



**HARD-2000-S**



**HARD-5000-S**



### Application

HARD filtering unit has been developed for cleaning the air from dust-gas contamination, whereby dusts can have properties of dry dust and viscous dust alike.

Among others, it is an ideal solution for:

- filtration of the aerosols arising during spray painting of not large surfaces,
- filtration of the air polluted with dusts and gases arising during rubber laser cutting, cutting of plywood, plexi, acrylic and other plastics,
- for materials as above - but during grinding,
- dust- and gas contamination - arising during polishing of various materials,
- oil laden welding fumes with additional gases - emitted during welding,
- filtration of the air polluted with fat particles at the kitchen extraction hoods,
- unpleasant aromas in chemistry laboratories.

### Structure

HARD consists of subsequent elements:

- steel housing,
- pre-filter - paint-stop spunbond - class G3,
- pocket filter - class F8,
- high-efficiency HEPA filter - class H13,
- gas absorber - cassettes with granulated active carbon,
- radial fan - aluminium cast - with a silencer at the outlet
- two pressure controls activating the light signalling at the moment of excessive flow resistances of the pocket filter,
- hour-meter - for measuring the work time,
- control unit.

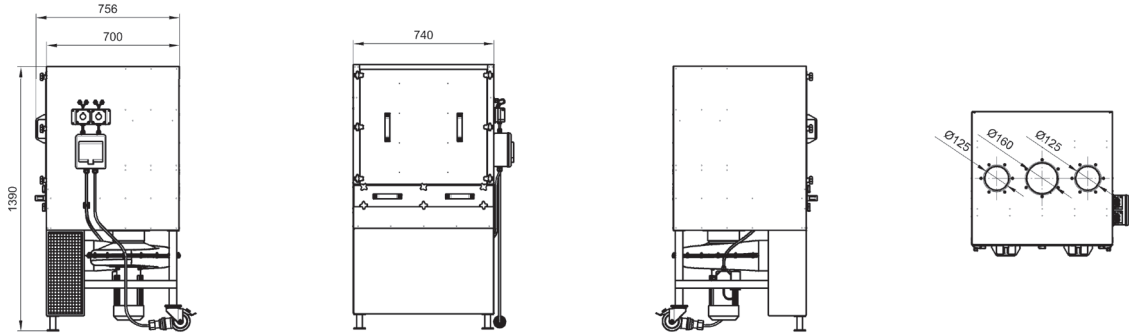
### Operational use

Before the use, the appliance ought to be equipped with an appropriate local exhaust. It can be ERGO extraction arms or flexible hoses (HARD-1000-S, HARD-2000-S) or extraction installation (for HARD-5000). Diameters and connection ferrules for each device size are mentioned in Technical Data. As standard, the connections are plugged. In place of plug fasten appropriate connection by screwing. In the course of use, observe the replacement periods of filters according to indications of signal lamps, activated by pressure controls. In case when the given signal lamp activates, replace the filter for new. Replace the paint-stop filter when device flow efficiency decreases. Granulated active carbon ought to be replaced at the moment when it is losing its absorbing properties. For this purpose observe the hour-meter indications.

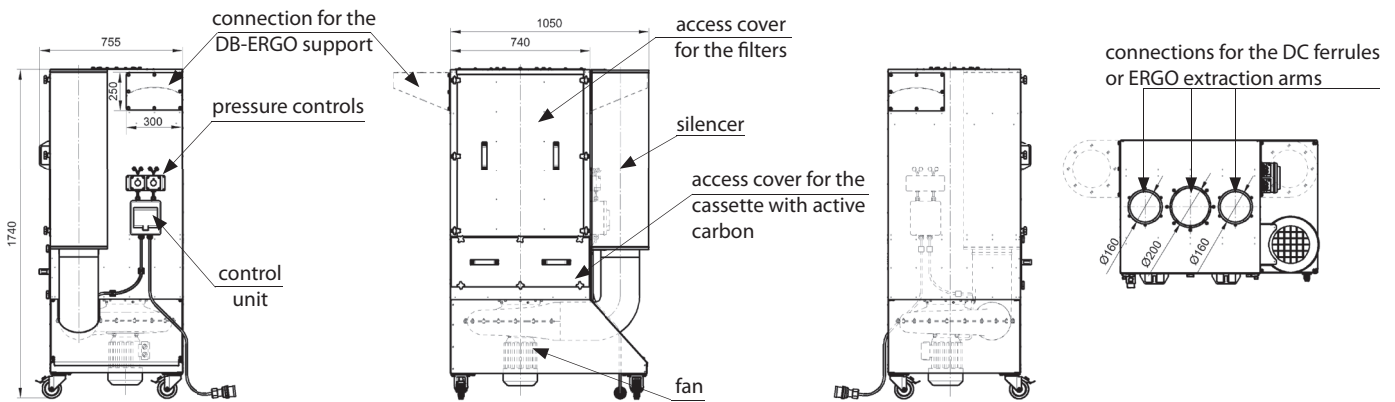
### Technical data

Type	Part No.	Maximum volume flow [m <sup>3</sup> /h]	Maximum vacuum [Pa]	Motor rate [kW]	Supply voltage [V]	Acoustic pressure level [dB(A)] from distance		Weight [kg]	Suction connections
						1 m	5 m		
HARD-1000-S	800092	1000	1700	0,75	230	71	66	180	1x Ø160 mm 2x Ø125 mm
HARD-2000-S	800088	2000	1900	1,5	230	73	66,5	237	1x Ø200 mm 2x Ø160 mm 2x250x152 mm
HARD-5000-S	800093	6500	4200	6,5	3x400	76	72	695	1xØ400 mm

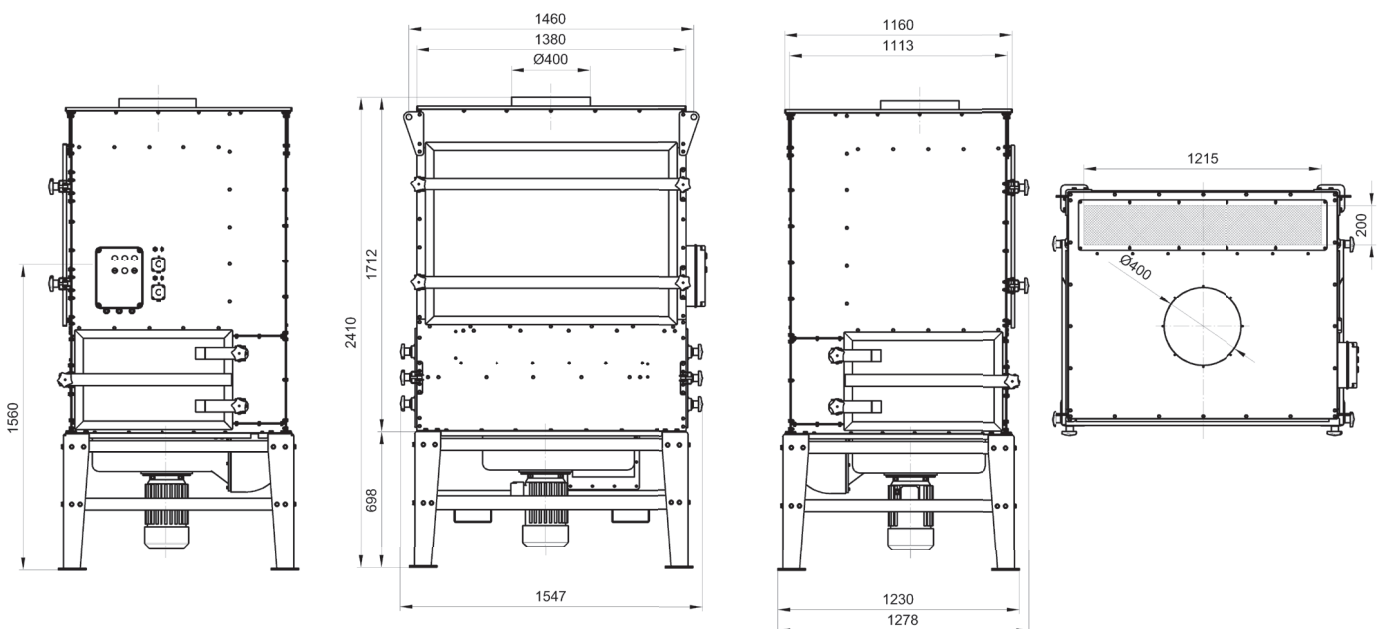
### HARD-1000-S



### HARD-2000-S

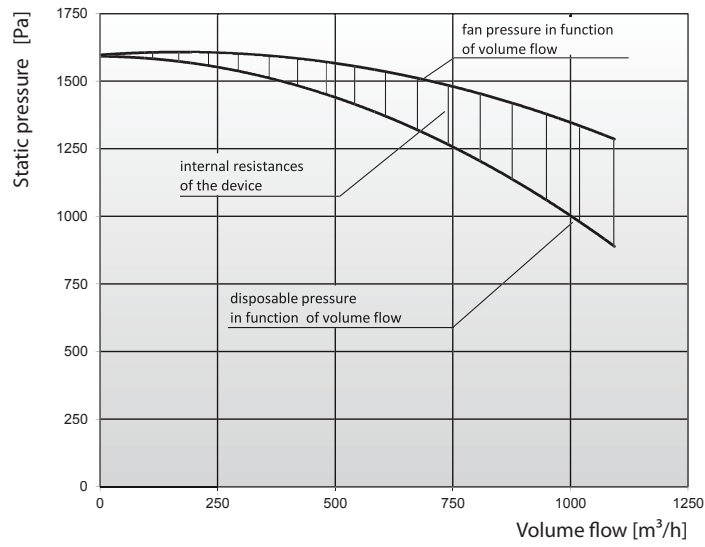


### HARD-5000-S

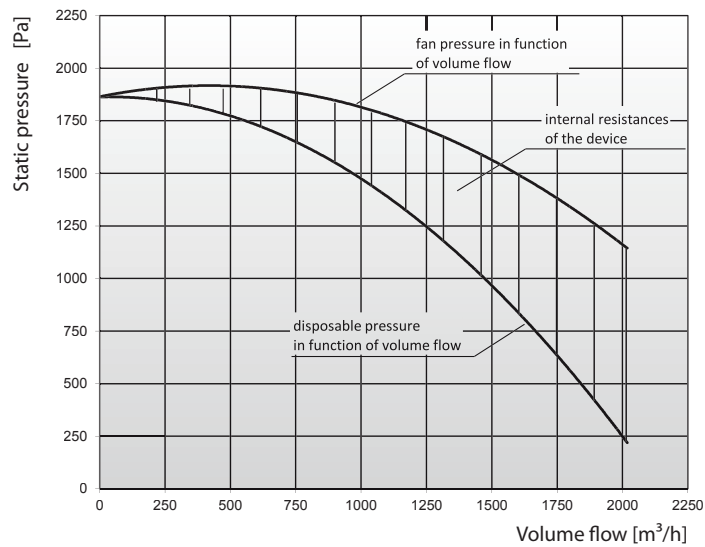


**Flow charts**

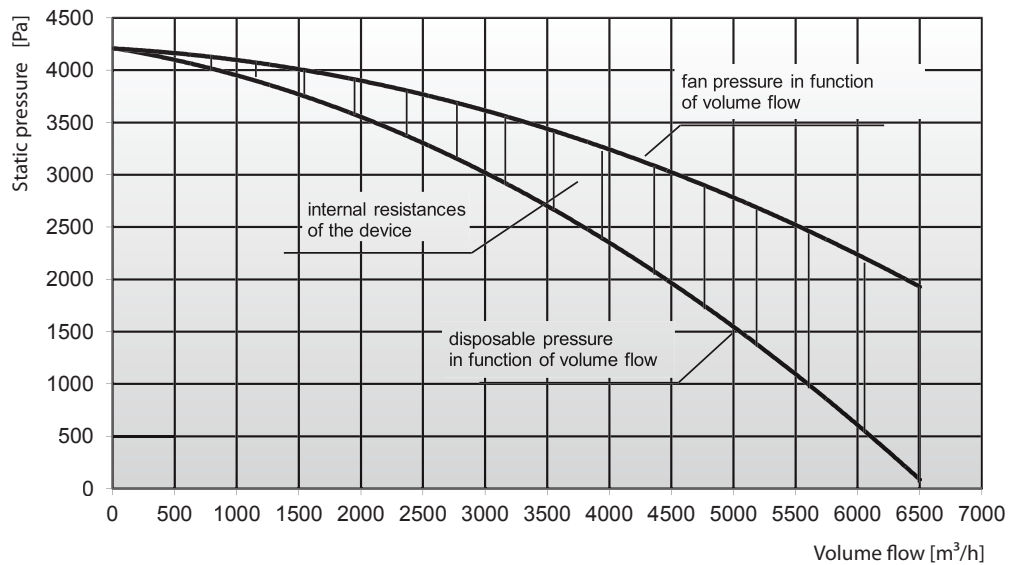
**HARD-1000-S**



**HARD-2000-S**

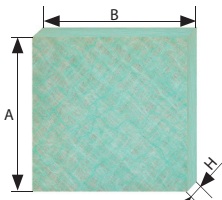


**HARD-5000-S**

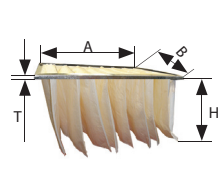


## Replaceable filters

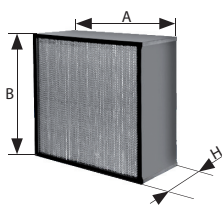
### Pre-filter

	Type	Part. No	Weight [kg]	Dimensions AxBxH [mm]	Quantity of filters	Class	Filtration material	Purpose
	PS-HARD-2000-S Pre-filter	838F76	0,05	700x740x50	1	G3	Glass-spunbond with progressively growing density.	HARD-1000-S
	PS-HARD-5000-S Pre-filter	838F77	3,4	720x1030x50	1			HARD-2000-S
								HARD-5000-S


### Pocket filter

	Type	Part. No	Weight [kg]	Dimensions AxBxH [mm]	Quantity of filters	Class	Filtration material	Purpose
	HARD-2000-S Pocket filter	838F86	2,3	610x610x360x20	1	F8	Polyester spunbond of progressive construction. Filtration efficiency 90%.	HARD-1000-S
	HARD-5000-S Pocket filter	838F82	4,5	720x1030x550x20	1			HARD-2000-S
								HARD-5000-S

### High-efficiency HEPA filter

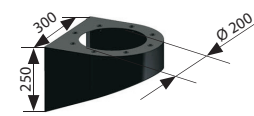
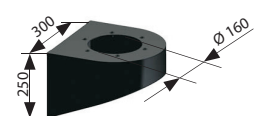
	Type	Part. No	Weight [kg]	Dimensions AxBxH [mm]	Quantity of filters	Class	Filtration material	Purpose
	HARD-1000-S High-efficiency filter	838F87	5,4	610x610x80	1	H13	Non-hygroscopic cardboard of glass-fibre Filtration efficiency 99,95%.	HARD-1000-S
	HARD-2000-S High-efficiency filter	838F83	18,8	610x610x292	1			HARD-2000-S
	HARD-5000-S High-efficiency filter	838F84	23,5	762x610x292	2			HARD-5000-S

### Granulated active carbon filter

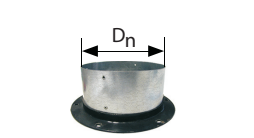
	Type	Part. No	Total weight [kg]	Quantity of cassettes	Remarks	Purpose
	ORGANOSORB 10CO 4X8	474W04	20	1	Active carbon ought to be replaced according to the indications of the hour-meter.	HARD-1000-S
			20	2		HARD-2000-S
			40	2		HARD-5000-S

## Additional equipment


### Wall brackets

Sort of the bracket	Type	Part. No	Weight [kg]	Appropriate extraction arms	Purpose
	DB-ERGO-D	817W29	4	ERGO-L	HARD-2000-S
	DB-ERGO-L	817W28	4,2	ERGO-D	HARD-2000-S

### Connection ferrules – to fasten the extraction flexible hoses

	Type	Part. No	Dn [mm]	Purpose
	DC-125	830Z13	125	HARD-1000-S
	DC-160	830Z14	160	HARD-1000-S, HARD-2000-S
	DC-200	830Z15	200	HARD-2000-S

### Outlet fitting piece

	Type	Part. No	Weight [kg]	Purpose
	R-5000 Hard	829R94	6	To fasten at the outlet of HARD-5000-S in order to connect the ventilation conduit.