

High Vacuum

HVU High Vacuum Unit

GEOVENT High Vacuum Unit can be supplied as a complete unit or as separate modules.

Geovent HVU is ideal when particles are to be removed from the polluting process, for example at vacuuming and grinding job in the industry, repairshops or hotels where the separated particles must be collected and disposed of. GEOVENT High Vacuum Unit is produced with high quality European components and is supplied complete with filter cartridge or filter cyclone, cleaning system with compressed air and control by request.

Geovent's modular High Vacuum system is composed and designed specifically for the job at hand.

Typically a High Vacuum System consists of:

- HVU Solo with side channel blower
- Filter cyclone
- Control panel.

A preseparator can be added to separate the largest particles prior to reaching the filter cartridge. Geovent carry a wide range of accessories for our High Vacuum Units including hoses, tubes, valves and energy satellites.

Example:

Geovent HVU Lite

Compact High Vacuum Unit

- Side Channel Blower – 3 or 5 kW
- Filter Cyclone ø300 mm
- Filter Cartridge 7,5 m²
- Optional control

Geovent HVU

Heavy duty High Vacuum unit

- Side Channel Blower – 7,5 or 15 kW
- Filter cyclone ø800 x 2000 mm
- Filter cartridge 12 m².
- Control for automatic start/stop and automatic high pressure air cleaning of filter
- Frequency converter optional
- Vacuum protection

Geovent HVU-IT

Special version of the HVU:

- Side Channel Blower – from 3 – 15 kW
- Filter Cyclone ø450 mm
- Filter cartridge 7,5 m² – High pressure cleaned
- Advanced control – frequency converter and Programmable Logic Controller
- Highly suitable as central vacuuming unit.
- Automatic Damper in the bottom of the cyclone.



HVU

HVU IT - Komplet unit med sammenbygget filtercyklon

Possible applications:



Areas of application:

Grinding dust extraction from sander and grinder.
Extraction of metal chips and shavings from milling, cutting and sawing.

Welding extraction directly from the welding gun.
Ordinary cleaning of the work station Cleaning and vacuuming.

ATEX versions of Geovent HVU are available.

Available features

- Side Channel Blower produced in the EU ranges from 3 – 15kw – 3x400V 50hz.
- Filter cyclone antistatic filter cartridge (up to 12m²) and compressed air cleaning through a shot valve.
- Sound proofed cabinet in powdercoated sheet metal.
- Built in compressor with pressure regulator.
- Advanced electric control panel.
- Optional frequency converter and more.
- Demand-controlled solution adjusts the side channel blower, according to work load.

HVU-Lite

Complete High Vacuum Unit with filter cyclone for extraction of dust from grinding processes, brake dust and work station cleaning. The unit is supplied with 99,9% antistatic filter cartridge of 7,5 m², collection bucket of 18 litres and bush-button filter cleaning. HVU Lite suitable for use in up to 6 hours a day from 1 - 4 outlets.

Dimensions:

Height x Width x Depth = 1200 x 550 x 1000 mm

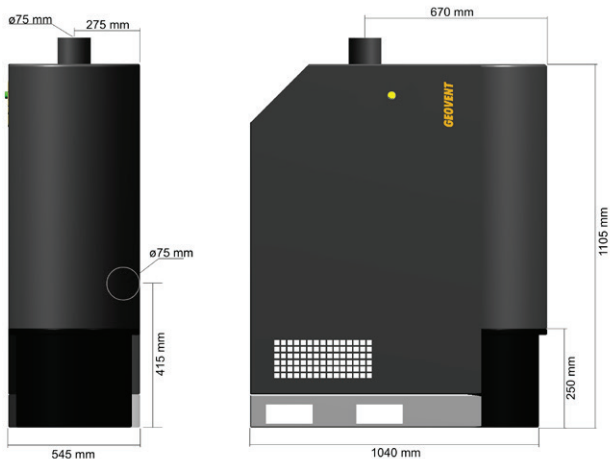
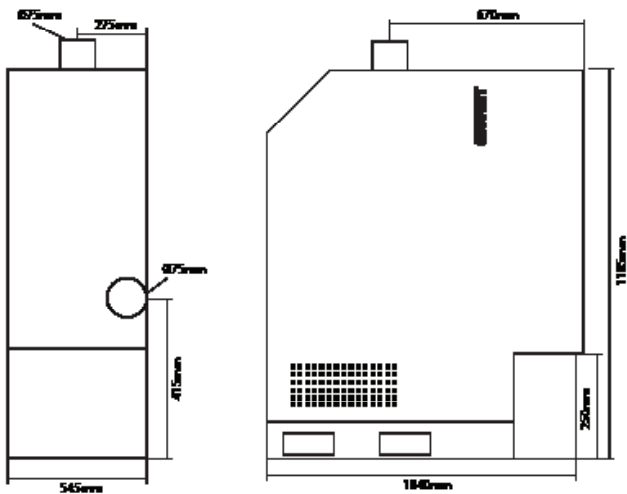
Connection:

ø80 mm inlet on the front of the cyclone/ ø80 mm outlet on the top.

Noise level: 74db(A)

Compressed air: 3,5 Bar clean and dry air.

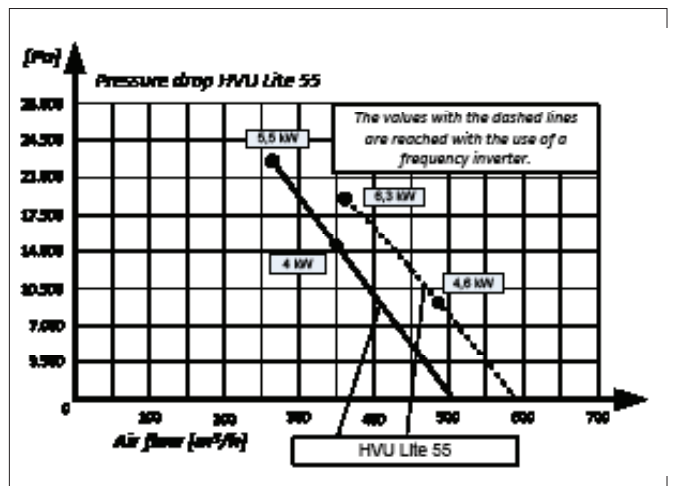
Dimensions



HVU Lite

Art. No.	Description	[kW]	[Volt]	[m ³ /h] v/ 0 Pa	[kPa] Max
03-802	HVU Lite 55	5,5	3 x 400	550	21 kPa
03-820	Additional charge for Fully automatic pneumatic cleaning.				
03-821	Additional charge for automatic start/stop-control panel				
03-810	Vacuum protection for side channel blower (overload protection)				

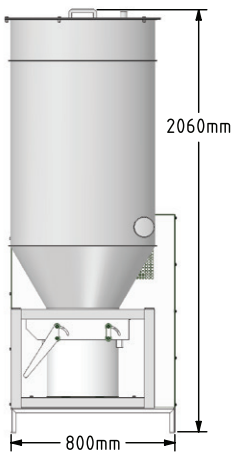
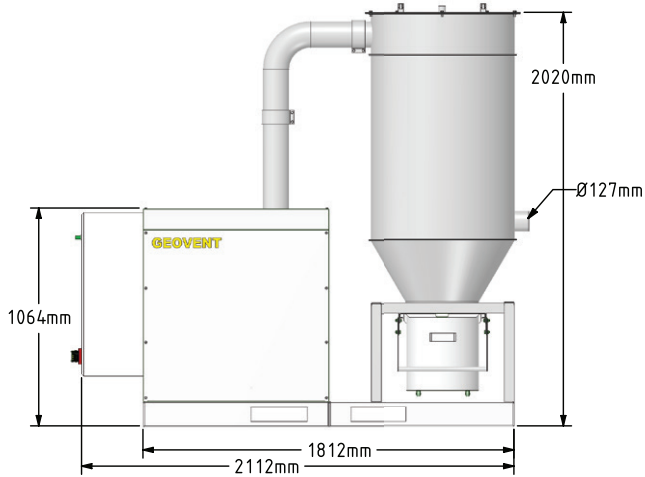
Pressure drop



HVU

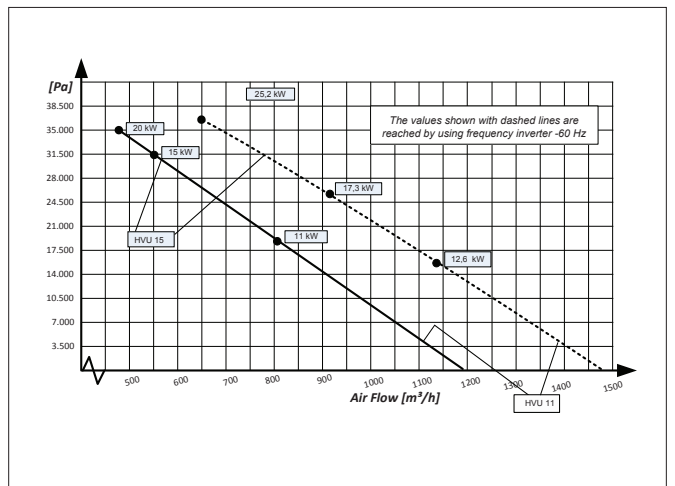
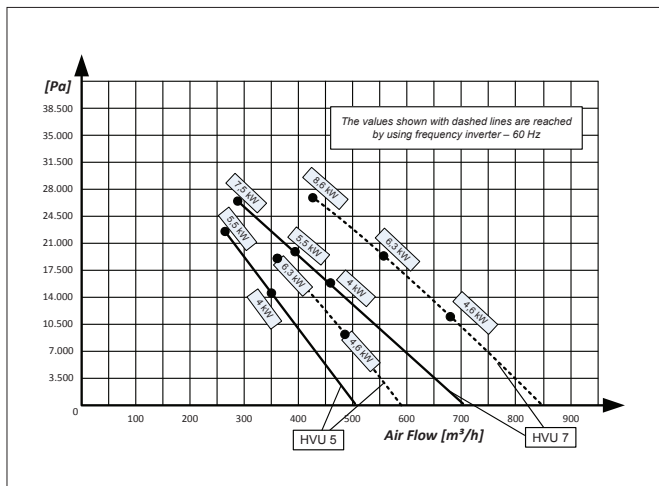
Complete and integrated heavy duty unit with side channel blower, control and filter cyclone.

Dimensions



Art. No.	Description
03-650	HVU-3 3,0kW 350m ³ /h 23kPa
03-651	HVU-5 5,5kW 550m ³ /h 21kPa
03-652	HVU-7 7,5kW 680m ³ /h 33kPa
03-653	HVU-11 11kW 1180m ³ /h 22kPa
03-654	HVU-15 15kW 1180m ³ /h 35kPa

Pressure drop



HVU-IT

Geovent High Vacuum Unit HVU-IT is for example used for central vacuum cleaning in hotels.

This version comes with a two step filter cyclone with a 7,5 m² filter cartridge and efficiency up to 99,9% and fully automatic pneumatic filter cleaning.

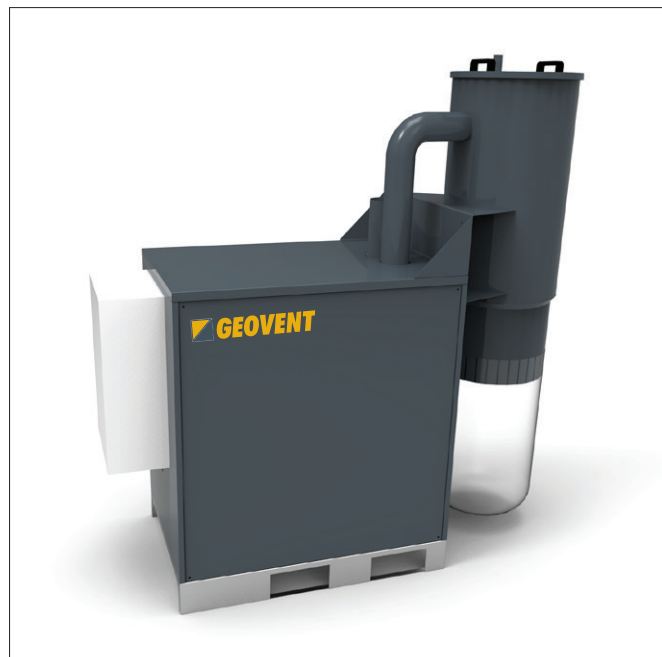
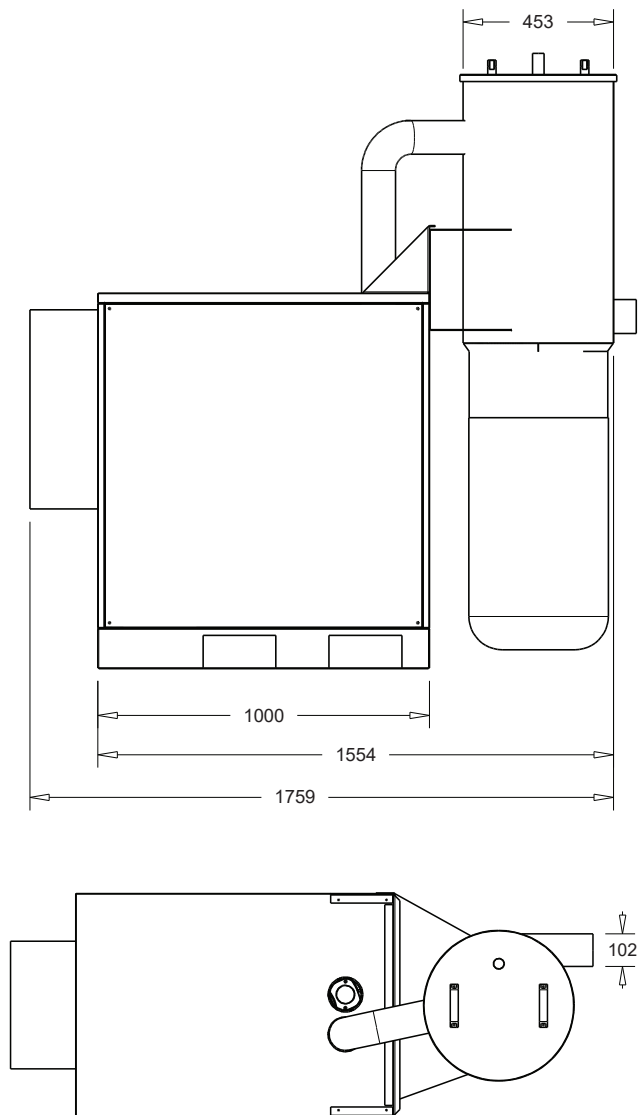
Complete with control board with built-in frequency inverter and PLC, for automatic start/stop and demand control.

Blow-out to clean tube system and level indicator.

The side channel blower is equipped with vacuum protection and temperature protection.

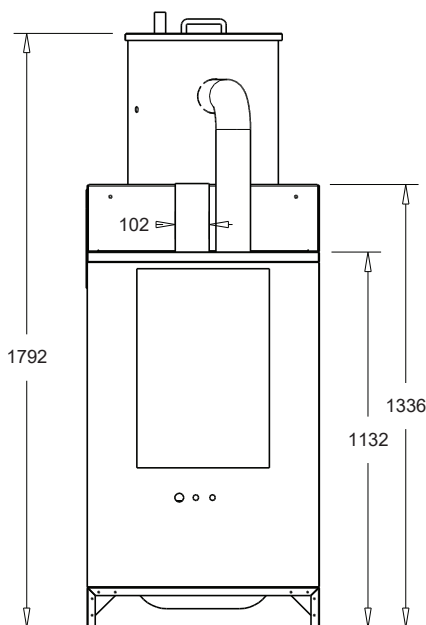
Noise insulated cabinet for indoor placement. The HVU-IT is suitable for intensive use and can be connected to up to 12 outlets.

Dimensions



HVU-IT

Dimensions



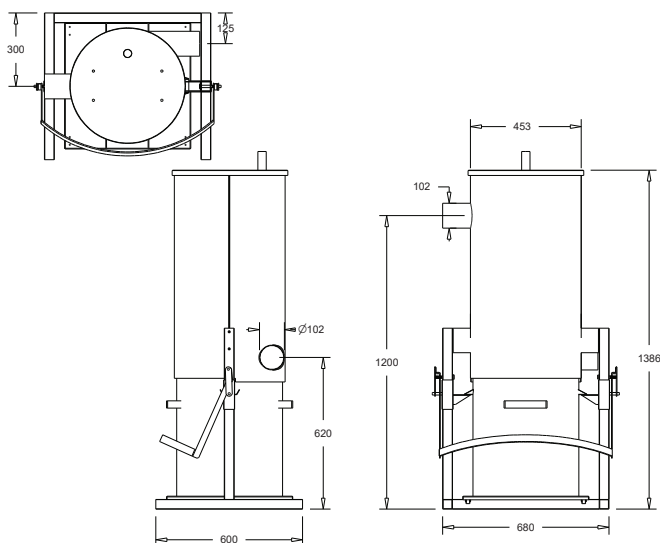
Art. No.	Description
03-850	HVU IT 3kw 3x400 50Hz
03-851	HVU IT 5,5kw 3x400V 50Hz
03-852	HVU IT 7,5kw 3x400V 50Hz
03-853	HVU IT 11kw 3x400V 50Hz
03-854	HVU IT 15kw 3x400V 50Hz

HVU Filter cyclone

Detached Filter Cyclone to filter the extracted air. The Filter Cyclone is equipped with a filter.

If you need to extract heavily polluted air containing larger particles, we recommend using our preseperator which separates the particles prior to entering the Filter Cyclone.

Dimensions

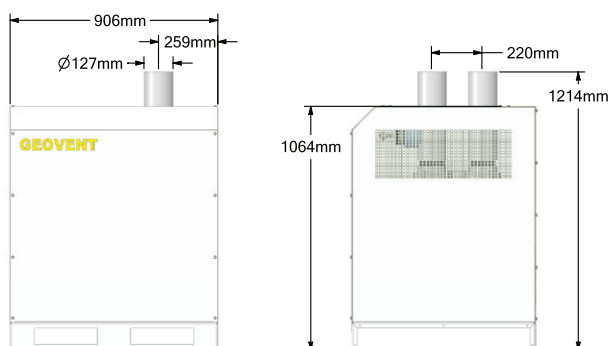


Geovent High Vacuum Units are also available in modular design so you can design the installation that suits your need the best.

HVU Solo

Standalone module for Side Channel Blower for flexible placement.

Dimensions



Geovent High Vacuum Units are also available in modular design so you can design the installation that suits your need the best.



HVU Filter cyclone

Art. No.	Description
03-957	Forudskiller for 3-7,5 kW HVU - Ø450 mm
03-958	Forudskiller for 11-15 kW HVU - Ø450 mm
03-956A	Filtercyclon to HVU solo 11-15 - Ø800 mm



Art. No.	Description	Inlet/outlet diameter
03-950	HVU solo 3 kW	Ø102 mm
03-951	HVU solo 5,5 kW	Ø102 mm
03-952	HVU solo 7,5 kW	Ø102 mm
03-953	HVU solo 11 kW	Ø128 mm
03-954	HVU solo 15 kW	Ø128 mm



HVU High Vacuum Unit

What do you get?

The side Channel Blower is built into a powder coated sheet metal cabinet.

By default the unit is supplied with controlboard, filter cyclone, inlet filters and safety valve.

Description of function (HVU - IT)

Standby

- Start signal from manual switch on the unit or microswitch on the flap valve or nozzle.
Start side channel Blower/frequency converter + open damper in the bottom of the Filter Cyclone.
- The Frequency Converter adjusts the speed according to torque / power consumption.
- The side channel blower will typically be designed for 5-6 simultaneous operators. In practice, however, the load will be from one operator $\varnothing 32$ mm/120 m³/h 90 % of the time.
- Detaching of the suction hose stops the work process.
- The side Channel Blower will run at full speed for.
2-3 seconds to clean the ducts.
- Signal cleaning damper -> damper is opened and the main duct will be emptied for dust or shavings
> damper closes
- Side Channel Blower stops.
- Compressed air cleaning sequence-> 3 – 4 shots from shot valve
- The bottom damper opens and empties the cyclone into the big bag below.

Standby

Construction.

The cabinet is built from powder coated sheet metal on a galvanized frame.

By default the HVU is intended for use indoors. The cabinet is soundproofed with 25 mm rubber foam.

Hatch for easy access to maintenance.

Ventilation holes in cabinet for cooling of Side Channel Blower.

Side Channel Blower

The core of the HVU high quality side channel blower produced in the EU.

By default, sizes range from 3 to 15 kW.

However, up to 20kW models are available.

The HVU can be upgraded with a police filter to protect the side channel blower from dust not being caught by the main filter (when cleaning or leakage),

Control

The control is supplied in a separate powder coated cabinet and will by default be fitted with a start/stop function.

The start/stop function is activated via micro switch on the valves or via external switch.

On the control supplied by default (3x400V 50Hz)
a built in frequency converter and PLC set on the operation point.

Accessories



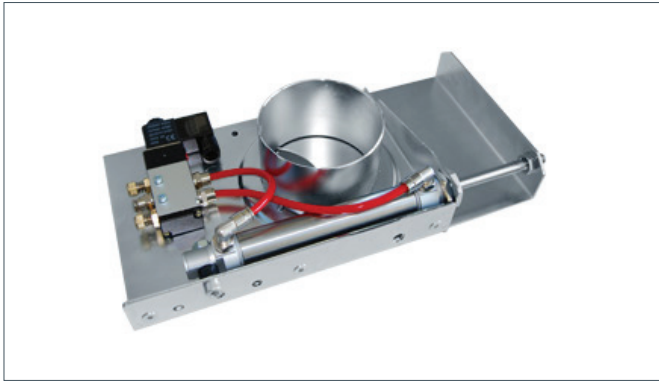
Filter Cartridge for Filter Cyclone

Art. No.	Description
03-259	Filter cartridge HVU-15m ² ALU
03-260	Filter Cartridge HVU-lite 7,5m ²
03-812	Policefilter f. 3 & 5,5kW
03-813	Policefilter f. 7,5kW
03-814	Policefilter f. 11 & 15 kW
03-810	Vacuum protection f. 3 & 5,5 kW
03-810A	Vacuum protection f. 7,5-15 kW

Art. No.	Description
74-500	Steel tube \varnothing 38mm., Two-piece
74-501	Tube bend \varnothing 38 mm.
74-502	Floor Nozzle \varnothing 38 mm, 450 mm.
74-503	Floor Nozzle \varnothing 38 mm., plastic
74-504	Brush Nozzle \varnothing 38 mm.
74-505	Slot nozzle \varnothing 38 mm.
74-506	Hose sleeve \varnothing 38 mm
74-550	Steel tube \varnothing 50mm., Two-piece
74-551	Steel bend \varnothing 50 mm.
74-552	Floor Nozzle \varnothing 50 mm, 450 mm.
74-553	Slot Nozzle \varnothing 50 mm.
74-554	Hose Sleeve \varnothing 50- \varnothing 50 mm
74-600	Metal Flap Valve \varnothing 50- \varnothing 50 mm
74-601	Metal Flap Valve \varnothing 63- \varnothing 50 mm
74-602	Metal Flap Valve \varnothing 63- \varnothing 63 mm

74-603	Metal Flap Valve \varnothing 76- \varnothing 63 mm
74-604	Metal Flap Valve \varnothing 76- \varnothing 76 mm
74-610	Metal Flap Valve w/microswitch
74-611	Metal Flap Valve w/microswitch
74-612	Metal Flap Valve w/microswitch
74-613	Metal Flap Valve w/microswitch
74-614	Metal Flap valve w/microswitch
74-620	Hose Coupling \varnothing 50- \varnothing 38 mm
74-621	Hose Coupling \varnothing 50- \varnothing 45 mm
74-622	Hose Coupling \varnothing 50- \varnothing 50 mm
74-623	Slangekobling \varnothing 63- \varnothing 50 mm
74-624	Hose Coupling \varnothing 63- \varnothing 63 mm
74-625	Hose Coupling \varnothing 76- \varnothing 50 mm
74-626	Hose Coupling \varnothing 76- \varnothing 63 mm
74-627	Hose Coupling \varnothing 76- \varnothing 76 mm
74-640	Coupling \varnothing 50 mm
74-641	Coupling \varnothing 63 mm
74-642	Coupling \varnothing 76 mm
74-660	Pneumatic Slide Damper \varnothing 50 mm
74-661	Pneumatic Slide Damper \varnothing 63 mm
74-662	Pneumatic Slide Damper \varnothing 76 mm
74-663	Pneumatic Slide Damper \varnothing 102 mm
74-664	Pneumatic Slide Damper \varnothing 127 mm
74-665	Pneumatic Slide Damper \varnothing 152 mm
74-670	Manual Slide damper \varnothing 50 mm
74-671	Manual Slide damper \varnothing 63 mm
74-672	Manual Slide damper \varnothing 76 mm
74-673	Manual Slide damper \varnothing 102 mm
74-674	Manual Slide damper \varnothing 127 mm
74-675	Manual Slide damper \varnothing 152 mm
74-680	Manual Slide damper \varnothing 50 mm
74-681	Manual Slide damper \varnothing 63 mm
74-682	Manual Slide damper \varnothing 76 mm
74-683	Manual Slide damper \varnothing 102 mm
74-684	Manual Slide damper \varnothing 127 mm
74-685	Manual Slide damper \varnothing 152 mm

Accessories



74-660 Pneumatic Slide Damper ø50 mm



74-610 Damper with micro switch ø50 mm



74-650 Electric slide damper ø50 mm



74-600 Flap Valve ø50 mm



Hose, tubes and nozzles



Energy outlet for energy arm



Large selection of tubes, bends and branches.

Example of application – (shown here: HVU-IT)

