

# NBT ThermoPlan

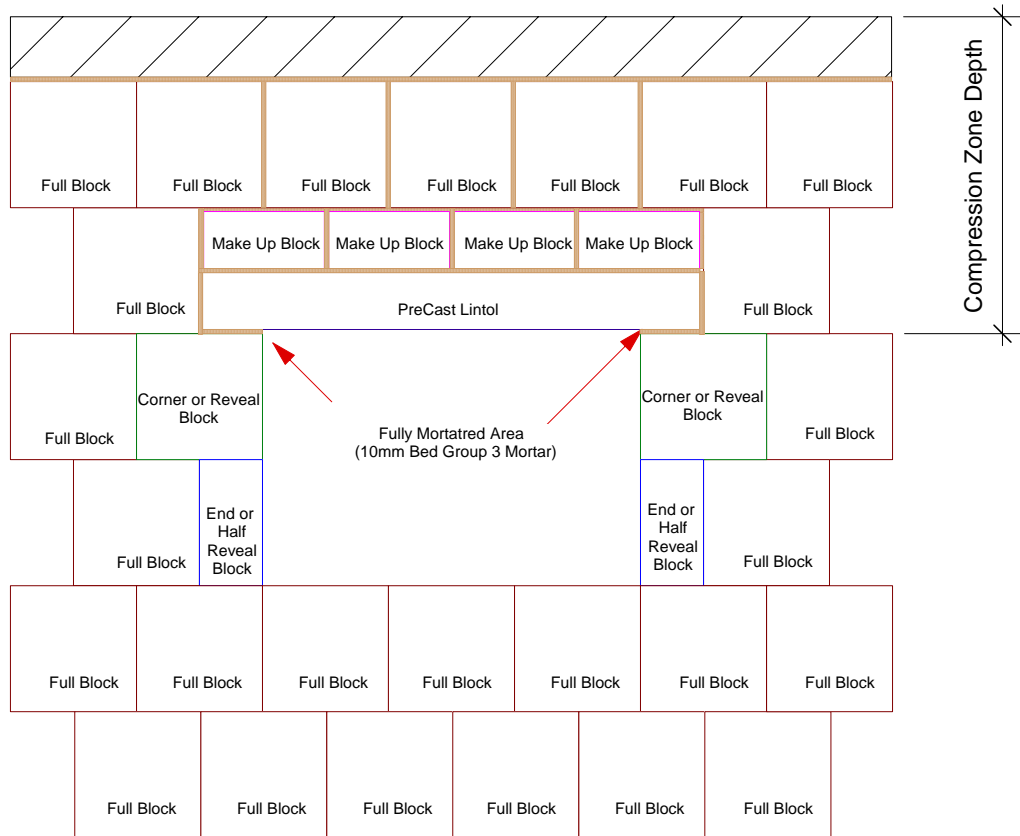
Pre-cast Lintel  
Design and Installation Data



2008



# NBT ThermoPlan Pre-cast Lintel sections



Forming Openings Using NBT ThermoPlan Precast Lintels.

## Installation

1. Temporary supports should be used to prop the lintel during installation at maximum 1m centres and should remain in place until mortar has fully cured.
2. Pre-wet pre-cast lintels well before placing them in group 3 sand cement mortar. Minimum bearing length = 115mm for 71mm High Units and 125mm for 113 High Units.
3. Damaged lintels must not be used.

## Building of structural loading area (Compression Zone)

1. Blockwork over the lintel section should be fully mortared, including perp end joints, as required to the depth shown in table .
2. ThermoPlan vertically perforated bricks for the structural loading area must of compressive strength class 6 or over.
3. The pre-cast lintels achieve their lateral bracing and structural rigidity by bonding between the lintel, mortar and brickwork of vertically perforated bricks to form a composite section. The depth of the section is as per table.

# Load Bearing Capacity of NBT ThermoPlan Composite Lintels

(kN/m)



Lintel Height 113mm

<b>300 Wide Units</b>	Lintel Unit	ZT00300R100		ZT00300R125		ZT00300R150		ZT00300R175		
	Lintel Length (m)	1.00		1.25		1.50		1.75		
	Opening Width (m)	0.625	0.750	0.875	1.000	1.125	1.250	1.375	1.500	
	Compression Zone Depth (mm)	200	40.70	27.68	20.72	16.44	13.58	11.53	10.00	8.82
		300	91.89	48.00	47.89	35.28	27.68	22.64	19.08	16.44
		400	91.89	48.00	65.63	36.00	51.05	28.80	33.04	24.00
		500	91.89	48.00	65.63	36.00	51.05	28.80	41.77	24.00
	Bearing Length	190	125	190	125	190	125	190	125	
	Lintel Unit	ZT00300R200		ZT00300R225		ZT00300R250		ZT00300R275		
	Lintel Length (m)	2.00		2.25		2.50		2.75		
	Opening Width (m)	1.625	1.750	1.875	2.000	2.125	2.250	2.375	2.500	
	Compression Zone Depth (mm)	200	7.88	7.14	6.49	6.02	5.50	5.20	4.78	4.57
		300	14.42	12.87	11.53	10.59	9.58	8.98	8.17	7.78
		400	23.73	20.62	18.35	16.66	14.88	13.85	12.47	11.81
500		35.34	20.62	27.68	18.14	21.83	16.20	17.66	14.63	
Bearing Length	190	125	190	125	190	125	190	125		

<b>365 Wide Units</b>	Lintel Unit	ZT00365R100		ZT00365R125		ZT00365R150		ZT00365R175		
	Lintel Length (m)	1.00		1.25		1.50		1.75		
	Opening Width (m)	0.625	0.750	0.875	1.000	1.125	1.250	1.375	1.500	
	Compression Zone Depth (mm)	200	51.32	34.90	26.12	20.73	17.12	14.54	12.61	11.12
		300	91.89	48.00	60.38	36.00	34.90	28.54	24.06	20.73
		400	91.89	48.00	65.63	36.00	51.05	28.80	41.66	24.00
		500	91.89	48.00	65.63	36.00	51.05	28.80	41.77	24.00
	Bearing Length	190	125	190	125	190	125	190	125	
	Lintel Unit	ZT00365R200		ZT00365R225		ZT00365R250		ZT00365R275		
	Lintel Length (m)	2.00		2.25		2.50		2.75		
	Opening Width (m)	1.625	1.750	1.875	2.000	2.125	2.250	2.375	2.500	
	Compression Zone Depth (mm)	200	9.94	9.00	8.18	7.59	6.94	6.55	6.02	5.76
		300	18.18	16.22	14.54	13.35	12.07	11.32	10.30	9.81
		400	29.62	20.62	23.14	21.01	18.76	17.46	15.73	14.90
500		35.34	20.62	34.90	22.79	27.53	20.35	22.61	18.38	
Bearing Length	190	125	190	125	190	125	190	125		

<b>425 Wide Units</b>	Lintel Unit	ZT00425R100		ZT00425R125		ZT00425R150		ZT00425R175		
	Lintel Length (m)	1.00		1.25		1.50		1.75		
	Opening Width (m)	0.625	0.750	0.875	1.000	1.125	1.250	1.375	1.500	
	Compression Zone Depth (mm)	200	57.79	49.55	37.09	29.44	24.31	20.64	17.90	15.79
		300	91.89	48.00	68.00	50.09	39.30	32.15	14.20	12.53
		400	91.89	48.00	65.63	36.00	51.05	28.80	46.92	24.00
		500	91.89	48.00	65.63	36.00	51.05	28.80	59.32	24.00
	Bearing Length	190	125	190	125	190	125	190	125	
	Lintel Unit	ZT00425R200		ZT00425R225		ZT00425R250		ZT00425R275		
	Lintel Length (m)	2.00		2.25		2.50		2.75		
	Opening Width (m)	1.625	1.750	1.875	2.000	2.125	2.250	2.375	2.500	
	Compression Zone Depth (mm)	200	11.19	10.14	9.22	8.55	7.81	7.38	6.79	6.49
		300	20.48	18.28	16.37	15.04	13.60	12.75	11.60	11.05
		400	33.70	29.28	26.06	23.66	21.13	19.67	17.71	16.77
500		50.18	29.28	39.31	25.76	31.00	23.00	25.08	20.77	
Bearing Length	190	125	190	125	190	125	190	125		

# Load Bearing Capacity of NBT ThermoPlan Composite Lintels

(kN/m)



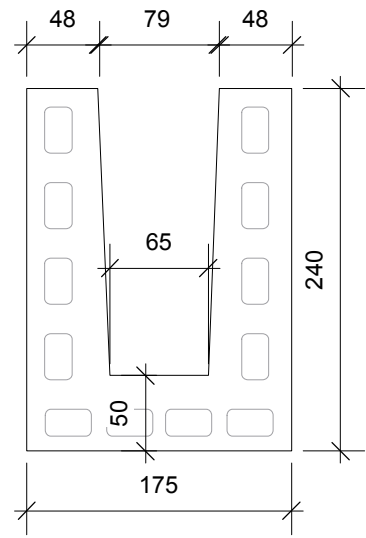
Lintel Height 71mm

<b>115 Wide Units</b>	Lintel Unit	ZA99115R100		ZA99115R125		ZA99115R150		ZT99115R175		
	Lintel Length (m)	1.00		1.25		1.50		1.75		
	Opening Width (m)	0.770	0.650	1.020	0.900	1.270	1.150	1.520	1.400	
	Compression Zone Depth (mm)	200	6.69	6.69	5.13	5.13	3.30	3.30	2.30	2.30
		300	16.46	16.46	12.63	12.63	8.50	8.50	5.95	5.95
		400	32.37	32.61	25.04	25.04	15.64	15.64	11.01	11.01
		500	32.37	41.24	28.36	36.14	22.74	23.90	16.64	16.64
	Bearing Length	115	175	115	175	115	175	115	175	
	Lintel Unit	ZA99115R200		ZA99115R225		ZA99115R250		ZA99115R275		
	Lintel Length (m)	2.00		2.25		2.50		2.75		
	Opening Width (m)	1.770	1.650	2.020	1.900	2.270	2.150	2.520	2.400	
	Compression Zone Depth (mm)	200	1.71	2.30	1.33	1.69	1.06	1.30	0.86	0.84
		300	4.44	5.95	3.44	4.36	2.74	3.36	2.24	2.17
		400	8.35	11.01	6.47	6.25	5.16	6.32	4.21	4.08
		500	12.40	16.64	9.61	12.25	7.66	9.39	6.25	6.06
Bearing Length	115	175	115	175	115	175	115	175		

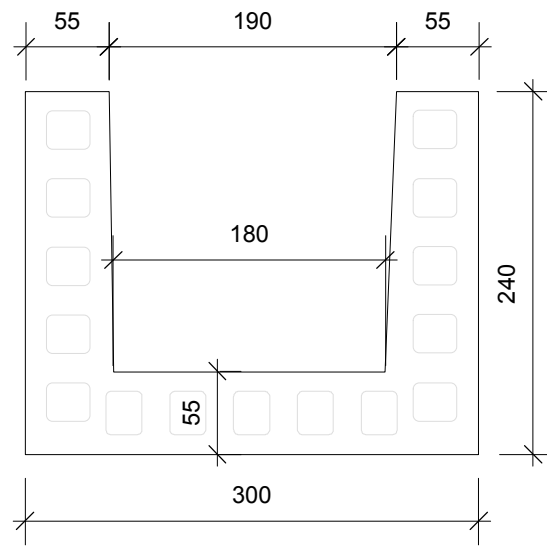


Lintel Height 71mm

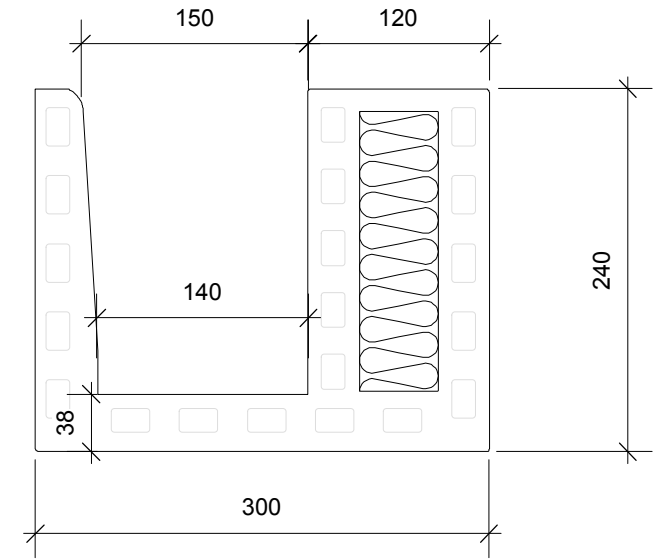
<b>175 Wide Units</b>	Lintel Unit	ZA99175R100		ZA99175R125		ZA99175R150		ZT99175R175		
	Lintel Length (m)	1.00		1.25		1.50		1.75		
	Opening Width (m)	0.770	0.650	1.020	0.900	1.270	1.150	1.520	1.400	
	Compression Zone Depth (mm)	200	10.06	10.06	7.72	7.72	4.96	6.11	3.45	4.96
		300	24.84	24.84	19.08	19.08	12.85	15.39	9.01	12.85
		400	40.41	49.44	35.41	37.96	23.66	29.60	16.67	23.66
		500	40.41	61.50	35.41	53.89	28.39	45.35	23.69	36.81
	Bearing Length	115	175	115	175	115	175	115	175	
	Lintel Unit	ZA99175R200		ZA99175R225		ZA99175R250		ZA99175R275		
	Lintel Length (m)	2.00		2.25		2.50		2.75		
	Opening Width (m)	1.770	1.650	2.020	1.900	2.270	2.150	2.520	2.400	
	Compression Zone Depth (mm)	200	2.57	3.45	1.99	2.54	1.59	1.95	1.30	1.54
		300	6.71	9.01	5.20	6.63	4.15	5.08	3.38	4.02
		400	12.66	16.67	9.81	12.50	7.82	9.59	6.38	7.58
		500	19.10	25.63	14.80	18.86	11.80	14.46	9.63	11.44
Bearing Length	115	175	115	175	115	175	115	175		



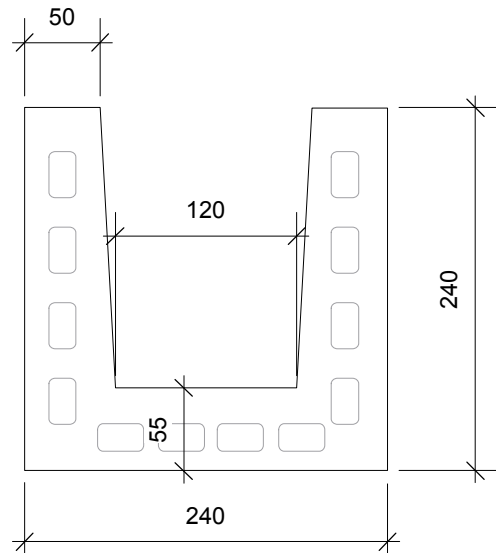
NBT ThermoPlan ZA99175U  
Block Dimensions



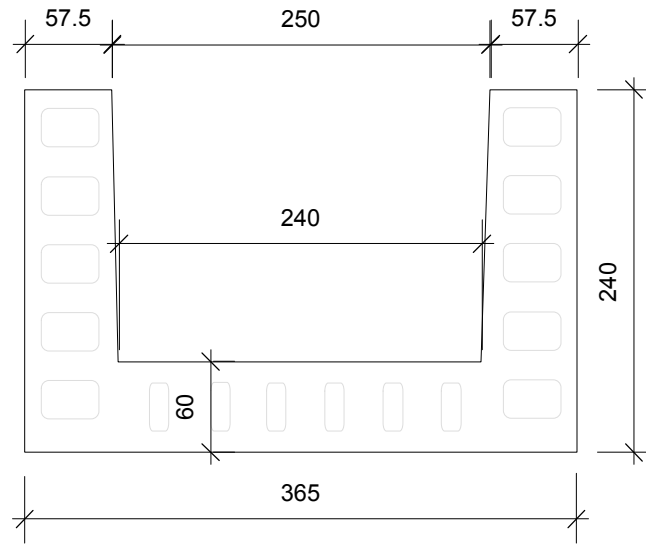
NBT ThermoPlan ZT00300U  
Block Dimensions



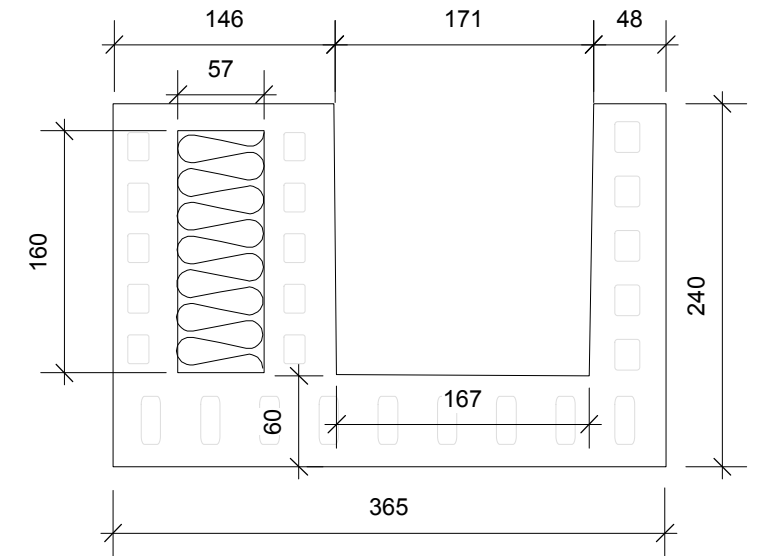
NBT ThermoPlan ZT00300WU  
Block Dimensions



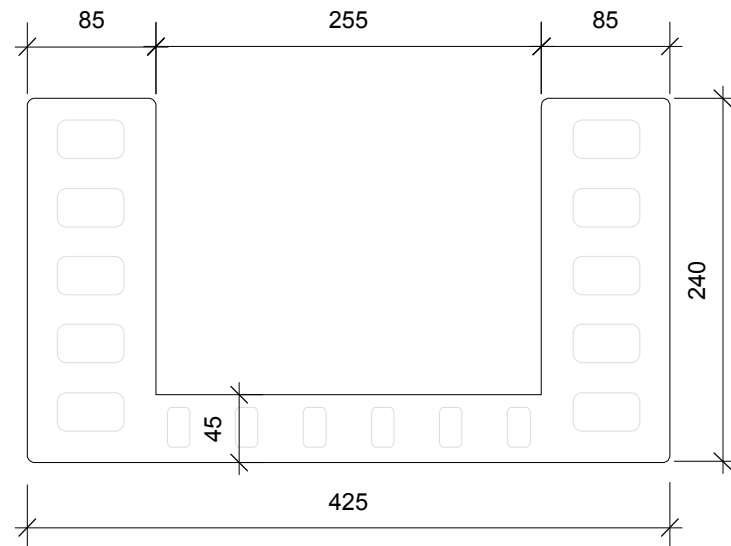
NBT ThermoPlan ZA99240U  
Block Dimensions



NBT ThermoPlan ZT00365U  
Block Dimensions



NBT ThermoPlan ZT00365WU  
Block Dimensions



NBT ThermoPlan ZT00425U  
Block Dimensions