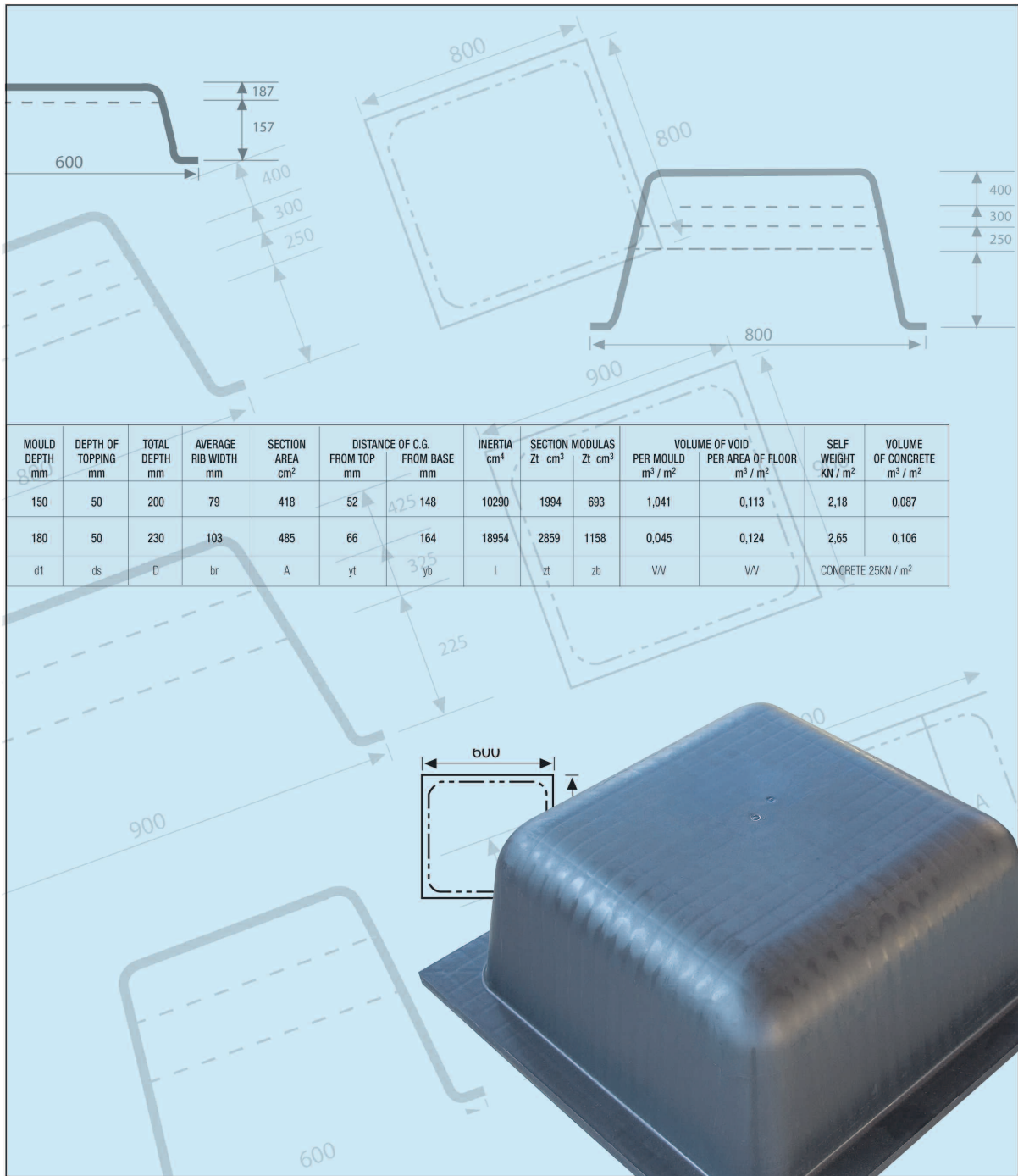




ATEX

WAFFLE MOULDS

TECHNICAL PROPERTIES



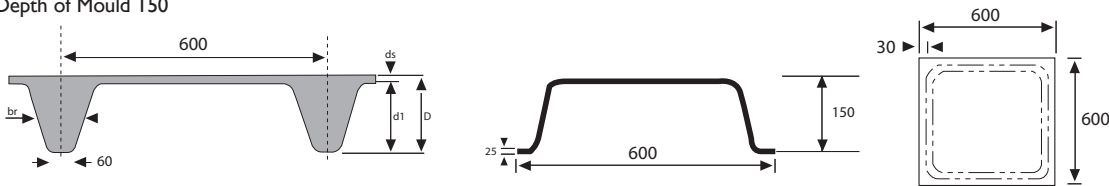
ATEX - The only name for in-situ ribbed floors

ATEX 600 & 700

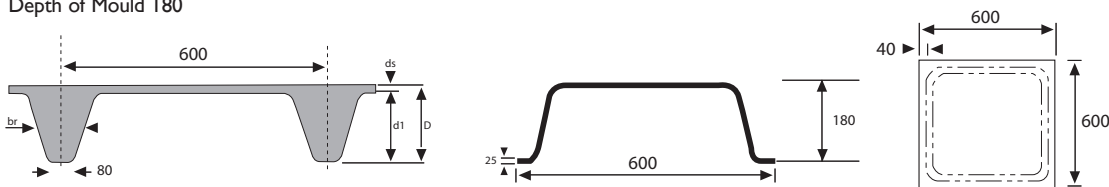
ATEX 600 x 600 Waffle Mould Properties

MOULD DEPTH mm	DEPTH OF TOPPING mm	TOTAL DEPTH mm	AVERAGE RIB WIDTH mm	SECTION AREA cm ²	DISTANCE OF C.G.		INERTIA cm ⁴	SECTION MODULAS		VOLUME OF VOID		SELF WEIGHT KN / m ²	VOLUME OF CONCRETE m ³ / m ²
					FROM TOP mm	FROM BASE mm		Zt cm ³	Zb cm ³	PER MOULD m ³ / m ²	PER AREA OF FLOOR m ³ / m ²		
150	50	200	79	418	52	148	10290	1994	693	1,041	0,113	2,18	0,087
180	50	230	103	485	66	164	18954	2859	1158	0,045	0,124	2,65	0,106
d1	ds	D	br	A	yt	yb	I	zt	zb	VV	VV	CONCRETE 25KN / m ²	

Depth of Mould 150

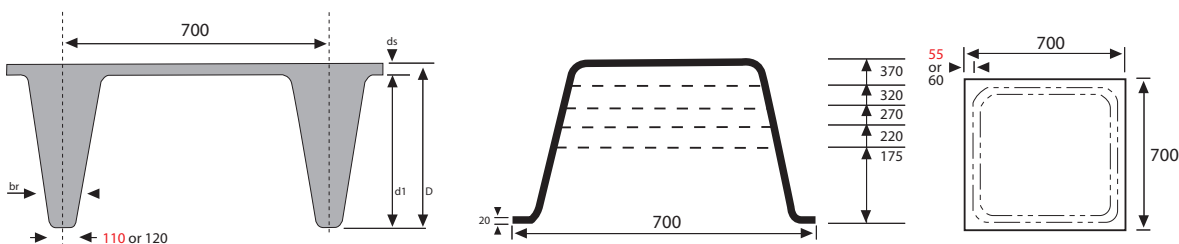


Depth of Mould 180



ATEX 700 x 700 Waffle Mould Properties

MOULD DEPTH mm	DEPTH OF TOPPING mm	TOTAL DEPTH mm	RIB WIDTH AT BASE mm	AVERAGE RIB WIDTH mm	SECTION AREA cm ²	DISTANCE OF C.G.		INERTIA cm ⁴	SECTION MODULAS		VOLUME OF VOID		SELF WEIGHT KN / m ²	VOLUME OF CONCRETE m ³ / m ²
						FROM TOP mm	FROM BASE mm		Zt cm ³	Zb cm ³	PER MOULD m ³ / m ²	PER AREA OF FLOOR m ³ / m ²		
175	50	225	120	151	609	70	155	24151	3264	1599	0,053	0,108	2,92	0,117
	75	250		155	785	76	174	33546	4193	1973			3,55	0,142
	100	275		159	959	85	190	44956	5109	2404			4,17	0,167
220	50	270	120	167	703	87	183	42044	4672	2336	0,064	0,131	3,48	0,139
	75	295		171	878	92	203	56444	5941	2822			4,11	0,164
	100	320		175	1050	100	220	72745	7063	3352			4,73	0,189
270	50	320	120	173	801	107	213	69010	6274	3286	0,075	0,153	4,17	0,167
	75	345		178	976	111	234	90567	8015	3904			4,80	0,192
	100	370		182	1149	117	253	113494	9537	4522			5,42	0,217
320	50	370	110	196	945	127	243	104560	8233	4303	0,088	0,180	4,76	0,190
	75	395		202	1118	130	265	135324	10410	5107			5,39	0,215
	100	420		208	1288	136	284	167113	12379	5864			6,01	0,240
370	50	420	110	224	1131	149	271	155132	10553	5682	0,096	0,196	5,60	0,224
	75	445		230	1302	153	292	198769	13340	6715			6,23	0,249
	100	470		237	1470	158	312	243013	15883	7666			6,85	0,274
d1	ds	D	BRW	br	A	yt	yb	I	zt	zb	VV	VV	CONCRETE 25KN / m ²	



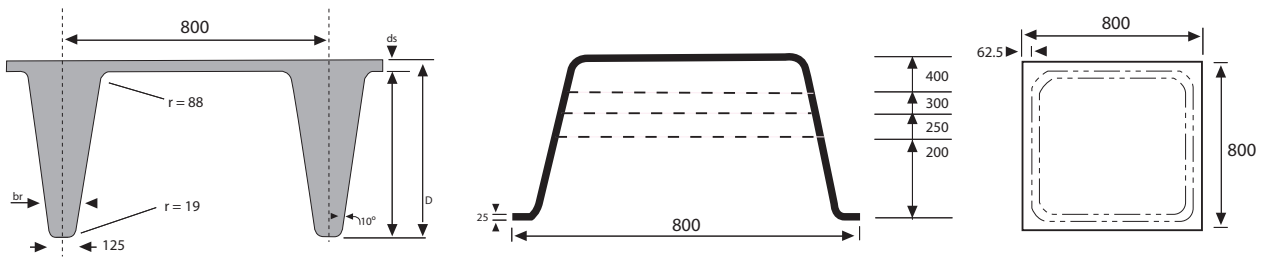
All measurements in millimeters.
Unless otherwise stated.



ATEX 800 & 900

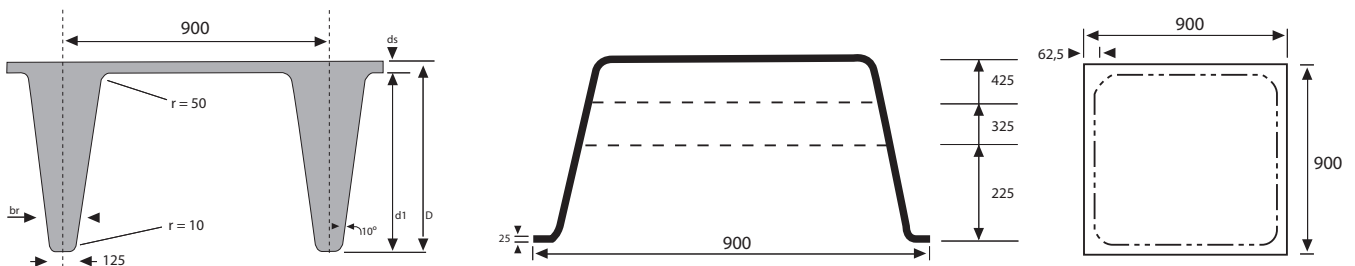
ATEX 800 x 800 Waffle Mould Properties

MOULD DEPTH mm	DEPTH OF TOPPING mm	TOTAL DEPTH mm	AVERAGE RIB WIDTH mm	SECTION AREA cm ²	DISTANCE OF C.G.		INERTIA cm ⁴	SECTION MODULAS		VOLUME OF VOID		SELF WEIGHT KN / m ²	VOLUME OF CONCRETE m ³ / m ²		
					FROM TOP mm	FROM BASE mm		Zt cm ³	Zt cm ³	PER MOULD m ³ / m ²	PER AREA OF FLOOR m ³ / m ²				
200	50	250	184	710	76	174	35092	4617	2017	0,080	0,125	3,15	0,125		
	75	275	189	910	82	193	47499	5793	2461					3,75	0,150
	100	300	173	1110	90	210	62178	6908	2961						
250	50	300	173	810	95	205	60694	6389	2961	0,095	0,148	3,80	0,152		
	75	325	177	1010	99	226	79426	8023	3514					4,45	0,177
	100	350	182	1210	106	244	100258	9458	4109						
300	50	350	182	918	115	235	96048	8352	4087	0,115	0,179	4,30	0,171		
	75	375	186	1118	117	258	122897	10504	4763					4,90	0,196
	100	400	190	1318	123	277	151574	12323	5472						
400	50	450	200	1162	156	294	203062	13017	6907	0,145	0,226	5,60	0,224		
	75	475	204	1362	157	318	251824	16040	7919					6,25	0,249
	100	500	208	1562	160	340	301779	18861	8876						
d1	ds	D	br	A	yt	yb	I	zt	zb	V/V	V/V	CONCRETE 25KN / m ²			



ATEX 900 x 900 Waffle Mould Properties

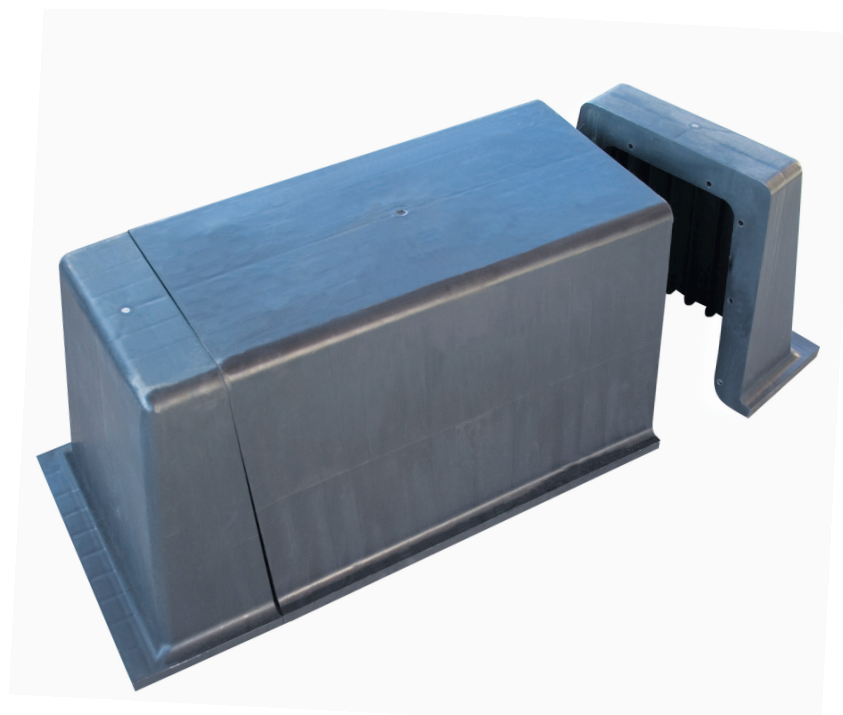
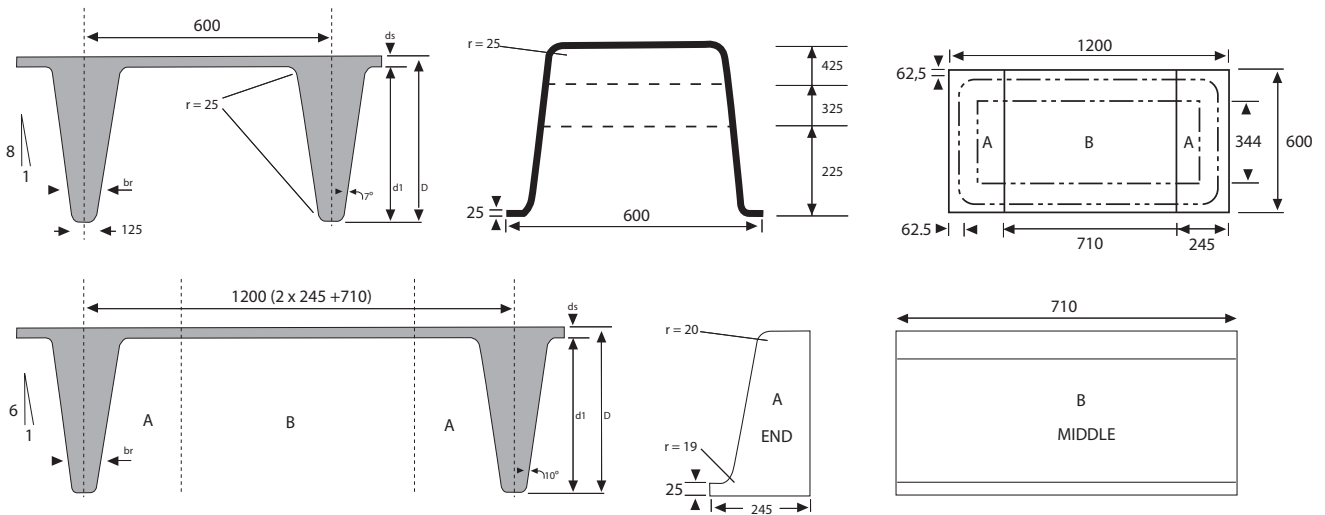
MOULD DEPTH mm	DEPTH OF TOPPING mm	TOTAL DEPTH mm	AVERAGE RIB WIDTH mm	SECTION AREA cm ²	DISTANCE OF C.G.		INERTIA cm ⁴	SECTION MODULAS		VOLUME OF VOID		SELF WEIGHT KN / m ²	VOLUME OF CONCRETE m ³ / m ²		
					FROM TOP mm	FROM BASE mm		Zt cm ³	Zt cm ³	PER MOULD m ³	PER AREA OF FLOOR m ³ / m ²				
225	50	275	172	816	83	192	49561	5971	2581	0,113	0,139	3,45	0,136		
	75	300	176	1040	87	213	65670	7548	3083					4,05	0,161
	100	325	180	1266	95	230	84158	8858	3659						
325	50	375	192	1043	122	253	125718	10304	4969	0,156	0,192	4,60	0,183		
	75	400	197	1268	123	277	159245	12947	5749					5,20	0,208
	100	425	203	1493	128	297	194449	15191	6547						
425	50	475	207	1310	165	310	255029	15456	8226	0,197	0,242	5,85	0,233		
	75	500	212	1536	183	337	314390	19347	9315					6,45	0,258
	100	525	217	1761	185	360	374573	22701	10450						
d1	ds	D	br	A	yt	yb	I	zt	zb	V/V	V/V	CONCRETE 25KN / m ²			



ATEX 600T

ATEX 600 Trough Properties

MOULD DEPTH mm	DEPTH OF TOPPING mm	TOTAL DEPTH mm	AVERAGE RIB WIDTH mm	SECTION AREA cm ²	DISTANCE OF C.G.		INERTIA cm ⁴	SECTION MODULAS		VOLUME OF VOID		SELF WEIGHT KN / m ²	VOLUME OF CONCRETE m ³ / m ²
					FROM TOP mm	FROM BASE mm		Zt cm ³	Zt cm ³	PER MOULD m ³ / m ²	PER AREA OF FLOOR m ³ / m ²		
225	50	275	159	644	94	181	41770	4444	2308	0,105	0,146	3,23	0,129
	75	300	162	794	99	201	55690	5625	2771			3,85	0,154
	100	325	165	944	106	219	71460	6742	3263			4,48	0,179
325	50	375	171	838	136	239	104560	7688	4375	0,143	0,199	4,10	0,164
	75	400	175	988	138	262	132740	9619	5066			4,72	0,189
	100	425	178	1138	143	282	162540	11366	5764			5,35	0,214
425	50	475	184	1057	179	296	210410	11755	7108	0,179	0,249	5,66	0,226
	75	500	187	1207	180	320	258750	14375	8086			6,28	0,251
	100	525	190	1357	184	341	308450	16764	9045			6,91	0,276
d1	ds	D	br	A	yt	yb	I	zt	zb	V/V	V/V	CONCRETE 25KN / m ²	



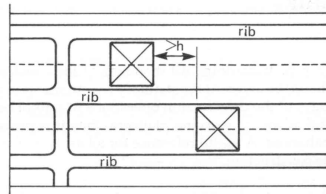
All measurements in millimeters.
Unless otherwise stated.

ATEX Zones for holes

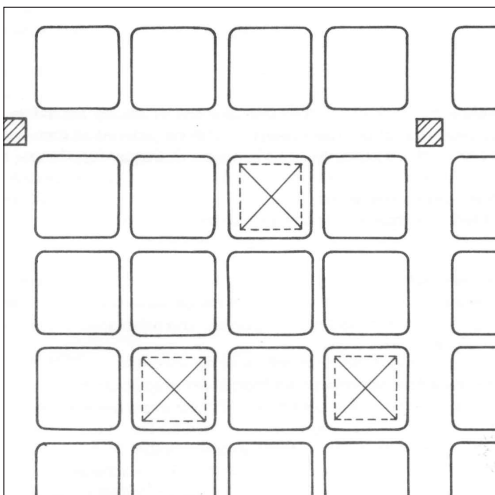


Holes in ribs of waffle floors

In the structural topping, small holes, say 20mm square, can generally be permitted anywhere. In waffle floors, large holes should be restricted so that they are not placed adjacent to each other. In trough floors, large holes should preferably have a clear distance between edges at least equal to the depth of the slab. The frequency of such holes will clearly be affected by the loading and the permitted deflection: See diagrams below. Where large holes cause ribs to be omitted, special provision should be made either by increasing the solid slab areas (ie. omitting adjacent moulds), or by framing the holes with beams. Ideally, the soffit of such framing beams should remain within the floor zone and, for ease of construction, give a level soffit to the slab.



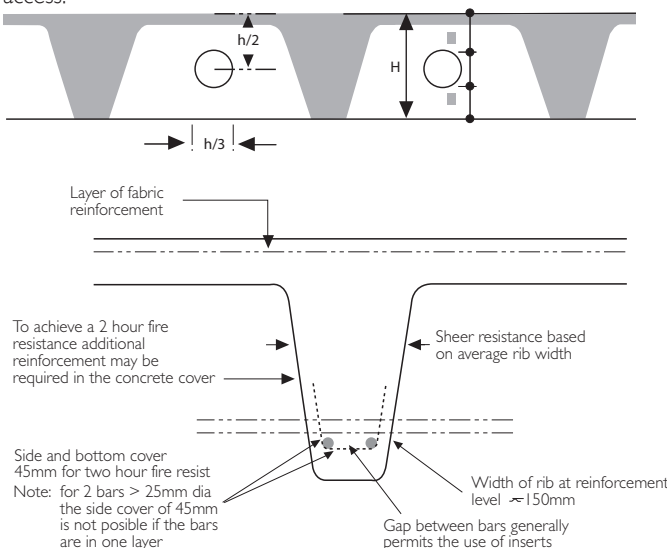
Plan on trough floor showing hole positions.



Plan on waffle floor showing hole positions.

Zones for holes

Holes not larger than $h/3$ in diameter can generally be provided in the ribs of trough or waffle floors without difficulty, and placed centrally within the slab depth. Spacing should not generally be closer than $2h$ on trough floors: See diagrams below. Special consideration should be given to such holes near to supports or to larger holes if these are required, such as for man access.



All measurements in millimeters.
Unless otherwise stated.

Finishes

The finish of the concrete in contact with the mould surface will be of a good quality, often suitable to be left as struck for many buildings. Obviously, particular attention must be paid to the joints between the moulds and other materials, otherwise it may be necessary to clean off grout fins to obtain a high overall finish.

Fire Resistance

The moulds have been tested by the British Construction Industry Research and Information Association and copies of this detailed report 107 are available from the Association.

Safety in Construction

The moulds must be firmly fixed against each other with the chosen support system securely and correctly placed beneath the moulds.

Care Information

(see Maintenance Brochure)

Moulds should be coated with a suitable chemical release agent or mould oil and care taken to keep all releasing agents off of the reinforcing steel.

Immediately after striking out the moulds they should be cleaned with non-abrasive tools or materials before re-using.

When removing moulds from the concrete, excessive leverage at the corners should be avoided.

If moulds are damaged they may be repaired by a low temperature plastic welding process and if required we can supply the information to do this.

When not in use moulds should stand nested together on the flange edge.

The size of the vibrator used when concreting should not exceed 40mm diameter and the poker should preferably be covered with a rubber sleeve.

Material Tolerances

The material used for mould production contains an ultra violet ray inhibitor to extend mould life. Polypropylene is subject to thermal movement over a range of temperatures and allowance must be made for this – a 1% tolerance in dimensions is permissible in extremes of temperature. Although every effort has been made to ensure accuracy of figures and calculations, they are intended for guidance only and we cannot accept responsibility for errors or omissions. Bearing in mind the developments in materials and alterations in specifications through improvements, ATEX reserves the right to vary at the time of supply any of the details of the products as shown.



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