

# **VENTURI AIR BLOWERS CHEGEJ**

Venturi air blowers CHEGEJ are a perfect solution for moving air in confined spaces or for venting hazardous areas. Compressed air or steam is their power source.

Operate on the Venturi principle of using small volumes of high pressure air that run through the aluminum casting and out the nozzle jet, creating a pulling action that induce large volume of air through the venturi cone and out the air diffuser.

The required compressor size can be determined by checking the table on the air consumed at various inlet pressures. The particular free passage construction allows to reduce to a minimum the load losses.

They guarantee high suction ratios in all conditions of use.

Built in cast aluminum alloy head and galvanized steel cone (primer and powder RAL 2008.)

Venturi air blowers CHEGEJ are powerful enough for use with flexible duct, yet light enough to carry from job to job as they are equipped with comfortable handles.

#### **PERFORMANCES TABLES**

| CHEGEJ TYPE 3S                            |            |            |              |              |  |  |  |
|---|------------|------------|--------------|--------------|--|--|--|
| MOTIVE PRESSURE<br>(bar g)                | 2          | 4          | 6            | 8            |  |  |  |
| MOTIVE AIR FLOW<br>Sm3/h (kg/h)           | 45<br>(55) | 76<br>(93) | 107<br>(131) | 137<br>(168) |  |  |  |
| TOTAL AIR FLOW<br>(Sm3/h)                 | 1530       | 2230       | 2620         | 3030         |  |  |  |
| Induction ratio                           | 34         | 29         | 24.5         | 22           |  |  |  |
| Max suction pressure (blind vacuum, mbar) | 10         | 14         | 19           | 24           |  |  |  |

| CHEGEJ TYPE 3                             |            |            |              |              |  |  |  |
|---|------------|------------|--------------|--------------|--|--|--|
| MOTIVE PRESSURE<br>(bar g)                | 2          | 4          | 6            | 8            |  |  |  |
| MOTIVE AIR FLOW<br>Sm3/h (kg/h)           | 45<br>(55) | 76<br>(93) | 107<br>(131) | 137<br>(168) |  |  |  |
| TOTAL AIR FLOW<br>(Sm3/h)                 | 1640       | 2485       | 2880         | 3420         |  |  |  |
| Induction ratio                           | 36.5       | 32.5       | 27           | 25           |  |  |  |
| Max suction pressure (blind vacuum, mbar) | 10         | 14         | 19           | 24           |  |  |  |

| CHEGEJ TYPE 6                             |             |              |              |              |  |  |  |
|---|-------------|--------------|--------------|--------------|--|--|--|
| MOTIVE PRESSURE<br>(bar g)                | 2           | 4            | 6            | 8            |  |  |  |
| MOTIVE AIR FLOW<br>Sm3/h (kg/h)           | 94<br>(115) | 159<br>(195) | 220<br>(270) | 285<br>(350) |  |  |  |
| TOTAL AIR FLOW<br>(Sm3/h)                 | 4250        | 6410         | 7770         | 8700         |  |  |  |
| Induction ratio                           | 45          | 40           | 35           | 30.5         |  |  |  |
| Max suction pressure (blind vacuum, mbar) | 7           | 10           | 15           | 18           |  |  |  |

| CHEGEJ TYPE 8                             |              |              |              |              |  |  |  |
|---|--------------|--------------|--------------|--------------|--|--|--|
| MOTIVE PRESSURE<br>(bar g)                | 2            | 4            | 6            | 8            |  |  |  |
| MOTIVE AIR FLOW<br>Sm3/h (kg/h)           | 170<br>(209) | 289<br>(354) | 404<br>(495) | 518<br>(635) |  |  |  |
| TOTAL AIR FLOW<br>(Sm3/h)                 | 6270         | 9060         | 10640        | 11880        |  |  |  |
| Induction ratio                           | 37           | 31           | 26           | 23           |  |  |  |
| Max suction pressure (blind vacuum, mbar) | 6            | 9            | 14           | 17           |  |  |  |

| CHEGEJ TYPE 9                                |              |              |              |               |  |  |  |  |
|--|--------------|--------------|--------------|---------------|--|--|--|--|
| MOTIVE PRESSURE<br>(bar g)                   | 2            | 4            | 6            | 8             |  |  |  |  |
| MOTIVE AIR FLOW<br>Sm3/h (kg/h)              | 253<br>(310) | 428<br>(525) | 636<br>(780) | 884<br>(1085) |  |  |  |  |
| TOTAL AIR FLOW<br>(Sm3/h)                    | 7860         | 11225        | 13540        | 16820         |  |  |  |  |
| Induction ratio                              | 31           | 26           | 21           | 19            |  |  |  |  |
| Max suction pressure<br>(blind vacuum, mbar) | 9            | 13           | 18           | 21            |  |  |  |  |





#### **APPLICATION AND CHARACTERISTICS**

# • Shipyards

Venturi air movers CHEGEJ are used to ventilate the confined spaces where smoke and welding fumes accumulate.

#### • Marine industries

Cargo tanks and fuel supply vessels must exhaust volatile fumes after emptying the cargo holds: air movers can quickly and safely exhaust fumes from these areas.

#### • Chemical plants and refineries

Fumes that are sometimes poisonous, explosive or noxious, must be removed from process towers, tanks, large pipes, before workers are allowed entry into these areas.

They can be also used for material conveying (powder and dust).

#### • Steel and paper mills

Air movers are used to remove toxic gases and to cool hot iron ladles and heavy equipment prior to repair and maintenance. Ideal for improving breathing conditions in hazardous area.

### • Manhole operations

Heavy gases must first be vented from underground spaces prior to carrying out maintenance.

The use of electricity could cause an explosion, while air mover CHEGEJ is intrinsically safe for this environment.

#### Packaging industry and printing house

Pressured air feeds venturi CHEGEJ to create a powerful inline conveyor that moves small parts, shavings, paper or plastic scraps.



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| NOISE VALUES |       |       |  |  |
|--------------|-------|-------|--|--|
|              | Bar g | dB(A) |  |  |
| MOD.3        | 4     | 81    |  |  |
| MOD. 3       | 6     | 85    |  |  |
| MOD. 3       | 8     | 89    |  |  |
| MOD.3S       | 4     | 81    |  |  |
| MOD. 3S      | 6     | 85    |  |  |
| MOD. 3S      | 8     | 89    |  |  |
| MOD. 6       | 4     | 85    |  |  |
| MOD. 6       | 6     | 89    |  |  |
| MOD. 6       | 8     | 93    |  |  |
| MOD. 8       | 4     | 87    |  |  |
| MOD. 8       | 6     | 91    |  |  |
| MOD. 8       | 8     | 95    |  |  |
| MOD. 9       | 4     | 88    |  |  |
| MOD. 9       | 6     | 92    |  |  |
| MOD. 9       | 8     | 95    |  |  |
|              |       |       |  |  |

Measured @ 1mt

- Feeding fluid: compressed air or steam (max 10 bar)
- No moving parts, minimum maintenance.
- Multiple inlet threaded connection.
- Induction ratio: up to 45.
- Sturdy grounding clamp with 2.0 m yellow retractable cable.
- > Accept flexible duct on discharge or suction (see dedicated table)
- > Inlet adapters available on request.



## **OPERATION AND SAFETY INSTRUCTIONS**

Any time the Venturi air mover is used in volatile atmosphere, attach a ground wire to discharge any static electricity.

When the evacuation of gas or fumes takes place in closed tanks, take care not to create a vacuum that could collapse the vessel.

It is possible to supply (as optional) inlet duct adapters (fig.2) to interface to any pipe or duct.

Do not allow solid objects or debris to enter inlet housing during operation.

Prior to using the air moving CHEGEJ make sure that all nozzle jet are open and operable.

Prevent clogging of nozzle jet and periodically steam clean for proper maintenance.





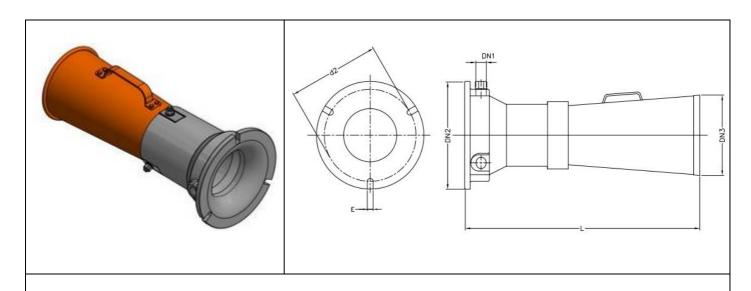


Fig.2



# PERFORMANCES TABLE THROUGH FLEXIBLE DUCT OF VARIOUS LENGTHS (motive pressure 6 bar g) installed indifferently on suction or discharge

| TYPE | DUCT<br>DIAMETER | AIR FLOW<br>RATE | 6 mt  | 9 mt  | 12 mt | 15 mt |
|------|------------------|------------------|-------|-------|-------|-------|
| 1112 | Inch/mm          | Sm3/h            | Sm3/h | Sm3/h | Sm3/h | Sm3/h |
| 3S   | 8"/203           | 2620             | 2200  | 2102  | 2004  | 1925  |
| 3    | 8"/203           | 2880             | 2610  | 2508  | 2389  | 2288  |
| 6    | 12"/305          | 7770             | 7000  | 6720  | 6465  | 6225  |
| 8    | 14"/356          | 10640            | 9770  | 9290  | 8880  | 8525  |
| 9    | 14"/356          | 13540            | 11761 | 11250 | 10735 | 10300 |



|       | OVERALL DIMENSIONS (mm) |      |      |                               |        |     |    |      |
|-------|-------------------------|------|------|-------------------------------|--------|-----|----|------|
| TYPE  | DN1                     | DN2  | DN3  | Suction connection with slots | Weight |     |    |      |
| 111.6 | DIVI                    | DIVE | פווט | _                             | d2     | N.° | E  | (kg) |
| 3S    | 1/2" NPT                | 190  | 152  | 419                           | 165    | 3   | 10 | 3.5  |
| 3     | 1/2" NPT                | 190  | 185  | 838                           | 165    | 3   | 10 | 5.0  |
| 6     | 1" NPT                  | 292  | 305  | 1123                          | 274    | 3   | 10 | 11.5 |
| 8     | 1" NPT                  | 363  | 356  | 1168                          | 343    | 3   | 10 | 16   |
| 9     | 1" NPT                  | 427  | 356  | 1168                          | 387    | 10  | 23 | 19.5 |