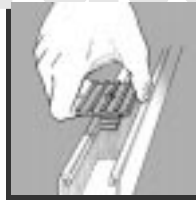
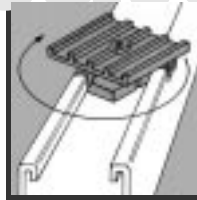


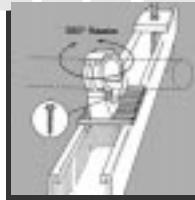
# Strutcatcher<sup>2</sup>™



Insert Strutcatcher into strut.



Twist Strutcatcher 90 degrees and it locks into place.



Mount Clic onto Strutcatcher with a screw.



*how does it work?*



Mount Clic to surface.



Insert cable, tube, or conduit into the open Clic.



Apply slight pressure to the tubular member and the jaws close and lock.

*Make your life easier with the only auto-locking support and hanger system.*

## CONTENTS

Introduction to Clic .....	2
Centerline/Tech Info .....	4
Installation .....	5
Strutcatcher .....	8
Tensile Test Results .....	10
Accessories .....	11
Clic Selection Charts .....	12

The **Clic®/Strutcatcher<sup>2</sup>™ System**, uses patented

technology, advanced design and high performance materials to secure all your piping projects.

**Each Clic is:**

- **highly versatile** – Clic works with all types of pipe & tube
- **easy to use**, requiring only one installer
- **economical**, since installation time is routinely reduced by up to 35%

- **highly adaptable**, Clic can be attached to wood, concrete, brick, cinder block, sheet metal, fiberglass and strut – virtually any surface or structural member
- **corrosion-resistant**, made from durable Nylon PA12
- **reusable**, so that design changes can be easily accommodated
- **inventory reducing**, since it eliminates stocking the same support in several metals
- **efficiency-minded**, usable over 3/8", 1/2", and 3/4" insulation

- **free of galvanic action, noise abatement, dielectrics** and is **non-magnetic**
- **convenient**, allows prefabrication of trapeze hangers
- **accommodating**, allows expansion and contraction of piping systems

### **Why Nylon PA12 over other materials?**

Clic is made from Nylon PA12, a high performance polyamide. Nylon PA12 was chosen over alternative materials for its excellent mechanical strength and chemical resistance while being environmentally safe.

For in depth information on Nylon 12, please visit [www.emschem.com](http://www.emschem.com)

### **Nylon PA12 offers:**

- Less than 1% moisture absorption.
- Excellent mechanical stability.  
**Example:** Clic #59 holds 557 pounds in tensile strength.  
Clic #113 holds 850-900 pounds in tensile strength.
- UV stabilization and excellent weatherability.
- 24 hour UV bombardment is not recommended.
- No halogens or phosphates in PA12 material.
- Will not particulate or support bacteria.

Reports on most topics relating to Clic and its' use in construction are available from Litchfield International:

1. *Tensile*
2. *MSDS*
3. *Use with Food Stuffs*
4. *Combustion*
5. *Corrosion Resistance*
6. *IAPMO Listing*

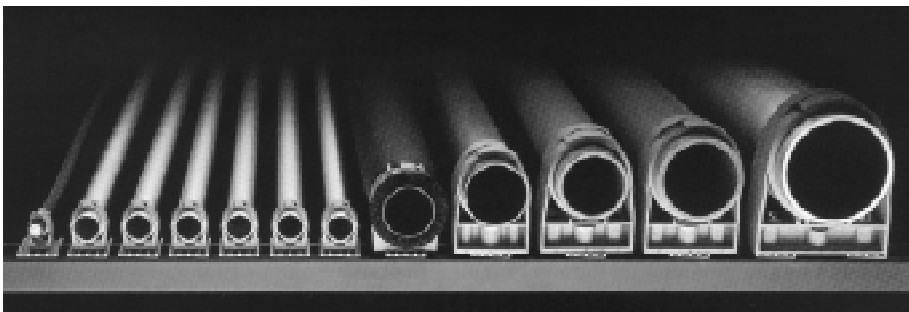
## ***CLIC – The One Piece Automatic Locking and Corrosion Resistant Pipe/Tube Support and Hanger made from Nylon PA12.***



The Clic above **left** shows original design features, with self-clamping pivot hinges and oval mounting hole for easy installation. *Clic model #8 - #59 (diameters .295" - 2").*

The larger-diameter Clic, above **right**, features a double-locking band for added support. *Clic model #63 - #113 (diameters 2-1/2" - 4").*

Insert pipe/tube into the open Clic, apply slight pressure to the tubular member and the jaws close and lock. A sharp "Clic" indicates the pipe/tube is securely fastened. ***It's that simple.***



**Clic & Strucatcher2 used for strut installation.**

### **Related Information:**

See page 10 for **Strucatcher** and **Strucatcher2** product information and page 13 for accessories for added versatility.

See page 12 for test-loading information.

# Clic Centerline and Technical Information

**Description:** Pipe Clamp with possibility of lateral mounting adjustments and automatic locking mechanism. For in- and outdoor installations.

**Material:** Polyamide Nylon PA 12, unimpaird by gasoline and lubricating oils, corrosion- and waterproof.

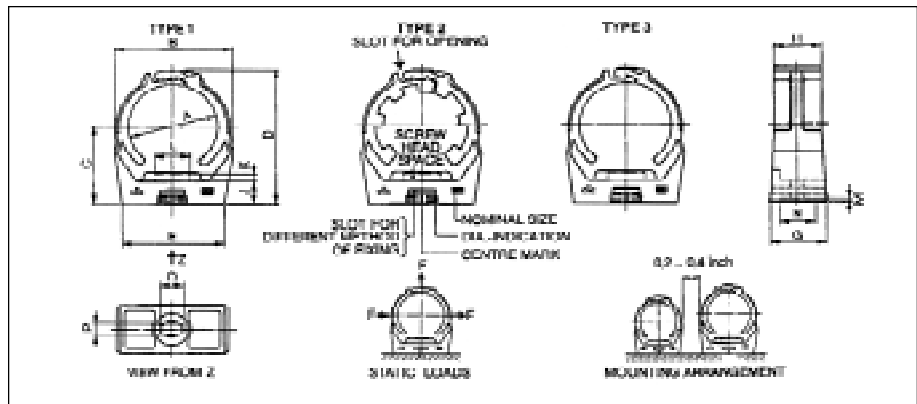
**Working Temperature Range:**  
-40°F to + 180°F

**Installation Temperature Range:**  
to -5°F

**Safety Parameters Laid Down:**  
The static loads indicated are minimum breaking loads. The permissible safe working loads are arrived at by using an appropriate safety factor. Additional strain which could result in line systems through the influence of dynamic loads and/or impeded changes of shape (e.g. with temperature changes) should be duly considered as well. UV radiation may affect long-term stability.

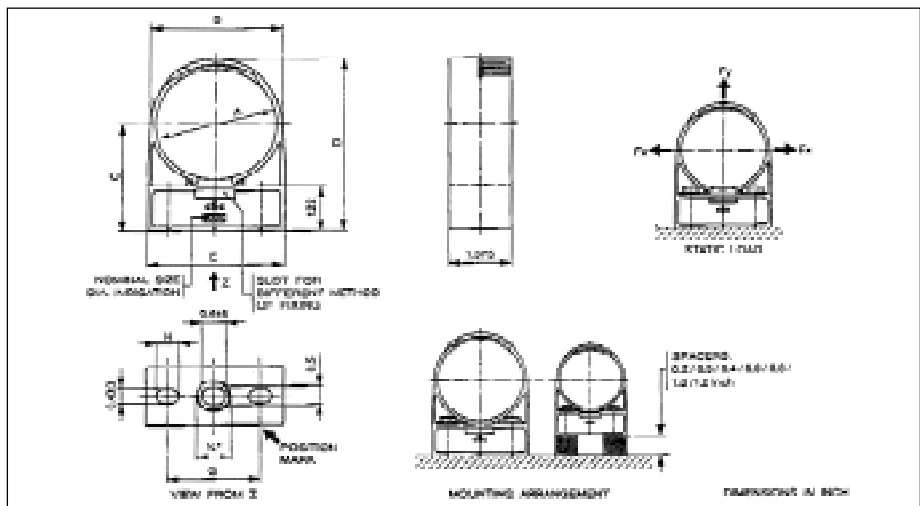
**Government Approvals:** UPC (Uniform Plumbing Code), recommended and accepted by IAPMO (International Association of Plumbing and Mechanical Officials)

Further technical data and references can be obtained from Litchfield International.



CLIC #8 - #59 DIMENSIONS IN INCHES

A CLAMPING DIAMETER max.	CLIC NO.	B max.	C max.	D max.	E	F STATIC LOAD lbs.
0.374	#8	0.67	0.69	1.04	0.67	100
0.465	#10	0.67	0.65	1.03	0.67	110
0.563	#12	0.93	0.72	1.18	0.80	121
0.661	#15	0.93	0.73	1.18	0.80	132
0.768	#17	1.06	0.87	1.39	0.69	143
0.866	#20	1.16	0.93	1.55	0.98	147
0.898	#22	1.38	0.98	1.61	1.14	150
1.094	#25	1.41	1.06	1.78	1.20	187
1.229	#28	1.56	1.13	1.93	1.31	198
1.398	#32	1.76	1.27	2.14	1.50	220
1.555	#36	1.93	1.35	2.34	1.65	243
1.713	#40	2.09	1.43	2.53	1.82	254
1.988	#47	2.51	1.60	2.87	2.11	287
2.185	#51	2.64	1.74	3.10	2.31	309
2.520	#59	3.01	1.91	3.47	2.61	353

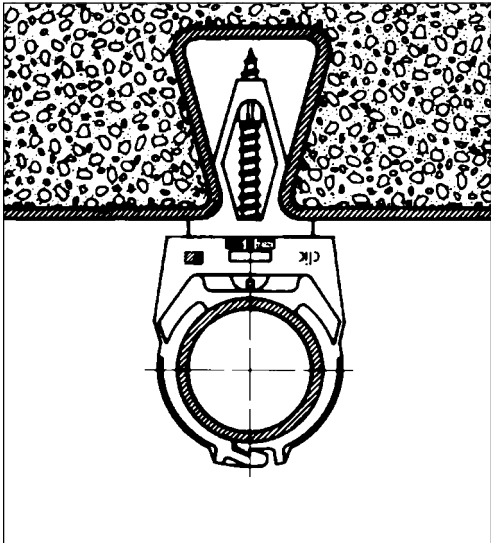


CLIC #63 - #113 DIMENSIONS IN INCHES

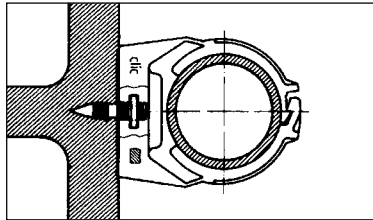
A CLAMPING DIAMETER max.	CLIC NO.	B max.	C max.	D max.	E	STATIC LOAD lbs.	
						Fy	Fx
2.795	63	3.110	2.835	4.528	3.071	395	220
3.150	71	3.583	3.031	4.882	3.425	485	285
3.543	80	4.016	3.268	5.354	3.858	575	350
3.976	90	4.370	3.504	5.827	4.331	660	420
4.449	101	4.882	3.780	6.417	4.882	770	485
5.000	113	5.630	4.134	7.087	5.472	880	555

# The Clic / Strutcatcher2 System

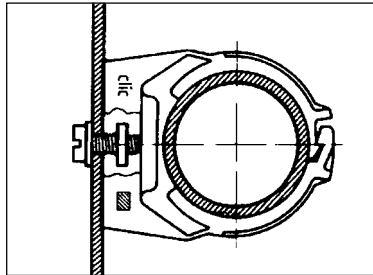
Installation possibilities for Clic #8 - #113 - using some accessories.  
See page 13 for accessories.



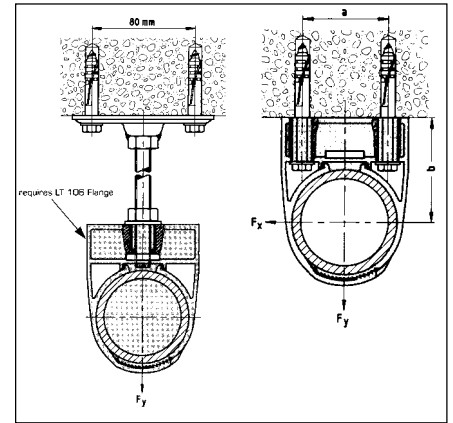
with expansion anchor



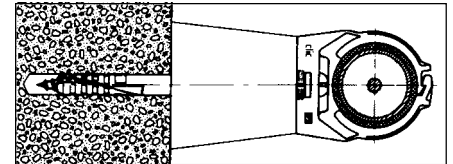
with driving stud into steel



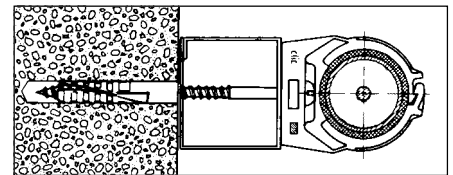
with machine screws



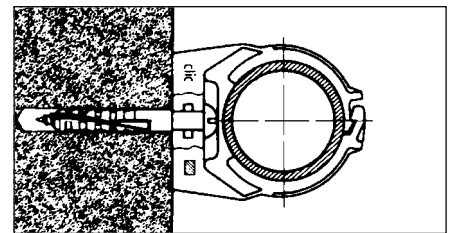
larger CLIC installations



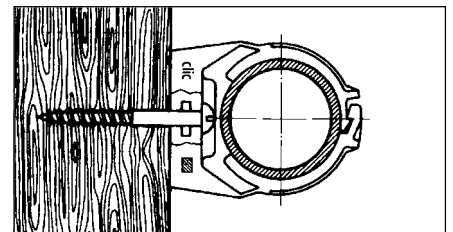
offset installation by using plastic spacer, nylon plug no. 6 and stainless steel screw dia. 4.5 for use as split ring hanger



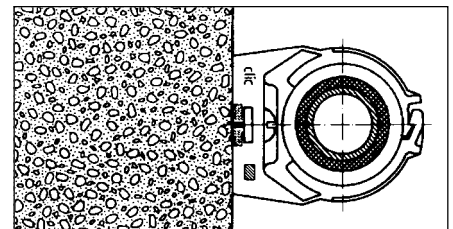
offset installation by using stainless steel spacer, nylon plug no. 6 and stainless steel wood screw dia.



with nylon plugs and wood screws



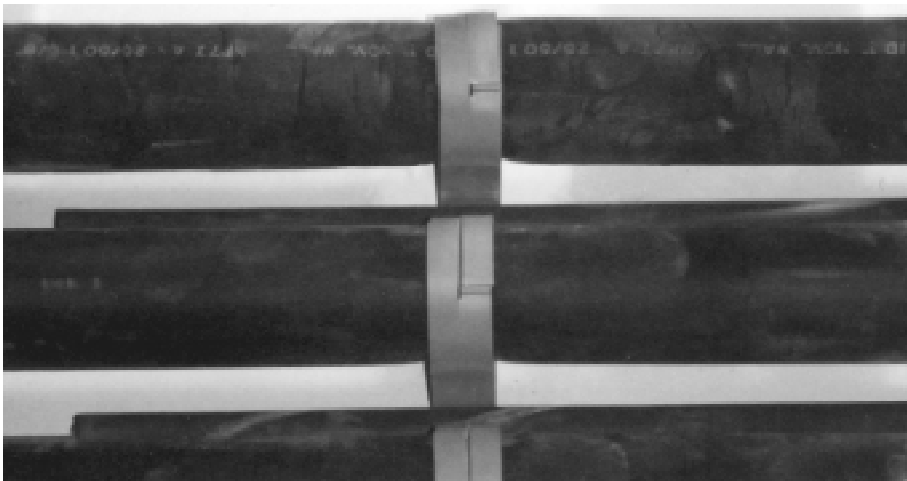
with wood screws



acoustical protection

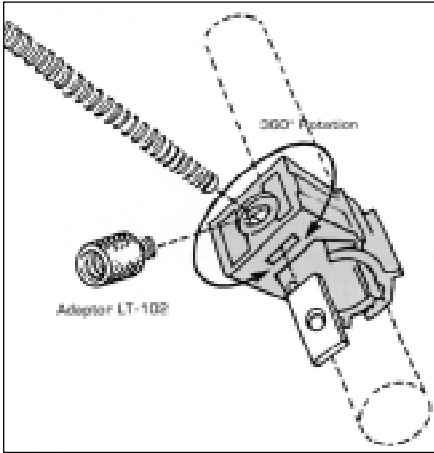


CLIC supports installed for piping to accept bare and insulated tubing



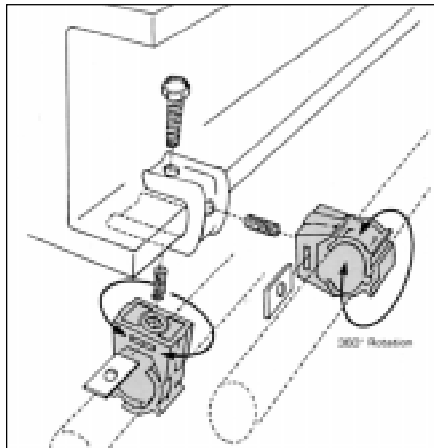
CLIC supports allowing continuous insulation

**CLIC AS A HANGER FOR PIPE/TUBE TRADE SIZES THROUGH 2"**



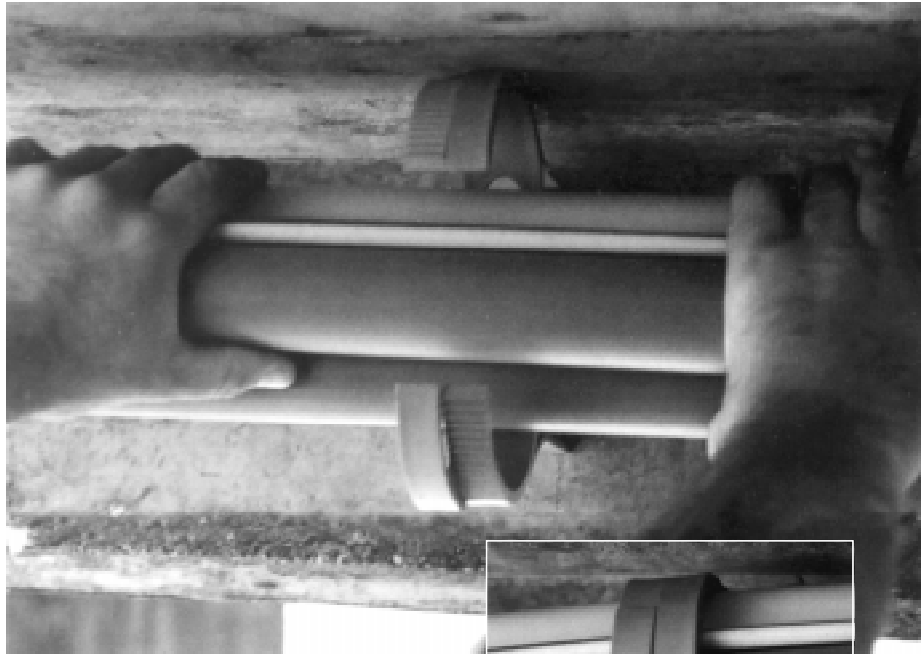
**THREADED ROD**

Insert 316-alloy stainless steel flange, LT-101, into slot in base of Clic. Turn 1/4" threaded rod into flange via screw hole in base of Clic. If using 3/8" threaded rod, make 316-alloy stainless steel adapter, LT-102, into flange via screw hole in base of Clic, then make 3/8" threaded rod into adapter.

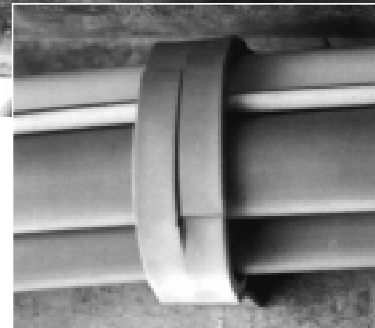


**LIGHT DUTY BEAM CLAMP**

Insert 316-alloy stainless steel flange, LT-101, into slot in base of Clic. Turn 316-alloy 1/4"-20 threaded stainless steel stud, LT-103, into flange via screw hole in base of Clic. Make other end of same stud into beam clamp.

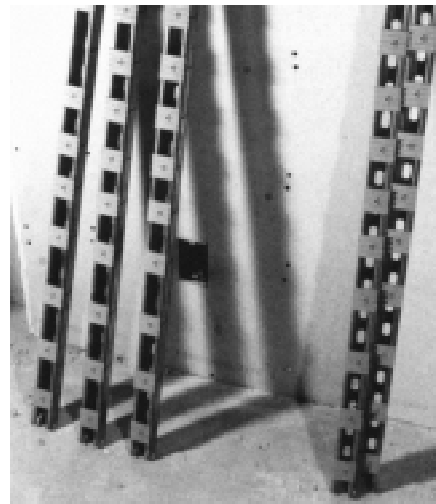


*Larger CLIC units can hold multiple pipes and tubes without using the Bundle-Insulating Ring accessory.*

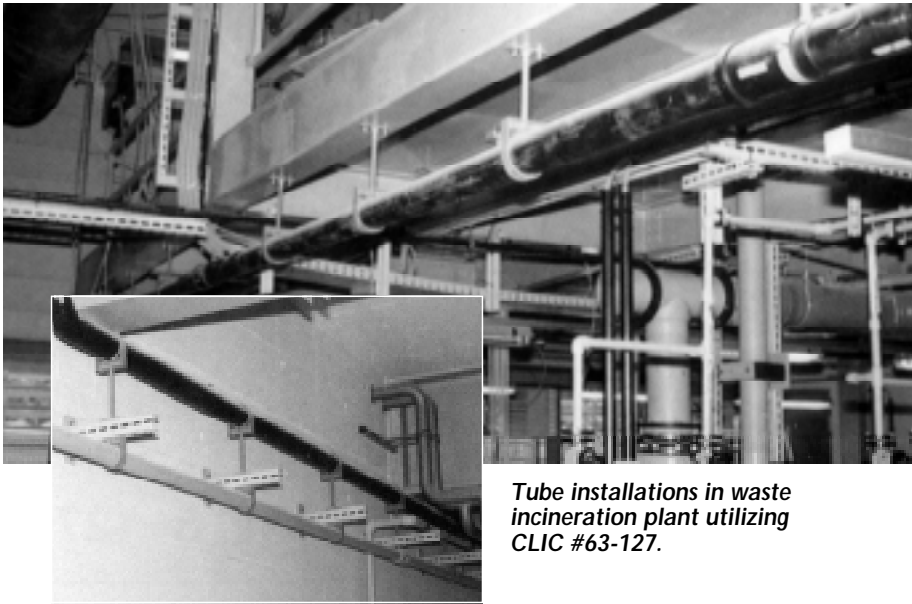


*(Above left) Assembled trapezes allows less onsite parts and labor.*

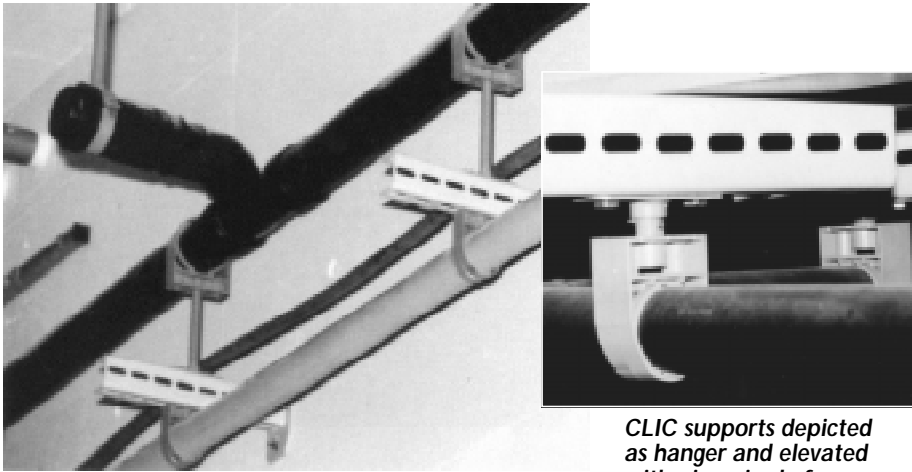
*(Above right) Redundant piping at less installed cost.*



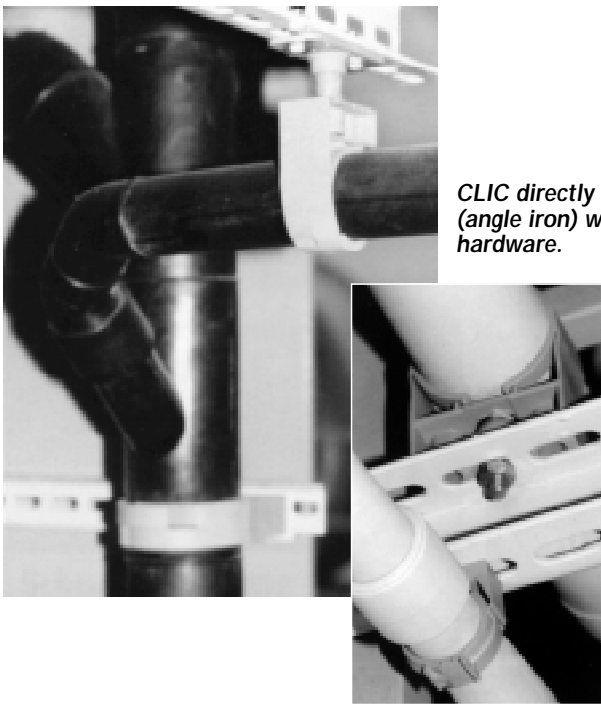
*(Left) Strutcatcher sub-assemblies allowing onsite prefabrication.*



Tube installations in waste incineration plant utilizing CLIC #63-127.

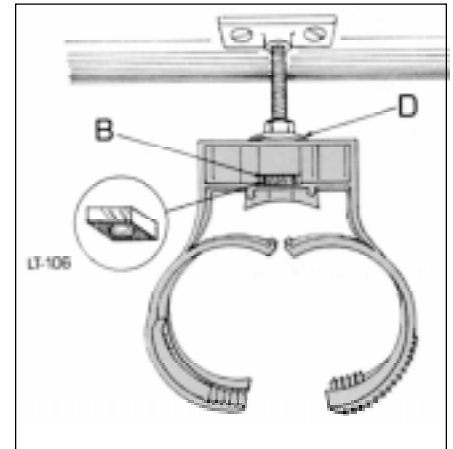


CLIC supports depicted as hanger and elevated with pipe nipple from angle iron.



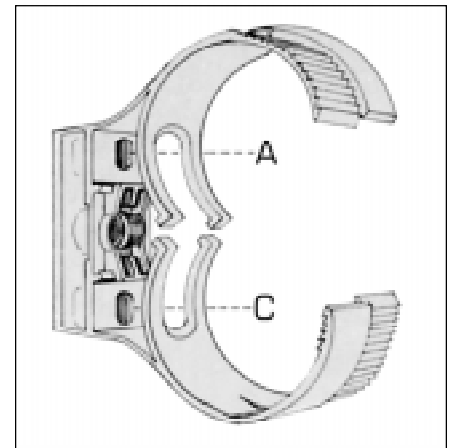
CLIC directly mounted to channel (angle iron) with conventional hardware.

**CLIC AS A HANGER FOR PIPE/TUBE TRADE SIZES 2-1/2" THROUGH 4"**



**THREADED ROD**

Use 3/8" threaded rod and flange LT-106. Flange inserts into orifice at "B". Also use washer and nut at "D". Access hole in base at "D" is tapped 1/2" NPT, thus pipe and hanger plate can be used in lieu of threaded rod, or to elevate Clc from a mounting surface.

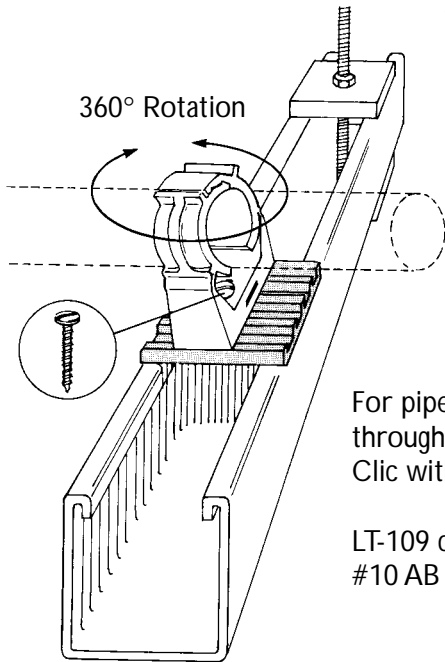


**MOST SURFACES**

Use expansion bolt 1/4" or 3/8" together with washers to suit. Use holes "A" and "C".

*For illustration only. Install per instructions packaged with product.*

# Strutcatcher application and strength examples

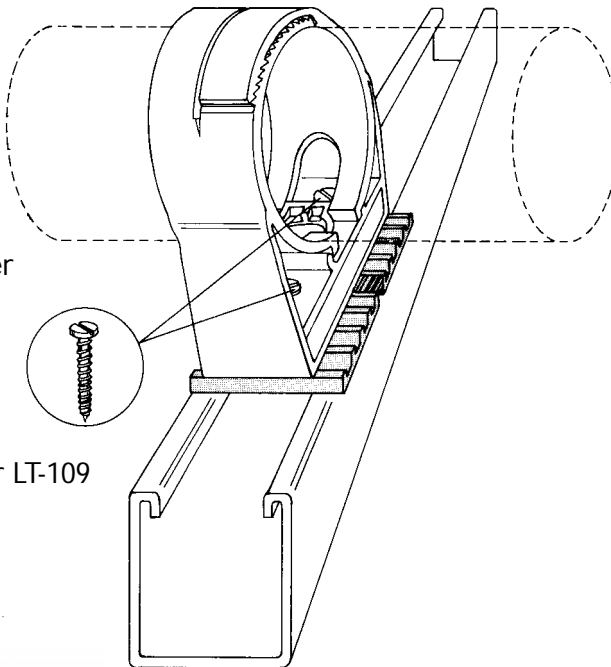


For pipe/tube sizes through 2" (Clic #17 through #59), use one Strutcatcher for each Clic with screw as shown.

LT-109 comes with stainless steel 316 #10 AB screws.

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

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



Screw for Clic #10-17  
#8 screw (substituted for normal screw when seen on same order)

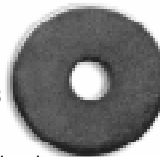


Screw for Clic #17-59  
100 screws supplied in box of LT 109-2



Screw LT110 used on Clic #63-113

Washers needed to install #63-118 on LT 109-2 free for asking from Litchfield International.

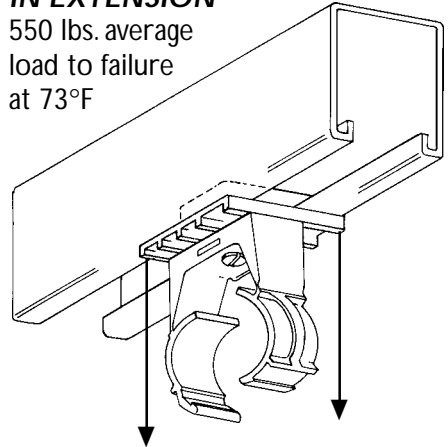


Strutcatcher permits anchoring Clic to strut in shop or on the ground without cutting into strut. The illustrated examples are shown with Clic installed. Loads are for Strutcatcher only.

See page 12 for strength loads for Clic.

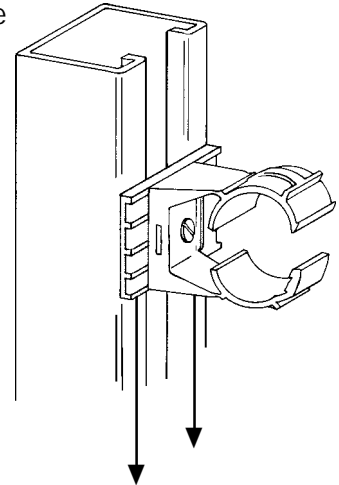
## IN EXTENSION

550 lbs. average load to failure at 73°F

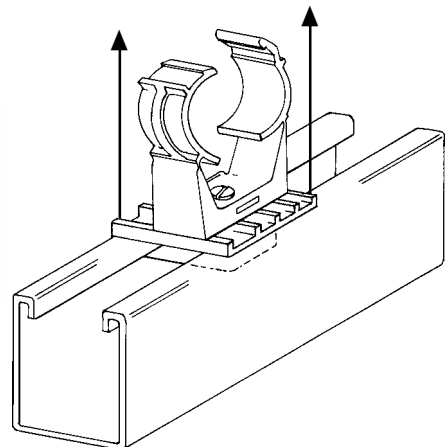


## IN SHEAR

390 lbs. average load to failure at 73°F



## IN COMPRESSION



# Strutcatcher-2

*make your life easier at a new lower cost!*

Strutcatcher<sup>TM</sup>

## Strut Types

### STEEL:

LT1 09-2

- 12 gauge 1-5/8" x 1-5/8"
- 12 gauge 1" x 1-5/8"
- 12 gauge 13/16" x 1-5/8"
- 14 gauge 13/16" x 1-5/8"

### FIBERGLASS:

For usage with Fiberglass Strut Systems, call



Insert Strutcatcher into strut.



Twist Strutcatcher 90 degrees and it locks into place.



Mount Clic onto Strutcatcher with a screw.

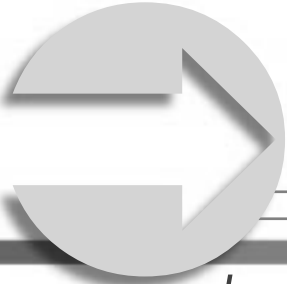
Faster  
Installation  
at Lower  
Cost!

## Material Specifications

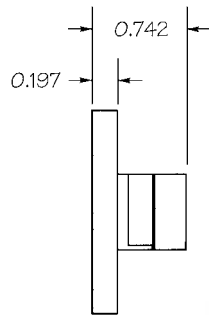
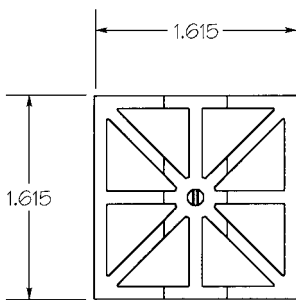
Yet to be determined by our molder ?

Nylon

Ask for material specifications data sheet ?

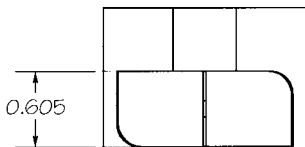
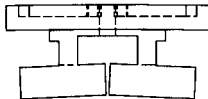


*how does it work?*



## Codes

- CLIC is IAPMO Listed.
- CLIC is used the National Electric Code.
- UL: has not created standards for thermo-plastic hardware. Some listings may apply for components seeking plenum installations.



STRUTCATCHER 2 (LT109-2)  
Patent Pending

*Clic and Strutcatcher2 work together to ease your toughest installations.*

## Benefits

- Work on top of strut
- Ease of installation
- Cost effective
- Work with screwgun
- Allows on site prefabrication
- Non-magnetic and non-corrosive
- Easy change out

CALL FOR  
FREE  
SAMPLES!



# *How Tensile Tests were performed for the Clic / Strutcatcher2 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			TYPE K 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	134	1/4"	.081 lbs	4 FT	1/4"	.43 lbs	10 FT	3/8"	.269 lbs	6 FT
17	147	3/8"	.109 lbs	4 FT	3/8"	.57 lbs	10 FT	5/8"	.418 lbs	6 FT
28	176	—	—	—	—	—	—	1"	.839 lbs	6 FT
32	285	1"	.320 lbs	4 FT	1"	1.68 lbs	12 FT	1-1/4"	1.040 lbs	6 FT
47	325	1-1/2"	.520 lbs	4 FT	1-1/2"	2.72 lbs	12 FT	—	—	—
51	440	—	—	—	—	—	—	2"	2.060 lbs	10 FT
59	557	2"	.690 lbs	4 FT	2"	3.66 lbs	12 FT	—	—	—
71	1200	2-1/2"	1.13 lbs	4 FT	2-1/2"	5.79 lbs	—	—	—	—
80	635	3"	1.46 lbs	4 FT	3"	7.58 lbs	—	—	—	—
113	1000	4"	2.05 lbs	4 FT	4"	10.79 lbs	—	—	—	—

## LT-109 Strutcatcher and LT-109-2 Strutcatcher2 Test Results *(Performed by manufacturer)*

Part No.	Extension	Shear
LT-109	550 lbs	390 lbs
LT-109-2	???	???

*(see pages 10 & 11 for additional details)*

## Accessory Test Results

Part No.	Load Average	Additional Parts Used in Test
LT-101	465 lbs	1/4" threaded rod and CLIC #32
LT-102	495 lbs	LT-101 flange and 1/4" threaded rod

Average load to failure at 73°F

The spacing information of Clic supports should be found in the applicable code and/or the manufacturers' pipe and tube recommendations.

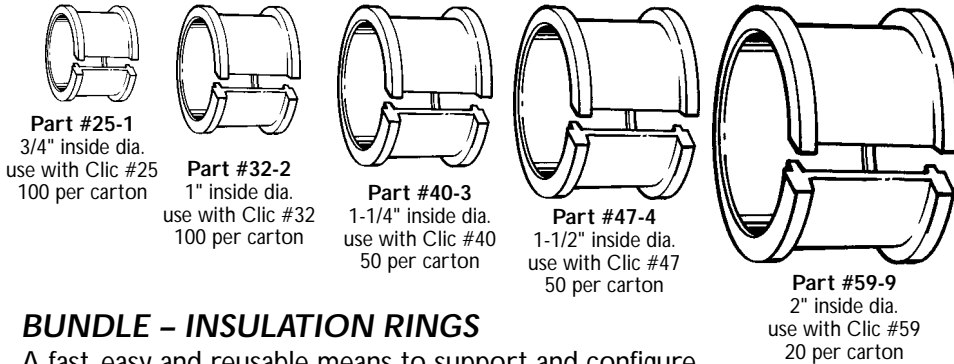
Clic Temperature Range -40° to +180°F continuously and to +225°F intermittently, with installation to -5°F.

Clic is **UPC® Accepted** and **Commonwealth of Massachusetts Approved**.

# The Clic / Strutcatcher2 Accessories

(See installation drawings for appropriate use.)

Rings are available in 5 sizes: Clic model #25-59 (diameters 3/4" - 2").



**Part #25-1**  
3/4" inside dia.  
use with Clic #25  
100 per carton

**Part #32-2**  
1" inside dia.  
use with Clic #32  
100 per carton

**Part #40-3**  
1-1/4" inside dia.  
use with Clic #40  
50 per carton

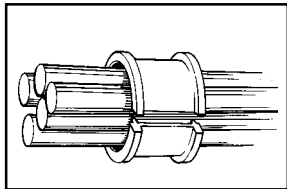
**Part #47-4**  
1-1/2" inside dia.  
use with Clic #47  
50 per carton

**Part #59-9**  
2" inside dia.  
use with Clic #59  
20 per carton

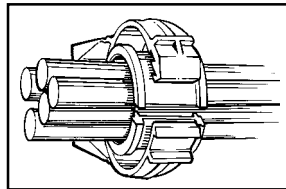
## BUNDLE - INSULATION RINGS

A fast, easy and reusable means to support and configure bundles of tube or hose. Rings may be used with insulation for continuous insulation through Clic units #25 - #59.

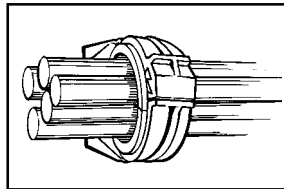
### Installation In 3 Easy Steps:



1. Insert tubing into ring.

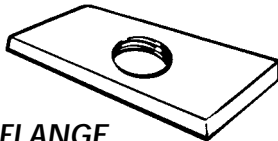


2. Put ring into matched Clic unit.



3. Push down on tubing to close Clic around tube and ring.

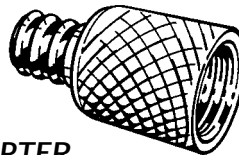
No ring is needed for self-locking ratcheted Clic design (model #63 - #113; diameters 2-1/2" - 4").



### LT-101 FLANGE

Stainless Steel 316 Alloy, tapped 1/4"-20 for thumb-tight fit into slot in base of Clic.

Permits 1/4" threaded rod or stud (LT-103 stud, LT-102 adapter, see below) to mate with Clic via screw hole in base of Clic. Packed 100 per carton.



### LT-102 ADAPTER

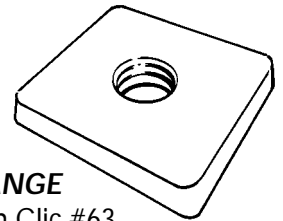
Stainless Steel 316 Alloy, 1/4"-20 male x 3/8"-16 plain female, 3/4" overall length. Mates with LT-101.

Permits 3/8" threaded rod to mate with Clic when used in combination with flange LT-101. Packed 50 per carton.



### LT-103 STUD

Stainless Steel 316 Alloy, threaded 1/4"-20, 1/2" long, to mate with flange LT-101. Packed 100 per carton.



### LT-106 FLANGE

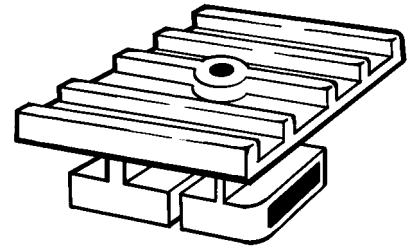
For use with Clic #63, #71, #80, #90, #101 & #113. Stainless Steel 316 Alloy tapped 3/8", thumb-tight fit into slot in base of Clic.

Permits 3/8" threaded rod to mate with Clic via hole in base of Clic. Packed 25 per carton.



### LT-110

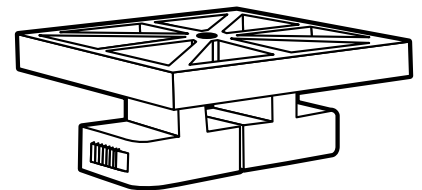
Stainless Steel 316 Screw 2-1/4" for use with LT-109 and Clic #63, #71, #80, #90, #101 & #113. Packed 50 per carton.



### LT-109 STRUTCATCHER

For use with Clic #15 through #113. Made from Nylon PA12. Packed 100 per carton.

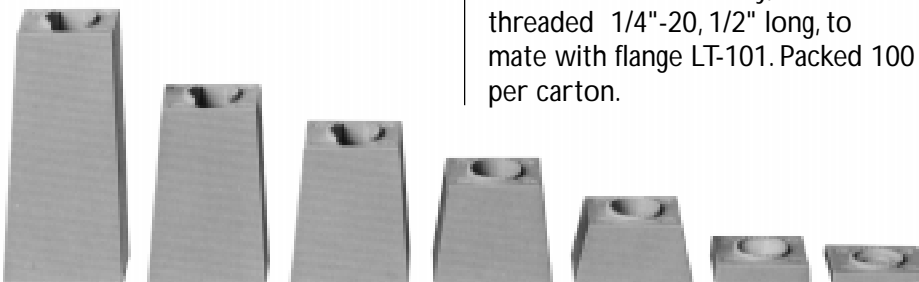
See page 10 for installation details.



### LT-109-2 STRUTCATCHER

Available winter 2000. For use with Clic #15 through #59. Made from Nylon PA12.

See page 10 for installation details.



NEW STAND-OFF / SPACER SERIES - COMING WINTER 2001

# The Clic System's Plastic and Metal Pipe Selection Chart

TYPE OF PIPE	Clic Part No. And Packing	NOMINAL PIPE SIZE												
		1/8" I.D.	1/4" I.D.	3/8" I.D.	1/2" I.D.	3/4" I.D.	1" I.D.	1-1/4" I.D.	1-1/2" I.D.	2" I.D.	2-1/2" I.D.	3" I.D.	4" I.D.	
		ACTUAL PIPE OUTSIDE DIAMETER												
		.405" O.D.	.540" O.D.	.675" O.D.	.840" O.D.	1.050" O.D.	1.315" O.D.	1.660" O.D.	1.900" O.D.	2.375" O.D.	2.875" O.D.	3.500" O.D.	4.500" O.D.	
P L A S T I C	PVC Schedules 40, 80 & 120	Part No. Qty./Ctn.	#10 100	#12 100	#17 100	#20 100	#25 50	#32 50	#40 25	#47 25	#59 20	#71 25	#80 25	#113 25
	CPVC Schedules 40 & 80	Part No. Qty./Ctn.	—	#12 100	#17 100	#20 100	#25 50	#32 50	#40 25	#47 25	#59 20	#71 25	#80 25	#113 25
	ABS Schedules 40 & 80	Part No. Qty./Ctn.	—	—	#17 100	#20 100	#25 50	#32 50	#40 25	#47 25	#59 20	#71 25	#80 25	#113 25
	PE Schedules 40 & 80	Part No. Qty./Ctn.	—	#12 100	#17 100	#20 100	#25 50	#32 50	#40 25	#47 25	#59 20	#71 25	#80 25	#113 25
	PP Schedules 40 & 80	Part No. Qty./Ctn.	—	#12 100	#17 100	#20 100	#25 50	#32 50	#40 25	#47 25	#59 20	#71 25	#80 25	#113 25
	PVDF Schedule 80	Part No. Qty./Ctn.	—	—	#17 100	#20 100	#25 50	#32 50	#40 25	#47 25	#59 20	#71 25	#80 25	#113 25
	PB Schedule 40	Part No. Qty./Ctn.	—	—	#17 100	#20 100	#25 50	#32 50	#40 25	#47 25	#59 20	—	—	—
M E T A L	Fiber Glass Reinforced Pipe Standard & Extra Heavy	Part No. Qty./Ctn.	—	—	—	#20 100	#25 50	#32 50	—	#47 25	#59 20	#71 25	#80 25	#113 25
	Galvanized Carbon Steel Schedules 5s, 10s, 40 & 80	Part No. Qty./Ctn.	#10 100	#12 100	#17 100	#20 100	#25 50	#32 50	#40 25	#47 25	#59 20	#71 25	#80 25	#113 25
	Stainless Steel Schedules 5s, 10s, 40 & 80	Part No. Qty./Ctn.	#10 100	#12 100	#17 100	#20 100	#25 50	#32 50	#40 25	#47 25	#59 20	#71 25	#80 25	#113 25
	Red & Yellow Brass & Copper Regular & Extra Strong	Part No. Qty./Ctn.	#10 100	#12 100	#17 100	#20 100	#25 50	#32 50	—	#47 25	#59 20	—	—	—
Aluminum 5s, 10s, 40 & 80	Part No. Qty./Ctn.	#10 100	#12 100	#17 100	#20 100	#25 50	#32 50	#40 25	#47 25	#59 20	#71 25	#80 25	#113 25	
GLASS PIPE - See manufacturers recommendations.														

# The Clic System's Plastic and Metal Tube Selection Chart

Made to copper tube and other tube dimensions.

TYPE OF TUBE	CLIC PART NO. AND PACKING	NOMINAL TUBE SIZE																					
		—	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"	—	
		ACTUAL TUBE OUTSIDE DIAMETER																					
		.3125"	.375"	.500"	.625"	.750"	.875"	1.000"	1.125"	1.250"	1.375"	1.500"	1.625"	2.000"	2.125"	2.500"	2.625"		3.125"	3.625"	4.125"		
C O P P E R	ACR	Part No. Qty./Ctn.	—	#10 100	#12 100	#15 100	#17 100	#20 100	—	#28 50	—	#32 50	—	#40 25	—	#51 20	—	#63 25	—	#71 25	#90 25	#101 25	—
	Refrigeration Service	Part No. Qty./Ctn.	#8 100	#10 100	#12 100	#15 100	#17 100	#20 100	—	#28 50	—	#32 50	—	#40 25	—	—	—	—	—	—	—	—	—
	Type K, L, M	Part No. Qty./Ctn.	—	#10 100	#12 100	#15 100	#17 100	#20 100	—	#28 50	—	#32 50	—	#40 25	—	#51 20	—	#63 25	—	#71 25	#90 25	#101 25	—
	DWV	Part No. Qty./Ctn.	—	—	—	—	—	—	—	—	—	#32 50	—	#40 25	—	#51 20	—	#63 25	—	#71 25	#90 25	#101 25	—
O T H E R M E T A L S	Galvanized Steel	Part No. Qty./Ctn.	#8 100	#10 100	#12 100	#15 100	#17 100	#20 100	#25 50	—	#32 50	—	#36 50	—	#51 20	#51 20	—	#63 25	—	#71 25	#90 25	#101 25	—
	Stainless Steel	Part No. Qty./Ctn.	#8 100	#10 100	#12 100	#15 100	#17 100	#20 100	#25 50	—	#32 50	—	#36 50	—	#51 20	#51 20	#59 20	#63 25	—	#71 25	#90 25	#101 25	—
	Aluminum	Part No. Qty./Ctn.	#8 100	#10 100	#12 100	#15 100	#17 100	#20 100	#25 50	—	#32 50	—	#36 50	—	#51 20	—	—	—	—	—	—	—	—
P L A S T I C	Polybutylene	Part No. Qty./Ctn.	—	—	#12 100	#15 100	—	#20 100	—	#28 50	—	#32 50	—	#40 25	—	#51 20	—	#63 25	—	#71 25	#90 25	#101 25	—
	PVC	Part No. Qty./Ctn.	—	—	—	#15 100	—	#20 100	—	#28 50	—	#32 50	—	#40 25	#51 20	—	—	—	—	—	—	—	—
	CPVC	Part No. Qty./Ctn.	—	—	#12 100	#15 100	—	#20 100	—	#28 50	—	#32 50	—	—	#51 20	—	—	—	—	—	—	—	—
	Polyethalene	Part No. Qty./Ctn.	—	—	—	#15 100	—	#20 100	—	#28 50	—	#32 50	—	#40 25	—	#51 20	—	#63 25	—	#71 25	#90 25	#101 25	—
	ABS Polypropylene PEX	Part No. Qty./Ctn.	See manufacturers sales information for sizing information																				

Clic Temperature Range -40° to +180°F continuously and to +225°F intermittently, with installation to -5°F.

