

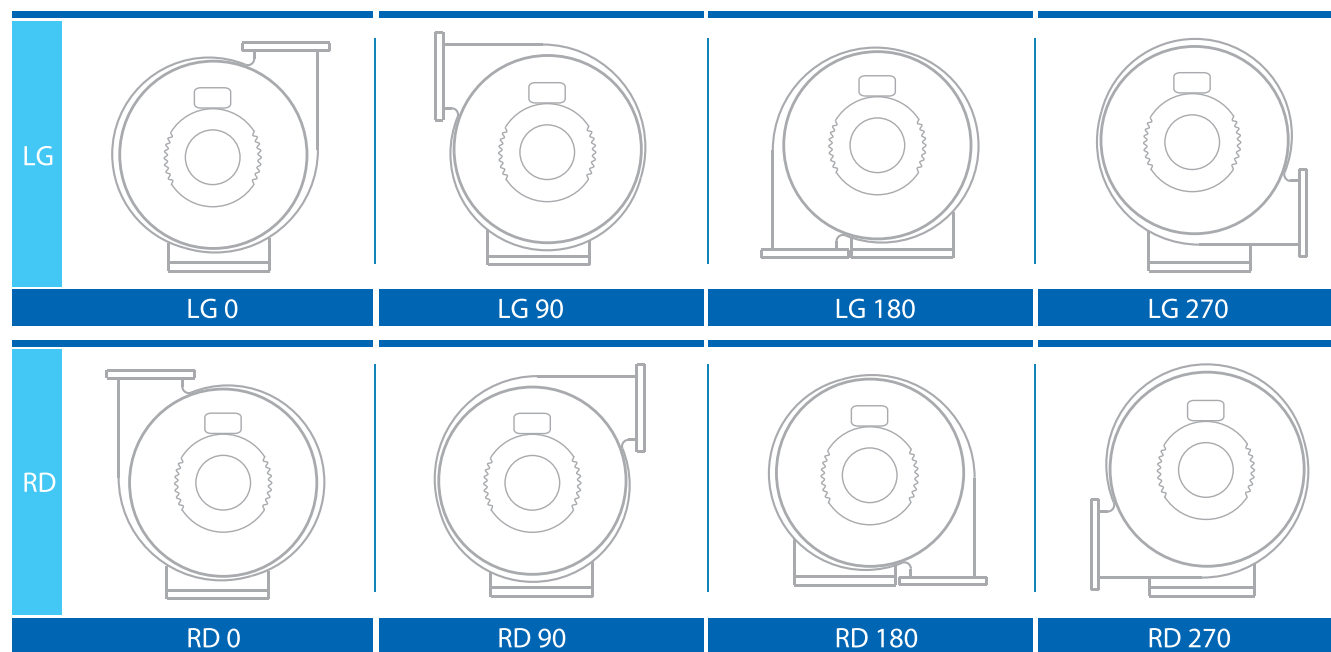
Series  
MA MAb  
MSR MSS

 EuroVent



Aluminium Blower

## HOUSING POSITION AND ROTATION



In the standard version, the equipment is supplied with the terminal box position 270° (top), look at driver side.

### Housing positions, terminal box positions, cable entry

#### Housing Positions

The housing position is determined when facing the Driven side

Positions RD = Clockwise rotation

Positions LG = Anti-clockwise rotation

### Influence of the density

The following tables show the characteristics of an operating device at air 15 °C , barometric pressure 760 mm Hg , spcific gravity 1,226 Kg/m<sup>3</sup> . If customer wishes get different perfomances with intermediary value in respect of the value shown in the tables or if he prefers a device operating with air suction at different temperature in respect of 15°C and with different specific gravity in respect of 1,226.

### Rotation speed

The standard blower are fitted with 2 poles motor. For change-pole motor ( 4 Poles ) or use variable speed drive the total pressure , the volumetric flow rate and power requirement change as follows.

#### Variation of rotation speed(n) with air specific gravity constant.

1. The delivery (V) varies directly with rotations ratio.

$$V_1 = V \cdot \frac{n^1}{n}$$

2. The pressure varies with square number of rotations ratio :

$$Pt_1 = Pt \left( \frac{n^1}{n} \right)^2$$

3. The energy (P) varies with cube of rotations ratio :

$$P_1 = P \cdot \left( \frac{n^1}{n} \right)^3$$

### Variations of specific gravity (γ) of the air when rotation speed is constant.

1. The delivery (V) remains constant.
2. The pressure (pt) and the energy (P) vary directly with the ratio of specific gravities.

$$Pt_1 = Pt \cdot \frac{\gamma^1}{\gamma} \quad P_1 = P \cdot \frac{\gamma^1}{\gamma}$$

The specific gravity of the air at different temperatures is obtained through the formula

$$\gamma = \frac{1,293 \cdot 273}{(273+t)} \text{ (kg/m}^3\text{)}$$

The air density depending on a change of the atmospheric pressure is given by the following formula

$$\gamma = \frac{Pb \cdot 13.56}{29.27 \cdot (273+t)} \text{ (kg/m}^3\text{)}$$

#### Where :

- γ = specific gravity at 0 °C
- 1,293 = specific gravity of the air at 0 °C
- t = air temperature indicated in °C
- 273 = absolute zero
- Pb = atmospheric pressure mm Hg

### Eurovent Aluminium blowers offer

- Logical performance graduation
- Ready-to-install design with three or single phase a.c. motors
- High performance at compact design
- Long service life with low operation cost
- High efficiency
- Favourable noise characteristics
- Robust cast aluminium casings
- Useful accessories



## TECHNICAL INFORMATION AND PERFORMANCE CURVE

### Direct Drive Aluminium Blower

|          |                                                                                   |                                                                                   |
|----------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Casing   |  |  |
|          | MA                                                                                | MSR                                                                               |
| Impeller |  |  |
|          | MA                                                                                | MSR                                                                               |

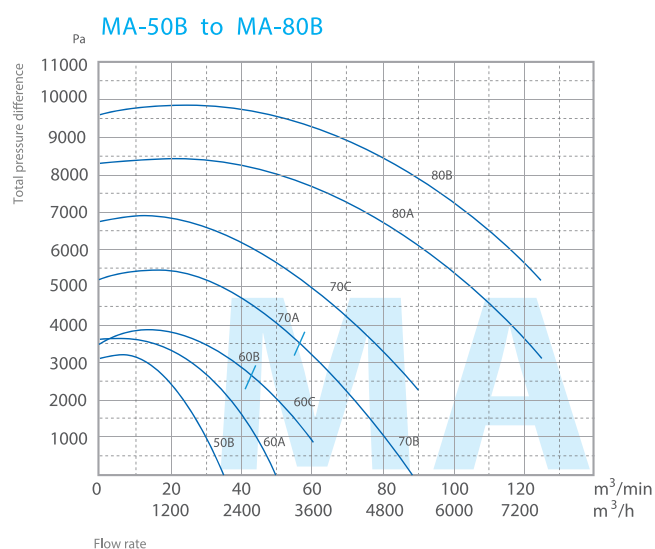
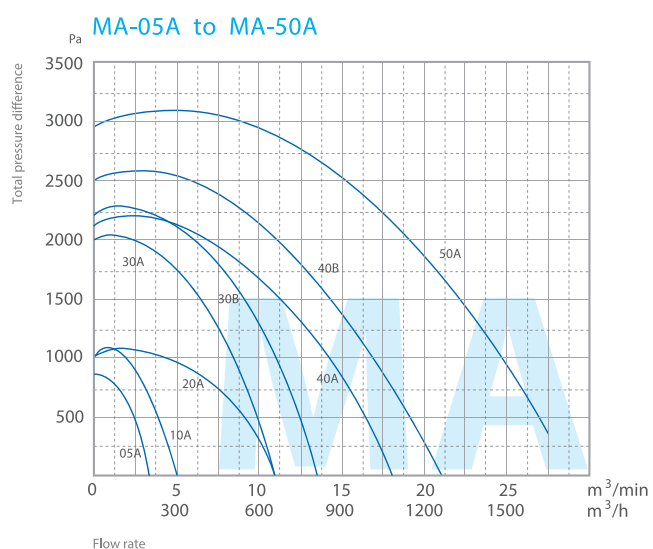
MA 05 A /S

/S : With single phase AC motor  
/T : With three phase AC motor

Motor size

Construction size

Model  
MA : Backward impeller  
MSR : Open blade impeller for conveying





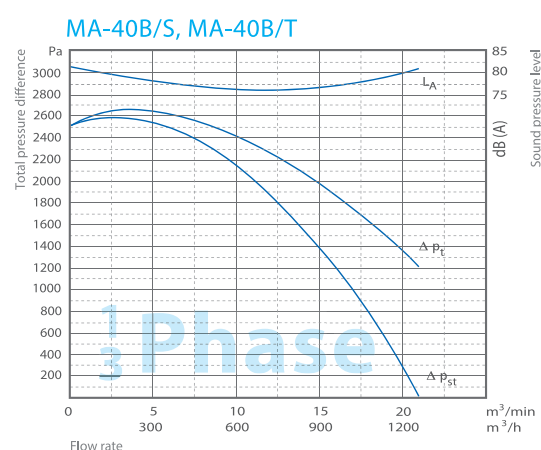
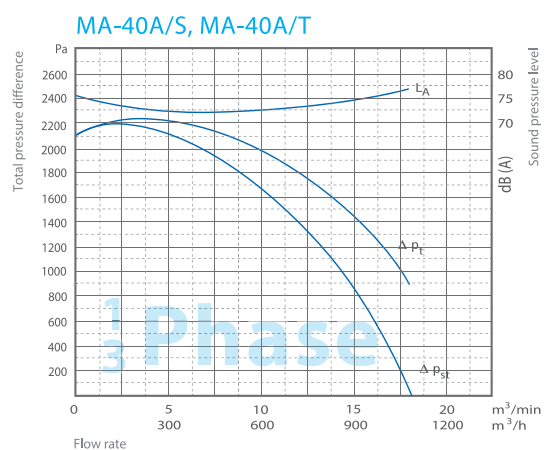
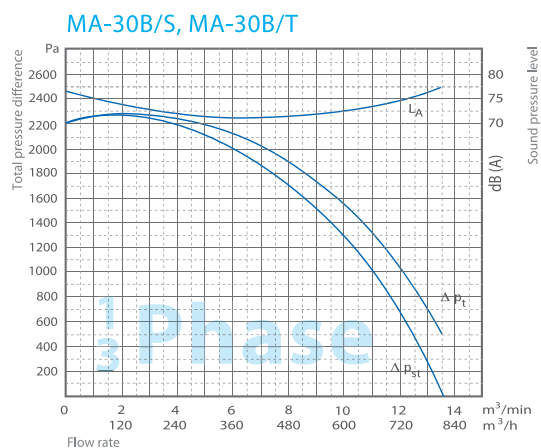
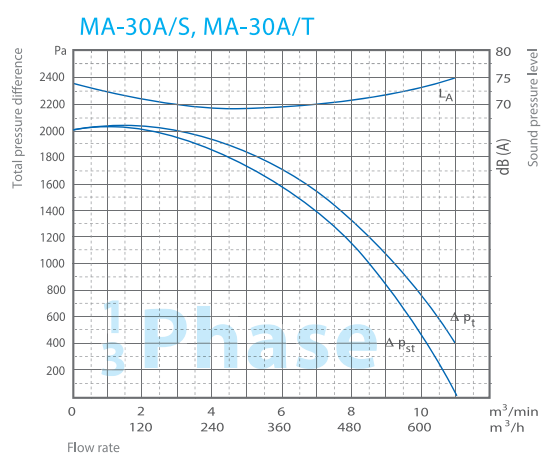
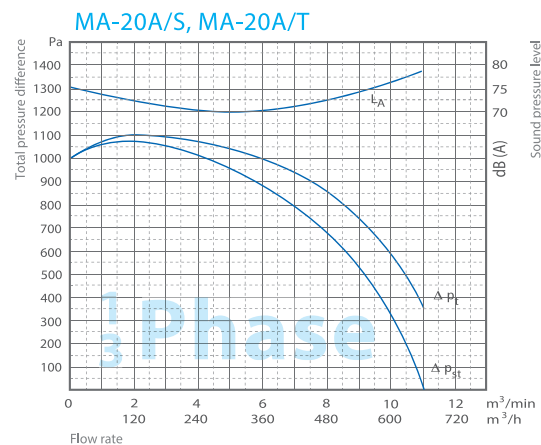
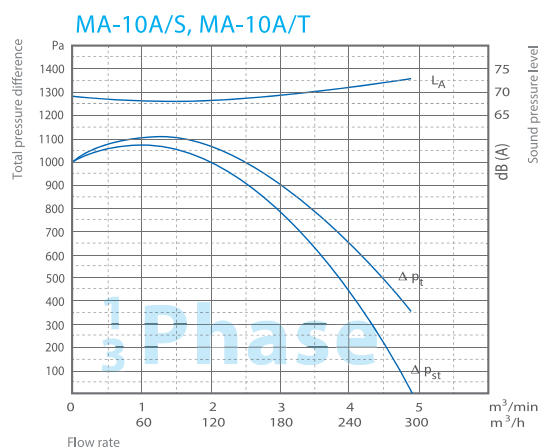
## TECHNICAL INFORMATION MA

| Type     | Max flow rate       | Total pressure difference | Voltage | Frequency | Current consumption | Number of revolutions | Motor rating | Capacitor | Weight   |
|----------|---------------------|---------------------------|---------|-----------|---------------------|-----------------------|--------------|-----------|----------|
| MA       | m <sup>3</sup> /min | Pa                        | V       | Hz        | A                   | min <sup>-1</sup>     | kW           | μF/V      | kg       |
| MA-10A/T | 4,9                 | 1000                      | 230/400 | 50        | 0,55/0,32           | 2750                  | 0,075        | –         | 8,5      |
| MA-10A/S | 4,9                 | 1000                      | 230     | 50        | 0,65                | 2700                  | 0,075        | 8/450     | 8,6      |
| MA-20A/T | 11                  | 1000                      | 230/400 | 50        | 1,26/0,73           | 2790                  | 0,25         | –         | 10,2     |
| MA-20A/S | 11                  | 1000                      | 230     | 50        | 1,8                 | 2800                  | 0,25         | 12/450    | 10,7     |
| MA-30A/T | 11                  | 2000                      | 230/400 | 50        | 1,73/1,00           | 2825                  | 0,37         | –         | 18,5     |
| MA-30A/S | 11                  | 2000                      | 230     | 50        | 2,5                 | 2825                  | 0,37         | 12/450    | 20,4     |
| MA-30B/T | 13,5                | 2200                      | 230/400 | 50        | 2,5/1,45            | 2840                  | 0,55         | –         | 19       |
| MA-30B/S | 13,5                | 2200                      | 230     | 50        | 3,6                 | 2820                  | 0,55         | 16/450    | 20,7     |
| MA-40A/T | 18                  | 2100                      | 230/400 | 50        | 2,5/1,45            | 2840                  | 0,55         | –         | 24,0     |
| MA-40A/S | 18                  | 2100                      | 230     | 50        | 3,6                 | 2840                  | 0,55         | 16/450    | 24,8     |
| MA-40B/T | 21,0                | 2500                      | 230/400 | 50        | 3,4/1,95            | 2820                  | 0,75         | –         | 24,2     |
| MA-40B/S | 21,0                | 2500                      | 230     | 50        | 5,0                 | 2800                  | 0,75         | 20/450    | 26,5     |
| MA-50A/T | 27,5                | 3000                      | 230/400 | 50        | 5,0/2,85            | 2800                  | 1,1          | –         | 33       |
| MA-50B/T | 35                  | 3100                      | 230/400 | 50        | 6,2/3,6             | 2825                  | 1,5          | –         | 36       |
| MA-60A/T | 50                  | 3600                      | 230/400 | 50        | 8,7/5,0             | 2875                  | 2,2          | –         | 44       |
| MA-60B/T | 42,5                | 3500                      | 230/400 | 50        | 10,6/6,1            | 2880                  | 3,0          | –         | 47,5     |
| MA-60C/T | 60,5                | 3500                      | 400 Δ   | 50        | 8,2                 | 2905                  | 4,0          | –         | 59,5     |
| MA-70A/T | 55                  | 5200                      | 400 Δ   | 50        | 11,3                | 2910                  | 5,5          | –         | 95       |
| MA-70B/T | 88                  | 5200                      | 400 Δ   | 50        | 14,7                | 2915                  | 7,5          | –         | 106      |
| MA-70C/T | 90                  | 6800                      | 400 Δ   | 50        | 21,5                | 2910                  | 11,0         | –         | 127      |
| MA-80A/T | 125                 | 8300                      | 400 Δ   | 50        | 27                  | 2940                  | 15           | –         | max. 219 |
| MA-80B/T | 125                 | 9600                      | 400 Δ   | 50        | 40,5                | 2925                  | 22           | –         | max. 260 |

Deviation in the revoint of  $\pm 5\%$  are possible.

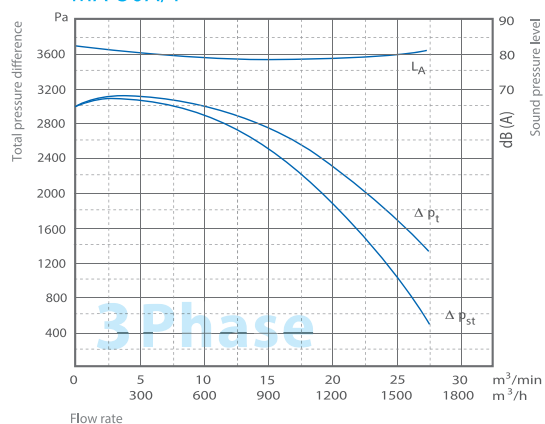


# PERFORMANCE CURVE MA

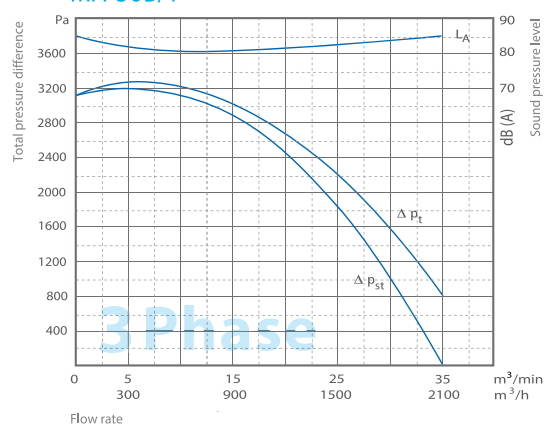


# PERFORMANCE CURVE MA

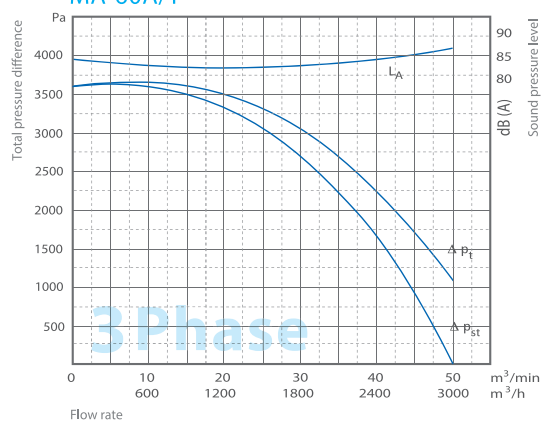
MA-50A/T



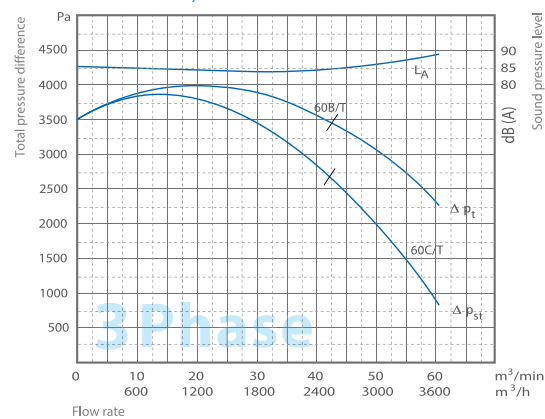
MA-50B/T



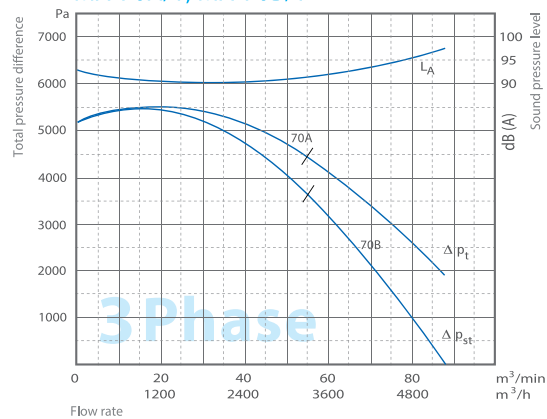
MA-60A/T



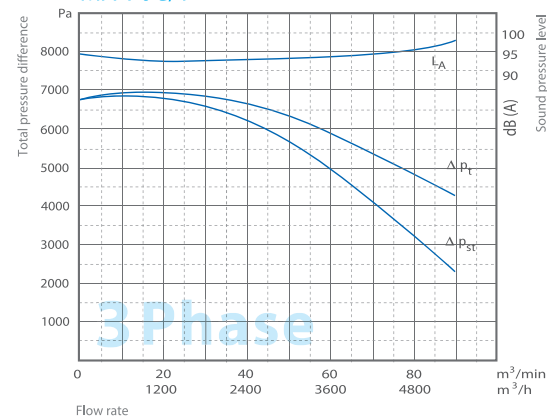
MA-60B/T, MA60C/T



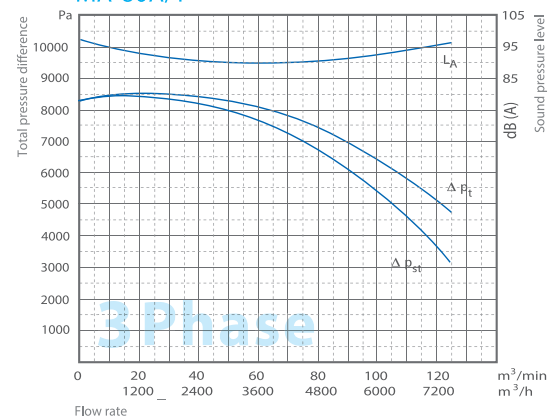
MA-70A/T, MA-70B/T



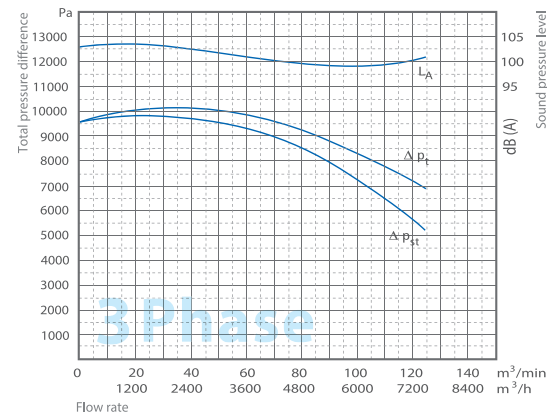
MA-70C/T



MA-80A/T

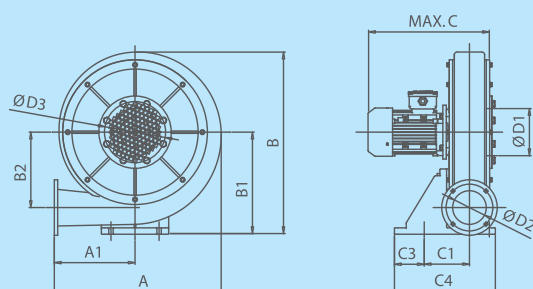


MA-80B/T

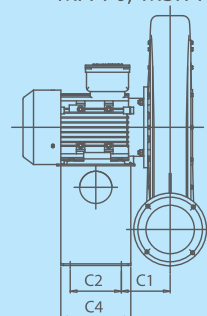


## DIMENSION MA

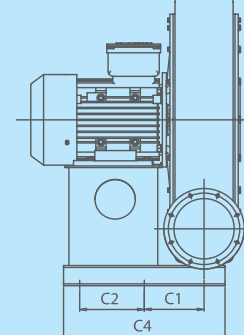
MA-05 to MA-60, MSR-20 to MSR-60



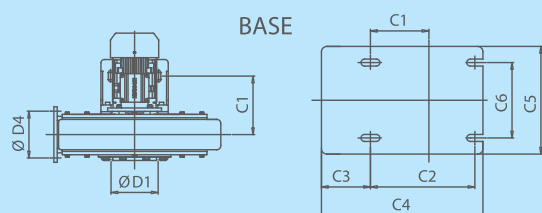
MA-70, MSR-70



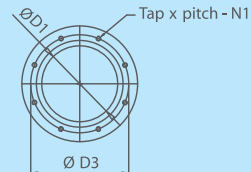
MA-80



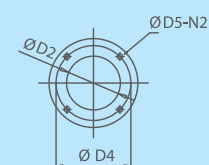
BASE



INLET



OUTLET



| MODEL      | A   | A1  | B    | B1  | B2  | C   | C1  | C2  | C3 | C4  | C5  | C6  | ØD1 | ØD2 | ØD3 | ØD4 | ØD5 | N1 | N2 | Tap x pitch |
|------------|-----|-----|------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-------------|
| MA-05A/S,T | 252 | 120 | 267  | 143 | 96  | 220 | 52  | -   | 28 | 115 | 110 | 73  | 80  | 46  | -   | 75  | 9   | -  | 4  | -           |
| MA-10A/S,T | 305 | 157 | 317  | 174 | 112 | 300 | 80  | 103 | 50 | 180 | 117 | 82  | 72  | 65  | 118 | 95  | 10  | 4  | 4  | M8 x 1.25   |
| MA-20A/S,T | 362 | 180 | 375  | 210 | 120 | 330 | 93  | -   | 36 | 188 | 120 | 80  | 98  | 100 | 140 | 135 | 10  | 4  | 4  | M8 x 1.25   |
| MA-30A/S,T | 454 | 220 | 508  | 290 | 199 | 400 | 128 | 194 | 91 | 300 | 200 | 140 | 105 | 100 | 140 | 139 | 10  | 4  | 4  | M8 x 1.25   |
| MA-30B/S,T | 454 | 220 | 508  | 290 | 199 | 400 | 128 | 194 | 91 | 300 | 200 | 140 | 105 | 100 | 140 | 139 | 10  | 4  | 4  | M8 x 1.25   |
| MA-40A/S,T | 496 | 240 | 543  | 305 | 219 | 420 | 131 | 194 | 91 | 300 | 200 | 140 | 130 | 100 | 165 | 139 | 10  | 4  | 4  | M8 x 1.25   |
| MA-40B/S,T | 496 | 240 | 543  | 305 | 219 | 420 | 131 | 194 | 91 | 300 | 200 | 140 | 141 | 100 | 182 | 139 | 10  | 8  | 4  | M10 x 1.5   |
| MA-50A/T   | 520 | 250 | 577  | 330 | 227 | 420 | 295 | 150 | 25 | 300 | 230 | 180 | 145 | 125 | 182 | 165 | 10  | 8  | 4  | M10 x 1.5   |
| MA-50B/T   | 563 | 274 | 629  | 360 | 246 | 480 | 295 | 150 | 35 | 300 | 230 | 160 | 140 | 140 | 182 | 182 | 12  | 8  | 8  | M10 x 1.5   |
| MA-60A/T   | 625 | 295 | 687  | 387 | 275 | 550 | 265 | 260 | 25 | 300 | 230 | 180 | 160 | 160 | 200 | 200 | 12  | 8  | 8  | M10 x 1.5   |
| MA-60B/T   | 625 | 295 | 687  | 387 | 275 | 550 | 265 | 260 | 25 | 300 | 230 | 180 | 160 | 160 | 200 | 200 | 12  | 8  | 8  | M10 x 1.5   |
| MA-60C/T   | 625 | 295 | 687  | 387 | 275 | 550 | 265 | 260 | 25 | 300 | 230 | 180 | 160 | 160 | 200 | 200 | 12  | 8  | 8  | M10 x 1.5   |
| MA-70A/T   | 842 | 395 | 922  | 508 | 380 | 580 | 180 | 190 | 35 | 260 | 425 | 386 | 190 | 180 | 260 | 240 | 14  | 8  | 4  | M8 x 1.25   |
| MA-70B/T   | 842 | 395 | 922  | 508 | 380 | 580 | 180 | 190 | 35 | 260 | 425 | 386 | 190 | 180 | 260 | 240 | 14  | 8  | 4  | M8 x 1.25   |
| MA-70C/T   | 842 | 395 | 922  | 508 | 380 | 580 | 180 | 190 | 35 | 260 | 425 | 386 | 190 | 180 | 260 | 240 | 14  | 8  | 4  | M8 x 1.25   |
| MA-80A/T   | 937 | 440 | 1078 | 616 | 405 | 770 | 222 | 240 | 60 | 600 | 500 | 470 | 221 | 224 | 265 | 265 | 12  | 8  | 8  | M10 x 1.5   |
| MA-80B/T   | 937 | 440 | 1078 | 616 | 405 | 770 | 222 | 240 | 60 | 600 | 500 | 470 | 221 | 224 | 265 | 265 | 12  | 8  | 8  | M10 x 1.5   |
| MA-80C/T   | 937 | 440 | 1078 | 616 | 405 | 770 | 222 | 240 | 60 | 600 | 500 | 470 | 221 | 224 | 265 | 265 | 12  | 8  | 8  | M10 x 1.5   |