



International Tube and  
Conduit Company Ltd

A detailed 3D rendering of a handrail assembly, featuring a vertical post and a horizontal rail connected by a 90-degree elbow. The components are shown in a metallic, brushed silver finish with realistic lighting and shadows. The background is a dark blue gradient with several large, semi-transparent circles in shades of blue and purple.

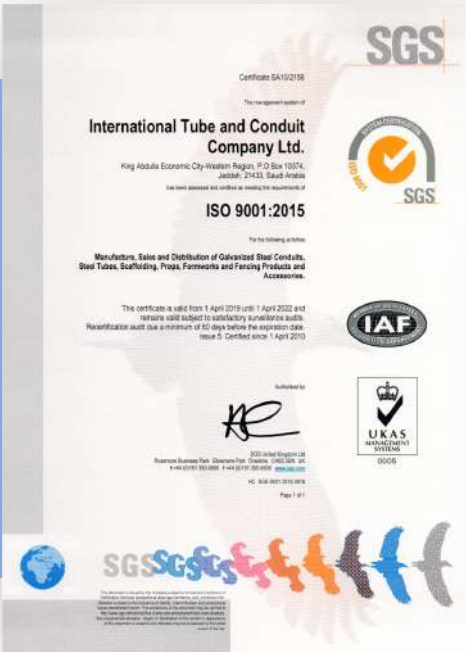
**Handrail Division**

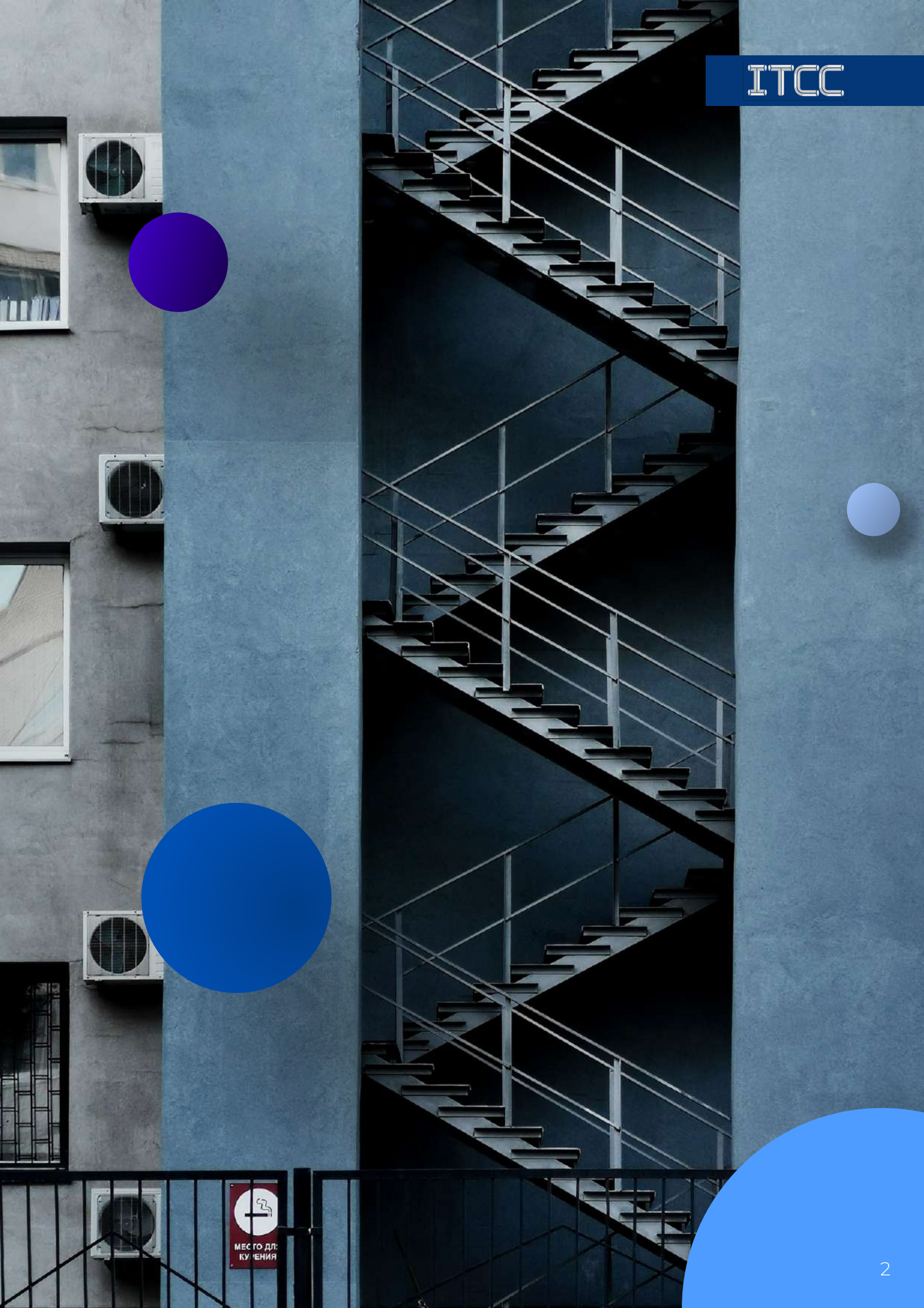
# Company Profile

International Tube and Conduit Company Ltd. (ITCC) was founded in 2009 in King Abdullah Economic City. It operates two states of the art manufacturing and assembly facilities located in King Abdallah Economic City, Rabigh, 120km north of Jeddah. The total area of the factory is 4,000sqm.



ITCC manufacturers Steel Conduits, Mechanical Pipes, Scaffolding Tubes as well as Handrail Systems using the latest machineries and equipment. The Result is an efficient, cost effective means of producing high quality galvanized tubes that meet the demands of clients across various segments. Moreover, in its facilities, ITCC has automated Galvanizing, PVC Coated and Powder Coated lines.





МЕС ГО ДЛ:  
КУ 'ЕНИЯ

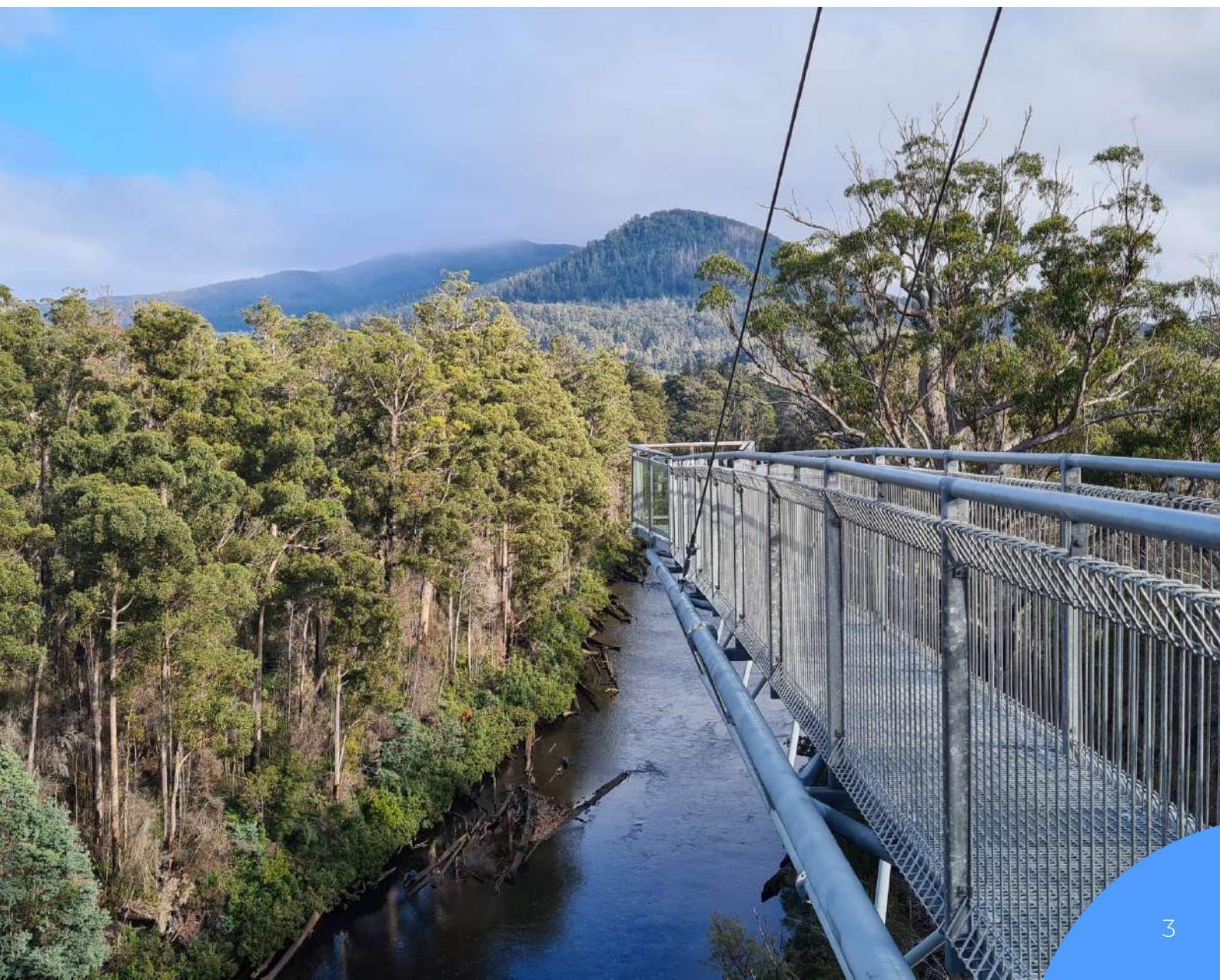
# Handrail systems

ITCC offers modular hand rail systems that are quick and easy to design and instal with just a hex tool and tube cutter.

ITCC hand rail systems have two major components: tubes and fittings. These components work together to give the most durable and flexible DDA-compliant railing system available.

The system offers flexible solutions for all designs and types of hand rails. There is no welding or threading required, which offers savings on both time and money and allows executing big jobs in a very efficient time.

ITCC hand rail systems are manufactured to strict specifications and certified for strength, manufacturing quality and consistency. The components comply with ASTM A53, A106, BS EN 10255 and ISO 65.



# Handrail systems

ITCC hand rail systems are used in a wide variety of applications, from contemporary to industrial.

The vast array of components suits any installation difficulty. From simple protection of loading bays or safety walkways in factories, to safety barriers in aggressive coastal environments or the protection of road bridges and drains, in addition to many other applications such as in line construction, ramps, stairs, guard railing, top fix, side fix, district cooling plant, waste water treatment, stadiums, etc.



## "Imagination is the only limitation"

*ITCC hand rail systems offer huge benefits:*

- **Made of galvanized cast iron, cast aluminum or stainless steel**
- **Fitted with a special coat corrosion protected grub screws**
- **TUV certified for strength, manufacturing quality and consistency**
- **Meets specified loadings up to 1500 N/m**
- **No welding**
- **No threading or bolting**
- **A flexible system that can accommodate on site variations**
- **Cost effective > Free**
- **Available in three different sizes of tube**

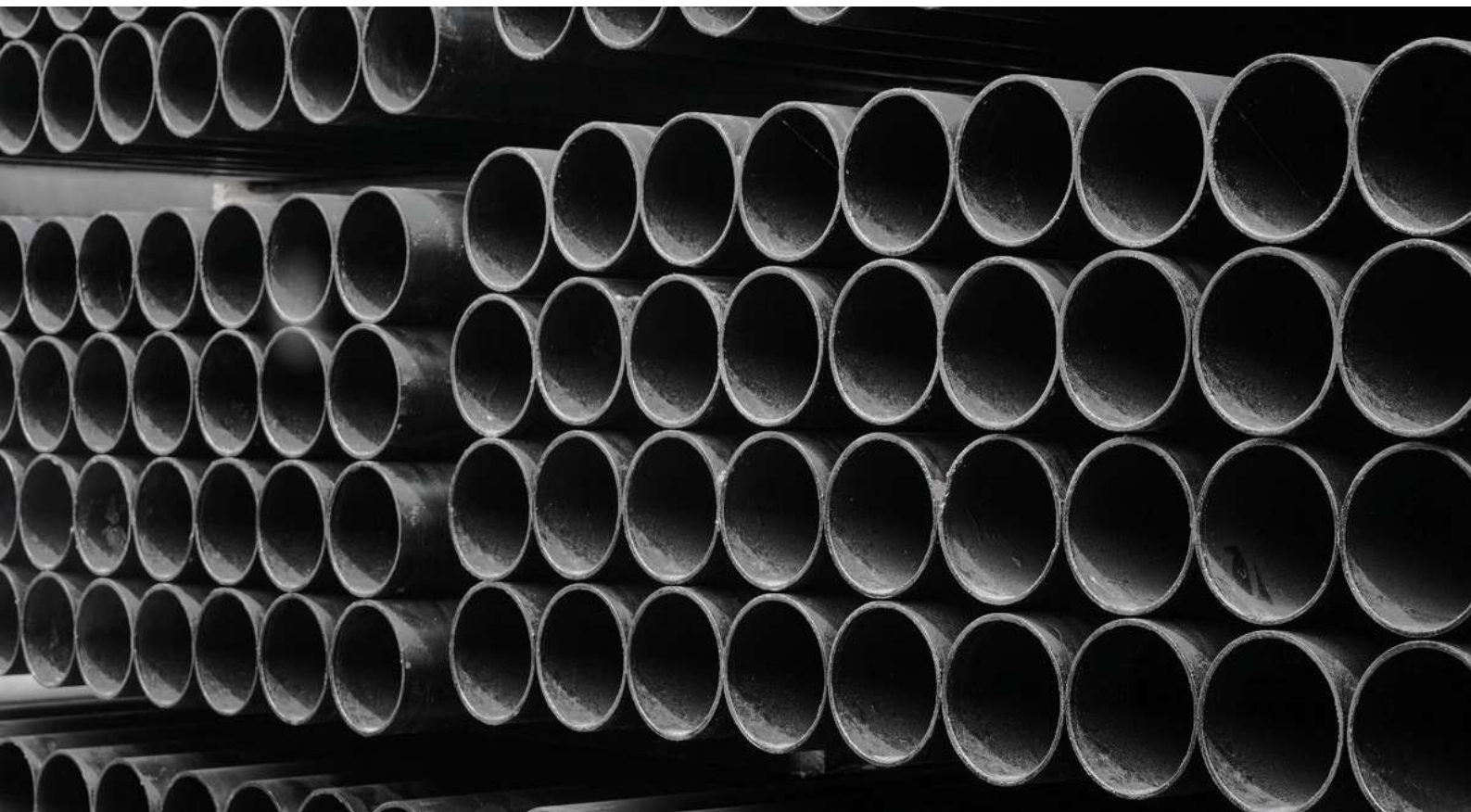
The wide range of fittings available makes it easy to meet any design. Optional color coating available. Strong technical and logistics support, including supply and installation.

# Sizes

Kee safety components are produced in a range of standard sizes to suit steel tubing to BS EN 10255 (ISO 65), medium and heavy gauge, from 13.5mm to 60.3mm outside diameter; also equivalent sizes of tubing in other materials.

Tubing of other specifications can be used, providing the steel is compatible with BS EN 10255 (ISO 65) and wall thickness is not less than 3.2mm.

Tube size	Tube Diameter mm old	Nominal Bore mm in
7	42,4	32 11/4"
8	48,3	40 11/2"
9	60,3	50 2"



# Components and Fittings



**101**

SHORT TEE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	30			
T	21.3	35			
A	26.9	41			
B	33.7	46			
C	42.4	60			
D	48.3	68			
E	60.3	84			



**104**

LONG TEE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	30	60		
A	26.9	41	82		
B	33.7	46	92		
C	42.4	60	120		
D	48.3	68	136		
E	60.3	84	168		



**116**

3 WAY THROUGH

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	30			
T	21.3	35			
A	26.9	40			
B	33.7	48			
C	42.4	60			
D	48.3	68			
E	60.3	86			



**116A**

ADD-ON 3 WAY THROUGH

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
D	48.3	88			



**119**

2 SOCKET CROSS

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
T	21.3	70			
A	26.9	80			
B	33.7	96			
C	42.4	120			
CD	42.4/48.3	122			
D	48.3	135			
E	60.3	168			



**123**

VARIABLE ELBOW  
40-70 DEG

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
D	48.3	120	134		



**124**

VARIABLE ELBOW  
15-60 DEG

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	40			
C	42.4	47,5			
D	48.3	44			



**125**

90 DEG ELBOW

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	30			
T	21.3	35			
A	26.9	41			
B	33.7	46			
C	42.4	60			
D	48.3	68			
DC	48.3/42.4	68/60			
E	60.3	84			



**125H**

VARIABLE ELBOW

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	62	27,2		
C	42.4	75	31,7		
D	48.3	85	34,7		





**126**

ANGLE CROSS  
30-45 DEG

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
C	42.4	190			
D	48.3	218			



**127**

ANGLE TEE 30-45  
DEG

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	119			
C	42.4	147			
D	48.3	164.5			



**128**

3 WAY ELBOW

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	30			
T	21.3	35			
A	26.9	40			
B	33.7	48			
C	42.4	60			
D	48.3	68			
E	60.3	85			



**130**

ADJUSTABLE  
CROSS 30-45 DEG

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	14.5	147		
C	42.4	16.5	199		
D	48.3	16.5	217		



**131**

BASE FLANGE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
T	21.3	32	74	55.5	
A	26.9	42	83	57	
B	33.7	48	89	65	
C	42.4	50	102	76	
D	48.3	59	114	88.5	
E	60.3	64	127	95	



**132**

RAILING BASE FLANGE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	72.5	50	40	47
A	26.9	105	65	52	76
B	33.7	125	73	60	89
C	42.4	138	88	70	101
D	48.3	150	95	80	114
E	60.3	170	102	92	127



**133**

PLASTIC END CAP

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	26	34		
C	42.4	30	42,5		
D	48.3	31	48		
E	60.3	26	60		



**134**

GROUND SOCKET

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A		105	105		
B	33.7	123	127		
C	42.4	136	140		
D	48.3	136	140		



**135**

CLAMP ON TEE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	50			
B	33.7	53			
C	42.4	67			
D	48.3	77			
E	60.3	90.5			



**136**

ADD ON TEE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	53.5	52		
C	42.4	61.4	60		
D	48.3	67	69		



**137**

CROSSOVER  
90 DEG

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	53.5	41		
C	42.4	61.4	50		
D	48.3	67	55		



**138**

GATE EYE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	30	25	14	
B	33.7	33	25	14	
C	42.4	38	25	14	
D	48.3	41	25	14	



**140**

GATE HINGE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	30	25	14	
B	33.7	33	25	14	
C	42.4	38	25	14	
D	48.3	41	25	14	



**143**

HANDRAIL  
BRACKET

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	39	32	45	
A	26.9	55	44	57	
B	33.7	57	44	62	
C	42.4	63	44	76	
D	48.3	67	50	82,5	



**144**

RAILING SIDE  
SUPPORT VERTICAL

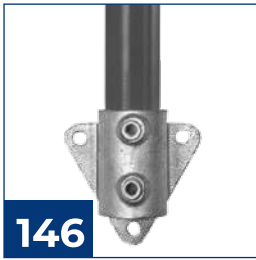
TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	104	96	65	
C	42.4	112	110	64.5	
D	48.3	120	123	65	



**145**

RAILING SIDE  
SUPPORT  
HORIZONTAL

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	102	67	57	
C	42.4	111	73	64	
D	48.3	119	89	73	



**146**

SIDE PALM FIXING

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	76	71	24	63
C	42.4	83	82	28	72
D	48.3	89	86	31	78



**147**

INTERNAL SWIVEL  
TEE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	23	29	34	
C	42.4	26	37	42	
D	48.3	30	42	48	



**148**

SHORT SWIVEL TEE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	53	37	42	
B	33.7	59	46	48	
C	42.4	73	55	58.5	
D	48.3	93	60.5	78	
E	60.3	110	73	93.5	



**149**

SLEEVE JOINT

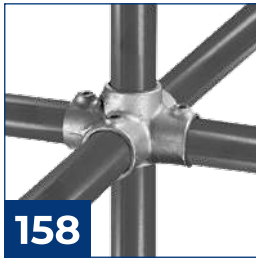
TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	60			
A	26.9	76			
B	33.7	89			
C	42.4	102			
D	48.3	102			
E	60.3	120			



**150**

INTERNAL JOINT

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	76	22		
B	33.7	78	20		
C	42.4	78	20		
D	48.3	78	20		



**158**

4 WAY CROSS

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
T	21.3	35			
A	26.9	41			d
B	33.7	46			
C	42.4	60			
D	48.3	68			



**161**

CROSSOVER  
90 DEG

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	38	31.5		
B	33.7	41	38.5		
C	42.4	50	45		
D	48.3	50	55		
E	60.3	64	61		



**165**

COMBINATION  
SOCKET

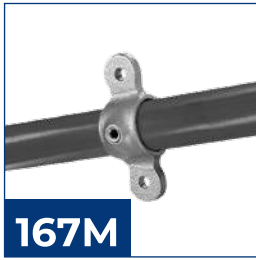
TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	35	40		
B	33.7	40	48		
C	42.4	50	60		
D	48.3	56	67		



**167**

DOUBLE SWIVEL  
COMBINATION

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	76	58.5		
B	33.7	86	61		
C	42.4	95	69		
D	48.3	100	77		
E	60.3	124	90.5		



**167M**

DOUBLE MALE  
SECTION OF  
SWIVEL

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	76	58.5		
B	33.7	86	61		
C	42.4	95	69		
D	48.3	100	77		
E	60.3	124	90.5		



**168M**

90 DEG CORNER  
SWIVEL MALE  
SECTION

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	38			
B	33.7	43,5			
C	42.4	48			
D	48.3	53			
E	60.3	62			



**169**

SWIVEL BASE  
FLANGE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	32	58,5		
B	33.7	32	61		
C	42.4	32	69		
D	48.3	32	77		
E	60.3	32	95		



**169M**

MALE SWIVEL  
LOCATING FLANGE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
M		112	32	85	51
A	26.9	111	40	81	46
B	33.7	112	32	85	52
C	42.4	112	32	85	52
D	48.3	112	32	85	52



**170**

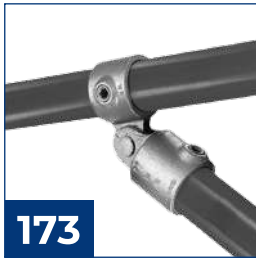
SINGLE SIDED  
MESH PANEL

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	22	25		
B	33.7	25	28		
C	42.4	25	33		
D	48.3	25	35		
E	60.3	25	40		



**171**  
DOUBLE SIDED  
MESH PANEL

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	22	25		
B	33.7	25	28		
C	42.4	25	33		
D	48.3	25	35		
E	60.3	25	40		



**173**  
SINGLE SWIVEL  
COMBINATION

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	26	41		
A	26.9	38	58.5		
B	33.7	43.5	61		
C	42.4	47	69		
D	48.3	53	77		
E	60.3	62	90.5		



**173F**  
FEMALE SECTION  
OF SWIVEL

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	61	38	11.2	
B	33.7	61	38	11.2	
C	42.4	69	46	11.2	
D	48.3	77	55	11.2	
E	60.3	90.5	63	11.2	



**173M**  
SINGLE MALE  
SECTION OF SWIVEL

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A	26.9	40	38		
B	33.7	43.5	38		
C	42.4	48	44.5		
D	48.3	53	44.5		
E	60.3	62	50.5		



**176**  
SIDE OUTLET TEE

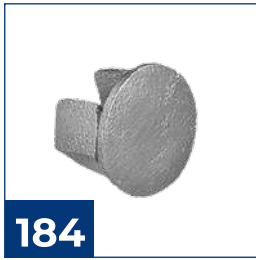
TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
T	21.3	35			
A	26.9	40			
B	33.7	46			
C	42.4	60			
D	48.3	68			
E	60.3	84.5			



**182**

HOOK

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	22,5	25		
A	26.9	32	25		
B	33.7	34	25		
C	42.4	39	25		
D	48.3	41	25		



**184**

PLUG

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S		17,2			
A	26.9	27,5			
B	33.7	26,5			
C	42.4	29,4			
D	48.3	28			
E	60.3	38			



**185**

EAVES FITTING

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A		55	60		
C		82	80		
D	48.3	94	83		



**191**

RIDGE FITTING

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
A		52	30		
C		72	36		
D	48.3	70	39.5		



**198**

DOUBLE SIDED  
FIXING BRACKET

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
S	17.2	18	65	47	
A	26.9	35	128	94	
B	33.7	30	120	86	
C	42.4	33	130	95	
D	48.3	35	140	104	





**199**

ADJUSTABLE  
FIXING BRACKET

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
B	33.7	30	43		
C	42.4	33	47.5		
D	48.3	35	52		



**247**

FLANGE WITH  
TOEBOARD  
ADAPTOR

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
C	42.4	162	90		
D	48.3	162	90		



**252**

SLOPE BASE  
FLANGE

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
D	48.3	126	172	65	101



**252Z**

BASE FLANGE  
11-29 DEG

TYPE	TUBE SIZE (mm)	DIMENSIONS(mm.)			
		a	b	c	d
D	48.3	127	165	92	88



**97**

SET SCREW



**99**

HEXAGON KEY

# International Standards

360 Newtons per metre run (N/m)

Industrial Use

740 Newtons per metre run (N/m)

Commercial Use

1500 Newtons per metre run (N/m)

Retail / Public Access

Tube size	6 3.2 mm	7 3.2 mm	7 4 mm	8 3.2 mm	8 4 mm	8 5 mm	9 3.65 mm	9 4.5 mm
Grade	BS EN 10255 medium	BS EN 10255 medium	BS EN 10255 heavy	BS EN 10255 medium	BS EN 39	EN 10210 S355 JOH	BS EN 10255 medium	BS EN 10255 heavy
<b>Design lead criteria Upright Height 900mm</b>								
<b>360 N/m</b>	814mm (4.44KN)	1369mm (6.52KN)	1595mm (7.60KN)	1828mm (7.73KN)	2564mm (10.92KN)	3052mm (12.90KN)	3652mm (13.80KN)	3652mm (14.75KN)
<b>740 N/m</b>	396mm (4.44KN)	666mm (6.52KN)	776mm (7.60KN)	889mm (7.73KN)	1257mm (10.92KN)	2229mm (12.90KN)	1588mm (13.80KN)	1876mm (14.75KN)
<b>1500 N/m</b>	195mm (4.44KN)	329mm (6.52KN)	383mm (7.60KN)	439mm (7.73KN)	820mm (10.92KN)	1100mm (12.90KN)	784mm (13.80KN)	925mm (14.75KN)
<b>Design lead criteria Upright Height 1000mm</b>								
<b>360 N/m</b>	732mm (4.44KN)	1232mm (6.52KN)	1435mm (7.60KN)	1645mm (7.73KN)	2326mm (10.92KN)	2930mm (12.90KN)	2939mm (13.80KN)	3470mm (14.75KN)
<b>740 N/m</b>	732mm (4.44KN)	1232mm (6.52KN)	1435mm (7.60KN)	1645mm (7.73KN)	2326mm (10.92KN)	2930mm (19.36KN)	2939mm (13.80KN)	3470mm (14.75KN)
<b>Design lead criteria Upright Height 1100mm</b>								
<b>360 N/m</b>	666mm (4.44KN)	1120mm (6.52KN)	1305mm (7.60KN)	1496mm (7.73KN)	2114mm (10.92KN)	2778mm (14.35KN)	2671mm (13.80KN)	3155mm (14.75KN)
<b>740 N/m</b>	324mm (4.44KN)	545mm (6.52KN)	635mm (7.60KN)	728mm (7.73KN)	1028mm (10.92KN)	1824mm (19.36KN)	1300mm (13.80KN)	1535mm (14.75KN)
<b>1500 N/m</b>	160mm (4.44KN)	269 mm (6.52KN)	313mm (7.60KN)	359mm (7.73KN)	507mm (10.92KN)	900mm (19.36KN)	641mm (13.80KN)	757mm (14.75KN)

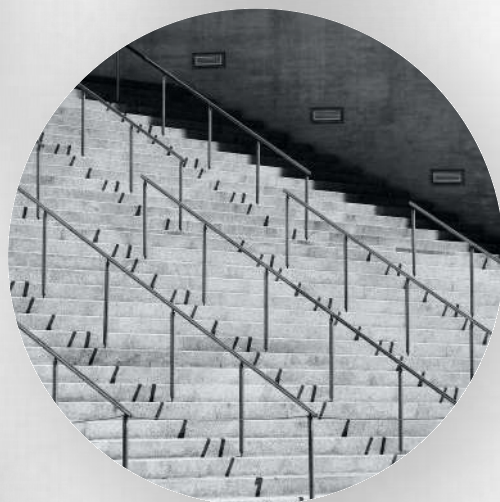
Base upon rail diameter being the same as the upright but using BS EN 10255 medium wall tubing.

Design Loads are as stated in BS 8118, BS 6180, BS 6399 & BS 7818.

## Notes

- The table is based on the maximum permissible bending moment of the tube.
- All rails are the same tube size as uprights but in BS EN 10255 medium grade tube.
- Where tube is to be used to form ground sockets:  
 Tube size 6 fits inside tube size 7 medium grade only.  
 Tube size 8 fits inside tube size 9 all grades.

# ITCC



+966 12 2889198  
+966 12 2885935



10374 Jeddah 21433



[sales@itcc-group.com](mailto:sales@itcc-group.com)



[www.itcc-group.com](http://www.itcc-group.com)