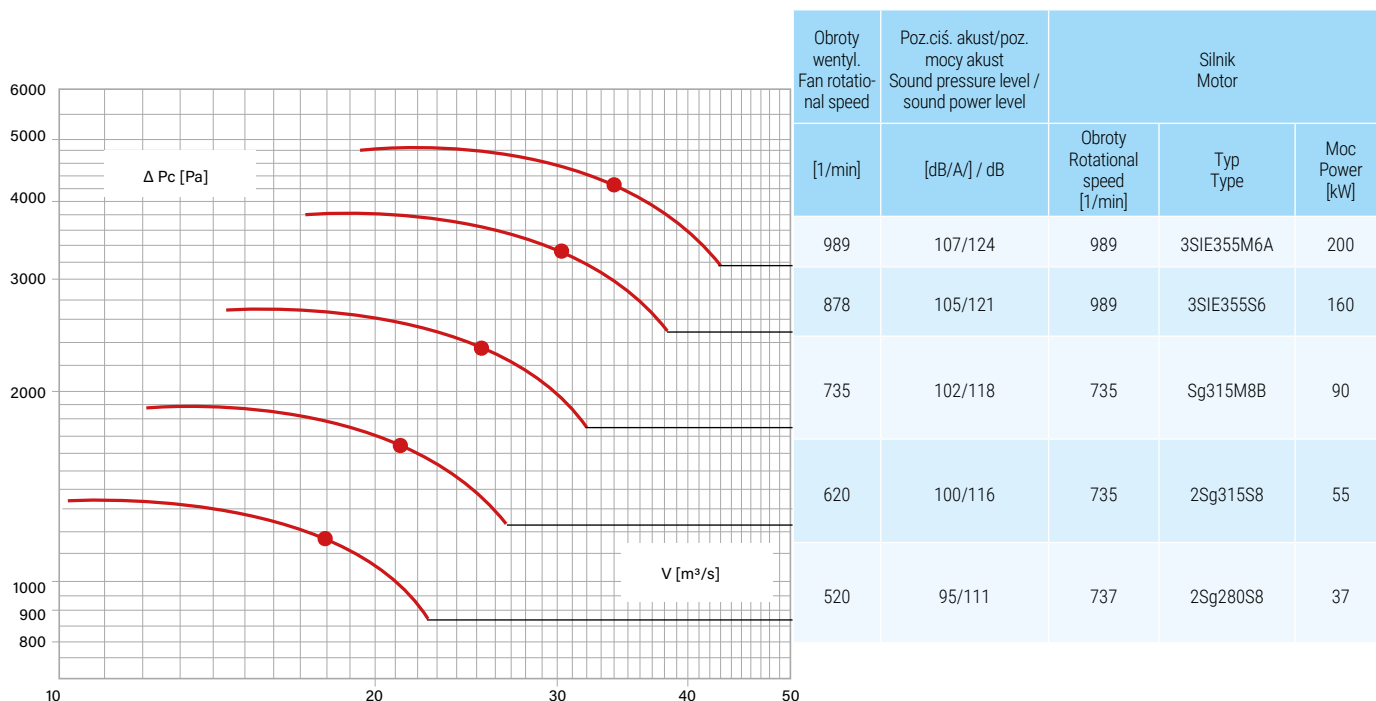
**WVOax - 100 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
WVOax - 100 Flow performance curves at variable rotor speeds



**WVOax - 112 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
WVOax - 112 Flow performance curves at variable rotor speeds



**WWOax - 125 Charakterystyki przepływowe przy zmiennych obrotach wirnika**  
WWOax - 125 Flow performance curves at variable rotor speeds



**Masy wentylatorów (wraz z silnikami) WWOax-20÷125 napęd bezpośredni i sprzęgłowy**  
**Fan weights (incl. motors) WWOax-20÷125 direct and coupling drive**
**Parametry techniczne | Technical parameters**

| Wentylator<br>Fan | Wirnik<br>Rotor | Silnik<br>Motor | Moc/ Power | Max. Masa wentylatora / Max. fan weight [kg] |                                  |
|-------------------|-----------------|-----------------|------------|--|----------------------------------|
|                   |                 |                 | [kW]       | Napęd bezpośredni<br>Direct drive            | Napęd sprzęgłowy<br>Clutch drive |
| <b>WWOax-20</b>   | a               | Sh 71-4A        | 0,25       | 37   | 60                               |
|                   |                 | 3SIE 80-2A      | 0,75       | 42   | 65                               |
| <b>WWOax-22,4</b> | a               | Sh 71-4A        | 0,25       | 44   | 69                               |
|                   |                 | 3SIE 80-2B      | 1,1        | 49   | 73                               |
| <b>WWOax-25</b>   | a               | Sh 80-4A        | 0,55       | 54   | 84                               |
|                   |                 | 3SIE 90L2       | 2,2        | 62   | 91                               |
| <b>WWOax-28</b>   | a               | Sh 80-4A        | 0,55       | 66   | 98                               |
|                   |                 | 3SIE 100L2      | 3          | 80   | 115                              |
| <b>WWOax-31,5</b> | a               | 3SIE 80-4B      | 0,75       | 92   | 142                              |
|                   |                 | 3SIE 132S2A     | 5,5        | 143  | 192                              |
| <b>WWOax-35,5</b> | a               | Sh 80-6B        | 0,55       | 115  | 215                              |
|                   |                 | 3SIE 90S4       | 1,1        | 122  | 222                              |
|                   |                 | 3SIE 160M2A     | 11         | 205  | 305                              |
|                   | b               | 3SIE 90S6       | 0,75       | 120  | 220                              |
|                   |                 | 3SIE 90S4       | 1,1        | 120  | 220                              |
|                   |                 | 3SIE 132S2B     | 7,5        | 178  | 277                              |
| <b>WWOax-40</b>   | a               | 3SIE 90S6       | 0,75       | 149  | 248                              |
|                   |                 | 3SIE 100L4A     | 2,2        | 159  | 258                              |
|                   |                 | 3SIE 160L2      | 18,5       | 273  | 372                              |
|                   | b               | 3SIE 90S6       | 0,75       | 148  | 247                              |
|                   |                 | 3SIE 90L4       | 1,5        | 150  | 249                              |
|                   |                 | 3SIE 160M2B     | 15         | 257  | 356                              |
| <b>WWOax-45</b>   | a               | Sg 100L-8A      | 0,75       | 198  | 308                              |
|                   |                 | 3SIE 90L6       | 1,1        | 194  | 304                              |
|                   |                 | 3SIE 112M4      | 4          | 209  | 319                              |
|                   |                 | 3SIE 200L2A     | 30         | 477  | 585                              |
|                   | b               | 3SIE 90L6       | 1,1        | 190  | 300                              |
|                   |                 | 3SIE 100L4B     | 3          | 198  | 308                              |
| <b>WWOax-50</b>   | a               | 3SIE 200L2A     | 30         | 472  | 582                              |
|                   |                 | Sg 100L-8A      | 0,75       | 255  | 345                              |
|                   |                 | 3SIE 112M6      | 2,2        | 267  | 357                              |
|                   | b               | 3SIE 132M4      | 7,5        | 305  | 395                              |
|                   |                 | Sg 100L-8A      | 0,75       | 253  | 343                              |
|                   |                 | 3SIE 100L6      | 1,5        | 251  | 341                              |
|                   |                 | 3SIE 132S4      | 5,5        | 298  | 388                              |
|                   |                 | 3SIE 225M2      | 45         | 647  | 757                              |

Podane masy są wartościami orientacyjnymi. Producent zastrzega sobie prawo do modyfikacji danych w zależności od zastosowanego silnika elektrycznego lub innych komponentów wentylatora.

The weights given are approximate values. The manufacturer reserves the right to modify the data depending on the electric motor used or other fan components.



**Masy wentylatorów (wraz z silnikami) WWOax-20÷125 napęd bezpośredni i sprzęgłowy**  
**Fan weights (incl. motors) WWOax-20÷125 direct drive and clutch drive**
**Parametry techniczne | Technical parameters**

| Wentylator<br>Fan | Wirnik<br>Rotor | Silnik<br>Motor | Moc / power | Max. Masa wentylatora [kg] / Max. fan weight [kg] |                                  |
|-------------------|-----------------|-----------------|-------------|---|----------------------------------|
|                   |                 |                 | [kW]        | Napęd bezpośredni<br>Direct drive                 | Napęd sprzęgłowy<br>Clutch drive |
| <b>WWOax-56</b>   | a               | Sg 112M-8       | 1,5         | 376   | 476                              |
|                   |                 | 3SIE 132M6A     | 4           | 411   | 511                              |
|                   |                 | 3SIE 160L4      | 15          | 466   | 566                              |
|                   | b               | Sg 112M-8       | 1,5         | 375   | 475                              |
|                   |                 | 3SIE 132S6      | 3           | 399   | 499                              |
|                   |                 | 3SIE 160M4      | 11          | 457   | 557                              |
| <b>WWOax-63</b>   | a               | Sg 132M-8       | 3           | 470   | 570                              |
|                   |                 | 3SIE 160M6      | 7,5         | 488   | 588                              |
|                   |                 | 3SIE 180L4      | 22          | 595   | 695                              |
|                   | b               | Sg 132M-8       | 3           | 467   | 567                              |
|                   |                 | 3SIE 132M6B     | 5,5         | 482   | 582                              |
|                   |                 | 3SIE 180M4      | 18,5        | 592   | 692                              |
| <b>WWOax-80</b>   |                 | 3SIE 220L6B     | 22          | 973   | 1205                             |
| <b>WWOax-100</b>  |                 | 3SIE 250M8      | 30          | -   | 2470                             |
|                   |                 | 3SIE 315S6      | 75          | -   | 2950                             |
| <b>WWOax-125</b>  |                 | 3SIE 315M8A     | 75          | -   | 4850                             |

Podane masy są wartościami orientacyjnymi. Producent zastrzega sobie prawo do modyfikacji danych w zależności od zastosowanego silnika elektrycznego lub innych komponentów wentylatora.

The weights given are approximate values. The manufacturer reserves the right to modify the data depending on the electric motor used or other fan components.



**WP-7,6** - Wentylatory tego typu przeznaczone są do tłoczenia powietrza w instalacjach o stosunkowo dużych oporach przepływu i małych wydajnościach. Wentylatory WP-7.6 produkowane są w wersji malowanej lub kwasoodpornej.

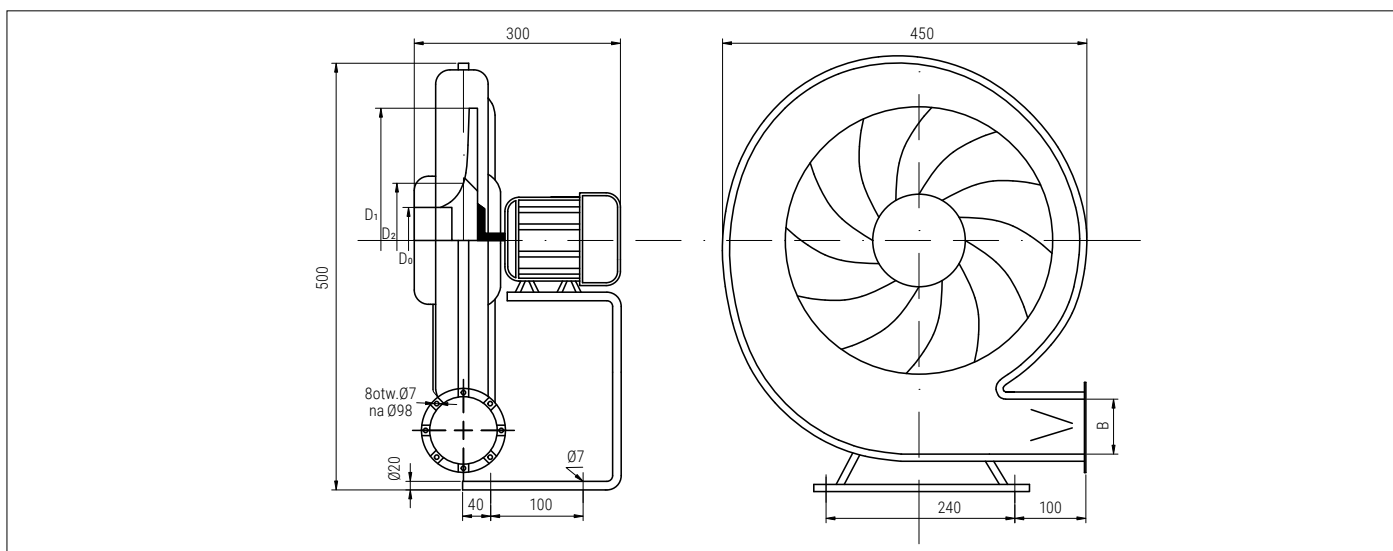
**WP-7,6** - This type of fans is used for forcing the air in installations with relatively high resistance of flow and small capacities. WP-7.6 fans are produced as painted.

### BUDOWA:

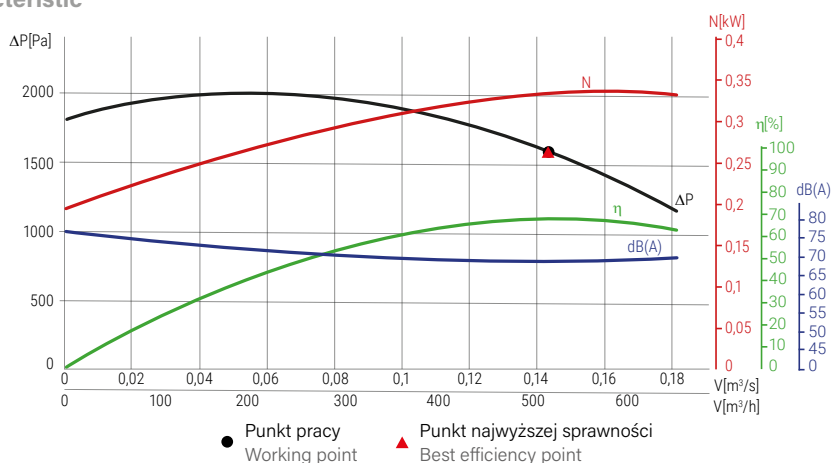
- D0 - średnica otworu wlotowego - Ø76 [76 mm]
- D1 - średnica zewnętrzna wirnika - [345 mm]
- D2 - średnica wejścia na łopatkę - [91 mm]
- B - otwór wylotowy wentylatora - Ø73 [73 mm]

### DESIGN:

- D0 - inlet hole diameter 76 - Ø76 [76 mm]
- D1 - external diameter of the rotor - [345 mm]
- D2 - diameter of socket for blades - [91 mm]
- B - the outlet of the fan - Ø73 [73 mm]



### Charakterystyka | Characteristic



### Parametry techniczne | Technical parameters

| Typ<br>Type | Wydajność<br>Capacity | Śpiętnienie<br>Compress | Moc<br>Power | Obroty<br>Rotations | Prąd<br>Current | Zasilanie<br>Feeding | Sprawność<br>Efficiency | Max. temp. pracy<br>Max. working temp. | Sprawność<br>Efficiency | Moc pobierania<br>Input power | Kategoria pomiarowa<br>Measurement category | Kategoria sprawności (statyczna/całkowita)<br>Category efficiency (static/total) | η <sub>target</sub> od 2015 | N <sub>actual</sub> | Głośność<br>Noise | Waga<br>Weight |
|-------------|-----------------------|-------------------------|--------------|---------------------|-----------------|----------------------|-------------------------|--|-------------------------|-------------------------------|---|--|-----------------------------|---------------------|-------------------|----------------|
|             | [V m³/s]              | [Pa]                    | [kW]         | [min⁻¹]             | [A]             | [V]                  | [%]                     | [°C]                                   | [%]                     | [kW]                          |   |  |                             | [dB(A)]             | [kg]              |                |
| WP-7.6      | 0,120                 | 1800                    | 0,55         | 2,800               | 1,4             | 3~                   | 65                      | 40                                     | 58,0                    | 0,360                         | B,D   | całkowita / total  | 48,8                        | 67,1                | 69                | 18,4           |
|             | 0,120                 | 1800                    | 0,55         | 2,800               | 3,8             | 1~                   | 65                      | 40                                     | 58,0                    | 0,360                         | B,D   | całkowita / total  | 48,8                        | 67,1                | 69                | 18,4           |

**Wentylatory promieniowe wysoko-  
koprężne WP 20 ÷ 40**

- Wentylatory promieniowe wysoko-  
koprężne typu WP z napędem  
bezpośrednim zaleca się do  
stosowania w budownictwie, rolnic-  
twie oraz przemyśle.
- Służą do przetłaczania czynnika  
obojętnego w systemach wenty-  
lacyjnych i liniach technologicz-  
nych, gdzie wymagane jest duże  
ciśnienie  $\Delta p_c$  przy stosunkowo  
małej wydajności  $Q_v$ .
- Przystosowane są do przetła-  
czania czynnika o temperaturze  
do 40°C z zawartością pyłu nie  
większą niż 0,3g/m<sup>3</sup> oraz bez  
składników przyspieszających  
korozję, żrących i wybuchowych.
- W celu zwiększenia liczby cha-  
rakterystyk  $\Delta p_c = f(Q_v)$  w polu  
pracy wentylatora stosuje się  
trzy różne szerokości wirnika:  
0,75; 1,0; 1,25.
- Wentylatory mogą pracować za-  
budowane instalacją na wlocie i  
wylocie bądź tylko na wlocie lub  
wylocie.

**WYKONANIA SPECJALNE**

- Dla przetłaczania czynników o  
innych właściwościach należy  
stosować wentylatory typu WP  
w wykonaniach specjalnych:  
korozjoodpornych, ciepłoodpor-  
nych lub ciepłokorozjoodpornych.
- Wentylatory promieniowe typu  
WP dodatkowo mogą być wy-  
posażone w ramę oraz wibro-  
izolatory, które mają za zadanie  
stabilizowanie pracy wentylatora  
i zmniejszenie jego drgań.
- W przypadku podłączenia wen-  
tylatora do sieci instalacyjnej  
tylko po stronie ssącej lub tylko  
po stronie tłoczącej do wen-  
tylatora należy zamocować siatki  
ochronne po stronie niepodłą-  
czanej do instalacji.

**High pressure centrifugal fans  
WP 20 ÷ 40**

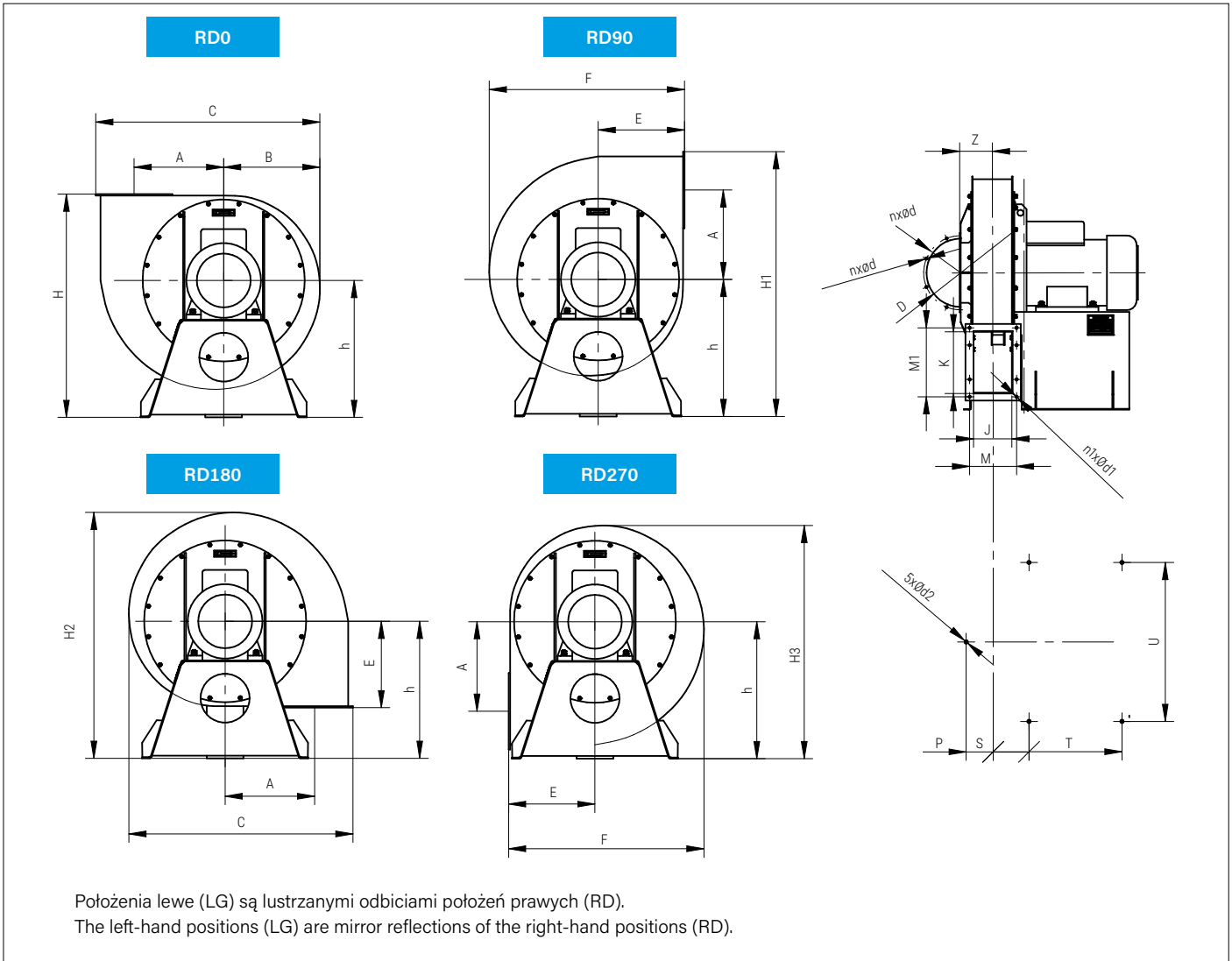
- High pressure centrifugal fans  
type WP with direct drive are re-  
commended for use in construc-  
tion, agriculture and industry.
- They are used for pumping inert  
medium in ventilation systems  
and process lines where high  
pressure  $\Delta p_c$  is required at rela-  
tively low capacity  $Q_v$ .
- They are suitable for pumping  
media with temperature up to  
40°C, dust content not excee-  
ding 0.3 g/m<sup>3</sup> and without  
corrosive, caustic and explosive  
components.
- In order to increase the number  
of characteristics  $\Delta p_c = f(Q_v)$ ,  
three different rotor widths are  
used in the fan operating area:  
0.75; 1.0; 1.25.
- The fans can be integra-  
ted with the associated sys-  
tem on both inlet and outlet  
or on either of the sides only.

**SPECIAL EXECUTIONS**

- For pumping media with other  
properties, WP type fans shou-  
ld be used in special execu-  
tions: corrosion resistant, heat  
resistant or heat and corrosion  
resistant.
- WP centrifugal fans can be ad-  
ditionally equipped with a frame  
and vibration insulators which  
are intended to stabilise the fan  
operation and reduce its vibra-  
tions.
- If the fan is connected to the sys-  
tem only on the suction side or  
only on the discharge side, pro-  
tection grids must be attached  
to the fan on the side that is not  
connected to the system.



Wentylator promieniowy wysokoprężny WP 20÷40 napęd bezpośredni | High pressure centrifugal fan WP 20÷40 direct drive



Wymiary | Dimensions

| Wentylator Fan | Wymiar / Dimension [mm] |     |     |     |      |     |      |      |      |      |
|----------------|-------------------------|-----|-----|-----|------|-----|------|------|------|------|
|                | D                       | Dp  | A   | B   | C    | E   | F    | H    | H1   | H2   |
| WP-20          | 200                     | 224 | 260 | 285 | 656  | 256 | 580  | 656  | 771  | 724  |
| WP-22,4        | 224                     | 248 | 291 | 317 | 730  | 285 | 645  | 735  | 863  | 810  |
| WP-25          | 250                     | 274 | 325 | 352 | 821  | 317 | 715  | 817  | 969  | 898  |
| WP-28          | 280                     | 304 | 366 | 393 | 916  | 353 | 1082 | 915  | 1083 | 1289 |
| WP-31,5        | 315                     | 339 | 412 | 441 | 1025 | 395 | 894  | 995  | 1184 | 1099 |
| WP-35,5        | 355                     | 387 | 463 | 498 | 1152 | 444 | 1324 | 1115 | 1324 | 1550 |
| WP-40          | 400                     | 432 | 522 | 558 | 1291 | 498 | 1129 | 1248 | 1483 | 1381 |



Parametry techniczne | Technical parameters

| Wentylator<br>Fan | Wymiar / Dimension [mm] |     |     |     |     |     |    |    |    |    |
|-------------------|-------------------------|-----|-----|-----|-----|-----|----|----|----|----|
|                   | H3                      | h   | J   | K   | M   | M1  | n  | n1 | d  | d1 |
| <b>WP-20</b>      | 685                     | 400 | 125 | 180 | 149 | 204 | 8  | 8  | 7  | 7  |
| <b>WP-22,4</b>    | 767                     | 450 | 140 | 200 | 164 | 224 | 8  | 8  | 7  | 7  |
| <b>WP-25</b>      | 852                     | 500 | 140 | 224 | 172 | 256 | 8  | 8  | 7  | 10 |
| <b>WP-28</b>      | 953                     | 560 | 160 | 250 | 192 | 282 | 8  | 8  | 7  | 10 |
| <b>WP-31,5</b>    | 1041                    | 600 | 180 | 280 | 212 | 312 | 8  | 8  | 10 | 10 |
| <b>WP-35,5</b>    | 1168                    | 670 | 200 | 315 | 232 | 347 | 12 | 12 | 10 | 10 |
| <b>WP-40</b>      | 1308                    | 750 | 224 | 355 | 256 | 387 | 12 | 12 | 10 | 10 |

Parametry techniczne | Technical parameters

| Wentylator Fan | Silnik Motor | Moc Power N [kW] | Obroty Rotational speed [obr-1] | Wymiar / Dimension [mm] |     |       |       |    |    | Masa napędu Weight [kg] |       |        |
|----------------|--------------|------------------|---------------------------------|-------------------------|-----|-------|-------|----|----|-------------------------|-------|--------|
|                |              |                  |                                 | P                       | S   | T     | U     | d1 | d2 |                         |       |        |
| WP-20          | 3SIE 80-4A   | 0,55             | 1400                            | 92                      | 121 | 190   | 450   | 7  | 14 | 60,0                    |       |        |
|                | 3SIE 90L-2   | 2,2              | 2900                            |                         |     |       |       |    |    | 65,0                    |       |        |
|                | 3SIE 100L-2  | 3                | 2920                            |                         |     |       |       |    |    | 76,0                    |       |        |
| WP-22,4        | 3SIE 90S-4   | 1,1              | 1440                            | 97                      | 137 | 260   | 450   | 7  | 14 | 86,0                    |       |        |
|                | 3SIE 100L-2  | 3                | 2920                            |                         |     |       |       |    |    | 91,5                    |       |        |
|                | 3SIE 112M-2  | 4                | 2930                            |                         |     |       | 101,0 |    |    |                         |       |        |
|                | 3SIE 132S-2A | 5,5              | 2940                            |                         |     |       | 550   |    |    | 128,5                   |       |        |
| WP-25          | 3SIE 90S-4   | 1,1              | 1440                            | 98                      | 140 | 260   | 450   | 10 | 14 | 130,5                   |       |        |
|                | 3SIE 132S-2A | 5,5              | 2940                            |                         |     |       |       |    |    | 550                     | 148,0 |        |
|                | 3SIE 132S-2B | 7,5              | 2940                            |                         |     |       | 181,5 |    |    |                         |       |        |
|                | 3SIE 160M-2A | 11               | 2945                            |                         |     |       | 380   |    |    | 650                     | 206,5 |        |
| WP-28          | 3SIE 90S-6   | 0,75             | 930                             | 108                     | 150 | 190   | 450   | 10 | 14 | 127,5                   |       |        |
|                | 3SIE 90L-4   | 1,5              | 1450                            |                         |     |       |       |    |    | 127,0                   |       |        |
|                | 3SIE 100L-4A | 2,2              | 1455                            |                         |     |       |       |    |    | 134,5                   |       |        |
|                | 3SIE 160M-2A | 11               | 2945                            |                         |     | 380   | 650   |    |    | 202,5                   |       |        |
|                | 3SIE 160M-2B | 15               | 2945                            |                         |     |       |       |    |    | 219,0                   |       |        |
| WP-31,5        | 3SIE 100L-6  | 1,5              | 950                             | 120                     | 150 | 190   | 550   | 10 | 14 | 189,0                   |       |        |
|                | 3SIE 100L-4A | 2,2              | 1455                            |                         |     |       |       |    |    | 192,5                   |       |        |
|                | 3SIE 100L-4B | 3                | 1450                            |                         |     |       |       |    |    | 195,0                   |       |        |
|                | 3SIE 112M-4  | 4                | 1460                            |                         |     | 380   | 750   |    |    | 201,5                   |       |        |
|                | 3SIE 160L-2  | 18,5             | 2940                            |                         |     |       |       |    |    | 285,0                   |       |        |
|                | 3SIE 180M-2  | 22               | 2955                            |                         |     |       |       |    |    | 322,0                   |       |        |
|                | 3SIE 200L-2A | 30               | 2965                            |                         |     |       |       |    |    | 480                     | 750   | 427,0  |
| WP-35,5        | 3SIE 112M-6  | 2,2              | 965                             | 130                     | 161 | 190   | 550   | 10 | 19 | 231,0                   |       |        |
|                | 3SIE 112M-4  | 4                | 1460                            |                         |     |       |       |    |    | 234,0                   |       |        |
|                | 3SIE 132S-4  | 5,5              | 1470                            |                         |     |       |       |    |    | 380                     | 650   | 268,5  |
|                | 3SIE 132M-4  | 7,5              | 1465                            |                         |     | 272,0 |       |    |    |                         |       |        |
|                | 3SIE 200L-2A | 30               | 2965                            |                         |     | 480   | 750   |    |    |                         |       | 465,0  |
|                | 3SIE 200L-2B | 37               | 2955                            |                         |     |       |       |    |    |                         |       | 489,0  |
|                | 3SIE 250M-2  | 55               | 2969                            |                         |     | 580   | 790   |    |    | 688,0                   |       |        |
| WP-40          | 3SIE 112M-6  | 2,2              | 965                             | 155                     | 225 | 380   | 650   | 10 | 19 | 321,0                   |       |        |
|                | 3SIE 132S-6  | 3                | 965                             |                         |     |       |       |    |    | 343,0                   |       |        |
|                | 3SIE 132M-4  | 7,5              | 1465                            |                         |     |       |       |    |    | 367,0                   |       |        |
|                | 3SIE 160M-4  | 11               | 1470                            |                         |     | 480   | 790   |    |    | 399,5                   |       |        |
|                | 3SIE 250M-2  | 55               | 2969                            |                         |     |       |       |    |    | 783,5                   |       |        |
|                | 3SIE 280S-2  | 75               | 2978                            |                         |     |       |       |    |    | 680                     | 890   | 990,0  |
|                | 3SIE 280M-2  | 90               | 2979                            |                         |     |       |       |    |    |                         |       | 1015,0 |

**Parametry techniczne | Technical parameters**

| Typ<br>Type         | Wydajność<br>Capacity | Śpiżnienie<br>Compress | Moc<br>Power | Obroty<br>Rotations | Prąd<br>In current | Zasilanie<br>Feeding | Stopień<br>ochrony<br>Protection<br>rate | Max. temp.<br>pracy<br>Max.<br>working<br>temp. | Sprawność<br>Efficiency | Moc<br>pobierana<br>Input power | Kategoria<br>pomiarowa<br>Measurement<br>category | Kategoria spraw-<br>ności (statyczna/<br>całkowita)<br>Category efficiency<br>(static/total) | $\eta_{\text{target}}$<br>od<br>2015 | $N_{\text{actual}}$ |
|---------------------|-----------------------|------------------------|--------------|---------------------|--------------------|----------------------|--|---|-------------------------|---------------------------------|---|--|--------------------------------------|---------------------|
| -                   | [V m³/s]              | [Pa]                   | [kW]         | [obr/min]<br>[rpm]  | [A]                | [V]                  | IP                                       | [°C]  | [%]                     | [kW]                            | -   | -  | [%]                                  | [%]                 |
| <b>WP-20/0,75</b>   | 0,380                 | 2000                   | 2,20         | 2800                | 4,7                | 3X400                | 54                                       | 40  | 78,0                    | 1,716                           | B, D  | całkowita / total  | 56,0                                 | 82,9                |
| <b>WP-20/1,00</b>   | 0,500                 | 2475                   | 2,20         | 2800                | 4,7                | 3X400                | 54                                       | 40  | 81,0                    | 1,782                           | B, D  | całkowita / total  | 56,1                                 | 85,7                |
| <b>WP-20/1,25</b>   | 0,610                 | 2550                   | 3,00         | 2800                | 6,2                | 3X400                | 54                                       | 40  | 83,0                    | 2,490                           | B, D  | całkowita / total  | 57,7                                 | 86,8                |
| <b>WP-20/0,75</b>   | 0,180                 | 550                    | 0,55         | 1400                | 1,7                | 3X400                | 54                                       | 40  | 77,0                    | 0,424                           | B, D  | całkowita / total  | 49,6                                 | 85,7                |
| <b>WP-20/1,00</b>   | 0,260                 | 565                    | 0,55         | 1400                | 1,7                | 3X400                | 54                                       | 40  | 80,0                    | 0,440                           | B, D  | całkowita / total  | 49,8                                 | 88,6                |
| <b>WP-20/1,25</b>   | 0,310                 | 600                    | 0,55         | 1400                | 1,7                | 3X400                | 54                                       | 40  | 91,0                    | 0,501                           | B, D  | całkowita / total  | 50,3                                 | 99,2                |
| <b>WP-22,4/0,75</b> | 0,530                 | 3130                   | 3,00         | 2800                | 6,2                | 3X400                | 54                                       | 40  | 78,0                    | 2,340                           | B, D  | całkowita / total  | 57,4                                 | 82,0                |
| <b>WP-22,4/1,00</b> | 0,700                 | 3250                   | 4,00         | 2800                | 7,7                | 3X400                | 54                                       | 40  | 81,0                    | 3,240                           | B, D  | całkowita / total  | 58,9                                 | 84,1                |
| <b>WP-22,4/1,25</b> | 0,850                 | 3400                   | 5,50         | 2800                | 10,1               | 3X400                | 54                                       | 40  | 83,0                    | 4,565                           | B, D  | całkowita / total  | 60,4                                 | 85,2                |
| <b>WP-22,4/0,75</b> | 0,260                 | 760                    | 1,10         | 1400                | 2,6                | 3X400                | 54                                       | 40  | 77,0                    | 0,847                           | B, D  | całkowita / total  | 52,7                                 | 83,8                |
| <b>WP-22,4/1,00</b> | 0,360                 | 750                    | 1,10         | 1400                | 2,6                | 3X400                | 54                                       | 40  | 80,0                    | 0,880                           | B, D  | całkowita / total  | 52,9                                 | 86,7                |
| <b>WP-22,4/1,25</b> | 0,420                 | 800                    | 1,10         | 1400                | 2,6                | 3X400                | 54                                       | 40  | 81,0                    | 0,891                           | B, D  | całkowita / total  | 53,0                                 | 87,6                |
| <b>WP-25/0,75</b>   | 0,740                 | 4200                   | 5,50         | 2800                | 10,1               | 3X400                | 54                                       | 40  | 79,0                    | 4,345                           | B, D  | całkowita / total  | 60,2                                 | 81,3                |
| <b>WP-25/1,00</b>   | 1,000                 | 4200                   | 7,50         | 2800                | 13,2               | 3X400                | 54                                       | 40  | 82,0                    | 6,150                           | B, D  | całkowita / total  | 61,8                                 | 83,4                |
| <b>WP-25/1,25</b>   | 1,300                 | 4300                   | 11,00        | 2800                | 20,3               | 3X400                | 54                                       | 40  | 84,0                    | 9,240                           | B, D  | całkowita / total  | 63,6                                 | 84,2                |
| <b>WP-25/0,75</b>   | 0,360                 | 920                    | 1,10         | 1400                | 2,6                | 3X400                | 54                                       | 40  | 78,0                    | 0,858                           | B, D  | całkowita / total  | 52,8                                 | 84,7                |
| <b>WP-25/1,00</b>   | 0,500                 | 940                    | 1,10         | 1400                | 2,6                | 3X400                | 54                                       | 40  | 81,0                    | 0,891                           | B, D  | całkowita / total  | 53,0                                 | 87,6                |
| <b>WP-25/1,25</b>   | 0,600                 | 1000                   | 1,10         | 1400                | 2,6                | 3X400                | 54                                       | 40  | 82,0                    | 0,902                           | B, D  | całkowita / total  | 53,0                                 | 88,6                |
| <b>WP-28/0,75</b>   | 1,050                 | 5000                   | 11,00        | 2800                | 20,3               | 3X400                | 54                                       | 40  | 80,0                    | 8,800                           | B, D  | całkowita / total  | 63,4                                 | 80,4                |
| <b>WP-28/1,00</b>   | 1,400                 | 5200                   | 15,00        | 2800                | 26,9               | 3X400                | 54                                       | 40  | 82,0                    | 12,300                          | B, D  | całkowita / total  | 64,9                                 | 81,5                |
| <b>WP-28/1,25</b>   | 1,700                 | 5400                   | 15,00        | 2800                | 26,9               | 3X400                | 54                                       | 40  | 84,0                    | 12,600                          | B, D  | całkowita / total  | 65,1                                 | 83,4                |
| <b>WP-28/0,75</b>   | 0,500                 | 1200                   | 1,50         | 1400                | 3,4                | 3X400                | 54                                       | 40  | 79,0                    | 1,185                           | B, D  | całkowita / total  | 54,3                                 | 84,9                |
| <b>WP-28/1,00</b>   | 0,680                 | 1220                   | 2,20         | 1400                | 4,5                | 3X400                | 54                                       | 40  | 82,0                    | 1,804                           | B, D  | całkowita / total  | 56,2                                 | 86,7                |
| <b>WP-28/1,25</b>   | 0,840                 | 1260                   | 2,20         | 1400                | 4,5                | 3X400                | 54                                       | 40  | 83,0                    | 1,826                           | B, D  | całkowita / total  | 56,2                                 | 87,7                |
| <b>WP-28/0,75</b>   | 0,350                 | 500                    | 0,75         | 900                 | 2,0                | 3X400                | 54                                       | 40  | 79,0                    | 0,593                           | B, D  | całkowita / total  | 51,1                                 | 86,8                |
| <b>WP-28/1,00</b>   | 0,480                 | 480                    | 0,75         | 900                 | 2,0                | 3X400                | 54                                       | 40  | 82,0                    | 0,615                           | B, D  | całkowita / total  | 51,3                                 | 89,7                |
| <b>WP-28/1,75</b>   | 0,550                 | 520                    | 0,75         | 900                 | 2,0                | 3X400                | 54                                       | 40  | 83,0                    | 0,623                           | B, D  | całkowita / total  | 51,3                                 | 90,6                |

## Parametry techniczne | Technical parameters

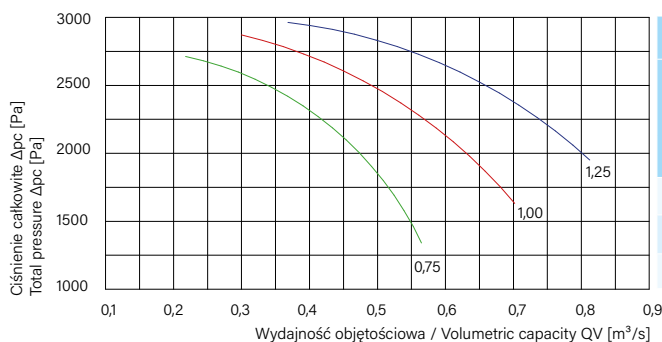
| Typ<br>Type         | Wydajność<br>Capacity | Śpiężenie<br>Compress | Moc<br>Power | Obroty<br>Rotations | Prąd<br>In current | Zasilanie<br>Feeding | Stopień<br>ochrony<br>Protection<br>rate | Max. temp.<br>pracy<br>Max. working<br>temp. | Sprawność<br>Efficiency | Moc<br>pobierana<br>Input power | Kategoria<br>pomiarowa<br>Measurement<br>category | Kategoria spraw-<br>ności (statyczna/<br>całkowita)<br>Category efficiency<br>(static/total) | $\eta_{\text{target}}$<br>od<br>2015 | $N_{\text{actual}}$ |
|---------------------|-----------------------|-----------------------|--------------|---------------------|--------------------|----------------------|--|--|-------------------------|---------------------------------|---|--|--------------------------------------|---------------------|
| -                   | [V m <sup>3</sup> /s] | [Pa]                  | [kW]         | [obr/min]<br>[rpm]  | [A]                | [V]                  | IP                                       | [°C]   | [%]                     | [kW]                            | -   | -  | [%]                                  | [%]                 |
| <b>WP-31,5/0,75</b> | 1,600                 | 6200                  | 18,50        | 2800                | 32,1               | 3x400                | 54                                       | 40   | 81,0                    | 14,985                          | B, D  | całkowita / total  | 65,8                                 | 79,9                |
| <b>WP-31,5/1,00</b> | 2,000                 | 6800                  | 22,00        | 2800                | 39,5               | 3x400                | 54                                       | 40   | 84,0                    | 18,480                          | B, D  | całkowita / total  | 66,8                                 | 82,3                |
| <b>WP-31,5/1,25</b> | 2,500                 | 6950                  | 30,00        | 2800                | 5,2                | 3x400                | 54                                       | 40   | 85,0                    | 25,500                          | B, D  | całkowita / total  | 68,3                                 | 82,5                |
| <b>WP-31,5/0,75</b> | 0,720                 | 1500                  | 2,20         | 1400                | 4,5                | 3x400                | 54                                       | 40   | 80,0                    | 1,760                           | B, D  | całkowita / total  | 56,1                                 | 84,8                |
| <b>WP-31,5/1,00</b> | 0,950                 | 1550                  | 3,00         | 1400                | 6,8                | 3x400                | 54                                       | 40   | 83,0                    | 2,490                           | B, D  | całkowita / total  | 57,7                                 | 86,8                |
| <b>WP-31,5/1,25</b> | 1,150                 | 1700                  | 4,00         | 1400                | 8,4                | 3x400                | 54                                       | 40   | 84,0                    | 3,360                           | B, D  | całkowita / total  | 59,0                                 | 87,0                |
| <b>WP-31,5/0,75</b> | 0,480                 | 680                   | 1,50         | 900                 | 3,7                | 3x400                | 54                                       | 40   | 80,0                    | 1,200                           | B, D  | całkowita / total  | 54,3                                 | 85,8                |
| <b>WP-31,5/1,00</b> | 0,650                 | 690                   | 1,50         | 900                 | 3,2                | 3x400                | 54                                       | 40   | 83,0                    | 1,245                           | B, D  | całkowita / total  | 54,5                                 | 88,7                |
| <b>WP-31,5/1,25</b> | 0,800                 | 710                   | 1,50         | 900                 | 3,7                | 3x400                | 54                                       | 40   | 84,0                    | 1,260                           | B, D  | całkowita / total  | 54,6                                 | 89,7                |
| <b>WP-35,5/0,75</b> | 2,100                 | 8000                  | 30,00        | 2800                | 52                 | 3x400                | 54                                       | 40   | 82,0                    | 24,600                          | B, D  | całkowita / total  | 68,1                                 | 79,6                |
| <b>WP-35,5/1,00</b> | 3,000                 | 8100                  | 37,00        | 2800                | 63                 | 3x400                | 54                                       | 40   | 85,0                    | 31,450                          | B, D  | całkowita / total  | 69,2                                 | 81,9                |
| <b>WP-35,5/1,25</b> | 3,800                 | 8000                  | 55,00        | 2800                | 93                 | 3x400                | 54                                       | 40   | 86,0                    | 47,300                          | B, D  | całkowita / total  | 71,1                                 | 81,8                |
| <b>WP-35,5/0,75</b> | 1,100                 | 1915                  | 4,00         | 1400                | 8,4                | 3x400                | 54                                       | 40   | 81,0                    | 3,240                           | B, D  | całkowita / total  | 58,9                                 | 84,1                |
| <b>WP-35,5/1,00</b> | 1,600                 | 1875                  | 5,50         | 1400                | 11,3               | 3x400                | 54                                       | 40   | 84,0                    | 4,620                           | B, D  | całkowita / total  | 60,5                                 | 86,1                |
| <b>WP-35,5/1,25</b> | 1,800                 | 2040                  | 7,50         | 1400                | 15,4               | 3x400                | 54                                       | 40   | 85,0                    | 6,375                           | B, D  | całkowita / total  | 61,9                                 | 86,3                |
| <b>WP-35,5/0,75</b> | 0,700                 | 890                   | 2,20         | 900                 | 5,1                | 3x400                | 54                                       | 40   | 81,0                    | 1,782                           | B, D  | całkowita / total  | 56,1                                 | 85,7                |
| <b>WP-35,5/1,00</b> | 0,950                 | 860                   | 2,20         | 900                 | 5,1                | 3x400                | 54                                       | 40   | 84,0                    | 1,848                           | B, D  | całkowita / total  | 56,3                                 | 88,6                |
| <b>WP-35,5/1,25</b> | 1,100                 | 920                   | 2,20         | 900                 | 5,1                | 3x400                | 54                                       | 40   | 85,0                    | 1,870                           | B, D  | całkowita / total  | 56,4                                 | 89,6                |



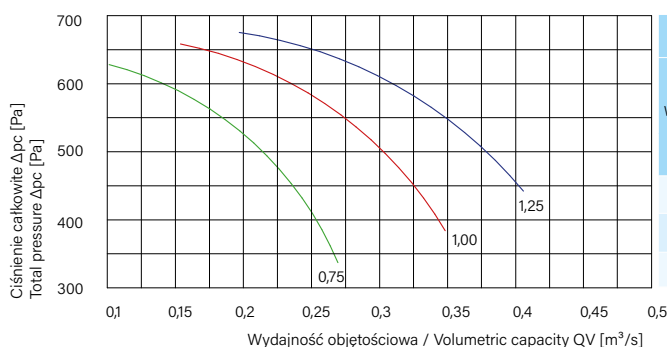
**Parametry techniczne | Technical parameters**

| Typ<br>Type       | Wydajność<br>Capacity | Śpiężenie<br>Compress | Moc<br>Power | Obroty<br>Rotations | Prąd<br>In current | Zasilanie<br>Feeding | Stopień<br>ochrony<br>Protection<br>rate | Max. temp.<br>pracy<br>Max working<br>temp. | Sprawność<br>Efficiency | Moc<br>pobierana<br>Input powers | Kategoria<br>pomiarowa<br>Measurement<br>category | Kategoria spraw-<br>ności (statyczna/<br>całkowita)<br>Category efficiency<br>(static/total) | $\eta_{\text{target}}$<br>od<br>2015 | $N_{\text{actual}}$ |
|-------------------|-----------------------|-----------------------|--------------|---------------------|--------------------|----------------------|--|---|-------------------------|----------------------------------|---|--|--------------------------------------|---------------------|
| -                 | [V m³/s]              | [Pa]                  | [kW]         | [obr/min]<br>[rpm]  | [A]                | [V]                  | IP                                       | [°C]  | [%]                     | [kW]                             | -   | -  | [%]                                  | [%]                 |
| <b>WP-40/0,75</b> | 3,000                 | 10500                 | 55,00        | 2800                | 93                 | 3x400                | 54                                       | 40  | 83,0                    | 45,650                           | B, D  | całkowita / total  | 70,9                                 | 78,9                |
| <b>WP-40/1,00</b> | 4,000                 | 11000                 | 75,00        | 2800                | 127                | 3x400                | 54                                       | 40  | 86,0                    | 64,500                           | B, D  | całkowita / total  | 72,5                                 | 80,9                |
| <b>WP-40/1,25</b> | 5,000                 | 10000                 | 90,00        | 2800                | 151                | 3x400                | 54                                       | 40  | 91,0                    | 81,900                           | B, D  | całkowita / total  | 73,6                                 | 85,3                |
| <b>WP-40/0,75</b> | 1,600                 | 2500                  | 7,50         | 1400                | 15,3               | 3x400                | 54                                       | 40  | 82,0                    | 6,150                            | B, D  | całkowita / total  | 61,8                                 | 83,4                |
| <b>WP-40/1,00</b> | 2,000                 | 2700                  | 11,00        | 1400                | 21,8               | 3x400                | 54                                       | 40  | 85,0                    | 9,350                            | B, D  | całkowita / total  | 63,7                                 | 85,2                |
| <b>WP-40/1,25</b> | 1,400                 | 3100                  | 11,00        | 1400                | 21,8               | 3x400                | 54                                       | 40  | 86,0                    | 9,460                            | B, D  | całkowita / total  | 63,7                                 | 86,2                |
| <b>WP-40/0,75</b> | 1,000                 | 1120                  | 2,20         | 900                 | 5,1                | 3x400                | 54                                       | 40  | 82,0                    | 1,804                            | B, D  | całkowita / total  | 56,2                                 | 86,7                |
| <b>WP-40/1,00</b> | 1,400                 | 1140                  | 3,00         | 900                 | 6,6                | 3x400                | 54                                       | 40  | 85,0                    | 2,550                            | B, D  | całkowita / total  | 57,8                                 | 88,8                |
| <b>WP-40/1,25</b> | 1,600                 | 1180                  | 3,00         | 900                 | 6,6                | 3x400                | 54                                       | 40  | 86,0                    | 2,580                            | B, D  | całkowita / total  | 57,8                                 | 89,7                |

**Charakterystyki wentylatora WP-20/0,75 ; WP-20/1,00 ; WP-20/1,25**  
Performance curves of WP-20/0.75 fan; WP-20/1.00; WP-20/1.25

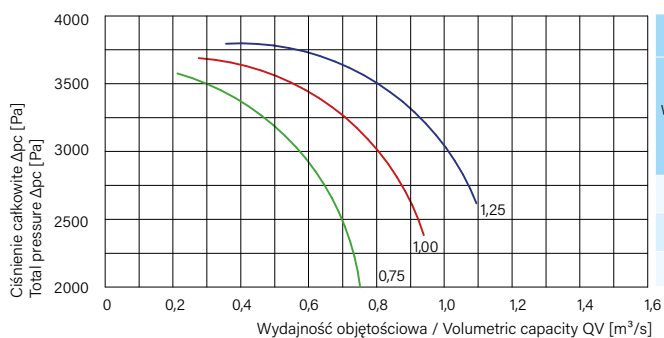


| WP-20                     |   |              |                            |                            |
|---------------------------|---|--------------|----------------------------|----------------------------|
| Typ wirnika<br>Rotor type | Poziom ciśnienia akustycznego<br>Sound pressure level [db(A)] | Silnik Motor | Moc silnika<br>Motor power | Obroty<br>Rotational speed |
|                           |   | typ / type   | [kW]                       |                            |
| 1,25                      | 89  | 3SIE 100L-2  | 3,0                        | 2920                       |
| 1                         | 87  | 3SIE 90L-2   | 2,2                        | 2900                       |
| 0,75                      | 83  | 3SIE 90L-2   | 2,2                        | 2900                       |

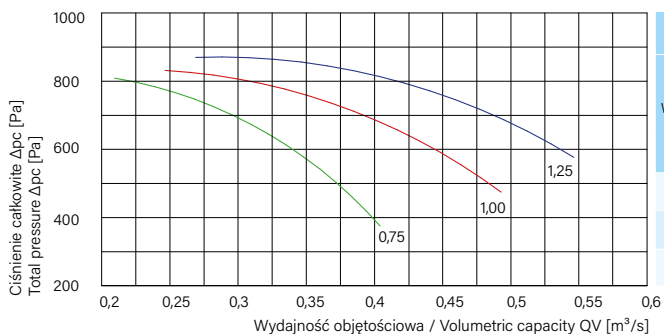


| WP-20                     |   |              |                            |                            |
|---------------------------|---|--------------|----------------------------|----------------------------|
| Typ wirnika<br>Rotor type | Poziom ciśnienia akustycznego<br>Sound pressure level [db(A)] | Silnik Motor | Moc silnika<br>Motor power | Obroty<br>Rotational speed |
|                           |   | typ / type   | [kW]                       |                            |
| 1,25                      | 75  | 3SIE 80-4A   | 0,55                       | 1400                       |
| 1                         | 71  | 3SIE 80-4A   | 0,55                       | 1400                       |
| 0,75                      | 68  | 3SIE 80-4A   | 0,55                       | 1400                       |

**Charakterystyki wentylatora WP-22, 4/0 ; WP-22,4/1,00 ; WP-22,4/1,25**  
Performance curves of WP-22, 4/0 ; WP-22,4/1.00 ; WP-22,4/1.25

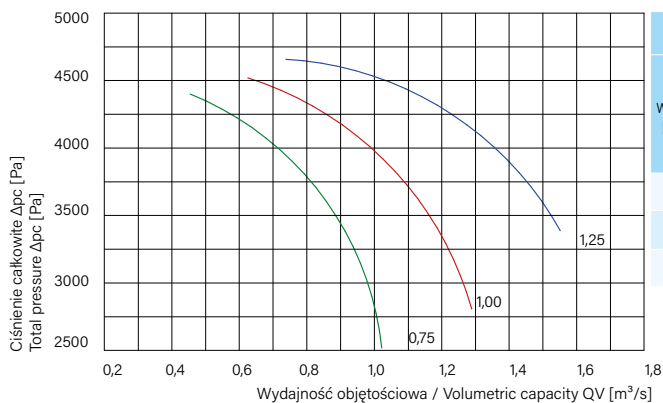


| WP-22,4                   |   |              |                            |                            |
|---------------------------|---|--------------|----------------------------|----------------------------|
| Typ wirnika<br>Rotor type | Poziom ciśnienia akustycznego<br>Sound pressure level [db(A)] | Silnik Motor | Moc silnika<br>Motor power | Obroty<br>Rotational speed |
|                           |   | typ / type   | [kW]                       |                            |
| 1,25                      | 91  | 3SIE 132S-2A | 5,5                        | 2940                       |
| 1                         | 88  | 3SIE 112M-2  | 4,0                        | 2930                       |
| 0,75                      | 86  | 3SIE 100L-2  | 3,0                        | 2920                       |

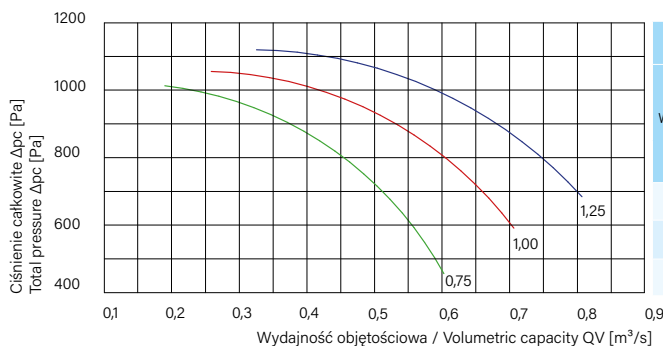


| WP-22,4                   |   |              |                            |                            |
|---------------------------|---|--------------|----------------------------|----------------------------|
| Typ wirnika<br>Rotor type | Poziom ciśnienia akustycznego<br>Sound pressure level [db(A)] | Silnik Motor | Moc silnika<br>Motor power | Obroty<br>Rotational speed |
|                           |   | typ / type   | [kW]                       |                            |
| 1,25                      | 78  | 3SIE 90S-4   | 1,1                        | 1440                       |
| 1                         | 75  | 3SIE 90S-4   | 1,1                        | 1440                       |
| 0,75                      | 73  | 3SIE 90S-4   | 1,1                        | 1440                       |

**Charakterystyki wentylatora WP-25/0,75 ; WP-25/1,00 ; WP-25/1,25**  
Performance curves of WP-25/0,75 ; WP-25/1,00 ; WP-25/1,25

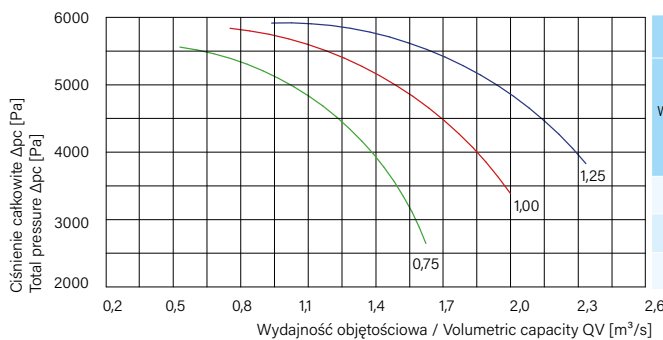


| WP-25                  |  |                         |                              |                                 |
|------------------------|--|-------------------------|------------------------------|---------------------------------|
| Typ wirnika Rotor type | Poziom ciśnienia akustycznego Sound pressure level [db(A)] | Silnik Motor typ / type | Moc silnika Motor power [kW] | Obroty Rotational speed [obr-1] |
| 1,25                   | 93   | 3SIE 160M-2A            | 11,0                         | 2945                            |
| 1                      | 91   | 3SIE 132S-2B            | 7,5                          | 2940                            |
| 0,75                   | 89   | 3SIE 132S-2A            | 5,5                          | 2940                            |

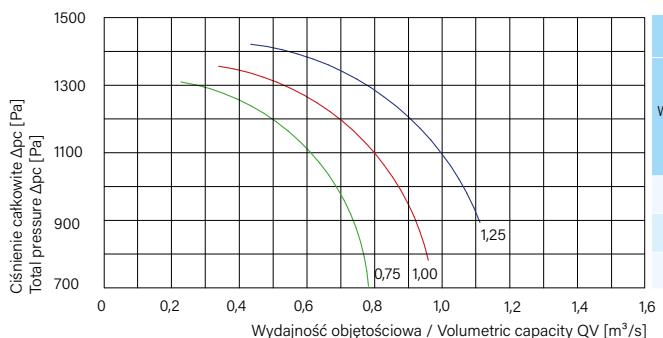


| WP-25                  |  |                         |                              |                                 |
|------------------------|--|-------------------------|------------------------------|---------------------------------|
| Typ wirnika Rotor type | Poziom ciśnienia akustycznego Sound pressure level [db(A)] | Silnik Motor typ / type | Moc silnika Motor power [kW] | Obroty Rotational speed [obr-1] |
| 1,25                   | 79   | 3SIE 90S-4              | 1,1                          | 1440                            |
| 1                      | 77   | 3SIE 90S-4              | 1,1                          | 1440                            |
| 0,75                   | 74   | 3SIE 90S-4              | 1,1                          | 1440                            |

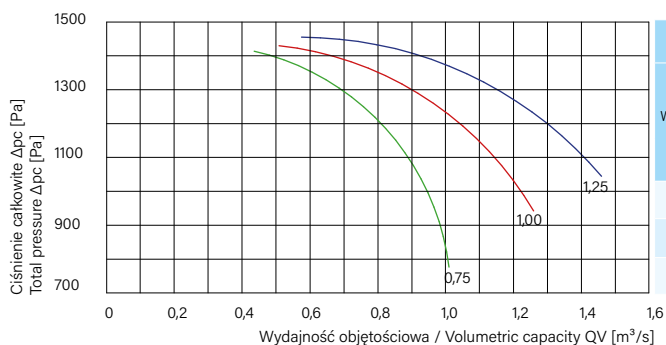
**Charakterystyki wentylatora WP-28/0,75 ; WP-28/1,00 ; WP-28/1,25**  
Performance curves of WP-28/0,75 ; WP-28/1,00 ; WP-28/1,25



| WP-28                  |  |                         |                              |                                 |
|------------------------|--|-------------------------|------------------------------|---------------------------------|
| Typ wirnika Rotor type | Poziom ciśnienia akustycznego Sound pressure level [db(A)] | Silnik Motor typ / type | Moc silnika Motor power [kW] | Obroty Rotational speed [obr-1] |
| 1,25                   | 96   | 3SIE 160M-2B            | 15,0                         | 2945                            |
| 1                      | 93   | 3SIE 160M-2B            | 15,0                         | 2945                            |
| 0,75                   | 91   | 3SIE 160-2A             | 11,0                         | 2945                            |

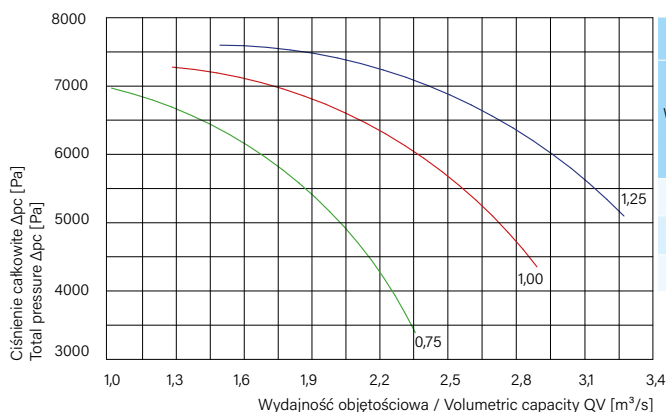


| WP-28                  |  |                         |                              |                                 |
|------------------------|--|-------------------------|------------------------------|---------------------------------|
| Typ wirnika Rotor type | Poziom ciśnienia akustycznego Sound pressure level [db(A)] | Silnik Motor typ / type | Moc silnika Motor power [kW] | Obroty Rotational speed [obr-1] |
| 1,25                   | 81   | 3SIE 100L-4A            | 2,2                          | 1455                            |
| 1                      | 78   | 3SIE 100L-4A            | 2,2                          | 1455                            |
| 0,75                   | 75   | 3SIE 90L-4              | 1,5                          | 1450                            |

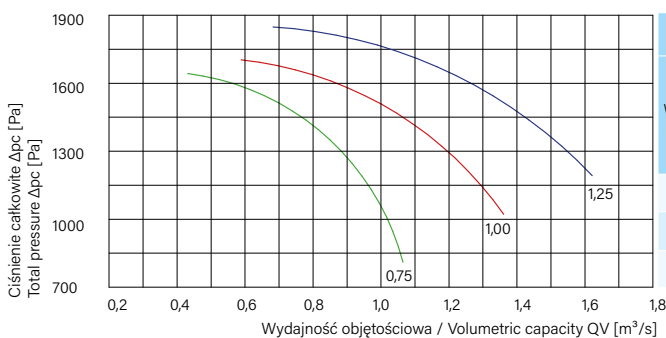


| WP-28                  |  |                         |                              |                                 |
|------------------------|--|-------------------------|------------------------------|---------------------------------|
| Typ wirnika Rotor type | Poziom ciśnienia akustycznego Sound pressure level [db(A)] | Silnik Motor typ / type | Moc silnika Motor power [kW] | Obroty Rotational speed [obr-1] |
| 1,25                   | 71   | 3SIE 90S-6              | 0,75                         | 930                             |
| 1                      | 68   | 3SIE 90S-6              | 0,75                         | 930                             |
| 0,75                   | 66   | 3SIE 90S-6              | 0,75                         | 930                             |

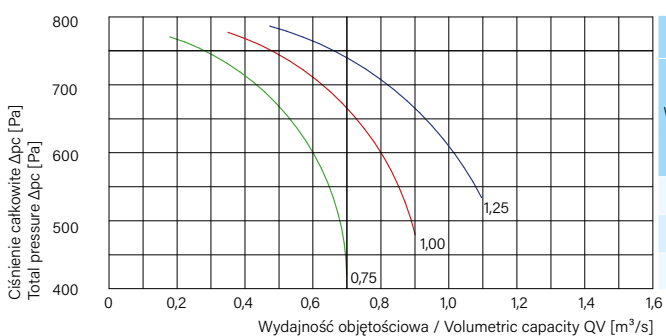
**Charakterystyki wentylatora WP-31,5/0,75 ; WP-31,5/1,00 ; WP-31,5/1,25**  
Performance curves of WP-31,5/0,75 ; WP-31,5/1,00 ; WP-31,5/1,25



| WP-31,5                |  |                         |                              |                                 |
|------------------------|--|-------------------------|------------------------------|---------------------------------|
| Typ wirnika Rotor type | Poziom ciśnienia akustycznego Sound pressure level [db(A)] | Silnik Motor typ / type | Moc silnika Motor power [kW] | Obroty Rotational speed [obr-1] |
| 1,25                   | 99   | 3SIE 200L-2A            | 30,0                         | 2965                            |
| 1                      | 97   | 3SIE 180M-2             | 22,0                         | 2955                            |
| 0,75                   | 95   | 3SIE 160L-2             | 18,5                         | 2940                            |

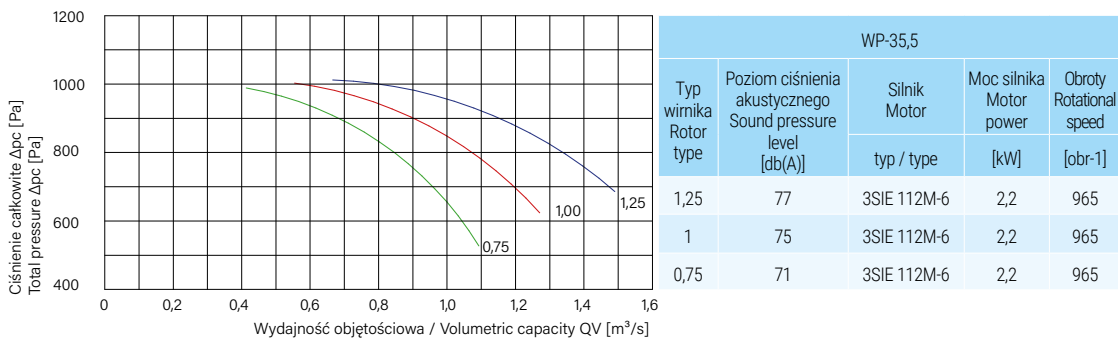
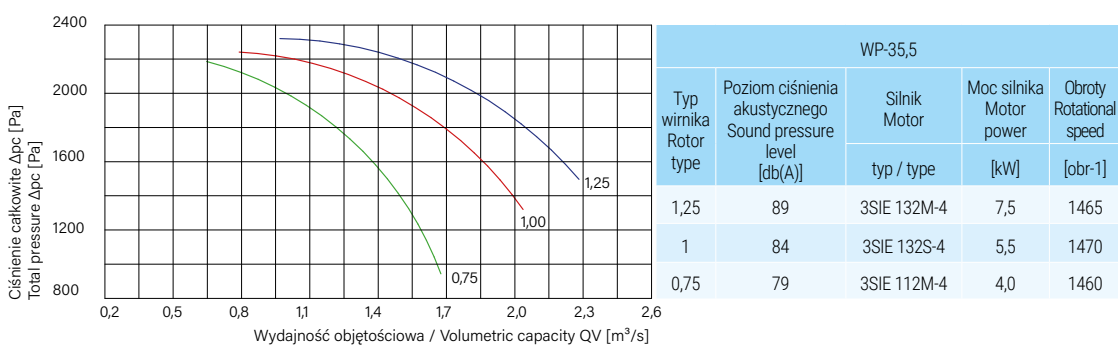
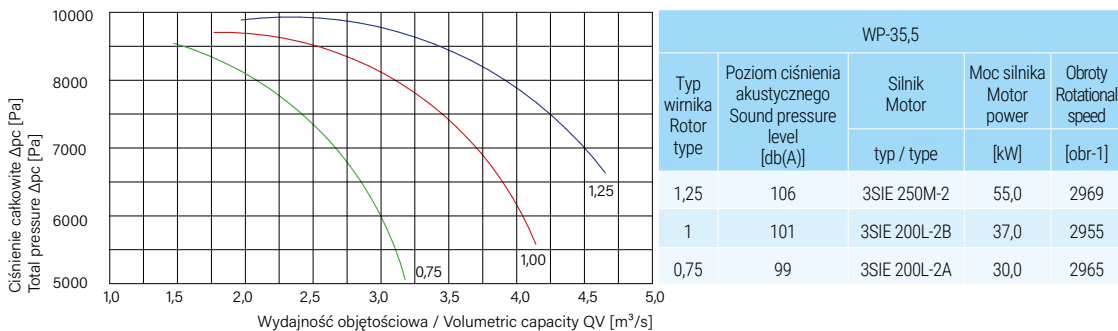


| WP-31,5                |  |                         |                              |                                 |
|------------------------|--|-------------------------|------------------------------|---------------------------------|
| Typ wirnika Rotor type | Poziom ciśnienia akustycznego Sound pressure level [db(A)] | Silnik Motor typ / type | Moc silnika Motor power [kW] | Obroty Rotational speed [obr-1] |
| 1,25                   | 86   | 3SIE 112M-4             | 4,0                          | 1460                            |
| 1                      | 82   | 3SIE 100L-4B            | 3,0                          | 1450                            |
| 0,75                   | 77   | 3SIE 100L-4A            | 2,2                          | 1455                            |

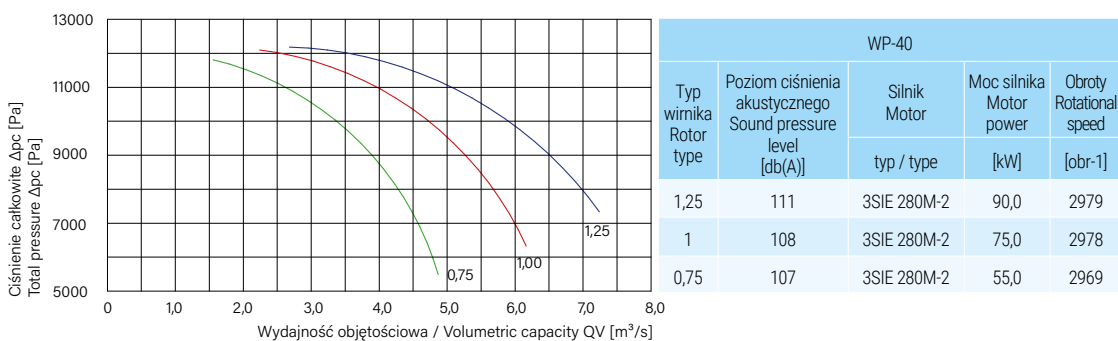


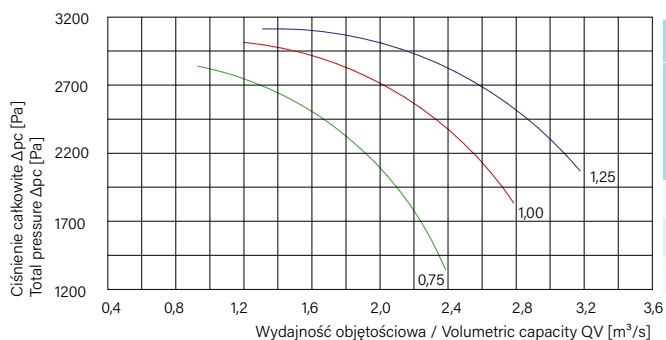
| WP-31,5                |  |                         |                              |                                 |
|------------------------|--|-------------------------|------------------------------|---------------------------------|
| Typ wirnika Rotor type | Poziom ciśnienia akustycznego Sound pressure level [db(A)] | Silnik Motor typ / type | Moc silnika Motor power [kW] | Obroty Rotational speed [obr-1] |
| 1,25                   | 75   | 3SIE 100L-6             | 1,5                          | 950                             |
| 1                      | 72   | 3SIE 100L-6             | 1,5                          | 950                             |
| 0,75                   | 69   | 3SIE 100L-6             | 1,5                          | 950                             |

**Charakterystyki wentylatora WP-35,5/0,75 ; WP-35,5/1,00 ; WP-35,5/1,25**  
Performance curves of WP-35,5/0,75 ; WP-35,5/1,00 ; WP-35,5/1,25

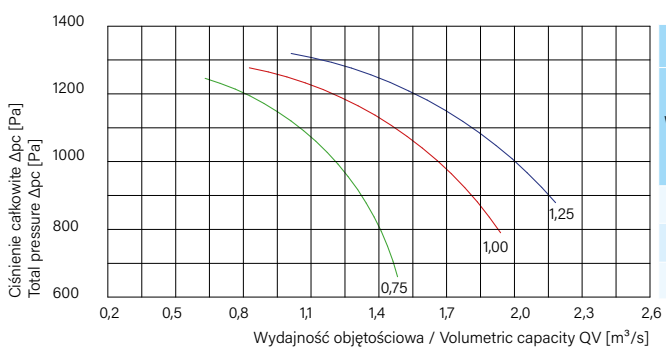


**Charakterystyki wentylatora WP-40/0,75 ; WP-40/1,00 ; WP-40/1,25**  
Performance curves of WP-40/0,75 ; WP-40/1,00 ; WP-40/1,25





| WP-40                  |  |              |                         |                          |
|------------------------|--|--------------|-------------------------|--------------------------|
| Typ wirnika Rotor type | Poziom ciśnienia akustycznego Sound pressure level [db(A)] | Silnik Motor | Moc silnika Motor power | Obrotów Rotational speed |
|                        |  | typ / type   | [kW]                    | [obr-1]                  |
| 1,25                   | 92   | 3SIE 160M-4  | 11,0                    | 1470                     |
| 1                      | 85   | 3SIE 160M-4  | 11,0                    | 1470                     |
| 0,75                   | 84   | 3SIE 132M-4  | 7,5                     | 1465                     |



| WP-40                  |  |              |                         |                          |
|------------------------|--|--------------|-------------------------|--------------------------|
| Typ wirnika Rotor type | Poziom ciśnienia akustycznego Sound pressure level [db(A)] | Silnik Motor | Moc silnika Motor power | Obrotów Rotational speed |
|                        |  | typ / type   | [kW]                    | [obr-1]                  |
| 1,25                   | 78   | 3SIE 132S-6  | 3,0                     | 965                      |
| 1                      | 76   | 3SIE 132S-6  | 3,0                     | 965                      |
| 0,75                   | 76   | 3SIE 132S-6  | 2,2                     | 965                      |

**FK** - Wentylatory promieniowe jednostrumieniowe typu FK są wysokosprawnymi wentylatorami średnio-prężnymi ogólnego i specjalnego przeznaczenia. Stosowane są do przetłaczania gazów o zapyleniu nie przekraczającym 0,3 g/m<sup>3</sup>. Wykonywane są w 5 wielkościach: FK – 20; 25; 31,5; 40; 50.

**FK** - Single-inlet centrifugal fans type FK are high-performance medium pressure fans for general and special applications. They are used for handling gases whose dust level does not exceed 0.3 g/m<sup>3</sup>. They are manufactured in 5 sizes: FK – 20; 25; 31.5; 40; and 50.

#### Rodzaje wykonań:

#### Wykonanie standardowe:

- do przetłaczania czynnika o temperaturze do 60°C - wentylatory z napędem bezpośrednim,
- do przetłaczania czynnika o temperaturze do 130°C – wentylatory z napędem R/I; R/IA; I/A; R/IM, dla napędu R/I prędkość obrotowa wirnika jest ograniczona do:
  - 1780 obr/min dla FK-31,5
  - 1600 obr/min dla FK-40
  - 1100 obr/min dla FK-50
 Przy wyższych prędkościach obrotowych stosuje się napęd R/IA lub R/IM,
- do przetłaczania czynnika o temperaturze do 250°C - wentylatory z napędem R/IF oraz I/F,
- do przetłaczania czynnika o temperaturze do 400°C - wentylatory z napędem R/IC lub I/C (z obudową łożysk chłodzoną wodą, obudową wentylatora i wirnika wykonanymi ze stali 0H17).

#### Wykonanie specjalne:

- wentylatory o podwyższonej odporności na korozję - obudowa i wirnik wykonany ze stali 0H17,
- wentylatory z wirnikiem aluminiowym - dopuszczalna temperatura pracy 150°C dla wirników aluminiowych prędkość obrotowa jest ograniczona do:
  - 3000 obr/min dla FK-20 i FK-25
  - 2240 obr/min dla FK-31,5
  - 1840 obr/min dla FK-40
  - 1445 obr/min dla FK-50.

#### Available versions:

#### Standard version:

- for handling gases up to 60°C – direct drive fans,
- for handling gases up to 130°C – fans with R/I; R/IA; I/A; R/IM drives for R/I the impeller speed is limited to:
  - 1780 rpm for FK – 31.5
  - 1600 rpm for FK – 40
  - 1100 rpm for FK – 50
 for higher impeller speeds, R/IA or R/IM drives are used,
- for handling gases up to 250°C – fans with R/IF and I/F, drives,
- for handling gases up to 400°C – fans with R/IC or I/C drives (with water-cooled bearing housings, fan and impeller casing made of 0H17 steel).

#### Special versions:

- improved corrosion resistance fans – casing and impeller made of 0H17 steel,
- aluminum impeller fans – maximum allowable operating temperature 150°C, aluminum impeller speed is limited to:
  - 3000 rpm for FK-20 and FK-25
  - 2240 rpm for FK – 31,5
  - 1840 rpm for FK – 40
  - 1445 rpm for FK – 50.



#### Układ wentylatorów

Wentylatory FK-20, FK-25 i FK-31,5 wykonywane są dla 8 położenia kolektora o zwrocie lewym: LG0, LG45, LG90, LG135, LG180, LG270, LG315 oraz dla 8 położenia o zwrocie prawym: RD0, RD45, RD90, RD135, RD180, RD225, RD270, RD315 wg PN-92/M-43011.

Wentylatory FK-40, FK-50 wykonywane są dla 4 położenia kolektora o zwrocie lewym: LG0, LG90, LG180, LG270 oraz dla 4 położenia w zwrocie prawym RD0, RD90, RD180, RD270 wg PN-92/M-43011.

Położenie kolektora określa się patrząc na kolektor (obudowę) od strony napędu.

#### Rodzaje napędów

- **Napęd bezpośredni** - wirnik wentylatora osadzony bezpośrednio na wale silnika. Obroty wirnika zgodne z prędkością obrotową silnika.
- **Napęd R/I** - napęd pasowy. Stosowany, gdy wymagane obroty wirnika wentylatora są różne od obrotów silnika lub też ze względów konstrukcyjnych.
- **Napęd I** - Napęd sprzęgłowy. Przeznaczony do ciężkich warunków pracy. Wirnik osadzony na wale napędowym. Obroty wirnika zgodne z prędkością obrotową silnika.

#### Charakterystyki wentylatorów

Charakterystyki przepływowe wentylatorów zostały sporządzone dla czynnika gęstości 1,2 kg/m<sup>3</sup>, przy temperaturze 20°C. Na wykresach podano tylko część charakterystyk dla sprawności wentylatora większej od 70%.

#### Fan layout

FK – 20, FK – 25, AND FK – 31.5 fans are manufactured for 8 left-sided collector positions: LG0, LG45, LG90, LG135, LG180, LG270, and LG315, and for 8 right-sided positions: RD0, RD45, RD90, RD135, RD180, RD225, RD270, and RD315 acc. to PN-92/M-43011.

FK-40 and FK-50 fans are manufactured for 4 left-sided collector positions: LG0, LG90, LG180, and LG270, and for 4 right-sided positions: RD0, RD90, RD180, and RD270,

Collector position is determined when facing the collector (casing) from the drive side.

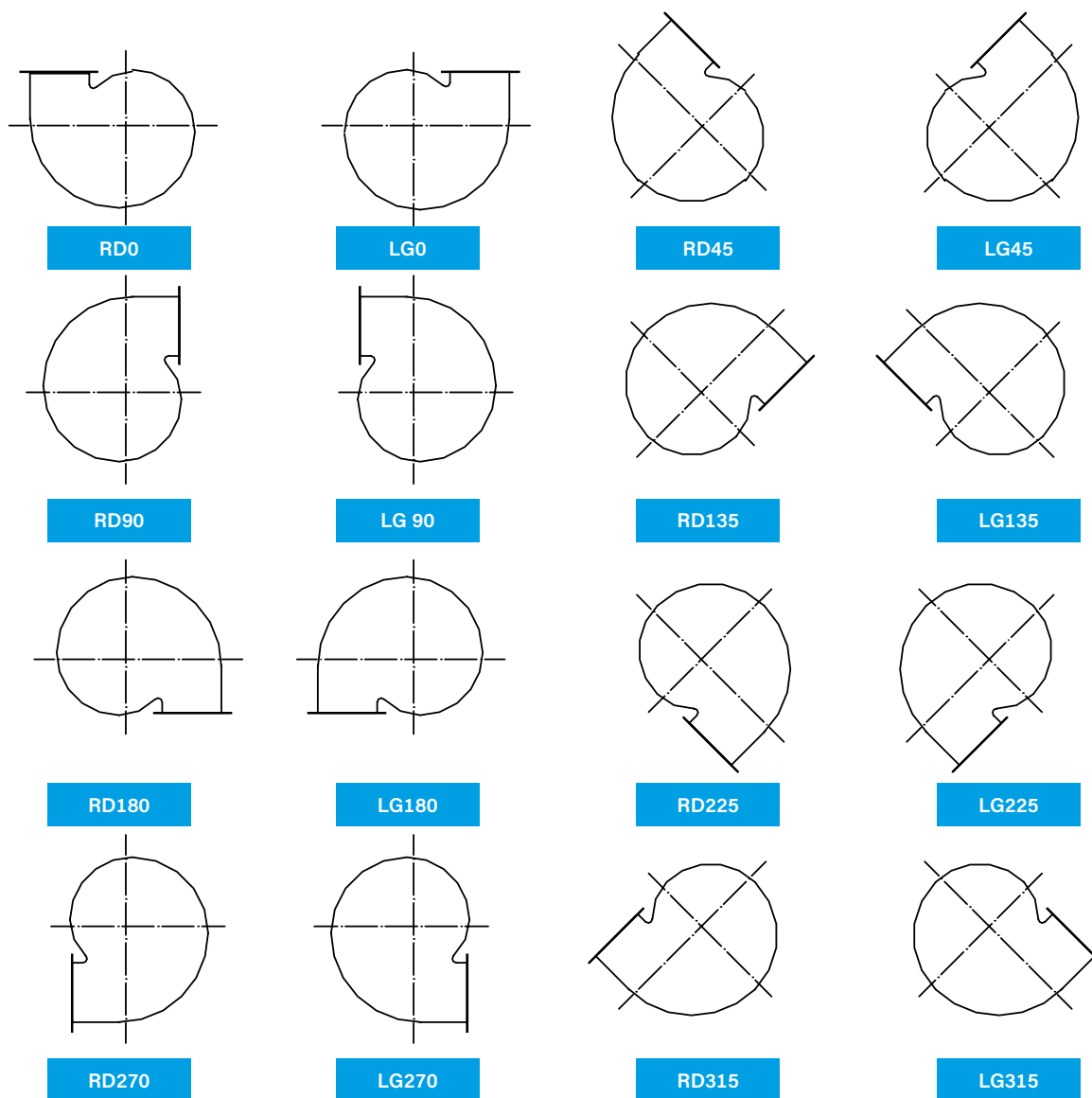
#### Drive types

- **Direct drive** - The fan impeller is mounted directly on the electric motor shaft. Impeller speed equals motor speed.
- **R/I Drive m** - Belt drive. Used whenever required fan speed is different than motor speed or for design reasons.
- **I Drive** - Coupled drive. Designed for heavy-duty operation. Impeller mounted on the drive shaft. Impeller speed equals motor speed.

#### Fan performance characteristics

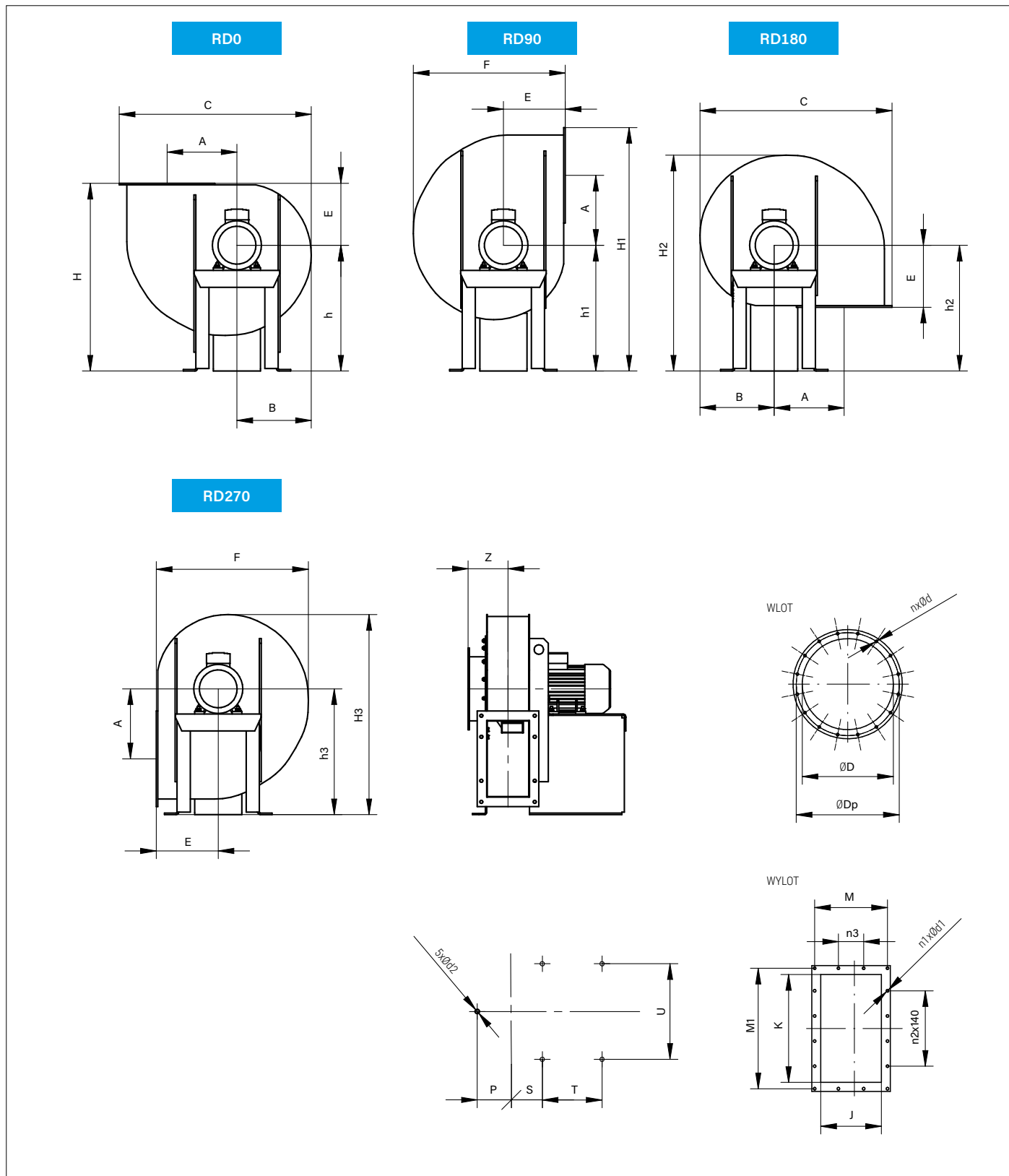
Fan flow performance characteristics were prepared for a density factor of 1.2 kg/m<sup>3</sup>, at a temperature of 20°C. The diagrams show only some characteristics for fan efficiency exceeding 70%.

Układ wentylatorów | Fan layout



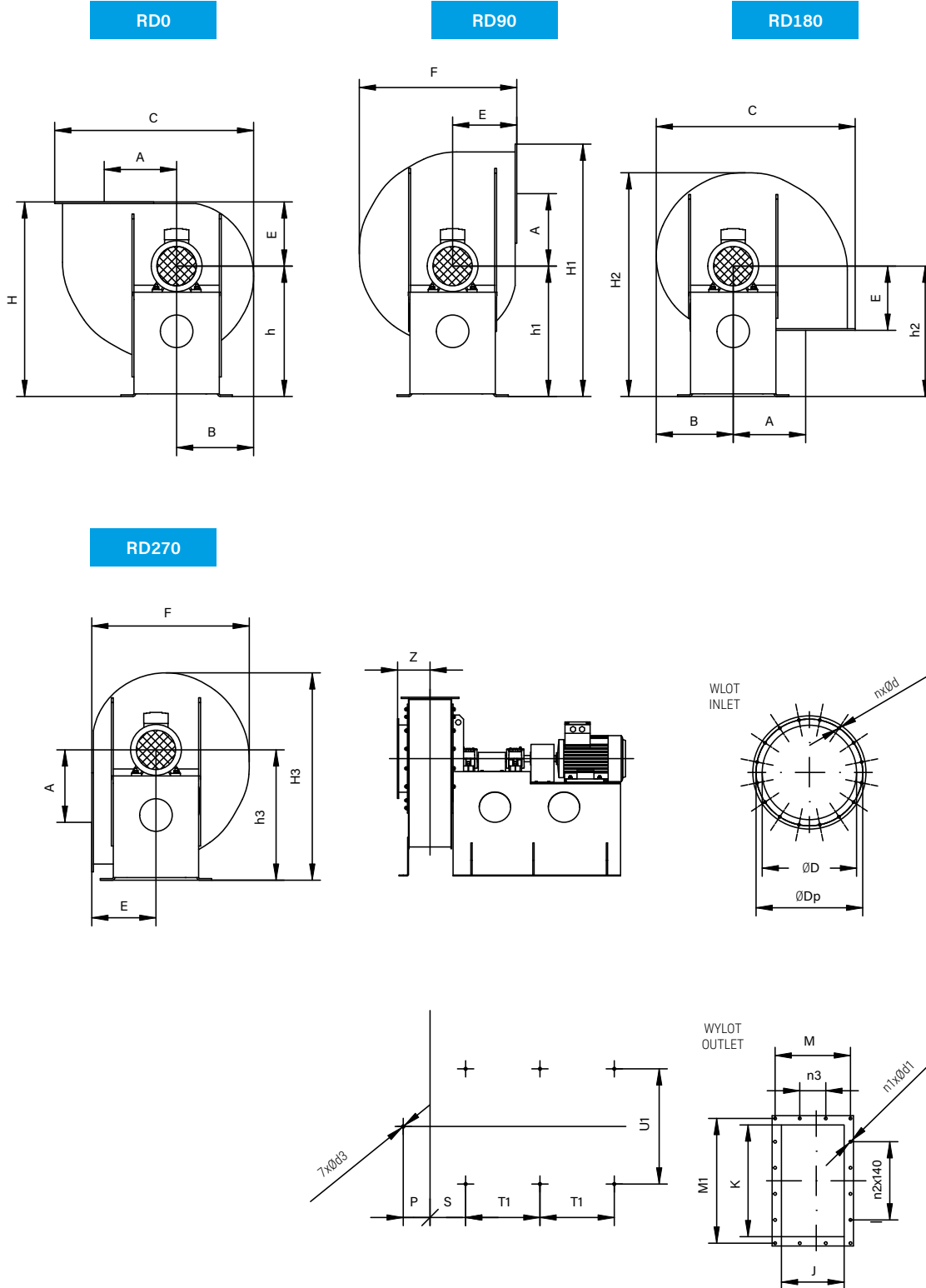


FK-20÷50 NAPĘD BEZPOŚREDNI | FK-20÷50 DIRECT DRIVE



Wykonania lewe (LG) są lustrzanymi odbiciami położeń prawych (RD).  
The left-hand versions (LG) are mirror reflections of the right-hand positions (RD).

FK-20÷50 NAPĘD SPRZĘGŁOWY | FK-20÷50 CLUTCH DRIVE



Wykonania lewe (LG) są lustrzanymi odbiciami położeń prawych (RD).  
The left-hand versions (LG) are mirror reflections of the right-hand positions (RD).



Parametry techniczne | Technical parameters

| Typ<br>Type | Wydajność<br>Capacity | Śpiżnienie<br>Compress | Moc<br>Power | Obroty<br>Rotations | Prąd<br>In current | Zasilanie<br>Feeding | Stopień<br>ochrony<br>Protection<br>rate | Max. temp.<br>pracy<br>Max. work-<br>ing temp. | Sprawność<br>Efficiency | Moc<br>pobierana<br>Input power | Kategoria<br>pomiarowa<br>Measurement<br>category | Kategoria spraw-<br>ności (statyczna/<br>całkowita)<br>Category efficiency<br>(static/total) | $\eta_{\text{target}}$<br>od<br>2015 | $N_{\text{actual}}$ | Waga<br>Weight |
|-------------|-----------------------|------------------------|--------------|---------------------|--------------------|----------------------|--|--|-------------------------|---------------------------------|---|--|--------------------------------------|---------------------|----------------|
|             | [V m³/s]              | [Pa]                   | [kW]         | [obr./min]<br>[rpm] | [A]                | [V]                  |  | [°C]   | [%]                     | [kW]                            |   |  | [%]                                  | [%]                 | [kg]           |
| FK-20       | 0,106                 | 55                     | 0,18         | 700                 | 0,9                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,007                           | -   | -  | -                                    | -                   | 42,7           |
|             | 0,134                 | 65                     | 0,25         | 900                 | 1,0                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,015                           | -   | -  | -                                    | -                   | 41,1           |
|             | 0,203                 | 210                    | 0,37         | 1400                | 1,3                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,050                           | -   | -  | -                                    | -                   | 41,2           |
|             | 0,431                 | 900                    | 0,75         | 2800                | 1,9                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,447                           | B, D  | całkowita  | 49,8                                 | 93,5                | 44             |
| FK-25       | 0,207                 | 85                     | 0,18         | 700                 | 0,9                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,021                           | -   | -  | -                                    | -                   | 62             |
|             | 0,268                 | 140                    | 0,25         | 900                 | 1,0                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,046                           | -   | -  | -                                    | -                   | 60             |
|             | 0,403                 | 330                    | 0,55         | 1400                | 1,7                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,212                           | B, D  | całkowita  | 46,4                                 | 95,6                | 62             |
|             | 0,821                 | 1390                   | 2,2          | 2800                | 4,7                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,201                           | B, D  | całkowita  | 46,2                                 | 95,7                | 72             |
| FK-31,5     | 0,358                 | 125                    | 0,18         | 700                 | 0,9                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,053                           | -   | -  | -                                    | -                   | 82             |
|             | 0,458                 | 200                    | 0,25         | 900                 | 1,0                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,113                           | -   | -  | -                                    | -                   | 80             |
|             | 0,688                 | 455                    | 0,55         | 1400                | 1,7                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,389                           | B, D  | całkowita  | 49,2                                 | 93,9                | 85             |
|             | 1,414                 | 2000                   | 4,0          | 2800                | 7,7                | 3~                   | IP 54                                    | 40   | 85,0                    | 3,400                           | B, D  | całkowita  | 59,1                                 | 88,0                | 114            |
| FK-40       | 0,819                 | 205                    | 0,55         | 750                 | 1,9                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,196                           | B, D  | całkowita  | 46,1                                 | 95,8                | 171            |
|             | 1,081                 | 363                    | 0,75         | 1000                | 2,0                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,464                           | B, D  | całkowita  | 50,0                                 | 93,4                | 171            |
|             | 1,636                 | 850                    | 2,2          | 1500                | 4,5                | 3~                   | IP 54                                    | 40   | 85,0                    | 1,643                           | B, D  | całkowita  | 55,8                                 | 90,0                | 182            |
|             | 3,389                 | 3650                   | 18,5         | 3000                | 32,1               | 3~                   | IP 54                                    | 40   | 85,0                    | 14,180                          | B, D  | całkowita  | 56,4                                 | 84,1                | 265            |
| FK-50       | 1,551                 | 320                    | 1,1          | 750                 | 3,4                | 3~                   | IP 54                                    | 40   | 85,0                    | 0,601                           | B, D  | całkowita  | 51,2                                 | 92,7                | 242            |
|             | 2,133                 | 580                    | 2,2          | 1000                | 5,1                | 3~                   | IP 54                                    | 40   | 85,0                    | 1,510                           | B, D  | całkowita  | 55,4                                 | 90,2                | 248            |
|             | 3,278                 | 1400                   | 7,5          | 1500                | 15,3               | 3~                   | IP 54                                    | 40   | 85,0                    | 5,250                           | B, D  | całkowita  | 61,1                                 | 86,8                | 275            |

WYMIARY FK NAPĘD BEZPOŚREDNI I SPRZĘGŁOWY | DIMENSIONS FK DIRECT AND CLUTCH DRIVE

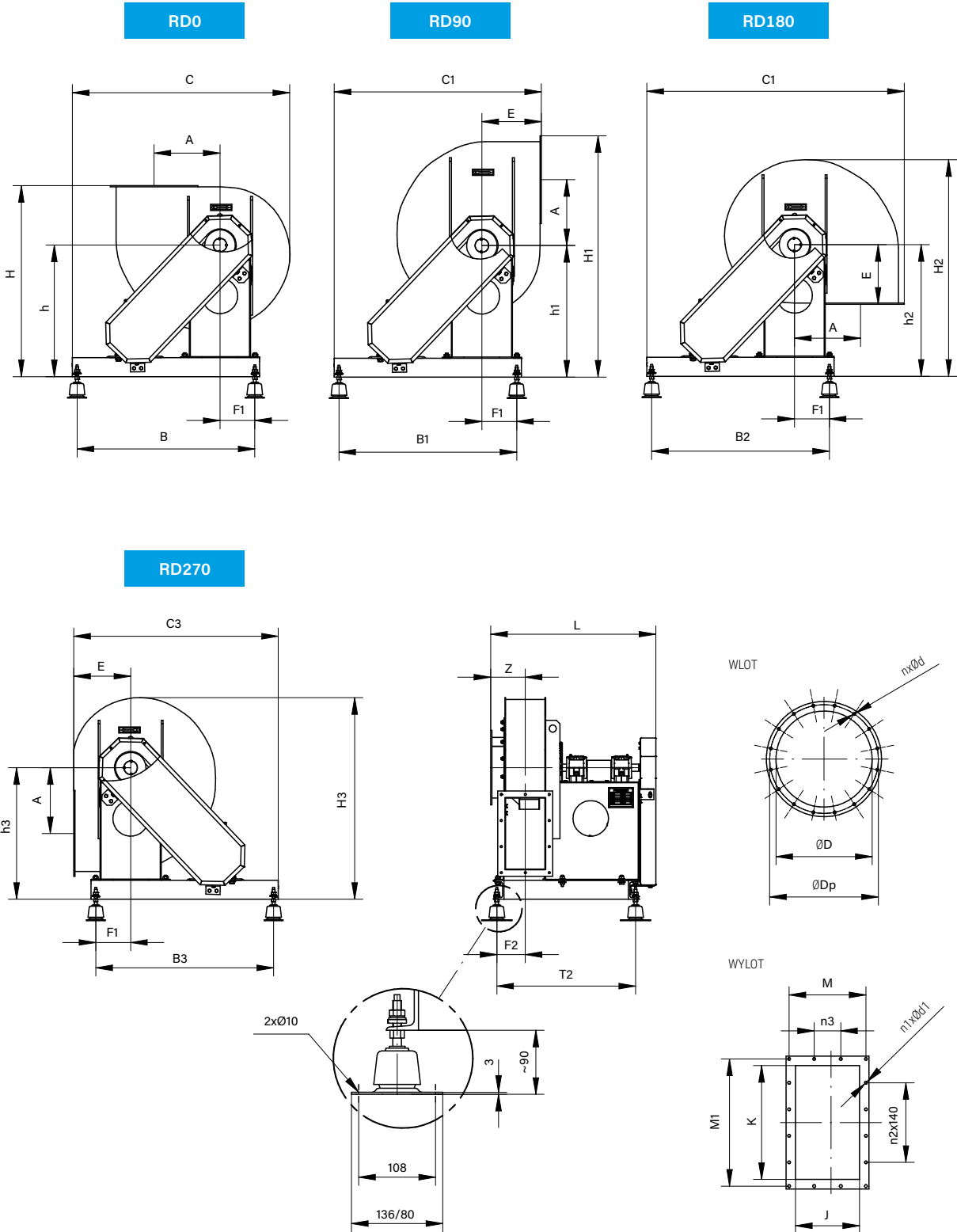
Wymiary | Dimensions

| Typ<br>Type | Wymiar / Dimension [mm] |     |     |      |     |      |      |      |      |      |     |     |     |  |
|-------------|-------------------------|-----|-----|------|-----|------|------|------|------|------|-----|-----|-----|--|
|             | D                       | A   | B   | C    | E   | F    | H    | H1   | H2   | H3   | h   | h1  | h2  |  |
| FK-20       | 200                     | 222 | 236 | 610  | 197 | 484  | 600  | 775  | 687  | 634  |     |     | 400 |  |
| FK-25       | 250                     | 278 | 296 | 760  | 251 | 610  | 726  | 940  | 835  | 755  |     |     | 475 |  |
| FK-31,5     | 315                     | 339 | 353 | 905  | 293 | 725  | 855  | 1115 | 790  | 915  |     |     | 560 |  |
| FK-40       | 400                     | 448 | 466 | 1205 | 393 | 961  | 975  | 1320 | 970  | 1220 | 580 | 580 | 400 |  |
| FK-50       | 500                     | 559 | 585 | 1495 | 483 | 1195 | 1205 | 1505 | 1205 | 1500 | 722 | 592 | 492 |  |

Wymiary | Dimensions

| Typ<br>Type | Wymiar / Dimension [mm] |     |    |    |    |    |    |    |     |     |     |     |     |  |
|-------------|-------------------------|-----|----|----|----|----|----|----|-----|-----|-----|-----|-----|--|
|             | h3                      | Dp  | d  | d1 | d2 | n  | n1 | n2 | n3  | J   | K   | M   | M1  |  |
| FK-20       | 400                     | 239 | 10 | 10 | 14 | 8  | 8  | 1  | -   | 132 | 240 | 170 | 274 |  |
| FK-25       | 475                     | 289 | 10 | 12 | 14 | 8  | 8  | 1  | -   | 176 | 304 | 214 | 344 |  |
| FK-31,5     | 560                     | 361 | 12 | 12 | 14 | 8  | 12 | 1  | 140 | 200 | 350 | 244 | 399 |  |
| FK-40       | 750                     | 446 | 12 | 15 | 14 | 12 | 12 | 1  | 140 | 265 | 474 | 335 | 545 |  |
| FK-50       | 917                     | 573 | 15 | 15 | 18 | 16 | 16 | 3  | 140 | 335 | 600 | 405 | 670 |  |

FK-20÷50 NAPĘD PASOWY | FK-20÷50 BELT DRIVE



Położenia lewe (LG) są lustrzanymi odbiciami położeń prawych (RD).  
The left-hand versions (LG) are mirror reflections of the right-hand positions (RD).



Wymiary | Dimensions

| Wentylator Fan | Silnik Motor | Moc Power [kW] | Wymiary / Dimensions [mm] |      |      |      |      |      |      |      |      | Masa Weight [kg] |
|----------------|--------------|----------------|---------------------------|------|------|------|------|------|------|------|------|------------------|
|                |              |                | A                         | B    | B1   | B2   | B3   | C    | C1   | C2   | C3   |                  |
| FK-20          | Sh 80-8A     | 0,18           | 222                       | 750  | 750  | 750  | 750  | 860  | 825  | 1000 | 825  | 108,5            |
|                | Sh 71-6B     | 0,25           |                           |      |      |      |      |      |      |      |      | 107              |
|                | Sh 71-4A     | 0,25           |                           |      |      |      |      |      |      |      |      | 106              |
|                | Sh 71-4B     | 0,37           |                           |      |      |      |      |      |      |      |      | 107              |
|                | Sh 80-4A     | 0,55           |                           |      |      |      |      |      |      |      |      | 108,5            |
|                | 3SIE 80-2A   | 0,75           |                           |      |      |      |      |      |      |      |      | 109,5            |
| FK-25          | Sh 80-8A     | 0,18           | 278                       | 750  | 750  | 750  | 750  | 920  | 875  | 1090 | 875  | 128              |
|                | Sh 71-6B     | 0,25           |                           |      |      |      |      |      |      |      |      | 125              |
|                | Sh 71-4B     | 0,37           |                           |      |      |      |      |      |      |      |      | 127              |
|                | Sh 80-4A     | 0,55           |                           |      |      |      |      |      |      |      |      | 129              |
|                | 3SIE 80-4B   | 0,75           |                           |      |      |      |      |      |      |      |      | 130              |
|                | 3SIE 80-2B   | 1,1            |                           |      |      |      |      |      |      |      |      | 132              |
|                | 3SIE 90S-2   | 1,5            |                           |      |      |      |      |      |      |      |      | 140              |
|                | 3SIE 90L-2   | 2,2            |                           |      |      |      |      |      |      |      |      | 141              |
| FK-31,5        | Sh 80-8A     | 0,18           | 339                       | 840  | 840  | 840  | 840  | 1090 | 1030 | 1290 | 1030 | 145              |
|                | Sh 71-6B     | 0,25           |                           |      |      |      |      |      |      |      |      | 140              |
|                | Sh 71-4B     | 0,37           |                           |      |      |      |      |      |      |      |      | 140              |
|                | Sh 80-4A     | 0,55           |                           |      |      |      |      |      |      |      |      | 155              |
|                | 3SIE 80-4B   | 0,75           |                           |      |      |      |      |      |      |      |      | 155              |
|                | 3SIE 90S-4   | 1,1            |                           |      |      |      |      |      |      |      |      | 165              |
|                | 3SIE 90L-4   | 1,5            |                           |      |      |      |      |      |      |      |      | 165              |
|                | 3SIE 90L-2   | 2,2            |                           |      |      |      |      |      |      |      |      | 165              |
|                | 3SIE 100L-2  | 3,0            |                           |      |      |      |      |      |      |      |      | 170              |
|                | 3SIE 112M-2  | 4,0            |                           |      |      |      |      |      |      |      |      | 180              |
| FK-40          | Sh 90L-8     | 0,55           | 448                       | 1150 | 1150 | 1150 | 1150 | 1705 | 1360 | 1705 | 1360 | 310              |
|                | Sh 80-6B     | 0,55           |                           |      |      |      |      |      |      |      |      | 305              |
|                | 3SIE 90S-6   | 0,75           |                           |      |      |      |      |      |      |      |      | 310              |
|                | 3SIE 90S-4   | 1,1            |                           |      |      |      |      |      |      |      |      | 312              |
|                | 3SIE 90L-4   | 1,5            |                           |      |      |      |      |      |      |      |      | 315              |
|                | 3SIE 100L-4A | 2,2            |                           |      |      |      |      |      |      |      |      | 321              |
|                | 3SIE 100L-4B | 3,0            |                           |      |      |      |      |      |      |      |      | 323              |
|                | 3SIE 112M-4  | 4,0            |                           |      |      |      |      |      |      |      |      | 341              |
|                | 3SIE 132M-4  | 7,5            |                           |      |      |      |      |      |      |      |      | 375              |
|                | 3SIE 160M-2A | 11,0           |                           |      |      |      |      |      |      |      |      | 395              |
|                | 3SIE 160M-2B | 15,0           |                           |      |      |      |      |      |      |      |      | 405              |
|                | 3SIE 160L-2  | 18,5           |                           |      |      |      |      |      |      |      |      | 435              |
| FK-50          | Sg 100L-8A   | 0,75           | 559                       | 1550 | 1600 | 1600 | 1600 | 1950 | 1770 | 1950 | 1770 | 405              |
|                | Sg 100L-8B   | 1,1            |                           |      |      |      |      |      |      |      |      | 405              |
|                | 3SIE 100L-6  | 1,5            |                           |      |      |      |      |      |      |      |      | 408              |
|                | 3SIE 112M-6  | 2,2            |                           |      |      |      |      |      |      |      |      | 430              |
|                | 3SIE 112M-4  | 4,0            |                           |      |      |      |      |      |      |      |      | 435              |
|                | 3SIE 132S-4  | 5,5            |                           |      |      |      |      |      |      |      |      | 472              |
|                | 3SIE 132M-4  | 7,5            |                           |      |      |      |      |      |      |      |      | 480              |
|                | 3SIE 160M-4  | 11,0           |                           |      |      |      |      |      |      |      |      | 510              |
|                | 3SIE 160L-4  | 15,0           |                           |      |      |      |      |      |      |      |      | 530              |
|                | 3SIE 180L-4  | 22,0           |                           |      |      |      |      |      |      |      |      | 582              |

## Wymiary | Dimensions

| Wentylator<br>Fan | Wymiary / Dimensions [mm] |     |     |      |      |      |      |      |     |     |     |     |     |     |
|-------------------|---------------------------|-----|-----|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
|                   | h                         | h1  | h2  | h3   | H    | H1   | H2   | H3   | E   | F1  | F2  | T2  | Z   | L   |
| <b>FK-20</b>      |                           |     | 480 |      | 680  | 855  | 770  | 715  | 197 | 147 | 107 | 550 | 127 | 660 |
| <b>FK-25</b>      |                           |     | 475 |      | 805  | 1020 | 915  | 835  | 251 | 147 | 122 | 585 | 148 | 700 |
| <b>FK-31,5</b>    |                           |     | 560 |      | 935  | 1195 | 870  | 995  | 293 | 166 | 130 | 618 | 155 | 690 |
| <b>FK-40</b>      | 720                       | 720 | 540 | 890  | 1115 | 1460 | 1110 | 1360 | 393 | 208 | 155 | 725 | 195 | 920 |
| <b>FK-50</b>      | 862                       | 732 | 632 | 1057 | 1345 | 1645 | 1345 | 1640 | 483 | 287 | 183 | 795 | 240 | 990 |

## Wymiary | Dimensions

| Wentylator<br>Fan | Wymiary / Dimensions [mm] |     |     |     |     |     |     |     |     |                |     | Masa bez silnika<br>[kg]<br>Weight w/o motor<br>[kg] |
|-------------------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|----------------|-----|--|
|                   | A                         | B   | D   | G   | h   | M   | N   | P   | T   | I <sub>1</sub> | L   |  |
| 20                | 464                       | 400 | 200 | 224 | 392 | 201 | 292 | 242 | 374 | 120            | 520 | 45   |
| 25                | 504                       | 460 | 250 | 280 | 466 | 250 | 363 | 299 | 465 | 144            | 580 | 66   |
| 31,5              | 564                       | 530 | 315 | 335 | 547 | 296 | 431 | 354 | 550 | 160            | 650 | 80,7   |

## Wymiary | Dimensions

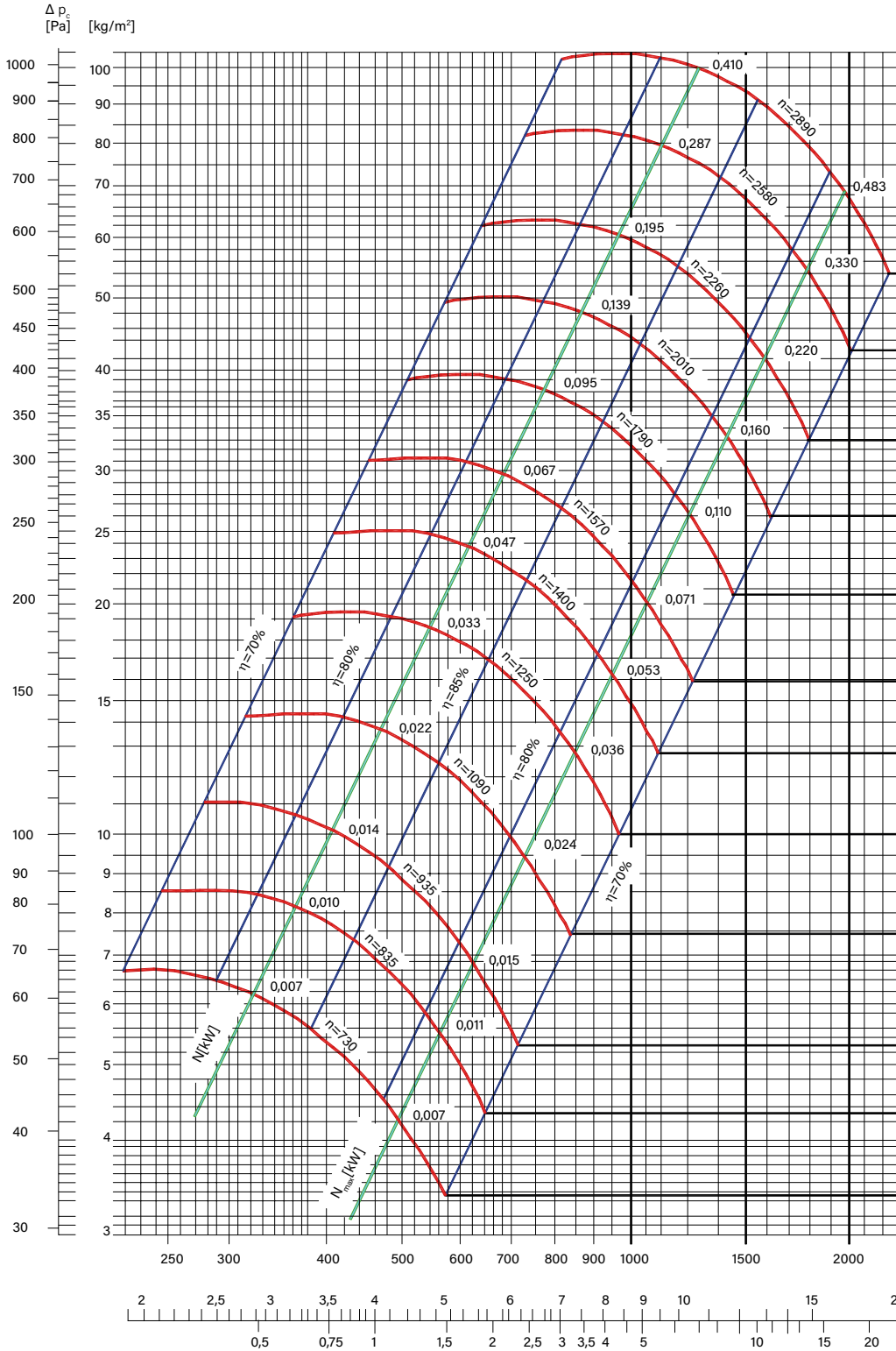
| Wentylator<br>Fan | Wymiary / Dimensions [mm] |     |     |     |                |     |     |     |     |     |  |
|-------------------|---------------------------|-----|-----|-----|----------------|-----|-----|-----|-----|-----|--|
|                   | A                         | B   | D   | G   | I <sub>1</sub> | L   | M   | N   | P   | T   |  |
| 40                | 964                       | 614 | 400 | 448 | 195            | 650 | 387 | 573 | 470 | 737 |  |
| 50                | 1064                      | 814 | 500 | 559 | 236            | 850 | 481 | 713 | 584 | 909 |  |

## Wymiary | Dimensions

| Wentylator<br>Fan | Figura<br>Figure | h   | Masa bez silnika [kg]<br>Weight w/o motor [kg] |
|-------------------|------------------|-----|--|
| 40                | LG0, RD0         | 580 | 117  |
|                   | LG90, RD90       | 475 | 116  |
|                   | LG180, RD180     | 400 | 121  |
|                   | LG270, RD270     | 750 | 119  |
| 50                | LG0, RD0         | 722 | 173  |
|                   | LG90, RD90       | 592 | 169  |
|                   | LG180, RD180     | 492 | 181  |
|                   | LG270, RD270     | 917 | 167  |

Charakterystyka wentylatora promieniowego FK-20 | Characteristics for centrifugal fan FK-20

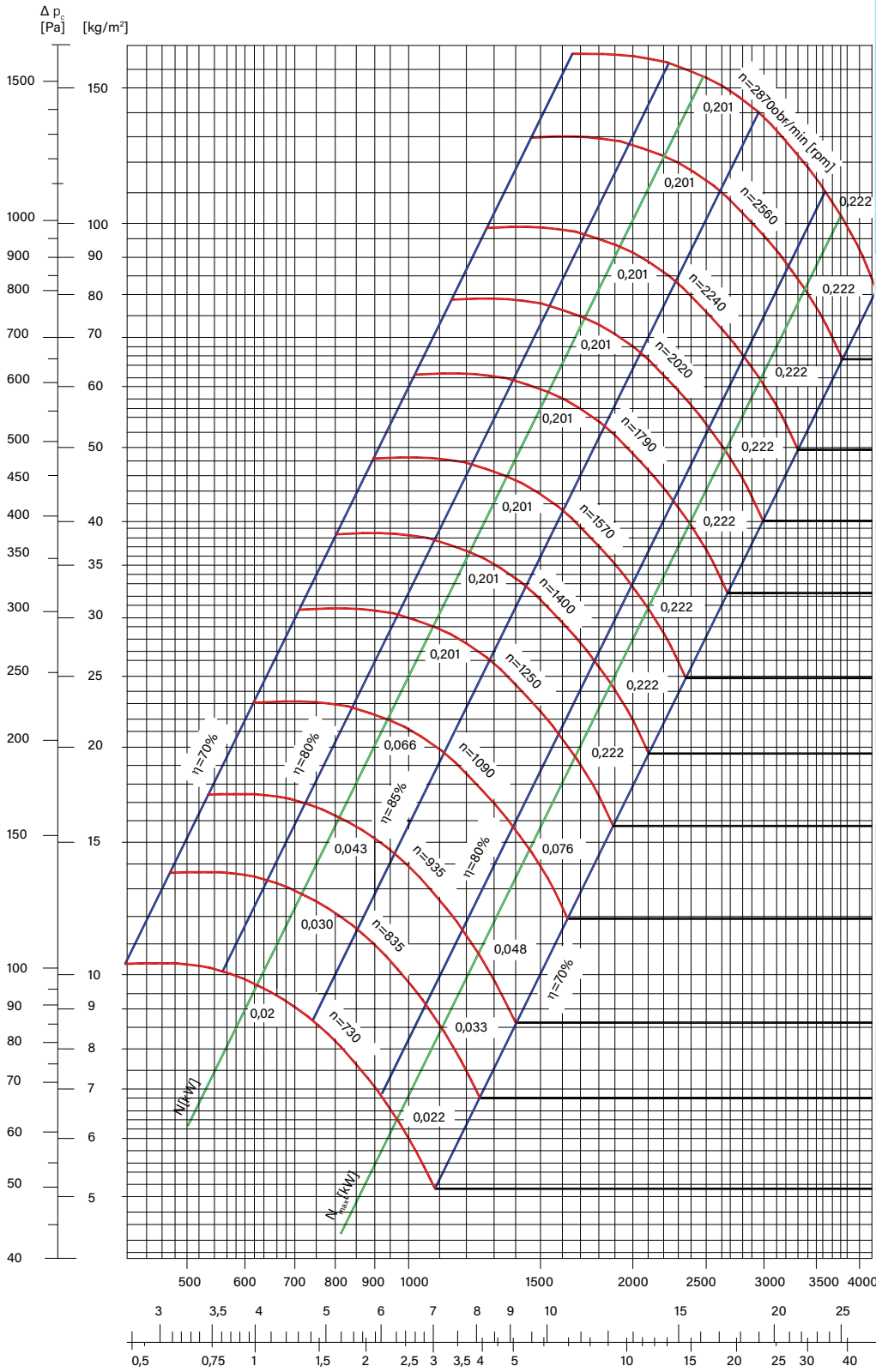
Gęstość przetłaczanego powietrza  $\gamma=1.2 \text{ kg/m}^3$   
Density of forced air  $\gamma=1.2 \text{ kg/m}^3$



| U2-prędkość obwodowa [m/s]<br>U2-peripheral speed [m/s] | Srednica poz. kół pasowych<br>Pulley pitch diameter | Profil i ilość paszków<br>Belt profile and no. | Silnik typ Sg<br>Motor type Sg |
|---|---|--|--------------------------------|
| 43,0  | 125<br>125  | Z<br>2   | 0,75<br>80-2A                  |
| 37,8  | 125<br>140  | Z<br>2   | 0,75<br>80-2A                  |
| 33,0  | 125<br>160  | Z<br>2   | 0,75<br>80-2A                  |
| 29,7  | 180<br>125  | Z<br>2   | 0,55<br>80-4A                  |
| 26,2  | 160<br>125  | Z<br>2   | 0,55<br>80-4A                  |
| 23,0  | 140<br>125  | Z<br>2   | 0,37<br>71-4B                  |
| 20,5  | 125<br>125  | Z<br>2   | 0,37<br>71-4B                  |
| 18,3  | 125<br>140  | Z<br>2   | 0,25<br>71-4A                  |
| 16,0  | 125<br>160  | Z<br>2   | 0,25<br>71-4a                  |
| 13,7  | 125<br>125  | Z<br>2   | 0,25<br>71-6B                  |
| 12,2  | 125<br>140  | Z<br>2   | 0,25<br>71-6B                  |
| 10,7  | 125<br>125  | Z<br>2   | 0,18<br>80-8A                  |

Charakterystyka wentylatora promieniowego FK-25 | Characteristics for centrifugal fan FK-25

Gęstość przelatującego powietrza  $\gamma=1.2 \text{ kg/m}^3$   
Density of forced air  $\gamma=1.2 \text{ kg/m}^3$



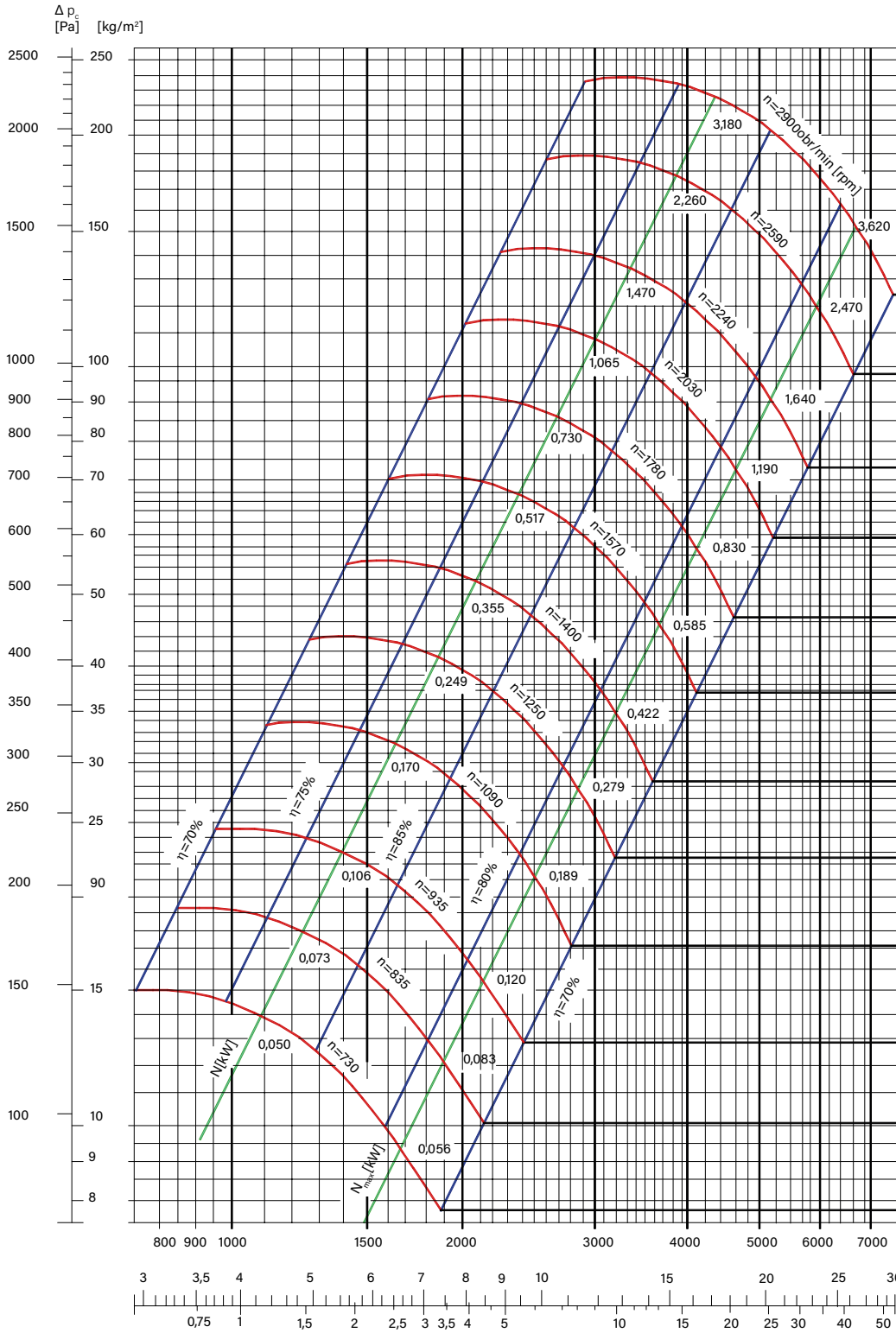
| Uz-prędkość obrotowa [m/s]<br>Uz-peripheral speed [m/s] | Średnica podz. kół pasowych<br>Pulley pitch diameter | Profil i ilość pasków<br>Belt profile and no. | Silnik typ Sg<br>Motor type Sg |
|---|--|---|--------------------------------|
|   | Silnik<br>Motor                                      | Profil<br>Profile                             | kW                             |
|   | Went.<br>Fan   | Ilość<br>Qty                                  | Wielkość<br>Size               |
| 52,5  | 125<br>125   | Z<br>2  | 2,2<br>90L-2                   |
| 47  | 125<br>140   | Z<br>2  | 1,5<br>90S-2                   |
| 41  | 125<br>160   | Z<br>2  | 1,1<br>80-2B                   |
| 36,9  | 180<br>125   | Z<br>2  | 0,75<br>80-4B                  |
| 32,7  | 160<br>125   | Z<br>2  | 0,55<br>80-4A                  |
| 28,7  | 140<br>125   | Z<br>2  | 0,55<br>80-4A                  |
| 25,6  | 125<br>125   | Z<br>2  | 0,55<br>80-4A                  |
| 22,9  | 125<br>140   | Z<br>2  | 0,37<br>71-4B                  |
| 19,9  | 125<br>160   | Z<br>2  | 0,37<br>71-4B                  |
| 17,2  | 125<br>125   | Z<br>2  | 0,25<br>71-6B                  |
| 15,4  | 125<br>140   | Z<br>2  | 0,25<br>71-6B                  |
| 13,4  | 125<br>125   | Z<br>2  | 0,18<br>80-8A                  |

Wentylatory promieniowe | Radial fans



Charakterystyka wentylatora promieniowego FK-31,5 | Characteristics for centrifugal fan FK-31,5

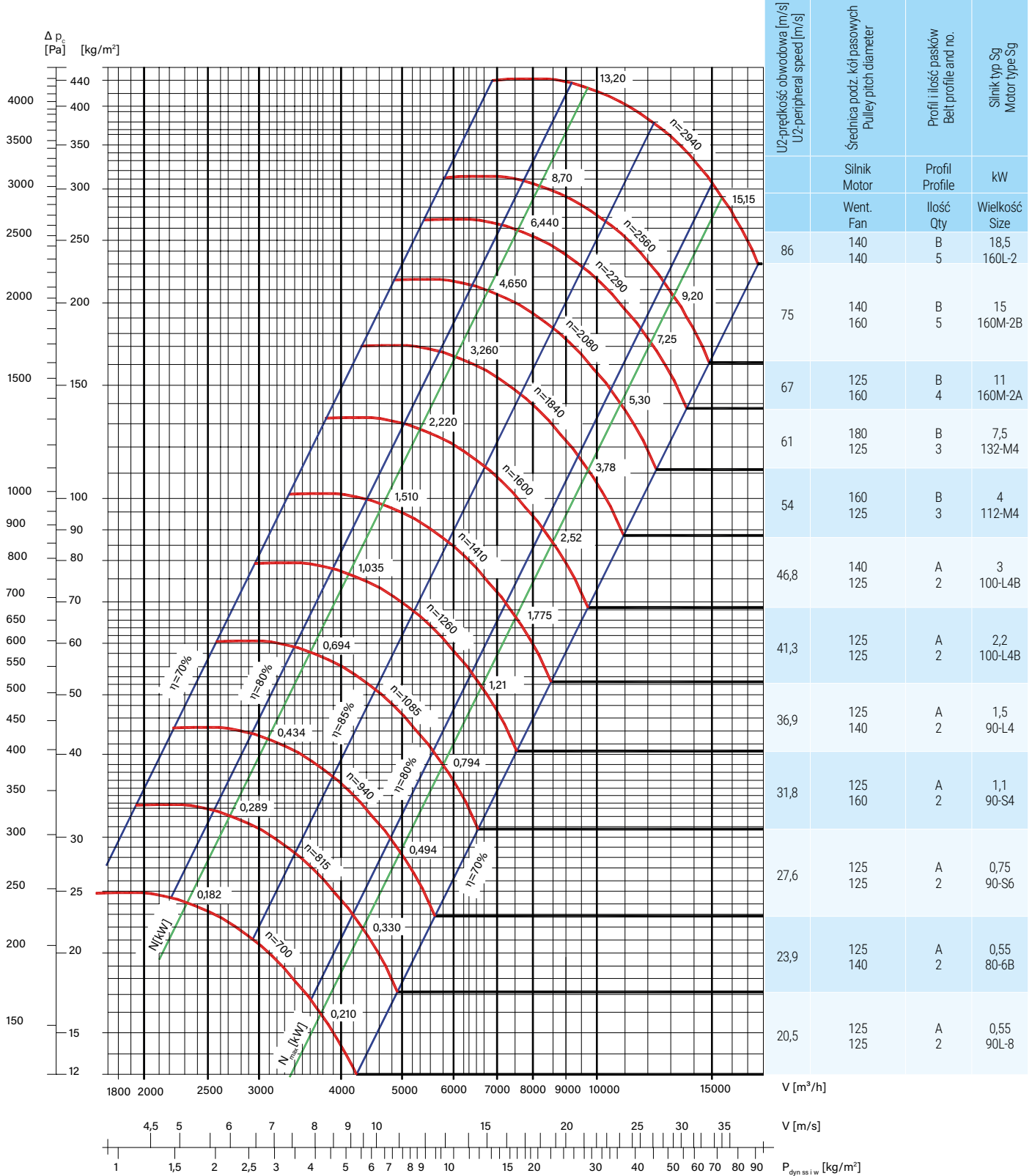
Gęstość przetwarzanego powietrza  $\gamma=1.2 \text{ kg/m}^3$   
Density of forced air  $\gamma=1.2 \text{ kg/m}^3$



| $\Delta p_s$ [Pa] | U2-średnica obwodowa [m/s]<br>U2-peripheral speed [m/s] | Srednica pocz. kół pasowych<br>Pulley pitch diameter | Profil i ilość pasów<br>Belt profile and no. | Silnik typ Sg<br>Motor type Sg |
|-------------------|---|--|--|--------------------------------|
|                   |   | Silnik<br>Motor                                      | Profil<br>Profile                            | kW                             |
|                   |   | Went.<br>Fan   | Ilość<br>Qty                                 | Wielkość<br>Size               |
| 63,7              | 125   | 125  | B<br>3                                       | 4,0<br>112M-2                  |
| 57                | 125   | 140  | A<br>2                                       | 3,0<br>100L-2                  |
| 49,1              | 125   | 160  | A<br>2                                       | 2,2<br>90L-2                   |
| 44,5              | 180   | 125  | Z<br>2                                       | 1,5<br>90L-4                   |
| 39                | 160   | 125  | Z<br>2                                       | 1,1<br>90S-4                   |
| 34,4              | 140   | 125  | Z<br>2                                       | 0,75<br>80-4B                  |
| 30,7              | 125   | 125  | Z<br>2                                       | 0,55<br>80-4A                  |
| 27,4              | 125   | 140  | Z<br>2                                       | 0,55<br>80-4A                  |
| 23,9              | 125   | 160  | Z<br>2                                       | 0,37<br>71-4B                  |
| 20,5              | 125   | 125  | Z<br>2                                       | 0,25<br>71-6B                  |
| 18,4              | 125   | 140  | Z<br>2                                       | 0,25<br>71-6B                  |
| 16,1              | 125   | 125  | Z<br>2                                       | 0,18<br>80-8A                  |

Charakterystyka wentylatora promieniowego FK-40 | Characteristics for centrifugal fan FK-40

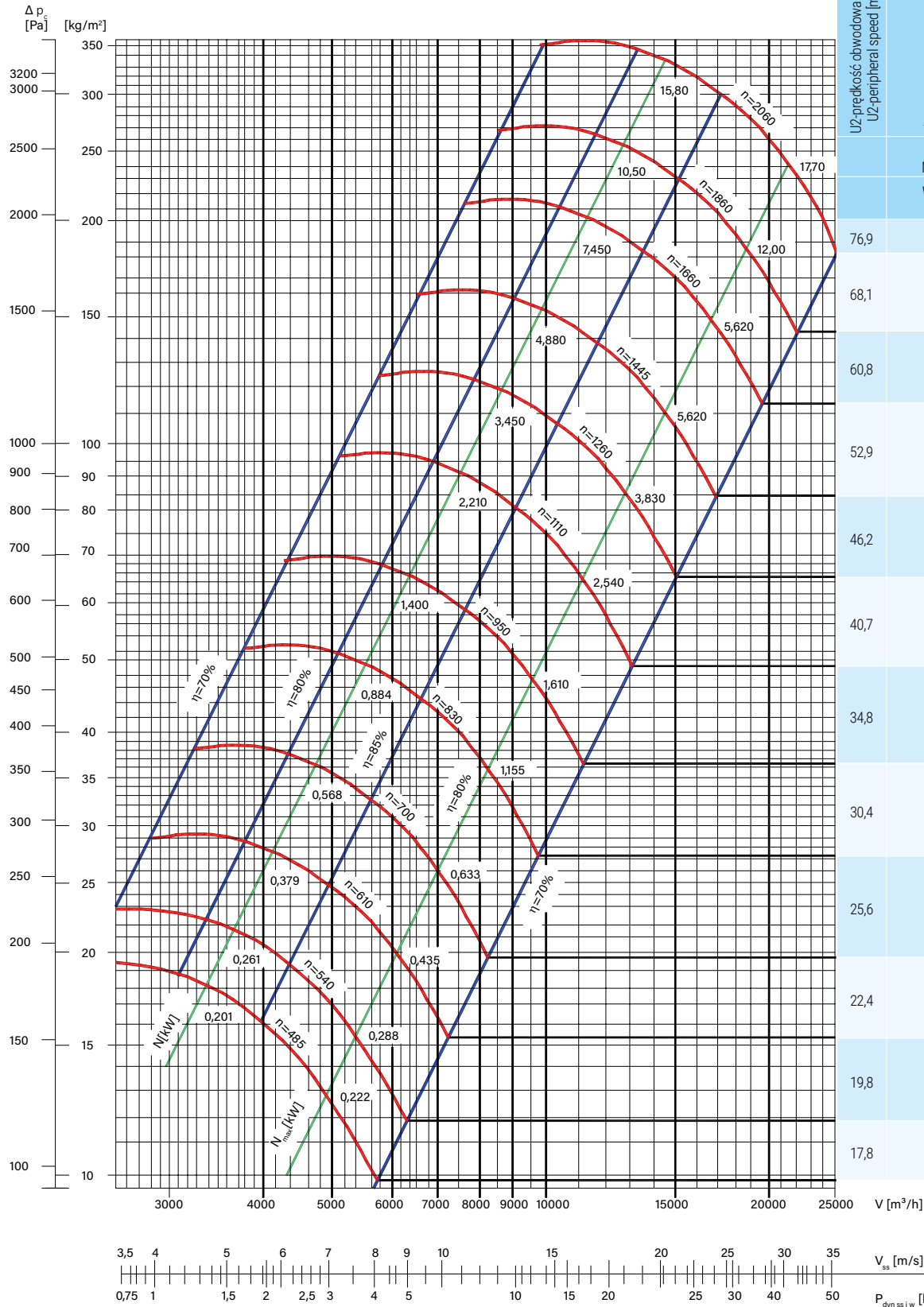
Gęstość przetłaczanego powietrza  $\gamma=1.2 \text{ kg/m}^3$   
Density of forced air  $\gamma=1.2 \text{ kg/m}^3$



Wentylatory promieniowe | Radial fans

Charakterystyka wentylatora promieniowego FK-50 | Characteristics for centrifugal fan FK-50

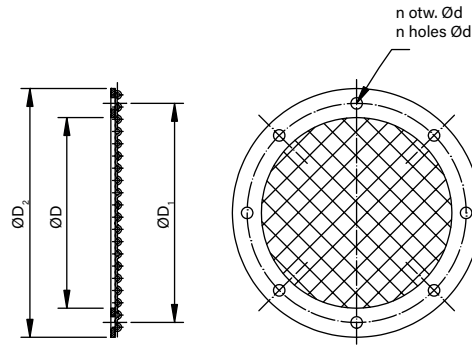
Gęstość przelatującego powietrza  $\gamma=1.2 \text{ kg/m}^3$   
Density of forced air  $\gamma=1.2 \text{ kg/m}^3$



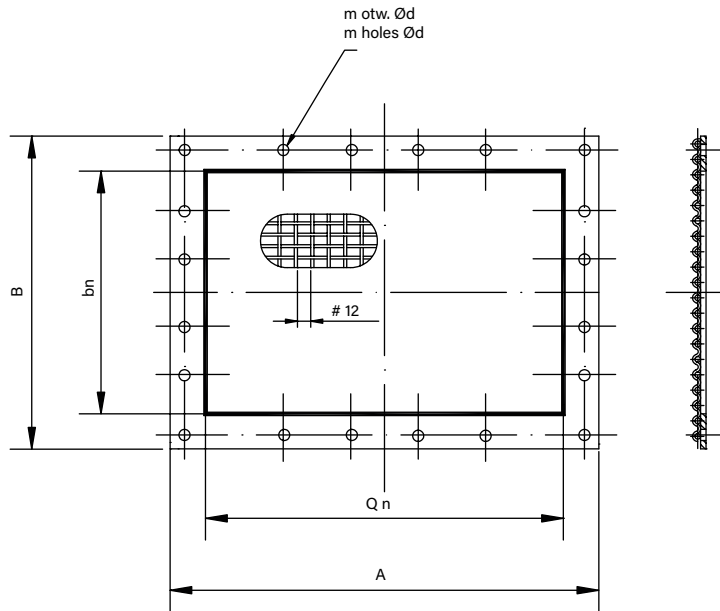
| $\Delta p_s$ [Pa] | U2-prędkość obwodowa (m/s)<br>U2-peripheral speed (m/s) | Średnica podz. kół pasowych<br>Pulley pitch diameter | Profil i ilość paszków<br>Belt profile and no. | Silnik typ Sg<br>Motor type Sg |
|-------------------|---|--|--|--------------------------------|
|                   |   | Silnik<br>Motor                                      | Profil<br>Profile                              | kW                             |
|                   |   | Went.<br>Fan   | Ilość<br>Qty                                   | Wielkość<br>Size               |
| 76,9              | 200   | 140  | B<br>5   | 22<br>180L-4                   |
| 68,1              | 180   | 140  | B<br>5   | 15<br>160L-4                   |
| 60,8              | 160   | 140  | B  | 11<br>160M-4                   |
| 52,9              | 140   | 140  | B<br>4   | 7,5<br>132M-4                  |
| 46,2              | 140   | 160  | B<br>3   | 5,5<br>132S-4                  |
| 40,7              | 140   | 180  | B<br>3   | 4<br>112M-4                    |
| 34,8              | 140   | 140  | B<br>3   | 2,2<br>112M-6                  |
| 30,4              | 140   | 160  | B<br>3   | 1,5<br>100L-6                  |
| 25,6              | 140   | 140  | A<br>2   | 1,1<br>100L-8B                 |
| 22,4              | 140   | 160  | A<br>2   | 1,1<br>100L-8B                 |
| 19,8              | 140   | 180  | A<br>2   | 0,75<br>100L-8A                |
| 17,8              | 140   | 200  | A<br>2   | 0,75<br>100L-8A                |

Wentylatory promieniowe | Radial fans

Akcesoria | Accessories

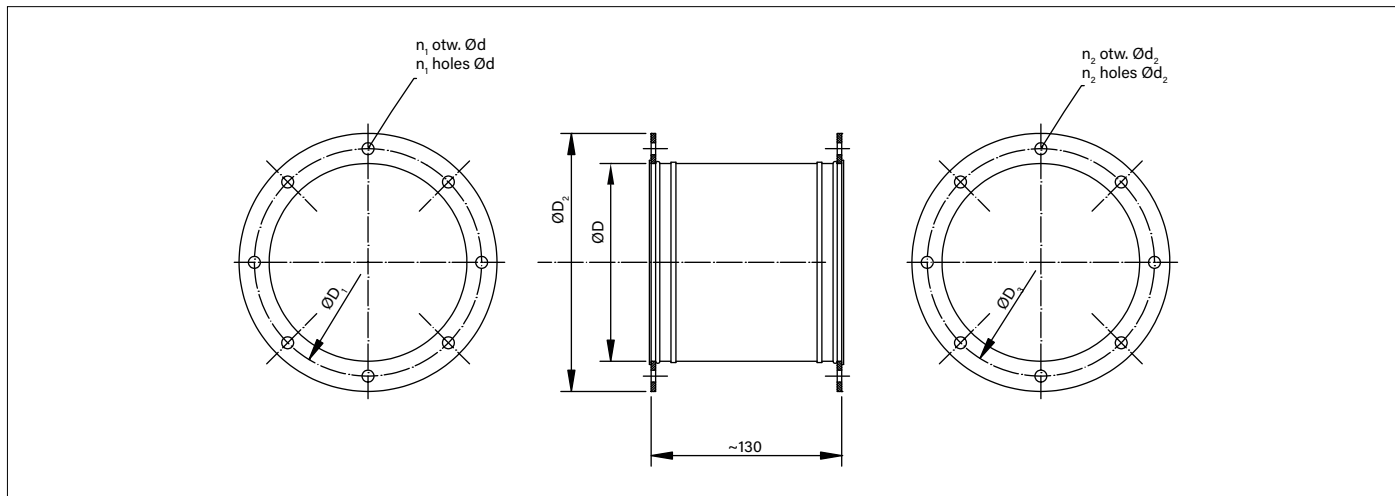


| Wentylator<br>Fan | D    | D <sub>1</sub> | D <sub>2</sub> | d  | n  |
|-------------------|------|----------------|----------------|----|----|
|                   | [mm] |                |                |    |    |
| FK-20             | 204  | 239            | 254            | 10 | 8  |
| FK-25             | 258  | 289            | 308            |    |    |
| FK-31,5           | 323  | 361            | 383            | 12 | 12 |
| FK-40             | 408  | 446            | 468            |    |    |
| FK-50             | 508  | 573            | 608            | 15 | 16 |



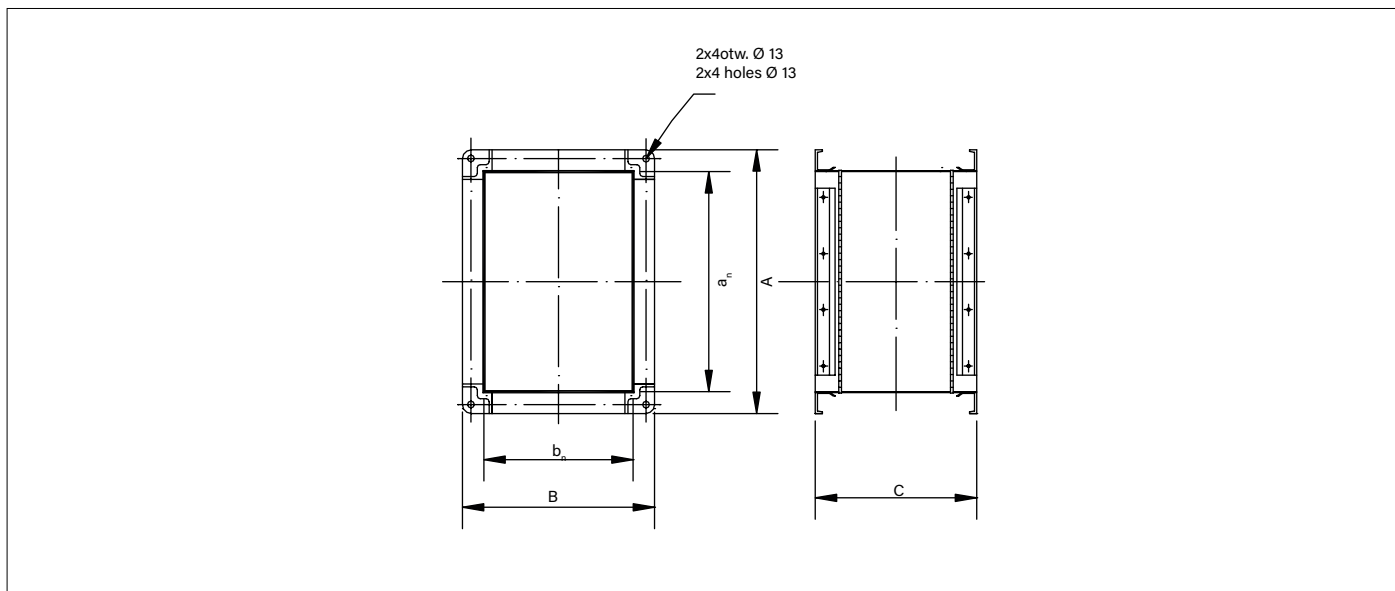
| Wentylator<br>Fan | A    | a <sub>n</sub> | B   | b <sub>n</sub> | m  | d  |
|-------------------|------|----------------|-----|----------------|----|----|
|                   | [mm] |                |     |                |    |    |
| FK-20             | 300  | 240            | 196 | 135            | 8  | 10 |
| FK-25             | 371  | 301            | 241 | 171            |    | 12 |
| FK-31,5           | 430  | 360            | 272 | 202            | 12 | 15 |
| FK-40             | 578  | 478            | 369 | 269            |    |    |
| FK-50             | 700  | 600            | 435 | 335            | 16 |    |

**Króciec wlotowy elastyczny | Flexible inlet connector piece**



| Wentylator<br>Fan | D    | D <sub>1</sub> | D <sub>2</sub> | D <sub>3</sub> | d <sub>2</sub> | n <sub>1</sub> | n <sub>2</sub> |
|-------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|
|                   | [mm] |                |                |                |                |                |                |
| FK-20             | 200  | 230            | 260            | 239            | 10             | 8              | 8              |
| FK-25             | 250  | 280            | 310            | 289            |                |                |                |
| FK-31,5           | 315  | 345            | 385            | 361            | 12             | 12             | 12             |
| FK-40             | 400  | 430            | 470            | 446            |                |                |                |
| FK-50             | 500  | 530            | 600            | 573            | 14             | 16             | 16             |

**Króciec wylotowy elastyczny | Flexible outlet connector piece**

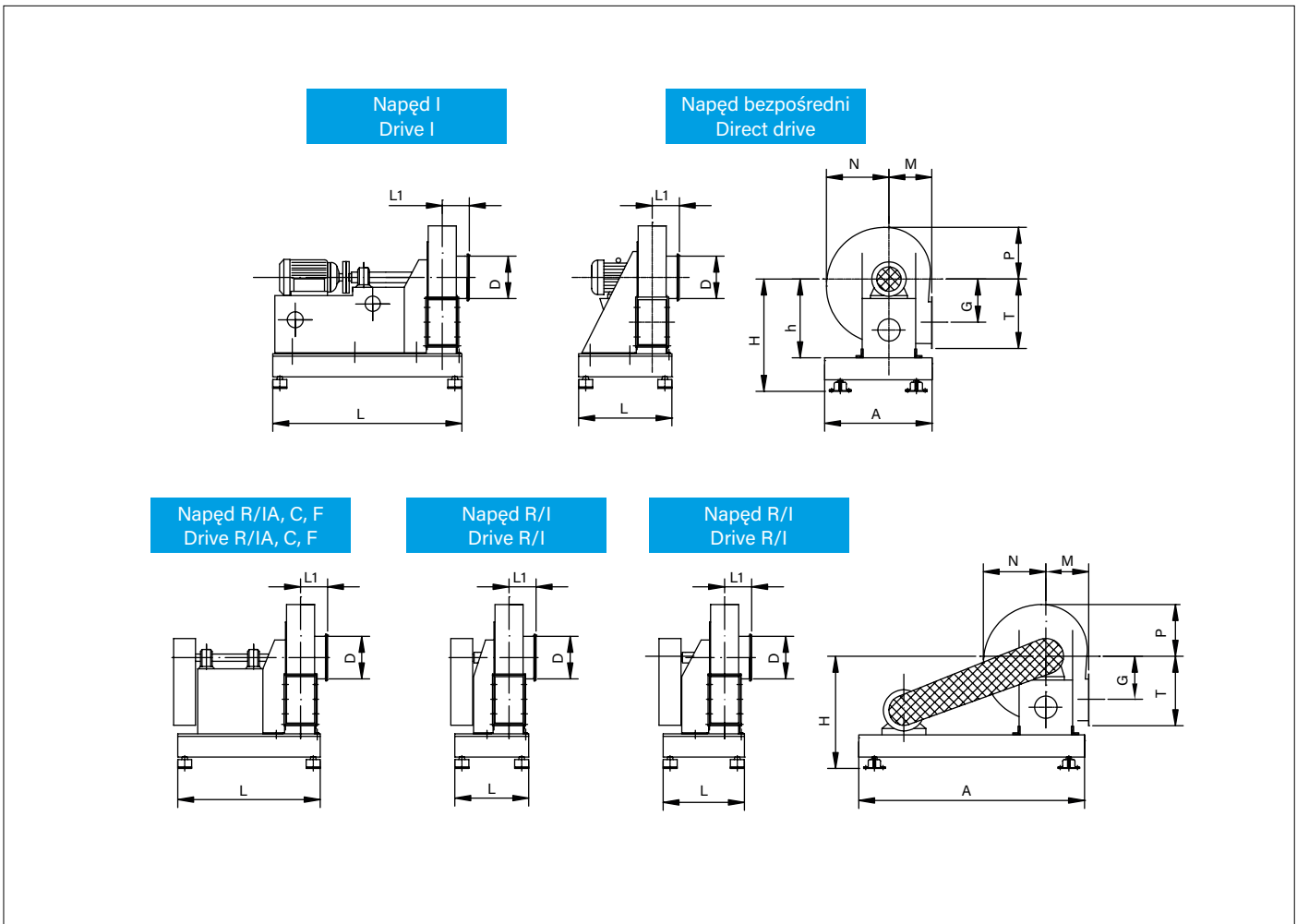


| Wentylator<br>Fan | a <sub>n</sub> | b <sub>n</sub> | C     | A   | B   |
|-------------------|----------------|----------------|-------|-----|-----|
|                   | [mm]           |                |       |     |     |
| FK-20             | 240            | 136            | 135,6 | 274 | 170 |
| FK-25             | 310            | 180            |       | 344 | 214 |
| FK-31,5           | 365            | 210            | 156,4 | 399 | 244 |
| FK-40             | 511            | 301            |       | 545 | 335 |
| FK-50             | 636            | 371            |       | 670 | 405 |

**Poziom dźwięku wentylatorów FK | Sound level of FK fans**  
**Napęd bezpośredni | Direct drive**

| Wentylator<br>Fan | Prędkość obrotowa [obr/min]<br>Rotational speed [rpm] | Wydatek powietrza<br>Air output |                   | Poziom dźwięku [dBA]<br>Sound level [dBA] |
|-------------------|---|---------------------------------|-------------------|---|
|                   |   | m <sup>3</sup> /s               | m <sup>3</sup> /s |   |
| 20                | 935   | 0,14                            | 507               | 55  |
|                   | 1400  | 0,21                            | 740               | 61  |
|                   | 2890  | 0,43                            | 1550              | 72,5                                      |
| 25                | 935   | 0,27                            | 980               | 59  |
|                   | 1400  | 0,39                            | 1400              | 61,5                                      |
|                   | 2870  | 0,80                            | 2880              | 77,5                                      |
| 31,5              | 935   | 0,49                            | 1760              | 63,5                                      |
|                   | 2900  | 1,27                            | 4560              | 84,5                                      |
| 40                | 940   | 1,12                            | 4040              | 73  |
|                   | 1410  | 1,60                            | 5750              | 78  |
| 50                | 700   | 1,55                            | 5600              | 73  |
|                   | 950   | 2,08                            | 7500              | 89  |
|                   | 1445  | 3,19                            | 11500             | 89  |

**Wymiary konstrukcyjne wentylatorów | Fan design dimensions**



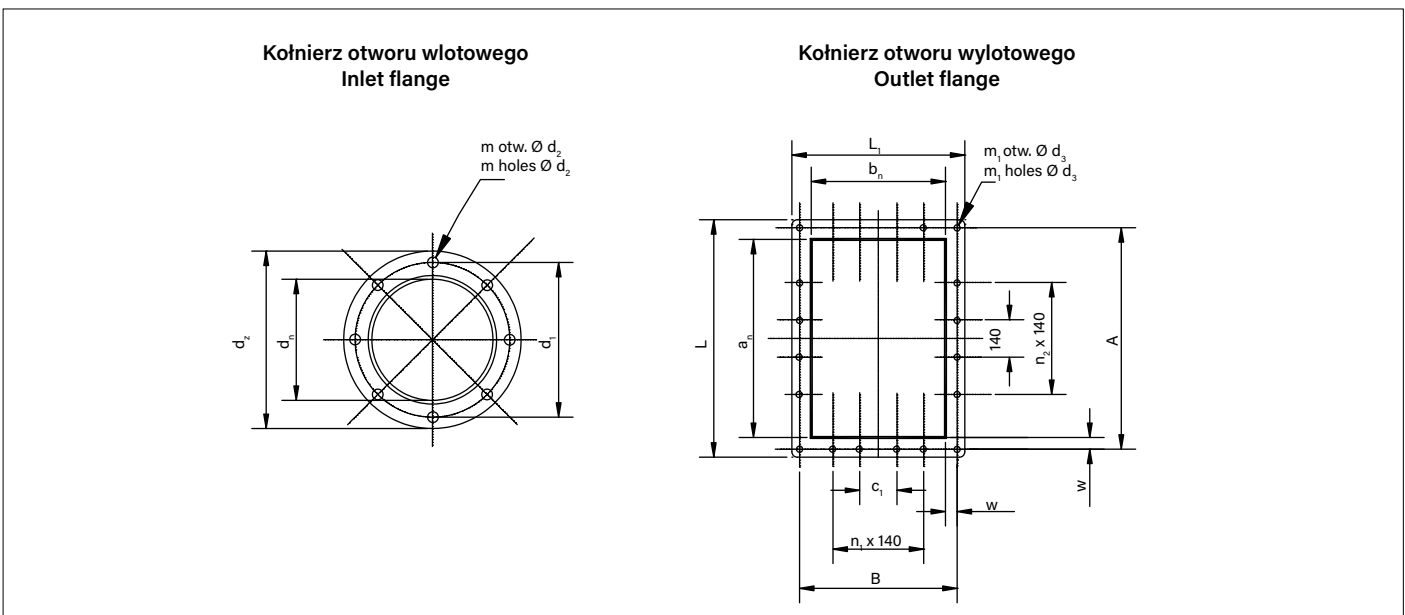


| Wentylator<br>Fan | D   | Napęd<br>Drive               | Wymiary<br>Dimensions |     |     |     |     |     |     |     |     |                |     | Masa bez silnika<br>i ramy [kg]<br>Unit weight w/o<br>motor and frame [kg] | Masa ramy [kg]<br>Frame weight [kg] |    |
|-------------------|-----|------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|----------------|-----|--|-------------------------------------|----|
|                   |     |                              | [mm]                  |     |     |     |     |     |     |     |     |                |     |  |                                     |    |
|                   |     |                              | A                     | D   | G   | h   | H   | M   | N   | P   | T   | I <sub>1</sub> | L   |  |                                     |    |
| 20                | 200 | Bezpośr.<br>Direct           | 500                   | 200 | 224 | 400 | 510 | 203 | 292 | 242 | 355 | 128            | 520 | 24   | 11                                  |    |
|                   |     |                              |                       |     |     |     |     |     |     |     |     |                | 334 | 32   | 9                                   |    |
|                   |     | R/I<br>R/IA;C;F<br>R/IM<br>I |                       |     |     |     |     |     |     |     |     |                | 730 | 594  | 49                                  | 13 |
|                   |     |                              |                       |     |     |     |     |     |     |     |     |                |     | 339  | 51                                  | 9  |
|                   |     |                              |                       |     |     |     |     |     |     |     |     |                |     | 930  | 57                                  | 17 |
| 25                | 250 | Bezpośr.<br>Direct           | 540                   | 250 | 280 | 475 | 585 | 251 | 363 | 299 | 442 | 146            | 590 | 43   | 13                                  |    |
|                   |     |                              |                       |     |     |     |     |     |     |     |     |                | 364 | 37   | 10                                  |    |
|                   |     | R/I<br>R/IA;C;F<br>R/IM<br>I |                       |     |     |     |     |     |     |     |     |                | 770 | 624  | 51                                  | 14 |
|                   |     |                              |                       |     |     |     |     |     |     |     |     |                |     | 374  | 59                                  | 10 |
|                   |     |                              |                       |     |     |     |     |     |     |     |     |                |     | 1010   | 81                                  | 18 |
| 31,5              | 315 | Bezpośr.<br>Direct           | 600                   | 315 | 336 | 560 | 670 | 298 | 431 | 354 | 527 | 161            | 650 | 56   | 14                                  |    |
|                   |     |                              |                       |     |     |     |     |     |     |     |     |                | 404 | 50   | 11                                  |    |
|                   |     | R/I<br>R/IA;C;F<br>R/IM<br>I |                       |     |     |     |     |     |     |     |     |                | 960 | 664  | 73                                  | 15 |
|                   |     |                              |                       |     |     |     |     |     |     |     |     |                |     | 404  | 74                                  | 11 |
|                   |     |                              |                       |     |     |     |     |     |     |     |     |                |     | 1046   | 93                                  | 20 |

| Wentylator<br>Fan            | D   | Napęd<br>Drive               | Typ silnika<br>Motor type | Wymiary [mm]<br>Dimensions [mm] |                |                    | Masa bez ramy i silnika [kg]<br>Weight w/o frame and motor [kg] |              |                |                | Masa ramy [kg]<br>Frame weight [kg] |    |
|------------------------------|-----|------------------------------|---------------------------|---------------------------------|----------------|--------------------|---|--------------|----------------|----------------|-------------------------------------|----|
|                              |     |                              |                           | A                               | I <sub>1</sub> | L                  | LG0<br>RD0  | LG90<br>RD90 | LG180<br>RD180 | LG270<br>RD270 |                                     |    |
|                              |     |                              |                           | 40                              | 400            | Bezpośr.<br>Direct | Sg 90; 100  | 806          | 1230           | 195            | 770                                 |    |
| Sg 160                       | 900 |                              |                           |                                 |                |                    |   |              |                |                |                                     | 19 |
| R/I<br>R/IA;C;F<br>R/IM<br>I | 806 | 480                          | 85                        |                                 |                | 84                 | 84  | 83           |                |                | 17                                  |    |
|                              |     | 800                          | 132                       |                                 |                | 130                | 142   | 129          |                |                | 22                                  |    |
|                              |     | 520                          | 136                       |                                 |                | 134                | 146   | 133          |                |                |                                     |    |
| 50                           | 500 | Bezpośr.<br>Direct           | Sg 90;100                 |                                 |                | 876                | 1340  | 235          |                |                | 1250                                |    |
|                              |     |                              | Sg 160                    | 1480                            |                |                    |   |              |                |                |                                     | 21 |
|                              |     | R/I<br>R/IA;C;F<br>R/IM<br>I | 876                       | 550                             | 144            | 143                |   |              | 143            | 142            | 19                                  |    |
|                              |     |                              |                           | 870                             | 183            | 189                |   |              | 188            | 185            | 24                                  |    |
|                              |     |                              |                           | 590                             |                |                    |   |              |                |                |                                     |    |
|                              |     | Sg 100;112<br>Sg 132         | 876                       | 1360                            |                |                    |   |              |                |                |                                     |    |
| 1590                         |     |                              |                           |                                 |                |                    |   |              |                |                |                                     |    |

| Wentylator<br>Fan | D   | Figura<br>Figure | Wymiary [mm]<br>Dimensions [mm] |     |      |     |     |     |     |
|-------------------|-----|------------------|---------------------------------|-----|------|-----|-----|-----|-----|
|                   |     |                  | G                               | h   | H    | M   | N   | P   | T   |
| 40                | 400 | LG0, RD0         | 448                             | 580 | 695  | 387 | 572 | 470 | 737 |
|                   |     | LG90, RG90       |                                 | 475 | 590  |     |     |     |     |
|                   |     | LG180, RD180     |                                 | 400 | 620  |     |     |     |     |
|                   |     | LG270, RD270     |                                 | 750 | 865  |     |     |     |     |
| 50                | 500 | LG0, RD0         | 559                             | 722 | 847  | 480 | 714 | 584 | 909 |
|                   |     | LG90, RD90       |                                 | 592 | 717  |     |     |     |     |
|                   |     | LG180, RD180     |                                 | 492 | 617  |     |     |     |     |
|                   |     | LG270, RD270     |                                 | 917 | 1042 |     |     |     |     |

**Rozmieszczenie otworów wlotowych/wylotowych | Location of inlet/outlet holes**

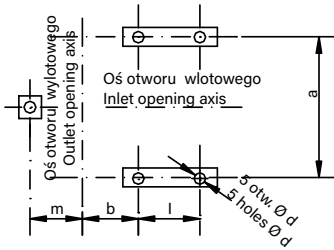


| Wymiary [mm]<br>Dimensions [mm] | Wielkość wentylatora<br>Fan size |     |      |     |     |
|---------------------------------|----------------------------------|-----|------|-----|-----|
|                                 | 20                               | 25  | 31,5 | 40  | 50  |
| $a_n$                           | 236                              | 300 | 355  | 475 | 600 |
| $b_n$                           | 132                              | 170 | 200  | 265 | 335 |
| A                               | 274                              | 344 | 399  | 545 | 670 |
| B                               | 170                              | 214 | 244  | 335 | 405 |
| $C_1$                           | -                                | -   | 140  | 140 | 140 |
| $d_n$                           | 200                              | 250 | 315  | 400 | 500 |
| $d_1$                           | 239                              | 289 | 361  | 446 | 573 |
| $d_2$                           | 10                               | 10  | 12   | 12  | 15  |
| $d_3$                           | 10                               | 12  | 12   | 15  | 15  |
| $d_z$                           | 258                              | 308 | 380  | 468 | 608 |
| L                               | 300                              | 371 | 430  | 578 | 700 |
| $L_1$                           | 195                              | 240 | 271  | 367 | 433 |
| m                               | 8                                | 8   | 8    | 12  | 16  |
| $m_1$                           | 8                                | 8   | 12   | 12  | 16  |
| $n_1$                           | -                                | -   | 1    | 1   | 1   |
| $n_2$                           | 1                                | 1   | 1    | 1   | 3   |
| w                               | 19                               | 22  | 22   | 35  | 35  |

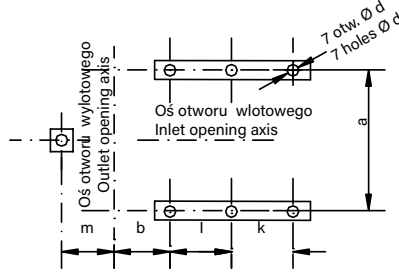


Rozmieszczenie otworów dla śrub fundamentowych | Location of holes for foundation bolts

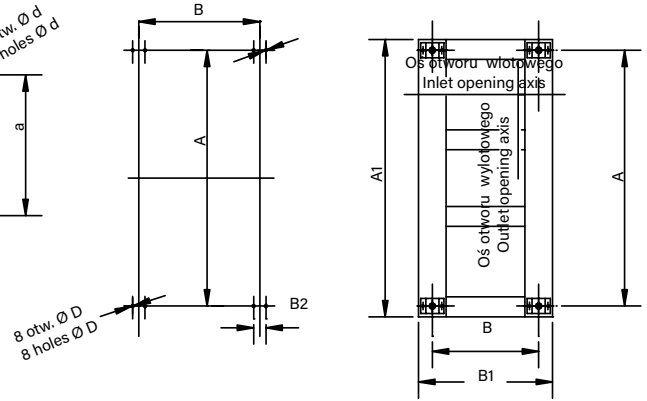
Napęd bezpośredni (bez ramy)  
Direct drive (w/o frame)



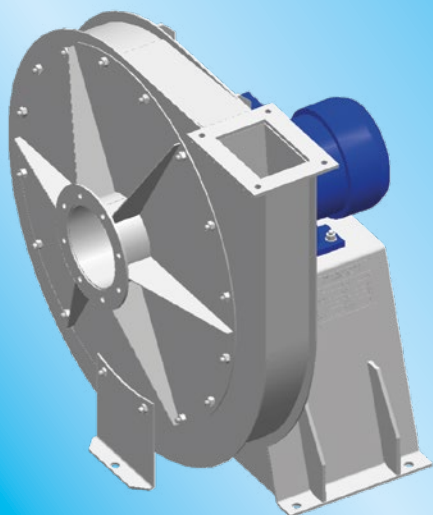
Napęd IA; IF; IC (bez ramy)  
Drive IA; IF; IC (w/o frame)



Wszystkie napędy z ramą  
All drives with frame



| Wielkość wentylatora<br>Fan size | Wielkość silnika<br>Motor size | Rodzaj napędu<br>Drive type | Wymiary [mm] Dimensions [mm] |      |      |            |            |           |              |    |      |              |       |       |     |     |     |     |
|----------------------------------|--------------------------------|-----------------------------|------------------------------|------|------|------------|------------|-----------|--------------|----|------|--------------|-------|-------|-----|-----|-----|-----|
|                                  |                                |                             | A                            | A1   | a    | B          | B1         | B2        | b            | D  | d    | k            | l     | m     |     |     |     |     |
| 20                               | 71,80                          | Bezpośredni Direct          | 464                          | 500  | 304  | 400        | 520        | 54        | 104          | 7  | 14   | -            | 190   | 98,5  |     |     |     |     |
|                                  |                                | R/I                         | 610                          | 730  | -    | 304        | 340        | 68        | -            | 9  |      | -            | -     |       |     |     |     |     |
|                                  |                                | R/I; A,C,F                  |                              |      | -    | 558        | 594        |           | -            |    |      | -            | 300   |       | 300 |     |     |     |
|                                  |                                | I; A,C,F                    |                              |      | 464  | 500        | 304        |           | 810          |    |      | 930          | 123   |       | -   | -   |     |     |
|                                  |                                | R I/M                       |                              |      | 610  | 730        | -          |           | 304          |    |      | 340          | -     |       | -   | -   |     |     |
| 25                               | 71,80,90                       | Bezpośredni Direct          | 504                          | 540  | 344  | 470        | 590        | 68        | 126,5        | 9  | -    | 220          | 116   |       |     |     |     |     |
|                                  |                                | R/I                         | 650                          | 770  | -    | 338        | 374        | 80        | -            |    | 14   | -            |       | -     |     |     |     |     |
|                                  |                                | R/I A,C,F                   |                              |      | -    | 588        | 624        |           | -            |    |      | -            |       | 320   | 320 |     |     |     |
|                                  |                                | I; A,C,F                    |                              |      | 504  | 540        | 344        |           | 890          |    |      | 1010         |       | 140,5 | -   | -   |     |     |
|                                  |                                | R I/M                       |                              |      | 650  | 770        | -          |           | 338          |    |      | 374          |       | -     | -   | -   |     |     |
| 31,5                             | 71,80,112                      | Bezpośredni Direct          | 564                          | 600  | 414  | 530        | 650        | 68        | 147          | 9  | -    | -            | 131,5 |       |     |     |     |     |
|                                  |                                | R/I                         | 840                          | 960  | -    | 368        | 404        | 80        | -            |    | 14   | -            |       | -     |     |     |     |     |
|                                  |                                | R/I; A,C,F                  |                              |      | -    | 618        | 654        |           | -            |    |      | -            |       | 320   | 320 |     |     |     |
|                                  |                                | I; A,C,F                    |                              |      | 564  | 600        | 414        |           | 926          |    |      | 1046         |       | 156   | -   | -   |     |     |
|                                  |                                | R I/M                       |                              |      | 840  | 960        | -          |           | 368          |    |      | 404          |       | -     | -   | -   |     |     |
| 40                               | 90,100<br>160                  | Bezpośredni Direct          | 712                          | 806  | 484  | 650<br>780 | 770<br>900 | 80<br>100 | 206          | 9  | -    | 190<br>410   | 166   |       |     |     |     |     |
|                                  | 90,100,160                     | R/I                         | 1110                         | 1230 | -    | 444        | 480        | -         | -            |    | 18   | -            |       | -     |     |     |     |     |
|                                  |                                | R/I; A,C,F                  |                              |      | -    | 764        | 800        |           | -            |    |      | -            |       | -     | -   |     |     |     |
|                                  |                                | I; A,C,F                    |                              |      | 712  | 806        | 484        |           | 1180<br>1330 |    |      | 1300<br>1450 |       | 206   | 11  | 470 | 320 |     |
|                                  |                                | R I/M                       |                              |      | 1110 | 1230       | -          |           | 500          |    |      | 540          |       | -     | -   | -   | -   |     |
| 50                               | 100,112<br>132                 | Bezpośredni Direct          | 822                          | 876  | 594  | 760<br>830 | 880<br>900 | 100       | 239          | 11 | -    | 190<br>250   | 199   |       |     |     |     |     |
|                                  | 100,112,132                    | R/I                         | 1220                         | 1340 | -    | 515        | 550        |           | 112          |    | -    | 18           |       | -     | -   |     |     |     |
|                                  |                                | R/I A,C,F                   |                              |      | -    | 834        | 870        |           |              |    | -    |              |       | -     | -   | -   |     |     |
|                                  |                                | I A,C,F                     |                              |      | 822  | 876        | 594        |           |              |    | 1230 |              |       | 1350  | 239 | 13  | 470 | 320 |
|                                  |                                | R/IM                        |                              |      | 1220 | 1340       | -          |           |              |    | 570  |              |       | 610   | -   | -   | -   | -   |



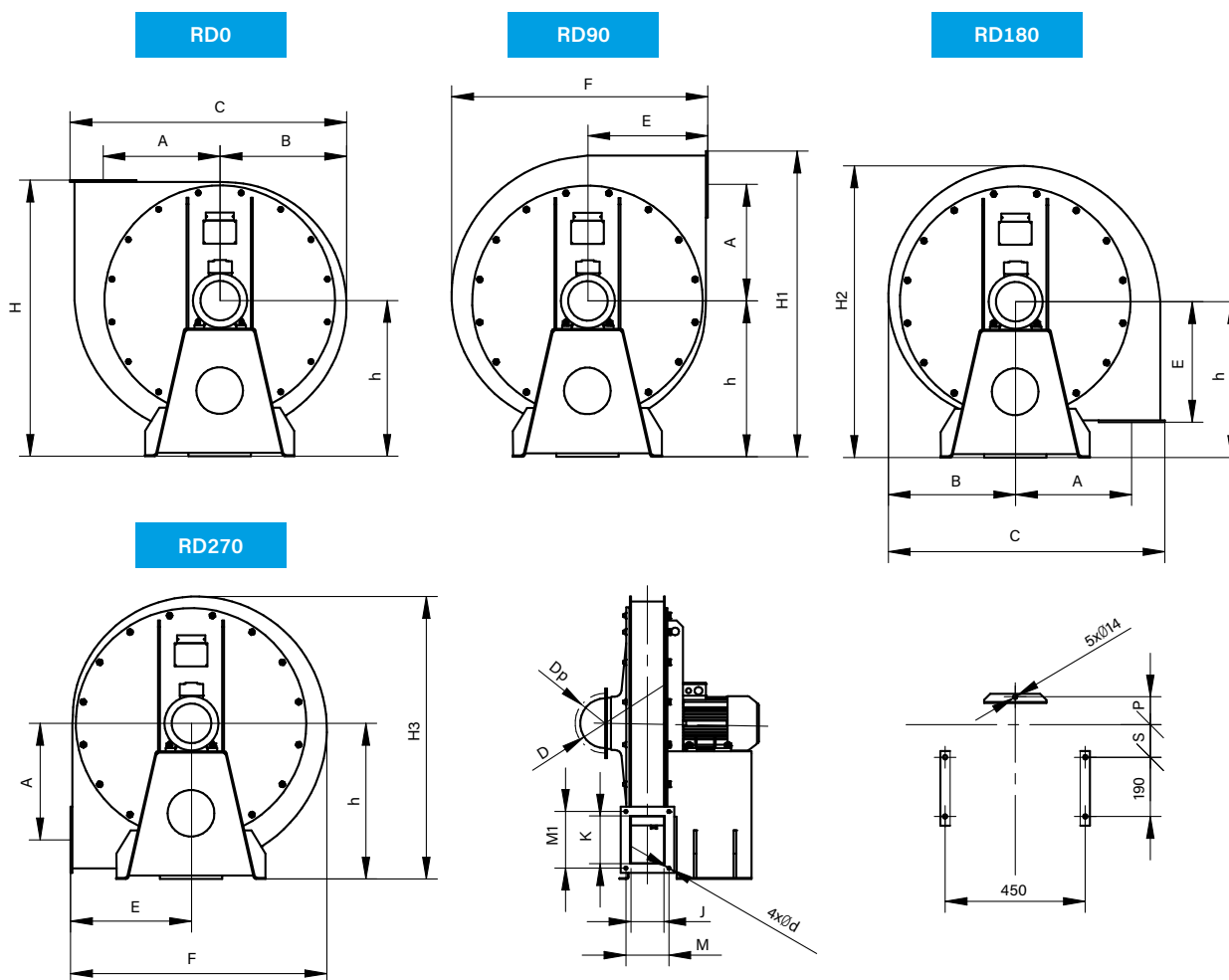
**WPO 10÷18** - Wentylatory promieniowe wysokoprężne WPO z napędem bezpośrednim są urządzeniami przeznaczonymi do stosowania w różnych gałęziach przemysłu. Przystosowane są do przetłaczania czynnika z zawartością pyłu nie większą niż 0,3 m<sup>3</sup>, bez składników przyspieszających korozję, żrących i wybuchowych o temperaturze do 40°C.

- W szczególności mają zastosowanie do przetłaczania powietrza w urządzeniach, gdzie wymagane jest duże ciśnienie  $\Delta P_c$  przy stosunkowo niedużej wydajności  $Q_v$ .
- Wentylator może pracować zabudowany instalacją na wlocie i wylocie bądź tylko na wlocie lub wylocie.

**WPO 10÷18** - WPO 10÷18 - High pressure centrifugal fans WPO with direct drive are units intended for use in various sectors of the industry. They are suitable for pumping medium with dust content not exceeding 0.3 m<sup>3</sup>, without corrosive, caustic and explosive components at temperatures up to 40°C.

- In particular, they are used for air conveying in equipment where high pressure  $\Delta P_c$  is required at relatively low capacity  $Q_v$ .
- The fan can be integrated with the associated system on both inlet and outlet or on either of the sides only.

### Wentylatory promieniowe wysokoprężne WPO - 10÷18 napęd bezpośredni High pressure centrifugal fans WPO - 10÷18 direct drive



Położenia lewe (LG) są lustrzanymi odbiciami położenia prawych (RD).  
The left-hand positions (LG) are mirror reflections of the right-hand positions (RD).



Wymiary | Dimensions

| Wentylator<br>Fan | D<br>[mm] | Dp<br>[mm] | A<br>[mm] | B<br>[mm] | C<br>[mm] | E<br>[mm] | F<br>[mm] | G<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] |
|-------------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|
| <b>WPO-10</b>     | 100       | 127        | 235       | 254       | 566       | 242       | 514       | 92        | 577       | 646        | 607        | 589        |
| <b>WPO-12,5</b>   | 125       | 157        | 292       | 325       | 707       | 302       | 650       | 107       | 702       | 782        | 748        | 725        |
| <b>WPO-14</b>     | 140       | 172        | 326       | 362       | 785       | 336       | 723       | 112       | 786       | 874        | 837        | 812        |
| <b>WPO-16</b>     | 160       | 192        | 374       | 401       | 883       | 382       | 813       | 136       | 882       | 980        | 931        | 903        |
| <b>WPO-18</b>     | 180       | 219        | 420       | 451       | 988       | 427       | 911       | 146       | 987       | 1096       | 1044       | 1011       |

Wymiary | Dimensions

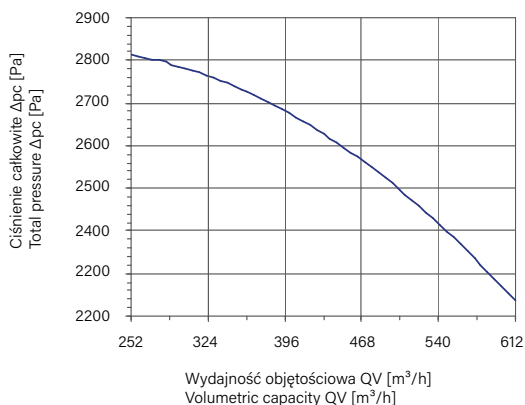
| Wentylator<br>Fan | h<br>[mm] | J<br>[mm] | K<br>[mm] | M<br>[mm] | M1<br>[mm] | P<br>[mm] | S<br>[mm] | n | d<br>[mm] | Masa bez silnika<br>Weight without motor<br>[kg] |
|-------------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|---|-----------|--|
| <b>WPO-10</b>     | 335       | 71        | 90        | 98        | 117        | -         | 93        | 4 | 7         | 38   |
| <b>WPO-12,5</b>   | 400       | 80        | 118       | 112       | 150        | 67        | 99        | 5 | 10        | 48   |
| <b>WPO-14</b>     | 450       | 90        | 132       | 122       | 164        | 72        | 104       | 5 | 10        | 72   |
| <b>WPO-16</b>     | 500       | 106       | 150       | 138       | 182        | 80        | 112       | 5 | 10        | 81   |
| <b>WPO-18</b>     | 560       | 118       | 170       | 156       | 208        | 86        | 118       | 5 | 10        | 98   |

Parametry techniczne | Technical parameters

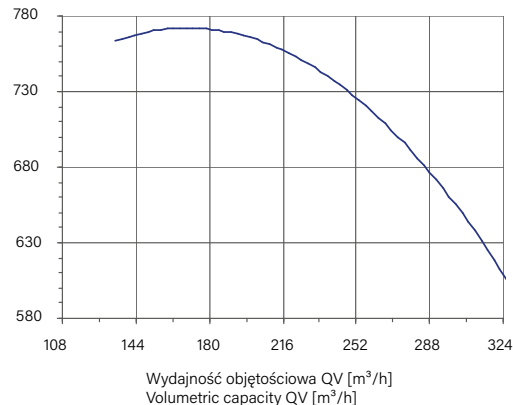
| Typ<br>Type     | Moc<br>Power<br>[kW] | Obroty<br>Rotations<br>[obr/min]<br>[rpm] | Silnik<br>Motor | Masa silnika<br>Motor weight<br>[kg] | Poziom ciśnienia<br>akustycznego LAO<br>Sound pressure level LAO<br>[dB(A)] |
|-----------------|----------------------|---|-----------------|--------------------------------------|---|
| <b>WPO-10</b>   | 1,1                  | 2840                                      | 3SIE 80-2B      | 9,8                                  | 80  |
|                 | 0,55                 | 1400                                      | Sh 80-4A        | 7,5                                  | 62  |
| <b>WPO-12,5</b> | 2,2                  | 2870                                      | 3SIE 90L-2      | 17,3                                 | 86  |
|                 | 0,75                 | 1400                                      | 3SIE 80-4B      | 9,6                                  | 60  |
| <b>WPO-14</b>   | 5,5                  | 2930                                      | 3SIE 132S-2A    | 59,5                                 | 89  |
|                 | 0,75                 | 1400                                      | 3SIE 80-4B      | 9,6                                  | 71  |
| <b>WPO-16</b>   | 7,5                  | 2940                                      | 3SIE 132S-2B    | 71                                   | 91  |
|                 | 1,5                  | 1425                                      | 3SIE 90L-4      | 18                                   | 74  |
| <b>WPO-18</b>   | 15                   | 2945                                      | 3SIE 160M-2B    | 118                                  | 95  |
|                 | 2,2                  | 1440                                      | 3SIE 100L-4A    | 25,5                                 | 77  |

Charakterystyki wentylatorów typu WPO dla  $\zeta = 1,2 \text{ kg/m}^3$  | Performance curves of WPO fans for  $\zeta = 1.2 \text{ kg/m}^3$

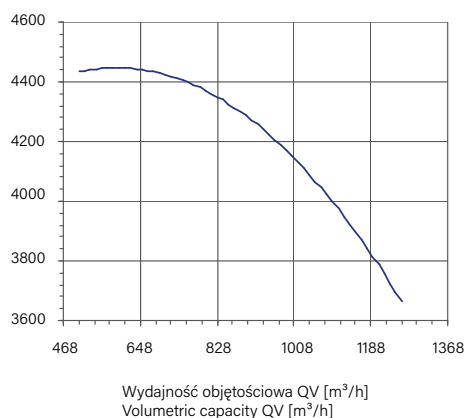
WPO-10 n=2840 obr/min [rpm]



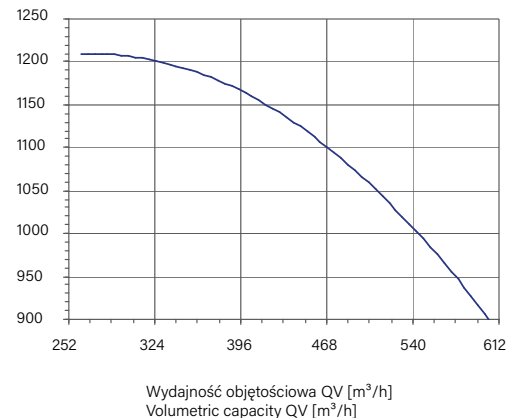
WPO-10 n=1400 obr/min [rpm]



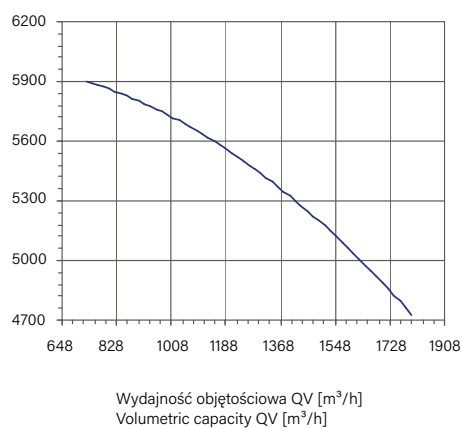
WPO-12 n=2870 obr/min [rpm]



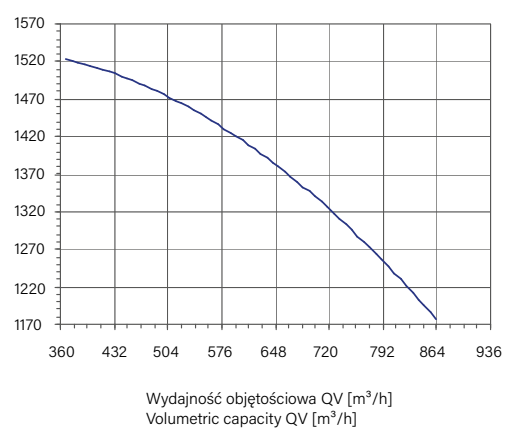
WPO-12 n=1400 obr/min [rpm]



WPO-14 n=2930 obr/min [rpm]

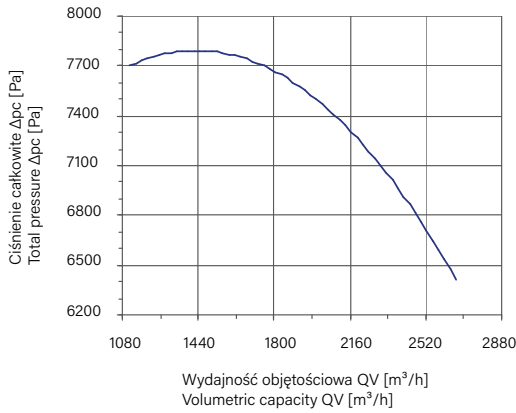


WPO-14 n=1400 obr/min [rpm]

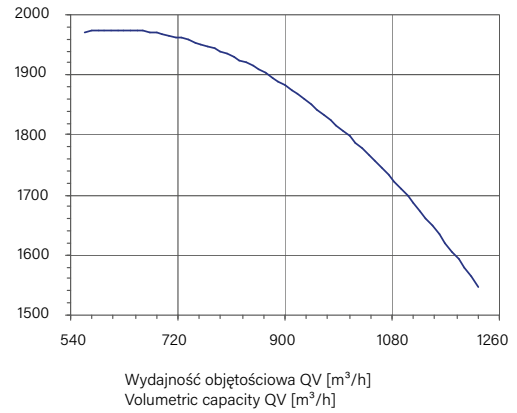


Charakterystyki wentylatorów typu WPO dla  $\zeta = 1,2 \text{ kg/m}^3$  | Performance curves of WPO fans for  $\zeta = 1.2 \text{ kg/m}^3$

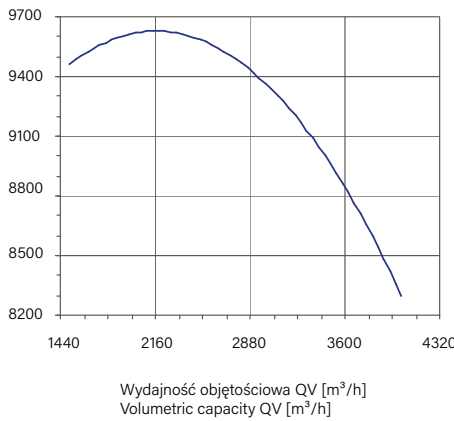
WPO-16 n=2920 obr/min [rpm]



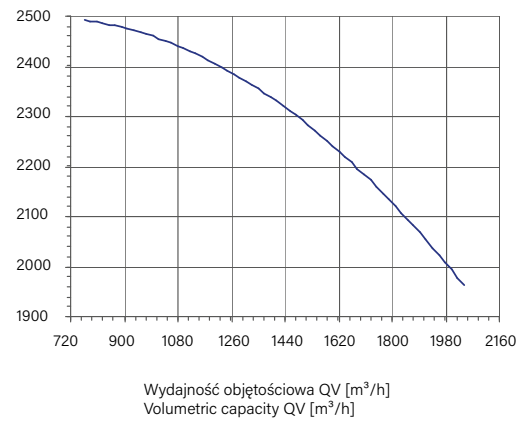
WPO-16 n=1425 obr/min [rpm]



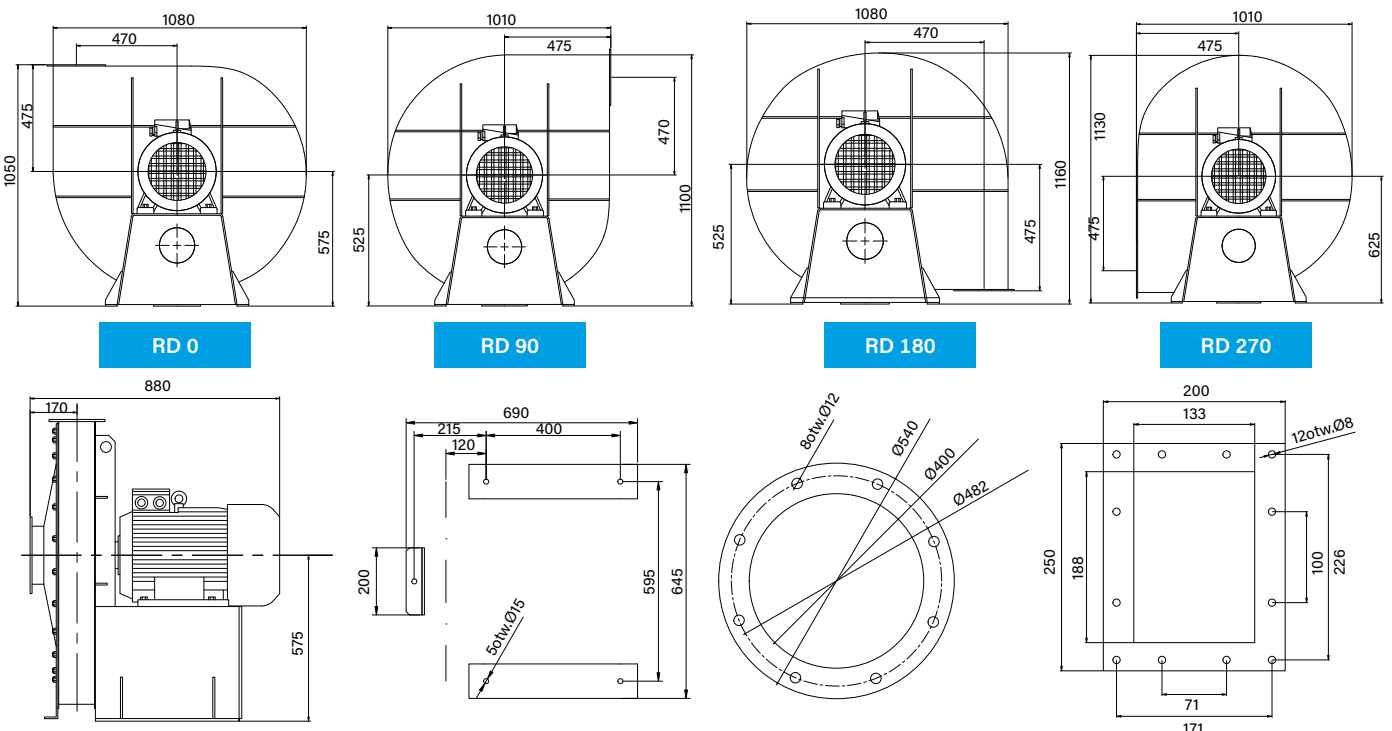
WPO-18 n=2935 obr/min [rpm]

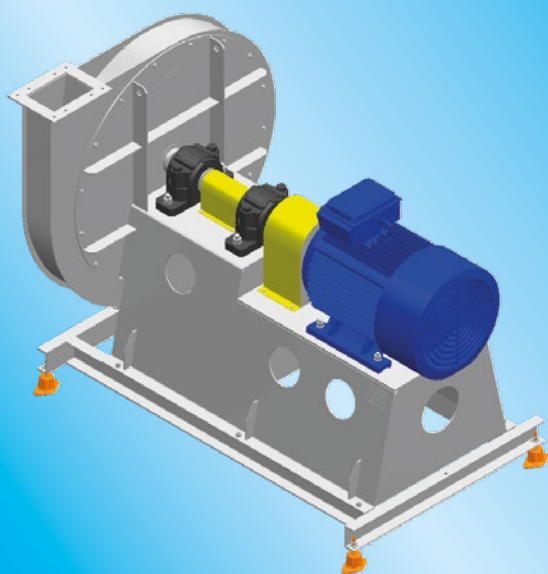


WPO-18 n=1440 obr/min [rpm]



WPO 20 - NAPĘD BEZPOŚREDNI  
WPO 20 - DIRECT DRIVE





**WPO 22,4** - Wentylator promieniowy typu WPO-22,4 z napędem sprzęgłowym jest urządzeniem przeznaczonym do stosowania w różnych gałęziach przemysłu. Przeznaczony jest do przetrzaczania czynnika obojętnego w systemach wentylacyjnych i liniach technologicznych. Przystosowany jest do przetrzaczania czynnika z zawartością pyłu nie większą niż  $0,3 \text{ m}^3$ , bez składników przyspieszających korozję, żrących i wybuchowych o temperaturze do  $100^\circ\text{C}$ .

W szczególności mają zastosowanie do przetrzaczania powietrza w urządzeniach, gdzie wymagane jest duże ciśnienie  $\Delta P_c$  przy stosunkowo niedużej wydajności  $Q_v$ . Wentylator może pracować zabudowany instalacją na wlocie i wylocie bądź tylko na wlocie lub wylocie.

Dla przetrzaczania czynników o innych właściwościach należy stosować wentylator w wykonaniu specjalnym: korozjoodpornym, ciepłoodpornym, lub ciepłokorozjoodpornym.

- do przetrzaczania czynnika do  $200^\circ\text{C}$  - napęd sprzęgłowy z odrzutnikiem ciepła;
- do przetrzaczania czynnika do  $300^\circ\text{C}$  - napęd sprzęgłowy, chłodzony wodą z odrzutnikiem ciepła.

Wentylatory promieniowe typu WPO-22,4 dodatkowo mogą być wyposażone w ramę oraz wibroizolatory, które mają za zadanie stabilizowanie pracy wentylatora i zmniejszenie jego drgań.

W przypadku podłączenia wentylatora do sieci instalacyjnej tylko po stronie ssącej lub tłoczącej do wentylatora należy zamocować siatki ochronne po stronie niepodłączonej do instalacji.

**WPO 22,4** - Centrifugal fan type WPO-22.4 with a clutch drive is a device intended for use in various sectors of the industry. It is designed for pumping inert medium in ventilation systems and process lines. It is suitable for pumping media with dust content not exceeding  $0.3 \text{ m}^3$ , without corrosive, caustic and explosive components at temperatures up to  $100^\circ\text{C}$ .

In particular, they are used for air conveying in equipment where high pressure  $\Delta P_c$  is required at relatively low capacity  $Q_v$ . The fan can be integrated with the associated system on both inlet and outlet or on either of the sides only.

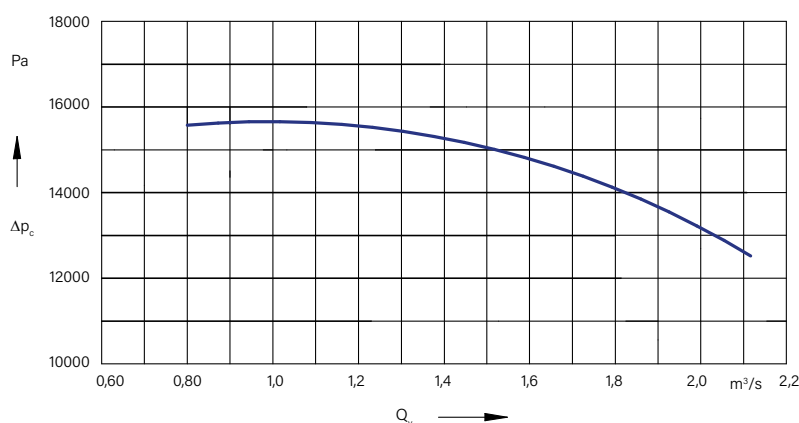
For pumping media with other properties, the fan should be of special design: corrosion resistant, heat resistant or corrosion and heat resistant.

- for pumping media up to  $200^\circ\text{C}$  - clutch drive with heat rejection;
- for pumping media up to  $300^\circ\text{C}$  - clutch drive, water-cooled with heat ejection.

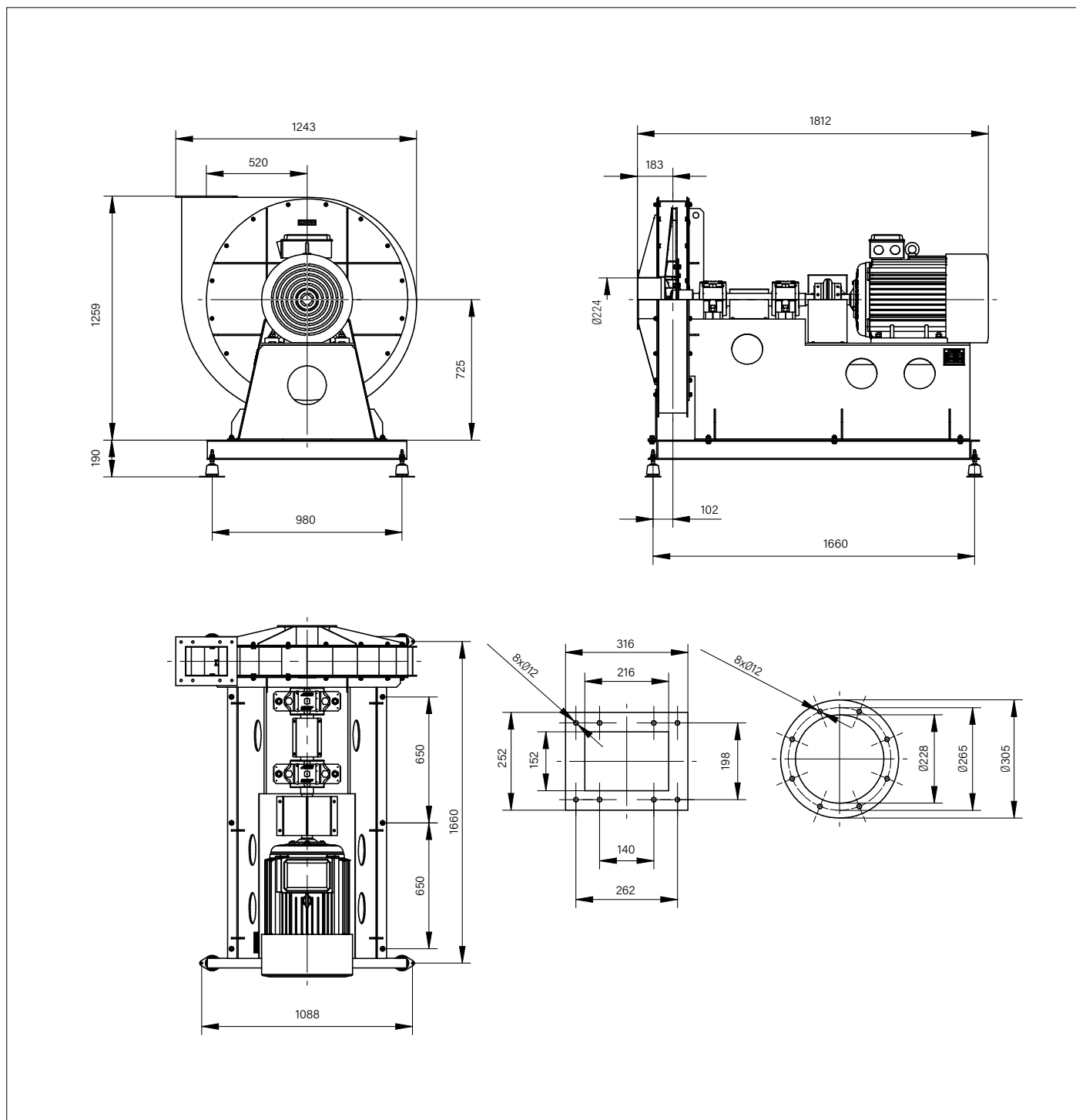
Centrifugal fans WPO-22.4 can be additionally fitted with a frame and vibration insulators which are intended to stabilise the fan operation and reduce its vibrations.

If the fan is connected to the system only on the suction side or discharge side, protection grids must be attached to the fan on the side that is not connected to the system.

**Charakterystyka wentylatora WPO-22,4 dla  $\zeta = 1,2 \text{ kg/m}^3$  i  $n = 2970 \text{ min}^{-1}$**   
Performance curve of WPO-22.4 fan for  $\zeta = 1.2 \text{ kg/m}^3$  and  $n = 2970 \text{ min}^{-1}$



Wymiary WPO - 22,4 napęd sprzęgłowy | Dimensions of WPO - 22.4 clutch drive



Parametry techniczne | Technical parameters

| Wentylator<br>Fan | Silnik<br>Motor | Moc N<br>Power N<br>[kW] | Obroty silnika<br>Motor rotational speed<br>[obr-1] | Masa silnika<br>Motor weight<br>[kg] | Masa wentylatora<br>Fan weight<br>[kg] |
|-------------------|-----------------|--------------------------|---|--------------------------------------|--|
| WPO-22,4          | 3SIE225M-2      | 45                       | 2970  | 380                                  | 1105                                   |



### Wentylatory promieniowe dwustrumieniowe FKD

Wentylatory promieniowe dwustrumieniowe FKD oparte są na konstrukcji wysokosprawnych wentylatorów typ FK. Wydajność tych wentylatorów w zakresie wielkości produkowanych przez KONWEKTOR. FKD 30-50 wynoszą odpowiednio od 1100 do 40000 m<sup>3</sup>/godz. Przy spiętrzeniach od 100 do 3500 Pa i uzyskiwanej sprawności do 76%. Wentylatory typ FKD mają zastosowanie w układach wentylacyjnych w przypadkach, gdy zadaniem wentylatora jest zasysanie czynnika z pomieszczenia, w którym jest on zainstalowany. Poza tym można je stosować także do transportu gazów o ciężarze właściwym do 1,2 kg/m<sup>3</sup>. Nie nadają się natomiast do transportu gazów zanieczyszczonych pyłami. Wentylatory są przeznaczone do przetłaczania czynnika w zakresie temperatur -20°C do +40°C.

### DOUBLE-INLET CENTRIFUGAL FAN TYPE FKD

Double-inlet centrifugal fans type FKD are based on the design of high performance fans type FK. The efficiency of these fans in the sizes manufactured by KONWEKTOR. FKD 30-50 is between 1100 and 40000 m<sup>3</sup>/h. With static pressures between 100 and 3500 Pa and efficiency up to 76%. FKD type fans are used in ventilation systems when the fan is to draw in gas from the room in which it is installed. Additionally, they can also be used to handle gases with a specific gravity of up to 1.2 kg/m<sup>3</sup>. They are not suitable to handle gases polluted with dust. The fans are designed to handle media in the range of temperatures between -20°C and +40°C.

#### Przykład zamówienia:

#### Dane wentylatora:

Wielkość 40; położenie kolektora RD0; o wydajności 14400 m<sup>3</sup>/godz. i spiętrzeniu 900 Pa, o obrotach wirnika  $n = 1615$  obr/min. Silnik elektryczny Sg 132S-4, N = 5,5 kW,  $n = 1440$  obr/min na napięcie 220/380V.

W zamówieniu należy podać kolejno:

Wentylator promieniowy typ FKD - 40 (RD0 - 14400), 900, obroty wirnika wentylatora  $n = 1615$  obr/min. Silnik elektryczny Sg 132S-4 N = 5,5 kW,  $n = 1440$  obr/min, U = 220/380V.

#### UWAGA!

Wydatek i spiętrzenie należy podawać w odniesieniu do temperatury czynnika -20°C i jego ciężaru właściwego równego 1,2 kg/m<sup>3</sup>. Położenie kolektora określa się patrząc na wał wentylatora od strony napędu.

#### NAPĘD

Wentylatory typ FKD wykonywane są wyłącznie z napędem pasowym R/I przy czym wirnik wentylatora osadzony jest bezpośrednio na wale napędowym.

#### SAMPLER ORDER:

#### Fan data:

Size 40; collector position RD0; output 14,400 m<sup>3</sup>/h and static pressure 900 Pa, impeller speed  $n = 1615$  rpm; motor Sg 132S-4, N = 5,5 kW,  $n = 1440$  rpm supply voltage 220/380V.

The following should be listed in the order in the sequence shown:

Centrifugal fan type FKD - 40 (RD0 - 14400), 900, fan impeller speed  $n = 1615$  rpm. Electric motor Sg 132S-4, N = 5,5 kW,  $n = 1440$  rpm, U = 220/380V

#### NOTE!

Output and static pressure should be specified in relations to the temperature of the medium of +20°C and its specific gravity equal to 1.2 kg/m<sup>3</sup>. Collector position is determined when facing the fan shaft from the drive side.

#### DRIVE

The fan type FKD is made only for the belt drive R/I, and the fan impeller is mounted directly on the drive shaft.

#### FIGURY WENTYLATORÓW

Wentylatory typ FKD wykonywane są dla 4 położenia kolektora o zwrocie lewym LG0; LG90; LG180; LG270 oraz dla 4 położenia o zwrocie prawym RD0; RD90; RD180; RD270.

#### CHARAKTERYSTYKI

Charakterystyki wentylatorów przedstawiają wykresy pracy przy poszczególnych stopizowanych obrotach wirników i temperaturze czynnika +20°C.

Z prawej strony wykresów pracy uwidocznione są prędkości obwodowe, dane odpowiednich silników, średnice kół pasowych oraz przekroje i liczba pasów. Przy doborze wentylatorów należy przyjmować punkty pracy leżące wyłącznie na krzywych wykresu pracy.

Producent zastrzega sobie prawo wprowadzenia zmian w katalogu, wynikłych z modernizacji wyrobu, przy czym o zmianach nie powiadamia się.

#### FAN ARRANGEMENTS

Fans type FKD are used for 4 left-sided collector positions LG0; LG90; LG180 and LG270, and 4 right-sided positions RD0; RD90; RD180 and RD270.

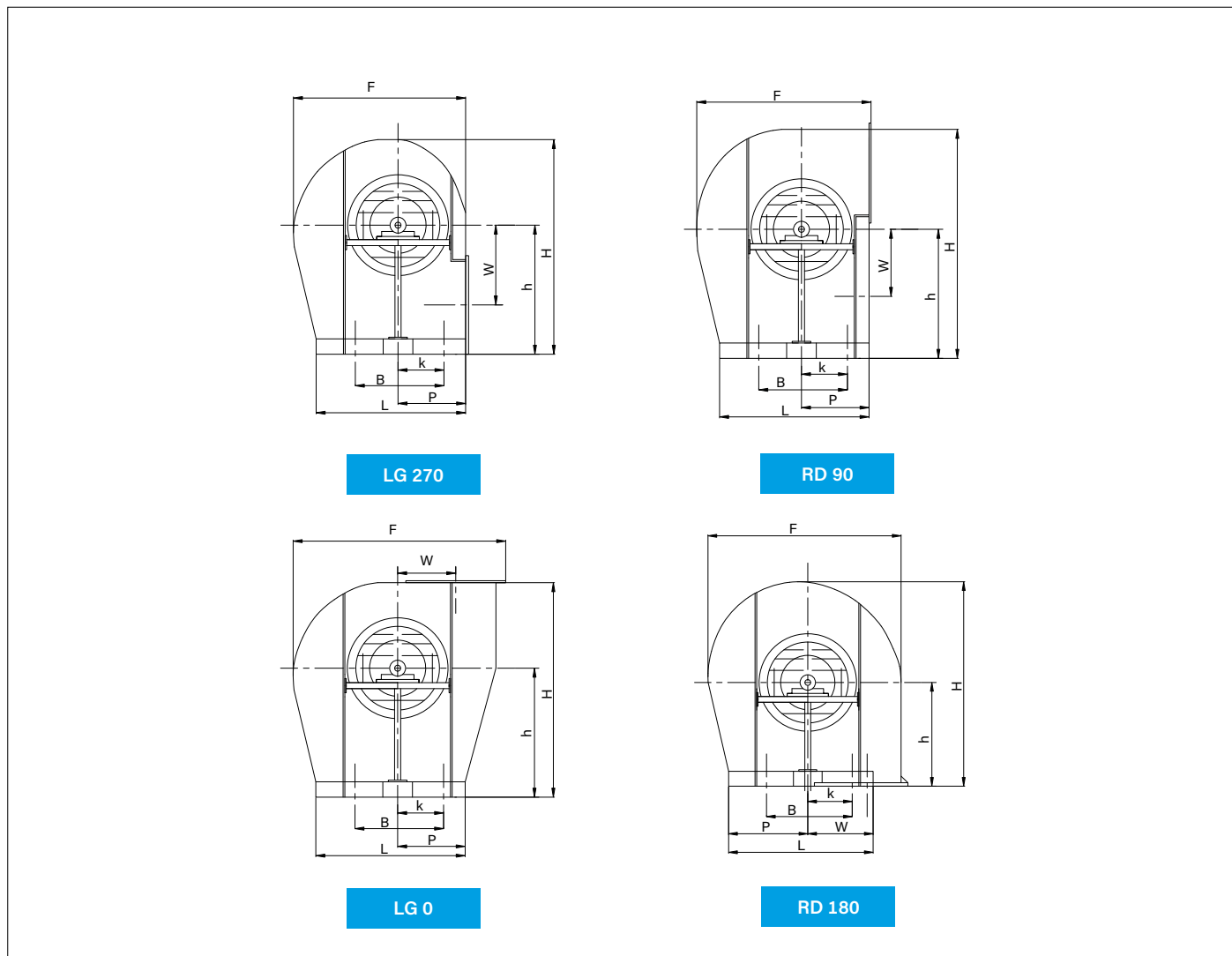
#### CHARACTERISTICS

Fans characteristics show operating diagrams for individual typical impeller speeds and temperature of the medium of +20°C.

The right side of the operating diagram shows circumferential speeds, data of corresponding motors, pulley data and cross-sections, and number of belts. To select a fan, consider only the operation points on the operation curves.

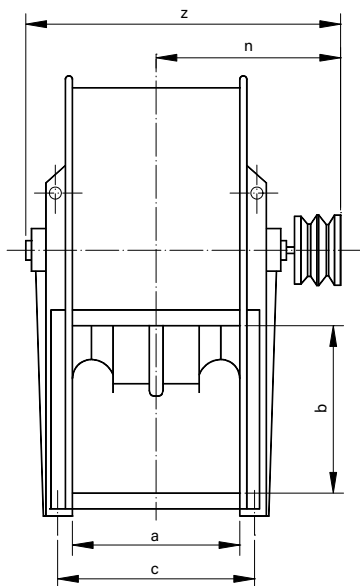
The manufacturer reserves the right to introduce changes in the catalog resulting from product upgrade without notice.





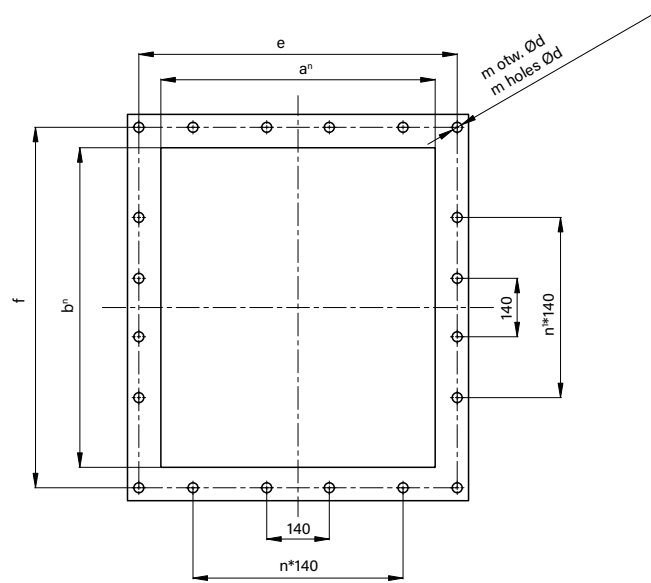
**Wymiary | Dimensions**

| Wielkość wentylatora;<br>Fan size | Polożenie kolektora;<br>Collector position | Wymiary [mm];<br>Dimensions [mm] |      |     |      |     |     |     |      |
|-----------------------------------|--|----------------------------------|------|-----|------|-----|-----|-----|------|
|                                   |  | W                                | H    | h   | L    | P   | B   | k   | F    |
| 30                                | RD0-LG0                                    | 335                              | 745  | 450 | 650  | 385 | 540 | 330 | 870  |
|                                   | RD90-LG90                                  |                                  | 898  | 375 | 600  | 290 | 420 | 210 | 721  |
|                                   | RD180-LG180                                |                                  | 742  | 315 | 820  | 276 | 311 | 100 | 870  |
|                                   | RD270-LG270                                |                                  | 907  | 560 | 600  | 290 | 420 | 210 | 721  |
| 40                                | RD0-LG0                                    | 447                              | 990  | 600 | 850  | 495 | 730 | 440 | 1157 |
|                                   | RD90-LG90                                  |                                  | 1195 | 500 | 790  | 384 | 670 | 290 | 954  |
|                                   | RD180-LG180                                |                                  | 968  | 400 | 1090 | 364 | 435 | 151 | 1157 |
|                                   | RD270-LG270                                |                                  | 1212 | 750 | 790  | 384 | 670 | 290 | 954  |
| 50                                | RD0-LG0                                    | 559                              | 1234 | 750 | 1050 | 600 | 910 | 540 | 1443 |
|                                   | RD90-LG90                                  |                                  | 1467 | 600 | 1000 | 477 | 850 | 375 | 1187 |
|                                   | RD180-LG180                                |                                  | 1210 | 500 | 1400 | 494 | 560 | 198 | 1443 |
|                                   | RD270-LG270                                |                                  | 1496 | 920 | 1000 | 477 | 850 | 375 | 1187 |



## Wymiary | Dimensions

| Wielkość wentylatora<br>Fan size | Wymiary [mm]<br>Dimensions [mm] |     |     |     |      | GD <sup>2</sup><br>kGm <sup>2</sup> | Ciężar bez silnika [kg]<br>Weight w/o motor [kg] |      |       |       | Ciężar części<br>wirującej [kg]<br>Rotating part<br>weight [kg] |
|----------------------------------|---------------------------------|-----|-----|-----|------|-------------------------------------|--|------|-------|-------|---|
|                                  | a                               | b   | c   | n   | z    |                                     | Polożenie kolektora;<br>Collector position       |      |       |       |   |
|                                  |                                 |     |     |     |      |                                     | RD0  | RD90 | RD180 | RD270 |   |
| <b>30</b>                        | 400                             | 355 | 448 | 470 | 850  | 1,46                                | 100  | 98   | 95    | 105   | 25  |
| <b>40</b>                        | 530                             | 475 | 596 | 641 | 1108 | 6,58                                | 192  | 185  | 180   | 202   | 41  |
| <b>50</b>                        | 670                             | 600 | 740 | 729 | 1262 | 15,6                                | 326  | 320  | 315   | 339   | 62  |

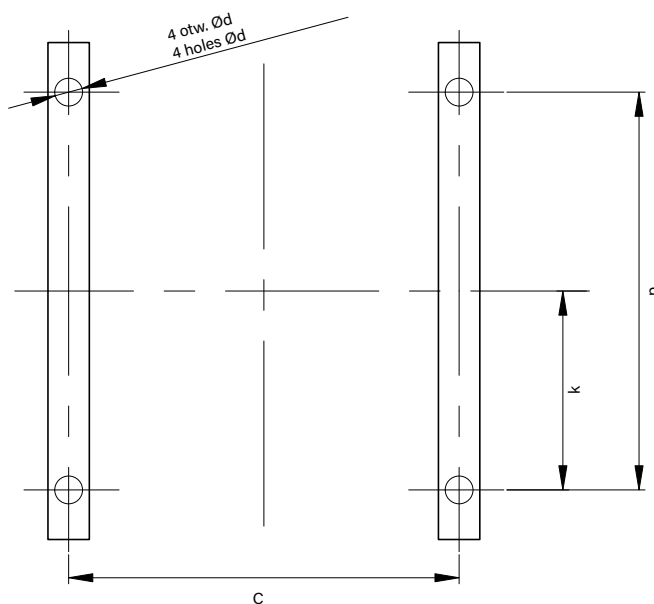


Wymiary | Dimensions

| Wielkość wentylatora<br>Fan size | Wymiary [mm]<br>Dimensions [mm] |       |     |     |     |     |     |       |
|----------------------------------|---------------------------------|-------|-----|-----|-----|-----|-----|-------|
|                                  | $a_n$                           | $b_n$ | $d$ | $e$ | $f$ | $m$ | $n$ | $n_1$ |
| <b>30</b>                        | 400                             | 355   | 12  | 444 | 399 | 12  | 1   | 1     |
| <b>40</b>                        | 530                             | 475   | 15  | 600 | 545 | 16  | 3   | 3     |
| <b>50</b>                        | 670                             | 600   |     | 740 | 670 | 20  |     |       |

## ROZMIESZCZENIE ŚRUB FUNDAMENTOWYCH

## LOCATION OF HOLES FOR FOUNDATION BOLTS

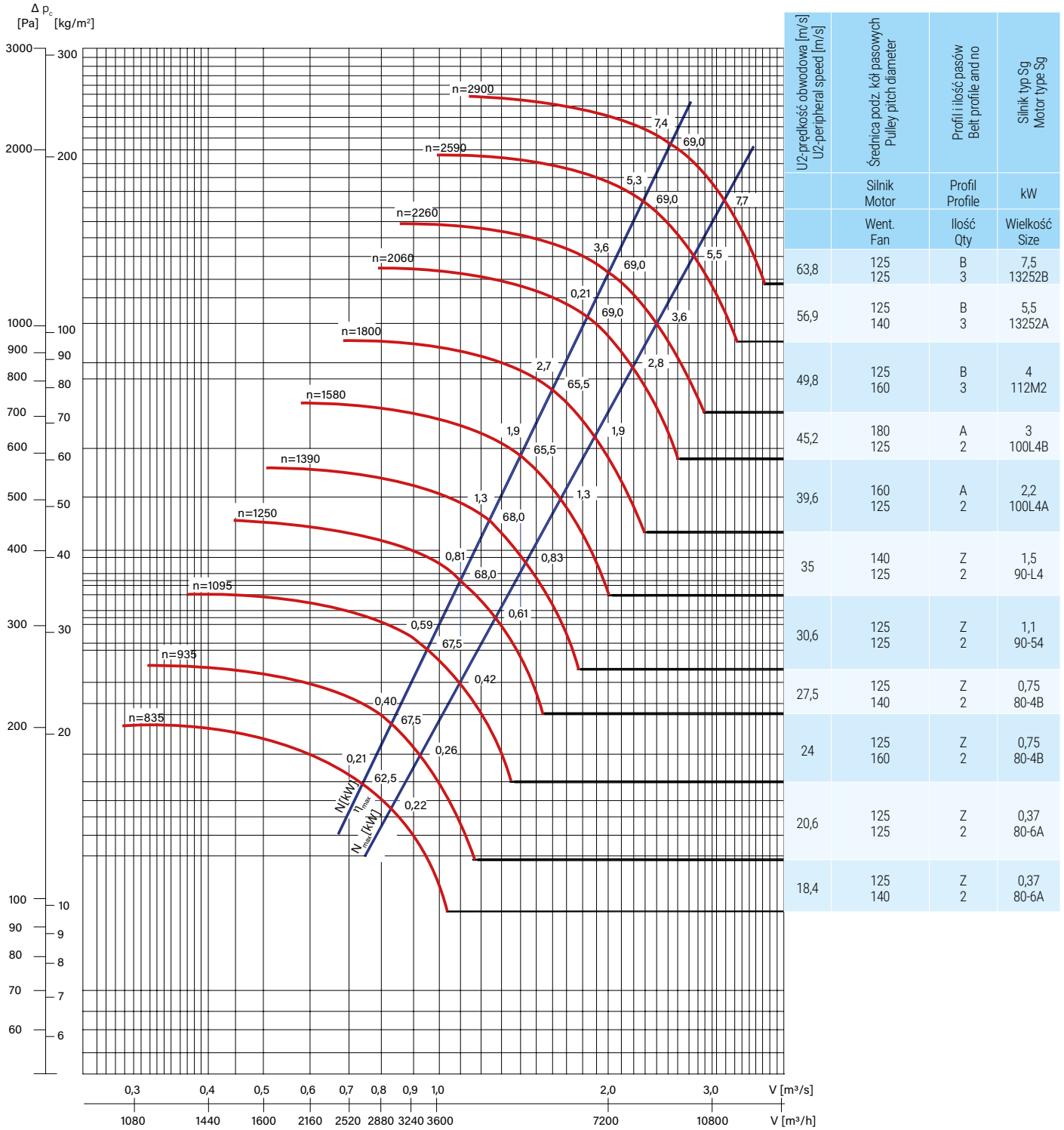


## Wymiary | Dimensions

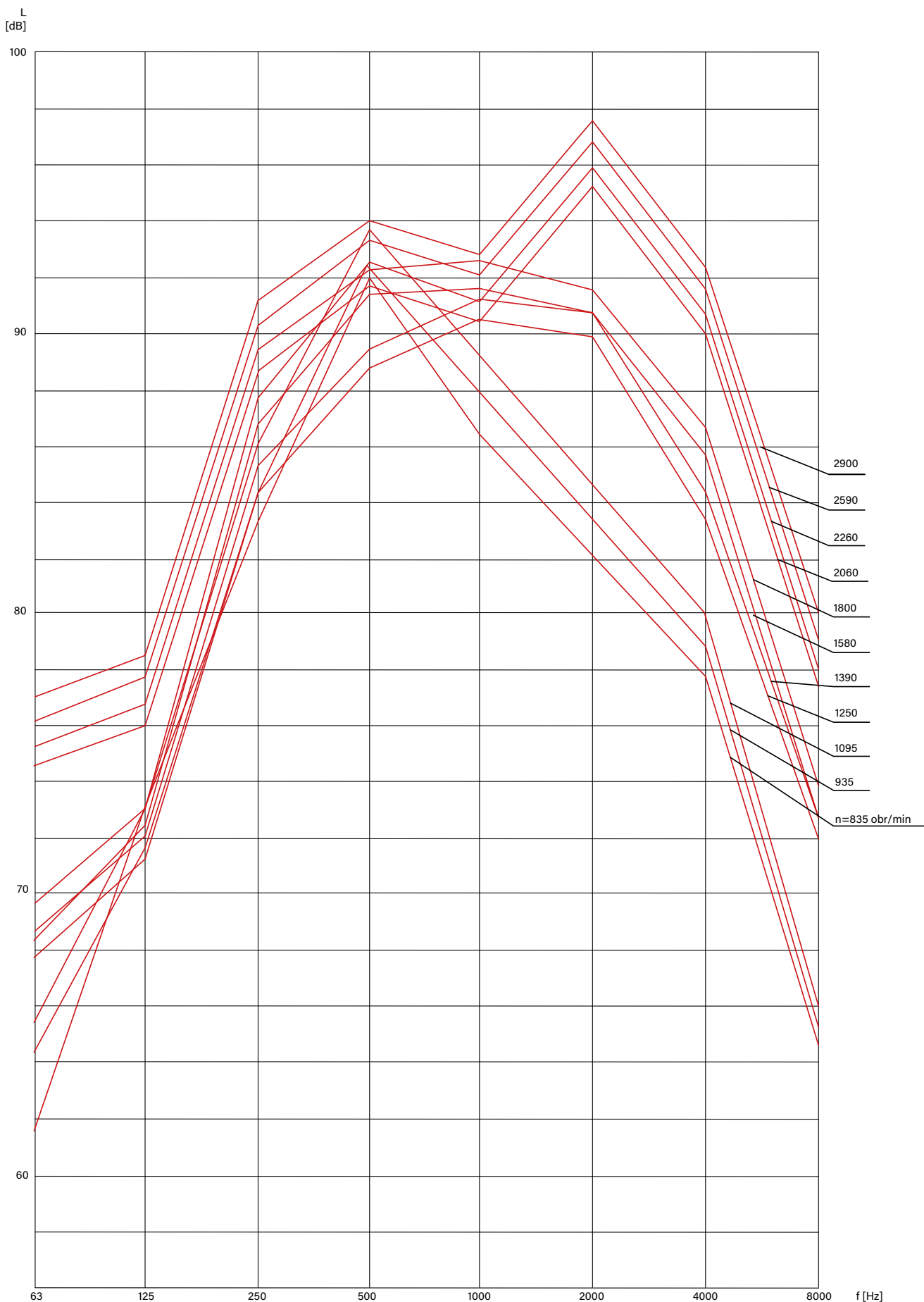
| Wielkość wentylatora<br>Fan size | Położenie kolektora<br>Collector position | Wymiary [mm]<br>Dimensions [mm] |     |     |    |
|----------------------------------|---|---------------------------------|-----|-----|----|
|                                  |   | p                               | k   | c   | d  |
| 30                               | RD0-LG0                                   | 540                             | 330 | 448 | 14 |
|                                  | RD90-LG90                                 | 420                             | 210 |     |    |
|                                  | RD180-LG180                               | 311                             | 100 |     |    |
|                                  | RD270-LG270                               | 420                             | 210 |     |    |
| 40                               | RD0-LG0                                   | 730                             | 440 | 596 | 18 |
|                                  | RD90-LG90                                 | 670                             | 290 |     |    |
|                                  | RD180-LG180                               | 435                             | 151 |     |    |
|                                  | RD270-LG270                               | 670                             | 290 |     |    |
| 50                               | RD0-LG0                                   | 910                             | 540 | 740 | 18 |
|                                  | RD90-LG90                                 | 850                             | 375 |     |    |
|                                  | RD180-LG180                               | 560                             | 198 |     |    |
|                                  | RD270-LG270                               | 850                             | 375 |     |    |

Charakterystyka wentylatora promieniowego FKD-30 | Characteristics for centrifugal fan FKD-30

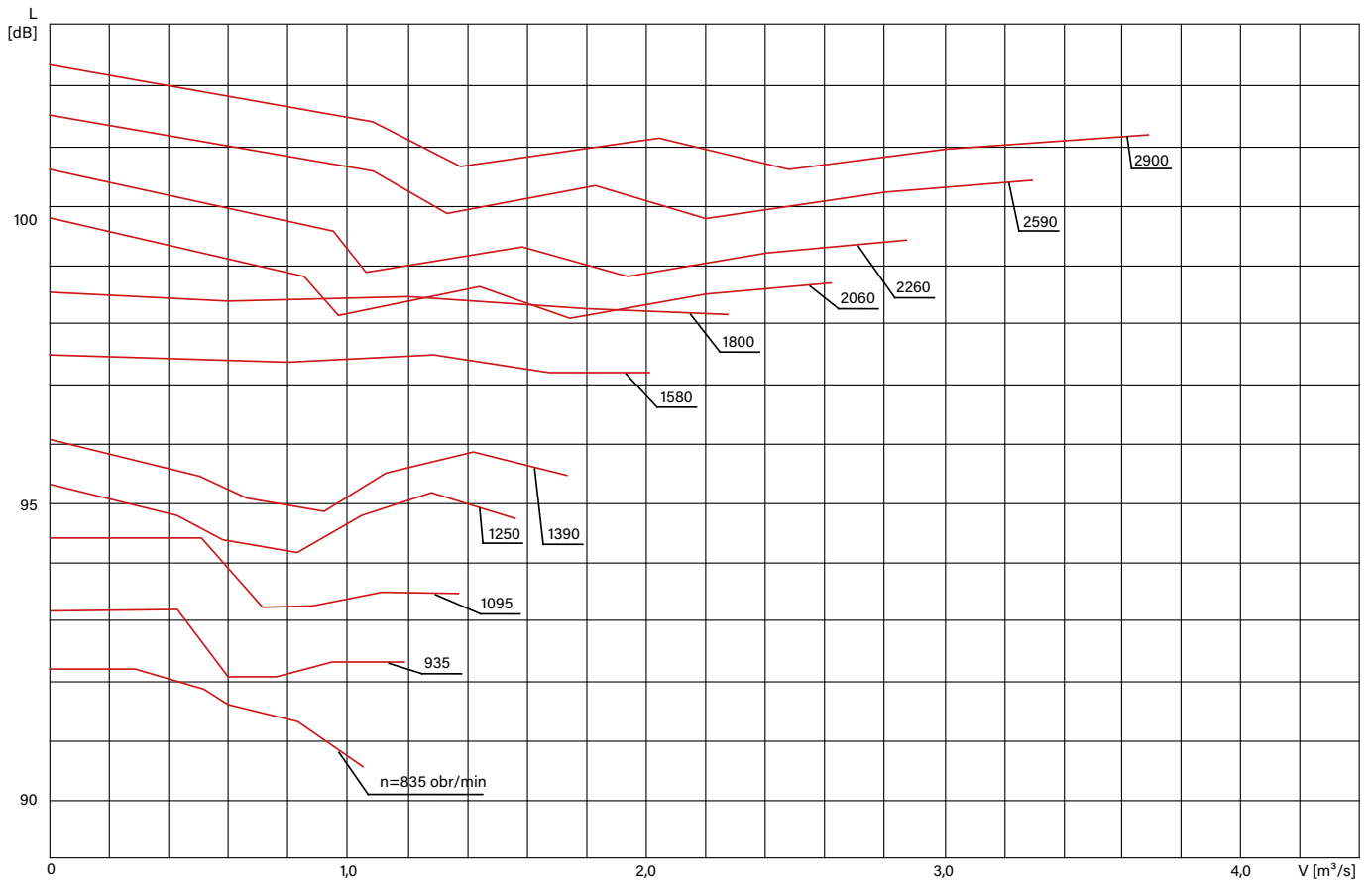
Gęstość przetwarzanego powietrza  $\gamma=1,2 \text{ kg/m}^3$   
Density of forced air  $\gamma=1.2 \text{ kg/m}^3$



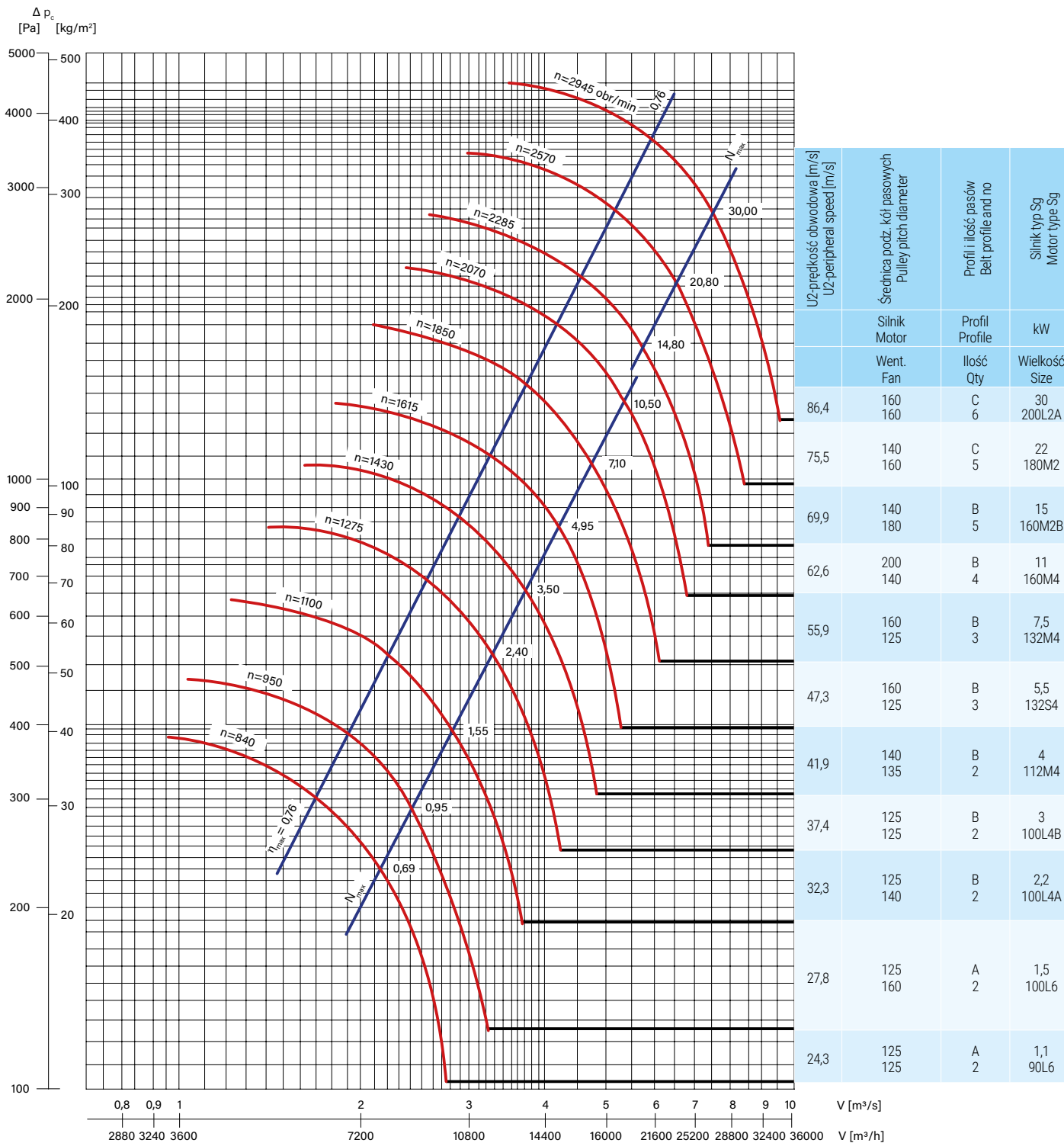
Widmo hałasów wentylatora FKD-30 | Noise spectrum of the FKD-30 fan



Głośność wentylatora FKD-30 w funkcji wydajności | FKD-30 fan volume in performance mode

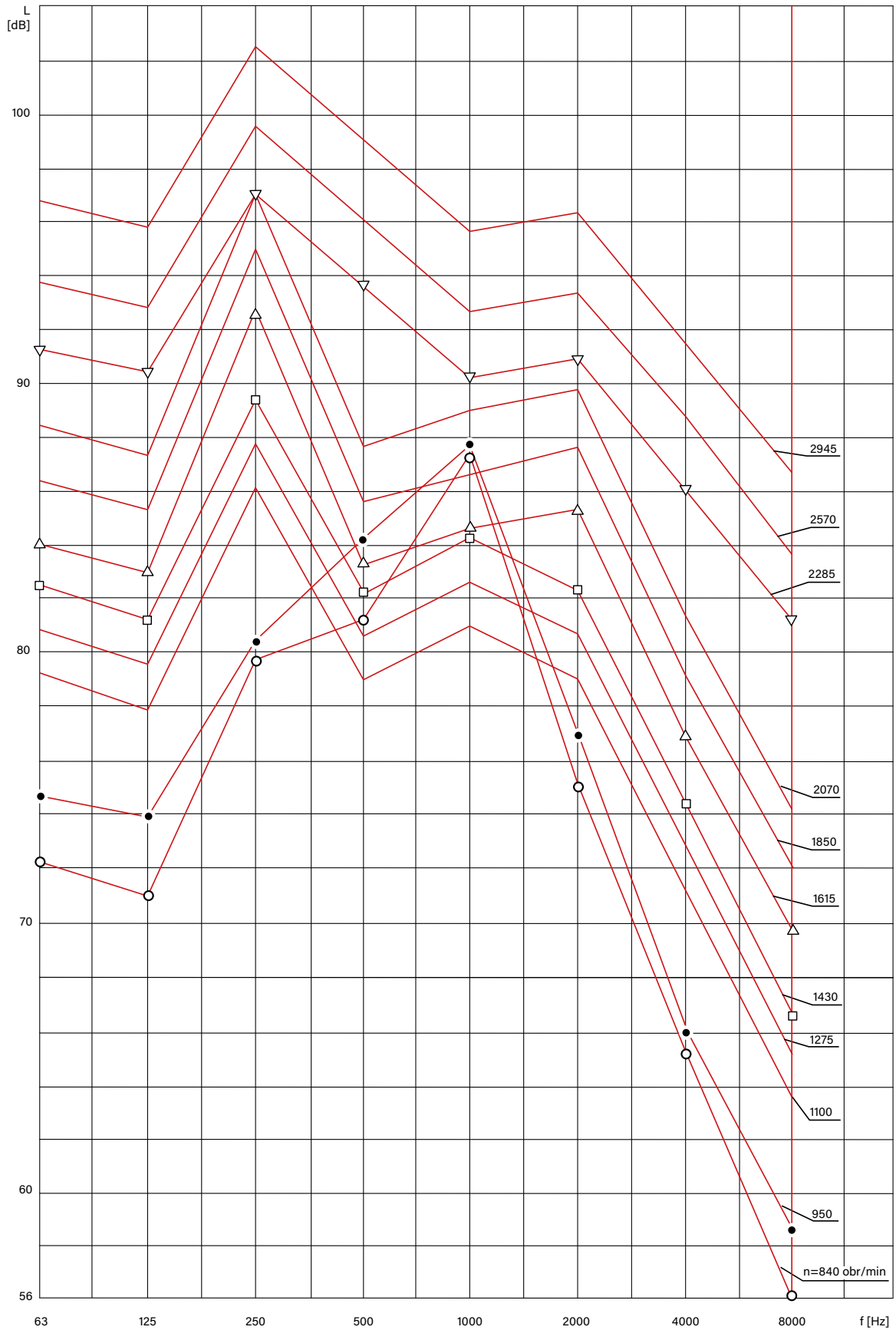


Charakterystyka wentylatora promieniowego FKD-40 | Characteristics for centrifugal fan FKD-40

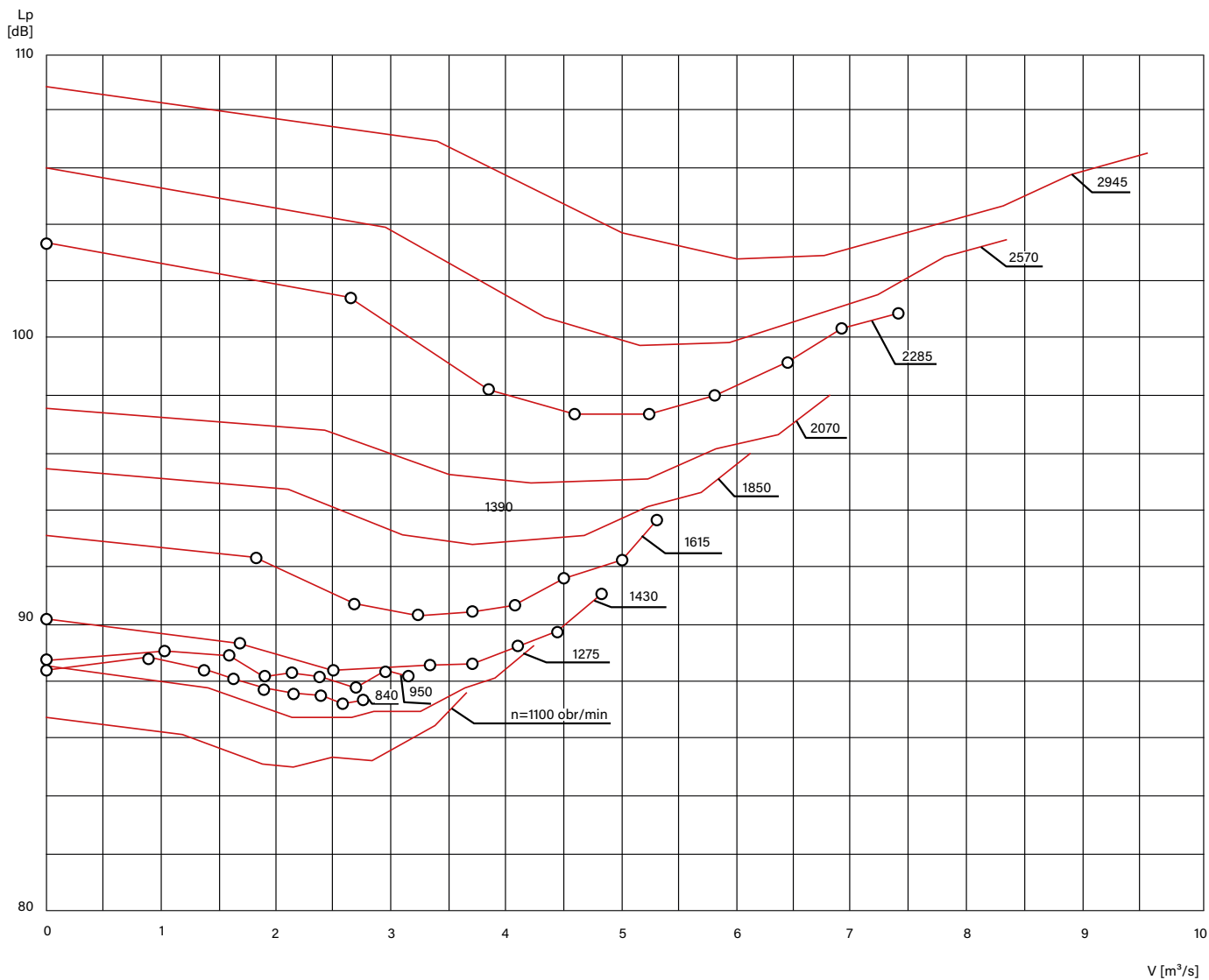




Widmo hałasu wentylatora FKD-40 | Noise spectrum of the FKD-40 fan

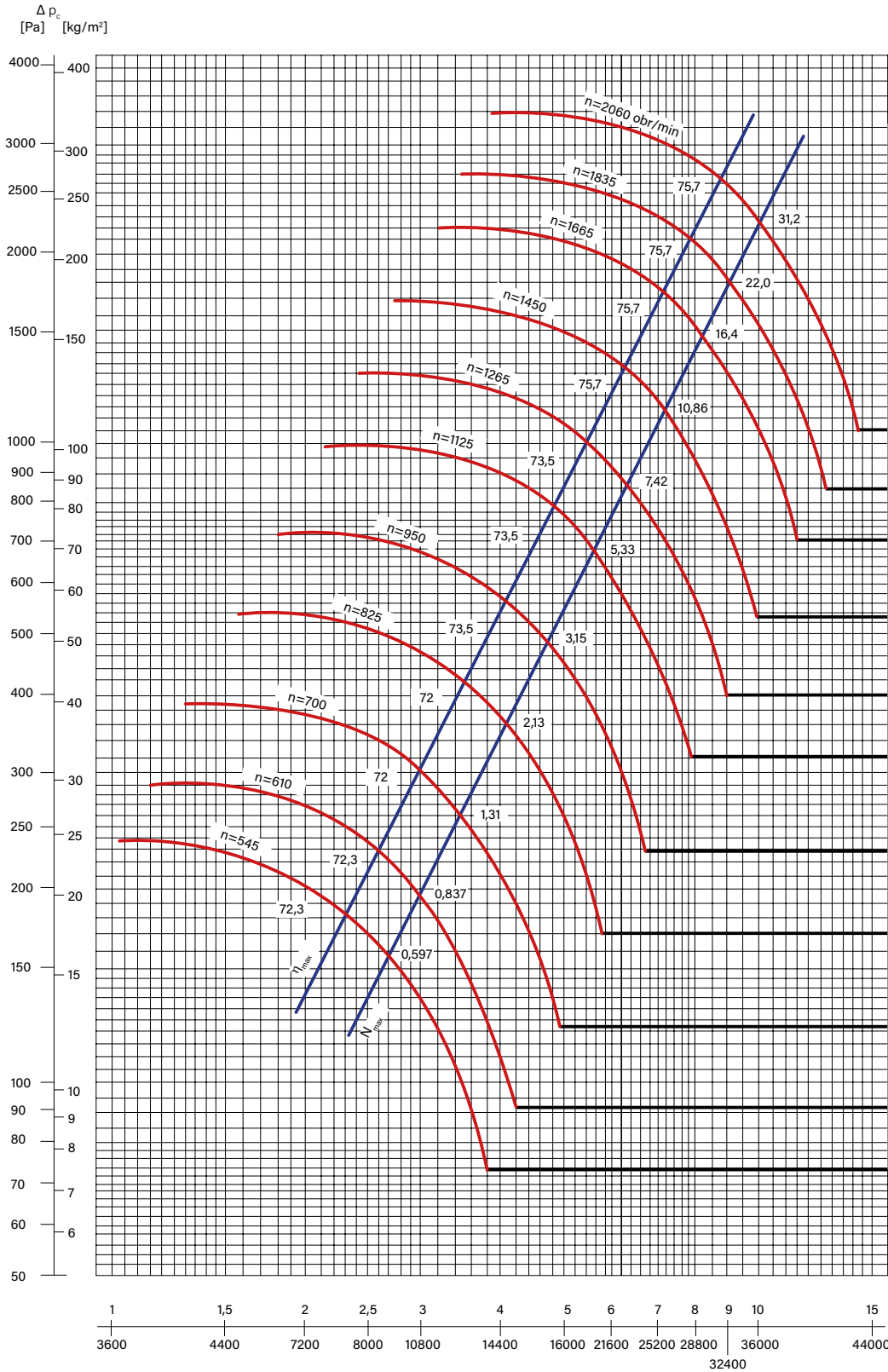


Głośność wentylatora FKD-40 w funkcji wydajności | FKD-40 fan volume in performance mode





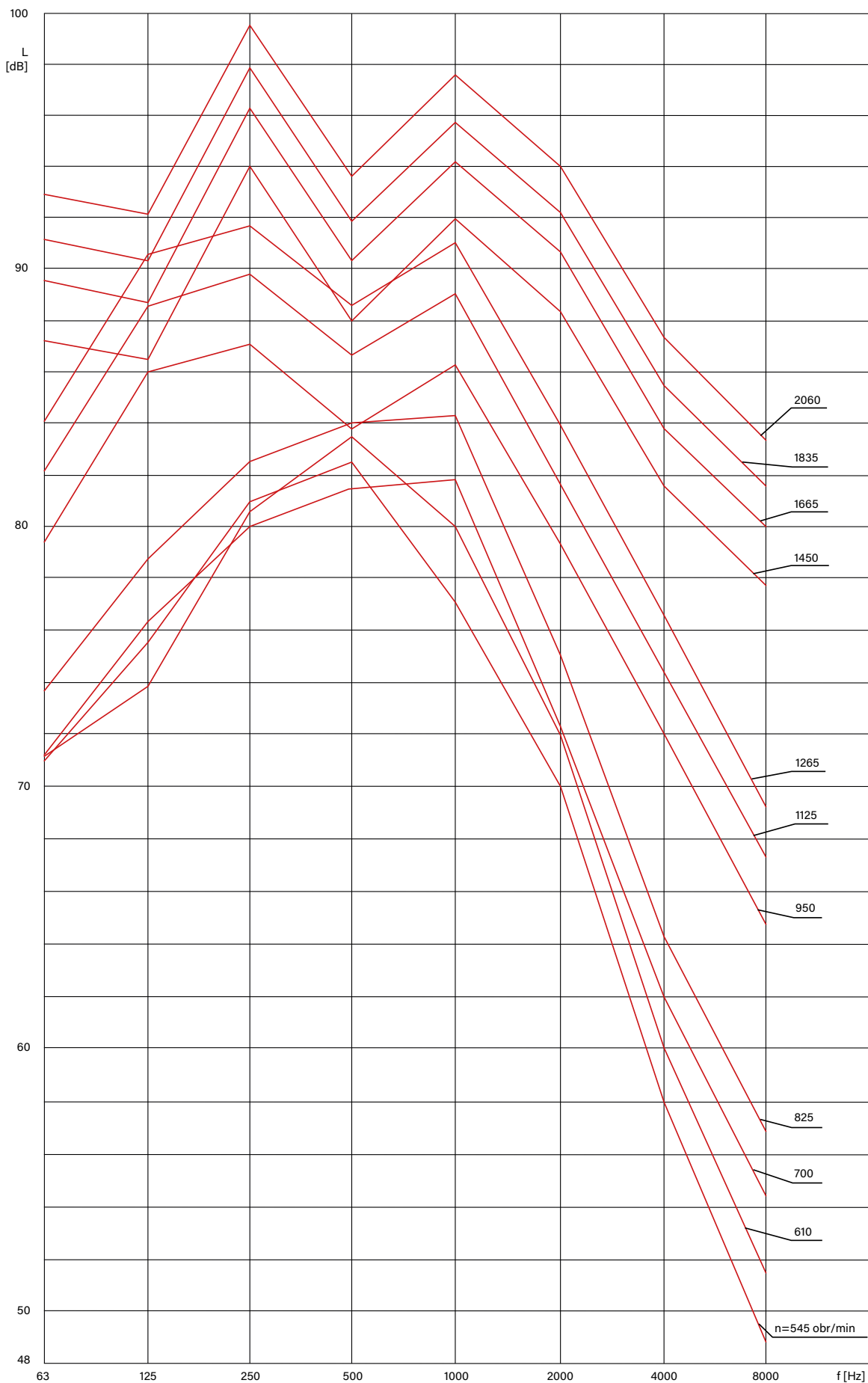
Charakterystyka wentylatora promieniowego FKD-50 | Characteristics for centrifugal fan FKD-50



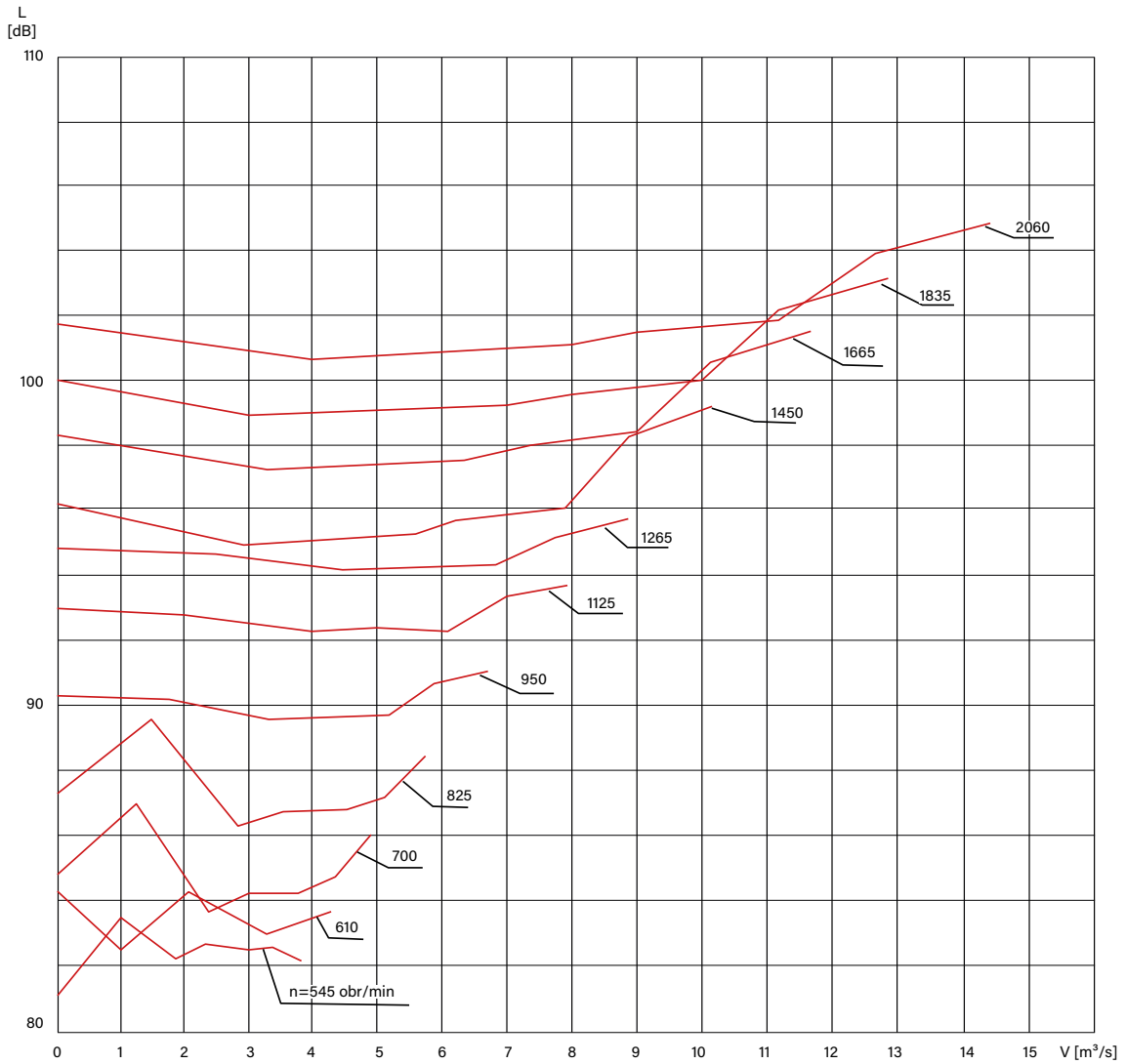
| U2:predkość obwodowa [m/s]<br>U2-peripheral speed [m/s] | Średnica podz. kół pasowych<br>Pulley pitch diameter | Profil i ilość pasów<br>Belt profile and no | Slink typ Sg<br>Motor type Sg |
|---|--|---|-------------------------------|
|   | Silnik<br>Motor                                      | Profil<br>Profile                           | kW                            |
|   | Went.<br>Fan   | Ilość<br>Qty                                | Wielkość<br>Size              |
| 75,4  | 224<br>160   | C<br>7                                      | 30<br>200L4                   |
| 67,0  | 200<br>160   | C<br>7                                      | 22<br>180L4                   |
| 61,1  | 160<br>140   | B<br>6                                      | 18,5<br>180M4                 |
| 53,0  | 160<br>160   | B<br>5                                      | 11<br>160M4                   |
| 46,4  | 140<br>160   | B<br>4                                      | 7,5<br>132M4                  |
| 41,4  | 140<br>180   | B<br>3                                      | 5,5<br>132S4                  |
| 34,0  | 140<br>140   | B<br>3                                      | 4<br>132M6A                   |
| 30,3  | 140<br>160   | B<br>2                                      | 3<br>132S6                    |
| 25,7  | 140<br>140   | A<br>3                                      | 1,5<br>112M8                  |
| 22,3  | 140<br>160   | A<br>3                                      | 1,5<br>112M8                  |
| 20,0  | 140<br>180   | A<br>2                                      | 1,1<br>100L8B                 |

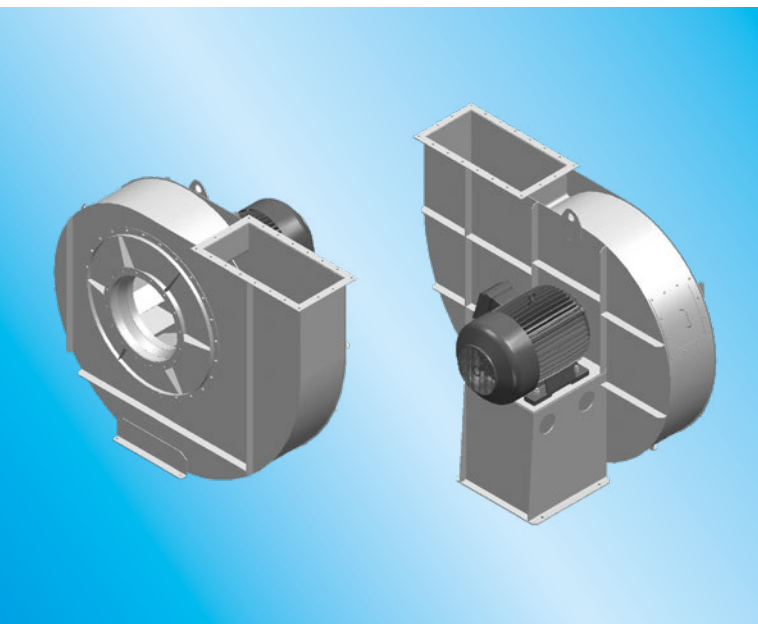
Wentylatory promieniowe | Radial fans

Widmo hałasu wentylatora FKD-50 | Noise spectrum of the FKD-50 fan



Głośność wentylatora FKD-50 w funkcji wydajności | FKD-50 fan volume in performance mode



**Zastosowanie:**

- Wentylatory ogólnego przeznaczenia.
- Max. temperatura przetłaczanego czynnika to 300°C.
- Max zapylenie przetłaczanego czynnika to 1,5 g/m<sup>3</sup>.

**Wentylator posiada następujące możliwe układy przeniesienia napędu:**

- Bezpośredni
- Sprzęgłowy
- Pasowy na specjalne zamówienie

**Intended use:**

- General purpose fans.
- Maximum temperature of the pumped medium is 300°C.
- Maximum dustiness of the pumped medium is 1.5 g/m<sup>3</sup>.

**The fan has the following possible transmission systems:**

- Direct
- Clutch
- Belt, on special request

**Wyposażenie dodatkowe:**

- Włot kolanowy
- Aparat regulacyjny
- Przemiennik częstotliwości
- Przeciwkołnierze
- Izolacja ciepło-akustyczna
- Komora akustyczna na silnik lub na cały wentylator
- Tłumiki akustyczne na ssaniu lub tłoczeniu

**Additional equipment:**

- Elbow inlet
- Regulating apparatus
- Frequency converter
- Counter flanges
- Thermal and acoustic insulation
- Acoustic chamber for the motor or for the entire fan
- Acoustic silencers on the suction or discharge side

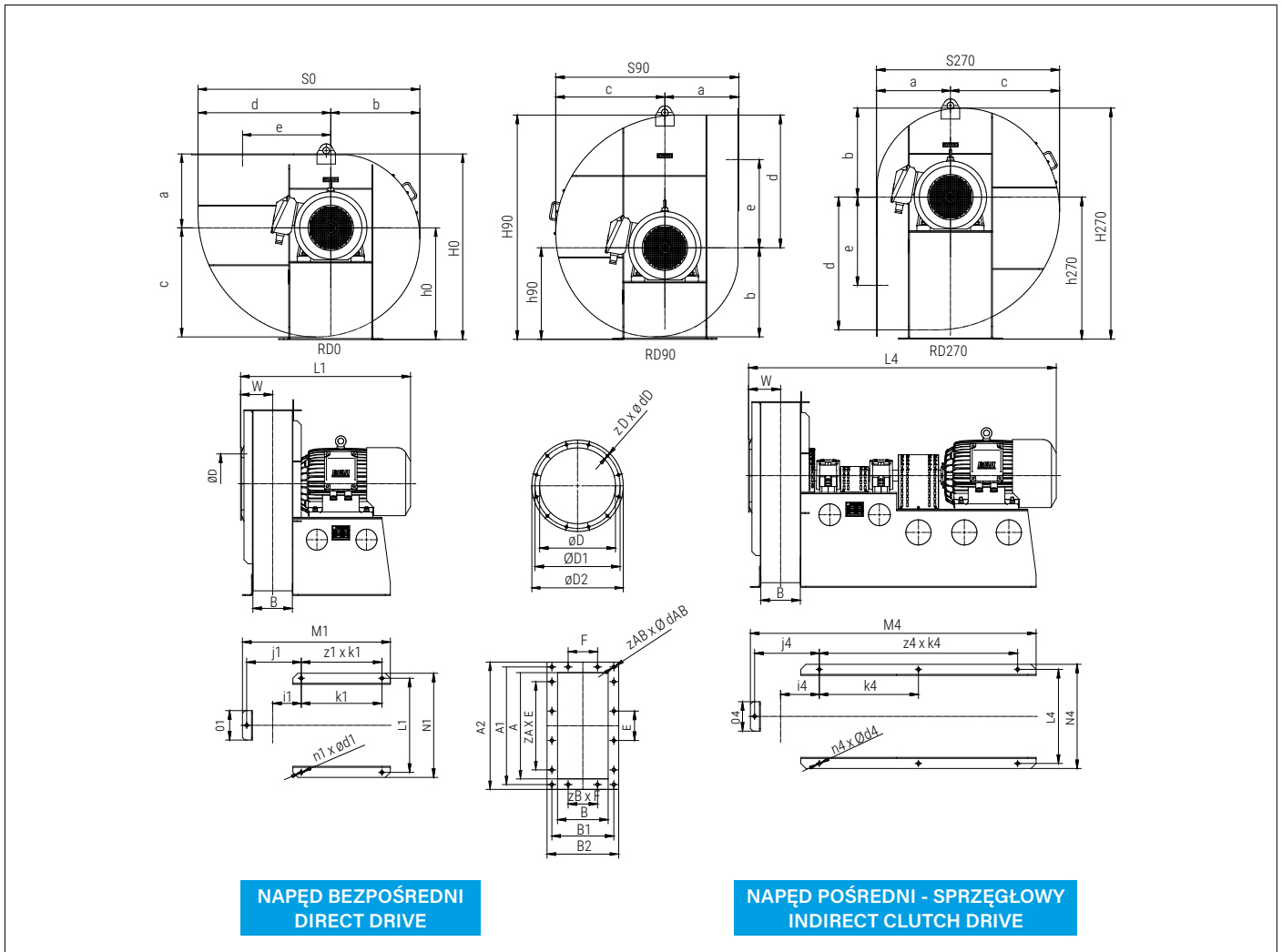
**Dostępne wykonania wentylatora:**

- Standardowe (wykonanie ze stali węglowej)
- Ze stali nierdzewnej (wykonanie ze stali 1.4301)
- Z stali nierdzewnej innej niż 1.4301 na specjalne zamówienie klienta
- Przeciwybuchowe
- Na specjalne zamówienie

**Fan versions available:**

- Standard (carbon steel design)
- Stainless steel (1.4301 steel design)
- Execution from stainless steel other than 1.4301 is possible on special request
- Explosion-proof
- On special request

KARTA WYMIAROWA WPMs-20-35,5 | DIMENSION SHEET WPMs-20-35.5



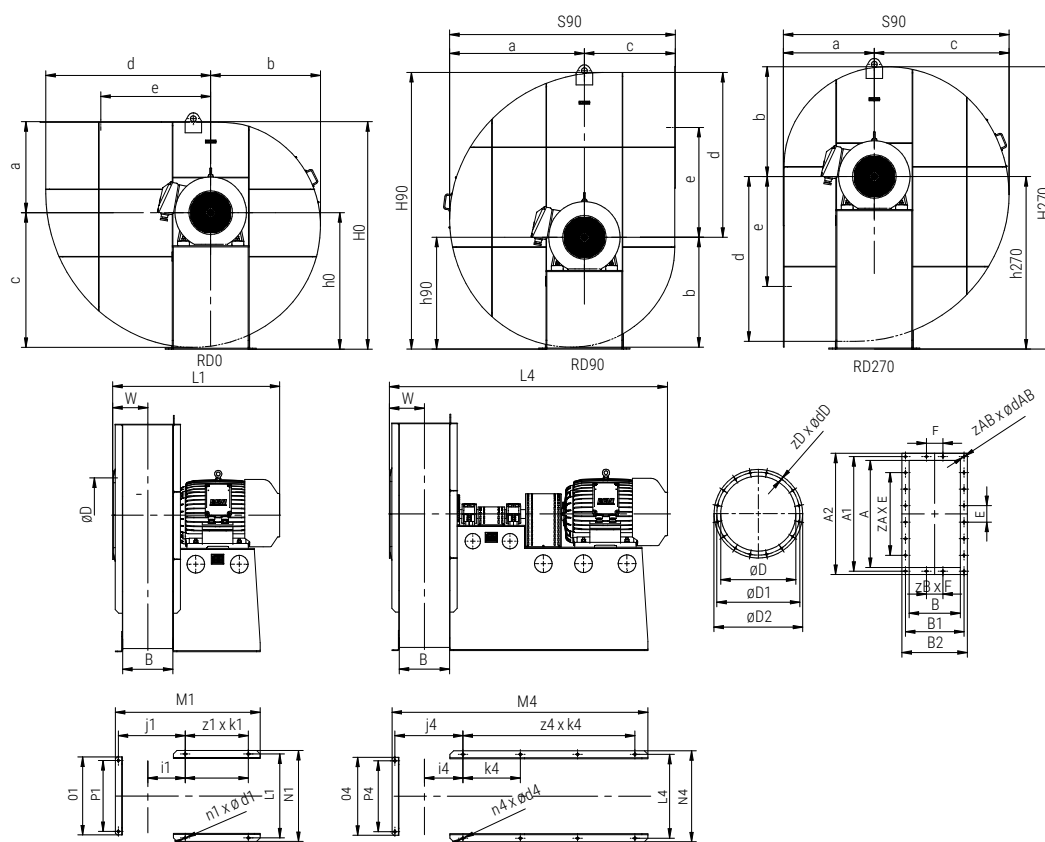
Uwaga:

1. Karta przedstawia wentylatory w położeniu wylotu RD0; 90; 270.
2. Wentylatory w położeniu wylotu Ig są lustrzanym odbiciem przedstawionych położeń rd.
3. FUWK Konwektor Sp. z o.o. może wykonać wentylatory z innym położeniem wylotu niż przedstawione.
4. Dane techniczne dotyczące wykonania wentylatora wymagają indywidualnych ustaleń.
5. FUWK Konwektor Sp. z o.o. zastrzega sobie prawo do zmian technicznych ze względu na prowadzenie prac rozwojowych.

Note:

1. The sheet shows the fans in the RD0 outlet position; 90; 270.
2. Fans in outlet position Ig are a mirror reflection of the rd positions shown.
3. FUWK Konwektor Sp. z o.o. can make fans with a different outlet position than the one shown.
4. The technical data concerning the design of the fan is subject to individual agreement.
5. FUWK Konwektor Sp. z o.o. reserves the right to technical changes due to development works.

KARTA WYMIAROWA WPMs-40-63 | DIMENSION SHEET WPMs-40-63



**NAPĘD BEZPOŚREDNI  
DIRECT DRIVE**

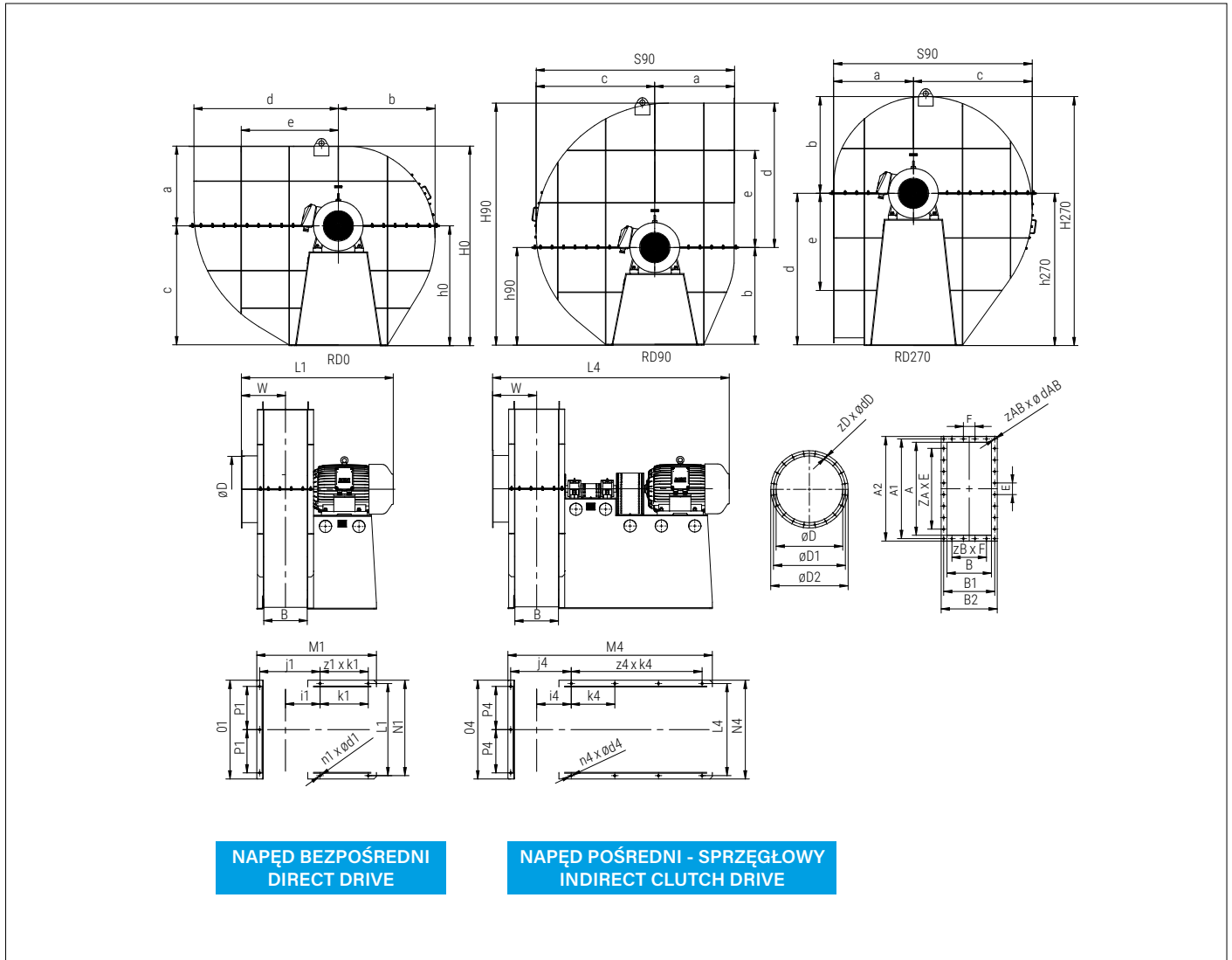
**NAPĘD POŚREDNI - SPRZĘGŁOWY  
INDIRECT CLUTCH DRIVE**

- Uwaga:
1. Karta przedstawia wentylatory w położeniu wylotu RD0; 90; 270.
  2. Wentylatory w położeniu wylotu Ig są lustrzanym odbiciem przedstawionych położeń rd.
  3. FUWK Konwektor Sp. z o.o. może wykonać wentylatory z innym położeniem wylotu niż przedstawione.
  4. Dane techniczne dotyczące wykonania wentylatora wymagają indywidualnych ustaleń.
  5. FUWK Konwektor Sp. z o.o. zastrzega sobie prawo do zmian technicznych ze względu na prowadzenie prac rozwojowych.

- Note:
1. The sheet shows the fans in the RD0 outlet position; 90; 270.
  2. Fans in outlet position Ig are a mirror reflection of the rd positions shown.
  3. FUWK Konwektor Sp. z o.o. can make fans with a different outlet position than the one shown.
  4. The technical data concerning the design of the fan is subject to individual agreement.
  5. FUWK Konwektor Sp. z o.o. reserves the right to technical changes due to development works.



KARTA WYMIAROWA WPMs-71-80 | DIMENSION SHEET WPMs-71-80



**NAPĘD BEZPOŚREDNI  
DIRECT DRIVE**

**NAPĘD POŚREDNI - SPRZĘGŁOWY  
INDIRECT CLUTCH DRIVE**

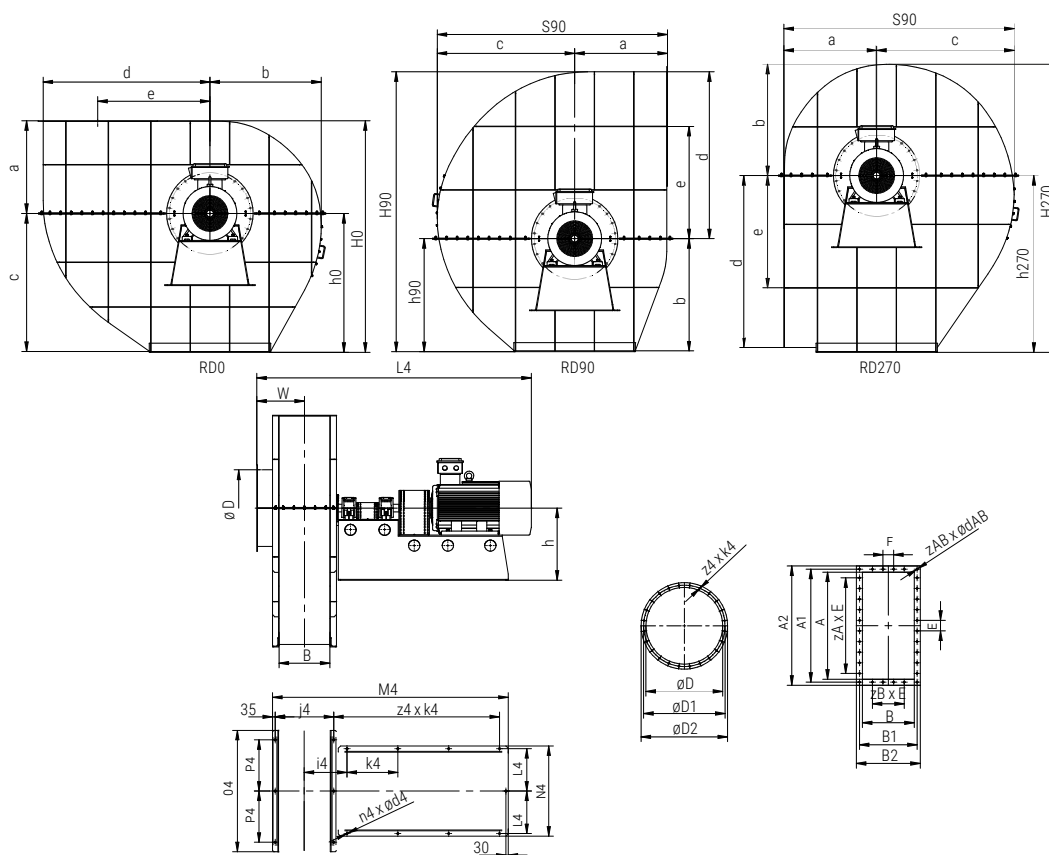
Uwaga:

1. Karta przedstawia wentylatory w położeniu wylotu RD0; 90; 270.
2. Wentylatory w położeniu wylotu lg są lustrzanym odbiciem przedstawionych położeń rd.
3. FUWK Konwektor Sp. z o.o. może wykonać wentylatory z innym położeniem wylotu niż przedstawione.
4. Dane techniczne dotyczące wykonania wentylatora wymagają indywidualnych ustaleń.
5. FUWK Konwektor Sp. z o.o. zastrzega sobie prawo do zmian technicznych ze względu na prowadzenie prac rozwojowych.

Note:

1. The sheet shows the fans in the RD0 outlet position; 90; 270.
2. Fans in outlet position lg are a mirror reflection of the rd positions shown.
3. FUWK Konwektor Sp. z o.o. can make fans with a different outlet position than the one shown.
4. The technical data concerning the design of the fan is subject to individual agreement.
5. FUWK Konwektor Sp. z o.o. reserves the right to technical changes due to development works.

KARTA WYMIAROWA WPMs-90-100 | DIMENSION SHEET WPMs-90-100



NAPĘD POŚREDNI - SPRZĘGŁOWY  
INDIRECT CLUTCH DRIVE

Uwaga:

1. Karta przedstawia wentylatory w położeniu wylotu RD0; 90; 270.
2. Wentylatory w położeniu wylotu lg są lustrzanym odbiciem przedstawionych położeń rd.
3. FUWK Konwektor Sp. z o.o. może wykonać wentylatory z innym położeniem wylotu niż przedstawione.
4. Dane techniczne dotyczące wykonania wentylatora wymagają indywidualnych ustaleń.
5. FUWK Konwektor Sp. z o.o. zastrzega sobie prawo do zmian technicznych ze względu na prowadzenie prac rozwojowych.

Note:

1. The sheet shows the fans in the RD0 outlet position; 90; 270.
2. Fans in outlet position lg are a mirror reflection of the rd positions shown.
3. FUWK Konwektor Sp. z o.o. can make fans with a different outlet position than the one shown.
4. The technical data concerning the design of the fan is subject to individual agreement.
5. FUWK Konwektor Sp. z o.o. reserves the right to technical changes due to development works.



Wymiary generalne | General dimensions

| Typ<br>Type   | Obroty synchroniczne<br>Synchronous rotational speed | Moc<br>Power | Obroty znamionowe<br>Rated rotational speed | Napięcie<br>Voltage | Wydajność<br>Capacity<br>$\eta_{max}$ | Ciśnienie<br>Pressure<br>$\eta_{max}$ | Sprawność wentylatora<br>Fan efficiency<br>$\eta_{max}$ | Sprawność energetyczna<br>Energy efficiency | Dyrektywa<br>2009/125/WE - ErP<br>Directive 2009/125/<br>EC - ErP | Poziom ciśnienia<br>akustycznego<br>Sound pressure level |      |
|---------------|--|--------------|---|---------------------|---------------------------------------|---------------------------------------|---|---|---|--|------|
|               | [obr <sup>-1</sup> ]                                 |              |   |                     |                                       |                                       |   |   |   |  | [kW] |
| WPMs-20/1,8   | 3000   | 2,2          | 2895  | 230/400 D/Y         | 0,62                                  | 2029                                  | 79,4  | 55,4  | v   | 86   |      |
|               | 1500   | 0,55         | 1400  |                     | 0,29                                  | 474                                   | 76,3  | 45,5  |   | 67   |      |
| WPMs-22,4/1,8 | 3000   | 4            | 2905  | 400/690 D/Y         | 0,87                                  | 2562                                  | 80,1  | 58,1  | v   | 89   |      |
|               | 1500   | 0,75         | 1420  | 230/400 D/Y         | 0,42                                  | 612                                   | 77,9  | 48,3  |   | 72   |      |
| WPMs-25/1,8   | 3000   | 7,5          | 2930  | 400/690 D/Y         | 1,2                                   | 3247                                  | 80,9  | 60,7  | v   | 93   |      |
|               | 1500   | 1,1          | 1445  | 230/400 D/Y         | 0,61                                  | 789                                   | 78,9  | 51,1  |   | 76   |      |
| WPMs-28/1,8   | 3000   | 11           | 2950  | 400/690 D/Y         | 1,7                                   | 4129                                  | 81,3  | 63,8  | v   | 97   |      |
|               | 1500   | 2,2          | 1460  |                     | 0,85                                  | 1011                                  | 79,9  | 53,8  |   | 80   |      |
| WPMs-31,5/1,8 | 3000   | 18,5         | 2940  | 400/690 D/Y         | 2,4                                   | 5190                                  | 81,4  | 64,4  | v   | 101  |      |
|               | 1500   | 3            | 1460  |                     | 1,2                                   | 1280                                  | 80,2  | 56,4  |   | 84   |      |
| WPMs-35,5/1,8 | 3000   | 37           | 2970  | 400/690 D/Y         | 3,5                                   | 6728                                  | 82,1  | 65,1  | v   | 105  |      |
|               | 1500   | 5,5          | 1460  |                     | 1,7                                   | 1625                                  | 80,6  | 59,2  |   | 88   |      |
|               | 1000   | 1,5          | 960   |                     | 230/400 D/Y                           | 1,2                                   | 703   | 79,9  |   | 53,4   | 78   |
| WPMs-40/1,8   | 3000   | 75           | 2980  | 400/690 D/Y         | 5,1                                   | 8599                                  | 82,5  | 65,8  | v   | 109  |      |
|               | 1500   | 11           | 1470  |                     | 2,5                                   | 2092                                  | 81,2  | 63,4  |   | 92   |      |
|               | 1000   | 3            | 980   |                     | 230/400 D/Y                           | 1,7                                   | 930   | 79,9  |   | 56,4   | 82   |
| WPMs-45/1,8   | 3000   | 132          | 2970  | 400/690 D/Y         | 7,2                                   | 10811                                 | 82,5  | 66,4  | v   | 112  |      |
|               | 1500   | 15           | 1470  |                     | 3,6                                   | 2648                                  | 81,2  | 64,1  |   | 96   |      |
|               | 1000   | 4            | 970   |                     | 2,4                                   | 1153                                  | 79,8  | 58,9  |   | 86   |      |
| WPMs-50/1,8   | 3000 <sup>1)</sup>                                   | 200          | 2980  | 400/690 D/Y         | 9,9                                   | 13437                                 | 82,7  | 67,1  | v   | 116  |      |
|               | 1500   | 22           | 1470  |                     | 4,9                                   | 3629                                  | 81,6  | 64,7  |   | 99   |      |
|               | 1000   | 7,5          | 970   |                     | 3,2                                   | 1423                                  | 80,3  | 61,4  |   | 89   |      |
| WPMs-56/1,8   | 1500   | 45           | 1480  | 400/690 D/Y         | 6,9                                   | 4157                                  | 82,1  | 65,3  | v   | 103  |      |
|               | 1000   | 15           | 980   |                     | 4,6                                   | 1822                                  | 81,2  | 63,9  |   | 93   |      |
| WPMs-63/1,8   | 1500   | 90           | 1490  | 400/690 D/Y         | 9,9                                   | 5333                                  | 82,6  | 65,9  | v   | 107  |      |
|               | 1000   | 30           | 990   |                     | 6,6                                   | 2354                                  | 81,9  | 64,6  |   | 97   |      |
| WPMs-71/1,8   | 1500   | 160          | 1490  | 400/690 D/Y         | 14,2                                  | 6773                                  | 82,7  | 66,6  | v   | 111  |      |
|               | 1000   | 45           | 990   |                     | 9,5                                   | 2990                                  | 82,1  | 65,3  |   | 100  |      |
| WPMs-80/1,8   | 1500 <sup>1)</sup>                                   | 250 / 315    | 1490  | 400/690 D/Y         | 20,4                                  | 8599                                  | 82,7  | 67,3  | v   | 116  |      |
|               | 1000   |              | 90  |                     | 990                                   | 13,5                                  | 3796  | 82,4  |   | 65,9   | 105  |
|               | 750  |              | 37  |                     | 740                                   | 10,1                                  | 2121  | 81,9  |   | 64,8   | 98   |
| WPMs-90/1,8   | 1500 <sup>1)</sup>                                   | 450 / 500    | 1490  | 400/690 D/Y         | 28,9                                  | 10884                                 | 82,7  | 67,9  | v   | 119  |      |
|               | 1000   |              | 132   |                     | 990                                   | 19,3                                  | 4804  | 82,5  |   | 66,6   | 108  |
|               | 750  |              | 55  |                     | 740                                   | 14,4                                  | 2684  | 82,1  |   | 65,7   | 102  |
| WPMs-100/1,8  | 1500 <sup>1)</sup>                                   | 800          | 1490  | 400/690 D/Y         | 39,7                                  | 13437                                 | -   | -   | v   | 122  |      |
|               | 1000   |              | 250   |                     | 990                                   | 26,4                                  | 5932  | 82,6  |   | 67,2   | 113  |
|               | 750  |              | 110   |                     | 740                                   | 19,7                                  | 3314  | 82,3  |   | 66,2   | 105  |

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<sup>1)</sup> - For individual consulting of feasibility / execution solutions - contact the technical department

Wymiary przyłączeniowe kołnierzy | Flange connection dimensions

| Typ<br>Type   | Obrotów synchronicznych<br>[obr <sup>1</sup> ]<br>Synchronous rotational speed [rev <sup>1</sup> ] | Moc Power [kW] | Wymiary przyłączeniowe kołnierzy / Flange connection dimensions |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
|---------------|--|----------------|---|------|------|----|----|--------------|------|------|----|-----|-----|-----|-----|----|-----|-----|-----|
|               |  |                | Wlot Inlet  |      |      |    |    | Wylot Outlet |      |      |    |     |     |     |     |    |     |     |     |
|               |  |                | D   | D1   | D2   | zD | dD | A            | A1   | A2   | zA | E   | B   | B1  | B2  | zB | F   | zAB | dAB |
| [mm]          |  |                |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-20/1,8   | 3000   | 2,2            | 200   | 241  | 280  | 8  | 10 | 280          | 330  | 365  | 1  | 140 | 135 | 185 | 220 | 1  | 70  | 12  | 10  |
|               | 1500   | 0,55           |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-22,4/1,8 | 3000   | 4              | 224   | 265  | 310  | 8  | 10 | 315          | 365  | 400  | 1  | 140 | 150 | 200 | 235 | 1  | 70  | 12  | 10  |
|               | 1500   | 0,75           |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-25/1,8   | 3000   | 7,5            | 250   | 292  | 335  | 8  | 10 | 355          | 405  | 440  | 1  | 140 | 170 | 220 | 255 | 1  | 70  | 12  | 10  |
|               | 1500   | 1,1            |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-28/1,8   | 3000   | 11             | 280   | 332  | 365  | 8  | 10 | 400          | 450  | 485  | 2  | 140 | 190 | 240 | 275 | 1  | 70  | 14  | 10  |
|               | 1500   | 2,2            |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-31,5/1,8 | 3000   | 18,5           | 315   | 366  | 410  | 8  | 12 | 450          | 510  | 555  | 3  | 140 | 215 | 275 | 320 | 1  | 100 | 16  | 12  |
|               | 1500   | 3              |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-35,5/1,8 | 3000   | 37             | 355   | 405  | 435  | 12 | 12 | 500          | 560  | 605  | 3  | 140 | 235 | 295 | 340 | 1  | 140 | 16  | 15  |
|               | 1500   | 5,5            |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
|               | 1000   | 1,5            |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-40/1,8   | 3000   | 75             | 400   | 448  | 490  | 12 | 12 | 560          | 630  | 685  | 3  | 140 | 265 | 335 | 390 | 1  | 140 | 16  | 15  |
|               | 1500   | 11             |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
|               | 1000   | 3              |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-45/1,8   | 3000   | 132            | 450   | 497  | 540  | 16 | 12 | 630          | 700  | 755  | 3  | 140 | 300 | 370 | 430 | 1  | 140 | 16  | 15  |
|               | 1500   | 15             |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
|               | 1000   | 4              |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-50/1,8   | 3000 <sup>1)</sup>   | 200            | 500   | 551  | 600  | 16 | 12 | 710          | 780  | 835  | 3  | 140 | 335 | 405 | 460 | 1  | 140 | 16  | 15  |
|               | 1500   | 22             |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
|               | 1000   | 7,5            |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-56/1,8   | 1500   | 45             | 560   | 633  | 680  | 16 | 15 | 800          | 870  | 925  | 5  | 14  | 375 | 445 | 505 | 1  | 140 | 20  | 15  |
|               | 1000   | 15             |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-63/1,8   | 1500   | 90             | 630   | 703  | 750  | 16 | 15 | 900          | 970  | 1025 | 5  | 140 | 425 | 495 | 555 | 1  | 140 | 20  | 15  |
|               | 1000   | 30             |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-71/1,8   | 1500   | 160            | 710   | 783  | 850  | 20 | 15 | 1000         | 1070 | 1130 | 5  | 140 | 475 | 545 | 605 | 2  | 140 | 22  | 15  |
|               | 1000   | 45             |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-80/1,8   | 1500 <sup>1)</sup>   | 250 / 315      | 800   | 873  | 940  | 20 | 15 | 1120         | 1210 | 1270 | 7  | 140 | 530 | 620 | 680 | 3  | 140 | 28  | 19  |
|               | 1000   | 90             |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
|               | 750  | 37             |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-90/1,8   | 1500 <sup>1)</sup>   | 450 / 500      | 900   | 973  | 1040 | 24 | 15 | 1250         | 1340 | 1420 | 7  | 140 | 600 | 690 | 770 | 3  | 140 | 28  | 19  |
|               | 1000   | 132            |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
|               | 750  | 55             |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
| WPMs-100/1,8  | 1500 <sup>1)</sup>   | 800            | 1000  | 1073 | 1140 | 24 | 15 | 1400         | 1490 | 1570 | 9  | 140 | 670 | 760 | 840 | 3  | 140 | 32  | 19  |
|               | 1000   | 250            |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |
|               | 750  | 110            |   |      |      |    |    |              |      |      |    |     |     |     |     |    |     |     |     |

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Wymiary gabarytowe w zależności od układu położenia wylotu | Overall dimensions depending on the layout of outlet position

| Typ<br>Type   | Obroty<br>synchroniczne<br>[obr·]<br>Synchronous<br>rotational<br>speed [rev·] | Moc<br>Power<br>[kW] | Wymiary gabarytowe w zależności od układu położenia wylotu<br>Overall dimensions depending on the layout of outlet position |      |      |      |      |      |    |    |     |      |     |      |      |      |   |   |    |    |
|---------------|--|----------------------|---|------|------|------|------|------|----|----|-----|------|-----|------|------|------|---|---|----|----|
|               |  |                      | a   | b    | c    | d    | e    | h0   | S0 | H0 | h90 | S90  | H90 | h270 | S270 | H270 | h | W | L1 | L4 |
| [mm]          |  |                      |   |      |      |      |      |      |    |    |     |      |     |      |      |      |   |   |    |    |
| WPMs-20/1,8   | 3000   | 2,2                  | 225   | 305  | 370  | 445  | 295  | 385  |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1500   | 0,55                 |   |      |      |      |      |      |    |    |     | 320  |     |      |      |      |   |   |    |    |
| WPMs-22,4/1,8 | 3000   | 4                    | 285   | 335  | 415  | 500  | 330  | 430  |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1500   | 0,75                 |   |      |      |      |      |      |    |    |     | 350  |     |      |      |      |   |   |    |    |
| WPMs-25/1,8   | 3000   | 7,5                  | 315   | 375  | 455  | 560  | 370  | 465  |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1500   | 1,1                  |   |      |      |      |      |      |    |    |     | 390  |     |      |      |      |   |   |    |    |
| WPMs-28/1,8   | 3000   | 11                   | 350   | 420  | 510  | 625  | 415  | 530  |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1500   | 2,2                  |   |      |      |      |      |      |    |    |     | 435  |     |      |      |      |   |   |    |    |
| WPMs-31,5/1,8 | 3000   | 18,5                 | 395   | 470  | 580  | 705  | 465  | 595  |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1500   | 3                    |   |      |      |      |      |      |    |    |     | 490  |     |      |      |      |   |   |    |    |
| WPMs-35,5/1,8 | 3000   | 37                   |   |      |      |      |      |      |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1500   | 5,5                  | 440   | 530  | 650  | 790  | 525  | 665  |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1000   | 1,5                  |   |      |      |      |      |      |    |    |     | 545  |     |      |      |      |   |   |    |    |
| WPMs-40/1,8   | 3000   | 75                   |   |      |      |      |      |      |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1500   | 11                   | 495   | 595  | 720  | 885  | 590  | 745  |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1000   | 3                    |   |      |      |      |      |      |    |    |     | 610  |     |      |      |      |   |   |    |    |
| WPMs-45/1,8   | 3000   | 132                  |   |      |      |      |      |      |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1500   | 15                   | 555   | 670  | 820  | 995  | 665  | 835  |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1000   | 4                    |   |      |      |      |      |      |    |    |     | 685  |     |      |      |      |   |   |    |    |
| WPMs-50/1,8   | 3000 <sup>1)</sup>   | 200                  |   |      |      |      |      |      |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1500   | 22                   | 615   | 740  | 910  | 1110 | 740  | 925  |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1000   | 7,5                  |   |      |      |      |      |      |    |    |     | 750  |     |      |      |      |   |   |    |    |
| WPMs-56/1,8   | 1500   | 45                   | 685   | 825  | 1015 | 1240 | 825  | 1030 |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1000   | 15                   |   |      |      |      |      |      |    |    |     | 845  |     |      |      |      |   |   |    |    |
| WPMs-63/1,8   | 1500   | 90                   | 770   | 930  | 1140 | 1395 | 930  | 1155 |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1000   | 30                   |   |      |      |      |      |      |    |    |     | 945  |     |      |      |      |   |   |    |    |
| WPMs-71/1,8   | 1500   | 160                  | 865   | 1045 | 1285 | 1565 | 1050 | 1295 |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1000   | 45                   |   |      |      |      |      |      |    |    |     | 1055 |     |      |      |      |   |   |    |    |
| WPMs-80/1,8   | 1500 <sup>1)</sup>   | 250 / 315            |   |      |      |      |      |      |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1000   | 90                   | 970   | 1180 | 1445 | 1755 | 1180 | 1455 |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 750  | 37                   |   |      |      |      |      |      |    |    |     | 1185 |     |      |      |      |   |   |    |    |
| WPMs-90/1,8   | 1500 <sup>1)</sup>   | 450 / 500            |   |      |      |      |      |      |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1000   | 132                  | 1105  | 1325 | 1635 | 1975 | 1330 | 1650 |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 750  | 55                   |   |      |      |      |      |      |    |    |     | 1490 |     |      |      |      |   |   |    |    |
| WPMs-100/1,8  | 1500 <sup>1)</sup>   | 800                  |   |      |      |      |      |      |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 1000   | 250                  | 1225  | 1470 | 1815 | 2200 | 1480 | 1830 |    |    |     |      |     |      |      |      |   |   |    |    |
|               | 750  | 110                  |   |      |      |      |      |      |    |    |     | 1340 |     |      |      |      |   |   |    |    |

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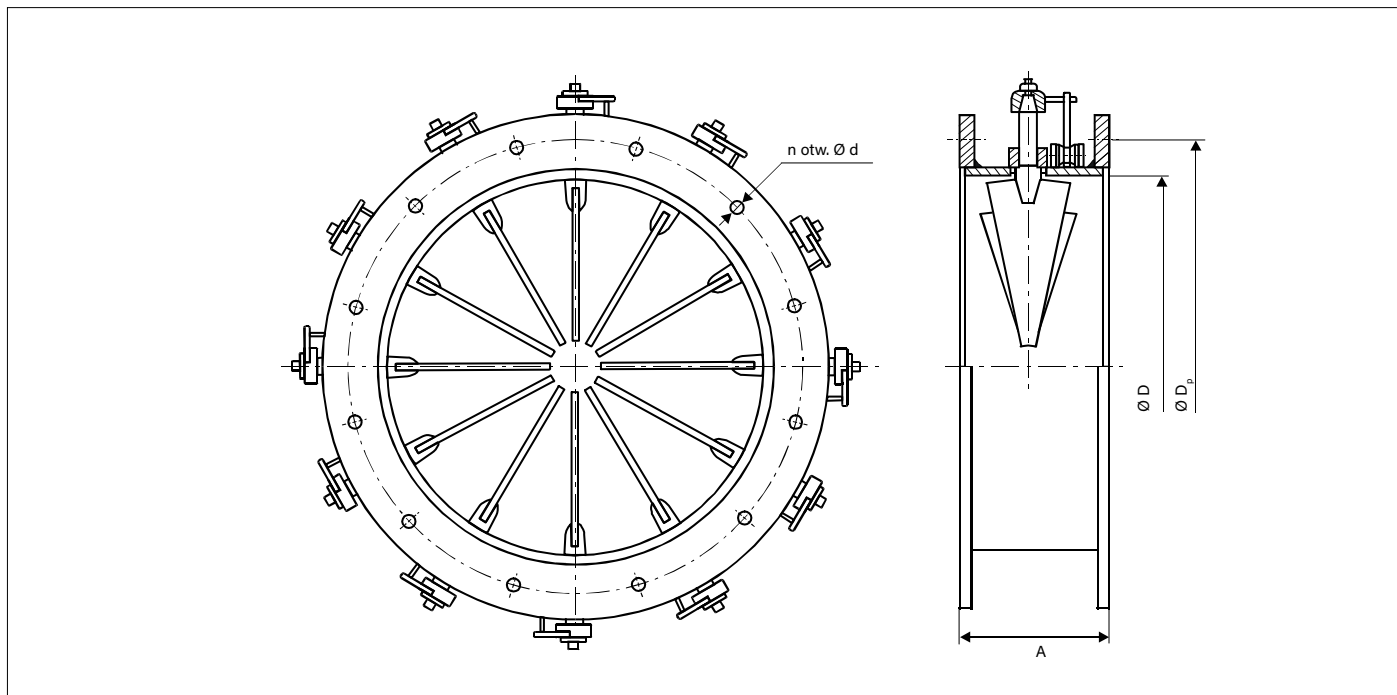
Wymiary przyłączeniowe fundamentu | Foundation connection dimensions

| Typ<br>Type   | Obroty synchroniczne [obr <sup>1</sup> ]<br>Synchronous rotational speed [rev <sup>1</sup> ] | Moc Power [kW] | Wymiary przyłączeniowe fundamentu<br>Foundation connection dimensions |     |    |     |      |      |      |      |     |    |    |     |     |    |     |      |      |      |      |     |    |    |    |  |
|---------------|--|----------------|---|-----|----|-----|------|------|------|------|-----|----|----|-----|-----|----|-----|------|------|------|------|-----|----|----|----|--|
|               |  |                | i1  | j1  | z1 | k1  | l1   | M1   | N1   | O1   | P1  | n1 | d1 | i4  | j4  | z4 | k4  | l4   | M4   | N4   | O4   | P4  | n4 | d4 |    |  |
| [mm]          |  |                |   |     |    |     |      |      |      |      |     |    |    |     |     |    |     |      |      |      |      |     |    |    |    |  |
| WPMs-20/1,8   | 3000   | 2,2            | 100   | 195 | 1  | 195 | 310  | 440  | 350  | 125  | -   | 5  | 12 | 120 | 215 | 2  | 295 | 310  | 875  | 350  | 125  | -   | 7  | 12 |    |  |
|               | 1500   | 0,55           |   |     |    | 165 | 310  | 410  |      |      |     |    |    |     |     |    | 275 | 310  | 835  |      |      |     |    |    |    |  |
| WPMs-22,4/1,8 | 3000   | 4              | 130   | 210 | 1  | 220 | 380  | 520  | 430  | 125  | -   | 5  | 12 | 130 | 230 | 2  | 360 | 380  | 1020 | 430  | 125  | -   | 7  | 12 |    |  |
|               | 1500   | 0,75           | 110   |     |    | 165 | 310  | 420  | 350  |      |     |    |    |     |     |    | 275 | 310  | 850  | 350  |      |     |    |    |    |  |
| WPMs-25/1,8   | 3000   | 7,5            | 140   | 250 | 1  | 250 | 435  | 570  | 495  | 125  | -   | 5  | 15 | 200 | 310 | 2  | 360 | 435  | 1160 | 495  | 125  | -   | 7  | 12 |    |  |
|               | 1500   | 1,1            | 120   | 230 |    | 170 | 310  | 450  | 350  |      |     |    | 12 | 140 | 250 |    | 280 | 310  | 880  | 350  |      |     |    |    |    |  |
| WPMs-28/1,8   | 3000   | 11             | 150   | 270 | 1  | 340 | 465  | 680  | 525  | 175  | -   | 5  | 15 | 210 | 330 | 2  | 460 | 465  | 1380 | 525  | 175  | -   | 7  | 15 |    |  |
|               | 1500   | 2,2            |   |     |    | 210 | 350  | 550  | 400  |      |     |    | 12 | 150 | 270 |    | 355 | 350  | 1050 | 400  |      |     |    | 12 |    |  |
| WPMs-31,5/1,8 | 3000   | 18,5           | 160   | 305 | 1  | 385 | 465  | 765  | 525  | 175  | -   | 5  | 15 | 220 | 365 | 2  | 495 | 465  | 1490 | 525  | 175  | -   | 7  | 15 |    |  |
|               | 1500   | 3              |   |     |    | 210 | 350  | 590  | 400  |      |     |    | 12 | 160 | 305 |    | 355 | 350  | 1090 | 400  |      |     |    | 12 |    |  |
| WPMs-35,5/1,8 | 3000   | 37             |   |     |    | 480 | 510  | 880  | 570  |      |     |    | 19 |     |     |    | 590 | 510  | 1700 | 570  |      |     |    | 19 |    |  |
|               | 1500   | 5,5            | 170   | 325 | 1  | 250 | 435  | 650  | 495  | 175  | -   | 5  | 15 | 230 | 385 | 2  | 400 | 435  | 1320 | 495  | 175  | -   | 7  | 15 |    |  |
|               | 1000   | 1,5            |   |     |    | 210 | 350  | 610  | 400  |      |     |    | 12 |     |     |    | 330 | 400  | 1180 | 450  |      |     |    | 12 |    |  |
| WPMs-40/1,8   | 3000   | 75             | 235   | 405 |    | 535 | 710  | 1065 | 770  |      |     |    | 19 |     |     | 3  | 465 | 710  | 1945 | 770  |      |     |    | 10 | 19 |  |
|               | 1500   | 11             | 185   | 355 | 1  | 340 | 465  | 770  | 525  | 495  | 435 | 6  | 15 | 245 | 415 | 2  | 460 | 465  | 1470 | 525  | 495  | 435 | 8  | 15 |    |  |
|               | 1000   | 3              |   |     |    | 250 | 435  | 680  | 495  |      |     |    |    |     |     |    | 400 | 435  | 1350 | 495  |      |     |    |    |    |  |
| WPMs-45/1,8   | 3000   | 132            | 255   | 445 |    | 625 | 770  | 1195 | 830  |      |     |    | 19 |     |     | 3  | 515 | 770  | 2135 | 830  |      |     |    | 10 | 19 |  |
|               | 1500   | 15             | 205   | 390 | 1  | 385 | 465  | 850  | 525  | 495  | 435 | 6  | 15 | 265 | 450 | 2  | 485 | 465  | 1560 | 525  | 495  | 435 | 8  | 15 |    |  |
|               | 1000   | 4              |   |     |    | 290 | 435  | 755  | 495  |      |     |    |    |     |     |    | 420 | 435  | 1425 | 495  |      |     |    |    |    |  |
| WPMs-50/1,8   | 3000 <sup>1)</sup>   | 200            | -   | -   | -  | -   | -    | -    | -    | -    | -   | -  | -  | -   | -   | -  | -   | -    | -    | -    | -    | -   | -  | -  | -  |  |
|               | 1500   | 22             | 220   | 425 | 1  | 430 | 510  | 930  | 570  | 525  | 465 | 6  | 15 | 280 | 485 | 2  | 565 | 510  | 1750 | 570  | 525  | 465 | 8  | 15 |    |  |
|               | 1000   | 7,5            |   |     |    | 340 | 465  | 840  | 525  |      |     |    |    |     |     |    | 460 | 465  | 1540 | 525  |      |     |    |    |    |  |
| WPMs-56/1,8   | 1500   | 45             | 290   | 515 | 1  | 400 | 600  | 1040 | 660  | 570  | 510 | 6  | 19 | 300 | 525 | 2  | 615 | 600  | 1890 | 660  | 570  | 510 | 8  | 19 |    |  |
|               | 1000   | 15             | 240   | 465 |    | 430 | 510  | 970  | 570  |      |     |    | 15 |     |     |    | 565 | 510  | 1790 | 570  |      |     |    | 15 |    |  |
| WPMs-63/1,8   | 1500   | 90             | 315   | 565 | 1  | 535 | 710  | 1225 | 770  | 660  | 600 | 6  | 19 | 325 | 575 | 3  | 485 | 710  | 2165 | 770  | 660  | 600 | 10 | 19 |    |  |
|               | 1000   | 30             |   |     |    | 400 | 600  | 1090 | 660  |      |     |    |    |     |     |    | 615 | 600  | 1940 | 660  |      |     | 8  |    |    |  |
| WPMs-71/1,8   | 1500   | 160            | 390   | 670 | 1  | 585 | 940  | 1380 | 1000 | 1000 | 425 | 7  | 19 | 390 | 670 | 3  | 530 | 940  | 2410 | 1000 | 1000 | 425 | 11 | 19 |    |  |
|               | 1000   | 45             |   |     |    | 495 | 940  | 1290 |      |      |     |    |    |     |     |    | 490 | 940  | 2290 |      |      |     |    |    |    |  |
| WPMs-80/1,8   | 1500 <sup>1)</sup>   | 250 / 315      | -   | -   | -  | -   | -    | -    | -    | -    | -   | -  | -  | -   | -   | -  | -   | -    | -    | -    | -    | -   | -  | -  |    |  |
|               | 1000   | 90             | 420   | 735 | 1  | 585 | 1120 | 1285 | 1200 | 1200 | 525 | 7  | 24 | 420 | 735 | 3  | 530 | 1120 | 2485 | 1200 | 1200 | 525 | 11 | 24 |    |  |
|               | 750  | 37             |   |     |    | 415 |      | 1455 |      |      |     |    |    |     |     |    | 620 | 1120 | 2135 |      |      |     | 9  |    |    |  |
| WPMs-90/1,8   | 1500 <sup>1)</sup>   | 450 / 500      | -   | -   | -  | -   | -    | -    | -    | -    | -   | -  | -  | -   | -   | -  | -   | -    | -    | -    | -    | -   | -  | -  |    |  |
|               | 1000   | 132            | -   | -   | -  | -   | -    | -    | -    | -    | -   | -  | -  | 525 | 700 | 3  | 600 | 500  | 2830 | 1070 | 1400 | 575 | 16 | 24 |    |  |
|               | 750  | 55             |   |     |    |     |      |      |      |      |     |    |    |     |     |    | 530 | 2620 |      |      |      |     |    |    |    |  |
| WPMs-100/1,8  | 1500 <sup>1)</sup>   | 800            | -   | -   | -  | -   | -    | -    | -    | -    | -   | -  | -  | -   | -   | -  | -   | -    | -    | -    | -    | -   | -  | -  |    |  |
|               | 1000   | 250            | -   | -   | -  | -   | -    | -    | -    | -    | -   | -  | -  | 560 | 770 | 3  | 670 | 3110 | 1190 | 1600 | 675  | 16  | 24 |    |    |  |
|               | 750  | 110            |   |     |    |     |      |      |      |      |     |    |    |     |     |    | 600 | 2900 |      |      |      |     |    |    |    |  |

<sup>1)</sup> - Indywidualne ustalenia możliwości / rozwiązań wykonania - kontakt z działem technicznym

<sup>1)</sup> - For individual consulting of feasibility / execution solutions - contact the technical department

Kierownica wstępna regulacyjna | Inlet variable guide vane



Wymiary | Dimensions

| Wielkość<br>Size | A    | D    | D <sub>p</sub> | n  | d  |
|------------------|------|------|----------------|----|----|
|                  | [mm] | [mm] | [mm]           |    |    |
| 56               | 200  | 560  | 633            | 16 | 15 |
| 63               | 220  | 630  | 703            |    |    |
| 71               | 255  | 710  | 783            | 20 |    |
| 80               |      | 800  | 873            |    |    |
| 90               | 280  | 900  | 973            | 24 |    |
| 100              |      | 1000 | 1073           |    |    |

Kierownice regulacyjne montowane są również w wersji dzielonej, na specjalne życzenie klienta lub wynikające z konstrukcji wentylatora.

**Siłowniki stosowane do sterowania łopatek kierownic**

1. Siłownik pneumatyczny bez osprzętu.
2. Siłownik elektryczny liniowy lub wahliwy.
3. Siłownik hydrauliczny wraz z osprzętem.

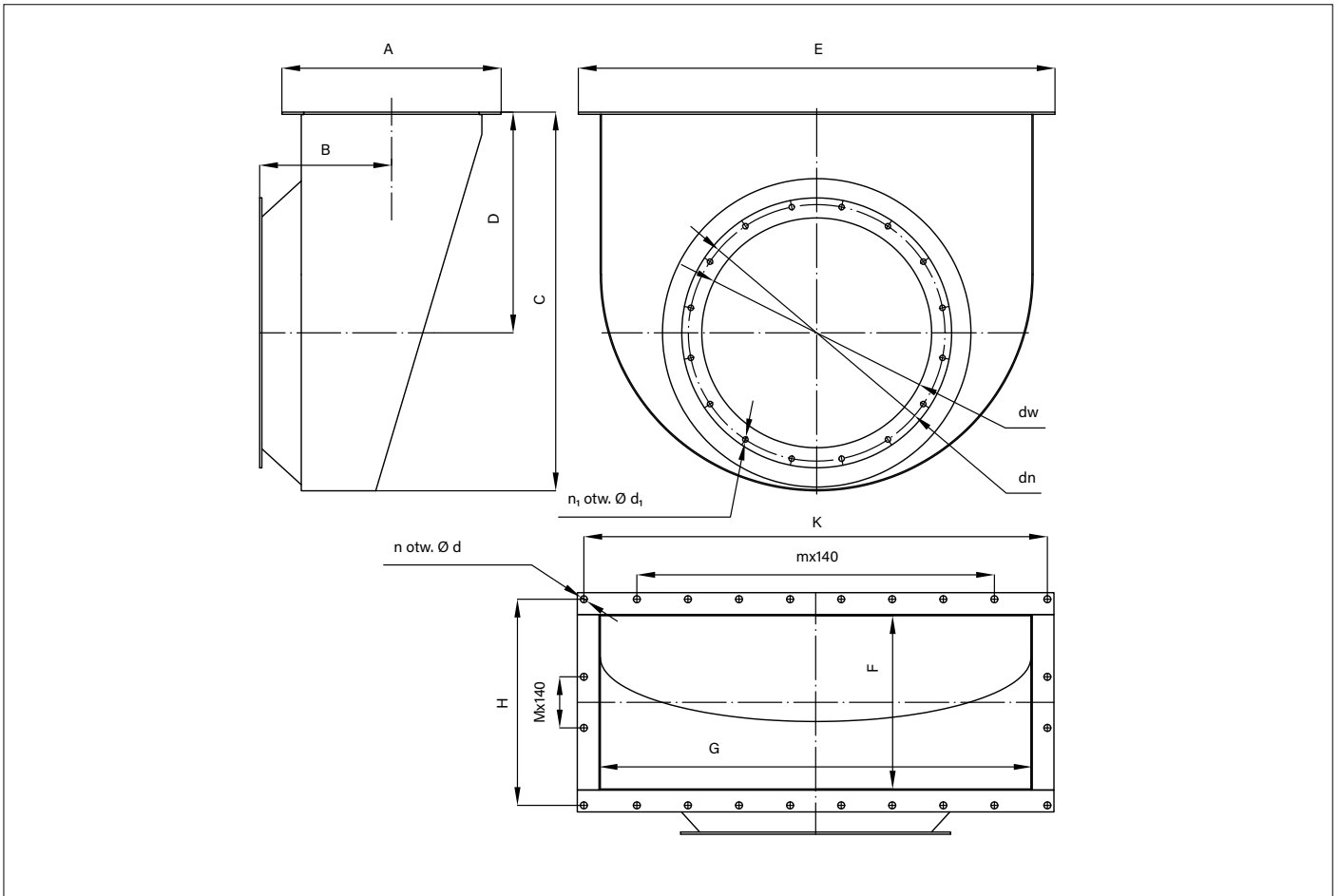
The variable guide vanes are also mounted in a split version, on special request of the customer or resulting from the fan design.

**Actuators used for controlling the guide vane blades**

1. Pneumatic cylinder without accessories.
2. Electric linear or swing actuator.
3. Hydraulic cylinder with accessories.

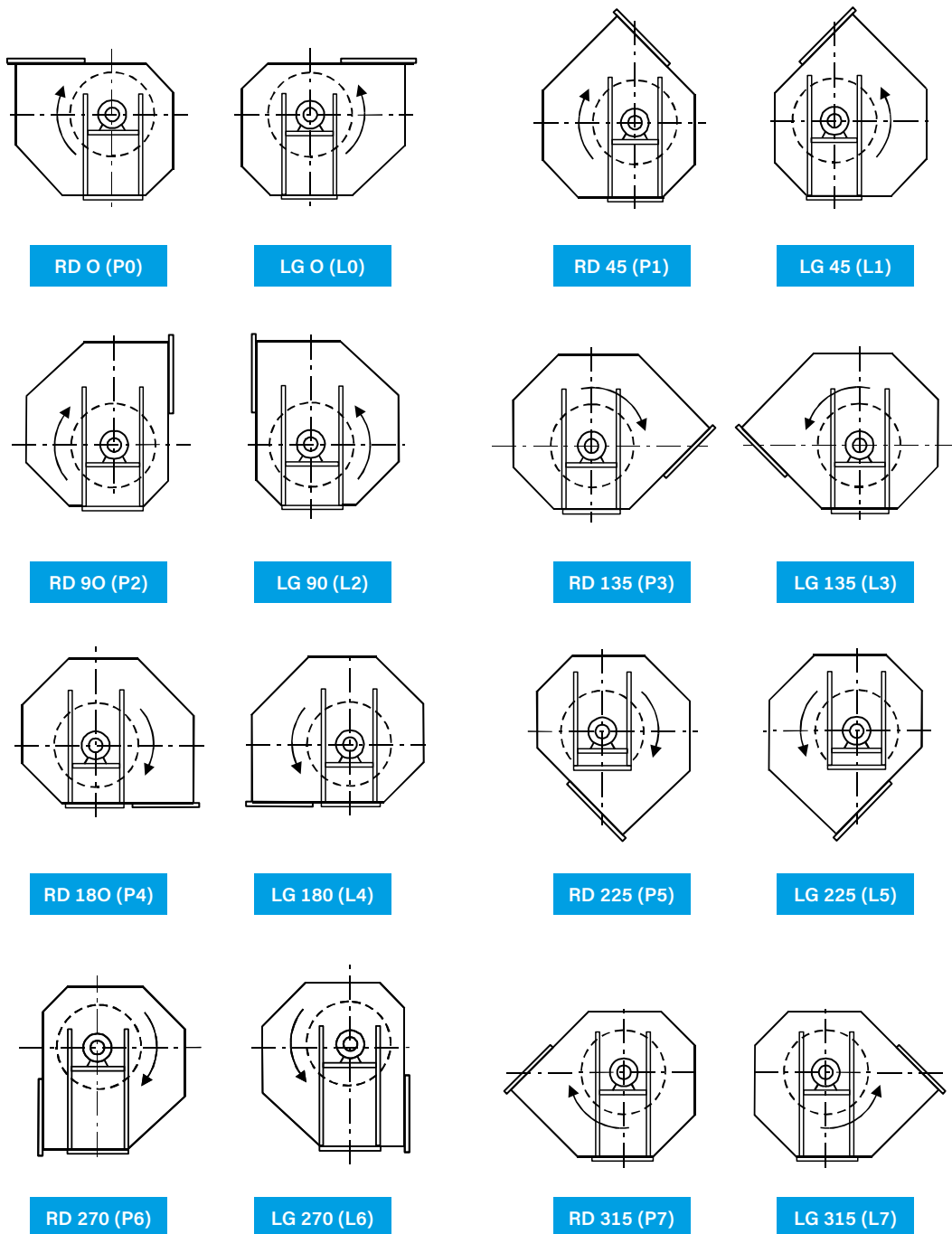
Wyposażenie | Equipment

Wloty kolanowe - wymiary, masy | Elbow inlets - dimensions, weights



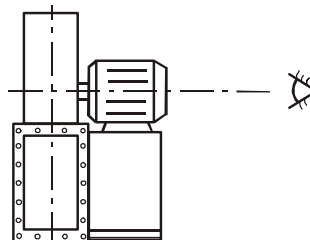


Oznaczenia układów wylotu wentylatora | Designations of fan outlet layouts

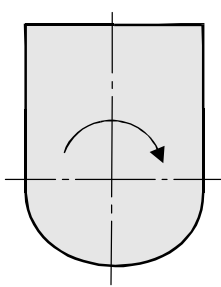


Układ określa się patrząc na wentylator od strony napędu.  
W nawiasie () podano oznaczenia wg PN-78/M-43012.

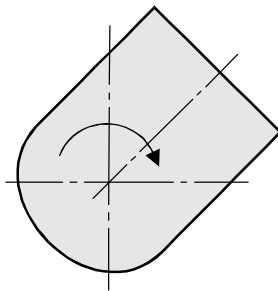
The layout is determined by looking at the fan from the drive side.  
Designations according to PN-78/M-43012 are given in brackets ().



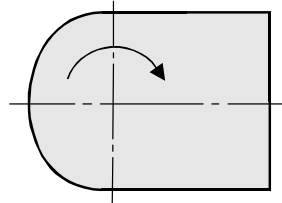
Położenie wlotu kolanowego | Location of elbow inlet



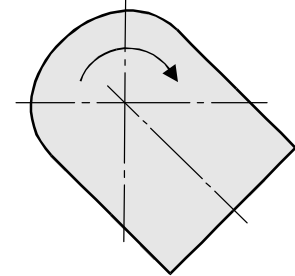
RD 0 (K0)



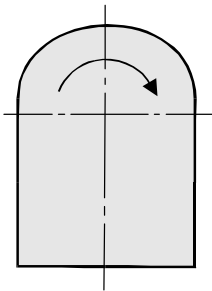
RD 45 (K1)



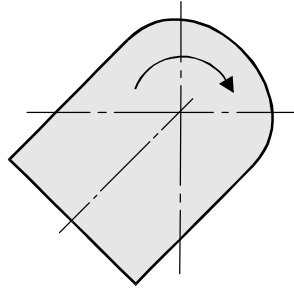
RD 90 (K2)



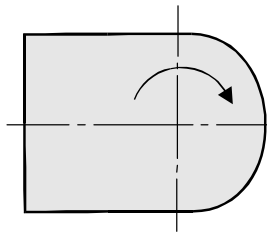
RD 135 (K3)



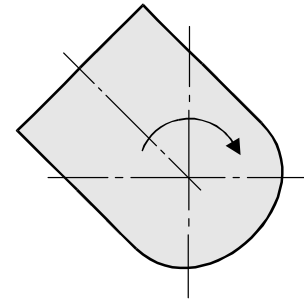
RD 180 (K4)



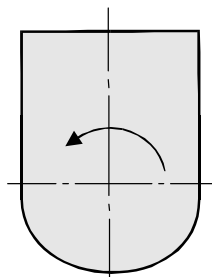
RD 225 (K5)



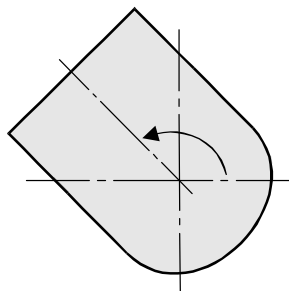
RD 270 (K6)



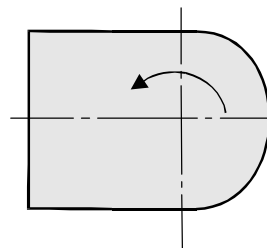
RD 315 (K7)



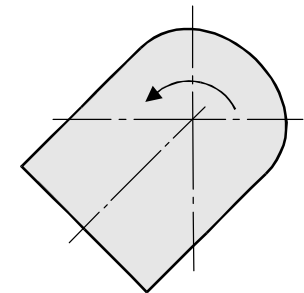
LG 0 (K0)



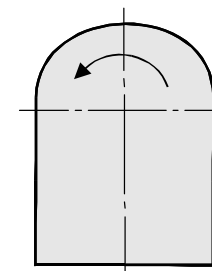
RD 45 (K1)



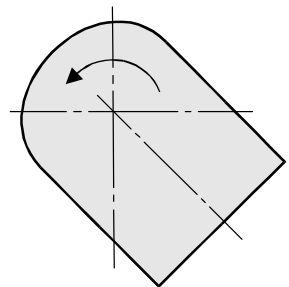
LG 90 (K2)



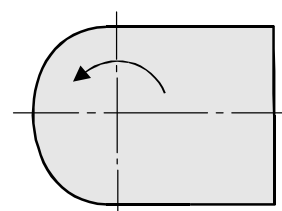
LG 135 (K7)



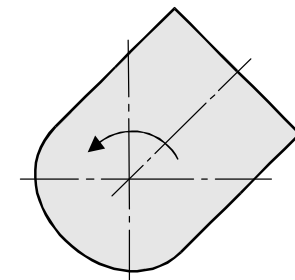
LG 180 (K4)



LG 225 (K5)

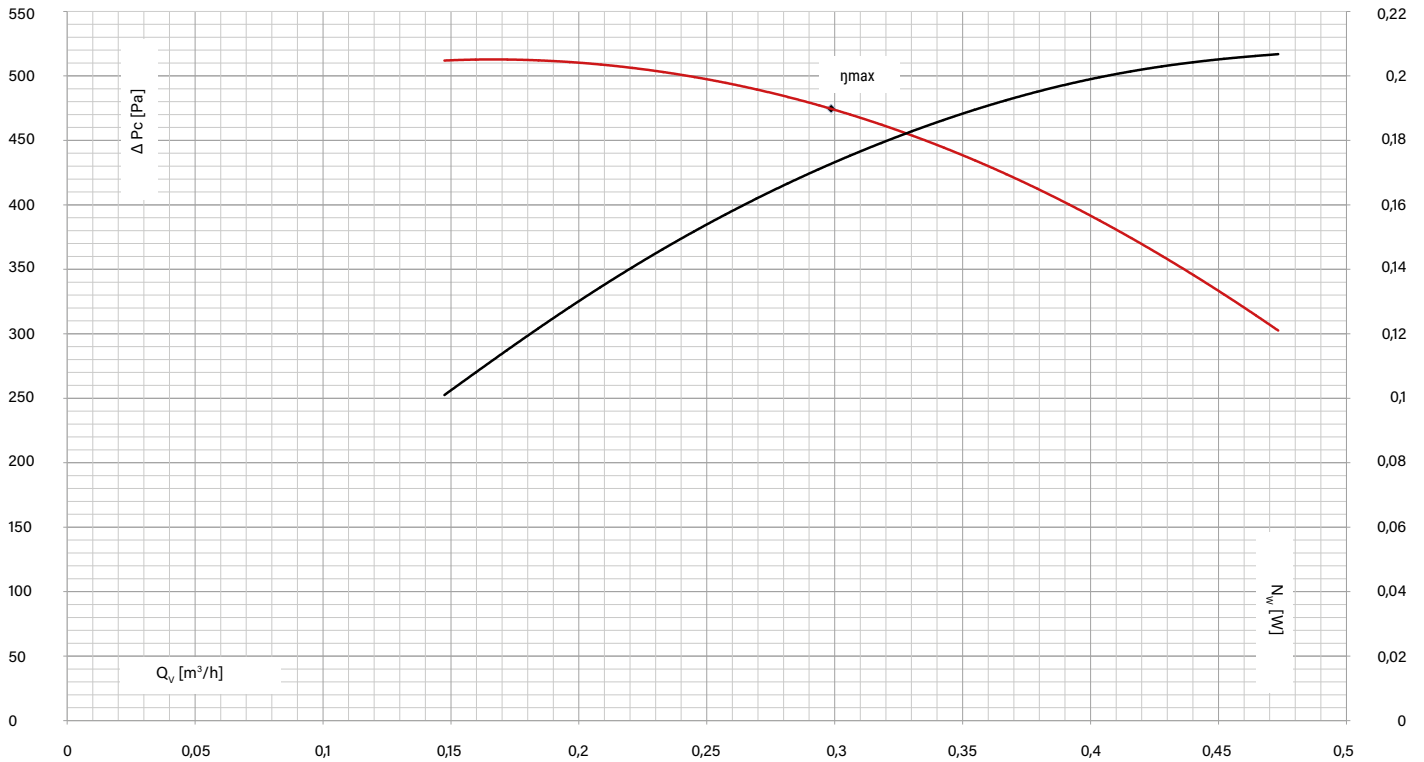


LG 270 (K6)



LG 315 (K7)

WPMs-20/1,8 - 0,55 kW / 1400 obr<sup>-1</sup> | WPMs-20/1,8 - 0,55 kW / 1400 rev<sup>-1</sup>



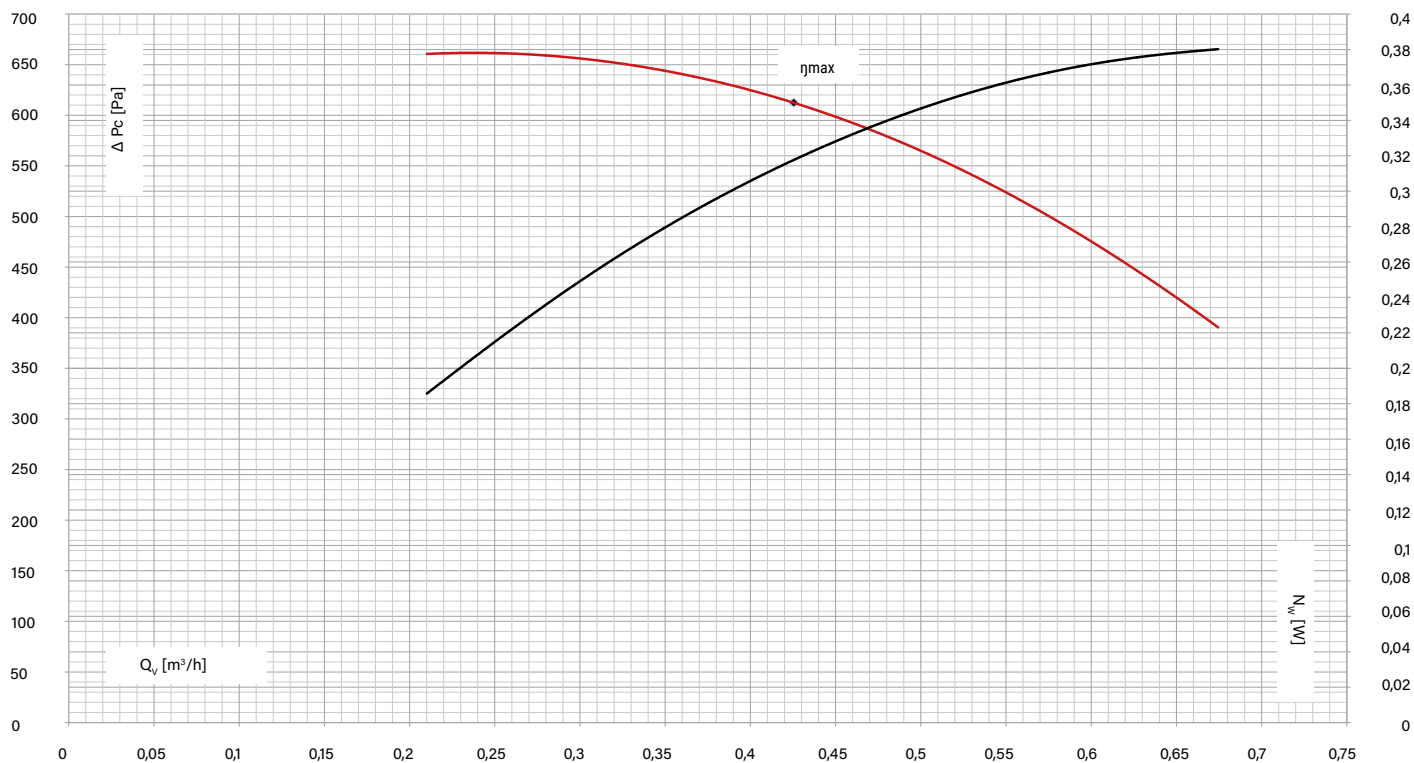
$T=20^{\circ}\text{C}$  /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=1400 \text{ obr}^{-1}$  /  $N_s=0,55 \text{ kW}$  /  $L_{OAmax}=67 \text{ dB(A)}$  ISO 5801

WPMs-20/1,8 - 2,2 kW / 2895 obr<sup>-1</sup> | WPMs-20/1,8 - 2,2 kW / 2895 rev<sup>-1</sup>



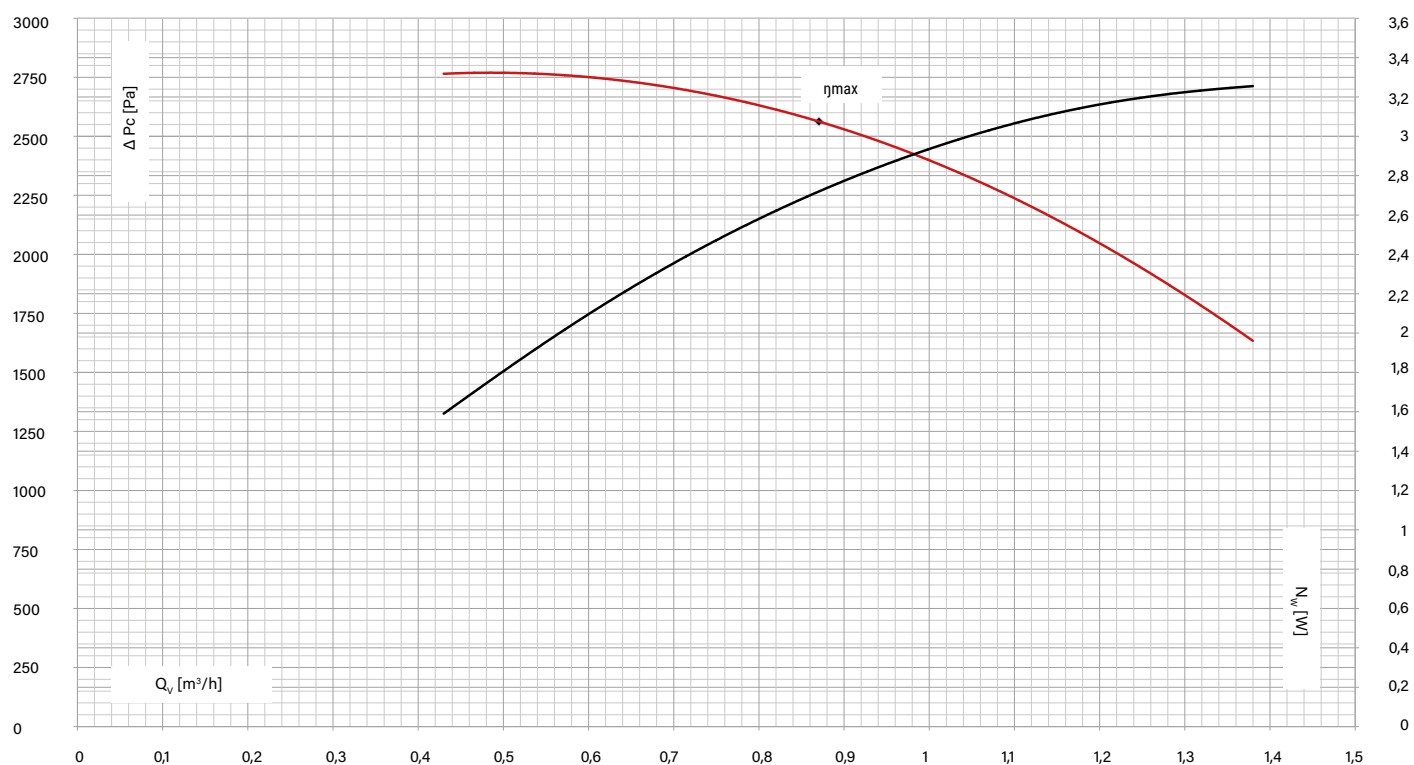
$T=20^{\circ}\text{C}$  /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=2895 \text{ obr}^{-1}$  /  $N_s=2,2 \text{ kW}$  /  $L_{OAmax}=86 \text{ dB(A)}$  ISO 5801

WPMs-22,4/1,8 - 0,75 kW / 1420 obr<sup>-1</sup> | WPMs-22,4/1,8 - 0,75 kW / 1420 rev<sup>-1</sup>



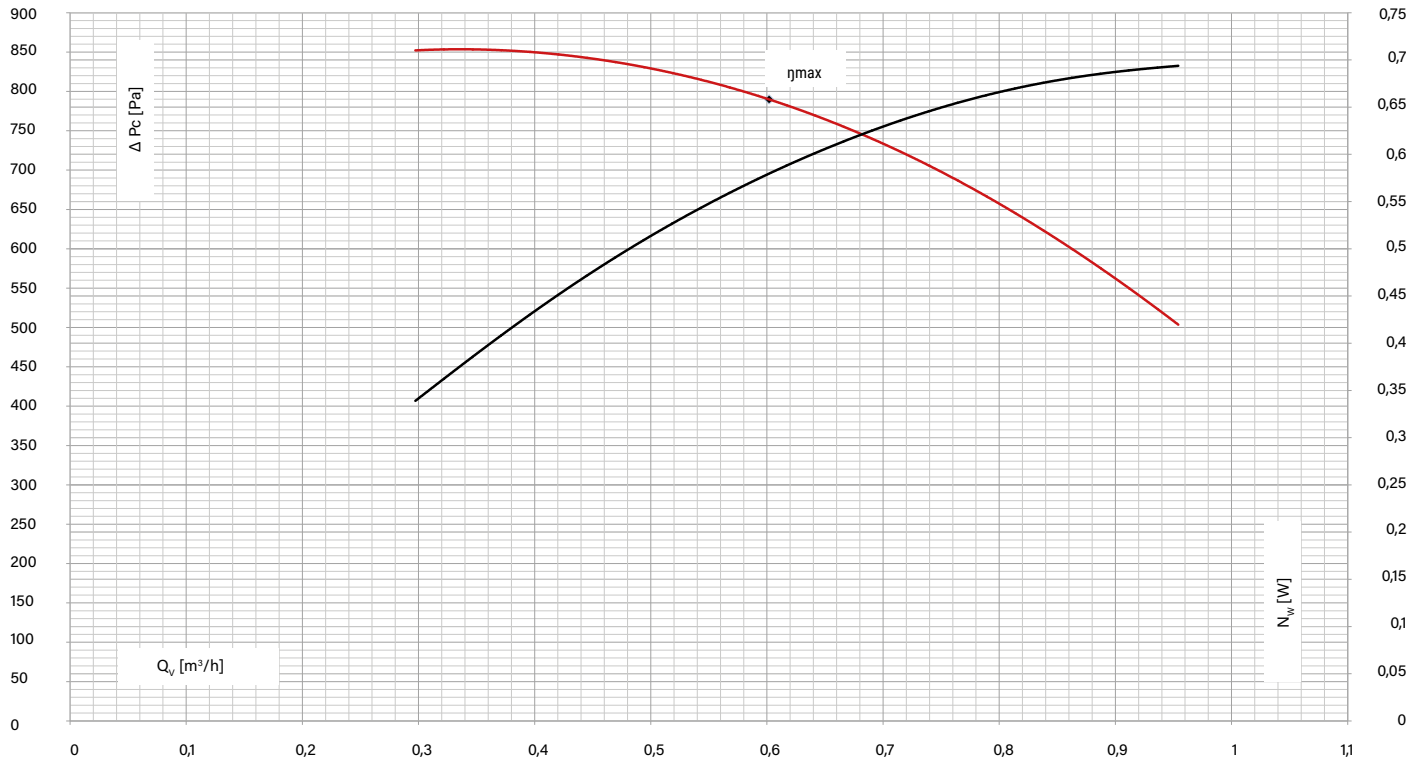
T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=1420 obr<sup>-1</sup> / N<sub>s</sub>=0,75 kW / L<sub>OAmax</sub>=72 dB(A) ISO 5801

WPMs-22,4/1,8 - 4 kW / 2905 obr<sup>-1</sup> | WPMs-22,4/1,8 - 4 kW / 2905 rev<sup>-1</sup>



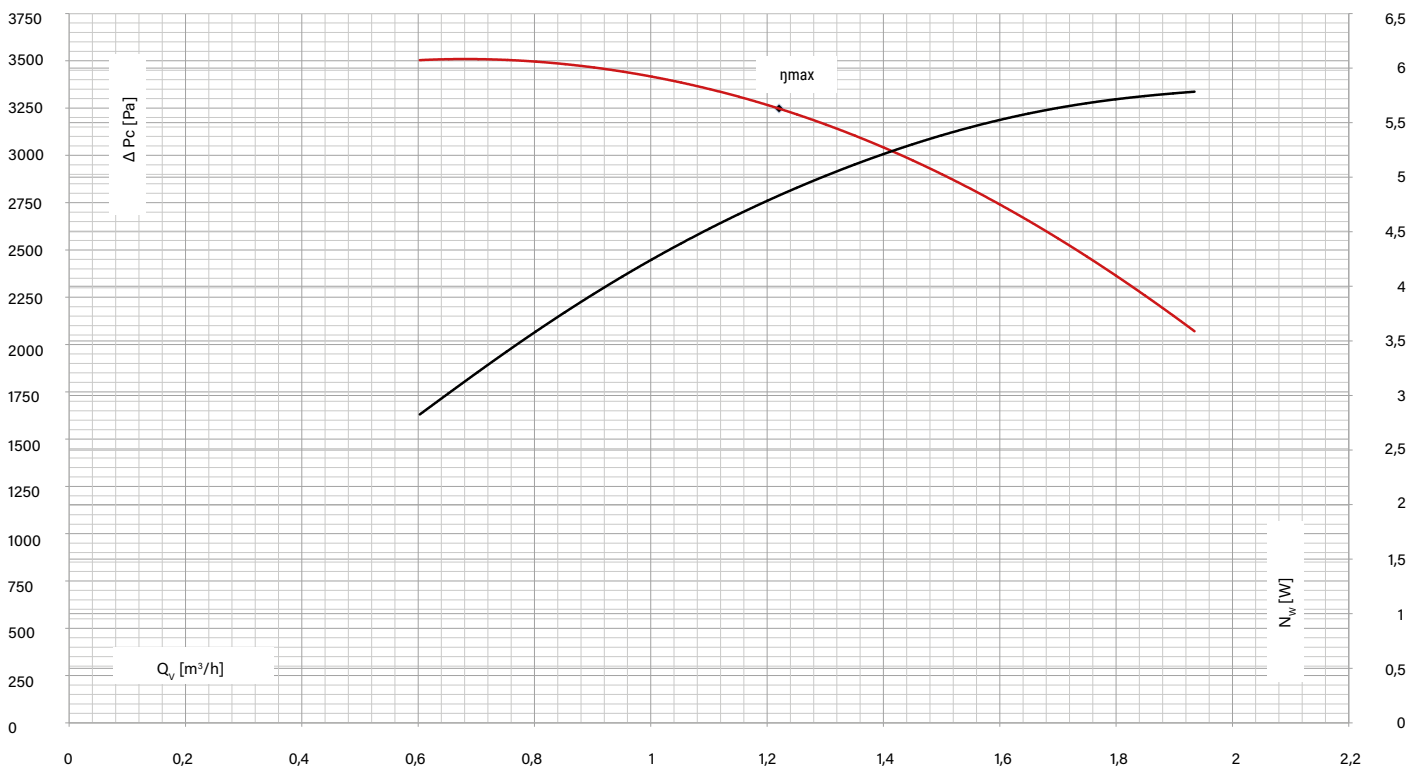
T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=2905 obr<sup>-1</sup> / N<sub>s</sub>=4 kW / L<sub>OAmax</sub>=89 dB(A) ISO 5801

WPMs-25/1,8 - 1,1 kW / 1445 obr<sup>-1</sup> | WPMs-25/1,8 - 1,1 kW / 1445 rev<sup>-1</sup>



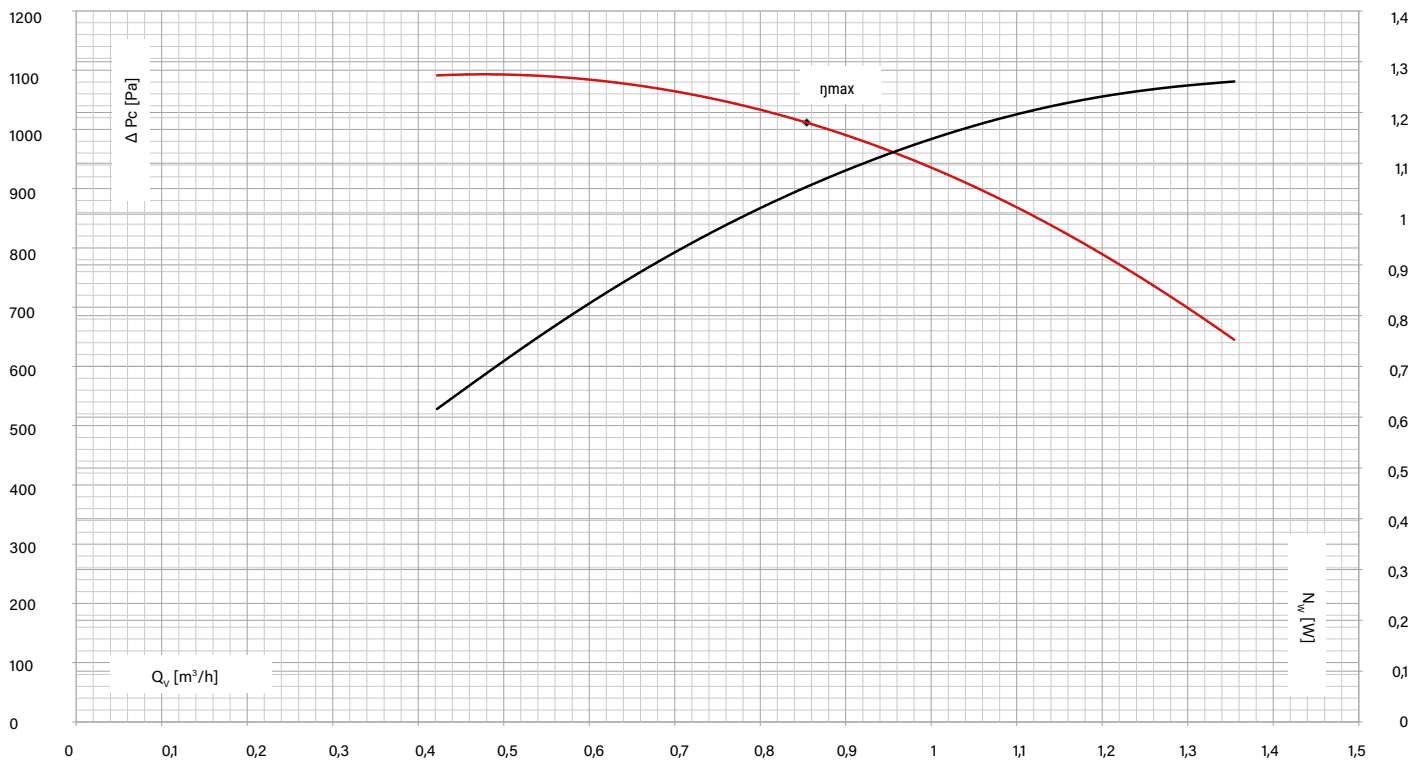
T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=1445 obr<sup>-1</sup> / N<sub>s</sub>=1,1 kW / L<sub>OAmax</sub>=76 dB(A) ISO 5801

WPMs-25/1,8 - 7,5 kW / 2930 obr<sup>-1</sup> | WPMs-25/1,8 - 7,5 kW / 2930 rev<sup>-1</sup>



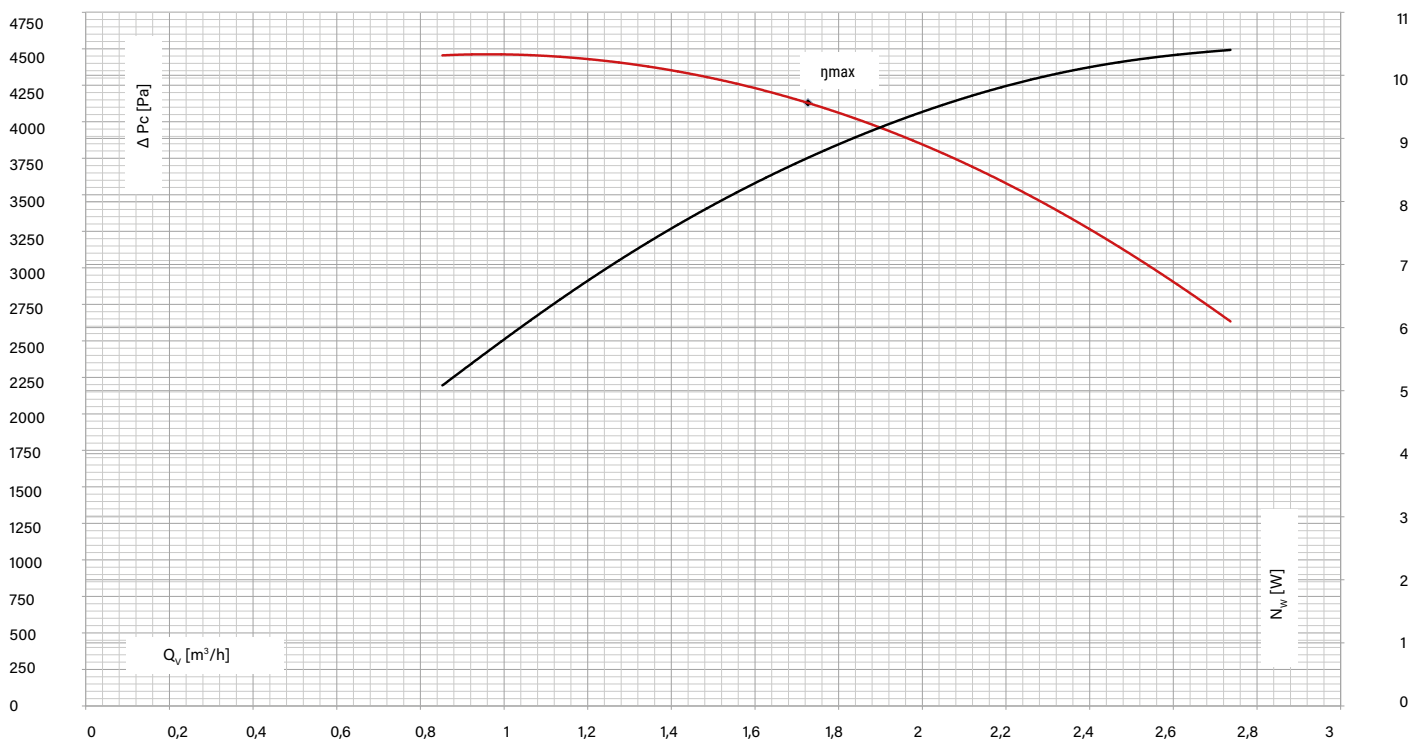
T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=2930 obr<sup>-1</sup> / N<sub>s</sub>=7,5 kW / L<sub>OAmax</sub>=93 dB(A) ISO 5801

WPMs-28/1,8 - 2,2 kW / 1460 obr<sup>-1</sup> | WPMs-28/1,8 - 2,2 kW / 1460 rev<sup>-1</sup>



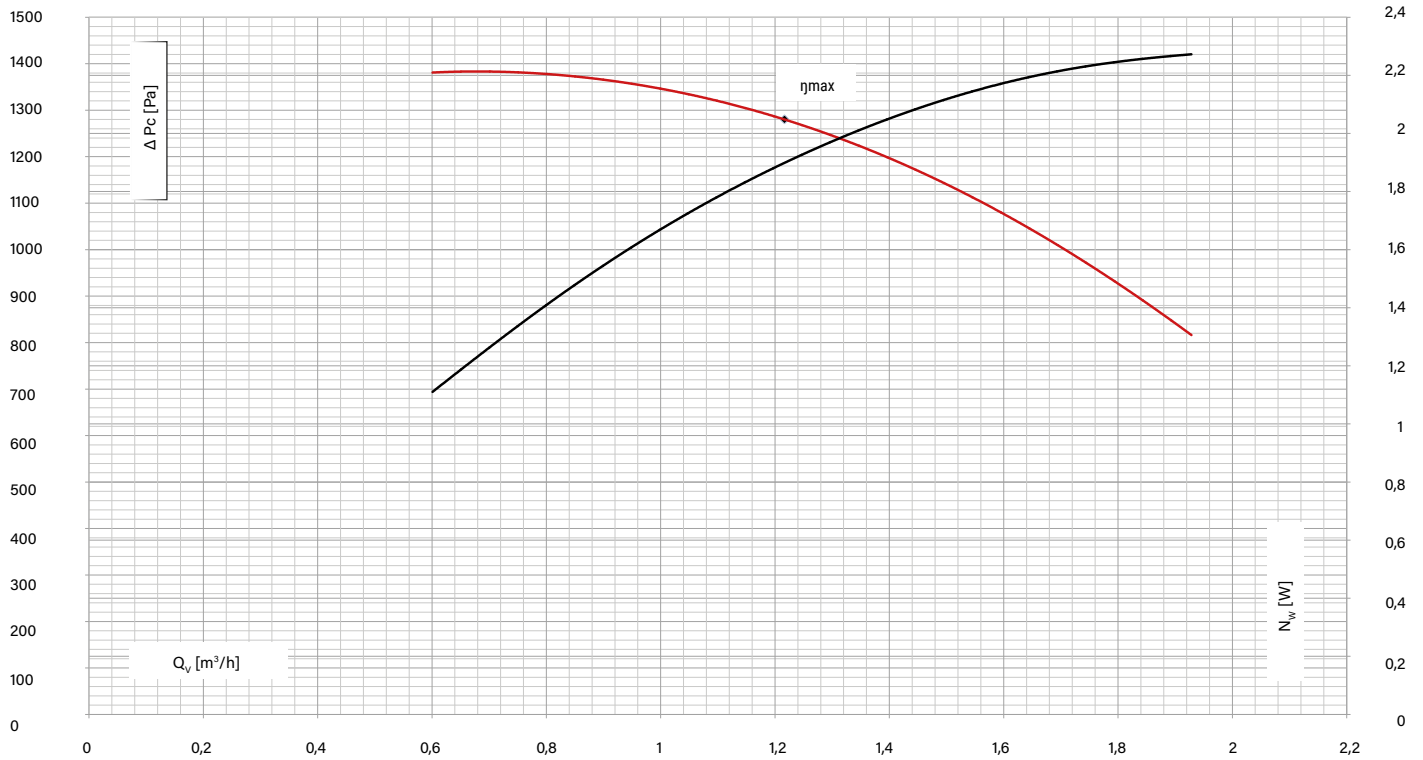
T=20°C /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=1460 \text{ obr}^{-1}$  /  $N_s=2,2 \text{ kW}$  /  $L_{OAmax}=80 \text{ dB(A) ISO 5801}$

WPMs-28/1,8 - 11 kW / 2950 obr<sup>-1</sup> | WPMs-28/1,8 - 11 kW / 2950 rev<sup>-1</sup>



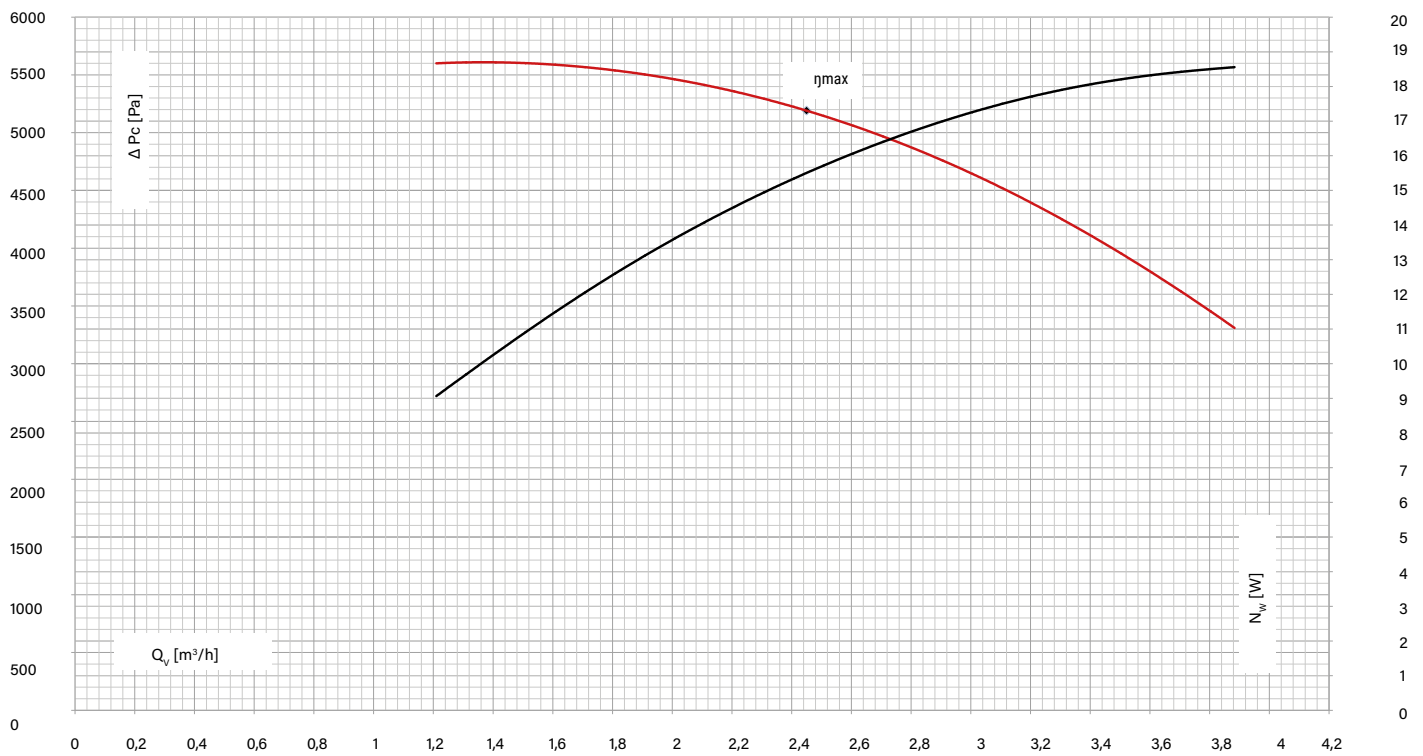
T=20°C /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=2950 \text{ obr}^{-1}$  /  $N_s=11 \text{ kW}$  /  $L_{OAmax}=97 \text{ dB(A) ISO 5801}$

WPMs-31,5/1,8 - 3 kW / 1460 obr<sup>-1</sup> | WPMs-31,5/1,8 - 3 kW / 1460 rev<sup>-1</sup>



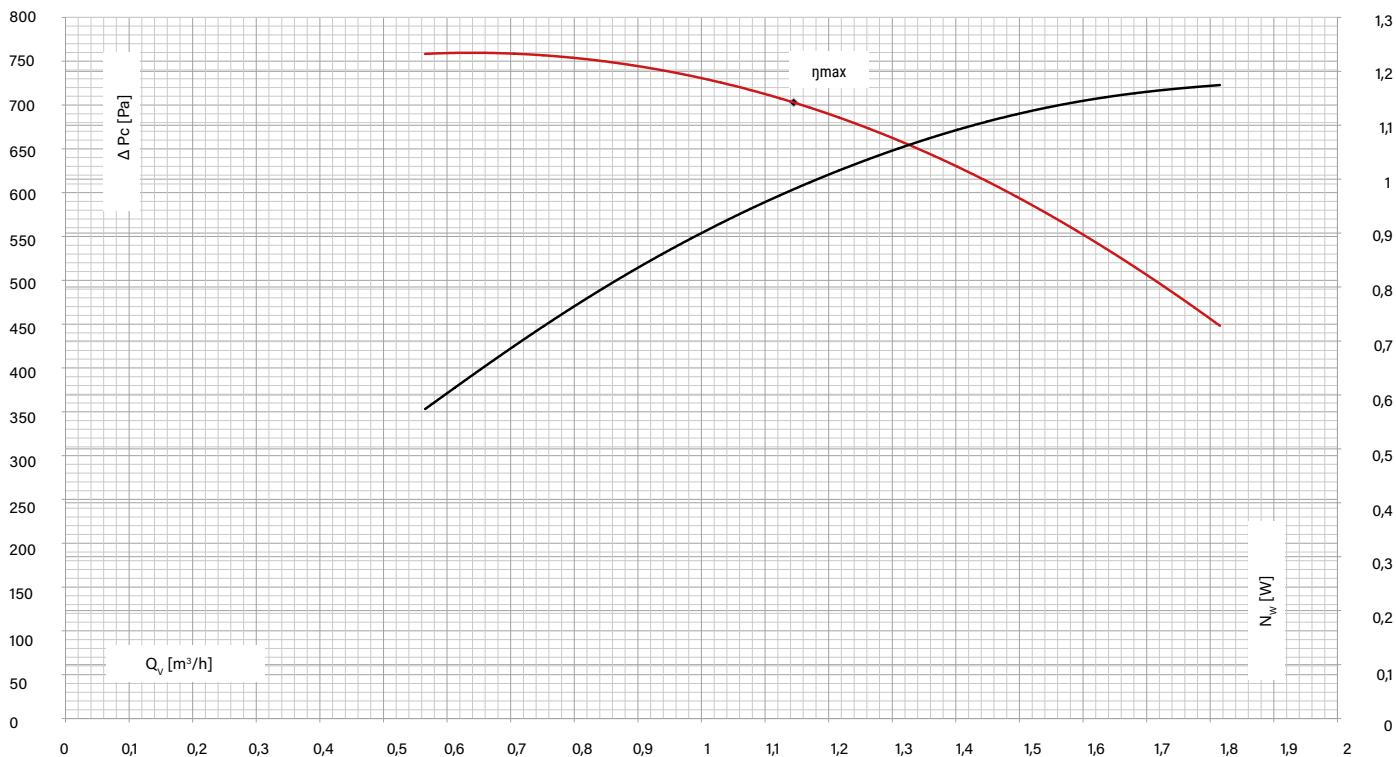
$T=20^{\circ}\text{C}$  /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=1460 \text{ obr}^{-1}$  /  $N_s=7,5 \text{ kW}$  /  $L_{OAmax}=84 \text{ dB(A)}$  ISO 5801

WPMs-31,5/1,8 - 18,5 kW / 2940 obr<sup>-1</sup> | WPMs-31,5/1,8 - 18,5 kW / 2940 rev<sup>-1</sup>



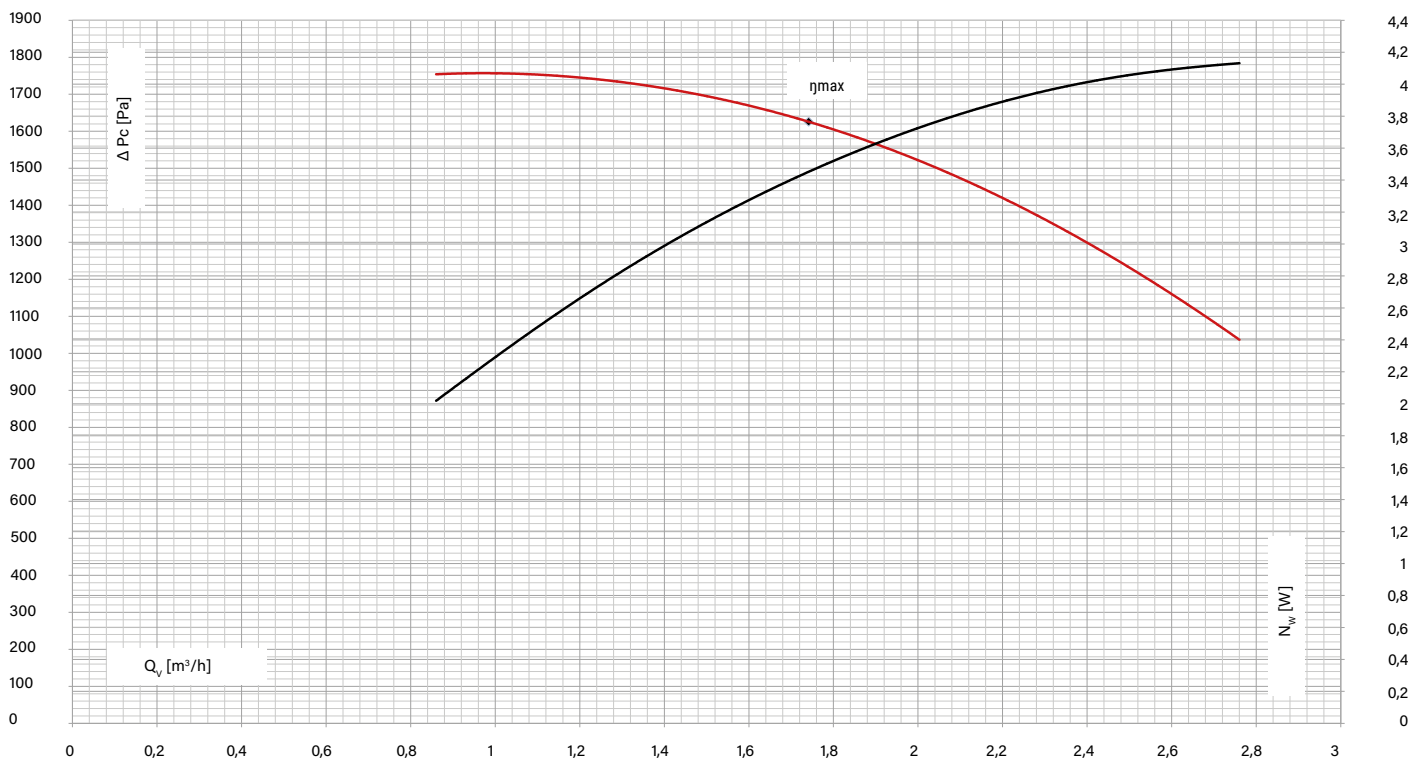
$T=20^{\circ}\text{C}$  /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=2940 \text{ obr}^{-1}$  /  $N_s=18,5 \text{ kW}$  /  $L_{OAmax}=101 \text{ dB(A)}$  ISO 5801

WPMs-35,5/1,8 - 1,5 kW / 960 obr<sup>-1</sup> | WPMs-35,5/1,8 - 1,5 kW / 960 rev<sup>-1</sup>



T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=960 obr<sup>-1</sup> / N<sub>s</sub>=1,5 kW / L<sub>OAm<sub>ax</sub></sub>=78 dB(A) ISO 5801

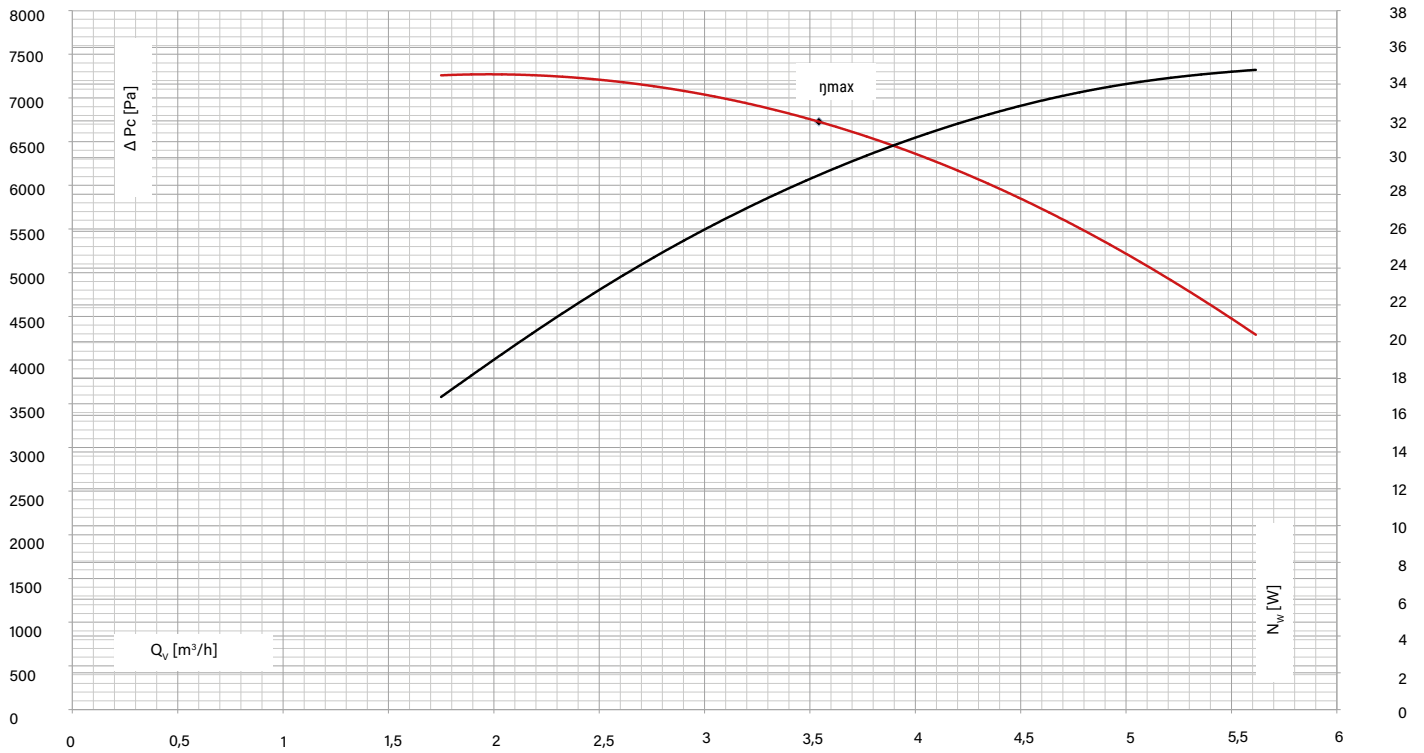
WPMs-35,5/1,8 - 5,5 kW / 1460 obr<sup>-1</sup> | WPMs-35,5/1,8 - 5,5 kW / 1460 rev<sup>-1</sup>



T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=1460 obr<sup>-1</sup> / N<sub>s</sub>=5,5 kW / L<sub>OAm<sub>ax</sub></sub>=88 dB(A) ISO 5801

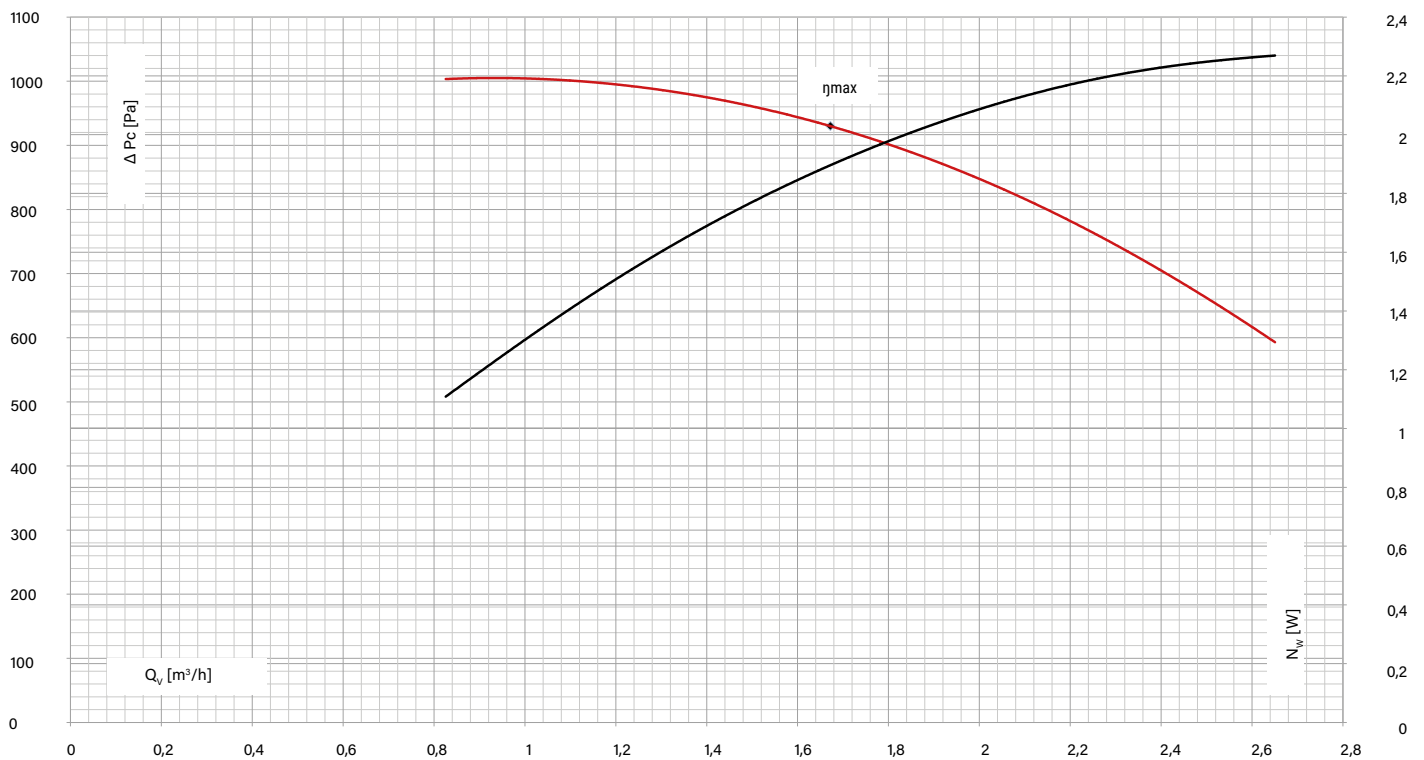


WPMs-35,5/1,8 - 37 kW / 2970 obr<sup>-1</sup> | WPMs-35,5/1,8 - 37 kW / 2970 rev<sup>-1</sup>



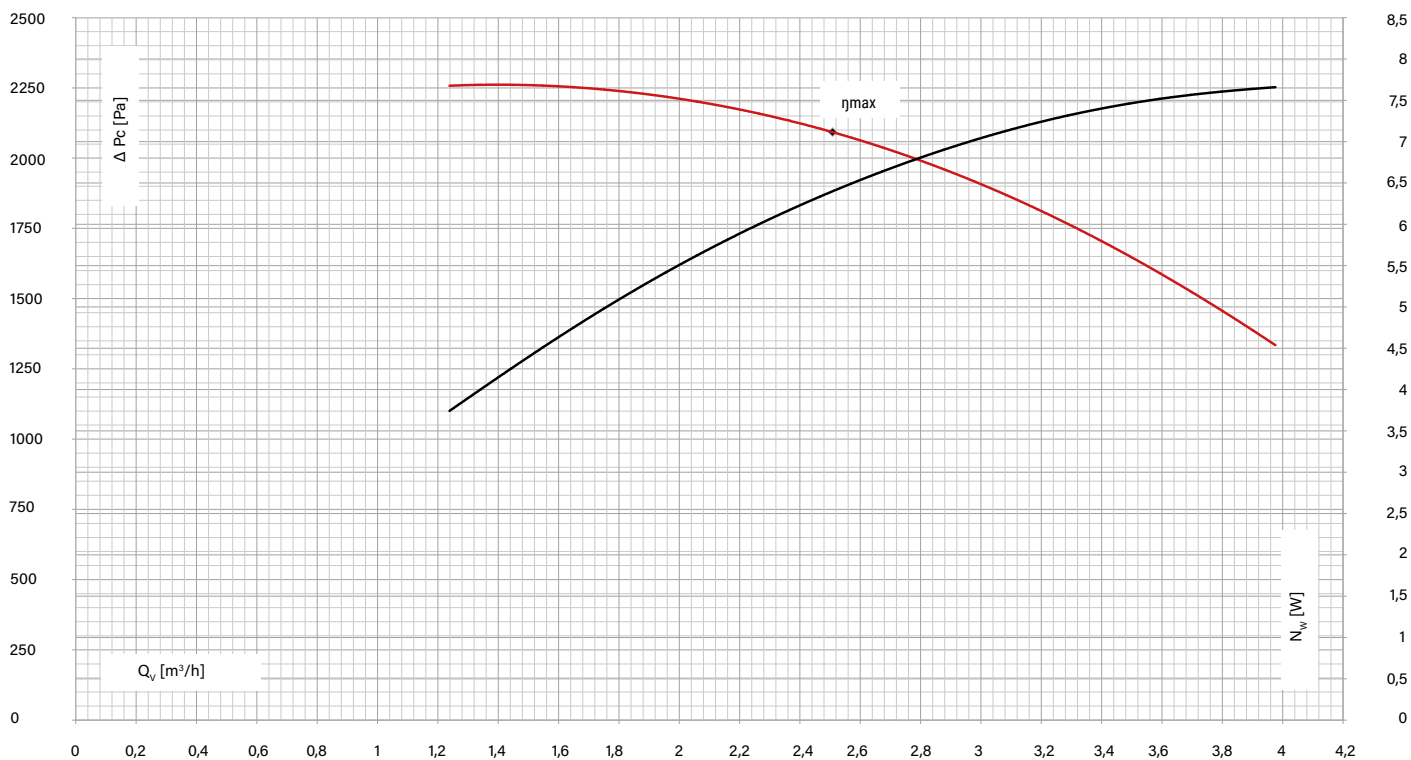
T=20°C /  $\rho=1,21$  kg/m<sup>3</sup> /  $n_w=2970$  obr<sup>-1</sup> /  $N_s=37$  kW /  $L_{OAmax}=105$  dB(A) ISO 5801

WPMs-40 - 3 kW / 980 obr<sup>-1</sup> | WPMs-40 - 3 kW / 980 rev<sup>-1</sup>



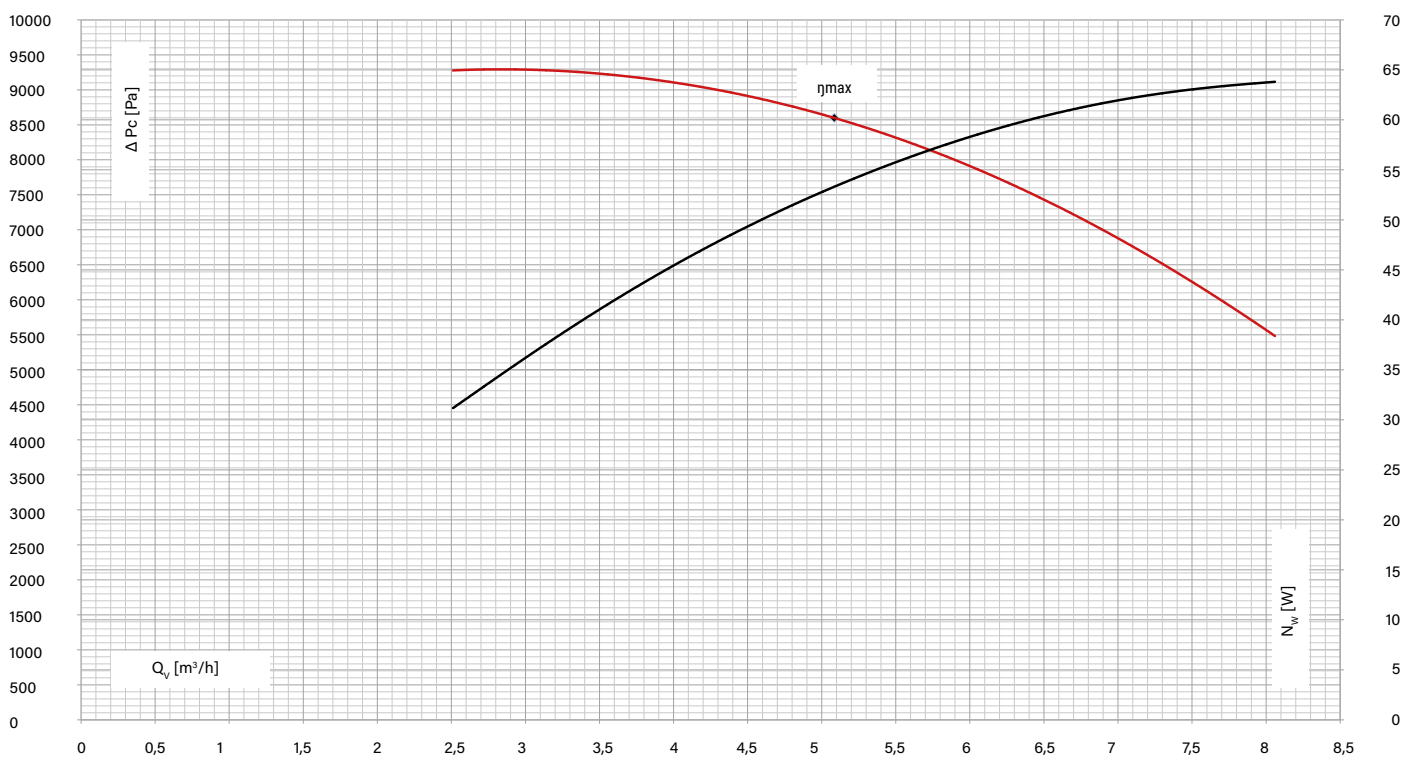
T=20°C /  $\rho=1,21$  kg/m<sup>3</sup> /  $n_w=980$  obr<sup>-1</sup> /  $N_s=3$  kW /  $L_{OAmax}=82$  dB(A) ISO 5801

WPMs-40/1,8 - 11 kW / 1470 obr<sup>-1</sup> | WPMs-40/1,8 - 11 kW / 1470 rev<sup>-1</sup>



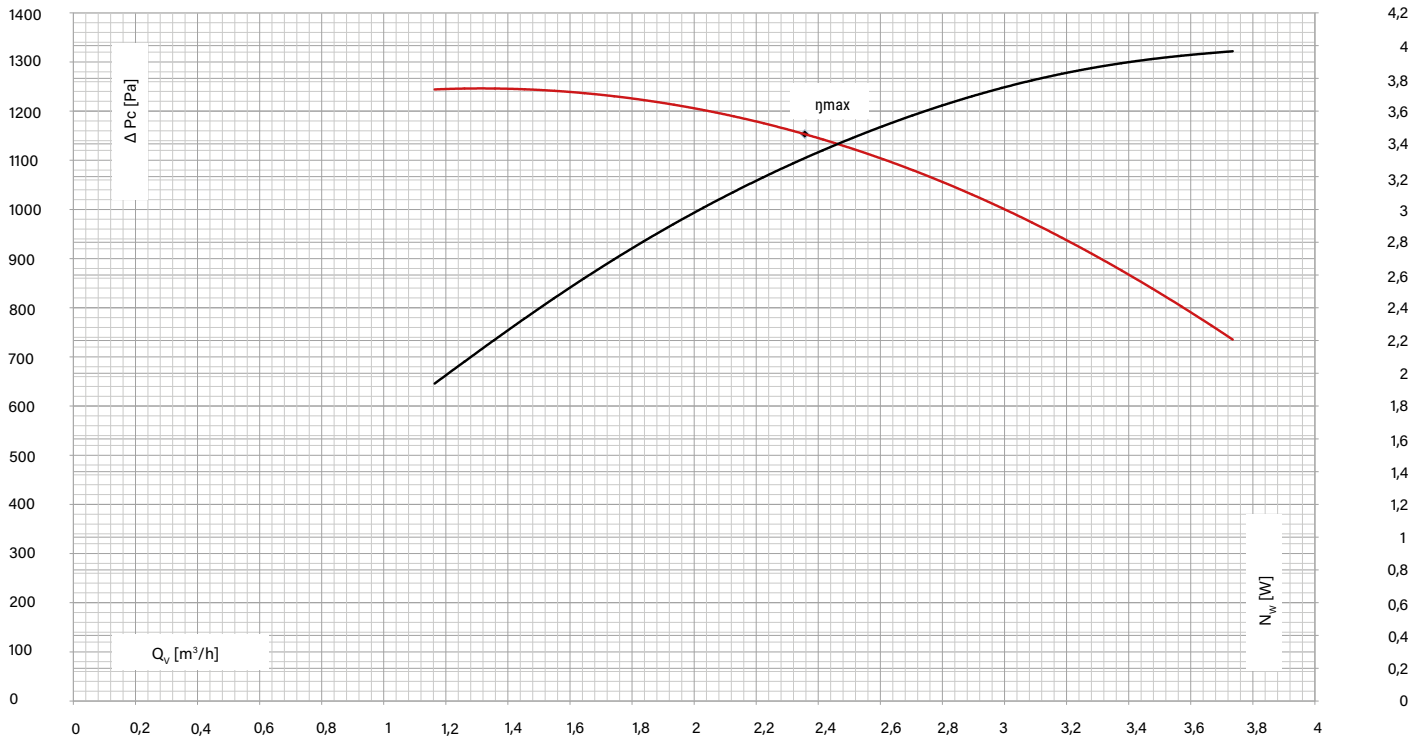
T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=1470 obr<sup>-1</sup> / N<sub>s</sub>=11 kW / L<sub>OAmax</sub>=92 dB(A) ISO 5801

WPMs-40/1,8 - 75 kW / 2980 obr<sup>-1</sup> | WPMs-40/1,8 - 75 kW / 2980 rev<sup>-1</sup>



T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=2980 obr<sup>-1</sup> / N<sub>s</sub>=75 kW / L<sub>OAmax</sub>=109 dB(A) ISO 5801

WPMs-45/1,8 - 4 kW / 970 obr<sup>-1</sup> | WPMs-45/1,8 - 4 kW / 970 rev<sup>-1</sup>



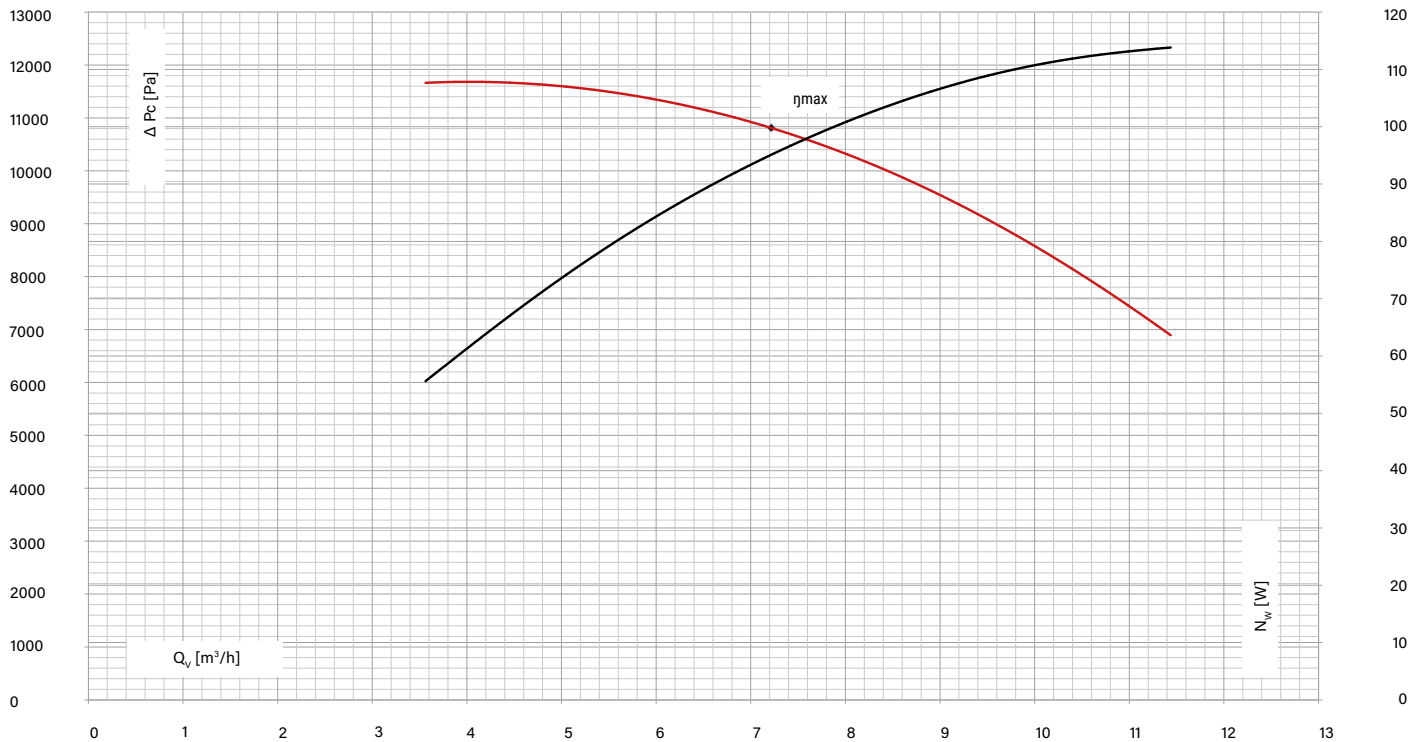
T=20°C /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=970 \text{ obr}^{-1}$  /  $N_s=4 \text{ kW}$  /  $L_{OAmax}=86 \text{ dB(A)}$  ISO 5801

WPMs-45/1,8 - 15 kW / 1470 obr<sup>-1</sup> | WPMs-45/1,8 - 15 kW / 1470 rev<sup>-1</sup>



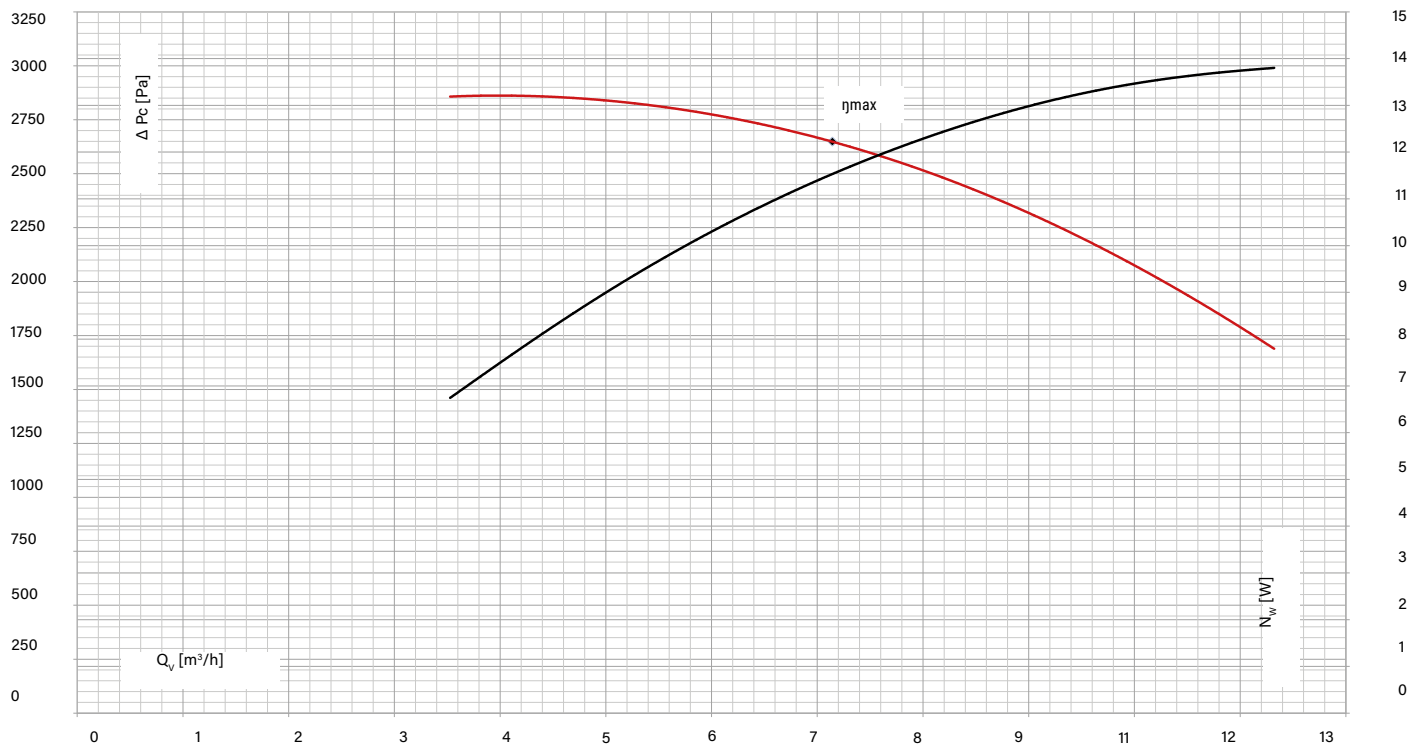
T=20°C /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=1470 \text{ obr}^{-1}$  /  $N_s=15 \text{ kW}$  /  $L_{OAmax}=96 \text{ dB(A)}$  ISO 5801

WPMs-45/1,8 - 4 kW / 970 obr<sup>-1</sup> | WPMs-45/1,8 - 4 kW / 970 rev<sup>-1</sup>



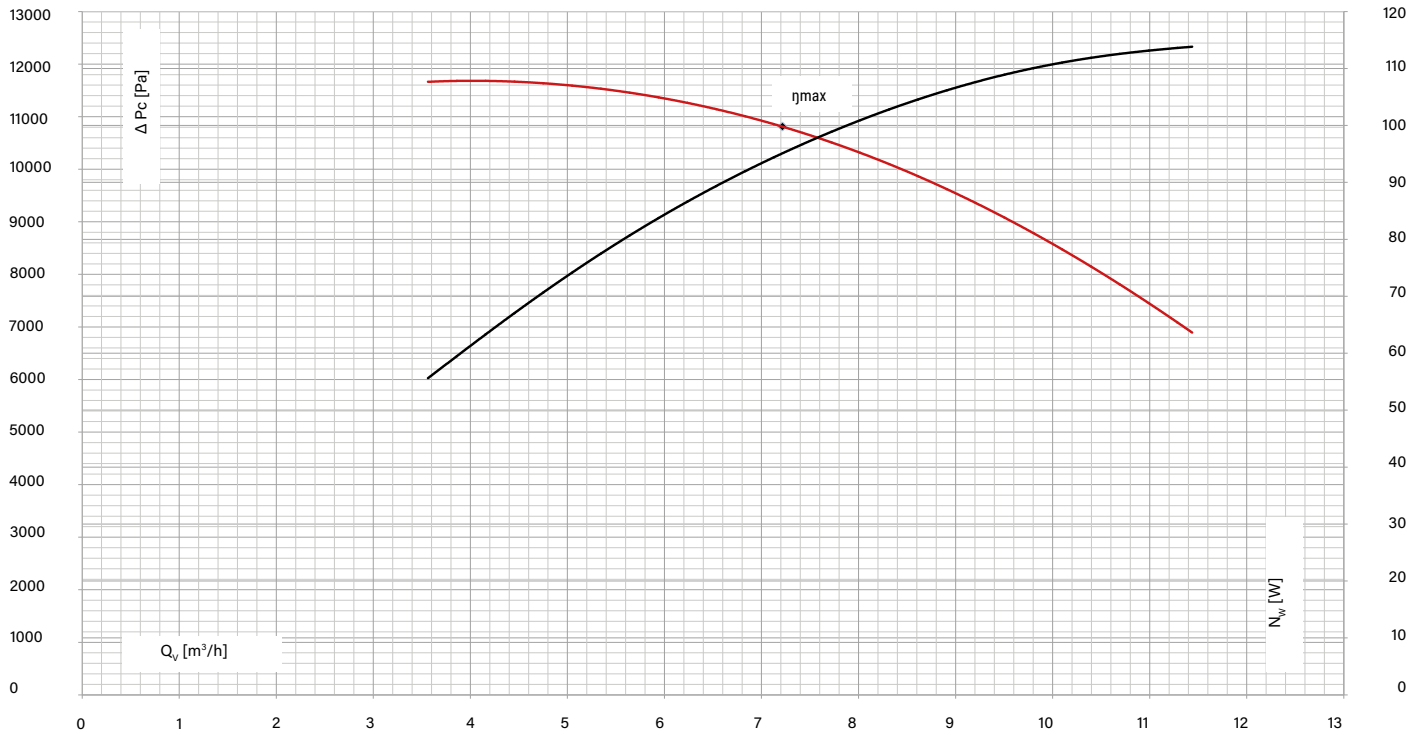
T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=2970 obr<sup>-1</sup> / N<sub>s</sub>=110 kW / L<sub>OAmax</sub>=112 dB(A) ISO 5801

WPMs-45/1,8 - 15 kW / 1470 obr<sup>-1</sup> | WPMs-45/1,8 - 15 kW / 1470 rev<sup>-1</sup>



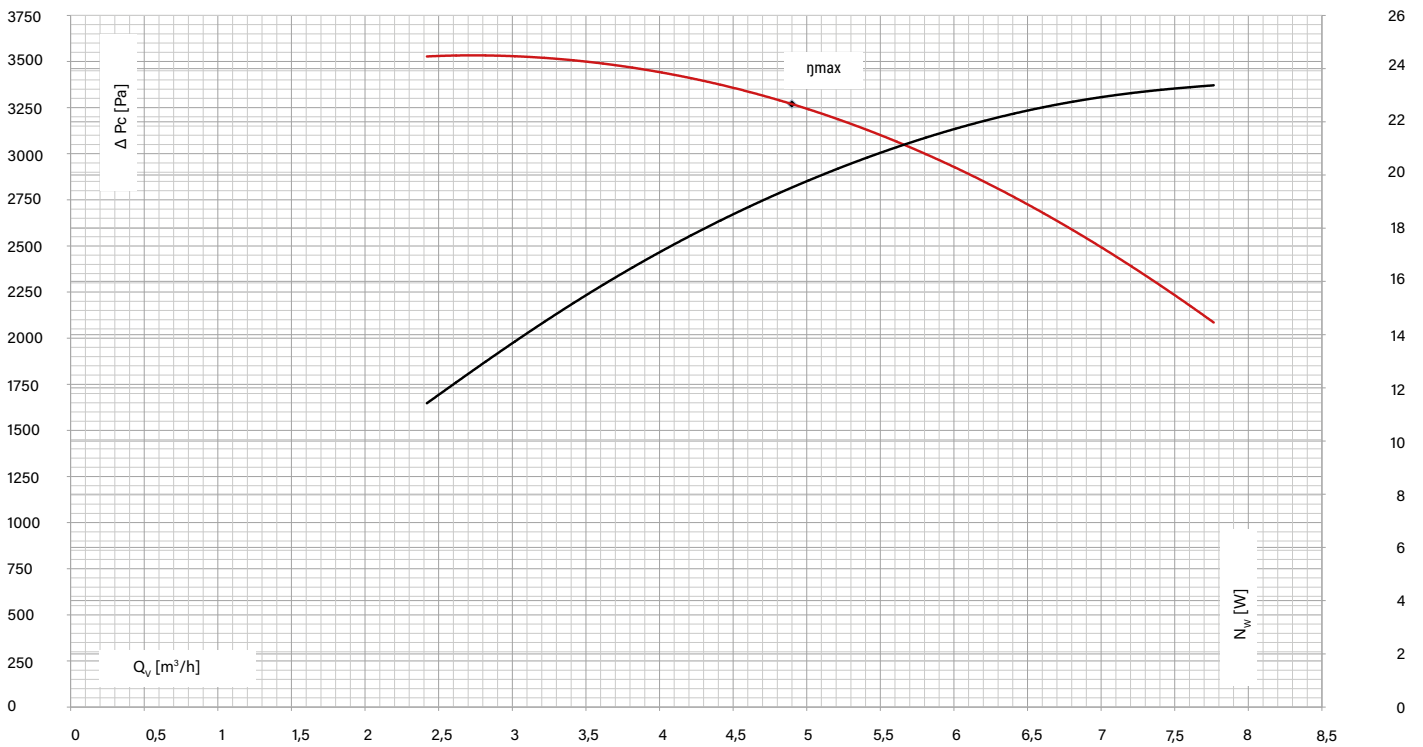
T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=1470 obr<sup>-1</sup> / N<sub>s</sub>=15 kW / L<sub>OAmax</sub>=96 dB(A) ISO 5801

WPMs-45/1,8 - 110 kW / 2970 obr<sup>-1</sup> | WPMs-45/1,8 - 110 kW / 2970 rev<sup>-1</sup>



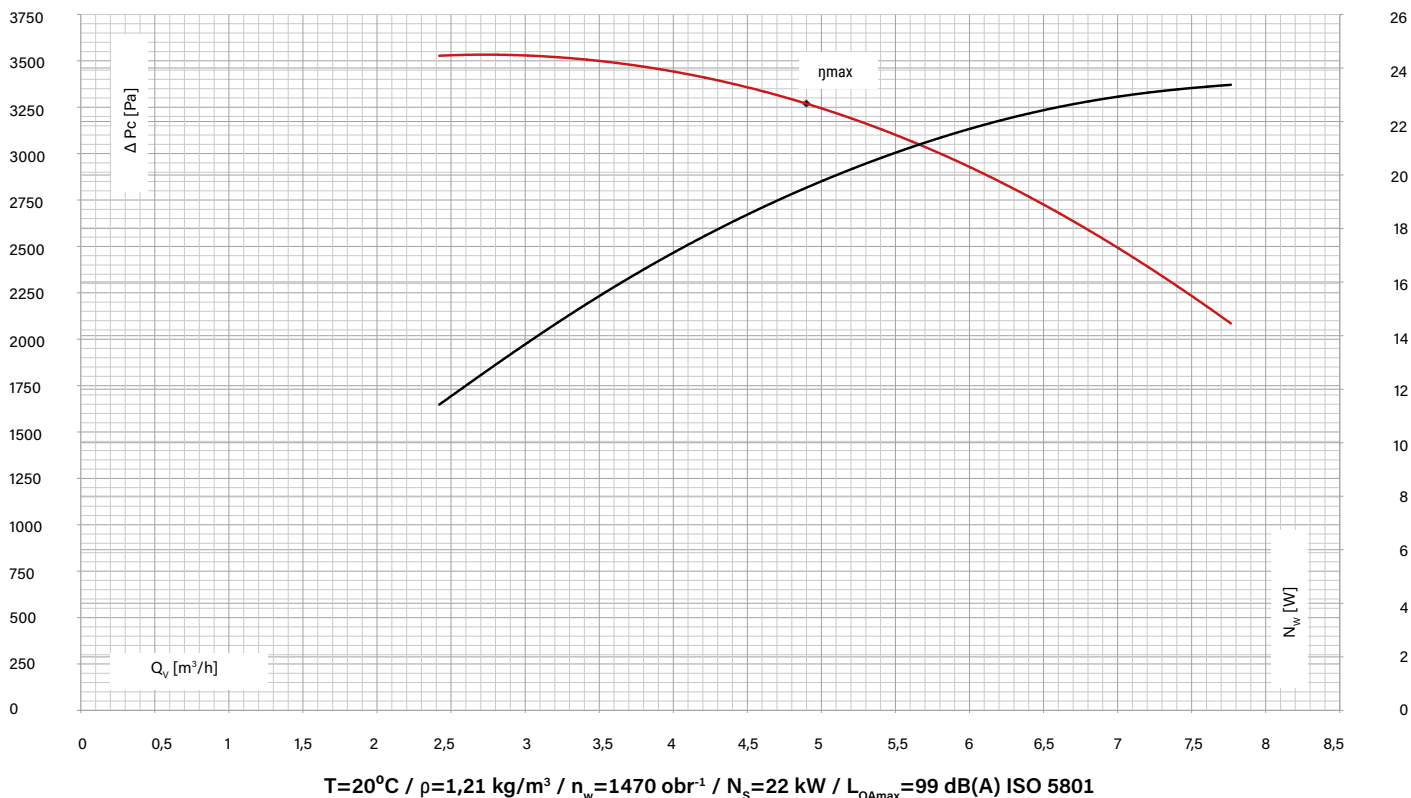
$T=20^{\circ}\text{C} / \rho=1,21 \text{ kg/m}^3 / \eta_w=2970 \text{ obr}^{-1} / N_s=110 \text{ kW} / L_{OAmax}=112 \text{ dB(A)} \text{ ISO 5801}$

WPMs-50/1,8 - 7,5 kW / 970 obr<sup>-1</sup> | WPMs-50/1,8 - 7,5 kW / 970 rev<sup>-1</sup>



$T=20^{\circ}\text{C} / \rho=1,21 \text{ kg/m}^3 / \eta_w=970 \text{ obr}^{-1} / N_s=7,5 \text{ kW} / L_{OAmax}=89\text{dB (A)} \text{ ISO 5801}$

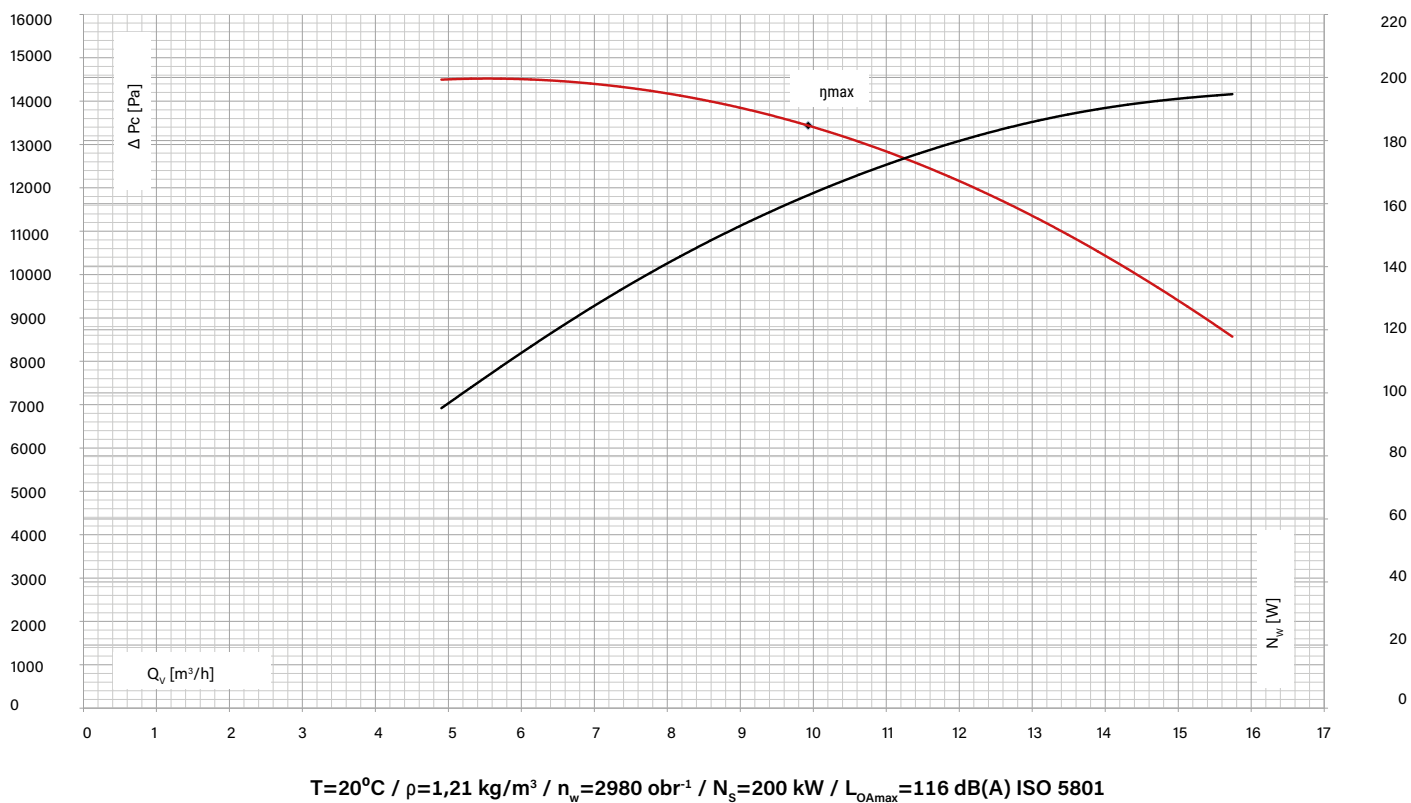
WPMs-50/1,8 - 22 kW / 1470 obr<sup>-1</sup> | WPMs-50/1,8 - 22 kW / 1470 rev<sup>-1</sup>



WPMs-50/1,8<sup>1)</sup> - 200 kW / 2980 obr<sup>-1</sup> | WPMs-50/1,8<sup>1)</sup> - 200 kW / 2980 rev<sup>-1</sup>

<sup>1)</sup> - Indywidualne ustalenia możliwości/rozwiązań wykonania - kontakt z działem technicznym

<sup>1)</sup> - For individual consulting of feasibility / execution solutions - contact the technical department

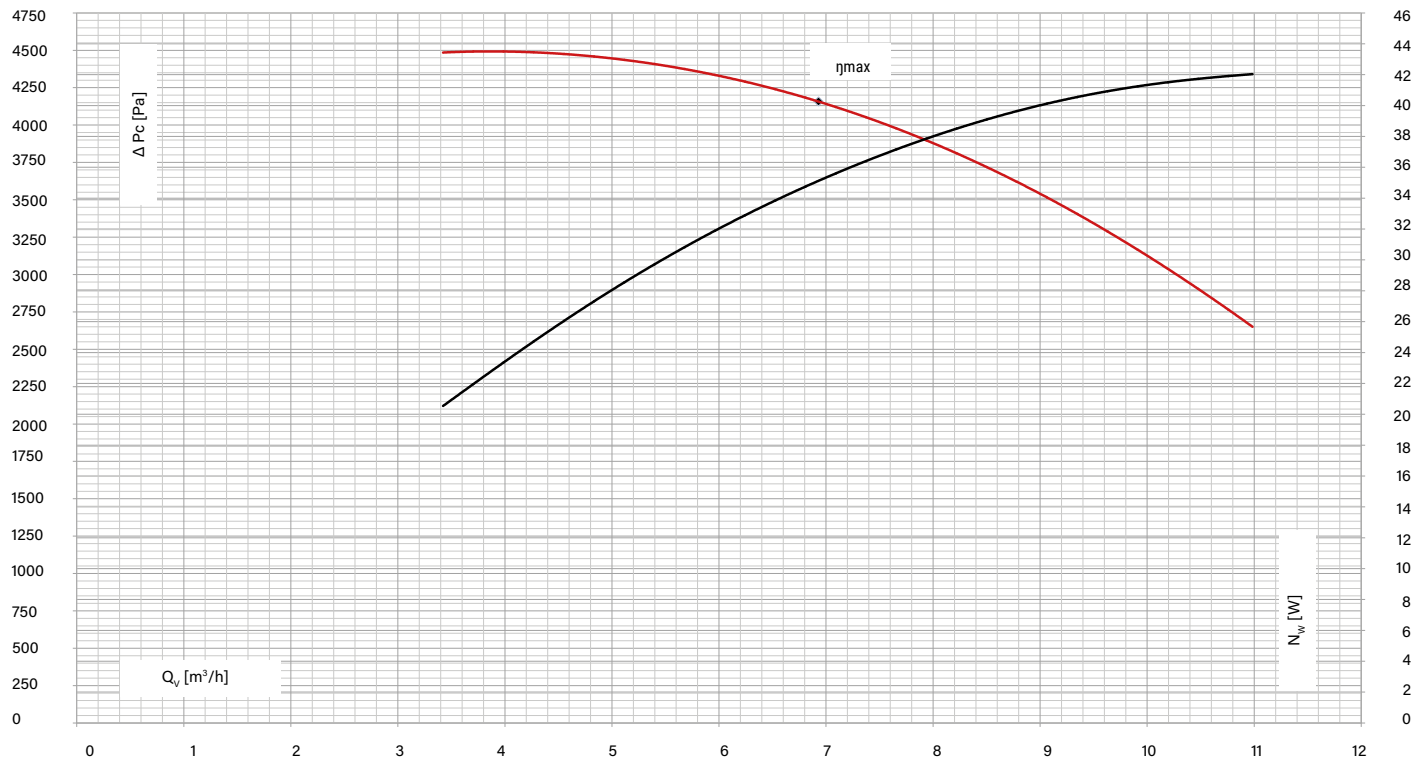


WPMs-50/1,8 - 7,5 kW / 970 obr<sup>-1</sup> | WPMs-50/1,8 - 7,5 kW / 970 rev<sup>-1</sup>



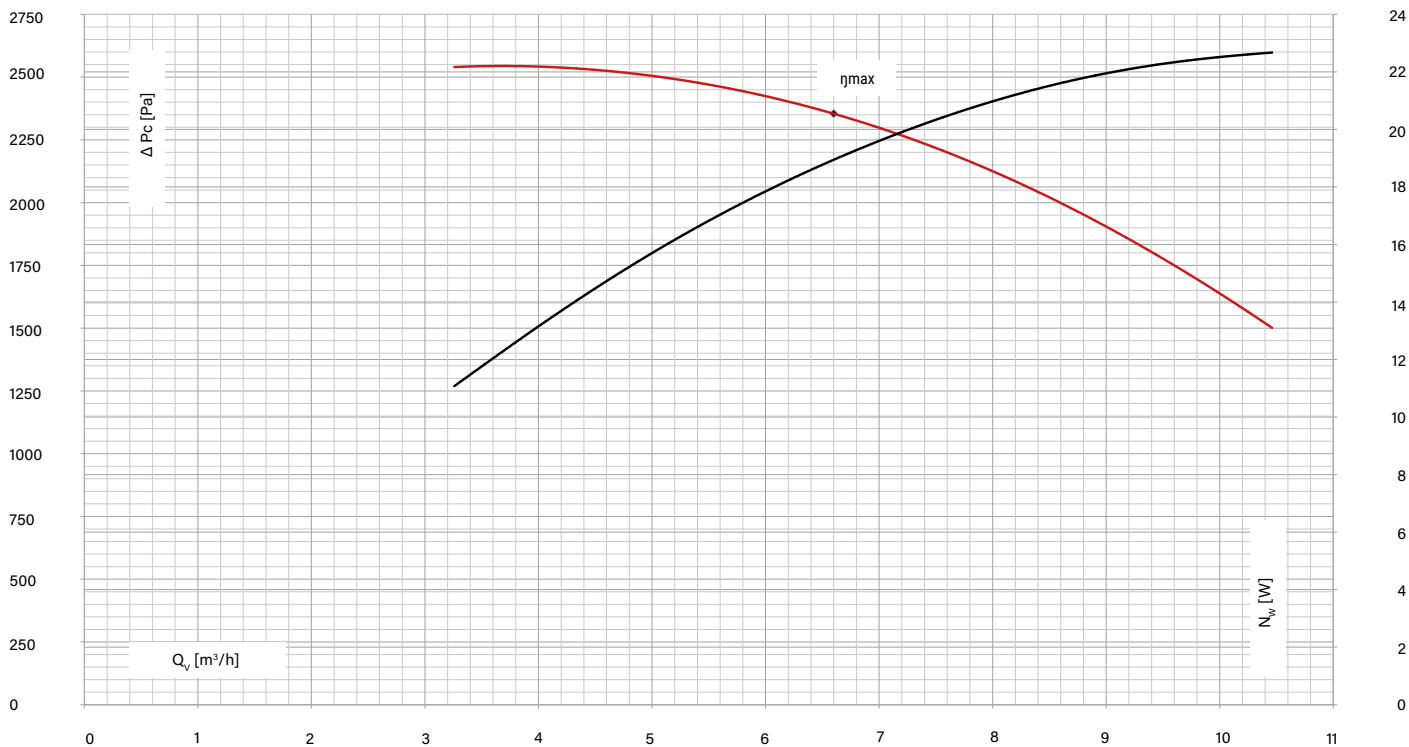
$T=20^{\circ}\text{C}$  /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=980 \text{ obr}^{-1}$  /  $N_s=15 \text{ kW}$  /  $L_{OAmax}=93 \text{ dB(A)}$  ISO 5801

WPMs-56/1,8 - 45 kW / 1480 obr<sup>-1</sup> | WPMs-56/1,8 - 45 kW / 1480 rev<sup>-1</sup>



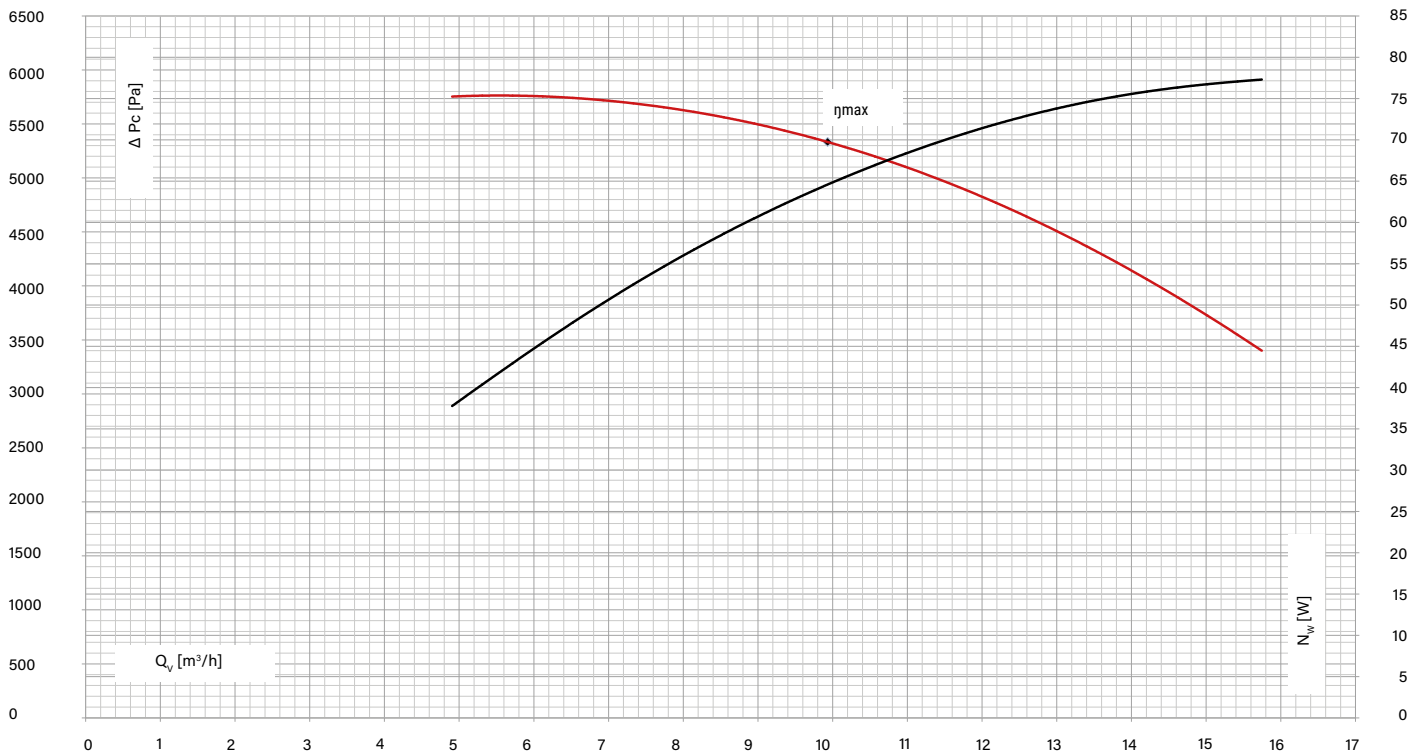
$T=20^{\circ}\text{C}$  /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=1480 \text{ obr}^{-1}$  /  $N_s=45 \text{ kW}$  /  $L_{OAmax}=103 \text{ dB(A)}$  ISO 5801

WPMs-63/1,8 - 30 kW / 990 obr<sup>-1</sup> | WPMs-63/1,8 - 30 kW / 990 rev<sup>-1</sup>



T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=990 obr<sup>-1</sup> / N<sub>s</sub>=30 kW / L<sub>OAm<sub>ax</sub></sub>=97 dB(A) ISO 5801

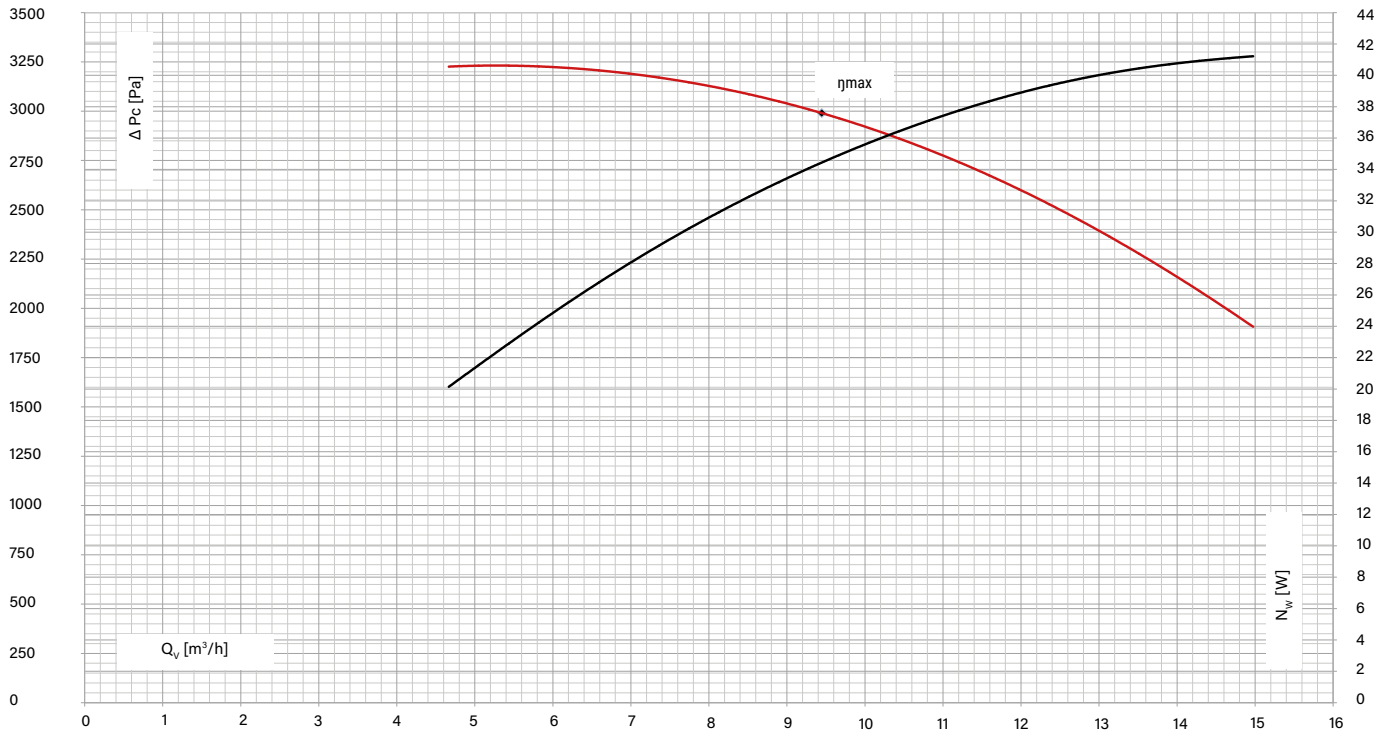
WPMs-63/1,8 - 90 kW / 1490 obr<sup>-1</sup> | WPMs-63/1,8 - 90 kW / 1490 rev<sup>-1</sup>



T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=1490 obr<sup>-1</sup> / N<sub>s</sub>=90 kW / L<sub>OAm<sub>ax</sub></sub>=107 dB(A) ISO 5801

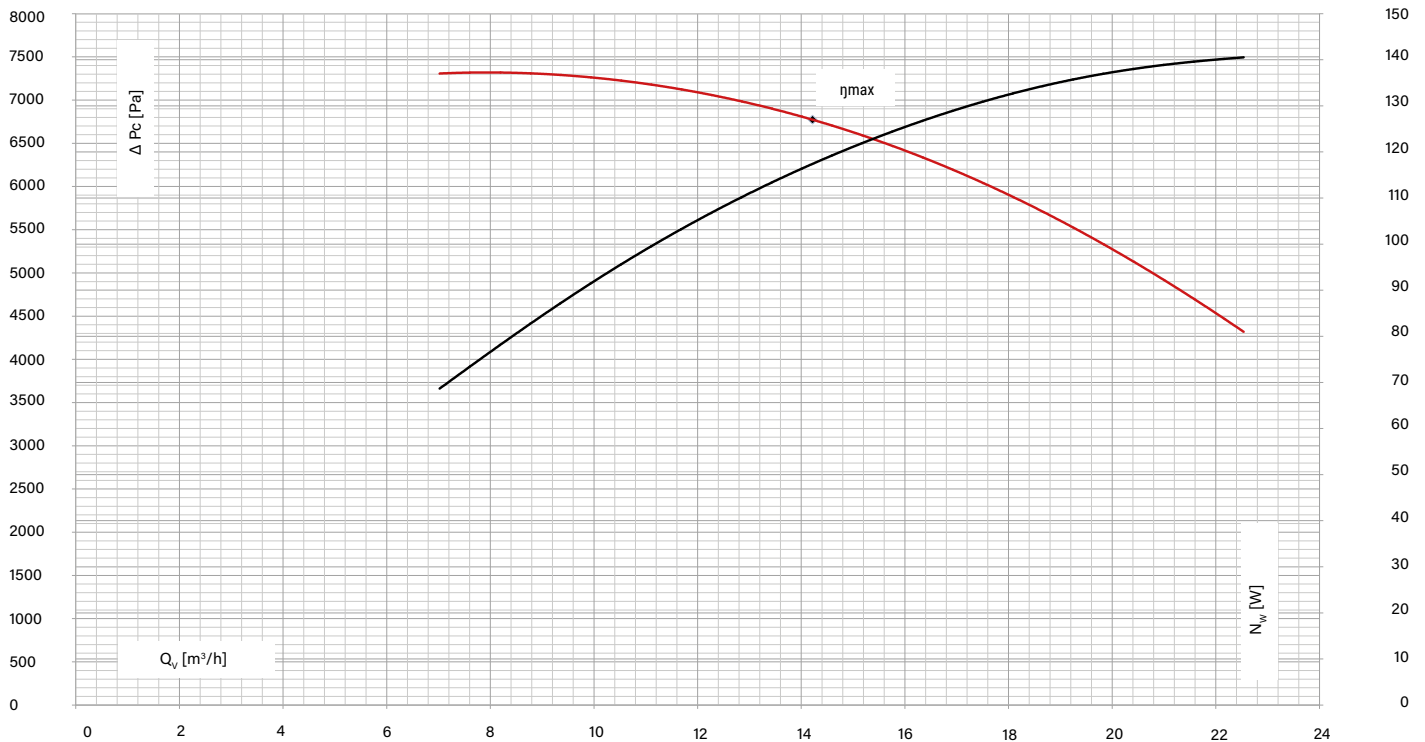


WPMs-71/1,8 - 45 kW / 990 obr<sup>-1</sup> | WPMs-71/1,8 - 45 kW / 990 rev<sup>-1</sup>



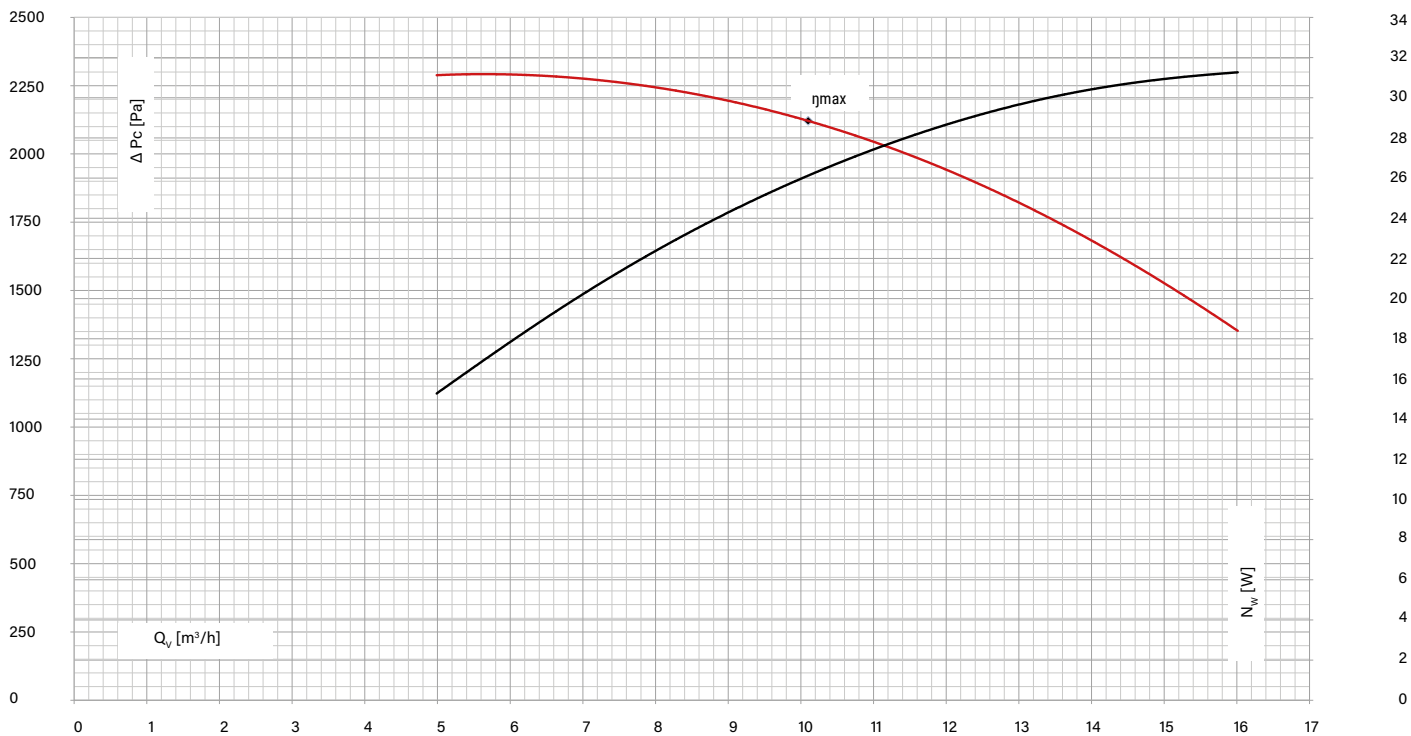
$T=20^{\circ}\text{C}$  /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=990 \text{ obr}^{-1}$  /  $N_s=45 \text{ kW}$  /  $L_{\text{OAmax}}=100 \text{ dB(A)}$  ISO 5801

WPMs-71/1,8 - 160 kW / 1490 obr<sup>-1</sup> | WPMs-71/1,8 - 160 kW / 1490 rev<sup>-1</sup>



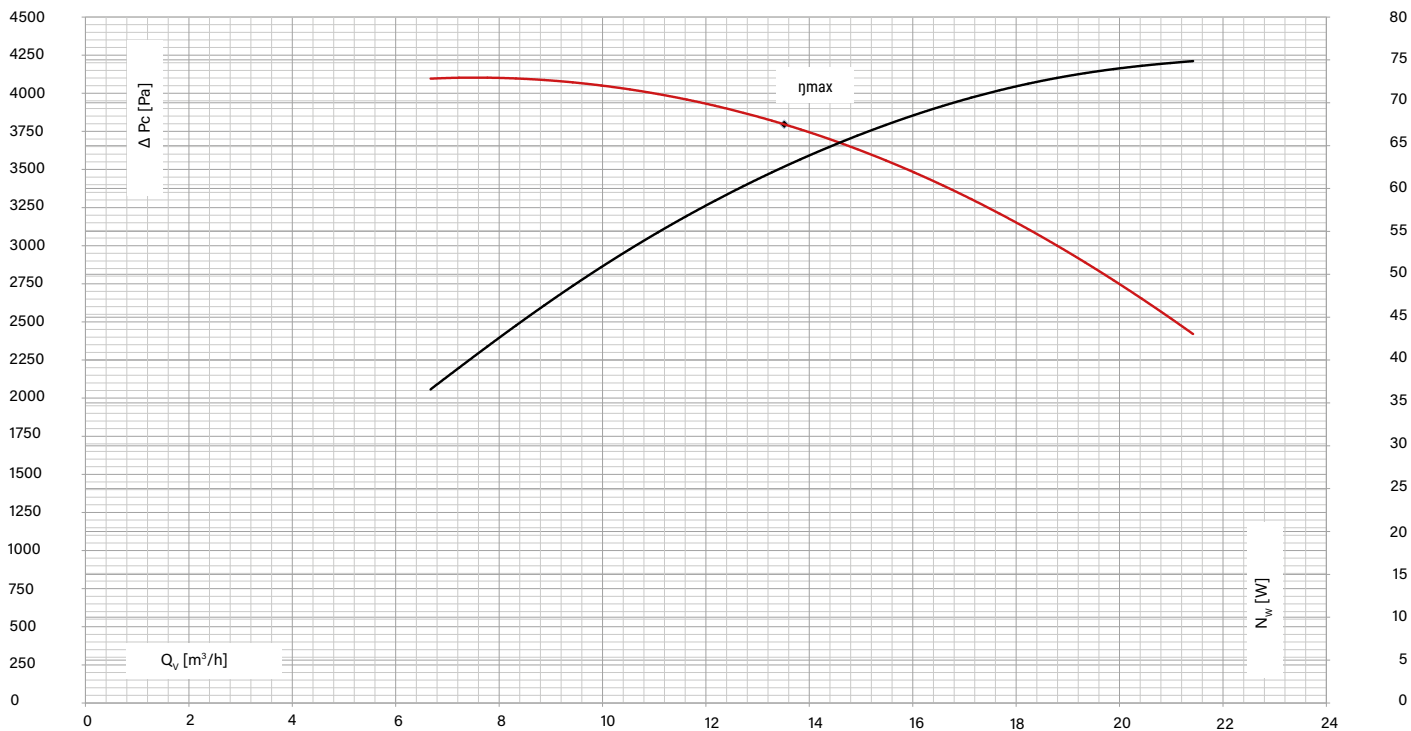
$T=20^{\circ}\text{C}$  /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=1490 \text{ obr}^{-1}$  /  $N_s=160 \text{ kW}$  /  $L_{\text{OAmax}}=111 \text{ dB(A)}$  ISO 5801

WPMs-80/1,8 - 30 kW / 740 obr<sup>-1</sup> | WPMs-80/1,8 - 30 kW / 740 rev<sup>-1</sup>



T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=740 obr<sup>-1</sup> / N<sub>s</sub>=30 kW / L<sub>OAmax</sub>=98 dB(A) ISO 5801

WPMs-80/1,8 - 75 kW / 990 obr<sup>-1</sup> | WPMs-80/1,8 - 75 kW / 990 rev<sup>-1</sup>

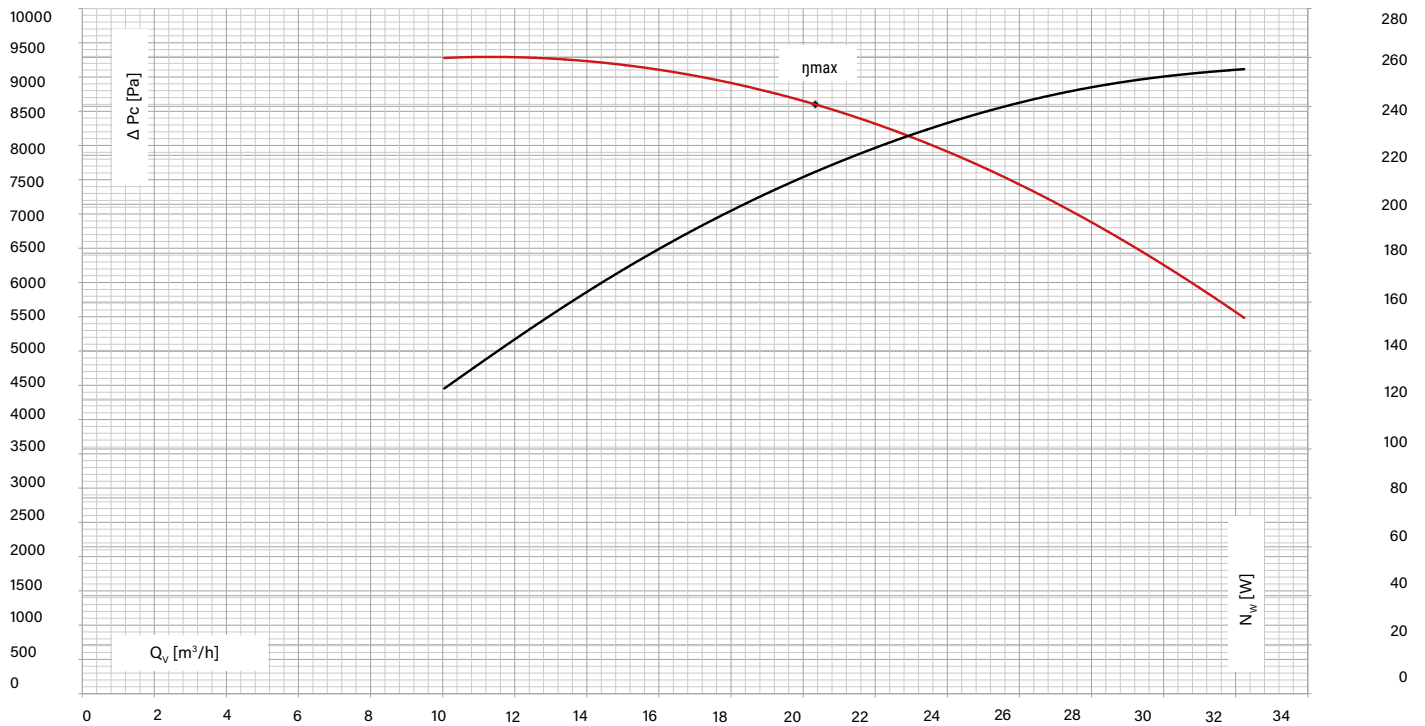


T=20°C / ρ=1,21 kg/m<sup>3</sup> / n<sub>w</sub>=990 obr<sup>-1</sup> / N<sub>s</sub>=75 kW / L<sub>OAmax</sub>=105 dB(A) ISO 5801

**WPMs-80/1,8<sup>1)</sup> - 250÷315 kW / 1490 obr<sup>-1</sup> | WPMs-80/1,8<sup>1)</sup> - 250÷315 kW / 1490 obr<sup>-1</sup>**

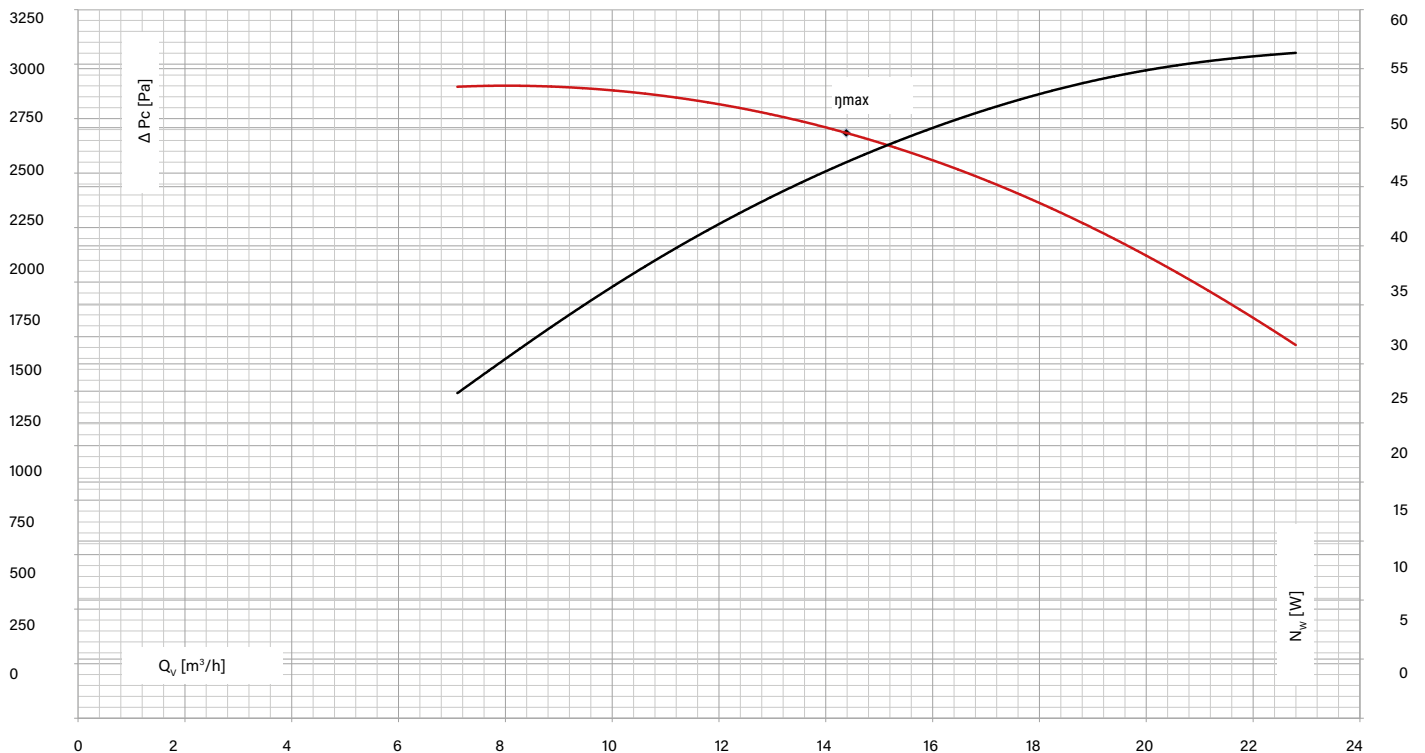
<sup>1)</sup> - Indywidualne ustalenia możliwości/rozwiązań wykonania - kontakt z działem technicznym

<sup>1)</sup> - For individual consulting of feasibility / execution solutions - contact the technical department



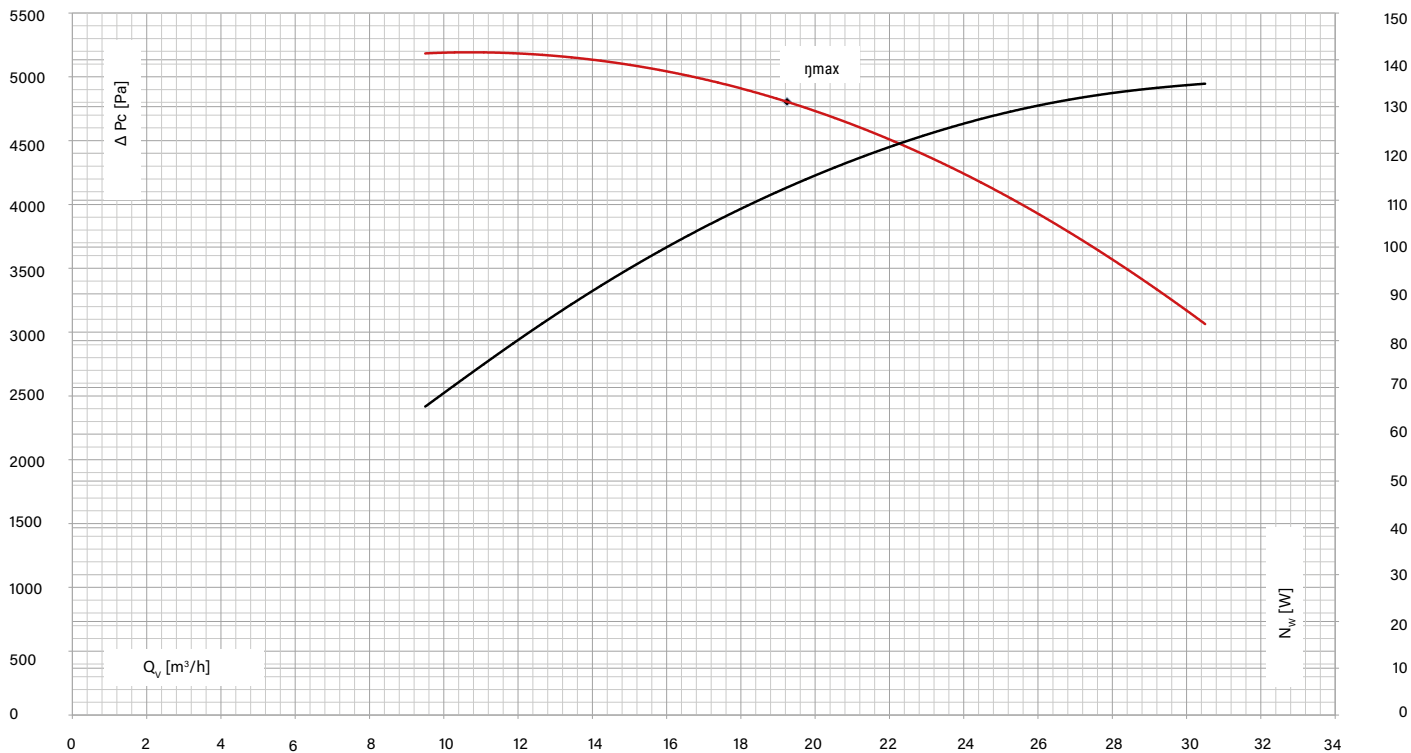
$T=20^{\circ}\text{C} / \rho=1,21 \text{ kg/m}^3 / n_w=1490 \text{ obr}^{-1} / N_s=250\div 315 \text{ kW} / L_{O_{Amax}}=116 \text{ dB(A)} \text{ ISO } 5801$

**WPMs-90/1,8 - 55 kW / 740 obr<sup>-1</sup> | WPMs-90/1,8 - 55 kW / 740 obr<sup>-1</sup>**



$T=20^{\circ}\text{C} / \rho=1,21 \text{ kg/m}^3 / n_w=740 \text{ obr}^{-1} / N_s=55 \text{ kW} / L_{O_{Amax}}=102 \text{ dB(A)} \text{ ISO } 5801$

WPMs-90/1,8 - 132 kW / 990 obr<sup>-1</sup> | WPMs-90/1,8 - 132 kW / 990 rev<sup>-1</sup>

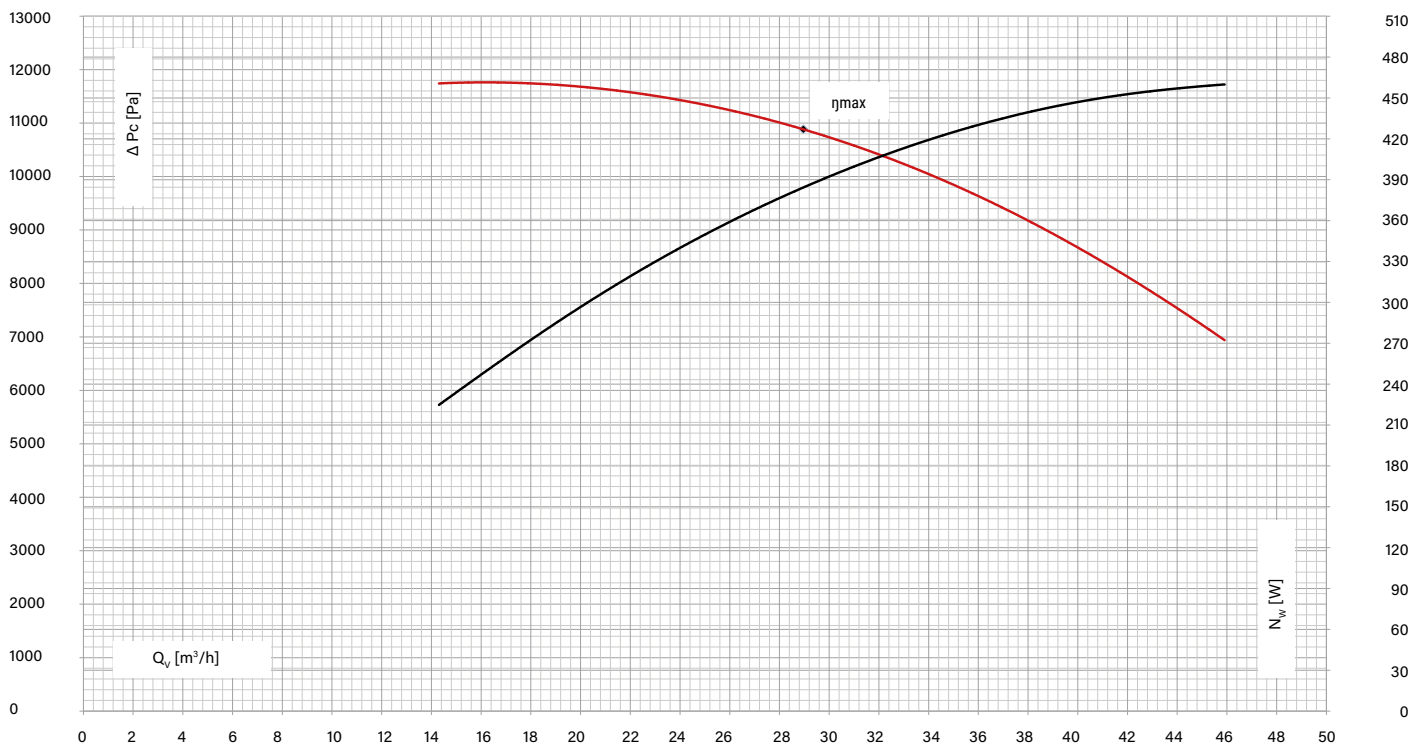


T=20°C / ρ=1,21 kg/m<sup>3</sup> / η<sub>w</sub>=990 obr<sup>-1</sup> / N<sub>s</sub>=132 kW / L<sub>OAmax</sub>=108 dB(A) ISO 5801

WPMs-90/1,8<sup>1)</sup> - 450÷500 kW / 1490 obr<sup>-1</sup> | WPMs-90/1,8<sup>1)</sup> - 450÷500 kW / 1490 rev<sup>-1</sup>

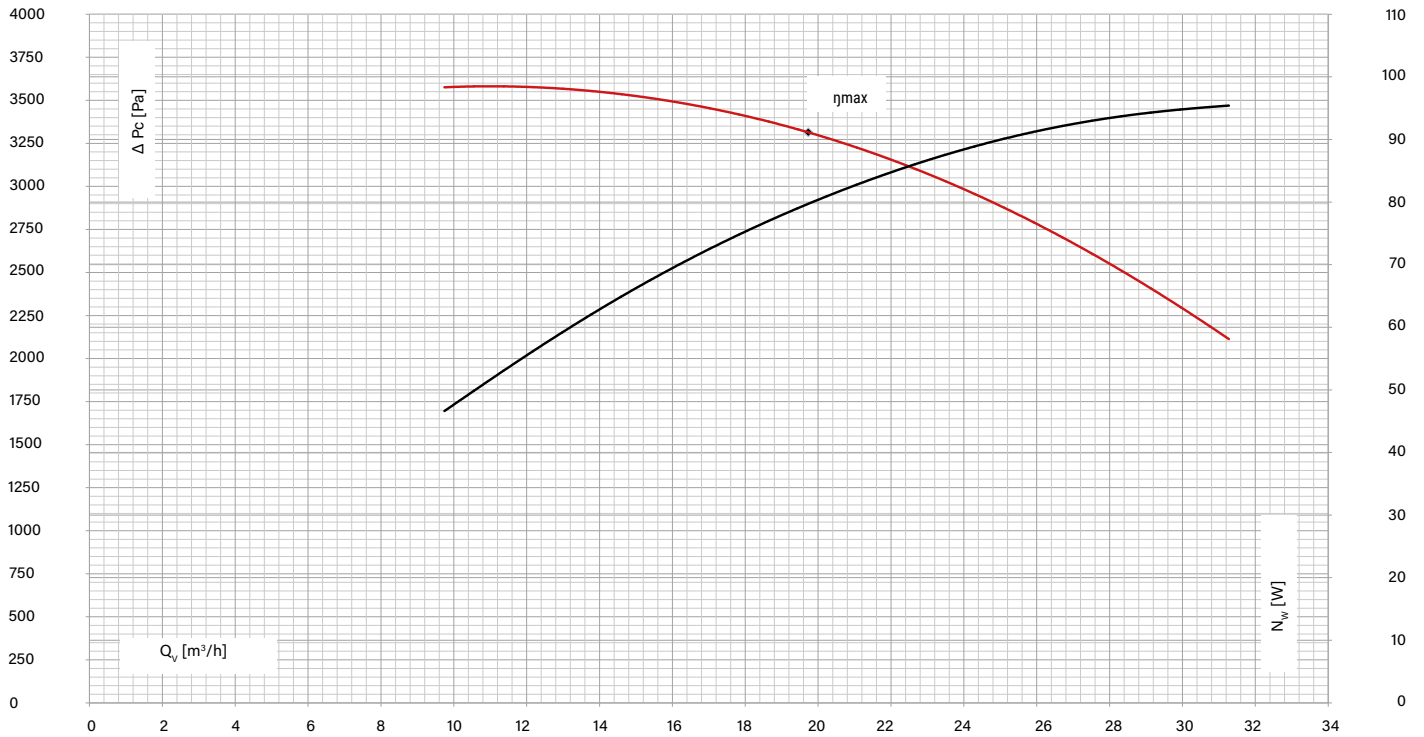
<sup>1)</sup> - Indywidualne ustalenia możliwości/rozwiązań wykonania - kontakt z działem technicznym

<sup>1)</sup> - For individual consulting of feasibility / execution solutions - contact the technical department



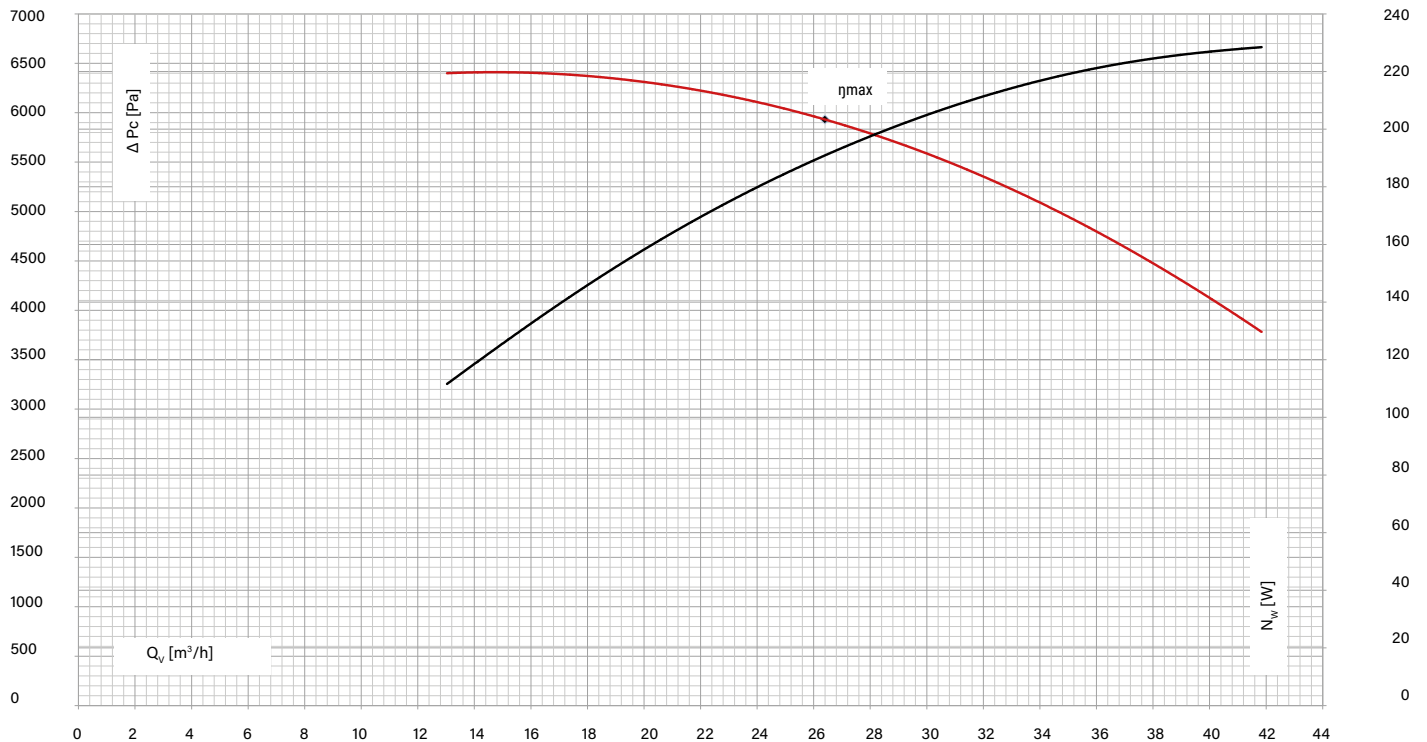
T=20°C / ρ=1,21 kg/m<sup>3</sup> / η<sub>w</sub>=1490 obr<sup>-1</sup> / N<sub>s</sub>=450÷500 kW / L<sub>OAmax</sub>=119 dB(A) ISO 5801

WPMs-90/1,8 - 55 kW / 740 obr<sup>-1</sup> | WPMs-90/1,8 - 55 kW / 740 rev<sup>-1</sup>



$T=20^{\circ}\text{C} / \rho=1,21 \text{ kg/m}^3 / n_w=740 \text{ obr}^{-1} / N_s=110 \text{ kW} / L_{O_{Amax}}=105 \text{ dB(A)} \text{ ISO } 5801$

WPMs-100/1,8 - 250 kW / 990 obr<sup>-1</sup> | WPMs-100/1,8 - 250 kW / 990 rev<sup>-1</sup>

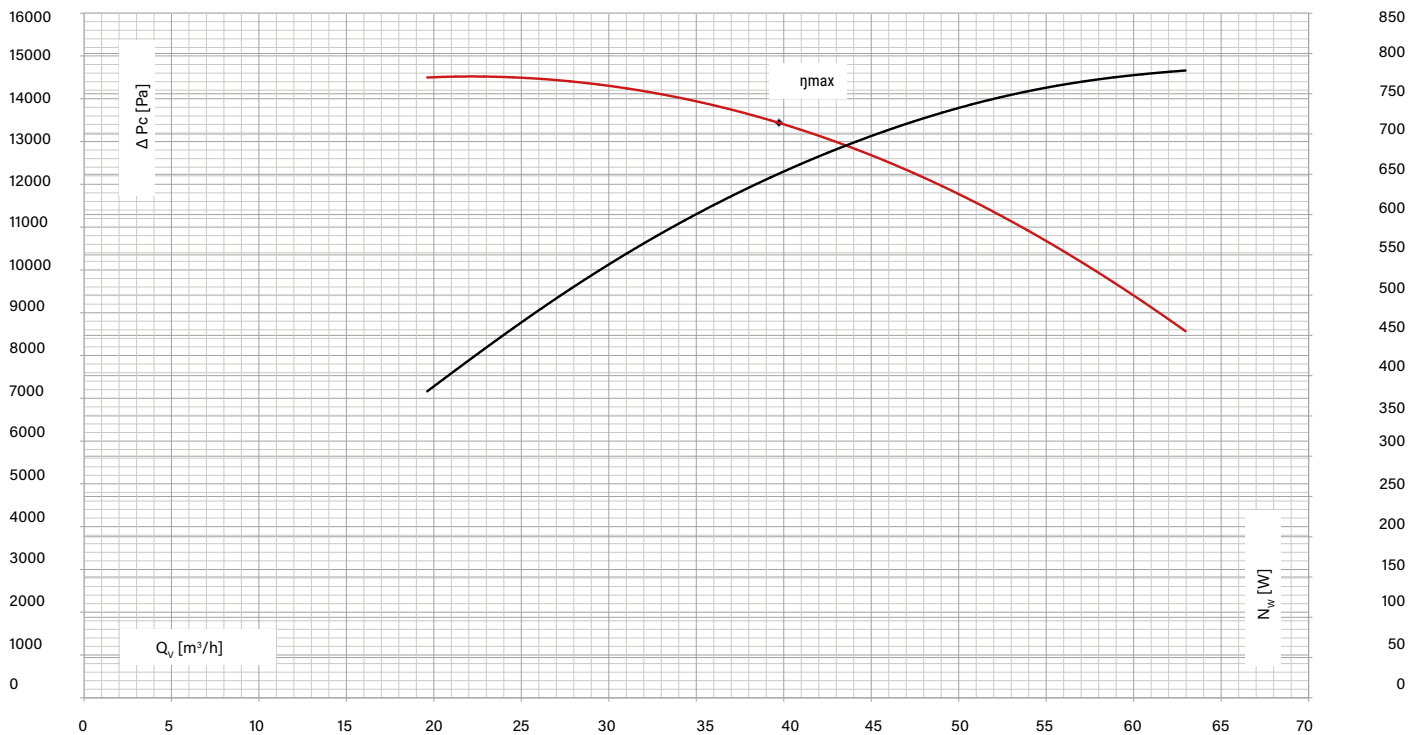


$T=20^{\circ}\text{C} / \rho=1,21 \text{ kg/m}^3 / n_w=990 \text{ obr}^{-1} / N_s=250 \text{ kW} / L_{O_{Amax}}=113 \text{ dB(A)} \text{ ISO } 5801$

**WPMs-100/1,8<sup>1</sup>) - 800 kW / 1490 obr<sup>-1</sup> | WPMs-100/1,8<sup>1</sup>) - 800 kW / 1490 rev<sup>-1</sup>**

1) - Indywidualne ustalenia możliwości/rozwiązań wykonania - kontakt z działem technicznym

1) - For individual consulting of feasibility / execution solutions - contact the technical department



$T=20^{\circ}\text{C}$  /  $\rho=1,21 \text{ kg/m}^3$  /  $n_w=1490 \text{ obr}^{-1}$  /  $N_s=800 \text{ kW}$  /  $L_{OAm\text{ax}}=122 \text{ dB(A)}$  ISO 5801