17 Metal Adjustment Table

Type	Metal structure	Loop widths (m)		Metal loss adjustment multiplier (dB in brackets) for loop or segment width =						
		MINIMUM	MAXIMUM	2.0m	2.5m	3.0m	3.5m	4.0m	5.0m	>5.0m
1	Old buildings with stone and brickwork only. Heating pipes Isolated re-bars only	2	22	x 1.0 (0dB)	x 1.0 (0dB)	x 1.0 (0dB)	x 1.0 (0dB)	x 1.0 (0dB)	x 1.0 (0dB)	x 1.0 (0dB)
2	Moderate mesh reinforcement (e.g. A142 or <3kg/m^2)	2	5	x 1.4 (+3dB)	x 1.6 (+4dB)	x 1.9 (+5.5dB)	x 2.1 (+6.5dB)	x 2.3 (+7.2dB)	x 2.8 (+8.9dB)	With metal structures present, loops wider than 5m are highly unlikely to meet IEC60118-4 requirements for variations across the loop. An array or other solution is required.
3	Heavy mesh reinforcement (e.g. A393 or >3kg/m^2)	2	3.5	x 1.6 (+4dB)	x 2.1 (+6.5dB)	x 2.7 (+8.5dB)	x 3.2 (+10dB)	n/a	n/a	
4	Steel deck floor (floor level loop)	2	3	x 2.0 (+6dB)	x 2.6 (+8.2dB)	x 3.2 (+10dB)	n/a	n/a	n/a	
5	Metal system floor (floor level loop)	2	3	x 2.4 (+7.5dB)	x 3.6 (+11dB)	x 5.6 (+14dB)	n/a	n/a	n/a	
6	Suspended ceiling tiles with metal grid	2	5	x 1.4 (+3dB)	x 1.6 (+4dB)	x 1.9 (+5.5dB)	x 2.1 (+6.5dB)	x 2.3 (+7.2dB)	x 2.8 (+8.9dB)	
7	Metal cage /solid metal floor, e.g. lifts, cruise ships	2	?	> x 3.0 (> +10dB)	Requires site survey. Contact Ampetronic for advice.					

These figures are based on experience and are typical. However, metal structures can have very variable impact on a loop system therefore reality may be better or worse than the table suggests. To ensure success a site survey is recommended. Contact Ampetronic for advice on site surveys.