Lintels incorporating structural steel sections

All the advantages of a lintel, with a strength of rolled steel section.

The CI lintel range incorporate Universal Beams (UB), the EAL range Parallel Flange Channels (PFC) combined with a lintel outer and base plate manufactured from galvanized steel or stainless steel.

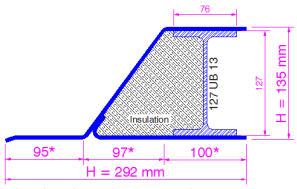
The beam is positioned in the dry area of the wall and protected by the outer and base. Therefore the inner steel beam does not require galvanizing—reducing cost.

Steel sections enable these lintels to carry far greater loads than pressed steel lintels. Available to suit a large range of cavity walls (load tables show 100/100/100 wall). Cavity insulated as standard.

Structural Steel Lintels

Cl lintel range

Cl 13



*dimensions will vary with wall construction

Lintel section properties

UB	**UB 127 x 76 x 13**	
Ixx	964	cm^4
Zxx	172	cm^3
Weight	26.3	Kg/m
Area	33.8	cm^2
Ryy	5.34	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

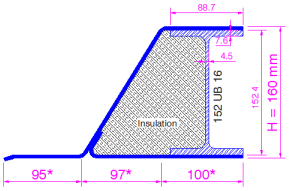
Opening Span	Lintel Length	Safe Load kN
600	900	102.1
900	1200	102.1
1200	1500	102.1
1500	1800	102.1
1800	2100	102.1
2100	2400	93.3
2400	2700	71.4
2700	3000	56.4
3000	3300	45.7
3300	3600	37.8
3600	3900	31.7
3900	4200	27.0
4200	4500	23.3
4500	4800	20.3

Typical Wall Constructions

Construction	dimension (mm)
Outer leaf	100 - 125 - 150
Cavity	50-100-125-150-175
Inner leaf	100-150

Some restriction may apply

Cl 16



*dimensions will vary with wall construction

Lintel section properties

UB	**UB 152 x 89 x 16**	
Ixx	1,523	cm^4
Zxx	228	cm^3
Weight	29.6	Kg/m
Area	38.0	cm^2
Ryy	6.33	cm

Permissible load ratio 1:1-1:19

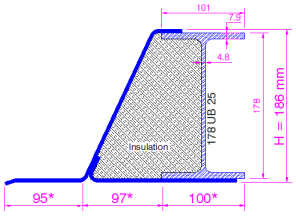
Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	115.2
900	1200	115.2
1200	1500	115.2
1500	1800	115.2
1800	2100	115.2
2100	2400	115.2
2400	2700	112.8
2700	3000	89.1
3000	3300	72.2
3300	3600	59.7
3600	3900	50.1
3900	4200	42.7
4200	4500	36.8
4500	4800	32.1

Typical Optional Features

Option	Spec. Suffix
Plaster key	Suffix / P
Lintray	Prefix /L
Feature brick	Suffix / FB
Outer step (of 20mm)	Suffix / ST
Cant outer (50 mm)	Suffix / FB

Cl 18



*dimensions will vary with wall construction

Lintel section properties

UB	**UB 178 x 102 x 19**	
Ixx	2,309	cm^4
Zxx	294	cm^3
Weight	33.2	Kg/m
Area	42.7	cm^2
Ryy	7.36	cm

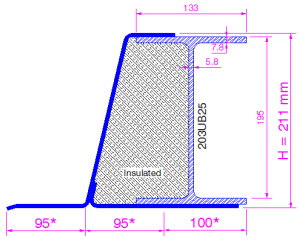
Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	119.5
900	1200	119.5
1200	1500	119.5
1500	1800	119.5
1800	2100	119.5
2100	2400	119.5
2400	2700	119.5
2700	3000	119.5
3000	3300	109.5
3300	3600	90.5
3600	3900	76.0
3900	4200	64.8
4200	4500	55.8
4500	4800	48.6
4800	5100	42.8
5100	5400	37.9
5400	5700	33.8
5700	6000	30.3
6000	6300	27.4

Material:
Base beam in structural steel S 355

Cl 21



*dimensions will vary with wall construction

Lintel section properties

UB	**UB 203 x 133 x 25**	
Ixx	3,671	cm^4
Zxx	415	cm^3
Weight	40.3	Kg/m
Area	51.7	cm^2
Ryy	8.42	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	155.5
900	1200	155.5
1200	1500	155.5
1500	1800	155.5
1800	2100	155.5
2100	2400	155.5
2400	2700	155.5
2700	3000	155.5
3000	3300	155.5
3300	3600	143.8
3600	3900	120.9
3900	4200	103.0
4200	4500	88.8
4500	4800	77.4
4800	5100	68.0
5100	5400	60.2
5400	5700	53.7
5700	6000	48.2
6000	6300	43.5
6300	6600	39.5
6600	6900	36.0
6900	7200	32.9
7200	7500	30.2
7500	7800	27.8
7800	8100	25.7
8100	8400	23.9

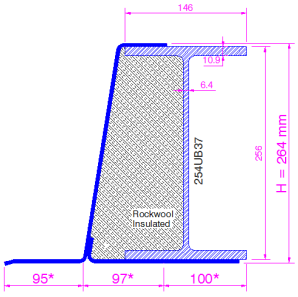
How To Specify a Cl lintel, include full section name and wall construction "Cl "Outerleaf/Cavity/Innerleaf" and any additional options
Example: A Cl 21 with 100mm brickwork, 100mm cavity and 140 mm block work with plaster key Cl21-100/100/140 /P

The safe working load SWL represent the maximum un-factored load uniform distributed load the beam can carry.
Bearings; min 150mm each side, for high loads longer bearings may be needed, and bearing stresses should be checked

Structural Steel Lintels

CI lintel range

CI 27



*dimensions will vary with wall construction

Lintel section properties

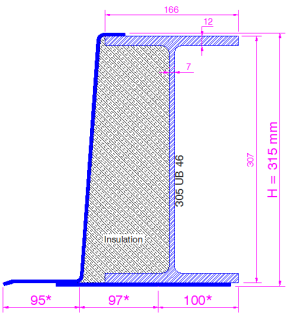
UB	UB 254 x 146 x 37	
Ixx	8,136	cm^4
Zxx	691	cm^3
Weight	55.1	Kg/m
Area	70.7	cm^2
Ryy	10.73	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	171.6
900	1200	171.6
1200	1500	171.6
1500	1800	171.6
1800	2100	171.6
2100	2400	171.6
2400	2700	171.6
2700	3000	171.6
3000	3300	171.6
3300	3600	171.6
3600	3900	171.6
3900	4200	171.6
4200	4500	171.6
4500	4800	171.4
4800	5100	150.7
5100	5400	133.5
5400	5700	119.0
5700	6000	106.8
6000	6300	96.4
6300	6600	87.5
6600	6900	79.7
6900	7200	72.9
7200	7500	67.0
7500	7800	63.3
7800	8100	58.5
8100	8400	54.2

CI 31



*dimensions will vary with wall construction

Lintel section properties

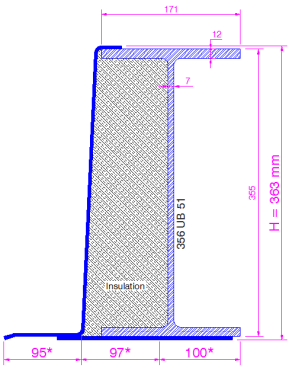
UB	UB 305 x 165 x 46	
Ixx	13,761	cm^4
Zxx	1,003	cm^3
Weight	66.0	Kg/m
Area	84.6	cm^2
Ryy	12.75	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	177.3
900	1200	177.3
1200	1500	177.3
1500	1800	177.3
1800	2100	177.3
2100	2400	177.3
2400	2700	177.3
2700	3000	177.3
3000	3300	177.3
3300	3600	177.3
3600	3900	177.3
3900	4200	177.3
4200	4500	177.3
4500	4800	177.3
4800	5100	177.3
5100	5400	177.3
5400	5700	177.3
5700	6000	177.3
6000	6300	163.1
6300	6600	147.9
6600	6900	134.8
6900	7200	123.3
7200	7500	113.3
7500	7800	104.4
7800	8100	96.5
8100	8400	89.5

CI36



*dimensions will vary with wall construction

Lintel section properties

UB	UB 356 x 171 x 51	
Ixx	19,368	cm^4
Zxx	1,208	cm^3
Weight	71.8	Kg/m
Area	92.0	cm^2
Ryy	14.51	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	199.2
900	1200	199.2
1200	1500	199.2
1500	1800	199.2
1800	2100	199.2
2100	2400	199.2
2400	2700	199.2
2700	3000	199.2
3000	3300	199.2
3300	3600	199.2
3600	3900	199.2
3900	4200	199.2
4200	4500	199.2
4500	4800	199.2
4800	5100	199.2
5100	5400	199.2
5400	5700	199.2
5700	6000	199.2
6000	6300	199.2
6300	6600	199.2
6600	6900	189.7
6900	7200	173.6
7200	7500	159.4
7500	7800	146.9
7800	8100	135.8
8100	8400	126.0

How To Specify a CI lintel; include full section name and wall construction then any optional features e.q plaster key.

Typical Optional Features	
Option	Spec. Suffix
Plaster key	Suffix / P
Lintray	Prefix /L
Feature brick	Suffix / FB
Outer step (of 20mm)	Suffix / ST
Cant outer (50 mm)	Suffix / FB

Typical Wall Constructions	
Construction	dimension (mm)
Outer leaf	100 - 125 - 150
Cavity	50-100-125-150-175
Inner leaf	100-125-150

*Can also be manufactured to suit solid walls with reduces load capacity.

Some cavities may be unavailable on wide I beams.

Material:
Base beam in structural steel S 355

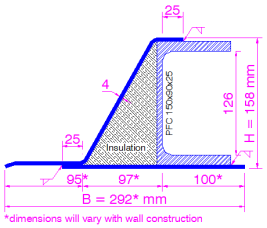
How To Specify a CI lintel, include full section name and wall construction "CI "Outerleaf/Cavity/Innerleaf" and any additional options
Example: A CI 21 with 100mm brickwork, 100mm cavity and 125 mm block work with plaster key CI21-100/100/140 /P

The safe working load SWL represent the maximum un-factored load uniform distributed load the beam can carry.
Bearings; min 150mm each side, for high loads longer bearings may be needed, and bearing stresses should be checked

Structural Steel Lintels

EAL lintel range

EAL 4



*dimensions will vary with wall construction

Lintel section properties

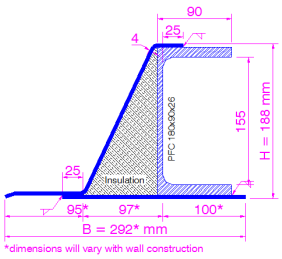
PFC	C 150 x 90 x 24	
Ixx	1,874	cm^4
Zxx	288	cm^3
Weight	38.19	Kg/m
Area	48.65	cm^2
Ryy	6.21	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	111
900	1200	111
1200	1500	111
1500	1800	111
1800	2100	111
2100	2400	111
2400	2700	111
2700	3000	111
3000	3300	91
3300	3600	75
3600	3900	63
3900	4200	53
4200	4500	46
4500	4800	40
4800	5100	35
5100	5400	31
5400	5700	28
5700	6000	25
6000	6300	22
6300	6600	20

EAL 5



*dimensions will vary with wall construction

Lintel section properties

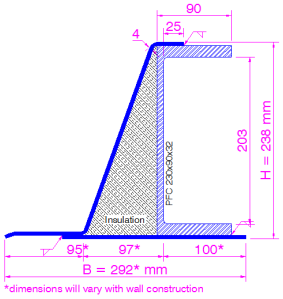
PFC	C 200 x 90 x 30	
Ixx	2,854	cm^4
Zxx	439	cm^3
Weight	45.59	Kg/m
Area	58.07	cm^2
Ryy	8.17	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	154
900	1200	154
1200	1500	154
1500	1800	154
1800	2100	154
2100	2400	154
2400	2700	154
2700	3000	154
3000	3300	154
3300	3600	154
3600	3900	130
3900	4200	111
4200	4500	96
4500	4800	83
4800	5100	73
5100	5400	65
5400	5700	58
5700	6000	52
6000	6300	47
6300	6600	42
6600	6900	38
6900	7200	35
7200	7500	32

EAL 6



*dimensions will vary with wall construction

Lintel section properties

PFC	C 230 x 90 x 32	
Ixx	5,329	cm^4
Zxx	522	cm^3
Weight	48.59	Kg/m
Area	61.90	cm^2
Ryy	9.28	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	185
900	1200	185
1200	1500	185
1500	1800	185
1800	2100	185
2100	2400	185
2400	2700	185
2700	3000	185
3000	3300	185
3300	3600	176
3600	3900	158
3900	4200	143
4200	4500	131
4500	4800	115
4800	5100	101
5100	5400	89
5400	5700	79
5700	6000	71
6000	6300	64
6300	6600	58
6600	6900	53
6900	7200	48
7200	7500	44
7500	7800	41
7800	8100	38
8100	8400	35

Our EAL range utilise a structural steel channel—PFC

How To Specify an EAL lintel; include full section name and wall construction then any optional features e.q plaster key.

Typical Optional Features	
Option	Spec. Suffix
Plaster key	Suffix /P
Lintray	Prefix /L
Feature brick	Suffix / FB
Outer step (of 20mm)	Suffix / ST
Cant outer (50 mm)	Suffix / FB

Typical Wall Constructions	
Construction	dimension (mm)
Outer leaf	100 - 125 - 150
Cavity	50-100-125-150-175
Inner leaf	100-125-150

*Can also be manufactured to suit solid wall with no cavity with reduced load capacity.

Special sizes also available please contact Harvey steel for more information.

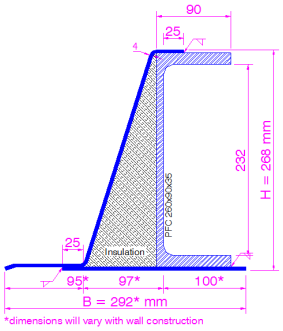
How To Specify an AEL lintel, include full section name and wall construction "EAL "Outerleaf/Cavity/Innerleaf" and any additional options
Example: A EAL 6 with 100mm brickwork, 100mm cavity and 140 mm block work with plaster key CI21-100/100/140 /P

The safe working load SWL represent the maximum un-factored load uniform distributed load the beam can carry.
Bearings; min 150mm each side, for high loads longer bearings may be needed, and bearing stresses should be checked

Structural Steel Lintels

EAL lintel range

EAL 7



Lintel section properties

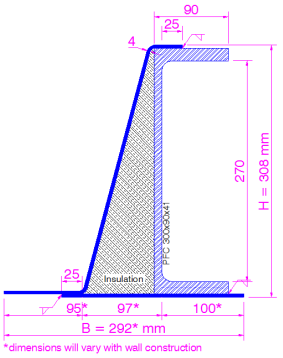
PFC	C 260 x 90 x 35	
Ixx	7,174	cm^4
Zxx	615	cm^3
Weight	52.52	Kg/m
Area	66.90	cm^2
Ryy	10.36	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	218
900	1200	218
1200	1500	218
1500	1800	218
1800	2100	218
2100	2400	218
2400	2700	218
2700	3000	218
3000	3300	218
3300	3600	202
3600	3900	181
3900	4200	164
4200	4500	149
4500	4800	136
4800	5100	124
5100	5400	115
5400	5700	106
5700	6000	96
6000	6300	87
6300	6600	79
6600	6900	72
6900	7200	65
7200	7500	60
7500	7800	55
7800	8100	51
8100	8400	47

EAL 8



Lintel section properties

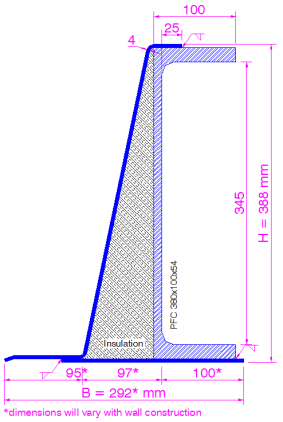
PFC	C 300 x 90 x 41	
Ixx	10,662	cm^4
Zxx	781	cm^3
Weight	60.45	Kg/m
Area	77.01	cm^2
Ryy	11.77	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	278
900	1200	278
1200	1500	278
1500	1800	278
1800	2100	278
2100	2400	278
2400	2700	278
2700	3000	278
3000	3300	278
3300	3600	246
3600	3900	220
3900	4200	198
4200	4500	179
4500	4800	163
4800	5100	149
5100	5400	137
5400	5700	126
5700	6000	116
6000	6300	108
6300	6600	100
6600	6900	93
6900	7200	87
7200	7500	82
7500	7800	77
7800	8100	72
8100	8400	68

EAL 9



Lintel section properties

PFC	C 380 x 100 x 54	
Ixx	21,020	cm^4
Zxx	1,192	cm^3
Weight	75.54	Kg/m
Area	96.23	cm^2
Ryy	14.78	cm

Permissible load ratio 1:1-1:19

Lintel load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	317
900	1200	317
1200	1500	317
1500	1800	317
1800	2100	317
2100	2400	317
2400	2700	317
2700	3000	317
3000	3300	317
3300	3600	317
3600	3900	312
3900	4200	279
4200	4500	251
4500	4800	227
4800	5100	206
5100	5400	188
5400	5700	173
5700	6000	159
6000	6300	147
6300	6600	136
6600	6900	126
6900	7200	117
7200	7500	109
7500	7800	102
7800	8100	96
8100	8400	90

Our EAL range utilise a structural steel channel—PFC

How To Specify an EAL lintel; include full section name and wall construction then any optional features e.q plaster key.

Typical Optional Features	
Option	Spec. Suffix
Plaster key	Suffix / P
Lintray	Prefix /L
Feature brick	Suffix / FB
Outer step (of 20mm)	Suffix / ST
Cant outer (50 mm)	Suffix / FB

Typical Wall Constructions	
Construction	dimension (mm)
Outer leaf	100 - 125 - 150
Cavity	50-100-125-150-175
Inner leaf	100-125-150

*Can also be manufactured to suit solid wall with no cavity with reduced load capacity.

Special sizes also available please contact Harvey steel for more information.

How To Specify an AEL lintel, include full section name and wall construction "EAL "Outerleaf/Cavity/Innerleaf" and any additional options
Example: A EAL 6 with 100mm brickwork, 100mm cavity and 140 mm block work with plaster key CI21-100/100/140 /P

The safe working load SWL represent the maximum un-factored load uniform distributed load the beam can carry.
Bearings; min 150mm each side, for high loads longer bearings may be needed, and bearing stresses should be checked