

FRAME TECHNICAL DATASHEET

AERATION SYSTEMS



- › Maintaining the quality of the stored crop is a vital consideration in the design of any storage facility, **FRAME** offers an extensive range of highly efficient backward curved centrifugal fan units, providing exceptional performance, together with a wide range of aeration systems designed specifically to suit the **FRAME** range of FP & FC storage silos.
- › The standard **FRAME** fan selection is based on an air volume of 7m³/tonne stored.
- › Available in both static & mobile versions, the VFIS/VCAR range of fans are supplied with hot dipped galvanized mild steel casings, dynamically balanced steel impeller, direct coupled TEFC IP55 motors, inlet & outlet guards.
- › The static version of the VFIS range of fans is supplied with a 2m long x 400mm diameter flexible PVC sleeve, clamping band & outlet transition.
- › The **FRAME** range of VCAR mobile fan units is available up to the model VFIS185Z (18.5 KW) & are supplied mounted on wheels & equipped with handgrips for easy handling. In addition, the fans are supplied with a mounted starter & 10m of electric cable with plug.

Static Fans



Mobile Fans



FAN PERFORMANCE

| ELECTRICAL FANS PERFORMANCES - MODEL VFIS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------|----------|--------------|--------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| "Capacity tolerance ±5% Noise level tolerance +3 dB(A)" | | | | Air capacity (m ³ /h) | | | | | | | | | | | | | | | | | | | | | | | |
| Fan type | g/1' rpm | kW inst. | dB(A) 1,5 mt | 2400 | 2700 | 3000 | 3360 | 3780 | 4260 | 4800 | 5400 | 6000 | 6720 | 7500 | 8400 | 9600 | 10800 | 12000 | 13500 | 15000 | 16800 | 18900 | 21300 | 27000 | 30000 | 33600 | 37800 |
| | | | | Total pressure (mm H ₂ O) | | | | | | | | | | | | | | | | | | | | | | | |
| VFIS02ZZ | 2850 | 2,2 | 77 | 165 | 162 | 159 | 150 | 140 | 125 | 106 | 82 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| VFIS030Z | 2900 | 3 | 78 | - | 190 | 188 | 185 | 179 | 170 | 162 | 152 | 140 | 125 | 100 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| VFIS040Z | 2900 | 4 | 79 | - | - | - | 210 | 210 | 208 | 205 | 200 | 190 | 175 | 160 | 140 | 90 | - | - | - | - | - | - | - | - | - | - | - |
| VFIS065Z | 2900 | 5,5 | 82 | - | - | - | - | 230 | 230 | 225 | 220 | 215 | 200 | 185 | 165 | 140 | 110 | 70 | - | - | - | - | - | - | - | - | - |
| VFIS075Z | 2900 | 7,5 | 84 | - | - | - | - | - | - | 270 | 270 | 268 | 262 | 255 | 248 | 235 | 210 | 180 | - | - | - | - | - | - | - | - | - |
| VFIS110Z | 2930 | 11 | 85 | - | - | - | - | - | - | - | 300 | 298 | 292 | 282 | 275 | 260 | 238 | 215 | 190 | 158 | 100 | - | - | - | - | - | - |
| VFIS160Z | 2935 | 15 | 88 | - | - | - | - | - | - | - | - | 350 | 348 | 342 | 335 | 325 | 305 | 290 | 260 | 225 | 150 | - | - | - | - | - | - |
| VFIS185Z | 2935 | 18,5 | 89 | - | - | - | - | - | - | - | - | - | - | 380 | 377 | 368 | 360 | 347 | 335 | 310 | 280 | 250 | 205 | - | - | - | - |
| VFIS150P4Z | 1460 | 15 | 79 | - | - | - | - | - | - | - | - | - | - | - | - | 180 | 180 | 177 | 172 | 165 | 160 | 145 | 115 | 97 | 65 | - | - |
| VFIS188P4Z | 1470 | 18,5 | 82 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 215 | 215 | 214 | 210 | 205 | 192 | 170 | 150 | 90 | - |
| VFIS220P4Z | 1470 | 22 | 83 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 235 | 230 | 228 | 220 | 200 | 185 | 170 | 145 |
| VFIS300P4Z | 1470 | 30 | 85 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 250 | 250 | 242 | 232 | 220 | 205 |

Rif. 57x002 Rev.0 - FRAME reserves the right to change specification without prior notice.

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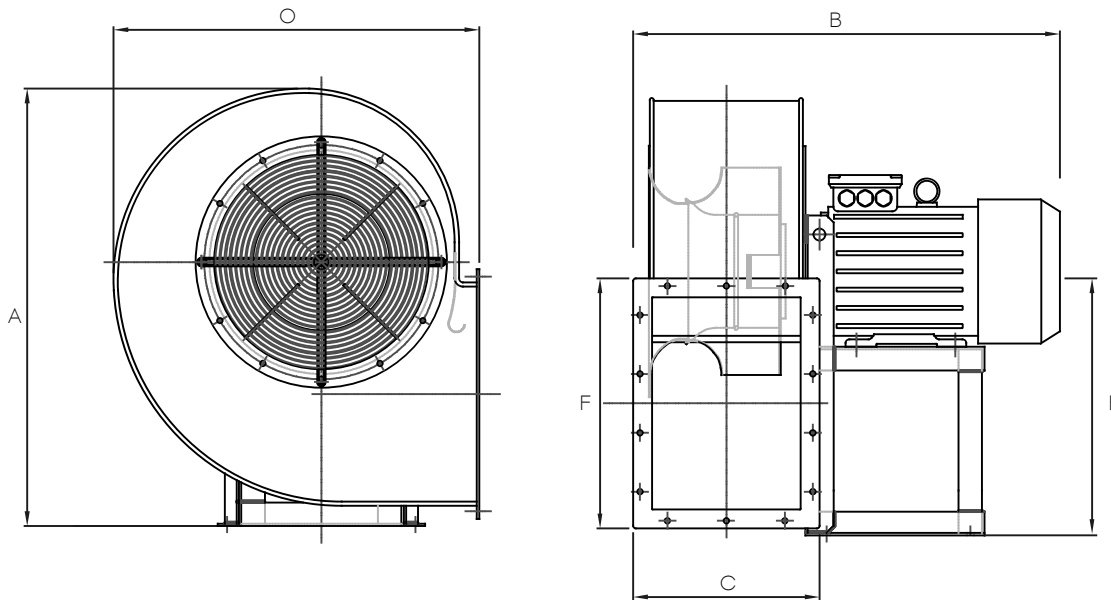
FRAME Srl
Via Bertella, 2
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BASIC DIMENSIONS



| Fan Model | A | B | C x F | O | E |
|-------------|------|------|---------|------|------|
| VFIS022Z | 740 | 575 | 250x355 | 620 | 450 |
| FVIS030Z | 740 | 640 | 250x355 | 620 | 450 |
| VFI040Z | 830 | 670 | 280x400 | 695 | 500 |
| VFIS055Z | 830 | 730 | 280x400 | 695 | 500 |
| VFIS110Z | 930 | 905 | 315x450 | 780 | 560 |
| VFIS150Z | 1040 | 945 | 355x500 | 850 | 630 |
| VFSI185Z | 1040 | 945 | 355x500 | 850 | 630 |
| VFIS150P4Z | 1490 | 1100 | 500x710 | 1200 | 900 |
| VFIS220P4Z | 1643 | 1270 | 500x800 | 1338 | 1000 |
| VFIS185P4Z | 1643 | 1240 | 560x800 | 1338 | 1000 |
| VFIS0300P4Z | 1775 | 1350 | 630x900 | 1485 | 1060 |

All dimensions are in mm
Fully detailed planning in drawing available on request.

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THE FRAME RANGE OF ROOF VENTS / FANS

In addition to the correct fan selection, careful consideration should be given to the selection of the appropriate roof vents to suit FP & FC Silos. **FRAME** offer a wide range, including powered roof fans.

The simplest version is the Low Profile roof vent, mainly intended for smaller silos, however, for most applications, the Curved roof vent is offered. In addition, **FRAME** can supply 'powered roof vents as shown below.

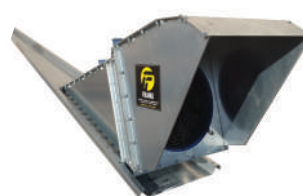
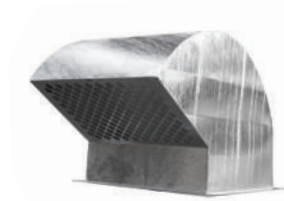
All **FRAME** roof vents are supplied to fit over a pre-punched 350 mm diameter aperture in a pre-determined number of silo roof segments, which incorporate a pre-formed lip with a special gasket to provide a weather type seal.

— Standard curved roof vent
Ref. AERAP-X

— Powered curved roof vent
Ref. AERAP-XM

— Horizontal powered roof vent
Ref. AERAP-XL

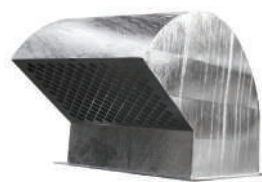
— Roof powered vent
Ref. TORFOROX015G



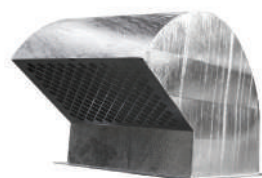
| Model ref. | kW | Volume/pressure |
|--|---------|-----------------------|
| AERAP-X - ROOF VENT | - | - |
| AERAP-XM (ATEX 22) - ROOF VENT | 0.18 kW | 2,200m³/h @ 4mm swg |
| TORFOROX015G - POWERED ROOF FAN | 1.5 kW | 7,600 m³/h @ 5mm swg |
| AERAP-XL - HORIZONTAL POWERED ROOF FAN (ATEX 22) | 1.5 kW | 8,500 m³/h @ 15mm swg |

Where fumigation within the silo is required, Manual remotely or electrically operated louvres can be supplied to the outlets of both standard & powered roof vents, full details are available on request.

ROOF VENT WITH ELECTRONIC REMOTE CONTROL



ROOF VENT WITH LOCAL CLOSURE



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FRAME OFFER A WIDE RANGE OF DESIGNS OF AERATION SYSTEMS TO SUIT THE FP & FC RANGE OF SILOS.

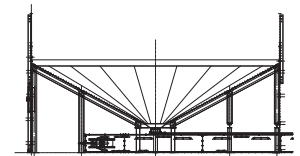
FP SILO 'FULL FLOOR' AERATION SYSTEM

Providing an alternative to the grid system, the galvanised steel full floor aeration system provides 100% coverage of the silo base area & utilises louvered channels mounted on 300mm high steel supports, & is easily assembled on site. The louvered channels can be offered to suit paddy rice as well as wheat, maize & rapeseed.



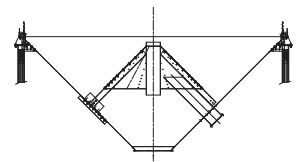
FP SILO FCV 28 CONICAL AERATION SYSTEM

Suitable for silos up to model FP 09, this ventilated conical base is installed within the Silo; two versions are available, floor & above level outlet. Vertical support channels & an internal flashing seal are supplied as standard.



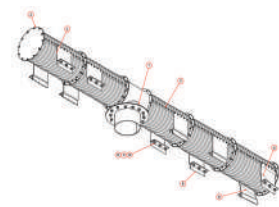
FC SILO AERATION CONE

Designed to suit smaller FC04 silos up to model FC09, the inverted louvered cone provides efficient air distribution, supplied with a 400mm diameter air inlet facility within the hopper segment.



FC SILO AERATION DUCTS

For larger diameter FC silos, FRAME have developed a range of aeration systems based on multiple corrugated perforated tubular ducts supplied with the necessary fixing clamps & air inlet facilities to be installed within the hopper.



STANDARD LEVEL FLOOR AERATION GRIDS TO SUIT THE FP RANGE OF SILOS

Cast into pre-formed channels within the silo base & incorporating a series of galvanised modular grids arranged in an 'H' pattern, designed to suit the specific diameter of the silo thus providing very effective air distribution, the 500mm wide louvered grids can be offered to suit rape seed, rice as well as other cereals. Self-supporting, with no additional supports or fixings required, the grids are simple to install & easily removed for cleaning. Optional pre-formed steel troughs to cast into the silo base are available at additional cost.

