



# cl<sup>i</sup>c<sup>®</sup>

Since 1984

TECHNOLOGY for  
\_engineering\_design\_construction\_prefabrication<sup>®</sup>

# WORDS FROM MANAGEMENT.

## THEN

Dr. William Schenkel, Director of Research and development at Egli-Fischer and Co., Zurich, Switzerland invented the first thermoplastic support and hanger made in a high grade nylon. This patented invention changed the way people envisioned construction hardware. That was in 1960, the product **clíc**.

## TODAY

Today Clíc is distributed in more than 40 countries worldwide. It has been installed in the most celebrated construction projects in the world with nearly one billion units installed by leading constructors of all types.

## LI SUPPORT

Litchfield International enters its 24th year of service providing Clíc to the most sophisticated groups of engineers, contractors, OEMs, designers, distributors, and managers in the construction and manufacturing industries. With installations in most of the

Fortune 500 facilities in this country, Clíc continues to unlock the value of labor and installation techniques for those that install it.

## RAISING THE BAR

Having pioneered thermoplastic supports and accessories, Litchfield International has set the benchmark in construction hardware. No company has worked as diligently as Litchfield to provide support, service and tools to its distribution and end-user customers.

*It's not just a hanger anymore.*

Construction hardware is no longer an afterthought. It is an important component in today's and tomorrow's construction design and implementation. Use our design tools to bring your client total satisfaction.

**clíc** it's what we do.

—Litchfield International Management

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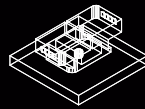
New Programs  
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ALL ABOUT  
CLIC



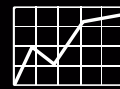
MORE PARTS  
IN MORE PLACES



CLIC  
SIDE-KICKS



DESIGN TOOLS



TECHNICAL  
DATA

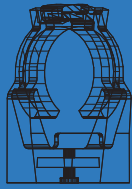
## ALL ABOUT CLIC.

### WHAT IS CLIC?

Clic is a thermoplastic support and hanger system with an autolocking feature. Made from high-grade plastic polyamids, the product supports all types and weights of conduit, pipe, tubing and cable. It attaches to strut with the patented Strutcatcher [r] products.

Clic is UL, and ROHS compliant.

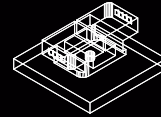




## ALL ABOUT CLIC



MORE PARTS  
IN MORE PLACES



CLIC SIDE-KICKS

### HOW CLIC WORKS.

Insert pipe, tube, conduit or cable into the open Clic, apply slight pressure to the tubular member and the jaws close and lock. A sharp "clik" indicates the pipe/tube/conduit/cable is securely fastened.

It's that simple.



Mount to surface.



Insert cable, tube or conduit.



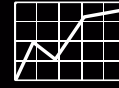
Apply pressure and the jaws close and lock.



FIRST CLIC DRAWING WAS DONE  
IN THE USA, YEAR 1984.



## DESIGN TOOLS



## TECHNICAL DATA

### PRODUCT BENEFITS .

Clic has helped design engineers like you offer clients the best product with the superior set of specifications. Clic has been used nationwide and worldwide.

The product offers several benefits that add to the laboratory-quality construction.

#### Clic Benefits Package.

- Non-magnetic and non-conductive
  - Allows expansion and contraction of pipe and conduit systems
  - Facilitates redundant piping/ conduit in confined spaces
  - Cost effective
- No longer is construction hardware an afterthought in large scale construction
- Better materials, better products, client satisfaction
- Applications: clean rooms, commercial plumbing systems, water treatment, industrial and commercial conduit systems, life support systems, laboratory construction, telecom
- A product with unparalleled track records
- Certifications unmatched by most
- UL 2043 (for plenum installations)
- M+W Zander off-gassing for clean room application
- ROHS · ISO
- Compliant with NEC Section 352.44 for expansion fittings



#### THE BOTTOM LINE.

Clic has raised the bar on construction hardware.

Why? It saves designers and contractors time and construction hard costs.

#### SUPPORT.

Clic is easy to specify, recommend and use. The company offers most product drawings and specifications without registration and logins.

We make it easy.

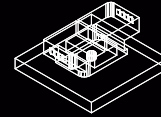
[www.litchfieldinternational.com](http://www.litchfieldinternational.com)



ALL ABOUT CLIC



MORE PARTS  
IN MORE  
PLACES



CLIC SIDE-KICKS

## MORE PARTS IN MORE PLACES.

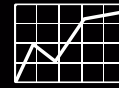


### CLIC MARKETS.

- Electrical Construction
- Mechanical Piping
- Plumbing Systems
- Hydronics
- HVAC
- Telecommunications
- MRO
- OEM design

### CLIC SUBMARKETS.

Marine · Electronics · Semiconductor · Water · Waste treatment · Solar  
Laboratory construction · Skid manufacturing · Reverse osmosis · Life support systems  
Aquaculture · Agriculture · Ultra pure · Rf telecom · Cable TV · Cell sites · Outside plant  
Facility retrofit · Design build · Pharmaceutical · Mistig systems · Tunnels  
Parking garages · Super yachts · Structured cable · Swimming pools · Hospitals  
Food processing · Trade show exhibits · Stage lighting · Medical gas  
Residential fire protection · Fisheries · Beverage process · Clean rooms · Medical systems



## DESIGN TOOLS

## TECHNICAL DATA

### USE WITH PIPING, CONDUIT, CABLE SYSTEMS.

#### Electrical Conduit:

Rigid · Flex · Corrugated · PVC · PVC Coated · EMT · Fiberglass

#### Cable:

Power · RF · Coax · Plenum · Armored · Structured

#### Duct:

Innerduct · Corrugated Duct

#### Pipe:

Steel · Aluminum · Stainless · Schedule 40 and 80 · Cast Iron

#### Glass:

Beaded

#### Thermoplastic:

PVC Schedule 40/80 · PB · CPVC · PVDF · PP · PE  
ABS · Fiberglass

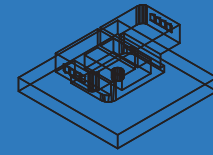
#### Tubing:

Copper · ACR  
Stainless · CPVC · PB

#### PEX:

Potable Water  
Heating · Ice Melting












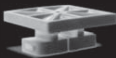
ALL ABOUT CLIC

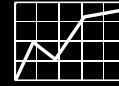
MORE PARTS  
IN MORE PLACES

CLIC  
SIDE-KICKS

## CLIC SIDE-KICKS.



### ACCESSORIES.

CLIC ACCESSORIES				
	PART NAME & NUMBER	USE WITH	DESCRIPTION	QTY.
	Adaptor LT-102	Flange LT-101 & 3/8" ROD	Stainless steel 303 alloy & carbon steel, 1/4" - 20 male x 3/8" - 16 female, 3/4" overall length	50
	Base Plate BP88.270	For mounting two Clic #8-#25	Dark grey, 70 x 20 x 5 mm for mounting 3 Clics together, max hold 15 lbs.	50
	Base Plate BP88.271	For mounting three Clic #8-#25	Dark grey, 110 x 20 x 5 mm for mounting 3 Clics together, max hold 15 lbs.	25
	Flange LT-101	Clic #8-#59	Stainless steel 316 alloy, tapped 1/4" - 20 for thumb-tight fit into slot in base of Clic	100
	Flange LT-106	Clic #63-#113	Stainless steel 316 alloy, tapped 3/8" - 20 for thumb-tight fit into slot in base of Clic	25
	Screw LT-110	LT-109, LT-109-2 & Clic #63-#113	Stainless steel 316 screw 2 - 1/4" long	50
	Strutcatcher LT-109	Clic #8-#113	Comes with stainless steel 316 screw	100
	Strutcatcher LT-109-2	Clic #8-#59	For light-duty applications, Comes with stainless steel 316 screw	100
	Stud LT-103	To mate with flange LT-101	Stainless steel 316 alloy, threaded 1/4" - 20 long	100
	LT-109Kit	Clic #8-#59	One LT109 and one screw	50
	LT-110K	Clic #63-#113	Two LT109, two washers and two LT110 screws	25



## DESIGN TOOLS

## TECHNICAL DATA

CLIC SPACERS				
	PART NAME & NUMBER	USE WITH	DESCRIPTION	QTY.
 	Clic Spacer LT-88-2.5	Clic #8-#59	2.5mm [.098"] Light Grey	100
	Clic Spacer LT-88-5.0	Clic #8-#59	5.5mm [.196"] Light Grey	100
	Clic Spacer LT-88-15	Clic #8-#59	15mm [.59"] Light Grey	100
	Clic Spacer LT-88-25	Clic #8-#59	25mm [.984"] Light Grey	100
	Clic Spacer LT-88-35	Clic #8-#59	35mm [1.377"] Light Grey	100
	Clic Spacer LT-88-45	Clic #8-#59	45mm [1.771"] Light Grey	100
	Clic Spacer LT-88-65	Clic #8-#59	65mm [2.559"] Light Grey	50
	Clic Spacer LT-88-85	Clic #8-#59	85mm [3.346"] Light Grey	50

### SIDE-KICK FACTS.

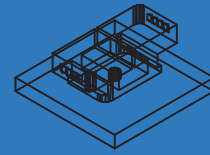
The LT-101 Flange fits thumb tight into the base of a Clic and permits a 1/4" threaded rod or stud to attach to the Clic via a hole in the base of the unit.

The LT-102 Reduction Fitting has one end that goes into a 3/8 threaded rod while the other end screws into an LT-101 Flange located in the base of a Clic unit.

The LT-110 Screw is used to attach larger Clic units to Strutcatchers.



Bundling rings are discontinued.



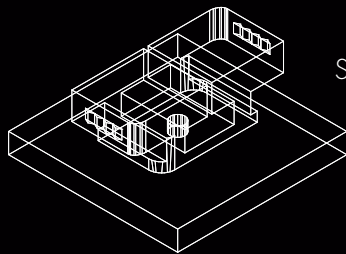
ALL ABOUT CLIC

MORE PARTS  
IN MORE PLACES

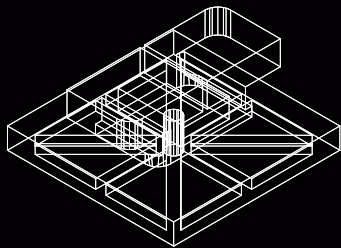
CLIC  
SIDE-KICKS

## STRUTCATCHER™

Works with the Clic to ease your toughest installations.



Strutcatcher LT-109



Strutcatcher LT-109-2

### Benefits.

- Work on top of strut
- Ease of installation
- Cost effective
- Work with screw gun
- Allows on-site or in-shop prefabrication
- Can organize more conduit or pipe runs on short length and height restrictions
- Non-magnetic and non-corrosive
- Easy change out

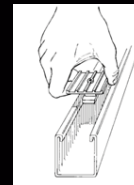
### Material Specs.

For inquires regarding Clic engineered polymers, please contact technical support at [info@litchfieldinternational.com](mailto:info@litchfieldinternational.com) or [projectmanager@litchfieldprojects.net](mailto:projectmanager@litchfieldprojects.net)

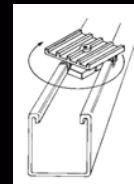
### Steel Strut Sizes.

- 12 gauge  $1\frac{3}{8}'' \times 1\frac{5}{8}''$
- 12 gauge  $1'' \times 1\frac{3}{8}''$
- 12 gauge  $1\frac{3}{16}'' \times 1\frac{5}{8}''$
- 14 gauge  $1\frac{3}{16}'' \times 1\frac{5}{8}''$

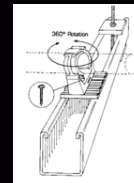
### HOW IT WORKS.



- 1 Insert Strutcatcher into Strut.

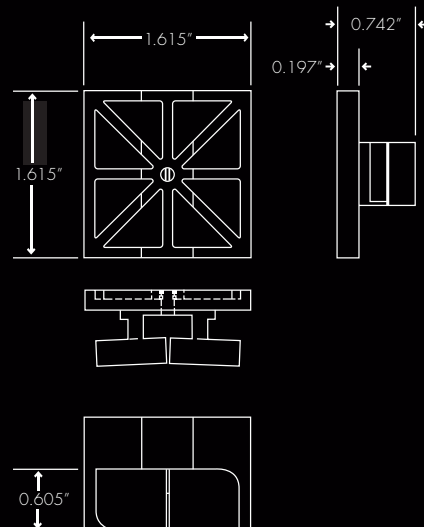


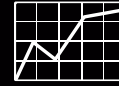
- 2 Twist Strutcatcher 90 degrees and it locks into place.



- 3 Mount Clic onto Strutcatcher with a screw. Swivel Clic to desired position.

### Specs.





## DESIGN TOOLS

## TECHNICAL DATA

### Strutcatcher application and strength examples.

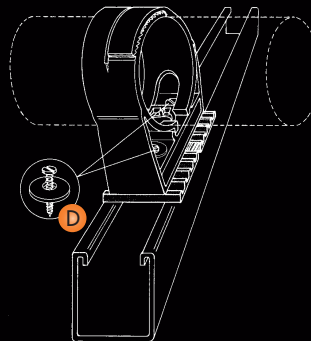
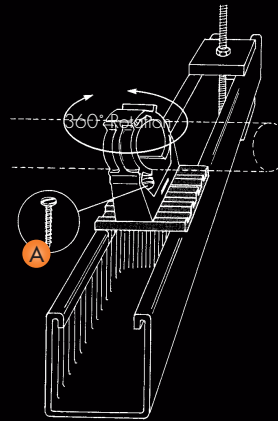
For pipe/tube/conduit/cable sizes through 2" [Clic #17 through #59], use one Strutcatcher for each Clic with screw as shown.

LT-109 and LT-109-2 [LT-109-2 is light duty] come with a stainless steel 302 #10 AB screw, 1.24" long.

- B** For #15 Clic and smaller, Litchfield International will substitute #8 AB screw to accommodate.

For pipe/tube/conduit/cable sizes 2 1/2" through 4" (Clic #71, #80 or #113) use two Strutcatchers for each Clic with washer and screws as shown.

- C** LT-110 screws for Clic #63 - #113 for strut installation are optional or may be exchanged for LT-109 screws.



- A** Screw for Clic-x #17 - 59; 100 screws supplied in box of LT-109 and LT-109-2



- B** Screw for Clic-x #10 - 17, #8 screw [substituted upon request]



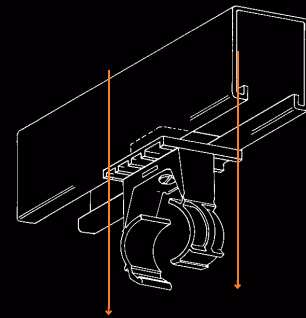
- C** LT-110 screw [2.5" long] and washer needed to install #71-113 onto strut  
Complete installation require 2 LT-110 screws and 2 washers. For installation of #63 for 2.5" tubing—one LT-109, one LT-110 and 1 washer can be used



- D** Washers needed to install #63 - 113 on LT109 and LT-109-2

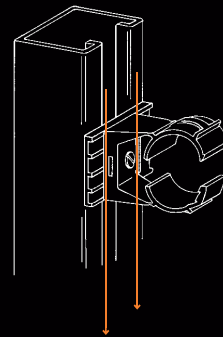
### IN EXTENSION

550 lbs. average load to failure at 73°F

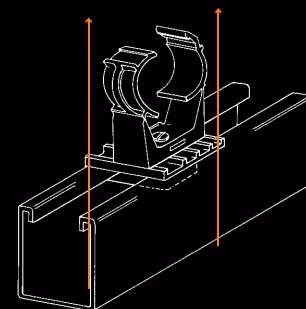


### IN SHEAR

390 lbs. average load to failure at 73°F



### IN COMPRESSION





ALL ABOUT CLIC

MORE PARTS  
IN MORE PLACES

CLIC SIDE-KICKS

## DESIGN TOOLS.

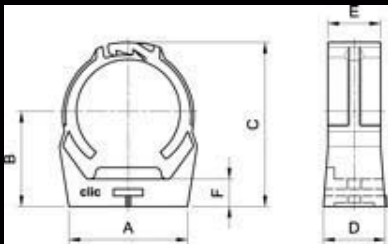
### CLIC — PLASTIC PIPE CLAMPS.

The self-locking plastic pipe clamps for safe and efficient installation of cables and tubes.

- One-piece, selflocking pipe clamp
- Simple mounting without locking screws
- Fast mounting
- Approved by UPC and KIWA
- Halogen free as per EC-Norm 754-2
- Burning behavior as per UL94 HB
- Clamping range 8 mm - 127 mm
- Low height



### TECHNICAL INFORMATION



Breaking loads with screw  
DIN 96 at + 20 °C

\* Values for Clic

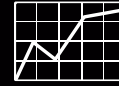
TYPE	A INCH	B INCH	C INCH	D INCH	E INCH	F INCH	BREAKING LOADS IN ALL DIRECTIONS* N
8	0.673	0.689	1.039	0.673	0.571	0.295	500
10	0.673	0.654	1.031	0.673	0.571	0.295	550
12	0.795	0.724	1.177	0.677	0.571	0.295	600
15	0.811	0.787	1.260	0.673	0.571	0.295	650
17	0.866	0.866	1.394	0.768	0.630	0.307	700
20	0.976	0.933	1.551	0.787	0.642	0.307	750
22	1.094	1.004	1.654	0.787	0.650	0.307	800
25	1.197	1.055	1.776	0.787	0.669	0.346	900
28	1.315	1.134	1.925	0.795	0.669	0.346	950
32	1.496	1.268	2.142	0.827	0.669	0.354	1100
36	1.646	1.350	2.339	0.827	0.709	0.358	1200
40	1.819	1.429	2.528	0.827	0.732	0.370	1300
47	2.106	1.598	2.866	0.866	0.768	0.386	1400
51	2.307	1.744	3.098	0.906	0.787	0.402	1500
59	2.610	1.913	3.472	0.913	0.827	0.421	1600



Call technical support 800.637.7563



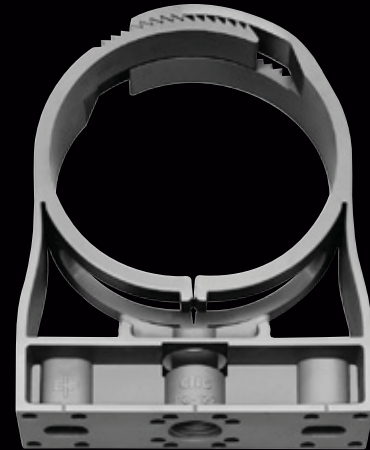
## DESIGN TOOLS



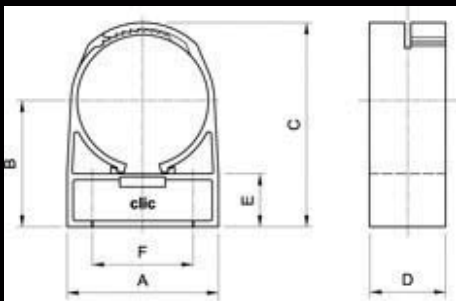
## TECHNICAL DATA



CLIC 8-59



## TECHNICAL INFORMATION

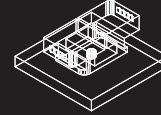


## CLIC 63-127

- High-quality Polyamide
- Easy and excellent fixing for pipes with o.d. 63 mm - 127 mm
- Ideal for infrastructural and industrial buildings
- Secure against vibration through patented closing mechanism
- Temperature range up to +110 °C
- Mounting temperature up to -20 °C

TYPE	A INCH	B INCH	C INCH	D INCH	E INCH	F INCH	BREAKING LOADS F <sub>y</sub> N	BREAKING LOADS F <sub>x</sub> N
63	3.071	2.835	4.528	1.575	1.222	2.047	1800	1000
71	3.425	3.031	4.882	1.575	1.222	2.283	2200	1300
80	3.858	3.268	5.354	1.575	1.222	2.598	2600	1600
90	4.331	3.504	5.827	1.575	1.222	2.992	3000	1900
101	4.882	3.780	6.417	1.575	1.222	3.386	3500	2200
113	5.472	4.134	7.087	1.575	1.222	4.016	4000	2500

Breaking loads with 2 screws DIN 571 at + 20 °C



ALL ABOUT CLIC

MORE PARTS  
IN MORE PLACES

CLIC SIDE-KICKS

## TENSILE TESTS FOR CLIC/ STRUTCATCHER SYSTEM.

Clic Models Tested.

CLIC PART NO .	AVERAGE LOAD TO SEPARATE LOCK AT 73" IN LBS	SCHEDULE 40 PVC PIPE			SCHEDULE 40 GALVANIZED STEEL PIPE			SCHEDULE 40 COPPER TUBE		
		NOM . SIZE	WEIGHT PER FOOT	UPC HORIZONTAL SUPPORT SPACING	NOM . SIZE	WEIGHT PER FOOT	UPC HORIZONTAL SUPPORT SPACING	NOM . SIZE	WEIGHT PER FOOT	UPC HORIZONTAL SUPPORT SPACING
10	110	1/8"	.045 lbs	4 ft	1/8"	.25 lbs	10 ft			
12	121	1/4"	.081 lbs	4 ft	1/4"	.43 lbs	10 ft	3/8"	.269 lbs	6 ft
17	143	3/8"	.109 lbs	4 ft	3/8"	.57 lbs	10 ft	5/8"	.418 lbs	6 ft
28	208							1"	.839 lbs	6 ft
32	220	1"	.320 lbs	4 ft	1"	1.68 lbs	12 ft	1 1/2"	1.040 lbs	6 ft
47	287	1 1/2"	.520 lbs	4 ft	1 1/2"	2.72 lbs	12 ft			
51	309							2"	2.060 lbs	10 ft
59	253	2"	.690 lbs	4 ft	2"	3.66 lbs	12 ft			
71	485	2 1/2"	1.13 lbs	4 ft	2 1/2"	5.79 lbs				
80	575	3"	1.46 lbs	4 ft	3"	7.58 lbs				
113	880	4"	2.05 lbs	4 ft	4"	10.79 lbs				

### LT-109 Strutcatcher and LT-109-2 Strutcatcher2 Test Results.

PART NO .	EXTENSION	SHEAR
LT-109	550 lbs	390 lbs
**LT-109-2	502 lbs	56 lbs

\*\*Recommended for light duty only.

- Loading not to exceed determined values in application.
- UL temperature test performed at 167°F
- The spacing information of Clic supports should be found in the applicable code and/or the manufacturers' pipe and tube recommendations.
- Clic is UPC <sup>®</sup> accepted
- Clic is used under the National Electric Code. See wiring methods articles 300 - 399.
- For spacing, see manufacturer's recommendations for supporting and hanging conduit and cable types.
- For structured cable systems, see TIA/EIA standard 568.

### Accessory Test Results.

PART NO .	EXTENSION	SHEAR
LT-102	495 lbs	LT-101 Flange and 1/4" Threaded Rod

### Clic Code Approvals.

#### Plumbing:

- M+W Zander Outgassing for Semiconductor Cleanrooms
- UL 2043: Clic #8-#59 (.295" - 2")
- UL 1565: Clic #8 - #113 (.295" - 4")
- ISO 9001:2000

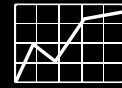
#### Electrical:

- UL 2043: Clic #8-#59 (.295" - 2")
- UL 2043: Clic #8-#113
- EL.UL 2043: Clic #8-#113
- UL 1565: Clic #8 - #113 (.295" - 4")

UL test temperature 167°F



DESIGN  
TOOLS



TECHNICAL DATA

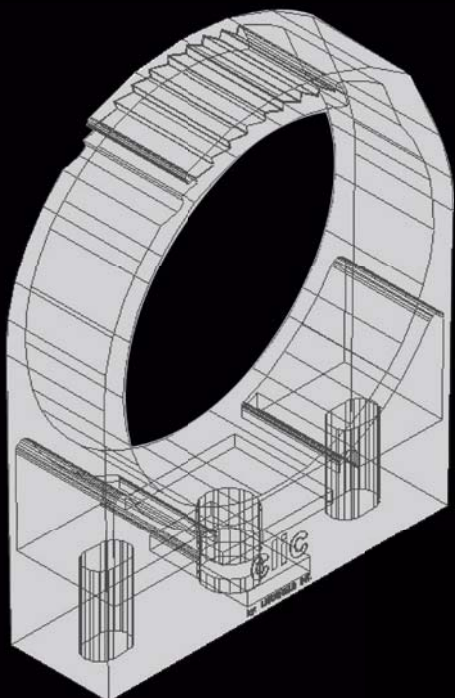
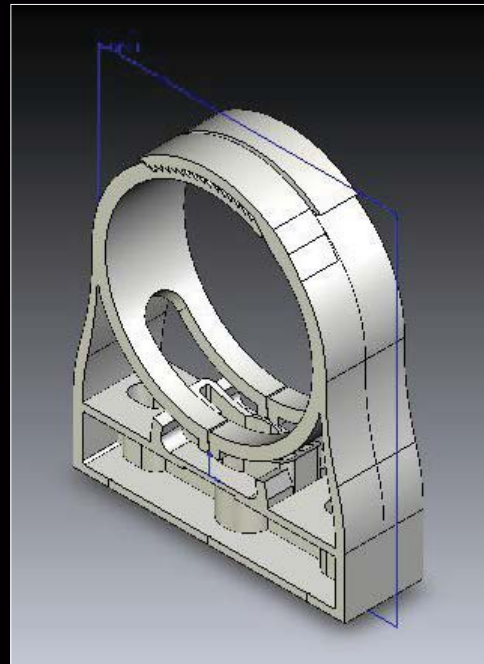
## CAD DRAWINGS.

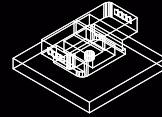
The new CAD Library is being updated with the most popular sizes and accessories in several formats.

No complicated logins needed.

CAD files are found at [www.litchfieldinternational.com](http://www.litchfieldinternational.com).

**Go to the CAD Library.**





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CLIC SIDE-KICKS

## LI SUPPORT KIT.



CLIC kits are designed for both engineering firms and contracting firms. These are distributed by LI agents and authorized distribution customers. It contains enough samples to create a mock installation within a shop or facility.

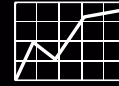
These kits are offered directly to an inquiring contracting company and via LI's distributor customers.

Call 1.800.345.2542 to order.

You can also request online at [litchfieldinternational.com](http://litchfieldinternational.com). Go to Service and Contact, then LI Support Kits. No charge.



DESIGN  
TOOLS



TECHNICAL DATA

WEBSITE —  
LITCHFIELDINTERNATIONAL.COM.



### REASONS TO VISIT

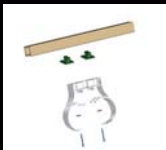
- Specifying information for engineers and designers
- Always open with complete product information
- Find a distributor
- Open a distribution account
- Speak with customer service to track your order
- Learn product benefits and applications at Learning Center
- Obtain CAD drawings as downloads
- Design Tools
- Learning Center

### NEW WINNING LOTTERY FOR ENGINEERS IN INDUSTRY

Cad drawings on popular sizes.  
No logins needed.

CLIC MOVIE — FROM LITCHFIELDPROJECTS. COMING FALL OF 09.

i.e.



### CLIC GOES TO THE MOVIES.

## LITCHFIELDPROJECTS®

Litchfield offers exclusive building project data to invited distributors and agents. A comprehensive and easy to use method to integrate IT sales tools to capture building project orders. This paperless systems speeds valuable information to Litchfield customers. LitchfieldProjects is a great value building program offered at no charge. Be sure to inquire. Limited enrollment so be sure to get on our list.

**Demo kits:** As part of LitchfieldProjects, demo kits are customized with your company information. These may be requested to be used for general sales calls and not tied directly to LitchfieldProjects.

**The automation movie is coming June 09.**

Visit [LitchfieldProjects.net](http://LitchfieldProjects.net) to learn more about this opportunity. Limited enrollment.



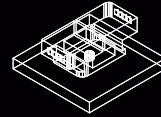
Visit [litchfieldprojects.net](http://litchfieldprojects.net)



ALL ABOUT CLIC



MORE PARTS  
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CLIC SIDE-KICKS

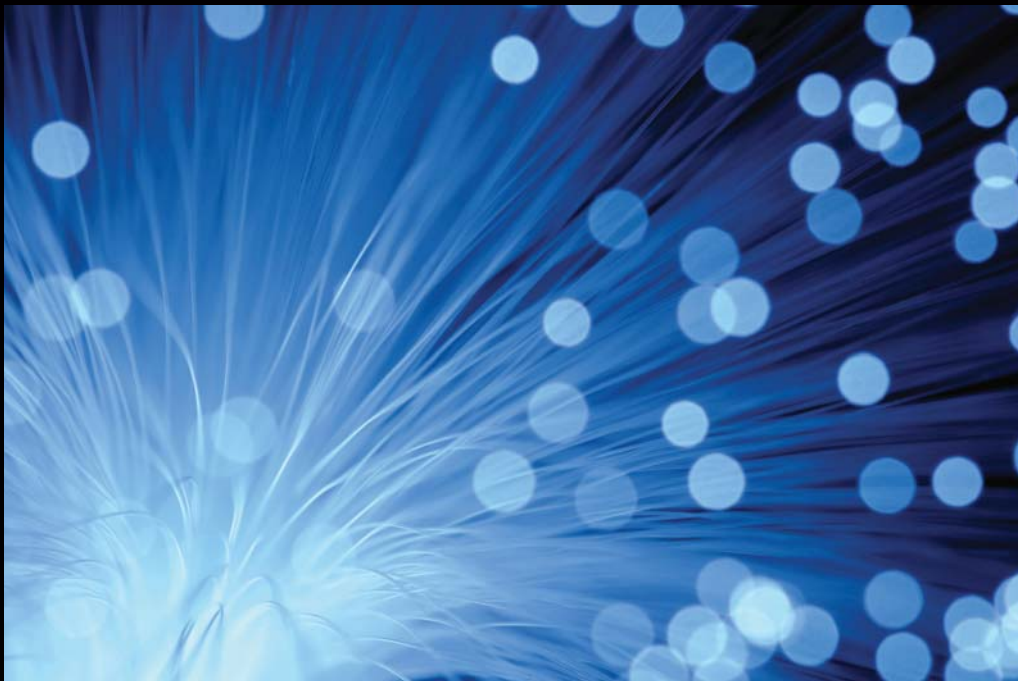
## TECHNICAL DATA.

### NEW PROGRAMS

**Lottery for Industry Engineers**—Claim your rewards at [www.litchfieldinternational.com](http://www.litchfieldinternational.com). Go to Engineers Only.

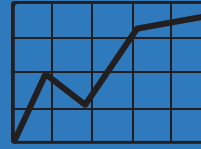
**Distributor Cheat Sheets**—Print the benefit sheet to bring to your customers at [www.litchfieldinternational.com](http://www.litchfieldinternational.com). Distributors only.

**LitchfieldProjects**—Be sure to sign up. Register at [www.litchfieldprojects.net](http://www.litchfieldprojects.net) or email your info to [projectmanager@litchfieldprojects.net](mailto:projectmanager@litchfieldprojects.net).





DESIGN TOOLS



TECHNICAL DATA

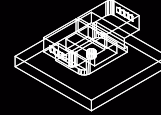
SELECTION CHARTS.

Rigid Conduit.

TYPE OF CONDUIT		TRADE SIZES											
		1/4"	5/16"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
EMT GALVANIZED STEEL	PART #				#17	#22	#28	#36	#40	#51	#71	#80	#113
	CONDUIT OD				0.706"	0.922"	1.163"	1.510"	1.740"	2.197"	2.875"	3.500"	4.500"
IMC GALVANIZED STEEL & ALUMINUM	PART #				#20	#25	#32	#40	#47	#59	#71	#80	#113
	CONDUIT OD				0.815"	1.029"	1.290"	1.638"	1.883"	2.360"	2.875"	3.476"	4.466"
RIGID GALVANIZED STEEL & ALUMINUM	PART #				#20	#25	#32	#40	#47	#59	#71	#80	#113
	CONDUIT OD				0.840"	1.050"	1.315"	1.660"	1.900"	2.375"	2.875"	3.500"	4.500"
PVC SCHEDULES 40 & 80	PART #				#20	#25	#32	#40	#47	#59	#71	#80	#113
	CONDUIT OD				0.840"	1.050"	1.315"	1.660"	1.900"	2.375"	2.875"	3.500"	4.500"
PVC COATED RIGID GALVANIZED STEEL & ALUMINUM	PART #				#22	#28	#32	#47	#47	#59	#71	#90	#113
	CONDUIT OD				0.920"	0.130"	1.395"	1.740"	1.980"	2.455"	2.955"	3.580"	4.580"
40 MIL PVC COATED IMC GALVANIZED STEEL & ALUMINUM	PART #				#22	#28	#36	#40	#47	#59	#71	#80	#113
	CONDUIT OD				0.895"	1.109"	1.370"	1.718"	1.963"	2.244"	2.937"	3.556"	4.546"
24 MIL PVC COATED EMT GALVANIZED STEEL	PART #				#17	#25	#32	#40	#47	#59			
	CONDUIT OD				0.706"	0.972"	1.213"	1.560"	1.790"	2.247"			
FIBERGLASS SMALL DIAMETER TUBE DIMENSIONS	PART #									#51	#63	#71	#101
	CONDUIT OD									2.140"	2.625"	3.150"	4.125"
FIBERGLASS STANDARD & HEAVY WALL PIPE DIMENSIONS	PART #				#25	#32	#40	#47	#59	#71	#80	#113	
	CONDUIT OD				1.029"	1.315"	1.660"	1.980"	2.375"	2.875"	3.500"	4.530"	
OTHER SPECIALTY AS STAINLESS STEEL, EVERDUR SAME O.D. AS IMC & RIGID	PART #				#20	#25	#32	#40	#47	#59	#71	#80	#113
	CONDUIT OD				0.840"	1.050"	1.315"	1.660"	1.900"	2.375"	2.875"	3.500"	4.580"

Flexible Conduit.

TYPE OF CONDUIT		TRADE SIZES											
		1/4"	5/16"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
FLEXIBLE METAL CONDUIT GALVANIZED STEEL & ALUMINUM	PART #		#12	#15	#20	#25	#32	#40	#47	#59	#71	#80	#113
	CONDUIT OD		0.470"	0.560"	0.860"	1.045"	1.300"	1.550"	1.850"	2.350"	2.875"	3.500"	4.500"
LIQUIDTIGHT FLEXIBLE METALLIC & NON-METALLIC CONDUIT	PART #	#10	#15	#17	#22	#25	#32	#40	#47	#59	#71	#80	#113
	CONDUIT OD	0.450"	0.570"	0.690"	0.860"	1.045"	1.300"	1.550"	1.850"	2.350"	2.875"	3.500"	4.500"
CORRUGATED FLEXIBLE NON-METALLIC LIQUIDTIGHT CONDUIT	PART #			#17	#20	#25	#32	#40	#47	#59	#71	#80	#113
	CONDUIT OD			0.690"	0.860"	1.045"	1.300"	1.550"	1.850"	2.350"	2.875"	3.500"	4.500"
ENMT ELECTRIC NON-METALLIC CONDUIT	PART #				#20	#25	#32						
	CONDUIT OD				0.860"	1.045"	1.300"						
CORRLOK® FLEXIBLE NYLON CONDUIT	PART #			#15	#20	#28	#32	#40	#51				
	CONDUIT OD			0.625"	0.844"	1.125"	1.375"	1.688"	2.156"				
LIQUATITE® NON-METALLIC FLEXIBLE CONDUIT TYPES INM & INMP	PART #			#16	#20	#25	#32	#40	#47	#59			
	CONDUIT OD			1.755"	1.910"	1.150"	1.415"	1.800"	2.045"	2.555"			
OTHER SPECIALTY CORRUGATED DUCTS FOR FIBER OPTICS, SAME O.D. AS RIGID	PART #						#32	#40	#47	#59			
	CONDUIT OD						1.315"	1.660"	1.900"	2.375"			



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CLIC SIDE-KICKS

## SELECTION CHARTS.

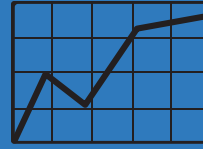
### Pipe.

TYPE OF PIPE	NOMINAL PIPE SIZE/ACTUAL PIPE OUTSIDE DIAMETER												
		1/8" ID	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
PLASTIC		.405" OD	.540"	.675"	.840"	1.050"	1.315"	1.660"	1.900"	2.375"	2.875"	3.500"	4.500"
PVC SCHEDULES 40, 80, & 120	Part #	#10	#12	#17	#20	#25	#32	#40	#47	#59	#71	#80	#113
CPVC SCHEDULES 40 & 80	Part #		#12	#17	#20	#25	#32	#40	#47	#59	#71	#80	#113
ABS SCHEDULES 40 & 80	Part #			#17	#20	#25	#32	#40	#47	#59	#71	#80	#113
PE SCHEDULES 40 & 80	Part #		#12	#17	#20	#25	#32	#40	#47	#59	#71	#80	#113
PP SCHEDULES 40 & 80	Part #		#12	#17	#20	#25	#32	#40	#47	#59	#71	#80	#113
PVDF SCHEDULE 80	Part #			#17	#20	#25	#32	#40	#47	#59	#71	#80	#113
PB SCHEDULE 80	Part #			#17	#20	#25	#32	#40	#47	#59	#71	#80	#113
FIBERGLASS REINFORCED PIPE STANDARD & EXTRA HEAVY	Part #				#20	#25	#32		#47	#59			

TYPE OF PIPE	NOMINAL PIPE SIZE/ACTUAL PIPE OUTSIDE DIAMETER												
		1/8" ID	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
METAL		.405" OD	.540"	.675"	.840"	1.050"	1.315"	1.660"	1.900"	2.375"	2.875"	3.500"	4.500"
GALVANIZED CARBON STEEL SCHEDULES 5s, 10s, 40 & 80	Part #	#10	#12	#17	#20	#25	#32	#40	#47	#59	#71	#80	#113
STAINLESS STEEL SCHEDULES 5s, 10s, 40 & 80	Part #	#10	#12	#17	#20	#25	#32	#40	#47	#59	#71	#80	#113
RED & YELLOW BRASS & COPPER REGULAR & EXTRA STRONG	Part #	#10	#12	#17	#20	#25	#32		#47	#59			
ALUMINUM 5s, 10s, 40 & 80	Part #	#10	#12	#17	#20	#25	#32	#40	#47	#59	#71	#80	#113



DESIGN TOOLS



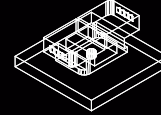
TECHNICAL DATA

Tube.

TYPE OF TUBE		NOMINAL TUBE SIZE/ACTUAL TUBE OUTSIDE DIAMETER																			
			1/4"	3/8"	1/2"	5/8"	3/4"		1"		1 1/4"		1 1/2"		2"		2 1/2"	3"	3 1/2"	4"	
<b>COPPER</b>			.3125"	.375"	.500"	.625"	.750"	.625"	1.00"	1.125"	1.250"	1.375"	1.50"	4.625"	2.00"	1.125"	2.50"	2.625"	3.125"	3.625"	4.125"
ACR	Part #		#10	#12	#15	#17	#22		#28		#32		#40		#51		#63	#71	#90	#101	
REFRIGERATION SERVICE	Part #	#8	#10	#12	#15	#17	#22		#28		#32		#40								
TYPE K, L, M	Part #		#10	#12	#15	#17	#22		#28		#32		#40		#51		#63	#71	#90	#101	
DWV	Part #										#32		#40		#51		#63	#71	#90	#101	

TYPE OF TUBE		NOMINAL TUBE SIZE/ACTUAL TUBE OUTSIDE DIAMETER																			
			1/4"	3/8"	1/2"	5/8"	3/4"		1"		1 1/4"		1 1/2"		2"		2 1/2"	3"	3 1/2"	4"	
<b>OTHER MATERIALS</b>			.3125"	.375"	.500"	.625"	.750"	.625"	1.00"	1.125"	1.250"	1.375"	1.50"	4.625"	2.00"	1.125"	2.50"	2.625"	3.125"	3.625"	4.125"
GALVANIZED STEEL	Part #	#8	#10	#12	#15	#17	#22	#25		#32		#36		#51	#51		#63	#71	#90	#101	
STAINLESS STEEL	Part #	#8	#10	#12	#15	#17	#22	#25		#32		#36		#51	#51	#59	#63	#71	#90	#101	
ALUMINUM	Part #	#8	#10	#12	#15	#17	#22	#25		#32		#36		#51							

TYPE OF TUBE		NOMINAL TUBE SIZE/ACTUAL TUBE OUTSIDE DIAMETER																			
			1/4"	3/8"	1/2"	5/8"	3/4"		1"		1 1/4"		1 1/2"		2"		2 1/2"	3"	3 1/2"	4"	
<b>PLASTIC</b>			.3125"	.375"	.500"	.625"	.750"	.625"	1.00"	1.125"	1.250"	1.375"	1.50"	4.625"	2.00"	1.125"	2.50"	2.625"	3.125"	3.625"	4.125"
POLYBUTYLENE	Part #			#12	#15		#22		#28		#32		#40		#51		#63	#71	#90	#101	
PVC	Part #				#15		#22		#28		#32		#40	#51							
POLYETHYLENE	Part #			#12	#15		#22		#28		#32		#40	#51							
DWV	Part #				#15						#32		#40		#51		#63	#71	#90	#101	
	Part #	SEE MANUFACTURERS SALES INFORMATION FOR SIZING INFORMATION																			



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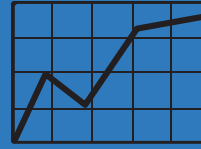
CLIC SIDE-KICKS

## SELECTION CHARTS.

NOM'L DIAM.	EMT		PIPE	TUBE
TRADE SIZE	EMT	RIGID & IMC PVC 40 & 80	SCHEDULE 40 & 80 PLASTIC & METAL	COPPER & PLASTIC
1/8"			CLIC #10 – X88.10 100 PCS./CTN.	CLIC #8 – X88.08 5/16" O.D. Ref. Serv. 100 PCS./CTN.
1/4"			CLIC #12 – X88.12 100 PCS./CTN.	CLIC #10 – X88.10 1/4" x 3/8" O.D. Ref. Serv. 100 PCS./CTN.
3/8"			CLIC #17 – X88.17 100 PCS./CTN.	CLIC #12 – X88.12 3/8" x 1/2" O.D. Ref. Serv. 100 PCS./CTN.
1/2"	CLIC #17 – X88.17 100 PCS./CTN.	CLIC #20 – X88.20 100 PCS./CTN.	CLIC #20 – X88.20 100 PCS./CTN.	CLIC #15 – X88.15 1/2" x 5/8" O.D. Ref. Serv. 100 PCS./CTN.
5/8"				CLIC #17 – X88.17 5/8" x 3/4" O.D. Ref. Serv. 100 PCS./CTN.
3/4"	CLIC #22 – X88.22 100 PCS./CTN.	CLIC #25 – X88.25 50 PCS./CTN.	CLIC #25 – X88.25 50 PCS./CTN.	CLIC #22 – X88.22 3/4" x 7/8" O.D. Ref. Serv. 100 PCS./CTN.
1"	CLIC #28 – X88.28 50 PCS./CTN.	CLIC #32 – X88.32 50 PCS./CTN.	CLIC #32 – X88.32 50 PCS./CTN.	CLIC #28 – X88.28 1" x 1 1/8" O.D. Ref. Serv. 50 PCS./CTN.
1 1/4"	CLIC #36 – X88.36 50 PCS./CTN.	CLIC #40 – X88.40 25 PCS./CTN.	CLIC #40 – X88.40 25 PCS./CTN.	CLIC #32 – X88.32 1 1/4" x 1 3/8" O.D. Ref. Serv. 50 PCS./CTN.
1 1/2"	CLIC #40 – X88.40 25 PCS./CTN.	CLIC #47 – X88.47 25 PCS./CTN.	CLIC #47 – X88.47 25 PCS./CTN.	CLIC #40 – X88.40 1 1/2" x 1 3/8" O.D. Ref. Serv. 25 PCS./CTN.
2"	CLIC #51 – X88.51 25 PCS./CTN.	CLIC #59 – X88.59 20 PCS./CTN.	CLIC #59 – X88.59 20 PCS./CTN.	CLIC #51 – X88.51 2" x 2 1/8" O.D. Ref. Serv. 25 PCS./CTN.
2 1/2"	CLIC #71 – X88.71 25 PCS./CTN.	CLIC #71 – X88.71 25 PCS./CTN.	CLIC #71 – X88.71 25 PCS./CTN.	CLIC #63 – X88.63 2 1/2" x 2 5/8" O.D. Ref. Serv. 25 PCS./CTN.
3"	CLIC #80 – X88.80 25 PCS./CTN.	CLIC #80 – X88.80 25 PCS./CTN.	CLIC #80 – X88.80 25 PCS./CTN.	CLIC #71 – X88.71 3" x 3 1/8" O.D. Ref. Serv. 25 PCS./CTN.
3 1/2"	CLIC #101 – X88.101 25 PCS./CTN.	CLIC #101 – X88.101 25 PCS./CTN.	CLIC #101 – X88.101 25 PCS./CTN.	CLIC #90 – X88.90 3 1/2" x 3 5/8" O.D. Ref. Serv. 25 PCS./CTN.
4"	CLIC #113 – X88.113 25 PCS./CTN.	CLIC #113 – X88.113 25 PCS./CTN.	CLIC #113 – X88.113 25 PCS./CTN.	CLIC #101 – X88.101 4" x 4 1/8" O.D. Ref. Serv. 25 PCS./CTN.



DESIGN TOOLS



TECHNICAL  
DATA

## Grounding of the National Electric Code® Table 250-95.

*Made to copper tube and other tube dimensions*

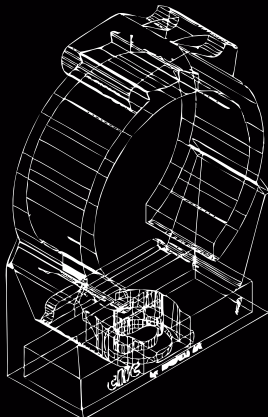
### Note:

The outside diameter of THHN and TWW varies with the manufacturer.

Bare stranded copper is to ASTM.

CLIC & GROUNDING CONDUCTORS						
COPPER WIRE SIZE	PART #	BARE STRANDED COPPER O.D.	PART #	THHN O.D.	PART #	THW O.D.
#6					#8	0.310"
#4			#8	0.330"-0.340"	#8	0.360"
#3			#8	0.360"-0.370"	#10	0.390"
#2	#8	0.292"	#10	0.390"-0.400"	#10	0.420"
#1	#8	0.332"	#10	0.450"-0.460"	#12	0.490"-0.500"
#1/o	#8	0.373"	#12	0.490"-0.500"	#12	0.530"-0.540"
#2/o	#10	0.419"	#12	0.540"-0.550"	#15	0.580"-0.590"
#3/o	#12	0.470"	#15	0.590"-0.600"	#15	0.630"-0.640"
#4/o	#12	0.528"	#15	0.650"-0.660"	#17	0.690"-0.700"
250 MCM	#15	0.575"	#17	0.720"-0.730"	#17	0.770"-0.780"
350 MCM	#17	0.681"	#20	0.820"-0.840"	#22	0.870"-0.880"
400 MCM	#17	0.728"	#22	0.880"	#22	0.920"-0.930"
500 MCM	#20	0.813"	#25	0.960"-0.970"	#25	1.010" - 1.100"
750 MCM	#25	0.998"	#28	1.180"	#28	1.230"
1000 MCM	#28	1.152"	#32	1.330"	#32	1.380"

## CONTACT INFORMATION.



### Litchfield International

457 Bantam Road #12

Litchfield, CT 06759

Administrative Only. No shipments please.

Phone: 860.567.8824

Fax: 860.567.4158

Hours: 8:30-4:30

### Order Fulfillment

Litchfield International

c/o KASA Industries

101-A East Industrial Park Drive

Manchester, NH 03109

Customer Service: 1.800.345.2542

Fax Order Line: 603.625.2842

Email: [Orders@litchfieldinternational.com](mailto:Orders@litchfieldinternational.com)

General Inquiries: [info@litchfieldinternational.com](mailto:info@litchfieldinternational.com)



### CORPORATE OFFICE [NO SHIPMENTS]

Litchfield International Inc.  
457 Bantam Road #12  
Litchfield, CT 06759

Customer service 1.800.345.2542  
Order Fax Line: 1.603.625.2842  
www.litchfieldinternational.com

### FULFILLMENT [ALL SHIPMENTS]

Litchfield International  
c/o KASA Industries  
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