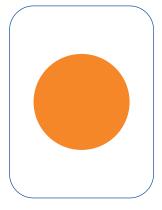
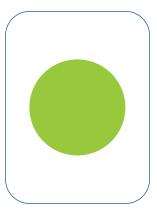


Highways
Street Lighting
and



Traffic Signal Products





Highways Brochure - 2nd Edition

Here is the second edition of the Ritherdon Highways, Street Lighting and Traffic Signals Products brochure. We have modified the layout slightly, including page numbers, to make it easier to find what you're looking for. Also we have many new photographs, taken by Jeff Kay of Digigraphix, to make some of the product details more clear.

While many of our popular products will be familiar from the last edition of our brochure, there are two new additions to this second brochure:

- the RB cabinets with their hidden, wide-opening hinges plus their accessory kits (page 16);
- the two-door, aluminium counter cabinet Ritherdon quality for an established cabinet (page 20);

There is also a new Technical Section on page 6 in which we have gathered lots of information on the performance of the different grades of stainless steel we use in our enclosures. This has been added to help you choose the best enclosures for your requirements.

Finally, as we are proud that Ritherdons is such a long-established, family business, we've added a short history of the company below. We hope you enjoy this introduction along with the rest of the new brochure.



Early staff photo circa 1900. Percy Ritherdon is on the left.

The History of Ritherdon & Co Ltd

Our company was founded by the Managing Director's grandfather, Percy Ritherdon, in Bolton in 1895. Probably due to Percy's interests in chemistry and magic, the company initially concentrated on electro-plating, but also on making tricks for magicians; a rather unconventional range of products.



In the early 20th century, Ritherdons began to produce more sheet metalwork with "The renowned "Ritho" Steel and Non-Ferrous Products" being advertised in 1929 (electro-plating was gradually phased out through the 1980s and 90s as part of ongoing efforts to reduce our environmental impact).

We moved to our present factory in Lorne St, Darwen in 1947 and our expertise in manufacturing cabinets, control panels and other specialist sheet metalwork took off through the mid 20th century.





Early Ritherdon Pillars

Following enquiries from some of our customers for street-level enclosures, we produced our first feeder pillars in the late 1990s and, with our preference for supplying high quality products, we proposed stainless steel as the material. After lots of initial consultation with local authority engineers, we developed our first range of stainless steel feeder pillars (see page 4 for more of the story).

We are now well established across the UK highways and street lighting industries and are still manufacturing all our own products in Lancashire, after 116 years.





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Pioneering Stainless Steel Feeder Pillars



For many years galvanized mild steel was the usual material for roadside feeder pillars. It had a limited lifespan (the pillars needed replacing after about 25 years) and tended to look unsightly for some time before that. However, being a cheap material, there was little alternative, except at more prestigious installation sites.

After developing much more efficient production systems and bringing the cost of pillar manufacture right down, Ritherdon & Co was the first to introduce a standard range of stainless steel feeder



pillars and cabinets. This meant that these superior products finally became available to the UK road traffic and lighting industries (for all sites).

At one of our first appearances at the Traffex exhibition, while we were still relatively new to this industry, one of the longer-established pillar manufacturers told us that we would never sell many of our stainless steel pillars. However, by listening to the requirements of our customers (rather than our competition) and developing our pillars and cabinets to help them, we now make and sell several thousand a year.



Ritherdon Enclosures - GETTING BEST VALUE



Over the life of a stainless steel enclosure, the cost of using stainless rather than galvanized mild steel is much lower when replacement costs are taken into account.

Although a stainless steel product may cost a little more than its galvanized counterpart, this cost is dwarfed by the typical reconnection charge that is required when the galvanized pillar needs to be replaced.



Features and benefits

The Ritherdon range of stainless steel traffic signal enclosures gives you all the following features and benefits compared with galvanized mild steel products:

Highly resistant to corrosion	-	Much longer life, giving you a lower total cost of ownership and reducing the carbon footprint of production and installation.
	-	Remain aesthetically pleasing - no rust.
	-	Removes the environmental impact of the galvanizing process.
Closer manufacturing	-	Better sealing against the weather and dust.
tolerances	-	Better-looking products.
Powder coated (when required)	-	A much smoother finish than with galvanized products (including a broad choice of colours to suit your local environment).
Thinner gauge metal possible*	-	Enclosures are lighter, making for easier and safer handling during installation, while maintaining integrity after minor collisions.

^{*}There is no need to add extra thickness purely for the galvanizing process.

Ritherdon Enclosures - INNOVATION AND DEVELOPMENT



Enclosure design is continually evolving at Ritherdons in response to industry needs. The development of the new RB range of cabinets is a good example of this customer-led improvement at Ritherdon & Co. The new RB cabinets are included on pages 16 to 19.

Call +44 (0)1254 819100 to discuss how Ritherdons can help with your enclosure projects



Technical Information on Stainless Steel

Choice of materials

At Ritherdons there is a choice of 3 standard grades of stainless steel, depending on the application for the enclosure:

Grade	Alternative names	Class of Stainless
4003	Utility grade, 3Cr12	Ferritic
304	1.4301	Austenitic
316	Marine grade, 1.4401	Austenitic

	4003	304		316	
Applications	*powder coated	powder coated	natural	powder coated	natural
Typical urban and rural environments	√	√	√	√	√
More corrosive, marine or certain industrial environments.		√		√	√

^{*}If left unpainted the surface of 4003 stainless steel can become discoloured in certain environments (though it's easily cleaned off, if it occurs) and so we only supply 4003

Predicted service life of stainless steel

These data on corrosion rates from the web suggest that our stainless steel pillars should last many thousands of years! It's not *quite* that good.

	Corrosion Rate μm/year				
	*304	*mild steel			
Rural	0.0025	0.0025	0.2-3.0	*5.8	
Marine	0.0076	0.0076	0.5-8.0	*34- [!] 178	
Marine industrial	0.0076	0.0051		*46	
Urban			2.0-16		

So, for example, a 60 micron coating of zinc on a galvanized feeder pillar would only last between 4 and 30 years before rapid corrosion of the underlying mild steel; whereas these figures suggest a pillar made from 304 stainless would lose only 0.2 microns (1000ths of a mm) in that time.

From Farro et al Mild Steel Marine Corrosion



^{*} From Action Stainless (fangalo.co.za)

⁺ From Principles of Corrosion Engineering and Corrosion Control. Z. Ahmad.

However, while the figures in the table are reasonable for zinc, which corrodes relatively evenly over its surface, stainless steel corrosion occurs in a very localised way, in microscopic pits, if corrosive ions are allowed to accumulate. These are some predicted figures (extrapolated from experimental results) for pit penetration times from the British Stainless Steel Association website (www.bssa.org.uk/topics.php?article=51):



	Estimated time (years) to penetrate 1 mm by steel type			
	304 316			
Rural	770	1200		
Semi-industrial	135 525			
Marine	145 260			

These figures still suggest that our 2 mm stainless steel pillars will have service lives measured in centuries, rather than a decade or so.

Experimental results from long term trials at a marine research station in the United States indicate equally long lives and maintained appearance for our pillars and cabinets.

A long term study at Kure Beach, California (a warm, marine environment) showed no measurable pitting(<0.01 mm) of unpainted 304 and 316 stainless steel after 15 years.

(Baker and Lee, 1988, Degradation of Metals in the Atmosphere).

Just like 304 and 316 the corrosion rates for 4003 stainless are also several orders of magnitude lower than zinc and mild steel.



Finally, because, when it does occur, stainless steel corrosion takes place in microscopic traps for ions such as chloride, our pillars and cabinets are designed with simple, flat surfaces and minimal crevices to encourage rain washing which removes these harmful ions.





Many options are provided for Ritherdon enclosures. Check the product pages or ring us (01254 819100) to see which options are available for each enclosure. Standard and non-standard options are indicated in the tables for each product range.

Colours

Natural (unpainted)

Light grey

Dark grey

Dark green

Black

Any other, non-standard colour



Anti graffiti powder coating

Save time and money by ordering your stainless steel street furniture with a strong, durable powder coated finish that has anti-graffiti properties.

- Graffiti can be easily removed with mild, non-toxic cleaner.
- Available in four, standard street furniture colours.
- The colour does not fade under sunlight exposure.
- Enclosures are supplied pre-coated, so no contractors are required on site.
- Life expectancies are in excess of 15-20 years, under normal working conditions, when applied to stainless steel.
- Outlasts other, two-pack, anti-graffiti coatings by nearly three times.
- An environmentally friendly product, without dangerous chemicals such as cyanide.







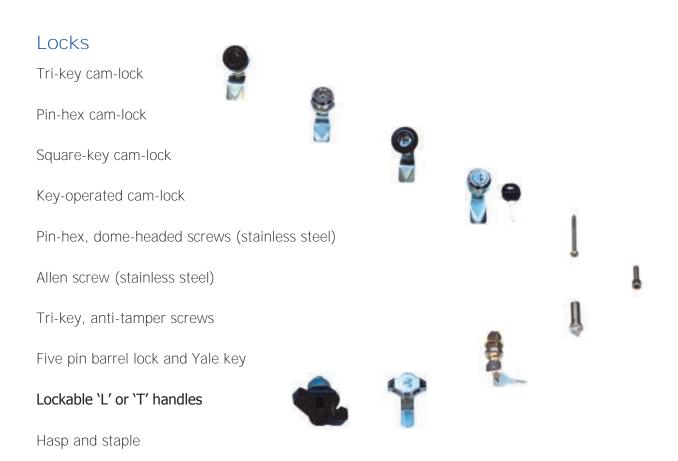
Materials

The standard material for most of the products in the brochure is one of the three grades of stainless steel described on page 6 (4003, 304 or 316). However, it is relatively straight forward to change the material for any of our enclosures, following technical substantiation on strength, dissimilar metals etc.

We stock many other types of sheet and can procure any unusual materials at quite short notice.

Common alternatives to stainless include:

- Aluminium (see the Two Door Cabinet on page 20),
- Other grades and finishes of stainless steel such as bright annealed,
- Galvanized mild steel.





Backboard materials

We make most of our backboards from one of the following three materials:

- Plywood
- Steel
- Aluminium

However we can work with most sheet if a special material is required.

Pre-wiring service



Founded on its long experience working with the regional electricity companies, Ritherdon & Co is able to supply and fit the following types of equipment with our highways enclosures:

- Electrical termination equipment,
- Forced cooling systems,
- Lights,
- Heaters etc.

This means that Ritherdon pillars and cabinets really can be supplied ready for installation, saving you the time involved in sourcing and fitting internal components.





Enclosure Selection Matrix

Width mm	Depth mm	*Height mm	Backboard Area m²	Enclosure	Page no.
90	50	400	n/a	BT Peg - slim	23
150	50	400	n/a	BT Peg - wide	23
150	150	550	0.08	ER150	12
150	150	710	0.09	R150	13
200	100	400	0.05	R200 mini	13
200	150	480	0.07	BT Pillar - small	24
200	150	630	0.12	BT Pillar - large	24
200	200	710	0.12	R200	13
210	170	710	0.09	RH210	15
300	180	342	0.05	RB300 wall	17
300	150	710	0.18	R300	13
300	170	710	0.16	RH300	15
400	170	710	0.22	RH400	15
460	230	710	0.29	R460	13
460	260	1000	0.35	RB460	17
460	320	915	n/a	2 Door Cabinet	20
500	170	710	0.27	RH500	15
600	330	1000	0.47	RB600	16
620	300	710	0.33	Gen/Mains	28
620	300	1000	0.52	R620	22
730	425	920	0.47	CCTV Cabinet	26
730	425	1200	0.72	Traffic Cabinet	26
800	380	1200	0.79	RB800	17
1000	380	1200	1.0	RB1000	17
1250	460	1125	1.2	RB1250	17
1550	460	1125	1.5	RB1550	17

^{*} installed height





Feeder Pillars

The Ritherdon Feeder Pillars are designed with an integral root and body and with a detachable door.

Access for cable ducting is provided through the lower front section of the pillar, plus duct apertures in the sides and back of the root. An earth cable is provided for bonding the door to the body, with two M6 studs complete with nuts and washers.

The base plate is designed to provide stability during installation and protrudes at both the front and sides. To permit installation close to a wall the rear edge of the base plate is welded flush with the rear panel of the pillar body. And to ensure installation at the optimum depth a suggested ground level is marked on the outer faces of the pillar.

To deter unauthorised entry, and in the interest of hygiene, the door is secured at the top with one stainless steel Allen screw, 25 mm long.

We manufacture all our standard pillars from 2.0 mm thick stainless steel, either in the natural stainless steel finish or with a powder coated finish. All pillars are supplied with an external-grade, plywood backboard for the fitting of electrical equipment.





The Utility Pillar - ER150

The Utility Pillar is simpler and lighter than our standard range and is available only in the popular 150 mm x 150 mm size.

It offers a highly cost-effective pillar for situations where the enhanced appearance of the standard "R" range is not required, while still retaining the superior appearance and corrosion resistance of stainless steel over galvanized alternatives.

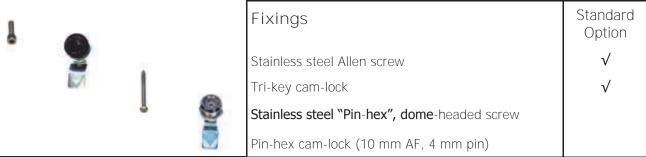


Feeder pillar dimensions and options

Pillar	Width mm	Depth mm	Overall height* mm	Base plate mm	Backboard mm
ER150	150	150	900	175 x 300 ⁺	140 x 600
R150	150	150	1060	230 x 190	130 x 650
R200 mini	200	100	750	280 x 140	180 x 300
R200	200	200	1060	280 x 240	180 x 650
R300	300	150	1060	380 x 190	280 x 650
R460	460	230	1060	540 x 270	440 x 650

 $^{^{\}star}$ subtract ~350 mm for burial depth to give the installed height

the ER150 has a different design of 'root' to the other pillars (see photo)



Colour/finish	Standard Option
Natural	√
Dark Grey	√
Light Grey	√
Dark Green	√
Black	√
Anti-graffiti coating	
Any other specified colour	







Body	Standard Option
External grade plywood backboard	√
Metal (e.g. zintec, aluminium, s/steel) backboard	

Pre-wired (specs. provided by customer)	s. provided by customer)
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Hinged Door Pillars

Just like the Ritherdon feeder pillars, our hinged door service pillars are available with an integral root.

Access for cable ducting is provided through the lower front section of the pillar or the root. A length of wire provides earth bonding of the door to the body using M6 studs complete with nuts and washers.

The door, which is flush with the body, is attached with a full-length stainless steel continuous hinge and has a watertight neoprene gasket.

New feature - with an improvement in the fabrication of the RH range, we have managed to increase the length of the door opening to 618 mm with a corresponding increase in the length of the back board to 580 mm (RH210 = 490 mm).

The unit is designed and manufactured to withstand moderate forced entry. To ensure a long service life the pillars are normally manufactured from 2 mm thick stainless steel and are available with a powder coated finish.

Ritherdon Enclosures - DELIVERY

We can deliver larger quantities of pillars within a few days, if you have a large project planned or you want to keep a stock of our pillars.

Or, we can effectively be your stores and supply pillars as and when you want them - usually within 48 hours, for pillars with standard options.



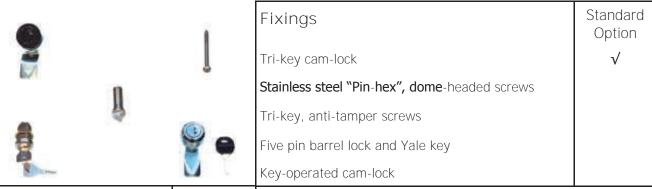


Hinged door pillar dimensions and options

Pillar	Width mm	Depth mm	Overall height* mm	Base plate mm	Backboard mm
RH210 ⁺	210	170	1060	290 x 220	180 x 490
RH300	300	170	1060	380 x 210	280 x 580
RH400	400	170	1060	480 x 210	380 x 580
RH500	500	170	1060	580 x 240	470 x 580

^{*} subtract ~350 mm for burial depth to give the installed height.

⁺ Please note: check stock availability before ordering as certain sizes are manufactured to order.



Colour/finish	Standard Option	
Dark Grey	√	
Light Grey	√	
Dark Green	√	
Black	√	
Anti-graffiti coating		
Any other specified colour		





Body	Standard Option
External grade plywood backboard	√
Metal (e.g. zintec, aluminium, s/steel) backboard	

Pre-wired (specs. provided by customer)	
---	--



NEW PRODUCT -

RB Cabinet Range

Block hinges are often needed by the highways industry for their extra strength, to make door removal easier and for >180 degree opening. To address these requirements we have recently developed a new hinge system (for the new RB range) which has all of these benefits, but without the unsightly cut outs in the door and/or body of the cabinet.

We believe that the door:body interface on our RB cabinets adds even more to the superior appearance of our stainless steel

enclosures over the alternatives on the market. And this is without any functional compromise, as the mechanical properties of the cabinets have been improved too.

The RB Cabinets can be supplied with a detachable plinth which is installed in the ground before fastening the cabinet down. Alternatively, the cabinets can be fixed down to any hard, flat surface, without the plinth.



Ritherdon Enclosures - THE RB HINGE SYSTEM

	RB Hinge	Block Hinge
Extra strength	\checkmark	\checkmark
>180° opening	\checkmark	\checkmark
Simple removal of the door	\checkmark	\checkmark
Ugly cut-outs/notches in the door and body	NO	\checkmark
Externally invisible hinge mechanism	\checkmark	NO

Meets all the specifications of the traditional block hinge, except for the unsightly notches in the door.



RB cabinet dimensions

Cabinet	Width mm	Depth mm	Max height mm	Backboard mm	No. of doors
RB300 Wall Mounted	300	180	342	210 x 250	single
RB460	460	260	1000*	410 x 850	single
RB600	600	330	1000*	550 x 850	single
RB800	800	380	1200*	750 x 1050	single
RB1000	1000	380	1200*	950 x 1050	single
RB1250	1250	460	1125*	1200 x 975	double ⁺
RB1550	1550	460	1125*	1500 x 975	double ⁺

^{* 3°} slope to back of cabinet; excluding plinth height of 300 mm

⁺ Doors seal against each other without the need for a vertical bar, therefore saving space.









Mechanical strength of the RB hinge

A yield strength for 304 stainless steel of 205 MPa*, and the 8 mm hinge pin being pulled through the 2 mm thick door and body, gives a conservative estimate of **over 3 tonnes of force** required to break the hinge.

^{*} W D Callister, 2000. Materials Science and Engineering an Introduction.



RB cabinet options



Fixings	Standard Option
Tri-key cam-lock	√
Stainless steel Allen screws	
Stainless steel "Pin-hex", dome-headed screws	
Lockable, L or T handles	
Pin-hex cam-lock	
Key-operated cam-lock	
Hasp and staple	

Colour/finish	Standard Option
Natural	\checkmark
Dark Grey	\checkmark
Light Grey	\checkmark
Dark Green	\checkmark
Black	\checkmark
Anti-graffiti coating	
Any other specified colour	







Body	Standard Option
External grade plywood backboard	√
Metal (e.g. zintec, aluminium, s/steel) backboard	
Plinth	
Termination rails (fitted across the root)	

Pre-wired (specs. provided by customer)

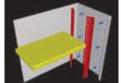


RB cabinet internal accessory kits

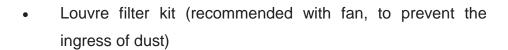
The other new feature of the RB Cabinet is that the internal, modular design permits the fitting of a range of extra equipment, from shelves and partitions to climate control equipment etc. This means that cabinets with extra features don't have to be specially made - reducing lead times and cost.

The kits can be supplied loose, pre-installed, or ordered and retrofitted at a later date.

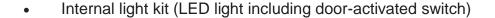
Shelf kit (inc. mounting brackets and required number of shelves)

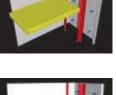


- 11 " or 19" rack unit
- Partition
- Glanding bars
- Cooling fan kit

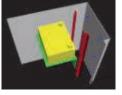


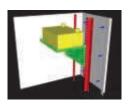












Contact the Sales Team for more details on the accessory kits - 01254 819100



NEW PRODUCT •

Two Door Cabinet



This Ritherdon enclosure is based on the cabinet frequently seen at the road side and typically used to hold traffic counting equipment.

However an enclosure with a door on both faces and two shelves gives plenty of access and space for the secure storage of any type of electrical and/or electronic equipment.

Ritherdons often supply the Two Door Cabinet with the electrical supply equipment (consumer unit, isolator etc.) pre-installed, which can also include items such as heaters to protect electronics against condensation.

The two door cabinet is 'traditionally' manufactured in aluminium. But there is no reason not to request it in any other metal for other applications. For example, aluminium is lighter but stainless steel, like our other cabinets, would give extra strength.



Ritherdon Enclosures - PRECISION MANUFACTURING

The closer manufacturing tolerances on Ritherdon pillars and cabinets means that they are better sealed than many enclosures on the streets.

This gives better protection from dust and water to the equipment being housed and also means a better looking product.



Two door cabinet dimensions and options

	Width mm	Depth mm	Height mm
Cabinet	460	320	915
Plinth	460	280	300

Fixings	Standard Option
Compression-type, tri-key cam-lock	√

		Compression type, an key dam leak
Colour/finish	Standard Option	
Dark Grey	√	
Light Grey	√	
Dark Green	√	
Black	√	
Anti-graffiti coating		
Any other specified colour		

Body	Standard Option
Plinth	

Pre-wiring options

Consumer unit with 2 MCBs

RCD/RCBO

Cut-out

Tubular heater

Thermostat and metal-clad sockets

Two double metal-clad sockets

Tails and earthing







R620 Cabinet

The original R range of Ritherdon cabinets has been replaced by the RB range with its associated mechanical and aesthetic improvements. However, the R620 is being continued, at least in the short term, as it is such a popular enclosure and several of our customers have established uses specifically for this cabinet.

However, we'd recommend looking at the RB600 or RB800 first as the R620 is likely to be gradually phased out as a standard product.

Width mm	Depth mm	Height mm	Backboard mm
620	300	1000	600 x 860

Ritherdon R620 Cabinets are constructed with a detachable root and include hinged doors that are sealed with a neoprene gasket. Cabinets can be bolted down onto a suitable surface, or attached to a buried plinth that can be ordered separately. Access for cable ducting is provided through the lower front section of the cabinet or root. An earth cable is provided for bonding the doors to the body, with two studs complete with nuts and washers.

The complete unit is manufactured from 2 mm thick stainless steel and all cabinets are supplied with a full width external grade plywood backboard for the fitting of electrical termination equipment.

R620 cabinet options

The options available for the R620 are the same as those for the RB range on pages 18 and 19. The internal accessory kits usually have to be fitted in the factory.





Application-Specific Enclosures

Our standard ranges of pillars and cabinets in pages 12-22 are suitable for a huge variety of applications (from housing simple power supplies to protecting sophisticated electronic equipment), particularly if you take advantage of features like the shelf kits and other accessories for the RB cabinets (page 19). However, it is necessary in some traffic control situations to use enclosures of a particular shape and size and this section contains a group of cabinets and pillars that have evolved for specific applications.



BT Termination Peg

The Ritherdon stainless steel BT Termination Peg is a replacement for existing corroded "Pegs" which are usually located next to the signal controller cabinets.

The units are manufactured in two sizes, each with a modified flange for easier routing of the conduit into the base of the termination post. They are powder coated grey and include a neoprene lining and plastic fascia.

Replacement caps can be purchased separately from the bodies.

BT Termination Peg dimensions and options

	Width mm	Depth mm	Overall height* mm
PEGSLIM	90	50	800
PEGWIDE	150	50	800

^{*} subtract ~400 mm for burial depth to give the installed height

- Colour standard grey
- Fixing standard BT type tri-key fixing screws



BT Communications Pillar



The Ritherdon BT Communications pillar is designed for housing remote monitoring equipment safely away from the signal controller. It is an ideal solution to allow telecommunications engineers to test their equipment without entering the signal controller cabinet.

Access for cable ducting is provided through the lower front section of the pillar. A length of wire provides earth bonding of the door to the body using M6 studs complete with nuts and washers.

The unit is designed and manufactured to withstand moderate forced entry, and to ensure a long service life the pillars are manufactured from 2 mm thick stainless steel. Two different heights of pillar are available.

BT pillar dimensions

	Width mm	Depth mm	Overall height* mm	Base plate mm	Backboard mm
BT PILSM	200	150	800	280 x 140	180 x 400
BT PILLRG	200	150	950	280 x 140	180 x 650

^{*} subtract ~320 mm for burial depth to give the installed height

Ritherdon Enclosures - STRENGTH





Left: a rather unconventional pillar strength test to show that 2 mm is strong enough for most applications.

Right: something else usually gives before a Ritherdon pillar.





BT Communications Pillar options



Fixings	Standard Option
Tri-key cam-lock	√
Tri-key, anti-tamper screws	√
Square-key cam-lock	√

Colour/finish	Standard Option
Dark Grey	\checkmark
Light Grey	\checkmark
Dark Green	√
Black	√
Anti-graffiti coating	
Any other specified colour	





Body	Standard Option
External grade plywood backboard	√

Pre-wired (specs. provided by customer)

Ritherdon Enclosures - POWDER COATED STAINLESS STEEL

With no rough zinc coating to cover, powder coating on stainless gives a very smooth finish and a much neater pillar or cabinet than using galvanized steel





CCTV / Traffic Termination Cabinet

- Tough vandal resistant stainless steel 2 mm thick with fully welded seams and removable base.
- Large stainless steel base plate on separate plinth allowing extra strength when installed in the ground.
- Flush fitted door with 2 x T-bar security bolts & key operated cam lock.
- 19" swing rack unit.
- Choice of aluminium & wooden backboards.
- Polyester powder coated to match other street furniture.
- Pre-wired if required.
- A4 document holder.
- Removable door & frame



This Ritherdon enclosure (available in two sizes) is designed primarily for housing CCTV and traffic signal termination equipment. However, its very versatile layout, with large backboards and the 19" swing rack unit, means it can accommodate transformers and castellation bars to suit every type of installation. The smaller model is designated as the CCTV cabinet and the larger as the Traffic cabinet, however, these need not necessarily limit the applications of this enclosure.

CCTV / Traffic cabinet dimensions

	Width mm	Depth mm	Height mm
CCTV cabinet	730	425	920
Traffic cabinet	730	425	1200
Plinth	730	390	300



CCTV / Traffic cabinet options

Fixings	Standard Option
2 x T-bar bolts and tri-key cam-lock	√

		-
Colour/finish	Standard Option	
Dark Grey	√	
Light Grey	√	
Dark Green	√	
Black	√	
Anti-graffiti coating		
Any other specified colour		

Body	Standard Option
External grade plywood backboard	\checkmark
Metal (e.g. zintec, aluminium, s/steel) backboard	\checkmark
Plinth	

Pre-wiring options

Consumer unit with 2 MCBs

RCD/RCBO

Cut-out

Tubular heater

Thermostat and metal-clad sockets

Two double metal-clad sockets

Tails and earthing



For assistance, call our sales team on + 44 (0)1254 819100



Generator/Mains Switchover Cabinets



At certain traffic junctions a power failure to the traffic signals (or for critical streetlights) can cause mayhem while the problem is being resolved. The switchover enclosure is the solution to this problem with temporary power being provided by a portable generator.

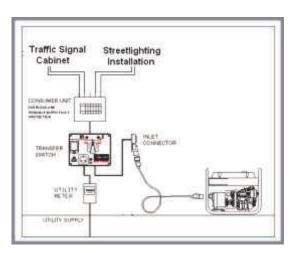
The normal power supply to the traffic signals equipment or street lighting is routed through the cabinet. If there is a

power failure, a portable generator can be secured to and plugged into the cabinet and the switch is turned to supply power from the generator (see the diagram below).

The unit is designed and manufactured to withstand moderate forced entry. To ensure a long service life the enclosures are manufactured from 2 mm thick stainless steel and are available either in the natural stainless steel finish or with a powder coated finish.



Access for cable ducting is provided through the detachable root and the unit is supplied



complete with a single phase changeover switch with generator socket and outgoing isolation. The door can be closed & locked with the generator connected to the cabinet.



Width mm	Depth mm	Overall height* mm	Backboard mm
620	300	1060	600 x 550

 $^{^{\}circ}$ subtract ~350 mm for burial depth to give the installed height

Colour/finish	Standard Option
Dark Grey	√
Light Grey	√
Dark Green	√
Black	√
Anti-graffiti coating	
Any other specified colour	



Ritherdon Lighting Products



Light Boxes

The Ritherdon Light Boxes are designed to mount a streetlamp, or other external lamp, onto poles or walls; being especially popular for rural and semi rural locations where existing electricity poles can be used to mount lighting.



The Standard Box has a spigot which is suitable for small to medium lanterns and the Heavy Duty Box can hold the larger lanterns. The spigots pass through the box and are welded both front and back for maximum strength.

The boxes themselves have a lift off door and can accommodate a large cut-out plus MCB enclosures. Cable access is through a 25 mm hole in the base.

- Standard colour options dark grey, light grey, dark green, black
- Tri-key cam-lock fitted (alternatives are available)
- External grade, plywood backboard
- Earth studs and wire are fitted to the door and body
- Electrical components can be pre-installed at the factory



Light box dimensions

	Width mm	Depth mm	Height mm	Spigot diameter mm	Spigot length mm
Standard	170	150	400	33.4	300
Heavy duty	170	150	400	50.0	300

Ritherdon Enclosures - LIGHTER WEIGHT

Thinner gauge metal can be used because our stainless steel enclosures don't need to withstand the galvanizing process. This means that our pillars, cabinets and boxes are much easier and safer to install.



Ritherdon Lighting Products

Floodlight and CCTV Brackets



The floodlight and CCTV brackets are manufactured from a corrosion-resistant utility stainless steel and can be used as a modular system for various types of column mounted applications. The brackets are manufactured with a tough external powder coating and fully welded seams. The unique hexagon design allows a strong and firm mounting point without any need for drilling.

Column top double flood & CCTV bracket

Product code	Column diameter	Height
RSFB076	76 mm	250 mm
RDFB114	114 mm	350 mm
RDFB140	140 mm	350 mm



Bracket includes three fixing bolts and powder coating from one of three standard colours.

Floodlight/CCTV mounting plates

Plates include powder coating from one of three standard colours. Please note that fixings are not supplied with the brackets.



Column top single flood & CCTV bracket

1 9					
Product code	Column diameter				
RSFB076	76 mm				
RDFB114	114 mm				
RDFB140	140 mm				



Bracket includes three fixing bolts and powder coating from one of three standard colours.



Power to Urban Commerce and Entertainment

Market Trader Supply Pillar



Market trader feeder pillars allow permanent, secure access for street vendors and temporary outdoor exhibitions.

Two trader's access doors are separated from the electricity company's cut-out and meter.

The enclosures are manufactured from stainless steel, powder coated to give a long service life, and incorporate high security locks.

The units can be pre-wired where applicable with factory assembled consumer units and IP rated plugs.

Each trader access panel incorporates a trailing lead exit at the base of the door that allows the door to be locked when in use.





The internal consumer unit contains RCD protection, main switch and a meter to log electricity usage by the street trader. The consumer unit can be isolated and locked when not in use.



Market trader supply pillar dimensions

	Width mm	Depth mm	Height mm	Backboard mm
Total cabinet	620	200	1050	n/a
Plinth	620	200	300	n/a
Supply section	240	200	1050	210 x 940
Trader access 1	380	200	495	330 x 465
Trader access 2	380	200	555	330 x 475



Power to Urban Commerce and Entertainment





Feeder pillars for permanent secure access for street vendors and temporary outdoor exhibitions.

The units can be pre-wired where applicable and incorporate high security locks.

A user's access door is located on the base of the feeder pillar in order for cables to be terminated without the need to open the main door.

The stainless steel cabinets can be manufactured in various sizes from 620 mm to 1500 mm wide and are fitted with an exterior grade plywood back panel in each compartment. Internal flanges in the cabinet base enable it to be bolted down to a concrete base.

The cabinets are normally used for un-metered supplies, and there is space for several output sockets, depending on the cabinet size selected.

Locking details and finish can be arranged to suit a customer's requirements.

Entertainment Feeder Pillar



A lockable enclosure which is used to supply power for street entertainers. It is usually located next to or under street benches and provides two un-metered, RCBO protected sockets, 16 amp and 13 amp. A slot at the base of the door enables the door to be locked

while cables are plugged in.

Locking details and finish can be arranged to suit a customer's requirements.





Power to Urban Commerce and Entertainment

Festive Lighting Enclosure



The festive lighting enclosure is designed to provide a secure location for the termination of sockets and isolators for general use or, in particular, festive lighting applications.

The enclosure is designed for mounting on tree grates, or a small root can be supplied to allow mounting in soft ground or concrete. Access for cable ducting is provided through the base and a series of holes can be used for cable glands.

The enclosure can be also located within bus stops and underneath benches with an isolator for lighting and vehicle management signs.

Overall dimensions
300mm x 150mm x 300mm high (excluding root)

Backboard size 290mm x 200mm

The festive light enclosure is designed and manufactured to withstand moderate forced entry and provide IP 54 protection. To ensure a long service life it is manufactured from 2mm thick stainless steel and is available either in the natural stainless steel finish or with a powder coated finish.

The standard price covers painting in one of our standard colours and a variety of types of cam lock are also available (pages 8-9).





Customised Enclosures and Parts











For many years, Ritherdon and Company have been valued by customers as a source of enclosures made to meet specific requirements.



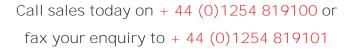
We are recognised as suppliers of high quality products at competitive prices and particularly as a company who can work through a customer's ideas with them and make a product to meet their needs. Our rapid development capabilities, using 3D CAD and fast prototype production, can help solve enclosure problems and develop new project ideas.

Units can be of any size from matchbox to wardrobe and can be fabricated from mild steel, zintec, stainless or aluminium as appropriate. All work is done in-house, as is the painting, which can be wet stove enamel or powder. We can also work to various levels of IP specification and EMC compliance.



We are also suppliers of high quality fascia panel work to a wide range of customers. Fascias can range from precisely-specified units for electronic equipment to robust panels in stainless steel for outdoor communication systems.

If you think we can help you to develop your ideas, contact us now and join our ever expanding list of satisfied customers.













Testimonials

We work hard to ensure that your products are delivered on time and to your specification.

Here are a few comments from our satisfied customers:

Street lighting chief engineer

"Ritherdon products are excellent value for money and have given us longer life expectancies for our private networks."

UTC local authority

"Thank you to all who were involved in supplying the stainless steel enclosures for our UTC network. The delivery was excellent and the project is now being commissioned."

Street lighting contractor (Wales)

"We are very pleased with the sample light boxes we received and will definitely be using your products on future schemes."

Street lighting consultant

"We were extremely pleased with the professionalism shown by your sales and technical staff in dealing with our requirements. The local authority who the scheme was designed for are looking at specifying your products on future schemes."

Traffic signal engineer

"Thank you for the feeder pillars. We received them next day, and especially liked the quality of the powder coating. Usually we have to wait a minimum of five days for this type of product."



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Contact our sales team now for further information.

