

MHD

Ducted terminal air treatment units



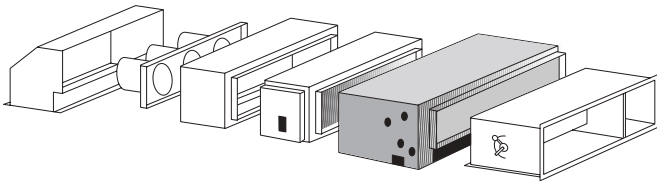
Technical and construction features

Base Unit

- Supporting structure made of 1 mm thick galvanized sheet metal.
- Copper tube heat exchange coil with fins in continuous pack aluminum blocked on the tubes by means of mechanical expansion
- The manifolds are equipped with male gas connections and valves easily accessible air vent
- The hydraulic connections are on the left as standard
- Electric fan unit consisting of one or two fans double intake centrifugal fans with horizontal development aluminum fans, statically and dynamically balanced
- The electric motor, protected against overloads, is three speed, built according to international standards, with running capacitor always inserted, directly coupled to the fans and cushioned with elastic supports, particularly efficient and silent

Accessories

- Easily removable air filter section, consisting of a frame metal containing the filter septum, regenerable by means of washing with water, blowing and suction
- EU2 filtration degree
- Internal / external air intake plenum with manual damper built in galvanized sheet metal, it allows for air exchange in the rooms
- Indoor air flow 100% - 66.6%
- Outdoor air flow 0% - 33.3%
- Heating section with 380V electric resistance made according to international safety standards which is supplied complete with safety thermostat with automatic reset, interface relay for controlling the same, electrical wiring and control.



VENTILATION
SILENT



COMPREHENSIVE
RANGE OF
ACCESSORIES



GREAT SPARE
PARTS OF AIR



FILTRATION
OF AIR

Model	Cooling Output kW	Heating Output kW	Air Flow Rate m ³ /h	Code	€
MHD 4/3 (heat-exchanger 3 rows)	3,87	8,31	837	52200000	850,00
MHD 7/3 (heat-exchanger 3 rows)	7,04	14,19	1423	52220000	1.140,00
MHD 9/3 (heat-exchanger 3 rows)	9,20	18,71	1951	52240000	1.240,00
MHD 11/3 (heat-exchanger 3 rows)	10,59	21,34	2131	52260000	1.320,00
MHD 13/3 (heat-exchanger 3 rows)	13,09	28,25	3002	52280000	1.930,00
MHD 28/4 (heat-exchanger 4 rows)	27,81	53,88	4678	52300000	3.300,00
MHD 51/4 (heat-exchanger 4 rows)	50,63	100,06	9250	52320000	6.080,00

Data measured based on the following conditions:

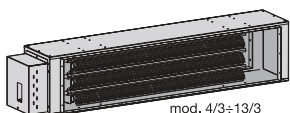
Standard unit (output static pressure = 0 Pa)

Max fan speed

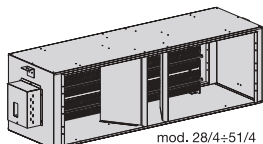
Cooling: incoming water temperature 7 °C - outgoing water temperature 12 °C - incoming air temperature 27 °C dry bulb - 19 °C wet bulb

Heating: incoming water temperature 70 °C - outgoing water temperature 60 °C - incoming air temperature 20 °C

Accessories MHD



mod. 4/3-13/3



mod. 28/4-51/4

Electric heating
section (380 V)

Electric heater

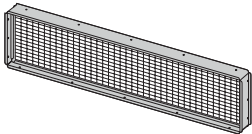
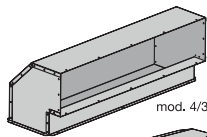
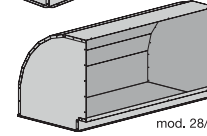
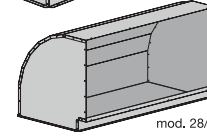

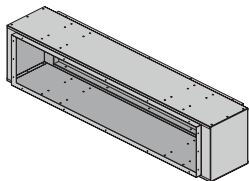
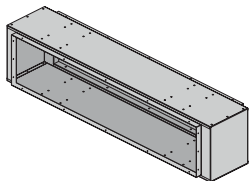
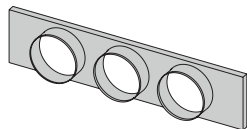
4/3	7/3 - 9/3	11/3 - 13/3	28/4	51/4
3.000 W	6.000 W	9.000 W	12.000 W	18.000 W

mod. 4/3	52202805	632,00
mod. 7/3	52222805	836,00
mod. 11/3	52262805	996,00
mod. 13/3	52282805	996,00
mod. 28/4	52302805	1.060,00
mod. 51/4	52322805	1.140,00

MHD

Ducted terminal air treatment units

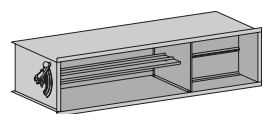
Accessories MHD

		Code	€															
	Extractable air intake filter (metal frame + filter)	mod. 4/3	52205600 48,00															
		mod. 7/3	52225600 60,00															
		mod. 9/3	52245600 64,00															
		mod. 11/3	52265600 66,00															
		mod. 13/3	52285600 70,00															
		mod. 28/4	52305600 120,00															
		mod. 51/4	52325600 176,00															
 	Air intake plenum 90°	mod. 4/3	592 x 360 x (H) 315 mm 52202220 126,00															
		mod. 7/3	942 x 360 x (H) 315 mm 52222220 154,00															
		mod. 9/3	1042 x 360 x (H) 340 mm 52242220 160,00															
		mod. 11/3	1282 x 360 x (H) 340 mm 52262220 170,00															
		mod. 13/3	1282 x 360 x (H) 390 mm 52282220 186,00															
		mod. 28/4	1282 x 670 x (H) 650 mm 52302220 274,00															
		mod. 51/4	1972 x 670 x (H) 650 mm 52322220 372,00															
 	Air delivery plenum 90°	mod. 4/3	592 x 360 x (H) 315 mm 52202221 136,00															
		mod. 7/3	942 x 360 x (H) 315 mm 52222221 164,00															
		mod. 9/3	1042 x 360 x (H) 340 mm 52242221 170,00															
		mod. 11/3	1282 x 360 x (H) 340 mm 52262221 184,00															
		mod. 13/3	1282 x 360 x (H) 390 mm 52282221 198,00															
		mod. 28/4	1282 x 490 x (H) 650 mm 52302221 290,00															
		mod. 51/4	1972 x 490 x (H) 650 mm 52322221 398,00															
	Straight intake plenum	mod. 4/3	648 x 254 x (H) 219 mm 52202210 154,00															
		mod. 7/3	998 x 254 x (H) 219 mm 52222210 178,00															
		mod. 9/3	1098 x 254 x (H) 244 mm 52242210 194,00															
		mod. 11/3	1338 x 254 x (H) 244 mm 52262210 220,00															
		mod. 13/3	1338 x 254 x (H) 294 mm 52282210 250,00															
		mod. 28/4	1342 x 254 x (H) 594 mm 52302210 340,00															
		mod. 51/4	2026 x 254 x (H) 594 mm 52322210 464,00															
	Air delivery straight plenum	mod. 4/3	648 x 254 x (H) 219 mm 52202211 164,00															
		mod. 7/3	998 x 254 x (H) 219 mm 52222211 188,00															
		mod. 9/3	1098 x 254 x (H) 244 mm 52242211 204,00															
		mod. 11/3	1338 x 254 x (H) 244 mm 52262211 236,00															
		mod. 13/3	1338 x 254 x (H) 294 mm 52282211 268,00															
		mod. 28/4	1342 x 254 x (H) 416 mm 52302211 364,00															
		mod. 51/4	2026 x 254 x (H) 416 mm 52322211 492,00															
	Air intake plenum for flexible ducts	mod. 4/3	52202216 120,00															
		mod. 7/3	52222216 142,00															
		mod. 9/3	52242216 154,00															
		mod. 11/3	52262216 202,00															
		mod. 13/3	52282216 204,00															
		mod. 28/4	52302216 278,00															
		mod. 51/4	52322216 364,00															
<table border="1" data-bbox="459 1832 963 1928"> <thead> <tr> <th colspan="5">Number of connection for each model</th> </tr> <tr> <th>4/3</th> <th>7/3 - 9/3</th> <th>11/3 - 13/3</th> <th>28/4</th> <th>51/4</th> </tr> </thead> <tbody> <tr> <td>2 x Ø 200</td> <td>3 x Ø 200</td> <td>4 x Ø 200</td> <td>2 x Ø 400</td> <td>4 x Ø 400</td> </tr> </tbody> </table> <p>Values expressed in mm</p>	Number of connection for each model					4/3	7/3 - 9/3	11/3 - 13/3	28/4	51/4	2 x Ø 200	3 x Ø 200	4 x Ø 200	2 x Ø 400	4 x Ø 400	Insulated air delivery plenum for flexible ducts	mod. 4/3	52202215 134,00
	Number of connection for each model																	
	4/3	7/3 - 9/3	11/3 - 13/3	28/4	51/4													
	2 x Ø 200	3 x Ø 200	4 x Ø 200	2 x Ø 400	4 x Ø 400													
		mod. 7/3	52222215 156,00															
		mod. 9/3	52242215 168,00															
		mod. 11/3	52262215 184,00															
	mod. 13/3	52282215 288,00																
	mod. 28/4	52302215 300,00																
	mod. 51/4	52322215 406,00																

MHD

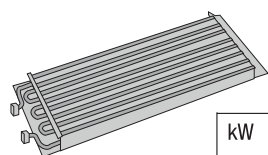
Ducted terminal air treatment units

Accessori MHD



Indoor/outdoor air intake plenum with manual damper

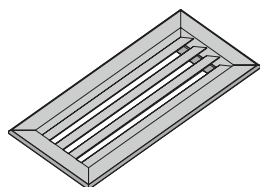
		Code	€
mod. 4/3	590 x 400 x (H) 240 mm	52202205	330,00
mod. 7/3	940 x 400 x (H) 240 mm	52222205	418,00
mod. 9/3	1040 x 400 x (H) 265 mm	52242205	438,00
mod. 11/3	1280 x 400 x (H) 265 mm	52262205	546,00
mod. 13/3	1280 x 400 x (H) 310 mm	52282205	646,00
mod. 28/4	1280 x 732 x (H) 615 mm	52302205	912,00
mod. 51/4	1967 x 732 x (H) 615 mm	52322205	1.400,00



Additional heat-exchanger

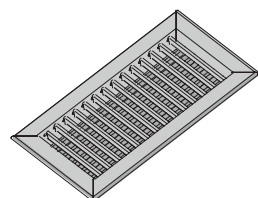
	4/3	7/3	9/3	11/3	13/3	28/4	51/4
	1 row	1 row	1 row	1 row	1 row		2 rows
kW	4,19	6,99	9,15	10,54	13,98	38,83	70,19
kcal/h	3.607	6.031	7.890	9.086	12.057	33.475	60.514

mod. 4/3	52202800	202,00
mod. 7/3	52222800	290,00
mod. 9/3	52242800	300,00
mod. 11/3	52262800	332,00
mod. 13/3	52282800	396,00
mod. 28/4	52302800	868,00
mod. 51/4	52322800	1.378,00



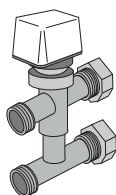
Air intake grid (aluminium meta frame + filter)

mod. 4/3	52202230	156,00
mod. 7/3	52222230	176,00
mod. 9/3	52242230	192,00
mod. 11/3	52262230	218,00
mod. 13/3	52262230	218,00
mod. 28/4	52302230	336,00
mod. 51/4	52322230	460,00



Air delivery grid with adjustable fins (metal frame, without filter filter)

mod. 4/3	52202231	156,00
mod. 7/3	52222231	176,00
mod. 9/3	52242231	192,00
mod. 11/3	52262231	218,00
mod. 13/3	52262231	218,00
mod. 28/4	52302231	336,00
mod. 51/4	52322231	460,00



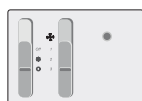
3-way on-off valve for 2-pipe systems

mod. 4/3 Ø 1/2"	37900080	170,00
mod. 7/3 Ø 3/4"	37900081	178,00
mod. 9/3-11/3 Ø 3/4"	37900082	204,00
mod. 13/3 Ø 1"	37900083	204,00
mod. 28/4 Ø 1"	37900084	608,00
mod. 51/4 Ø 1" 1/2	37900085	680,00



Mechanical consent thermostat for wall electronic room thermostat or basic control

50005205 36,00



Wall base control for the management of the 3 speeds and for the winter / summer selection


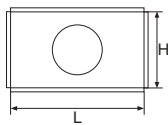

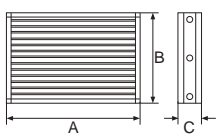

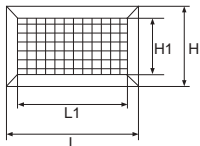

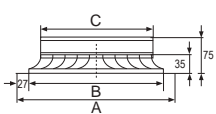

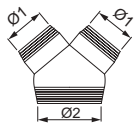

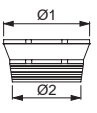


36205212 52,00



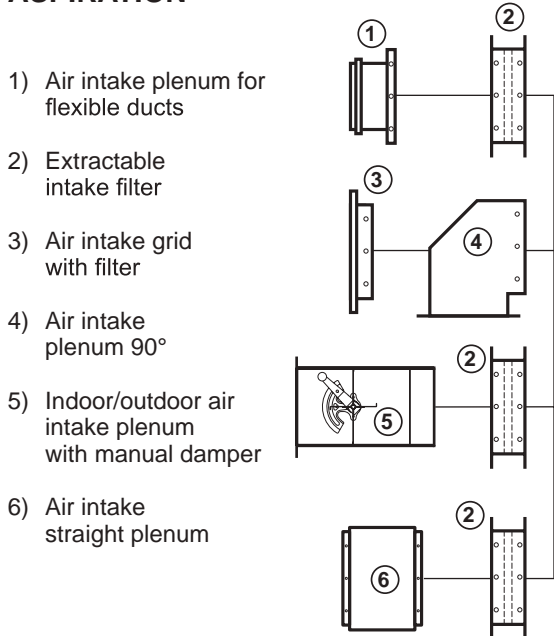
Wall-mounted electronic room thermostat with summer-off-winter selector and 3-speed switch

50005230 82,00

Accessories MHD

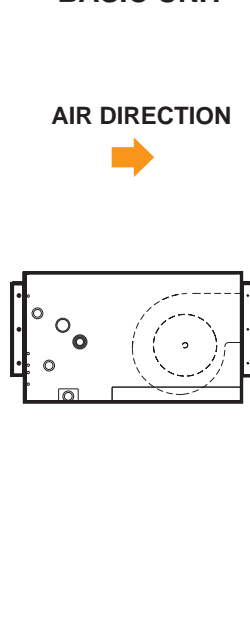
		Code	€
	Insulated plenum designed for 3 entrances, made of galvanized sheet with external insulation in closed cell polyethylene 3 mm thick and equipped as standard with a circular PPS collar from 150/200 mm (L 410 mm - H 210 mm).		37900069 138,00
	Calibration damper for plenum consisting of one frame and a double row of horizontal flaps and verticals which are individually adjustable. (A 385 mm - B 180 mm - C 55 mm)		37900073 42,00
	Delivery grille in white painted aluminum consisting of a frame and a double row of flaps horizontally and vertically individually adjustable with clip fixing. (L 432 mm - L1 400 mm - H 232 mm - H1 200 mm)		37900070 70,00
	Circular diffuser in white painted aluminum RAL - 9016 with butterfly damper and integrated collar. (A 310 mm - B 260 mm - C 200 mm)		37900027 108,00
	3-way insulated branch, operating temperature 0 ° C to +70 ° C, PP material and coating polyethylene insulation with aluminum coating. (Ø1 200 mm - Ø2 250 mm)		37900216 110,00
	Insulated reduction for 3-way derivation insulated, operating temperature from 0 ° C to +70 ° C, PP material and aluminum coating. (Ø1 250 mm - Ø2 200 mm)		37900446 38,00
	Kit 10 clamps Ø 60 - 325		37900017 62,00
	Junction sleeve flex tube Ø 200		37900051 38,00

ASPIRATION

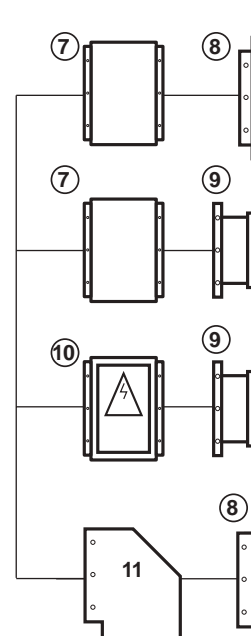


- 1) Air intake plenum for flexible ducts
- 2) Extractable intake filter
- 3) Air intake grid with filter
- 4) Air intake plenum 90°
- 5) Indoor/outdoor air intake plenum with manual damper
- 6) Air intake straight plenum

BASIC UNIT

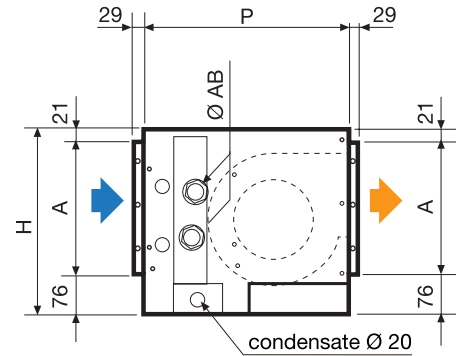
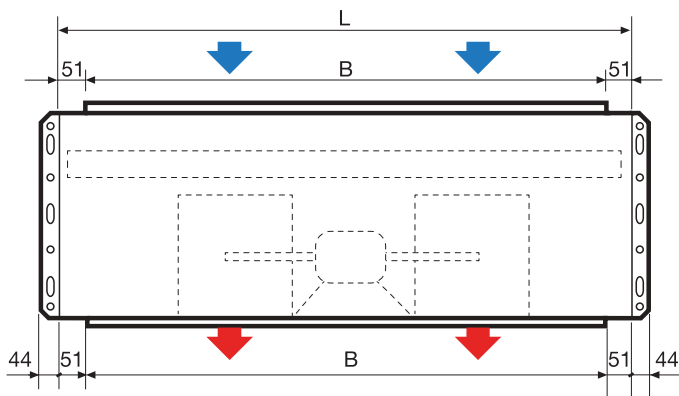


AIR DELIVERY

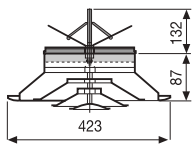


- 7) Air intake straight plenum
- 8) Air delivery grid
- 9) Air intake plenum for flexible ducts
- 10) Heating section with electric resistance
- 11) Air intake plenum 90°

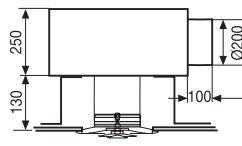
Dimensions MHD



Diffuseur circulaire



Connecting plenum



Mod.	4/3	7/3	9/3	11/3	13/3	28/3	51/4
A	197	197	197	222	272	572	572
B	548	898	898	1237	1237	1239	1926
L	650	1000	1000	1339	1339	1341	2028
P	533	533	533	533	533	853	853
H	299	299	299	324	374	675	675
Ø AB	1/2"	1/2"	1/2"	3/4"	1"	1 1/4"	1 1/2"

Values in mm

Technical datasheet MHD

DESCRIPTION	U.M.	4/3	7/3	9/3	11/3	13/3	28/4	51/4	
Total cooling output (**)	kW	3,87	7,04	9,20	10,59	13,09	27,81	50,63	
Heating output standard battery 70 °C (**)	kW	8,31	14,19	18,71	21,34	28,25	53,88	100,06	
Heating output standard battery 60 °C (**)	kW	6,69	11,43	15,07	17,19	22,76	43,41	80,61	
Air flow rate (**)	m ³ /h	max.	837	1423	1951	2131	3002	4678	9250
		med.	739	1149	1686	1801	2282	3733	7470
		min.	644	852	1278	1275	1597	3066	6151
Total cooling output (***)	kW	3,51	6,16	8,56	9,86	12,44	25,98	47,30	
Heating output standard battery 70 °C (***)	kW	7,03	12,04	17,05	19,43	26,38	49,24	91,48	
Heating output standard battery 50 °C (***)	kW	4,46	8,47	11,17	12,74	16,87	32,18	59,76	
Air flow rate (***)	m ³ /h	max.	598	1017	1601	1749	2615	3875	7662
		med.	506	786	1435	1532	2014	3155	6311
		min.	413	448	1026	959	1228	2486	4988
Water flow rate (cooling)	l/h	604	1061	1472	1696	2140	4469	8137	
Water pressure drop (cooling)	kPa	15,2	23,7	29,4	27,6	32,5	29,6	34,8	
Water flow rate (heating)	l/h	605	1036	1467	1671	2269	4235	7867	
Water pressure drop (heating)	kPa	11,9	17,6	22,7	20,9	28,4	20,7	25,3	
Heat-exchanger rows	n.	3	3	3	3	3	4	4	
Heat-exchanger connections	"	1/2	1/2	3/4	3/4	1	1 1/4	1 1/4	
Air delivery static pressure	Pa	80	80	80	80	100	150	150	
Minimum back-pressure	Pa	0	0	0	0	0	60	60	
Fans	n.	1	2	2	2	2	1	2	
Power supply		230V/1/50Hz							
Electric power input	W	162	218	322	340	582	1320	2600	
Max running current	A	0,74	1,00	1,47	1,55	2,65	6,01	12,05	
Noise level (*)	dB(A)	min.	63	58	61	58	62	69	71
		med.	67	65	68	65	69	73	76
		max.	68	69	70	69	74	78	81
Net weight	kg	28	36	41	46	57	117	192	

Data measured based on the following conditions:

Cooling: incoming water temperature 7 °C - outgoing water temperature 12 °C - incoming air temperature 27 °C dry bulb - 19 °C wet bulb

Heating: incoming water temperature 70 °C - outgoing water temperature 60 °C - incoming air temperature 20 °C

(*) Noise levels measured according to ISO 23741 standards

(**) Referred to air delivery static pressure = 0 Pa (without ducting)

(***) Referred to air delivery static pressure = 80 Pa (4-7-9-11) 100 Pa (13) 150 Pa (28-51) (with ducting)