

## GRILLE EXTERIEURE PAS DE 70mm

# WPL-75

## WEATHER PROOF GRILLE 70 mm PITCH



### AVANTAGES

Les grilles extérieures permettent le transfert d'air à partir ou vers l'extérieur tout en retenant les éléments indésirables à l'extérieur à l'instar de l'eau de pluie, des déchets et des oiseaux. WPL-75 sont construites avec de larges ailettes en profilés d'aluminium montées sur un cadre robuste également en profilé d'aluminium. Chaque ailette est fixée au cadre au moyen de quatre vis. Les larges dimensions des ailettes permettent l'augmentation de la section de passage de l'air réduisant ainsi les pertes de charge. Les grilles WPL-75 peuvent être équipées de grillage anti-volatile, grillage anti moustique peut être installé sur demande.

### FEATURES

Weather proof louvers allow air transfer from or to the outdoor while keeping out unwanted elements such as rain water, debris and birds. WPL are made of fixed, wide and specially designed blades mounted in a robust frame. The particularly large blades increase the grille's effective area and reduce pressure loss. Each blade is fixed to the frame with four stainless steel screws. Both frame and blades are made of heavy gauge extruded aluminum. WPL-75 grilles can be fitted with bird screen, mosquito screens are available upon request.

### CARACTERISTIQUES

- Matériaux :
  - Cadre et contre cadre en profilés d'aluminium extrudé de forte épaisseur avec renforcement aux coins
  - Ailettes rigides en profilés d'aluminium extrudé de fortes épaisseurs
  - Grillage anti-volatile en acier galvanisé 12.7x12.7mm
  - Assemblage par vis en acier inoxydable
- Renforcements transversaux pour les grilles de grandes dimensions
- Finition : Aluminium anodisé
- Fixation : Par vis
- Montage: Mural

### SPECIFICATIONS

- Materials :
  - Frames and flanges made of rigid, heavy gauge extruded aluminum with reinforced corners
  - Blades made of rigid, heavy gauge extruded aluminum profiles
  - Wire mesh made of galvanized steel
  - Blades fixed to the frame with stainless steel screws
- Transverse reinforcements are used for grilles of large dimensions
- Finishing : Anodized Aluminum
- Mounting : With screws
- Installation: Wall mounted

### APPLICATIONS

Prise d'air neuf, rejet.

### APPLICATIONS

Fresh air intake, exhaust

### DESIGNATION

#### WPL-75 LxH

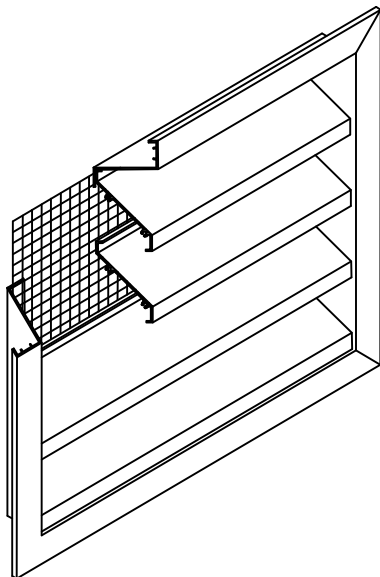
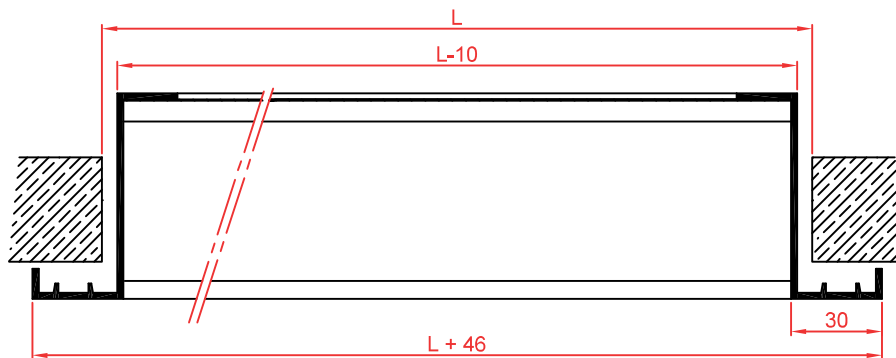
- WPL : Grille extérieure
- 75 : Espacement moyen entre ailettes
- L : Longueur de la grille en mm
- H : Hauteur de la grille en mm

### MODEL NAME DESCRIPTION

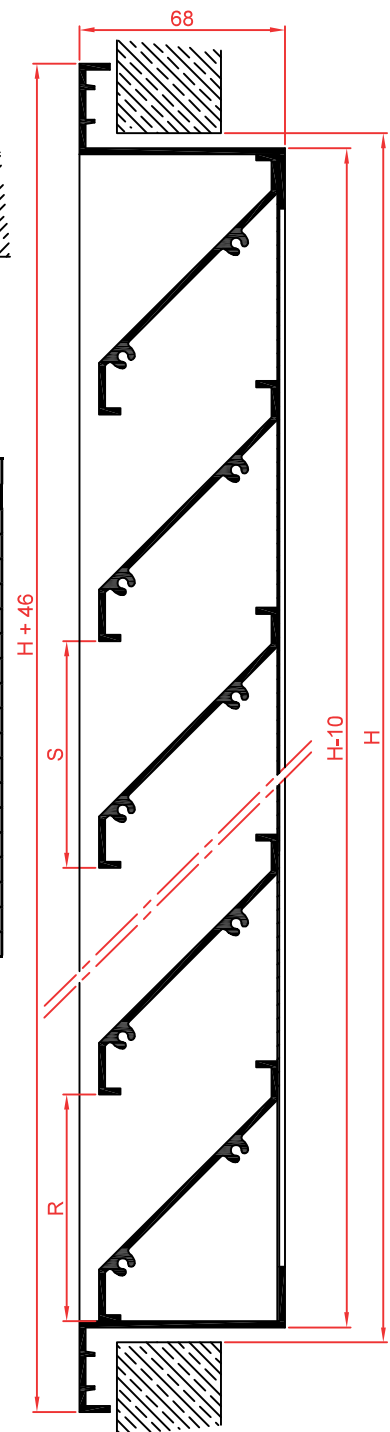
#### WPL-75 LxH

- WPL : Weather proof grille
- 75 : Average blades spacing
- L : Grille length in mm
- H : Grille height in mm

## DIMENSIONS



| Hauteur H | Nbre ailettes | Spacings - Espacements |    |
|-----------|---------------|------------------------|----|
| Height H  | Blades #      | S                      | R  |
| 300       | 4             | 73                     | 54 |
| 400       | 5             | 78                     | 66 |
| 500       | 7             | 69                     | 55 |
| 600       | 8             | 73                     | 62 |
| 700       | 9             | 75                     | 75 |
| 800       | 10            | 78                     | 76 |
| 900       | 12            | 73                     | 70 |
| 1000      | 13            | 75                     | 75 |
| 1100      | 14            | 78                     | 64 |
| 1200      | 17            | 69                     | 65 |
| 1300      | 17            | 75                     | 75 |
| 1400      | 19            | 73                     | 59 |
| 1500      | 19            | 78                     | 74 |
| 1600      | 21            | 75                     | 75 |
| 1700      | 23            | 73                     | 67 |
| 1800      | 23            | 78                     | 62 |
| 1900      | 25            | 75                     | 75 |
| 2000      | 27            | 73                     | 75 |



### Notes:

- Toutes les dimensions sont en mm
- Dimensions spéciales fabriquées sur demande
- Dimensions peuvent être modifiées sans préavis

### Notes:

- All dimensions are in mm
- Special sizes are manufactured on request
- Dimensions subject to change without prior notice

## TABLEAUX DE SELECTION RAPIDE

Les tableaux ci-après servent à la sélection rapide des grilles WPL-70 pour la vitesse recommandée de **2.5 m/s**.

La vitesse de 2.5 m/s, considérée optimale pour les applications résidentielles et tertiaires, correspond aux pertes de charges et aux puissances acoustiques suivantes:

- En mode refoulement : 36 Pa et 51 dBA
- En mode aspiration : 30 Pa et 49 dBA

## QUICK SELECTION TABLES

The following tables are intended for a quick WPL-70 louvres' selection at the recommended face velocity of **2.5 m/s**.

The 2.5m/s velocity, suitable for most residential and commercial applications, corresponds to the following pressure loss and sound power:

- Discharge mode : 36 Pa et 51 dBA
- Intake mode : 30 Pa et 49 dBA

### DEBIT D'AIR POUR VITESSE FRONTALE V=2.5m/s

### FLOW RATE FOR FACE VELOCITY=2.5m/s

| Largeur L<br>Hauteur H | 200  | 400   | 600   | 800   | 1000  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200  |
|------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 200                    | 112  | 230   | 349   | 468   | 587   | 706   | 824   | 943   | 1062  | 1181  | 1300  |
| 300                    | 252  | 521   | 789   | 1057  | 1326  | 1594  | 1863  | 2131  | 2399  | 2668  | 2936  |
| 400                    | 393  | 810   | 1228  | 1645  | 2063  | 2481  | 2898  | 3316  | 3733  | 4151  | 4569  |
| 500                    | 505  | 1041  | 1578  | 2115  | 2652  | 3188  | 3725  | 4262  | 4799  | 5335  | 5872  |
| 600                    | 644  | 1330  | 2015  | 2701  | 3386  | 4072  | 4757  | 5442  | 6128  | 6813  | 7499  |
| 700                    | 785  | 1620  | 2455  | 3291  | 4126  | 4961  | 5796  | 6631  | 7467  | 8302  | 9137  |
| 800                    | 926  | 1911  | 2896  | 3881  | 4866  | 5851  | 6836  | 7821  | 8806  | 9791  | 10775 |
| 900                    | 1037 | 2140  | 3242  | 4345  | 5448  | 6551  | 7654  | 8757  | 9860  | 10962 | 12065 |
| 1000                   | 1178 | 2430  | 3683  | 4936  | 6189  | 7442  | 8694  | 9947  | 11200 | 12453 | 13706 |
| 1200                   | 1459 | 3012  | 4564  | 6116  | 7668  | 9221  | 10773 | 12325 | 13878 | 15430 | 16982 |
| 1400                   | 1711 | 3532  | 5353  | 7174  | 8994  | 10815 | 12636 | 14456 | 16277 | 18098 | 19918 |
| 1600                   | 1963 | 4051  | 6139  | 8227  | 10315 | 12403 | 14491 | 16579 | 18667 | 20755 | 22843 |
| 1800                   | 2214 | 4570  | 6926  | 9281  | 11637 | 13993 | 16348 | 18704 | 21060 | 23415 | 25771 |
| 2000                   | 2496 | 5151  | 7806  | 10461 | 13116 | 15771 | 18426 | 21081 | 23736 | 26391 | 29046 |
| 2200                   | 2778 | 5732  | 8687  | 11642 | 14597 | 17552 | 20507 | 23462 | 26417 | 29372 | 32326 |
| 2400                   | 3057 | 6309  | 9561  | 12813 | 16065 | 19317 | 22569 | 25821 | 29073 | 32325 | 35578 |
| 2600                   | 3308 | 6828  | 10347 | 13866 | 17386 | 20905 | 24424 | 27944 | 31463 | 34982 | 38502 |
| 2800                   | 3590 | 7409  | 11228 | 15046 | 18865 | 22684 | 26503 | 30322 | 34141 | 37960 | 41779 |
| 3000                   | 3844 | 7933  | 12022 | 16112 | 20201 | 24290 | 28379 | 32469 | 36558 | 40647 | 44736 |
| 3200                   | 4124 | 8512  | 12899 | 17287 | 21674 | 26062 | 30449 | 34837 | 39224 | 43612 | 47999 |
| 3400                   | 4378 | 9035  | 13691 | 18348 | 23005 | 27662 | 32319 | 36976 | 41633 | 46290 | 50947 |
| 3600                   | 4653 | 9603  | 14553 | 19503 | 24453 | 29403 | 34353 | 39303 | 44253 | 49203 | 54153 |
| 3800                   | 4907 | 10126 | 15346 | 20566 | 25786 | 31006 | 36226 | 41445 | 46665 | 51885 | 57105 |
| 4000                   | 5190 | 10711 | 16233 | 21754 | 27275 | 32797 | 38318 | 43839 | 49361 | 54882 | 60403 |

| Largeur L<br>Hauteur H | 2400  | 2800  | 2900  | 3200  | 3300  | 3600  | 3700   | 4000   | 4100   | 4500   | 5000   |
|------------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| 200                    | 1418  | 1656  | 1715  | 1894  | 1953  | 2131  | 2191   | 2369   | 2428   | 2666   | 2963   |
| 300                    | 3204  | 3741  | 3875  | 4278  | 4412  | 4815  | 4949   | 5351   | 5486   | 6022   | 6693   |
| 400                    | 4986  | 5821  | 6030  | 6657  | 6865  | 7492  | 7701   | 8327   | 8536   | 9371   | 10415  |
| 500                    | 6409  | 7482  | 7751  | 8556  | 8824  | 9629  | 9898   | 10703  | 10971  | 12045  | 13387  |
| 600                    | 8184  | 9555  | 9898  | 10926 | 11269 | 12297 | 12640  | 13668  | 14010  | 15381  | 17095  |
| 700                    | 9972  | 11643 | 12060 | 13313 | 13731 | 14983 | 15401  | 16654  | 17071  | 18742  | 20830  |
| 800                    | 11760 | 13730 | 14223 | 15700 | 16193 | 17670 | 18163  | 19640  | 20133  | 22103  | 24565  |
| 900                    | 13168 | 15374 | 15925 | 17580 | 18131 | 19785 | 20337  | 21991  | 22542  | 24748  | 27505  |
| 1000                   | 14958 | 17464 | 18090 | 19970 | 20596 | 22475 | 23102  | 24981  | 25607  | 28113  | 31245  |
| 1200                   | 18535 | 21639 | 22416 | 24744 | 25520 | 27849 | 28625  | 30953  | 31729  | 34834  | 38715  |
| 1400                   | 21739 | 25381 | 26291 | 29022 | 29932 | 32663 | 33574  | 36305  | 37215  | 40857  | 45408  |
| 1600                   | 24931 | 29107 | 30151 | 33283 | 34327 | 37459 | 38503  | 41635  | 42679  | 46855  | 52075  |
| 1800                   | 28127 | 32838 | 34016 | 37549 | 38727 | 42261 | 43438  | 46972  | 48150  | 52861  | 58750  |
| 2000                   | 31701 | 37011 | 38338 | 42321 | 43648 | 47631 | 48958  | 52941  | 54268  | 59578  | 66216  |
| 2200                   | 35281 | 41191 | 42668 | 47101 | 48578 | 53011 | 54488  | 58920  | 60398  | 66308  | 73695  |
| 2400                   | 38830 | 45334 | 46960 | 51838 | 53464 | 58342 | 59968  | 64846  | 66472  | 72976  | 81106  |
| 2600                   | 42021 | 49060 | 50820 | 56099 | 57858 | 63137 | 64897  | 70176  | 71936  | 78974  | 87773  |
| 2800                   | 45597 | 53235 | 55145 | 60873 | 62782 | 68511 | 70420  | 76148  | 78058  | 85696  | 95243  |
| 3000                   | 48826 | 57004 | 59049 | 65182 | 67227 | 73361 | 75406  | 81539  | 83584  | 91763  | 101986 |
| 3200                   | 52387 | 61162 | 63356 | 69937 | 72131 | 78712 | 80906  | 87487  | 89681  | 98456  | 109424 |
| 3400                   | 55604 | 64918 | 67247 | 74232 | 76560 | 83546 | 85874  | 92860  | 95188  | 104502 | 116145 |
| 3600                   | 59103 | 69003 | 71478 | 78903 | 81378 | 88803 | 91278  | 98703  | 101178 | 111078 | 123453 |
| 3800                   | 62325 | 72764 | 75374 | 83204 | 85814 | 93644 | 96253  | 104083 | 106693 | 117133 | 130182 |
| 4000                   | 65925 | 76967 | 79728 | 88010 | 90771 | 99052 | 101813 | 110095 | 112856 | 123898 | 137702 |

## TABLEAUX DE SELECTION RAPIDE

Pour des vitesses frontales autres que 2.5m/s, la sélection est effectuée en suivant les étapes suivantes :

1- Calculer la surface frontale libre nécessaire de la grille au moyen de la formule ci-après :

$$A_f = \text{Débit} / (\text{Vitesse} \times 3600)$$

- $A_f$  : Surface frontale libre de la grille en  $m^2$
- Débit : Débit d'air à travers la grille en  $m^3/h$
- Vitesse : Vitesse frontale souhaitée de l'air en m/s

2- Sélectionner dans le tableau ci-après la largeur et la hauteur de la grille qui correspondent à la surface frontale libre calculée

## QUICK SELECTION TABLES

For air velocities other than 2.5m/s, the selection is made according to the next steps:

1- Compute the louvre's free face area using the following formula:

$$A_f = \text{Flow rate} / (\text{Velocity} \times 3600)$$

- $A_f$  : Louvre's free face area in  $m^2$
- Flow rate : Air flow rate in  $m^3/h$
- Velocity : Desired air velocity in m/s

2- Select in the following table the louvre's width and height that corresponds to the computed free face area

### SURFACE FRONTALE LIBRE ( $m^2$ )

### FACE FREE AREA ( $m^2$ )

| Largeur L<br>Hauteur H | 200  | 400  | 600  | 800  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2800 | 2900 | 3200 | 3300  | 3600  | 3700  | 4000  | 4100  | 4500  | 5000  |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 200                    | 0.01 | 0.03 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22  | 0.24  | 0.24  | 0.26  | 0.27  | 0.30  | 0.33  |
| 300                    | 0.03 | 0.06 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.42 | 0.43 | 0.48 | 0.49  | 0.53  | 0.55  | 0.59  | 0.61  | 0.67  | 0.74  |
| 400                    | 0.04 | 0.09 | 0.14 | 0.18 | 0.23 | 0.28 | 0.32 | 0.37 | 0.41 | 0.46 | 0.51 | 0.55 | 0.65 | 0.67 | 0.74 | 0.76  | 0.83  | 0.86  | 0.93  | 0.95  | 1.04  | 1.16  |
| 500                    | 0.06 | 0.12 | 0.18 | 0.23 | 0.29 | 0.35 | 0.41 | 0.47 | 0.53 | 0.59 | 0.65 | 0.71 | 0.83 | 0.86 | 0.95 | 0.98  | 1.07  | 1.10  | 1.19  | 1.22  | 1.34  | 1.49  |
| 600                    | 0.07 | 0.15 | 0.22 | 0.30 | 0.38 | 0.45 | 0.53 | 0.60 | 0.68 | 0.76 | 0.83 | 0.91 | 1.06 | 1.10 | 1.21 | 1.25  | 1.37  | 1.40  | 1.52  | 1.56  | 1.71  | 1.90  |
| 700                    | 0.09 | 0.18 | 0.27 | 0.37 | 0.46 | 0.55 | 0.64 | 0.74 | 0.83 | 0.92 | 1.02 | 1.11 | 1.29 | 1.34 | 1.48 | 1.53  | 1.66  | 1.71  | 1.85  | 1.90  | 2.08  | 2.31  |
| 800                    | 0.10 | 0.21 | 0.32 | 0.43 | 0.54 | 0.65 | 0.76 | 0.87 | 0.98 | 1.09 | 1.20 | 1.31 | 1.53 | 1.58 | 1.74 | 1.80  | 1.96  | 2.02  | 2.18  | 2.24  | 2.46  | 2.73  |
| 900                    | 0.12 | 0.24 | 0.36 | 0.48 | 0.61 | 0.73 | 0.85 | 0.97 | 1.10 | 1.22 | 1.34 | 1.46 | 1.71 | 1.77 | 1.95 | 2.01  | 2.20  | 2.26  | 2.44  | 2.50  | 2.75  | 3.06  |
| 1000                   | 0.13 | 0.27 | 0.41 | 0.55 | 0.69 | 0.83 | 0.97 | 1.11 | 1.24 | 1.38 | 1.52 | 1.66 | 1.94 | 2.01 | 2.22 | 2.29  | 2.50  | 2.57  | 2.78  | 2.85  | 3.12  | 3.47  |
| 1200                   | 0.16 | 0.33 | 0.51 | 0.68 | 0.85 | 1.02 | 1.20 | 1.37 | 1.54 | 1.71 | 1.89 | 2.06 | 2.40 | 2.49 | 2.75 | 2.84  | 3.09  | 3.18  | 3.44  | 3.53  | 3.87  | 4.30  |
| 1400                   | 0.19 | 0.39 | 0.59 | 0.80 | 1.00 | 1.20 | 1.40 | 1.61 | 1.81 | 2.01 | 2.21 | 2.42 | 2.82 | 2.92 | 3.22 | 3.33  | 3.63  | 3.73  | 4.03  | 4.14  | 4.54  | 5.05  |
| 1600                   | 0.22 | 0.45 | 0.68 | 0.91 | 1.15 | 1.38 | 1.61 | 1.84 | 2.07 | 2.31 | 2.54 | 2.77 | 3.23 | 3.35 | 3.70 | 3.81  | 4.16  | 4.28  | 4.63  | 4.74  | 5.21  | 5.79  |
| 1800                   | 0.25 | 0.51 | 0.77 | 1.03 | 1.29 | 1.55 | 1.82 | 2.08 | 2.34 | 2.60 | 2.86 | 3.13 | 3.65 | 3.78 | 4.17 | 4.30  | 4.70  | 4.83  | 5.22  | 5.35  | 5.87  | 6.53  |
| 2000                   | 0.28 | 0.57 | 0.87 | 1.16 | 1.46 | 1.75 | 2.05 | 2.34 | 2.64 | 2.93 | 3.23 | 3.52 | 4.11 | 4.26 | 4.70 | 4.85  | 5.29  | 5.44  | 5.88  | 6.03  | 6.62  | 7.36  |
| 2200                   | 0.31 | 0.64 | 0.97 | 1.29 | 1.62 | 1.95 | 2.28 | 2.61 | 2.94 | 3.26 | 3.59 | 3.92 | 4.58 | 4.74 | 5.23 | 5.40  | 5.89  | 6.05  | 6.55  | 6.71  | 7.37  | 8.19  |
| 2400                   | 0.34 | 0.70 | 1.06 | 1.42 | 1.79 | 2.15 | 2.51 | 2.87 | 3.23 | 3.59 | 3.95 | 4.31 | 5.04 | 5.22 | 5.76 | 5.94  | 6.48  | 6.66  | 7.21  | 7.39  | 8.11  | 9.01  |
| 2600                   | 0.37 | 0.76 | 1.15 | 1.54 | 1.93 | 2.32 | 2.71 | 3.10 | 3.50 | 3.89 | 4.28 | 4.67 | 5.45 | 5.65 | 6.23 | 6.43  | 7.02  | 7.21  | 7.80  | 7.99  | 8.77  | 9.75  |
| 2800                   | 0.40 | 0.82 | 1.25 | 1.67 | 2.10 | 2.52 | 2.94 | 3.37 | 3.79 | 4.22 | 4.64 | 5.07 | 5.92 | 6.13 | 6.76 | 6.98  | 7.61  | 7.82  | 8.46  | 8.67  | 9.52  | 10.58 |
| 3000                   | 0.43 | 0.88 | 1.34 | 1.79 | 2.24 | 2.70 | 3.15 | 3.61 | 4.06 | 4.52 | 4.97 | 5.43 | 6.33 | 6.56 | 7.24 | 7.47  | 8.15  | 8.38  | 9.06  | 9.29  | 10.20 | 11.33 |
| 3200                   | 0.46 | 0.95 | 1.43 | 1.92 | 2.41 | 2.90 | 3.38 | 3.87 | 4.36 | 4.85 | 5.33 | 5.82 | 6.80 | 7.04 | 7.77 | 8.01  | 8.75  | 8.99  | 9.72  | 9.96  | 10.94 | 12.16 |
| 3400                   | 0.49 | 1.00 | 1.52 | 2.04 | 2.56 | 3.07 | 3.59 | 4.11 | 4.63 | 5.14 | 5.66 | 6.18 | 7.21 | 7.47 | 8.25 | 8.51  | 9.28  | 9.54  | 10.32 | 10.58 | 11.61 | 12.90 |
| 3600                   | 0.52 | 1.07 | 1.62 | 2.17 | 2.72 | 3.27 | 3.82 | 4.37 | 4.92 | 5.47 | 6.02 | 6.57 | 7.67 | 7.94 | 8.77 | 9.04  | 9.87  | 10.14 | 10.97 | 11.24 | 12.34 | 13.72 |
| 3800                   | 0.55 | 1.13 | 1.71 | 2.29 | 2.87 | 3.45 | 4.03 | 4.61 | 5.19 | 5.77 | 6.34 | 6.92 | 8.08 | 8.37 | 9.24 | 9.53  | 10.40 | 10.69 | 11.56 | 11.85 | 13.01 | 14.46 |
| 4000                   | 0.58 | 1.19 | 1.80 | 2.42 | 3.03 | 3.64 | 4.26 | 4.87 | 5.48 | 6.10 | 6.71 | 7.32 | 8.55 | 8.86 | 9.78 | 10.09 | 11.01 | 11.31 | 12.23 | 12.54 | 13.77 | 15.30 |

3- Trouver la perte de pression et la puissance acoustique qui correspondent à la vitesse choisie dans le tableau suivant.

3- Find the pressure loss and the sound power that correspond to the design air velocity in the following table.

### PERTE DE PRESSION ET PUISSANCE ACOUSTIQUE/ PRESSURE LOSS AND SOUND POWER

| Vitesse/ Velocity<br>m/s | Aspiration/ Intake |     | Refoulement/ Discharge |     |
|--------------------------|--------------------|-----|------------------------|-----|
|                          | Pa                 | dBA | Pa                     | dBA |
| 1.5                      | 10                 | 33  | 15                     | 35  |
| 2                        | 20                 | 40  | 26                     | 42  |
| 2.5                      | 30                 | 49  | 36                     | 51  |
| 3                        | 44                 | 55  | 56                     | 57  |
| 4                        | 75                 | 65  | 93                     | 65  |
| 5                        | 113                | 72  | 147                    | 75  |
| 6                        | 180                | 75  | 215                    | 81  |