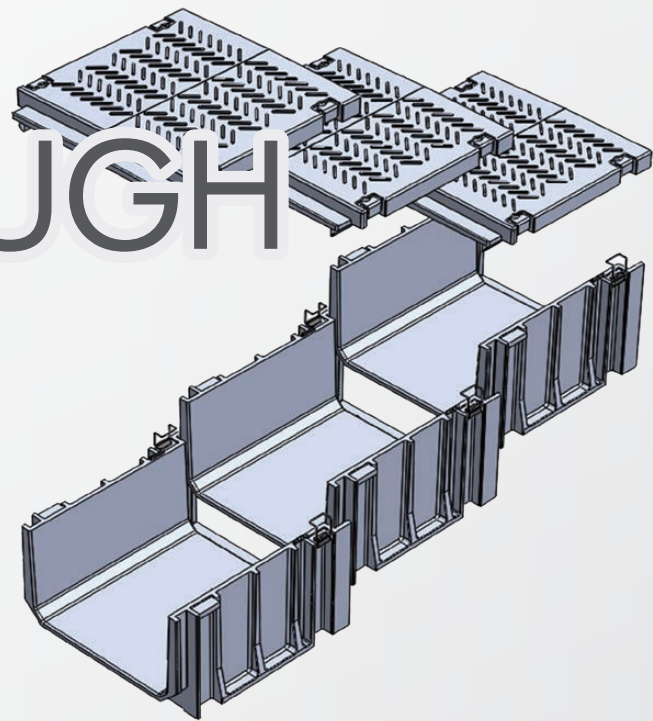


GREEN TROUGH

The Innovative, versatile cable trough system



GREEN TROUGH



GREEN TROUGH is the world's most versatile cable trough system

Furukawa GREEN TROUGH offers the most innovative, environmentally friendly and state-of-the-art solution to cable route management. GREEN TROUGH polymer cable trough is simple and fast to install thanks to its low weight and intuitive joining mechanism and can be modified on site using basic hand tools.



Lightweight:

Approximately 70% lighter than concrete alternatives. In addition, approximately 40% larger about the capacity than concrete alternatives (These numbers are based on a comparison between GREEN TROUGH 120 series and JIS concrete trough 120 series).

Environmentally friendly:

GREEN TROUGH is made of recycled polymer from post consumer plastic waste including bottle caps.

Self-extinguishing properties:

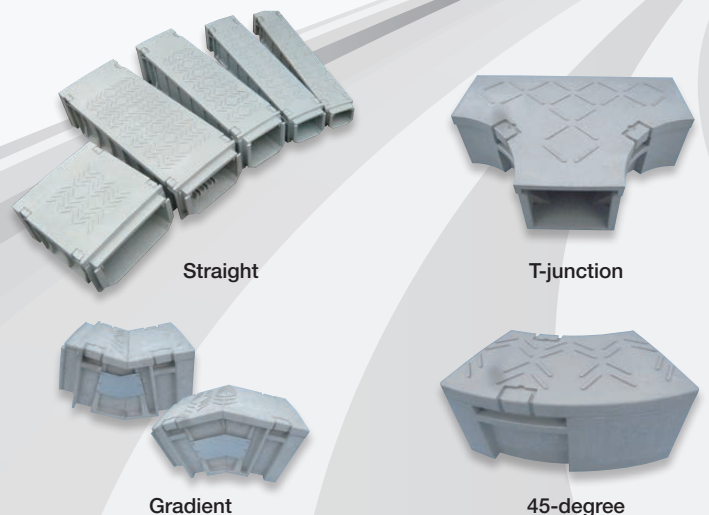
GREEN TROUGH can be installed in tunnels thanks to its flame resistance.

Natural bends:

Joint system allows for minor obstacles to be avoided without the need for 45 degree bend units. A radius of 13-15m can be created using only straight units.

Install In a variety of places

- Horizontally - ground level or excavated
- Vertically
- At an angle
- Around an obstruction
- Along a wall
- Through tunnels
- Suspended from bridge parapets
- At an elevated position



Installations

Railways, Elevated Railways, Roads, Express Roads, Power Generation, Power Stations, Water Treatment Plants, Bridges and many more.



Advantages of

Lightweight

- Approximately 70% lighter on average than conventional concrete alternatives.
- GREEN TROUGH can be installed by human power and carried easily.



Size		G90	G135	150B	200B	300B	430C
GREEN TROUGH	Main body	4	6	8	14	16	15
	Lid	3	4	5	7	11	9
	Total (kg)	7 (1 m)	10 (1 m)	13 (1 m)	21 (1 m)	27 (1 m)	24 (0.5 m)
JIS concrete trough	Main body	16	10	16	26	36	70
	Lid	10	11	14	18	26	36
	Total (kg)	26 (1 m)	21 (0.5 m)	30 (0.5 m)	44 (0.5 m)	62 (0.5 m)	106 (0.5 m)

[Reference data]

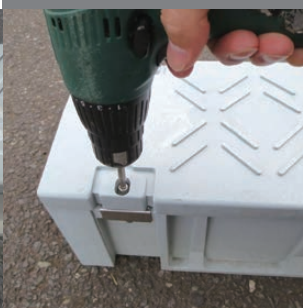
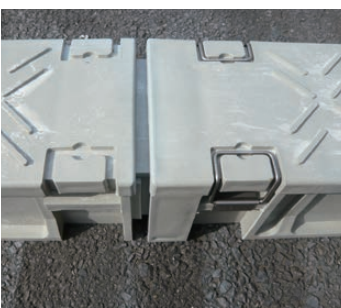
Intuitive joint



- Joint system allows for minor obstacles to be avoided without the need for 45 degree units. A radius of 13-15 m (Left and Right) can be created by using only straight units.
- Straights, 45 degree angle trough, gradients and T-junctions all available in 8 sizes, together with accessories and an elevated system to meet any requirement.



Secure lid



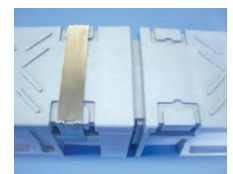
3 types of lid fixation



Clasp



Screw



Band

- GREEN TROUGH reliably prevents lid movement as a result of tilting, vibration, and wind.



Load bearing

- It is possible to walk on GREEN TROUGH.
- Withstands 4.9 kN/500 mm.

GREEN TROUGH

Impact
resistant

- GREEN TROUGH sustains only minor damage when dropped from a height of 0.7 m.
- GREEN TROUGH can still be used even if dropped during installation as it receives no structural damage.



After a free fall test



Flame
resistant

- GREEN TROUGH will self extinguish in under 60 seconds after flame source is removed.
- * The confirmation method is based on JESC E7003.
- Non-halogen.

- Resistant to salt damage and snow melting agents.
- Excellent weather resistance. Equivalent to 50 years in compliance with our original accelerated UV test.

Extremely
durable



- Significantly reduces labour time. GREEN TROUGH can be easily manually handled, installed and processed using basic hand tools. Overall 'installed cost' is reduced when compared with concrete alternatives.

Processing

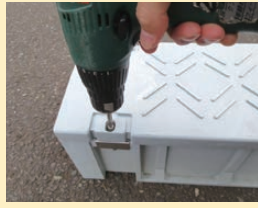


- Possible to cut GREEN TROUGH for adjustment.

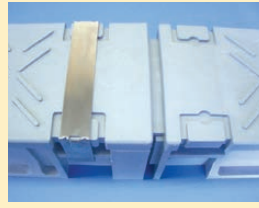
GREEN TROUGH product lineup



Clasp



Screw



Band

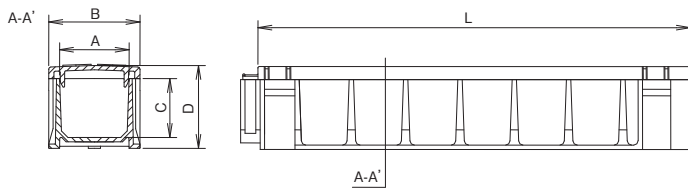
Each series available as clasp, screw or band type to suit a variety of installations.

Clasp: Easy maintenance

Screw: Security

Band: Easy install

Straight series (Standard)



Size	A (mm)	B (mm)	C (mm)	D (mm)	Length (mm)	Weight (kg)	Screw type	Clasp type	Band type
G90 series	90	120	100	136	1000	7	-	-	+
G135 series	135	170	125	170	1000	10	-	-	+
150B series	160	210	135	190	1000	13	+	+	+
200B series	200	270	185	255	1000	21	+	+	+
300B series	300	390	175	265	1000	27	+	+	+
430C series	450	540	255	360	500	24	+	+	+

**Including two screws. (or two clasps or one band)

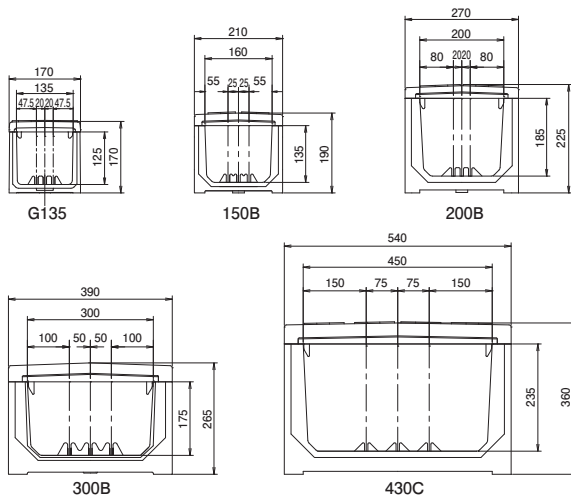
Straight series (With dividers)



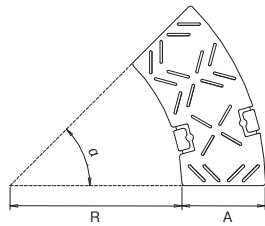
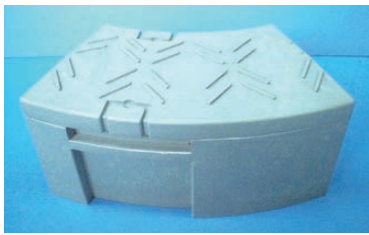
Size	A (mm)	B (mm)	C (mm)	D (mm)	Length (mm)	Weight (kg)	Screw type	Clasp type	Band type
G135 series	135	170	125	170	1000	10	-	-	+
150B series	160	210	135	190	1000	13	+	+	+
200B series	200	270	185	255	1000	21	+	+	+
300B series	300	390	175	265	1000	27	+	+	+
430C series	450	540	255	360	500	24	+	+	+

**Including two screws (or two clasps or one band) and one or two dividers.

Material of divider: Calcium silicate



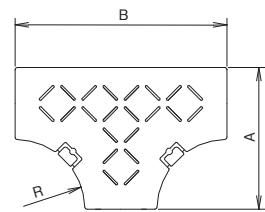
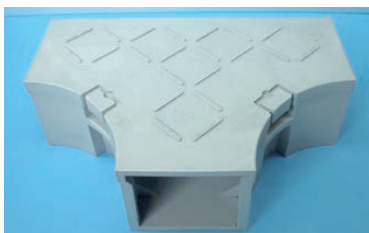
45 degree bend series



Size	A (mm)	α (Degrees)	R (mm)	Weight (kg)	Accessories	Screw type	Clasp type	Band type
G90 series	120	45	350	2	Male-male adaptor 1 set	-	-	+
G135 series	170			4		-	-	+
150B series	210			5		+	+	+
200B series	270			8		+	+	+
300B series	390			13		+	+	+
430C series	540			19		+	+	+

**Including two screws, clasps or one band and male-male adaptor.

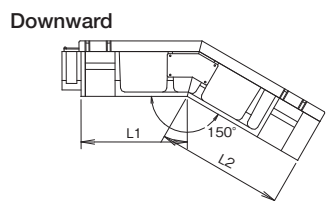
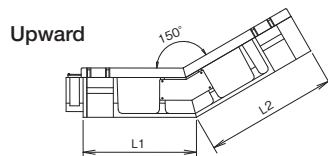
T-junction series



Size	A (mm)	B (mm)	R (mm)	Weight (kg)	Accessories	Screw type	Clasp type	Band type
G90 series	360	600	190	6	Male-male adaptor 1 set	-	-	+
G135 series	385	600	165	8		-	-	+
150B series	355	500	145	9		+	+	-
200B series	385	500	115	13		+	+	-
300B series	495	600	105	21		+	+	-
430C series	635	730	80	32		+	+	-

**Including two screws (or two clasps) and male-male adaptor.
G90 and G135 series include 3 bands and male-male adaptor.

Gradient series (Upward and Downward)



Upward

Size	L1 (mm)	L2 (mm)	Weight (kg)	Screw type	Clasp type	Band type
G90 series	300	350	4	-	-	+
G135 series	300	350	7	-	-	+
150B series	300	350	8	+	+	+
200B series	200	250	10	+	+	+
300B series	200	250	13	+	+	+
430C series	200	250	17	+	+	+

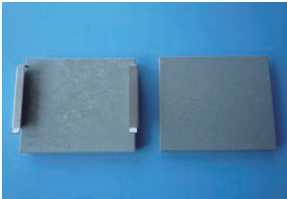
Downward

Size	L1 (mm)	L2 (mm)	Weight (kg)	Screw type	Clasp type	Band type
G90 series	250	300	4	-	-	+
G135 series	250	300	7	-	-	+
150B series	250	300	8	+	+	+
200B series	150	200	11	+	+	+
300B series	150	200	14	+	+	+
430C series	100	150	18	+	+	+

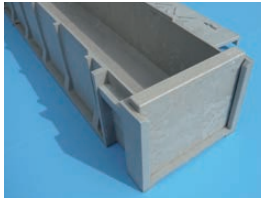
**Including four clasps. (or four screws or two bands)

GREEN TROUGH product lineup

End plate



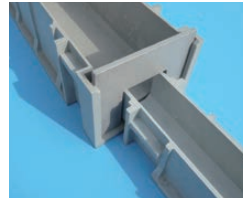
For terminating the end of a trough route, to seal the open end and make access by small animals difficult.



Joint plate/reducer



Easy access for cable protection systems that need to branch off at any point, can be added with integrated side and slotted panels.



Junction box



GREEN TROUGH lightweight junction box for cable junctions. Large internal capacity with four holes to integrate perfectly with most GREEN TROUGH sizes.



Bridge for elevated trough



Available for when ground installations are not possible. We have a wide range of solutions for your installation, please contact us for more details.



Caution

Please do NOT carry GREEN TROUGH by its lid as it is possible to damage the clasps or screws.

Please do NOT leave GREEN TROUGH with its lid open for a long time following installation as it may become difficult to attach the lid.

Some products may have a slightly deeper or lighter colour than others, but will blend within a few weeks of installation.

Please do NOT throw products or apply unnecessary force.

Please cover GREEN TROUGH with steel plates when used in areas where vehicles may pass.

Please do NOT install GREEN TROUGH as underground conduit.

Please do not apply solvents or chemical agents to GREEN TROUGH.

Please ensure there is no gap between GREEN TROUGH units once installed.

Please refer to "GREEN TROUGH installation manual" in detail prior to installation.

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<http://www.furukawa.co.jp/recycle/english/index.htm>

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