



Casing Design:

The units of the F40 series are a frameless design. It is a cost-effective alternative to the S60/T60 series in small sizes up to an enclosure cross-section of 1313 (external dimensions 1344 mm x 1364 mm). All panels of the F40 series have a double-shell construction with inner sheet, outer sheet and insulation in between. The insulation thickness of the side panels and lid is 40 mm. The bottom of flat units with operation from below is also insulated to a thickness of 40 mm. For all other versions, the bottom insulation thickness is 60 mm. The inside of the unit is completely smooth. In the standard version, galvanised sheet steel with a thickness of 1.0 mm is used for the panels. Alternatively, sheets in galvanised steel with powder-coating,

stainless steel V2A (1.4301) or aluminium AlMg3 can be selected for the outside and inside separately. The standard colour of the coating is light grey RAL 7035. Other RAL colours are possible. The rock wool used as thermal and sound insulation is non-combustible and is partially bonded to the panel double shell. The units can be provided with edged base frames in heights of 100 mm - 500 mm made of 3 mm thick galvanised sheet steel. The F40 series is certified according to the RLT energy efficiency label and EUROVENT and is suitable to comply with the hygiene regulations of VDI 6022.

Mechanical and thermal performance (according to EN 1886, 2009):

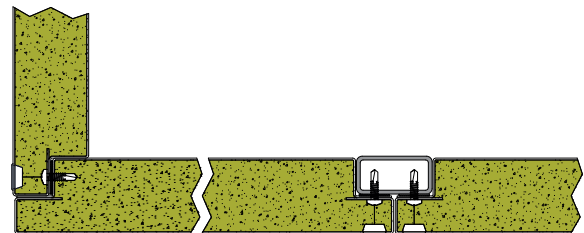
Thermal transmittance (coefficient of thermal transmittance U) [W/m²K]	Thermal bridging factor k_b [-]	Filter bypass leakage		Casing leakage			
				Test pressure -400 Pa [l/(sm²)]	Test pressure +700 Pa [l/(sm²)]		
1,0 (T2) (M)	0,5 (TB3) (M)	F9 (M)		L2 [0,33] (M)	L2 [0,59] (M)		
Sheet thickness of outside sheet / inside sheet [mm]	Insulating material / density [kg/m³]	Casing stability [mm/m]	Weight of side panels [kg/m²]	Fire protection class of the insulation according to DIN 4102			
1,0 / 1,0	Rockwool / 33	D1 (M)	20	A1			
Octave band for casing sound insertion loss (M)							
Frequency [Hz]	125	250	500	1000	2000	4000	8000
Sound insertion loss index [dB]	16	23	31	35	37	44	44

Dimensions and Air Volumes:

		Unit Depth (size, external and internal dimensions)									
		07	10	13	16	20	22	25	28	32	35
		724 mm	1.044 mm	1.344 mm				-	-	-	-
640 mm	960 mm	1.260 mm				-	-	-	-	-	
Unit Height (size, external and internal dimensions)	22	Size			-	-	-	-	-	-	-
	-	Air Volume [m³/h] at 2m/s			-	-	-	-	-	-	-
	20	-	-	-	-	-	-	-	-	-	-
	1.994 mm	-	-	-	-	-	-	-	-	-	-
	1.890 mm	-	-	-	-	-	-	-	-	-	-
	16	-	-	-	-	-	-	-	-	-	-
	1.694 mm	-	-	-	-	-	-	-	-	-	-
	1.590 mm	-	-	-	-	-	-	-	-	-	-
	13	0713	1013	1313	-	-	-	-	-	-	-
	1.364 mm	5.800	8.700	11.400	-	-	-	-	-	-	-
	1.260 mm	5.800	8.700	11.400	-	-	-	-	-	-	-
	10	0710	1010	1310	-	-	-	-	-	-	-
	1.064 mm	4.400	6.600	8.700	-	-	-	-	-	-	-
	960 mm	4.400	6.600	8.700	-	-	-	-	-	-	-
	07	0707	1007	1307	-	-	-	-	-	-	-
	744 mm	2.900	4.400	5.800	-	-	-	-	-	-	-
	640 mm	2.900	4.400	5.800	-	-	-	-	-	-	-
	04	0704	1004	-	-	-	-	-	-	-	-
454 mm	1.600	2.400	-	-	-	-	-	-	-	-	
350 mm	1.600	2.400	-	-	-	-	-	-	-	-	

Panel connection:

The panels of the F40 series are designed to be offset from each other at their connection points. They are screwed together from the outside along the outer edges so that a high stability of the connection is achieved. The screws are located completely inside the panel for the best possible thermal and optical properties. The openings in the outer sheet necessary for screwing on the inside are tightly sealed with UV-resistant plastic caps.



Module connection:

For the connection of the modules, gusset plates are mounted in the corners of the enclosure at the factory. Using the threaded screws supplied, the modules are pulled together at the opposite gusset plates. The U-profiles, which are also

supplied, create a completely smooth module joint. For high hygienic quality, the screw connections of the module joint are covered with plastic caps.

