Kee Klamp[®]

YOU'LL NEVER BE BETTER PROTECTED



Pre-assembled Safety Barrier Systems



SAFETY BARRIER SYSTEMS







Ramps - Flat and level and 3-11 Degrees

Guardrails - Flat and level

Stairs - Flat and level and 30-45 Degrees

Pedestrian Barriers: offers both in-line and offset solutions which allow continuous guardrail across a variety of angles. Installation is quick and easy and does not require welding or special tools.

Kee Safety Pre-assembled Uprights have been specifically designed to simplify and reduce labour time on site, allowing barriers and guardrails to be installed in record time. The uprights are supplied fully assembled, saving you the need to build the posts from individual components. We have an extensive range of pre-assembled uprights available to suit angles from 0 to 45 degrees, and in three different variants - Top Fix, Side Fix & Core Bore.

To speed up installation time even further, we can provide rails cut to your specified length, saving you time cutting on site. Alternatively, we can supply the rails in stock lengths to be trimmed to suit as required.

To speed up installation time even further, we can provide rails cut to your specified length, saving you time cutting on site. Alternatively, we can supply the rails in stock lengths to be trimmed to suit as required.

Kee Safety Pre-assembled uprights can be used for:

- Barriers
- Guardrails
- Handrails
- Demarcation
- · Factory & warehouse barriers
- Walkway handrailing
- Ramps and stairs

Technical Information

Our Pre-assembled uprights are constructed using our world renowned Kee Klamp components, manufactured to the following standards:

- Cast Iron Fittings or Castings Comply with BS EN 1562 & 1563
- Hot Dip Galvanised Finish Comply with BS EN ISO 1461

For added piece of mind Kee Klamp components are approved by TÜV, Europe's leading independent testing house. The maximum load of each fitting type is as stated on the TÜV Certificate, a copy of which is available on our website at: **www.keesafety.co.uk.**

FEATURES	BENEFITS
Utilise world-renowned Kee Klamp fittings	Create a safe environment for workers
Simple installation using the hexagon key provided	No welding, bending or threading required
The posts are supplied fully assembled	Quicker and easier projet completion
Extensive range of pre-assembled uprights	Variety of configurations

PRE-ASSEMBLED UPRIGHTS

		ANGLI	E OF KEE KLAMP SAF	ETY BA	RRIER SYSTEM						
			Flat and Level		3-11°		11-30°		30-45°		
<u>0</u>	Top Fixed	GBS01	62-8 Base End					GBS09	62-8 Base End		
曹		GBS02	62-8 Base Intermediate	GBS05	67-8 Base End	GBS07	363-8 Base End	GBS10	62-8 Base Intermediate		
		GBS03	62-8 Base 90° Corner	GBS06	67-8 Base Intermediate	GBS08	363-8 Base Intermediate	GBS11	62-8 Base 90° LH Corner		
FIXING METHOD		GBS04	62-8 Base Variable Corner					GBS12	62-8 Base 90° RH Corner		
Ê								GBS13	62-8 Base 30-45° Incline to flat		
OR								GBS14	62-8 Base 30-45° Flat to incline		
TYPE	& Offset Rail	il GBS40 62-8 Adjustable Angle Upright - Offset									
<u>5</u>	Core Bored	GBS15	Core Bored End					GBS23	Core Bored End		
FITTING		GBS16	Core Bored Intermediate	GBS19	Core Bored End	GBS21	Core Bored End	GBS24	Core Bored Intermediate		
듄		GBS17	Core Bored 90° Corner	GBS20	Core Bored Intermediate	GBS22	Core Bored Intermediate	GBS25	Core Bored 90° LH Corner		
		GBS18	Core Bored Variable Corner					GBS26	Core Bored 90° RH Corner		
								GBS27	Core Bored 30-45° Incline to flat		
								GBS28	Core Bored 30-45° Flat to incline		
	& Offset Rail	GBS41 Core Bored Adjustable Angle Upright - Offset									
	Side Fixed	GBS29	68-8 Base End					GBS36	68-8 Base End		
		GBS30	68-8 Base Intermediate	GBS32	68-8 Base End	GBS34	68-8 Base End	GBS37	68-8 Base Intermediate		
		GBS31	68-8 Base Variable Corner	GBS33	68-8 Base Intermediate	GBS35	68-8 Base Intermediate	GBS38	68-8 30-45° Incline to flat		
								GBS39	68-8 30-45° Flat to incline		
	& Offset Rail	& Offset Rail GBS42 68-8 Adjustable Angle Upright - Offset									
		DRET	D-Return	DRET87	D-Return	DRET56	A D-Return	DRET56	D-Return		

	LOAD CHART										
		Flat and Level		3-11°		11-30°		30-45°		Off Set Rail	
360 N/m	Top Fix	2660mm	(13.74KN)	2840mm	(13.34KN)	2840mm	(13.34KN)	2840mm	(13.34KN)	2660mm	(13.74K
	Core Bored ¹	2660mm		2840mm		2840mm		2840mm		2660mm	
	Side Palm	2560mm	(10.88KN)	2760mm	(10.78KN)	2760mm	(10.78KN)	2760mm	(10.78KN)	2560mm	(10.88K
740 N/m	Top Fix	1600mm	(16.99KN)	1775mm	(17.13KN)	1775mm	(17.13KN)	1775mm	(17.13KN)	1600mm	(16.99K
	Core Bored ¹	1600mm		1775mm		1775mm		1775mm		1600mm	
	Side Palm	1530mm	(13.37KN)	1650mm	(13.48KN)	1650mm	(13.48KN)	1650mm	(13.48KN)	1530mm	(13.37K
1500 N/m	Top Fix	790mm	(17.00KN)	875mm	(17.12KN)	875mm	(17.12KN)	875mm	(17.12KN)	790mm	(17.00K
	Core Bored ¹	790mm		870mm		870mm		870mm		790mm	
	Side Palm	750mm	(13.28KN)	830mm	(13.50KN)	830mm	(13.50KN)	750mm	(13.28KN)	750mm	(13.28k

¹ Assumes a minimum concrete grade of C30.

Industrial Use-Non Emergency: 360 Newtons per metre run (N/m) Commercial Use: 740 Newtons per metre run (N/m) Retail/Public Access: 1500 Newtons per metre run (N/m)

The current regulations give various design requirements to be fulfilled of which the Design Load is the most important. Based upon rail diameter being BS EN 10255 medium wall tubing and the upright being BS EN 39 heavy wall tubing. Design Loads are as stated in BS 6180. The above bay sizes are calculated using the relevant fitting or fixing configuration for the upright type. The figures shown in brackets are the required anchor pull out loads for the bay size indicated after all reduction factors have been applied.

Notes: The table is based on the maximum permissible bending moment of the tube. To achieve bigger bay sizes than those stated please contact Kee Safety Ltd for further details

² Assumes 48.30mm DIA x 3.20mm horizontal tube and 48.30mm DIA x 4.00mm upright tube to determine the bay size.

End Upright -Top Fixed

Long Part GBS6281510

Variant Flat

Base/ Fixing type 62-8

Handrail height 1100mm

and Level

Flat



GBS02

Intermediate Upright -Top Fixed

Long Part GB6282510

Variant Flat

Base/ Fixing type 62-8

Handrail height 1100mm

Level and



GBS03

Corner Upright -Top Fixed

Long Part GB6282010

Variant Flat

Base/ Fixing type 62-8

Handrail height 1100mm

Level and

Flat



GBS04

Variable Corner Upright -Top Fixed

Long Part GB6281910

Variant Flat

Base/ Fixing type 62-8

Handrail height 1100mm

Level and



GBS015

End Upright -Core Bored

Long Part GBCB81510

Variant Flat

Base/ Fixing type

1100mm

Core Bored Handrail height

and Level

Flat



GBS16

Intermediate Upright -Core Bored

Long Part GBCB82510

Variant Flat

Base/ Fixing type Core Bored

Handrail height 1100mm

and Level

GBS17

Corner Upright -Core Bored

Long Part GBCB82010

Variant Flat

Base/ Fixing type Core Bored

Handrail height 1100mm

Level and Flat

GBS18

Variable Corner Upright -Core Bored

Long Part GBCB81910

Variant

Flat Base/

Fixing type

Core Bored

Handrail height 1100mm

and Level



GBS29

End Upright -Side Fixed

Long Part GB6881510

Variant Flat

Base/ Fixing type 66-8

Handrail height 1150mm

and Level Flat





GBS30

Intermediate Upright -Side Fixed

Long Part GB6882510

Variant Flat

Base/ Fixing type 66-8

Handrail height

and Level



GBS31

Variable Corner -Side Fixed

Long Part GB6881910

Variant Flat

Base/ Fixing type 66-8

Handrail height 1150mm

and Level



DRET D-Return

Long Part KGA4DRT10

Variant Flat

Base/ Fixing type

Handrail height

and Level Flat



End Upright -Top Fixed

Long Part GB6788710

Variant 3-11°

Base/ Fixing type 67-8

Handrail height 1000mm



GBS06

Intermediate Upright -Top Fixed

Long Part GB6788810

Variant 3-11°

Base/ Fixing type 67-8

Handrail height 1000mm



GBS19

End Upright -Core Bored

Long Part GBCB88710

Variant 3-11°

Base/ Fixing type Core Bored

Handrail height 1000mm



GBS20

Intermediate Upright -Core Bored

Long Part GBCB88710

Variant 3-11°

Base/ Fixing type Core Bored

Handrail height 1000mm



GBS32

End Upright -Side Fixed

Long Part GB6888710

Variant 3-11°

Base/ Fixing type 68-8

Handrail height 1050mm



GBS33

Intermediate Upright -Side Fixed

Long Part GB6888810

Variant 3-11°

Base/ Fixing type 68-8

Handrail height



DRET87

D-Return

Long Part GBDRT8710

Variant 3-11°

Base/ Fixing type

Handrail height NA



GBS07

End Upright -Top Fixed

Long Part GB3855A10

Variant 11-30°

Base/ Fixing type 363-8

Handrail height 1000mm





GBS08

Intermediate Upright -Top Fixed

Long Part GB3832710 Variant

Base/ Fixing type 363-8

11-30°

Handrail height 1000mm





GBS21

End Upright -Core Bored

Long Part GBCB55A10

Variant 11-30°

Base/ Fixing type Core Bored

Handrail height 1000mm





GBS22

Intermediate Upright -Core Bored

Long Part GBCB32710

Variant 11-30°

Base/ Fixing type Core Bored

Handrail height 1000mm



GBS34

End Upright -Side Fixed

Long Part GB6855A10

Variant 11-30°

Base/ Fixing type 68-8

1050mm





Intermediate Upright -Side Fixed

Long Part GB6832710

Variant 11-30°

Base/ Fixing type 68-8

Handrail height 1050mm



DRET56A

D-Return

Long Part GBDRT5A10

Variant 11-30°

Base/ Fixing type

Handrail height



GBS09

End Upright -Top Fixed

Long Part GB6285510

Variant 30-45°

Base/ Fixing type 62-8

Handrail height 1000mm



GBS10

Intermediate Upright -Top Fixed

Long Part GB6242710

Variant 30-45°

Base/ Fixing type 62-8

Handrail height 1000mm





GBS11

LH Corner Upright -Top Fixed

Long Part GB628LH10

Variant

30-45° Base/

Fixing type 62-8

Handrail height 1100mm

30-45°

GBS12

RH Corner Upright -Top Fixed

Long Part GB628RH10

Variant 30-45°

Base/ Fixing type

1100mm



62-8 Handrail height

GBS13

Incline To Flat Upright -Top Fixed

Long Part GB628IL10

Variant 30-45°

Base/ Fixing type 62-8

Handrail height 1100mm

GBS14

Flat To Incline Upright -**Top Fixed**

Long Part GB628IC10

Variant 30-45°

Base/ Fixing type 62-8

Handrail height 1100mm



GBS23

End Upright -Core Bored

Long Part GBCB85510

Variant 30-45°

Base/ Fixing type Core Bored

Handrail height 1000mm



GBS24

Intermediate Upright -Core Bored

Long Part GBCB42710

Variant 30-45°

Base/ Fixing type Core Bored

Handrail height 1000mm







GBS25

LH Corner Upright -Core Bored

Long Part GBCB8LH10

Variant 30-45°

Base/ Fixing type Core Bored

Handrail height 1100mm



GBS26

RH Corner Upright -Core Bored

Long Part GBCB8RH10

Variant 30-45°

Base/ Fixing type Core Bored

Handrail height 1100mm





Incline To Flat Upright -Core Bored

Long Part GBCB8IL10

Variant 30-45°

Base/ Fixing type Core Bored

Handrail height 1100mm



GBS28

Flat To Incline Upright -**Core Bored**

Long Part GBCB8IC10

Variant 30-45°

Base/ Fixing type Core Bored

Handrail height 1100mm



GBS36

End Upright -Side Fixed

Long Part GB6885510

Variant 30-45°

Base/ Fixing type 68-8

Handrail height 1050mm



GBS37

Intermediate Upright -Side Fixed

Long Part GB6842710

Variant 30-45°

Base/ Fixing type 68-8

Handrail height 1050mm





GBS38

Incline To Flat Upright -Side Fixed

Long Part GB688IL10

Variant

30-45°

68-8

Base/ Fixing type

Handrail height 1050mm



GBS39

Flat To Incline Upright -**Side Fixed**

Long Part GB688IC10

Variant

Fixing type

Handrail height 1050mm

30-45°

Base/ 68-8

DRET56

D-Return

Long Part GBDRT5610

Variant 30-45°

Base/ Fixing type

Handrail height NA

GBS40

Offset Intermediate Upright -**Top Fixed**

Long Part GB6211410

Variant Variable

Base/ Fixing type 62-8

Handrail height 1100mm

/ariable



GBS41

Offset Intermediate Upright -**Core Bored**

Long Part GBCB11410

Variant Variable

Base/ Fixing type Core Bored

1100mm





GBS42

Offset Intermediate Upright -**Side Fixed**

Long Part GB6811410

Variant Variable

Base/ Fixing type 68-8

Handrail height 1050mm





14-8

Straight Coupling

An in-line joint between two pieces of tube of the same size, which is stronger than internal couplings.



15-8

Elbow (90°)

An elbow creating a 90° joint between two pieces of tube.



18-8

Internal Coupling

A flush joint between two tubes of the same diameter.



Note: This fitting can only be used with tube wall with a thickness of 3.2 mm



WARNING: Type 18 coupling must not be used as a load bearing joint.

BC53-88

Swivel Elbow

A variable angle in-line connection, adjustable through 272°.



55-8

Obtuse Angle Elbow

An alternative to bending, or when a junction between a sloping tube and an end post is required.



61-8

Flange

Wall fixing bracket.



77-8

Plastic Plug

A grey plastic plug to fit open ended tubes.



98

Ratchet Set

Reversible ratchet for easier fastening of grub screws.



Note: Actual product may differ from that shown. Image is for illustration purposes only.

SGEUPC2

Kee Gate

Self-closing Safety Gate - Single Width



SGEUFPC

Kee Gate

Self-closing Safety Gate - Full Height Gate



Scan the QR code to visit our website.





Kee Safety Limited

Cradley Business Park Overend Road Cradley Heath West Midlands B64 7DW United Kingdom **Tel:** +44 (0) 1384 632 188

Email: sales@keesafety.com

Web: www.keesafety.co.uk