

PERMITTED LOADS AND MAXIMUM DISTANCE BETWEEN SUPPORTS

RECTANGULAR DUCTS

Thickness of steel sheet: 1 mm

width of duct [contact length [mm]]	height of duct [mm]	number of load-bearing elements [pc]	permitted load ka/t [N]	AF/ArmaFlex insulation insulation thickness 13 mm		AAF/ArmaFlex insulation insulation thickness 19 mm		AF/ArmaFlex insulation insulation thickness 32 mm	
				specific mass incl. insula- tion [kg/m]	max. distan- ce between supports [m]	specific mass incl. insula- tion [kg/m]	max. distan- ce between supports [m]	specific mass incl. insula- tion [kg/m]	max. distan- ce between supports [m]
200	200	2	648	7,0	9,0	7,4	8,5	8,4	7,5
300	300	3	838	10,5	8,0	11,1	7,5	12,4	6,5
400	200	4	972	10,5	9,0	11,1	8,5	12,4	7,5
400	400	4	972	14,0	7,0	14,8	6,5	16,4	5,5
500	250	5	1067	13,2	8,0	13,9	7,5	15,4	6,5
500	500	5	1067	17,6	6,0	18,5	5,5	20,5	5,0
600	300	6	1134	15,8	7,0	16,6	7,0	18,5	6,0
600	600	6	1134	21,0	5,0	22,1	5,0	24,5	4,5
700	350	7	1181	18,4	6,0	19,4	6,0	21,5	5,5
700	700	7	1181	24,6	4,5	25,8	4,5	28,6	4,0
800	400	8	1215	21,0	5,5	22,1	5,5	24,5	5,0
800	800	8	1215	28,0	4,0	29,5	4,0	32,6	3,5
900	450	9	1239	23,7	5,0	24,9	5,0	27,6	4,5
900	900	9	1239	31,6	3,5	33,2	3,5	36,7	3,0
1000	500	10	1256	26,3	4,5	27,6	4,5	30,6	4,0
1000	1000	10	1256	35,1	3,5	36,8	3,5	40,7	3,0
1200	1200	12	1276	42,1	3,0	44,2	2,5	48,8	2,5

Due to the thin sheet metal, the load is not distributed evenly across the load-bearing elements. A load reduction factor from load-bearing element to load-bearing element = 2 was selected - from the outside to the inside in each case. Load capacity per element = 324 N with dynamic long-term load; PET load-bearing segments = 0.20 N/mm².

ROUND DUCTS

Thickness of steel sheet: 1 mm

iameter [mm]	number of load-bearing elements [pc]	permitted load ka/t [N]	AF/ArmaFlex insulation insulation thickness 13 mm		AF/ArmaFlex insulation insulation thickness 19 mm		AF/ArmaFlex insulation insulation thickness 32 mm	
			specific mass incl. insula- tion [kg/m]	max. distan- ce between supports [m]	specific mass incl. insula- tion [kg/m]	max. distan- ce between supports [m]	specific mass incl. insula- tion [kg/m]	max. distan- ce between supports [m]
400	12	1296	11,0	11,5	11,6	11,0	12,9	10,0
500	15	1620	13,8	11,5	14,5	11,0	16,1	10,0
600	18	1944	16,6	11,5	17,4	11,0	19,3	10,0
700	21	2268	19,3	11,5	20,3	11,0	22,4	10,0
800	25	2592	22,1	11,5	23,2	11,0	25,6	10,0
900	28	2916	24,8	11,5	26,0	11,0	28,8	10,0
1000	31	3240	27,6	11,5	28,9	11,0	32,0	10,0
1200	37	3888	33,1	11,5	34,7	11,0	38,3	10,0

Because the individual segments of the flat support are rigid, it cannot fit absolutely snugly on round surfaces. However, the resulting polygon has no negative impact on the load-bearing capacity or the insulation effect. No problems arise regarding the adjoining ArmaFlex insulation.