



# Catalog





Tool Selection Guide .....	2
Introduction to Gas Technology .....	4
T3MAG .....	5
TrakFast .....	6
T3SS .....	7
GypFast.....	8
GypFast Air .....	9
GypFast Air HD .....	9
Introduction to Powder Fastening Systems .....	10
R25.....	10
Rocket.....	11
XT540.....	11
SA270 .....	12
Cobra.....	12
Viper .....	13
D45A .....	14
D60.....	14
721 .....	15
RS22 .....	15
J-Master Tool L-1700 .....	16
T3SS Pole Tools EPOL6 and EPOL8 .....	17
Tool Accessories (Extension Poles) .....	18
Tool Accessories (Batteries, Fuel Cells, Chargers, etc).....	19
Construction and Drywall Adhesives .....	20
Ramset Lasers (RL510 and RL2+) .....	21
Fasteners	
Gas Tool Fasteners .....	22
GypFast Tool Fasteners .....	24
Gas Tool Fasteners .....	25
Powder Fasteners.....	27
Powder Loads.....	31
Suggested Specifications .....	32
Fasteners – How They Work .....	33
Toubleshooting.....	35
Performance/Submittal.....	36

## GAS POWERED TOOLS



### T3MAG

- 45-Pin Magazine
- One Step Fuel Injection
- 2 Year Warranty

- Length: 18-1/2"
- Height: 15"
- Weight: 9.2 lbs.
- Maximum Pin Length: 1"

**WALLS & CEILINGS**



### TF1100

- Fully Automatic
- 42 Pin Magazine
- 2 Year Warranty

- Length: 17"
- Height: 15-1/2"
- Weight: 8.375 lbs.
- Maximum Pin Length: 1-1/2"

**WALLS & CEILINGS**



### T3SS

- Single Pin Gas Tool
- Fuel Injection
- 2 Year Warranty

- Length: 13-1/2"
- Height: 15"
- Weight: 7.0 lbs.
- Maximum Pin Length: 1-1/2"

**ELECTRICAL/MECHANICAL**



### GYPFAST

- Fully Automatic
- 2 Year Warranty

- Length: 16"
- Height: 13"
- Weight: 8.9 lbs. (9.7 with nails)
- Maximum Pin Length: 2-1/2"

**EXTERIOR SHEATHING**



### GYPFAST (AIR)

- Fully Automatic
- 2 Year Warranty

- Length: 12"
- Height: 13"
- Weight: 5.5 lbs.
- Maximum Pin Length: 2-1/2"

**EXTERIOR SHEATHING AND FRAMING**



### GYPFAST (AIR HD)

- Fully Automatic
- 2 Year Warranty

- Length: 13.5"
- Height: 14.5"
- Weight: 6.0 lbs.
- Maximum Pin Length: 2-1/2"

**EXTERIOR SHEATHING AND FRAMING**

## AIR (PNEUMATIC SYSTEMS)



### 721

- Single Shot
- 3 Year Warranty

- Length: 13-1/2"
- Weight: 4.3 lbs.
- Muzzle Bushing O.D.: 5/8"
- Maximum Pin Length: 1-1/2"

**WALLS & CEILINGS**



### RS22




- Single Shot
- 90 Day Year Warranty

- Length: 14-3/4"
- Weight: 4.1 lbs.
- Muzzle Bushing O.D.: 3/4"
- Maximum Pin Length: 2-1/2" (3" w/Washer)

**WOOD FRAMING**

## .22 CAL SINGLE SHOT

\*Building trade shown as suggestions. Tools are not limited to these trades.

	TOOL	DESCRIPTION	TYPICAL BUILDING TRADE*
.25 CAL STRIP	 <b>R25</b> <ul style="list-style-type: none"> <li>Semi-Automatic</li> <li>1 Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>Length: 11.6"</li> <li>Weight: 4.3 lbs.</li> <li>Muzzle Bushing O.D.: 3/4"</li> <li>Maximum Pin Length: 1-1/2"</li> </ul>	WALLS & CEILINGS
	 <b>D45A</b> <ul style="list-style-type: none"> <li>Semi-Automatic</li> <li>Automatic Piston Return</li> <li>3 Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>Length: 15"</li> <li>Weight: 4.5 lbs.</li> <li>Muzzle Bushing O.D.: 5/8"</li> <li>Maximum Pin Length: 1" (2-1/2" w/Washer)</li> </ul>	WALLS & CEILINGS
	 <b>D60</b> <ul style="list-style-type: none"> <li>Semi-Automatic</li> <li>Power Adjustable</li> <li>3 Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>Length: 12-1/2"</li> <li>Weight: 4.9 lbs.</li> <li>Muzzle Bushing O.D.: 3/4"</li> <li>Maximum Pin Length: 2-3/8" (2-1/2" w/Washer)</li> </ul>	ELECTRICAL/MECHANICAL
.27 CAL STRIP TOOLS	 <b>ROCKET</b> <ul style="list-style-type: none"> <li>Semi-Automatic</li> <li>Power Adjust</li> <li>3 Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>Length: 17.1"</li> <li>Weight: 4.9 lbs.</li> <li>Muzzle Brushing O.D.: 3/4"</li> <li>Maximum Pin Length: 2"</li> </ul>	WALLS & CEILINGS
	 <b>XT540</b> <ul style="list-style-type: none"> <li>Semi-Automatic</li> <li>Power Adjust</li> <li>3 Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>Length: 19"</li> <li>Weight: 5.5 lbs.</li> <li>Muzzle Bushing O.D.: 7/8"</li> <li>Maximum Pin Length: 3"</li> </ul>	WALLS & CEILINGS
	 <b>SA270</b> <ul style="list-style-type: none"> <li>Semi-Automatic</li> <li>Power Adjust</li> <li>3 Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>Length: 15.3"</li> <li>Weight: 5.45 lbs.</li> <li>Muzzle Bushing O.D.: 5/8"</li> <li>Maximum Pin Length: 3"</li> </ul>	WOOD FRAMING
	 <b>COBRA</b> <ul style="list-style-type: none"> <li>Semi-Automatic</li> <li>Economical</li> <li>1 Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>Length: 13-1/4"</li> <li>Weight: 4.5 lbs.</li> <li>Muzzle Bushing O.D.: 9/16"</li> <li>Maximum Pin Length: 2-1/2" (3" w/Washer)</li> </ul>	WOOD FRAMING
	 <b>VIPER</b> <ul style="list-style-type: none"> <li>Automatic Piston Return</li> <li>Designed Specifically for Overhead Applications</li> <li>3 Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>Length: 17"</li> <li>Weight: 4.5 lbs.</li> <li>Maximum Pin Length: 1-1/2"</li> </ul>	ACOUSTICAL/OVERHEAD

\*Building trade shown as suggestions. Tools are not limited to these trades.

ITW saw a challenge: how to create a portable tool that delivered the power of pneumatic tools without the hoses and compressors. In 1991, ITW Paslode conquered the challenge with the revolution of gas-powered technology. The cordless Impulse Finish Nailer delivered the power of pneumatic tools without cluttering job sites.

With the thought of Driving Jobsite Speed while creating a safer work environment, ITW Ramset built upon the Paslode technology and in 1992 introduced the TrakFast to the drywall trade. It forever changed the way the world worked. In 2003, ITW Ramset followed up on the success of the TrakFast with the T3SS which is setting the standard for electrical and mechanical contractors.



**Drywall**



**Electrical**



**Mechanical**

- No Licensing Required
- Fast and Easy to Use
- Quiet—No Recoil
- No Cords or Hoses
- Long Fuel Cell & Battery Life

Gas significantly lowers cost-in-place, reduces stress on the employee, and it's much quieter to use than drilling or powder actuated tools (PATs), so you can work in occupied buildings. There are times when you need the

power and accuracy of our PATs—like the speed of our D45A disc tool, or the work horse, nearly maintenance-free 721 single shot PAT. But constant use of these tools can be noisy and overly jarring on the body.

## When the conditions are right, gas is the right choice.

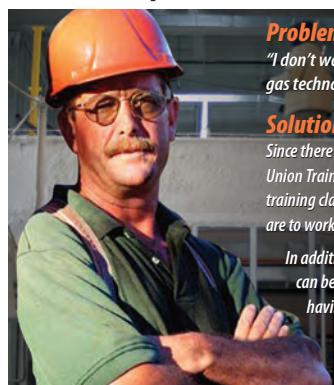


**Problem:**  
*"My guys work on block all day long—from electrical boxes to furring. I've tried powder tools and they blow holes in block. What makes the Ramset technology different?"*

**Solution:**  
 Ramset technology has patented overdrive technology built in to every gas-powered tool. The tool works under the same principal as a combustion engine. A little gas, a little spark and a powerful shot, without the recoil associated with powder.



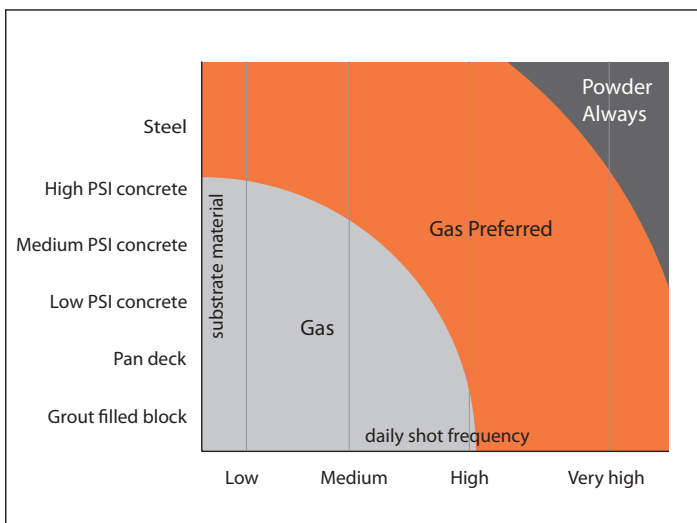
## The industry transitions to gas technology



**Problem:**  
*"I don't want to have to re-license my guys to work with gas technology"*

**Solution:**  
 Since there are no loads, there's no licensing needed. In fact, Union Trainers have begun including the Ramset Gas Tools in training classes, and students can't believe how easy the tools are to work with.

*In addition, the gas powered tools are totally portable and can be used for almost all your jobs—without the worry of having unspent loads on your jobsite.*

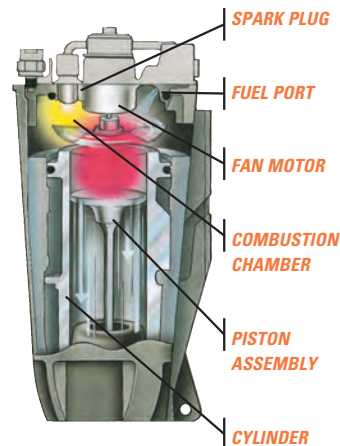


## The Inside Story

The patented Ramset technology delivers precisely balanced power eliminating the damage caused by overdrive in PATs.

How it works: As the nosepiece is depressed, a rechargeable battery turns on the fan motor. In less than a second: a precise amount of fuel is injected into the combustion chamber. When the trigger is pulled, a spark creates an explosion that drives the piston into the fastener, and the fastener in the work surface. The action creates a vacuum that pulls the piston back to the start position.

In fact the technology is so precise it won't blow through a pop can.





## T3MAG



### MOST COMMON FASTENERS

PART NO.	DESCRIPTION
T3012	1/2" steel pin with T3 fuel cell
T3034B	3/4" concrete pin with T3 fuel cell
T3034S	3/4" step shank pin with T3 fuel cell
T3100	1" concrete pin with T3 fuel cell

### DESCRIPTION

- Gas Technology
- 45-Pin Magazine
- One Step Fuel Injection
- 2 Year Warranty
- Length: 18-1/2"
- Height: 15"
- Weight: 9.2 lbs.
- Pin Guide O.D.: .590
- Maximum Pin Length: 1"

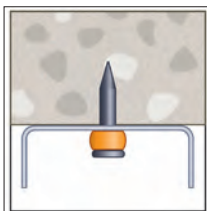
### ADVANTAGES

- Higher stick rate
- 25% more power
- Easy push down force
- Deep leg track capacity
- 45-pin magazine capability
- Fitted dust shield
- Battery charger provides constant charging even with low voltage drops
- 2 Year Warranty (6 months on wearable parts)
- No License Required

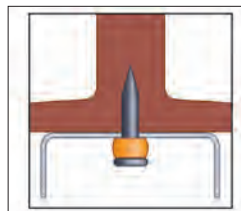
### FEATURES

#### T3MAG Increase Your Range with Overhead Power

The Power of the T3MAG allows you to consistently shoot where no other gas tool has gone before. The .125 diameter pin is specifically engineered to work in the toughest concrete and steel where other pins cannot perform. The new T3MAG system delivers power that rivals other gas and powder systems.



Settling aggregate is the biggest reason for overhead pin failure.



With the T3's 1/2 steel pin you can even shoot into the web of steel.



Easy battery loading. Battery rest position allows you to turn off the tool without fully removing the battery.

### FUEL CELL AND BATTERY



#### T3 fuel cell Part No. T3FUEL

Replaces conventional powder loads and drives more than 1000 pins

**Fuel injection means no additional steps of preparing a fuel cell. Click the fuel cell in place and the tool is ready to go.**



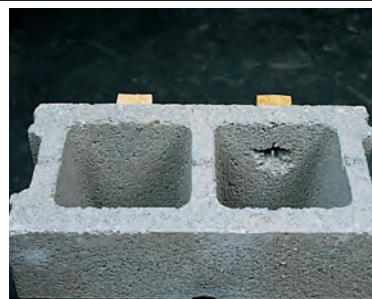
#### Part No. B0092

The 6-volt Ni-Cd battery can drive more than 3000 shots per charge

### APPLICATIONS



Even though the T3 has enough power to fasten into hard concrete and steel it still will not blow through hollow block.

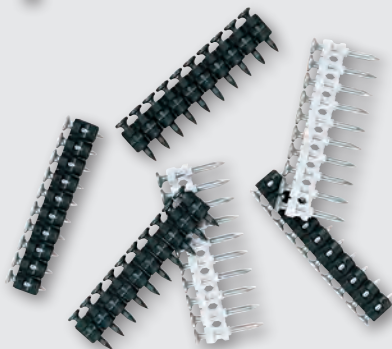


Will not spall hollow block like powder actuated.



Perfect for hat channel applications.

## TRAKFAST TF1100



### DESCRIPTION

- Gas Technology
- Fully Automatic
- 1-1/2" Pin Capacity
- 42 Pin Magazine Capacity
- Length: 17"
- Height: 15-1/2"
- Weight: 8.375 lbs.
- Maximum Capacity: 42 pins
- Maximum cycles/second: 2
- Fuel cell: 1000 shots
- Battery (charged): 3000 shots

### ADVANTAGES

- **SPEED:** Three to five times faster than powder tools. 42-pin magazine reduces load time.
- **EASY TO USE:** Tool automatically resets piston. No recoil, tool absorbs shock resulting in less operator fatigue.
- **NO LICENSING REQUIRED:** Unlike powder-actuated tools, no licensing is required.
- **NO CHANGING LOADS:** TrakFast uses a fuel cell, not a load. No need to inventory different colored loads
- **NARROW HOSE & PROFILE:** Allows tool to reach inside deep leg track (1-5/8" wide x 2" high).
- 2 Year Warranty (6 months on wearable parts).

### FEATURES

#### Still the most revolutionary fastening system in the construction industry!

Since its introduction in 1991, TrakFast has been the tool of choice for both interior and exterior contractors. The TrakFast Automatic Fastening System fastens all types of track, from standard track to hat channel, deep leg, Z, and J channel. Contractors continue to report tremendous savings when using TrakFast for high production fastening. They have learned that TrakFast's actual cost in place beats all other systems. The increased speed and productivity of TrakFast allows the contractor to bid more competitively, complete the job sooner and move on to the next job. Anyone can use TrakFast—just load the pins and fire. It's that easy!

#### TrakFast's power comes from the battery and fuel cell

The 6-volt rechargeable Ni-CD battery can drive approximately 3000 shots per charge. The clean burning fuel cell can drive over 1000 pins and keeps the tool cleaner than powder actuated tools.



#### Fastening System Productivity

In the time it takes you to drive two pins with a powder tool, you can drive up to 10 pins with TrakFast!



### MOST COMMON FASTENERS

PIN #	PIN LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	
FPP012S	1/2	12.7	Track to steel
FPP034B	3/4	19.1	Track to concrete



### APPLICATIONS



Track to steel



Lath attachment—using one-inch TrakFast discs and magnetic probe adapter



Furring attachment—perfect fastening every time in soft and hard base materials



Plywood attachment—using TrakFast plywood to steel pin



Track to concrete



## T3SS



**VERSATILE, fastens to solid concrete, hollow block, pan deck and steel.**



### DESCRIPTION

- Gas Technology
- Single Pin Gas Tool
- Fuel Injection
- Cross Over Technology
- 2 Year Warranty (6 months on wearable parts)
- Length: 13-1/2"
- Height: 15"
- Weight: 7.0 lbs.
- Pin Guide O.D.: 1/2" Standard, 7/8" Magnetic
- Maximum Pin Length: 1-1/2"

### ADVANTAGES

- Sets the standard for single-shot applications
- 5 times faster than traditional drill and anchor methods
- Replaces the need for tools like the DX35
- Reduced operator fatigue
- Reduced installation costs—up to 75%
- Quiet enough to work in tenant occupied buildings
- Removable rear foot
- Interchangeable nose

### FEATURES

#### Crossing over from powder to gas

Ramset is serious when it comes to driving job speed by creating the T3SS—the single shot tool that will help move contractors from powder to gas.

The T3SS provides the benefits of shooting a gas tool, including reduced installation time and operator fatigue for the contractor who normally shoots a muzzle loaded powder tool.

To make the T3SS the most versatile gas tool in the industry, Users can change out nosepieces to accommodate any fastening need. From metal-to-concrete, hard concrete or steel, pan deck, block and just about surface you can think of the T3SS works for you.



No more fines for unspent loads on the jobsite.

### APPLICATIONS



12HSMPO34 clip assembly used to secure conduit



M034 fastener used to hang HVAC Duct Strap



M100 fastener used to attach a junction box



Easy battery loading. Battery rest position allows you to turn off the tool without fully removing the battery.

### FUEL CELL AND BATTERY



#### T3 fuel cell Part No. T3FUEL

Replaces conventional powder loads and drives more than 1000 pins

**Fuel injection means no additional steps of preparing a fuel cell. Click the fuel cell in place and the tool is ready to go.**



#### Part No. B0092

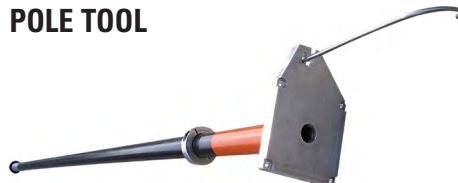
The 6-volt Ni-Cd battery can drive more than 3000 shots per charge

### FASTENER AND MAGNETIC NOSEPIECE



The optional interchangeable nosepiece (Part Number M150200) is able to shoot a variety of M series fasteners.

### POLE TOOL



Part Nos. EPOL6 and EPOL8

### MOST COMMON FASTENERS

PIN #	DESCRIPTION
12HSMPO34	1/2" One hole strap with 3/4" pin
M034	3/4" Plated pin with top hat
M100	1" Pin with gold domed washer
14THRHMP034	1/4" Threaded rod hanger

## GYPFAST



**Fully Automatic Cordless Gas Fastening System for Attaching Exterior Sheathing to Light Gauge Steel Framing**

**Fuel cell**  
**Part No. TFUEL**



**Battery**  
**Part No. 405176**



### DESCRIPTION

- **Part No.:** GYPFAST
- Fully Automatic
- 2-1/2" Pin Capacity
- Length: 16"
- Height: 13"
- Weight: 8.9 lbs. (9.7 with nails)
- Lengths: 1", 1-1/2", 2" and 2-1/2"
- Diameter: .140" Nominal
- Head Style: 5/16" dia. bugle head
- Finish: Climacoat Long Life Polymer

### APPLICATIONS

- Exterior Gypsum sheathing to steel framing
- Plywood and OSB sheathing/flooring
- Fiber cement panel attachment
- Blocking
- Exterior walls
- Windows/door bucks
- Specialty exterior sheathing attachment
- Woven wire mesh or expanded metal lath to steel framing

### FEATURES

- Fully automatic system with 150 nail capacity is 3-5 times faster than screwing.
- Fast set-up and tear down – insert battery, fuel cell and nail coil – eliminates need for extension cord, hoses and compressors.
- Aggressive, patented nail shank design provides high pullout performance.
- Contoured bugle head style provides high pullover (wind) resistance.
- Long life Climacoat™ finish is 10 times more corrosion resistant than electro-zinc plating.
- Woven wire mesh or expanded metal lath to steel framing
- 2 year warranty

### MOST COMMON FASTENERS

PIN #	.140" DIA. KNURLED SHANK 5/16" DIA. BUGLE HEAD		MASTER CARTON	APPLICATION
	IN.	(MM)		
GF100	1	25.4	4,800 nails/ctn (48 - 100 ct. coils) 5 fuel cells	Metal to Metal Attachment
GF112	1-1/2	38.1	6,000 nails/ctn (40- 150 ct. coils) 6 fuel cells	Single Layer of Exterior Sheathing, Wood Furring and Blocking
GF200	2	50.8	4,800 nails/ctn (32 - 150 ct. coils) 5 fuel cells	Double Layer of Exterior Gypsum Sheathing, Wood Furring and Blocking
GF212	2-1/2	63.5	2,700 nails/ctn (18 - 150 ct. coils) 3 fuel cells	Multi-Layers of Sheathing, Wood Blocking, and Dimensional Lumber

### APPLICATIONS



Exterior Gypsum sheathing to steel framing, Plywood and OSB sheathing/flooring, Fiber cement panel attachment, Blocking Exterior walls, Windows/door bucks, Specialty exterior sheathing attachment, Woven wire mesh or expanded metal lath to steel framing.

OSB and plywood to iSPAN joists

## GYPFAST AIR



### DESCRIPTION

- **Part No.:** GYPFASTAIR
- Fully Automatic
- 2-1/2" Pin Capacity
- Length: 12"
- Height: 13"
- Weight: 5.5 lbs.
- Lengths: 1", 1-1/2", 2" and 2-1/2"
- Diameter .140" Nominal
- Head Style 5/16" dia. bugle head
- Finish Climacoat Long Life Polymer

### ADVANTAGES

- High performance pneumatic fastening system is 3-5 times faster than screws.
- 150 nails in a coil reduces reloading – improves productivity.
- Collation provides smooth, consistent operation with no flagging or breakage.
- Switch from sequential to bump fire.
- Aggressive, patented nail shank design provides high pullout performance.
- Contoured bugle head style provides high pullover (wind) resistance.
- Long life Climacoat™ finish is 10 times more corrosion resistant than electro-zinc plating.

## GYPFAST AIR HD



### DESCRIPTION

- **Part No.:** GYPFASTAIRHD
- Fully Automatic
- 2-1/2" Pin Capacity
- Length: 13.5"
- Height: 14.5"
- Weight: 6 lbs
- Lengths: 1", 1-1/2", 2" and 2-1/2"
- Diameter .140" Nominal
- Head Style 5/16" dia. bugle head
- Finish Climacoat Long Life Polymer

### ADVANTAGES

- High performance pneumatic fastening system is 3-5 times faster than screws.
- 150 nails in a coil reduces reloading – improves productivity.
- Collation provides smooth, consistent operation with no flagging or breakage.
- Switch from sequential to bump fire.
- Aggressive, patented nail shank design provides high pullout performance.
- Contoured bugle head style provides high pullover (wind) resistance.
- Long life Climacoat™ finish is 10 times more corrosion resistant than electro-zinc plating.

## APPLICATIONS



Exterior Gypsum sheathing to steel framing (20-14 gauge), Plywood and OSB sheathing/flooring, Wood furring to steel framing, Fiber cement panels to steel framing, Woven wire mesh or expanded metal lath to steel framing

OSB and plywood to iSPAN joists



## Over a half century of leadership in powder actuated tools and fasteners

The first powder actuated tools (PATs) were used for repairing damaged ship hulls during World War I. This application continued through World War II, when the son of the original inventor, Stanley Temple, developed and implemented the technology for commercial use. In 1947, the "Tempotool" was introduced to the construction industry.

Ramset Fasteners was founded in 1948 to handle distribution and sales for the construction trades. In 1949, Ramset's accredited Operator Program was officially launched. Today this highly successful training program has instructed over 1,000,000 trades people in the safe use of PATs.

### ONLINE POWDER TRAINING AND CERTIFICATION

Only properly trained and licensed operators are described in ANSI Standard A 10.3 and/or local regulations may operate powder actuated tools. ITW Ramset distributors offer complete training programs for end users. Contact your local Ramset distributor for complete details.

Ramset has designed and engineered the right powder actuated tool (PAT) for your applications. To ensure you use a PAT correctly, please take the time to review the Operator's Safety and Operating Instruction Manual packaged with each tool. These manuals are also available for download on the Ramset website.

To ensure safety on the jobsite, OSHA and ANSI require that all PAT users become trained and certified for the particular tool being used. One way Ramset enables you to receive this training is through our website training program. This innovative approach to education combines interactive web-based training techniques and online testing with immediate feedback to provide you a rich learning environment.

The course consists of approximately 30 pages of usage, safety and troubleshooting material.

Upon completion of this brief course you can take an online exam. With successful completion of the exam, you can print a certification card.

As an industry leader in powder actuated fastening systems, Ramset continues to provide the most effective and comprehensive instructor and operator training programs available.

Today, Ramset continues to bring the industry the products, service and innovation that they have come to expect from the leader in powder fastening. All geared to help contractors do their job faster, more safely and more productively.

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



### DESCRIPTION

- .25 Caliber Strip Tool
- Semi-Automatic
- .25 Caliber Strip Loads  
3 (Green), 4 (Yellow), 5 (Red)
- Weight: 4.3 lbs.
- Length: 11.6"
- Maximum Pin Length: 1-1/2"
- 1 Year Warranty

### ADVANTAGES

- Rugged metal housing
- Rubber cushion grip
- Popular drywall track tool
- 1 Year Warranty

### MOST COMMON FASTENERS

PIN #	SHANK LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	
1506B	3/4	19.0	Track to concrete
SP58TH	5/8	15.9	Track to steel

### COMMON REPLACEMENT PARTS

- SC325207A Piston Assembly
- SC306010 Fastener Guide
- SC301011A Shear Clip (Pkg of 3)
- SC326009 Front Barrel/Baseplate

### ROCKET



#### DESCRIPTION

- .27 Caliber Strip Tool
- Semi-Automatic
- Power Adjust
- .27 Caliber Strip Loads  
3 (Green), 4 (Yellow), 5 (Red)
- Weight 4.9 lbs.
- Length: 17.1"
- Muzzle Bushing O.D.: 3/4"
- Maximum Pin Length: 2"
- 3 Year Warranty

#### ADVANTAGES

- Very Powerful
- Spring return front end—no manual resetting of the piston
- Power adjust—dial down 1-1/2 load levels
- Rugged soft grip handle
- Low recoil
- Ergonomically balanced

#### MOST COMMON FASTENERS

PIN #	SHANK LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	
SP58TH	5/8	15.9	Track to steel
1510	1-1/4	31.8	Perimeter track to concrete
SP114	1-1/4	31.8	Perimeter track to concrete

#### COMMON REPLACEMENT PARTS

- A1130A Buffer Assembly
- A1010 Piston

### XT540



#### DESCRIPTION

- .27 Caliber Strip Tool
- Semi-Automatic
- Power Adjust
- 3" Pin Capacity
- 3 Year Warranty
- .27 Caliber Strip Loads  
3 (Green), 4 (Yellow), 5 (Red)
- Weight: 5.5 lbs.
- Length: 19"
- Muzzle Bushing O.D.: 7/8"

#### ADVANTAGES

- Very Powerful
- Spring return front end—no manual resetting of the piston
- Power adjust—dial down 1-1/2 load levels
- Rugged soft grip handle
- Low recoil
- Ergonomically balanced

#### MOST COMMON FASTENERS

PIN #	SHANK LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	
SP58TH	5/8	15.9	Track to steel
SP34	3/4	19.1	Track to concrete
M100BB	1	25.4	Track to concrete
SP114	1-1/4	31.8	Track to concrete

#### COMMON REPLACEMENT PARTS

- PA37037 Piston
- 100167 Piston Return Spring



### SA270



#### DESCRIPTION

- .27 Caliber Strip Tool
- Semi-Automatic
- Power Adjust
- .27 caliber 10-shot strip loads  
3 (Green), 4 (Yellow), 5 (Red)
- Weight: 5.45 lbs.
- Length: 15.3"
- Muzzle Bushing O.D.: 5/8"
- Maximum Pin Length: 3" straight pin
- 3 Year Warranty

#### ADVANTAGES

- Very Powerful
- Excellent balance—easy to use all day long
- Rubber grip on front barrel—eliminates pinched fingers and hands
- Twist lock front end—easy to clean
- Rugged polyamide housing—reduces heat transfer and maximizes operator comfort
- Soft, recoil-absorbing handle—for increased operator comfort

#### MOST COMMON FASTENERS

PIN #	SHANK LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	
1516SDC (washed)	2-1/2	63.5	2" x 4" to concrete
1524SDP(washed)	3	76.2	2" x 4" to concrete
SP58TH	5/8	15.9	Track to steel

#### COMMON REPLACEMENT PARTS

- 27833      Piston with Ring

### COBRA



#### DESCRIPTION

- .27 Caliber Strip Tool
- Semi-Automatic
- Economical
- .27 caliber 10-shot strip loads  
3 (Green), 4 (Yellow), 5 (Red)
- Weight: 4.5 lbs.
- Length: 13-1/4"
- Muzzle Bushing O.D.: 9/16"
- Maximum Pin Length: 2-1/2"  
(3" w/washer)

#### ADVANTAGES

- Semi-automatic .27-caliber tool —uses strip loads
- Padded recoil-absorbing handle—for greater operator comfort
- Fastens up to 3" standard Ramset drive pins and threaded studs—ideal for general construction applications
- Full one-year warranty

#### MOST COMMON FASTENERS

PIN #	SHANK LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	
1524SDP (washed)	3	76.2	2" x 4" concrete
1524SDC (washed)	2-1/2	63.5	2" x 4" concrete
1506B	3/4	19.1	Drywall track to concrete

#### COMMON REPLACEMENT PARTS

- SC301200A      Piston and Ring
- SC301012      Pawl (stop)

## VIPER



### DESCRIPTION

- .27 Caliber Strip Tool
- Semi-Automatic
- Designed Specifically for Overhead Applications
- 3 Year Warranty
- .27 caliber 10-shot strip loads  
3 (Green), 4 (Yellow), 5 (Red)
- Weight: 4.5 lbs.
- Length: 17"
- Maximum Pin Length: 1-1/2"

### ADVANTAGES

- **AUTOMATIC LOAD ADVANCE:** Load is advanced consistently each time the Viper is fired.
- **AUTOMATIC PISTON RETURN:** No time spent manually resetting or cycling the tool. Allows you to work faster.
- **OVERDRIVE PROTECTION:** Heavy duty buffer system prevents front end damage caused by piston overdrive—especially through sprayed-on insulation.
- **OPEN FRONT-END DESIGN:** Completely redesigned open-ended muzzle keeps your tool cleaner longer.
- **SIMPLIFIED BARREL RETENTION COLLAR:** No tools are required for assembly or disassembly.
- **STABLE STEEL COLLAR:** The Viper screws securely into the end of the extension pole with the steel collar ensuring a more durable and rigid connection.
- **USES EXISTING VIPER POLE SYSTEM:** Works with the existing family of durable Ramset poles.

### EXTENSION POLES

FIXED LENGTH	
LENGTH	PART #
6'	VPOL6
8'	VPOL8

### MOST COMMON FASTENERS

PIN #	SHANK LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	
14TRHSS10	1	25.4	Threaded Rod Hanger
SDC125	1-1/4	31.8	Ceiling Clip
SPC114	1-1/4	31.8	Ceiling Clip

#### TELESCOPING

(ADJUSTABLE IN 1' INCREMENTS)

LENGTH	PART #
6'-12'	TVPOL612
6'-18'	TVPOL618

### COMMON REPLACEMENT PARTS

- MVP500AP Advance Lever Assembly
- MVP140 Piston

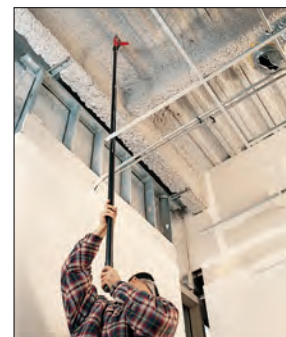


### FASTENERS

- **ELECTRICAL PIN/CLIP ASSEMBLIES**  
Preamsembled Pin & Clips for some of the most common electrical applications increase jobsite speed for the electrician.
- **STANDARD PIN/CLIP ASSEMBLIES**  
SDC Fasteners are designed with special dimples on the angle clips which act as a shim and assure a snug fit between the structural member and the clip.
- **POWERPOINT® PIN/CLIP ASSEMBLIES**  
SPC Fasteners are assembled with the patented technology of PowerPoint pins for penetration in hard concrete and steel. The uniform shape and finish of the engineered tip results in more consistent performance in your toughest situations.



*The Viper screws solidly onto a pole for high reach and secure operation for ceiling applications.*



*The Viper was engineered specifically for overhead applications.*

### D45A



3/8" Muzzle Bushing  
 available for limited  
 applications  
 Part Number  
 32330038M

#### DESCRIPTION

- .25 Caliber Disc Tool
- Semi-Automatic
- Automatic Piston Return
- .25 caliber 10-shot disc loads  
 2 (Brown), 3 (Green), 4 (Yellow), 5 (Red)
- Weight: 4.5 lbs.
- Length: 15"
- Muzzle Bushing O.D.: 5/8"
- Maximum Pin Length: 2" (2-1/2" w/washer)
- 3 Year Warranty

#### ADVANTAGES

- Most durable, powerful powder tool—  
 designed for high production use in steel  
 and concrete
- Heavy-duty buffer system—prevents front-  
 end tool damage for longer tool life
- Weekly cleaning, not daily cleaning—  
 saves time and reduces costs
- 33% faster than semi-automatic tools—  
 saves time and labor costs
- Ramset Disc Technology—loads only  
 advance after firing—eliminates 10-20% of  
 load waste

#### MOST COMMON FASTENERS

PIN #	SHANK LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	
SP58TH	5/8	15.9	Track to steel
SP12	1/2	12.7	Track to hard steel
1506B	3/4	19.1	Track to concrete

#### COMMON REPLACEMENT PARTS

- 323110 Muzzle Bushing Shroud
- 30645 Piston

### D60



#### DESCRIPTION

- .25 Caliber Disc Tool
- Semi-Automatic
- Power Adjustable
- 3 Year Warranty
- .25 caliber 10-shot disc loads  
 2 (Brown), 3 (Green), 4 (Yellow)
- Weight: 4.9 lbs.
- Length: 12-1/2"
- Muzzle Bushing O.D.: 3/4"
- Maximum Pin Length: 2-3/8"  
 (2-1/2" w/washer)

#### ADVANTAGES

- Quick power adjustment—gives eight  
 levels of power with only one load level for  
 a variety of applications
- Rugged polyamide housing—reduces heat  
 transfer and maximizes operator comfort
- Soft, recoil-absorbing handle—for  
 increased operator comfort
- Ramset Disc Technology—loads only  
 advance after firing—eliminates 10-20%  
 of load waste

#### MOST COMMON FASTENERS

PIN #	SHANK LENGTH		THREAD LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	IN.	MM	
M100BB	1	25.4			Sheet metal to concrete
1643W	1	25.4	3/4	19.1	Electrical box to concrete

#### COMMON REPLACEMENT PARTS

- 30691 Piston
- 135220 Pawl Assembly



## DESCRIPTION

- .22 Caliber Single Shot Tool
- Single Shot
- 3 Year Warranty
- .22 caliber, single-shot loads: 2 (Brown), 3 (Green), 4 (Yellow)
- Weight: 4.3 lbs.
- Length: 13-1/2"
- Muzzle Bushing O.D.: 5/8"
- Maximum Pin Length: 1-1/2"

## ADVANTAGES

- Rugged metal housing—holds up for years
- Low recoil—reduces operator fatigue on large jobs
- Simple to clean—saves on labor costs
- Rubber cushion grip—for maximum operator comfort
- Only two moving parts to clean—easy maintenance; saves time
- Narrow 5/8" muzzle bushing—for easy access in tight fastening areas
- Automatic cartridge ejection system—increases operator speed and productivity

## MOST COMMON FASTENERS

PIN #	SHANK LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	
1506B	3/4	19.1	Track to concrete
M100BB	1	25.4	Track to concrete
SP58TH	5/8	15.9	Track to steel

## COMMON REPLACEMENT PARTS

- 33657 Piston Ring Assembly
- 12258 Barrel Extension



## DESCRIPTION

- .22 Single Shot Tool
- Trigger Operated Powder Actuate Tool
- 90 Day Warranty
- Uses standard .22 caliber single shot powder loads 2 (Brown), 3 (Green), 4 (Yellow)
- Weight: 4.1 lbs.
- Length: 14-3/4"
- Muzzle Bushing O.D.: 3/4"
- Maximum Pin Length: 2-1/2" (3" w/washer)

## ADVANTAGES

- Designed for frequent use providing professional fastening results in a variety of concrete, masonry or steel applications
- The RS22 is a traditional trigger operated tool
- Ergonomic design for operator comfort
- Positive barrel and load retention prevents barrel from opening freely, allowing easy horizontal and overhead fastening
- Powder load automatically ejects after each use
- Heavy-duty all-steel construction

## MOST COMMON FASTENERS

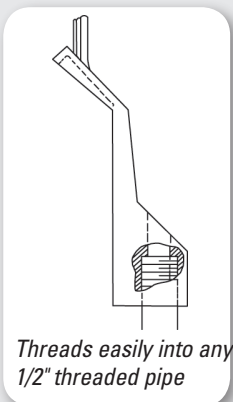
PIN #	SHANK LENGTH		MOST COMMON APPLICATION
	IN.	(MM)	
1524SDP (washed)	3	76.2	2" x 4" to concrete
1516SDC (washed)	2-1/2	63.5	2" x 4" to concrete
1506B	3/4	19.1	Drywall to concrete

## COMMON REPLACEMENT PART

- 250400 Piston Assembly



# J-MASTER TOOL L-1700



## DESCRIPTION

- For Attachment of Hanger Wire Clips J-Clip® (L1701) and Clip-Pur® (L1801)
- A Non-Powder Alternative
- 19 gauge clip

## ADVANTAGES

- For strong, reliable attachment of hanger wire from open web bar joists or purlins
- No hammering, punching holes or wrapping wire
- Fast, easy installation from floor level
- Two magnetized strips included for use in attachment of Clip-Pur (L1801)
- No ladders or scaffolding necessary
- Threads easily into any 1/2" threaded pipe

## CLIPS FOR USE WITH THE J-MASTER® TOOL



### J-CLIP (L1701)

252 lb. Allowance working load (4:1 safety factor)

- Strong, reliable attachment of pre-tied hanger wire
- Use for open web bar joists or purlins
- Each clip fits 1/16"-1/4" flanges



### CLIP-PUR (L1801)

217 lb. Allowable working load (4:1 safety factor)

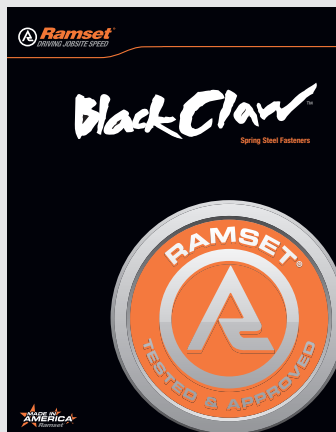
- Fast, easy attachment of pre-tied hanger wire from Z-Purlins
- Disengages from J-Master tool after installation

## EASY INSTALLATION

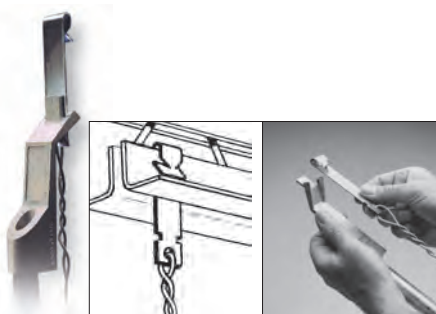
1. Attach a 1/2" pipe extension (dielectric pole available) to the threaded end of a J-Master tool, and place pre-wired J-Clip into tool.
2. Attach a 1/2" pipe extension (dielectric pole available) to the threaded end of a J-Master tool, and place pre-wired J-Clip into tool.
3. Disengage the tool by lifting up and out.

## EASY INSTALLATION

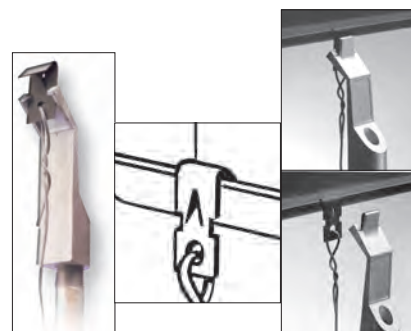
1. Attach J-Master tool to end of threaded 1/2" pipe or dielectric pole. Lay pre-tied Clip-Pur against magnetized strips.
2. Raise the Clip-Pur up to the purlin. Position the clip on the 45° flange and give a downward tug, the clip is now in position.



Ask about our  
**Black Claw Spring Steel Clips**



J-Clip attached to the J-Master Tool



Clip-Pur attached to the J-Master Tool



# EPOL6 EPOL8

## T3SS 6' AND 8" POLE TOOLS

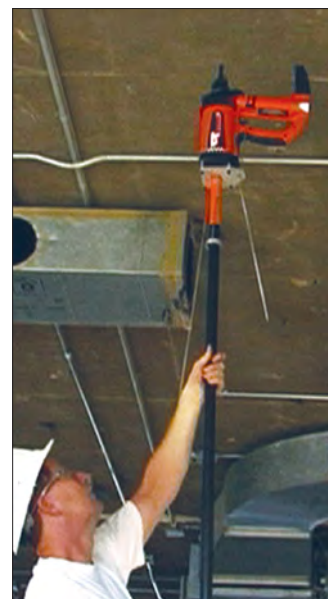


### ADVANTAGES

- **EASY TO OPERATE:** Comfortable "motorcycle" grip replaces handbrake mechanisms
- **STURDY DESIGN:** 25% thicker than similar poles for greater support
- EPOL6: 6 foot long
- **NO HOSE CLAMPS REQUIRED:** Simple to assemble
- Also fits Ramset R150 tools
- Pole weight: 5lbs
- EPOL8: 8 foot long

### Extend Your Reach!

New ergonomic design balances the tool directly over the pole for a lightweight feel



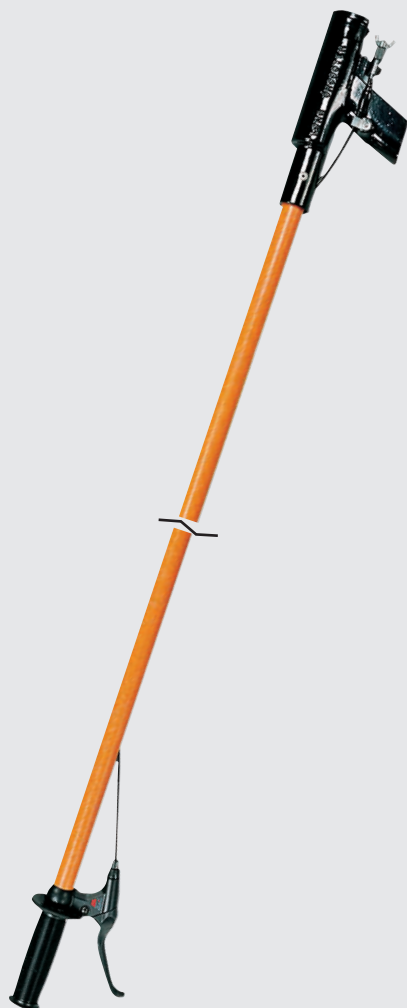
### EASY TO ASSEMBLE



Log on to [www.ramset.com](http://www.ramset.com) for a video on attaching the pole tool to the T3SS

## EXTENSION POLES

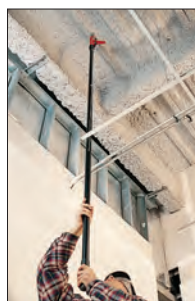
EXTEND YOUR REACH



### ADVANTAGES

- Eliminates scaffolding or ladders
- Uses existing powder tools
- Rubber "motorcycle" grip for operator comfort and to reduce recoil level
- Delrin™ coupler on cable makes pole di-electric
- Nyloc™ nuts keep your adjustment fixed solidly on the trigger bar
- Top-quality hand lever
- Lightweight cast aluminum housing fits tool snugly and provides tool protection
- Trigger bar adjusts easily for individual tools

*Ramset Pole Tools are an excellent choice for high-reach fastening applications.*



*Fast, easy installation from floor level eliminates lift baskets, scaffolds and ladders.*



### POLES FOR RAMSET AND HILTI® TOOLS

LENGTH	PART #
6'	PTSEMI6
8'	PTSEMI8

**FITS: RAMSET** D60, SA270, D45A, Rocket, **HILTI** DX36

Hilti® is a registered trademark of Hilti, Corp.



### POLES FOR RAMSET VIPER

FIXED LENGTH		TELESCOPING (ADJUSTABLE IN 1' INCREMENTS)	
LENGTH	PART #	LENGTH	PART #
6'	VPOL6	6'-12'	TVPOL612
8'	VPOL8	6'-18'	TVPOL618



6'-12' or 6'-18' Telescoping Extension Pole





**Part No. TFUEL**  
 Fuel Cell—TrakFast  
 Qty: 12



**Part No. RFUEL**  
 Fuel Cell—T2, R150, E150 & M150  
 Qty: 12 (6–2 packs)



**Part No. T3FUEL**  
 Fuel Cell—T3SS & T3MAG  
 Qty: 12 (6–2 packs)



**Part No. 7505012**  
 Battery—TF1100  
 Qty: 1



**Part No. B0092**  
 Battery—T3SS & T3MAG  
 Qty: 1



**Part No. 334000**  
 Battery—T2 & R150, E150 & M150  
 Qty: 1



**Part No. 405176**  
 Battery—GYPFAST  
 Qty: 1



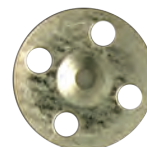
**Part No. B0022**  
 Battery Charger—TF1100, T3SS & T3MAG  
 Qty: 1



**Part No. 7505142**  
 Battery Charger—T2 & R150, E150 & M150  
 Qty: 1



**Part No. LD100**  
 Plated 1" Lathing Disc 22g  
 Qty: 1,000 per box



**Part No. LD114**  
 Plated 1-1/4" Lathing Disc  
 Qty: 1,000 per box



**Part No. 100018**  
 Disc Holding Probe  
 (for TF1100 One Piece Nose)  
 Qty: 1



**Part No. 7405173**  
 Disc Holding Probe  
 (for TF1100 Telescoping Nose)  
 Qty: 1



**Part No. M150200**  
 Magnetic nose Piece  
 (for R150 and T3SS)  
 Qty: 1



**Part No. B0237**  
 Disc Probe  
 (T3MAG)  
 Qty: 1



**Part No. 2761910**  
 Gas Mag Probe  
 (GYPFAST)  
 Qty: 1

## TOOL CLEANING KIT

- Wood Handle Wire Brush
- Round Wire Brushes: Small, medium, large
- Package of 10 Scrubs: Hand and tool cleaners



**Part No. PATCK**  
 Cleaning Kit  
 Qty: 1

## SC200 Sound Control Sealant

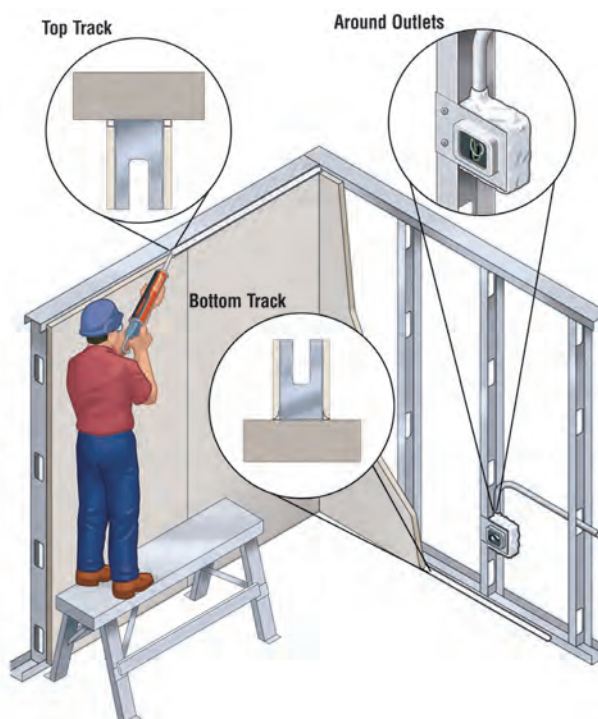


### ADVANTAGES

- Designed to seal drywall gaps and reduce sound transmission in STC rated walls
- Water-based for easy clean up, won't compromise fire-rated walls
- Non-flammable and paintable
- Increases sound absorption up to 128%
- Works on all partition gaps including: top track, around outlets and bottom track

### SUGGESTED SPECIFICATIONS

- Meets ASTM E84, ASTM C919, ASTM E90 UL report R25562
- Optimal 0/0 rating for flame spread/smoke developed (UL classified)
- 28 oz tube/12 tubes per carton
- Meets requirements for LEED EQ Credit 4.1



## DA100 Drywall Adhesive



### ADVANTAGES

- Designed to bond gypsum board to wood or steel studs
- Reduces nail pops
- Up to 66% fewer fasteners required
- Hides framing defects up to 3/8"
- 28 oz. tube/12 tubes per carton

\* DA100 NOT FOR SALE IN AREAS WITH HEAVY VOC RESTRICTIONS



## RL510 ROTATING LASER



### DESCRIPTION

- Fully automatic rotating laser that can be used for leveling, vertical alignment, plumbing and squaring.

### APPLICATIONS

- Installing suspended ceilings
- Stud & track layout
- Soffits
- Variety of interior alignment tasks

### FEATURES

Accuracy @ 100 ft	1/8"	Field Calibrateable	Yes
Range	1000'	Chalk Line Mode	Yes
Battery Life (Alkaline)	160 hrs	Scan Mode	Yes
Battery Life (Rechargeable)	40 hrs	Manual Slope Mode	Yes
Self Leveling Range (Horizontal)	±10 deg	Alkaline "D" Battery Capable	Yes
Self Leveling Range (Vertical)	±10 deg	Rechargeable Battery	Yes
Wall Mount	Integrated	Remote Control	Yes
Motorized Wall Mount	Integrated		



*RL510 Interior Kit includes, rotating laser, integrated motorized wall mount, rechargeable and alkaline battery packs remote control, target card, laser enhancing glasses, and impact resistant carrying case.*

## RL2+ CROSS/PLUMB LASER



### APPLICATIONS

#### WALLS & CEILINGS

- Drywall track layout
- Soffits
- Suspended ceilings
- Trim, windows and door frames

#### ELECTRICAL

- Outlets
- Plumb points for coring and positioning lighting
- Leveling of cable tray and trapeze/rack


### FEATURES

Recommended use	Up to 100 ft. indoors and up to 165 ft. outdoors with optional detector
Accuracy:	± 1/8" at 30 ft.
Self-leveling range:	± 5°
Cross line:	130° horizontal and 140° vertical fan angles
Plumb beam:	For floor-to-ceiling transfer
Manual mode:	Lock line to match any angle between two points
Pulse mode:	For use with optional detector
Power:	3 AA batteries
Battery life:	25 hrs. 1-beam operation; 12 hrs. with 2 beams
Working temperature:	14° to 122° F (-10° to +50°C)
Tripod mount:	1/4" x 20 camera tripod
Size:	4 1/2" x 2 1/4" x 3 7/8"
Weight:	1 lb.




**Ramset Collated Gas Tool Fasteners are specifically engineered for optimal performance in Ramset Gas Power Tools using fastener magazines.**


## SELECTION CHART

<b>TRAKFAST STANDARD FUEL/PIN PACK</b> 1000 PINS AND 1 FUEL CELL PER BOX		For high volume, repetitive fastenings to concrete and steel such as drywall track to concrete			
	PART NUMBER	PIN LENGTH		DESCRIPTION	TF1100
		IN.	(MM)		
	FPP012	1/2	(12.7)	1/2" Plated steel pin	■
	FPP034B	3/4	(19.1)	3/4" Black pin	■
	FPP100	1	(25.4)	1" Plated pin	■
	FPP114	1-1/4	(31.8)	1-1/4" Plated Pin	■


Shank diameter = .109  
Head diameter = .250

<b>TRAKFAST STEP SHANK/ FUEL PIN PACK</b> 1000 PINS AND 1 FUEL CELL PER BOX		For high volume, repetitive fastenings to hard concrete and hard steel such as drywall track to hard concrete and steel			
	PART NUMBER	PIN LENGTH		DESCRIPTION	TF1100
		IN.	(MM)		
	FPP012S	1/2	(12.7)	1/2" Plated step shank pin	■
	FPP034S	3/4	(19.1)	3/4" Plated step shank pin	■

Shank diameter = .104/.118  
Head diameter = .250

<b>TRAKFAST BREAKAWAY STRIP FUEL/PIN PACK</b> 1000 PINS AND 1 FUEL CELL PER BOX COLLATION DESIGNED TO BREAKAWAY ON IMPACT		For high volume, repetitive fastenings to concrete such as wood furring to concrete			
	PART NUMBER	PIN LENGTH		DESCRIPTION	TF1100
		IN.	(MM)		
	FPP034T	3/4	(19.1)	3/4" Plated pin	■
	FPP100T	1	(25.4)	1" Plated pin	■
	FPP114T	1-1/4	(31.8)	1-1/4" Plated Pin	■
	FPP112T	1-1/2	(38.1)	1-1/2" Plated Pin	■

Shank diameter = .109  
Head diameter = .250

<b>T3MAG FUEL/PIN PACK</b> 1000 PINS AND 1 FUEL CELL PER BOX		Larger .125 shank diameter offers improved success rate (15 pin strip)			
	PART NUMBER	PIN LENGTH		DESCRIPTION	T3MAG
		IN.	(MM)		
	T3012	1/2	(12.7)	1/2" steel pin with T3 fuel cell	■
	T3012S	1/2	(12.7)	1/2" premium steel pin with T3 fuel cell	■
	T3034B	3/4	(19.1)	3/4" concrete pin with T3 fuel cell	■
	T3034S*	3/4	(19.1)	3/4" step shank pin with T3 fuel cell	■
	T3100	1	(25.4)	1" concrete pin with T3 fuel cell	■

Shank diameter = .125 \*Shank diameter = .104/.125  
Head diameter = .250

## PLY138 TRAKFAST PLYWOOD PIN

FOR ATTACHING PLYWOOD  
TO METAL STUDS



1000 pins and 1 fuel cell per box


### DESCRIPTION

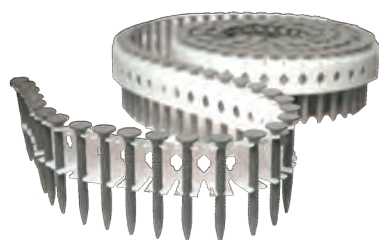
- Fastener Length: 1-3/8"
- Shank Diameter: .100 dia. (before knurl)
- Head Diameter: .250
- Helical Knurled Shank
- Mechanical Zinc Plated
- Can Be Used With:  
Wood Sheathings: 3/8", 1/2", 5/8", 3/4"  
Steel Stud Gauges: 16, 18, 20

### ADVANTAGES

- **VS SCREWS:** 3 - 5 times faster than screw installation. No worrying about electrical cords.
- **STRIP:**
  - Collation strip breaks away upon impact, allowing the head of the pin to recess into the wood for a nice, clean look
  - 10-pin strips transfer easily from the operator's pouch to the TrakFast tool, eliminating waste
- **VS AIR SYSTEMS:** No set-up and tear down time. No hassling with compressors or hoses.
- **PINS:**
  - Hardened steel pin ensures a clean penetration of the fastener — no dimpling of the stud
  - Knurled helical shank gives the fastener superior holding values
  - Zinc plated for corrosion resistance

## GAS TOOL FASTENERS SELECTION CHART

GYPFAST					
	PART NO.	FASTENER DESCRIPTION .140" DIA. KNURLED SHANK 5/16" DIA. BUGLE HEAD	MASTER CARTON QUANTITY	MASTER CARTON WEIGHT	APPLICATIONS
	GF100	1" (25mm)	4,800 nails/ctn (48 - 100 ct. coils) 5 fuel cells	19 lbs.	Metal to Metal Attachment
	GF112	1-1/2" (38mm)	6,000 nails/ctn (40- 150 ct. coils) 6 fuel cells	37 lbs.	Single Layer of Exterior Sheathing, Wood Furring and Blocking
	GF200	2" (51mm)	4,800 nails/ctn (32 - 150 ct. coils) 5 fuel cells	38 lbs.	Double Layer of Exterior Gypsum Sheathing, Wood Furring and Blocking
	GF212	2-1/2" (64mm)	2,700 nails/ctn (18 - 150 ct. coils) 3 fuel cells	26 lbs.	Multi-Layers of Sheathing, Wood Blocking, and Dimensional Lumber



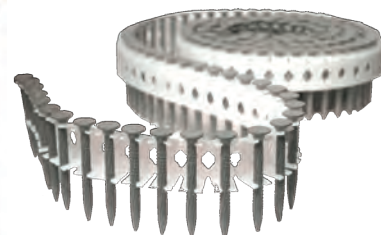
### Corrosion Resistance:

*Climacoat Long Life Polymer*


• **Salt Spray Results (ASTM B117)**

*Driven: 1560 hours, 10% or less red rust*

*UnDriven: 3240 hours, 10% or less red rust*



## AIR TOOL FASTENERS SELECTION CHART

GYPFAST AIR					
	PART NO.	FASTENER DESCRIPTION .140" DIA. KNURLED SHANK 5/16" DIA. BUGLE HEAD	MASTER CARTON QUANTITY	MASTER CARTON WEIGHT	APPLICATIONS
	GF100A	1" (25mm)	4,800 nails/ctn (48 - 100 ct. coils)	18 lbs.	Metal to Metal Attachment
	GF112A	1-1/2" (38mm)	6,000 nails/ctn (40- 150 ct. coils)	36 lbs.	Single Layer of Gypsum Sheathing, Wood Furring and Blocking
	GF200A	2" (51mm)	4,800 nails/ctn (32 - 150 ct. coils)	37 lbs.	Double Layer of Gypsum Sheathing, Wood Furring and Blocking
	GF212A	2-1/2" (64mm)	2,700 nails/ctn (18 - 150 ct. coils)	26 lbs.	Multi-Layers of Sheathing, Wood Blocking

## Tools and Techniques



- Always read operators manual for instruction on proper use and safety.
- Adjust depth sensitive nosepiece to achieve proper seating of fastener to work surface.
- Consult sheathing manufacturer's guidelines for appropriate fastener and fastening pattern.
- Point of nail must penetrate 1/2" minimum beyond steel.

## GAS TOOL FASTENERS

(Pre-assembled, Single-Shot)



The fasteners are designed for use in Ramset Single-Shot Gas Tools (R150, T3SS)

### SELECTION CHART

THREADED ROD HANGER		For suspended ceilings, piping and other items using 1/4" or 3/8" threaded rod. Fastener is pre-assembled to a 16 gage threaded rod hanger. 100 per jar.		
 	PART NUMBER	DESCRIPTION	R150	T3SS
	14TRHMP034	1/4" Rod hanger with 3/4" plated pin	■	■
	38TRHMP034	3/8" Rod hanger with 3/4" plated pin	■	■

Shank diameter = .104/.125



Head diameter = .300

ONE HOLE STRAP		Used to attach conduit or armored cable to concrete. Fastener pre-assembled to a 16 gage conduit strap. 100 per jar, 3/8" 200 per jar.		
	PART NUMBER	DESCRIPTION	R150	T3SS
	38HSMP034*	3/8" Hole strap with 3/4" plated pin 	■	■
	12HSMP034	1/2" Hole strap with 3/4" plated pin	■	■
	34HSMP034	3/4" Hole strap with 3/4" plated pin	■	■
	10HSMP034	1" Hole strap with 3/4" plated pin	■	■

Shank diameter = .104/.125


Head diameter = .300

\*38HSMP034 = 18 gage, 200 per jar

CONDUIT CLAMP		Used to attach conduit to concrete. Pin pre-assembled to an 18 gage conduit strap. 1/2" 50 per jar and 3/4" 25 per jar.		
 	PART NUMBER	DESCRIPTION	R150	T3SS
	12CCMP034L	1/2" Conduit clamp with 3/4" plated pin	■	■
	34CCMP034L	3/4" Conduit clamp with 3/4" plated pin	■	■

Shank diameter = .104/.125

Head diameter = .300

CEILING CLIP ASSEMBLY		Pre-assembled Ceiling Clip. Plated 14 gage clip. 100 per jar.		
	PART NUMBER	DESCRIPTION	R150	T3SS
	34CLIP	3/4" wide angle clip w/ 3/4" length pin	■	■

Shank diameter = .104/.125


Head diameter = .300

SOLD IN CONVENIENT PLASTIC JARS

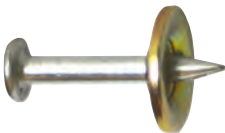


(Pre-assembled, Single-Shot)

## SELECTION CHART


TIE STRAP HOLDER		Used to install temporary lighting and secure low voltage cable to concrete, uses a standard cable tie up to 3/8" in width. Fastener is pre-assembled to a 22 gage tie strap holder. 50 per jar.		
	PART NUMBER	DESCRIPTION	R150	T3SS
	TSHMP034	Tie strap holder with 3/4" plated pin	■	■

Shank diameter = .104/.125  
 Head diameter = .300

MECHANICAL PIN WITH WASHER		Used for the attachment of light gage metal to concrete and steel such as HVAC duct strap to concrete. Plated pin pre-assembled to a 1/2" domed washer. 200 per jar, 1" 100 per jar.		
	PART NUMBER	DESCRIPTION	R150	T3SS*
	M012	1/2" Plated step pin with dome washer	■	■
	M034	3/4" Plated pin with domed washer	■	■
	M034BB	3/4" Premium step pin with domed washer	■	■
	M100	1" Plated pin with domed washer	■	■


**MUST USE WITH MAGNETIC WORK CONTACT ELEMENT (M150200)**

Shank diameter = .125, Step Pin .104/.118  
 Head diameter = .300 (M012 = .250)  
 \*Will fit R150 & T3SS with optional work contact element, P/N: M150200


1/4-20 THREADED STUD		Used to attach electrical components to concrete where removability of the component is required. Plated threaded stud. 200 per jar.			
	PART NUMBER	DESCRIPTION	SHANK LENGTH	R150	T3SS
	14STUD	1/2"	5/8"	■	■

NOT MADE IN USA

Shank diameter = .125

TOP HAT PIN		Used for general purpose fastening to concrete. Plated pin with top hat. 200 per jar.		
	PART NUMBER	DESCRIPTION	R150	T3SS
	MP034TH	3/4" Plated pin with top hat	■	■

Shank diameter = .125  
 Head diameter = .300

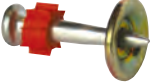
BRIDLE RING		Pre-Assembled 2" Bridle Ring supports low voltage, data com, signal, and control cables 50 per box.		
	PART NUMBER	DESCRIPTION	T3SS	
	BR2	2" Bridal ring	■	

Shank diameter = .125




*These Mechanical/Electrical Assemblies are designed to be used in either Gas or Powder Actuated Tools. The unique fastener design increases fastening success rate while providing outstanding performance.*

## SELECTION CHART

<b>HYBRID PIN</b>				
	For general purpose attachments to concrete. PowerPoint step shank pin pre-assembled to 1/2" washer. 500 per jar.			
	PART NUMBER	DESCRIPTION	ALL POWDER TOOLS	ALL SINGLE PIN GAS TOOLS
	M100BB	1" PowerPoint step shank pin with 1/2" domed washer & flute	■	■

Shank diameter = .125/.150



Head diameter = .300

<b>ONE HOLE CONDUIT STRAP</b>				
	Used to attach conduit or armored cable to concrete. PowerPoint fastener pre-assembled to a 16 gage conduit strap. 100 per box.			
	PART NUMBER	DESCRIPTION	ALL POWDER TOOLS	ALL SINGLE PIN GAS TOOLS
	38HSSS10	3/8" Hole strap with w/1 premium pin	■	■
	12HSSS10	1/2" Hole strap with w/1 premium pin	■	■
	34HSSS10	3/4" Hole strap with w/1 premium pin	■	■
	10HSSS10	1" Hole strap with w/1-1/4" premium pin	■	■

Shank diameter = .125/.150

Head diameter = .300

38HSSS10 = 18 gage

<b>THREADED ROD HANGER</b>				
 	For suspended ceilings, piping, and other items using 1/4" or 3/8" threaded rod. PowerPoint fastener pre-assembled to a 16 gage threaded rod hanger. 100 per box.			
	PART NUMBER	DESCRIPTION	ALL POWDER TOOLS	ALL SINGLE PIN GAS TOOLS
	14TRHSS10	1/4" Rod hanger w/1" premium pin	■	■
	38TRHSS10	3/8" Rod hanger w/1" premium pin	■	■

Shank diameter = .125/.150

Head diameter = .300

## DESCRIPTION

We maintain only the highest standards in the materials, production techniques and quality control measures used to manufacture our fasteners, assuring consistent, optimum quality in every fastener.


### FASTENER TERMINOLOGY SUFFIX

K = Knurled      X = Collated      C = 100 count  
 B = Black      SD = Washer      M = 1000 count  
 E = Ramguard


## ADVANTAGE

ITW Ramset powder actuated fasteners are specifically fabricated to meet the exacting requirements of toughness and durability that enable them to penetrate dense concrete and structural quality steel.


## SELECTION CHART

BLACK TRACK PINS		Designed for use in concrete and structural steel applications. Available in 100-pack or 1000-pack per box.								
	PART NUMBER	SHANK LENGTH		721/ R25	ROCKET	D60/ D45A	SA270	XT540	COBRA	RS22/ HD22
		IN.	(MM)							
	1506B	3/4	(19.1)	■	■	■	■	■	■	■

Shank diameter = .145      Head diameter = .300


PLATED PINS		Designed for use in concrete and structural steel applications. 100 per box.								
	PART NUMBER	SHANK LENGTH		721/ R25	ROCKET	D60/ D45A	SA270	XT540	COBRA	RS22/ HD22
		IN.	(MM)							
	1503K	1/2 Knurled	(12.7)	■	■	■	■	■	■	■
	1506	3/4	(19.1)	■	■	■	■	■	■	■
	1508	1	(25.4)	■	■	■	■	■	■	■
	1510	1-1/4	(31.8)	■	■	■	■	■	■	■
	1512	1-1/2	(38.1)	■	■	■	■	■	■	■
	1514	2	(50.8)		■	■	■	■	■	■
	1516	2-1/2	(63.5)				■	■	■	■
	1524	3	(76.2)				■	■		■

Shank diameter = .145      Head diameter = .300

COLLATED POWDER ACTUATED DRIVE PINS		Designed for high volume repetitive fastenings to concrete. Fasteners collated 10 per strip. 100 strips per box.		
	PART NUMBER	SHANK LENGTH		
		IN.	(MM)	
	SP58X	5/8	(15.9)	
	1506X	3/4	(19.1)	
	1510X	1-1/4	(31.8)	

Shank diameter = .145,      Head diameter = .300      SP58X = .150


*Fits many competitive powder actuated tools with fastener magazines.*

WASHERED PINS		Washer increases bearing surface against the material to be fastened. 100 per box. 16 gage metal washer.								
	PART NUMBER	SHANK LENGTH		721/ R25	ROCKET	D60/ D45A	SA270	XT540	COBRA	RS22/ HD22
		IN.	(MM)							
	1506SD	3/4	(19.1)	■	■	■	■	■	■	■
	1508SD	1	(25.4)	■	■	■	■	■	■	■
	1510SD	1-1/4	(31.8)	■	■	■	■	■	■	■
	1512SD	1-1/2	(38.1)	■	■	■	■	■	■	■
	1514SD	2	(50.8)	■	■	■	■	■	■	■
	1516SDC	2-1/2	(63.5)		■	■	■	■	■	■
	1524SDP*	3	(76.2)				■	■	■	■


\*Square washer indicates 3" pin has been installed

Shank diameter = .145      Head diameter = .300

## SELECTION CHART


POWERPOINT PINS		Used for fastening into harder steel and concrete. Premium steel and hard concrete pin. 100 per box.								
	PART NUMBER	SHANK LENGTH		721/ R25	ROCKET	D60/ D45A	SA270	XT540	COBRA	RS22/ HD22
		IN.	(MM)							
	SP12	1/2	(12.7)	■	■	■	■	■	■	■
	SP58	5/8	(15.9)	■	■	■	■	■	■	■
	SP34	3/4	(19.1)	■	■	■	■	■	■	■

Shank diameter = .145 Head diameter = .300

POWERPOINT STEP SHANK PINS		Used for fastening into harder steel and concrete. Premium steel and hard concrete pin. Pin for fastening into harder steel and concrete. 100 per box.								
	PART NUMBER	SHANK LENGTH		721/ R25	ROCKET	D60/ D45A	SA270	XT540	COBRA	RS22/ HD22
		IN.	(MM)							
	M100BB	1	(25.4)	■	■	■	■	■	■	■
	SP100	1	(25.4)	■	■	■	■	■	■	■
	SP114	1-1/4	(31.8)	■	■	■	■	■	■	■
	SP112	1-1/2	(38.1)	■	■	■	■	■	■	■
	SP178	1-7/8	(47.6)	■	■	■	■	■	■	■


Shank diameter = .150/.180 Head diameter = .300

M100BB shank diameter = .125/.150 with 1/2" washer

TOP HAT DRIVE PIN		Increases bearing surface against material to be fastened for improved attachment to inconsistent base materials. 100 per box.								
	PART NUMBER	SHANK LENGTH		721/ R25	ROCKET	D60/ D45A	SA270	XT540	COBRA	RS22/ HD22
		IN.	(MM)							
	SP58TH	5/8	(15.9)	■	■	■	■	■	■	■
	1906	3/4	(19.1)	■	■	■	■	■	■	■
	1908	1	(25.4)	■	■	■	■	■	■	■

Shank diameter = .145 (SP58TH and SP34TH = .150)

Head diameter = 8mm (SP58TH and SP34TH = .300)

RAMGUARD PINS		Coated to improve corrosion resistance in treated lumber and other applications. 100 per box.								
	PART NUMBER	SHANK LENGTH		721/ R25	AUTO- FAST	D60/ D45A	ROCKET/ SA270	XT540	COBRA	RS22/ HD22
		IN.	(MM)							
	1516E	2-1/2	(63.5)		■	■	■	■	■	■
	1524E	3	(76.2)		■		■	■	■	■
	1516SDC	2-1/2	(63.5)		■		■	■	■	■
	1524SDE*	3	(76.2)		■	■	■	■	■	■
	SP178E	1-7/8	(47.6)		■		■	■	■	


Shank diameter = .145 (SP178E = .150/.180)

Head diameter = .300

\*Square washer indicates 3" pin has been installed

\* 1500 Series Coated with RamGuard

\* SP Series Coated with Triple Zinc

1/4 - 20 THREADED STUD		For applications the require removability. 100 per box.											
	PART NUMBER	THREAD LENGTH		SHANK LENGTH		721/ R25	ROCKET	D60/ D45A	SA270	XT540	COBRA	VIPER	RS22/ HD22
		IN.	(MM)	IN.	(MM)								
	1623WK	3/4	(19.1)	1/2 Knurled	(12.7)	■	■	■	■	■	■	■	■
	1643WV	3/4	(19.1)	1	(25.4)		■	■	■	■	■		■


NOT MADE IN USA

Shank diameter = .145

Use 1623WK for Steel Base Materials


Use 1643W for Concrete Base Materials

## SELECTION CHART

CEILING CLIP ASSEMBLIES		Designed for suspending ceilings and other overhead applications. Pin preassembled to a 14 gage clip. 1000 per box.								
	PART NUMBER	PIN LENGTH		721	VIPER	D60	ROCKET/SA270	D45A	COBRA	XT540
		IN.	(MM)							
	SDC100	1	(25.4)	■	■	■	■	■	■	■
	SDC125*	1-1/4	(31.8)	■	■	■	■	■	■	■


\*Available in 100-Pack (P/N: SDC125C)

Shank diameter = .145 Head diameter = .300

POWERPOINT PINS WITH CEILING CLIPS		Designed for difficult overhead applications. Pin preassembled to a 14 gage angle clip. 1000 per box								
	PART NUMBER	PIN LENGTH		721	VIPER	D60	ROCKET/SA270	D45A	COBRA	XT540
		IN.	(MM)							
	SPC78	7/8	(22.2)	■	■	■	■	■	■	■
	SPC114	1-1/4	(31.8)	■	■	■	■	■	■	■


Shank diameter = .150 (SPC114 = .150/.180)

Head diameter = .300

LADD ASSEMBLY FOR L1600		Used exclusively with the L1600 for excellent holding values. 13 gage angle clip. 100 clips per box.		
	PART NUMBER	DESCRIPTION		L1600
	L652	1-1/4" Preassembled pin and clip		■

Shank diameter = .152

Head diameter = .300

FASTENER ANGLE CLIP		General purpose 3/4" wide angle clip 14 gage angle clip. 100 clips per box.	
	PART NUMBER	DESCRIPTION	
	1202CF	Angle clip (no pin)	

Hole diameter: 5/16" & 13/64"



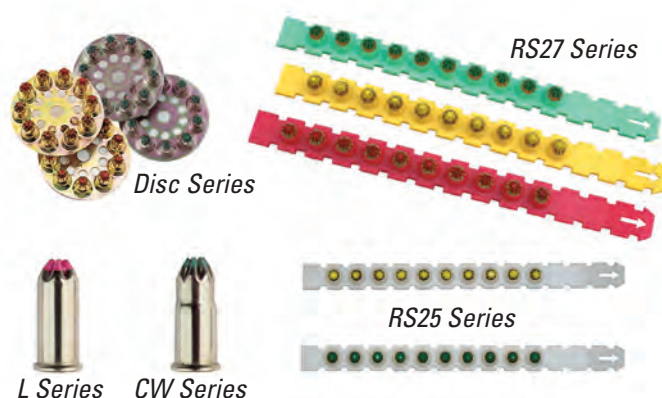
## High Quality and Dependability

ITW Ramset powder loads and tools match tolerances to provide optimum power within recognized national velocity standards. Available in color-coded 10-load discs, 10-load strips, and 100-load boxes.

**Caution** Always test-fasten with the lowest power level for your tool. If more power is necessary, use the next highest power level until proper level and fastening is achieved. Refer to operator's manual for more specific details. Observe all safety reminders. Tool operators must be trained and qualified as required by federal law. Failure to use properly can result in serious injury or death to users or bystanders.

### Advantages Powder Guide

Power level is designated by the load level number marked on each box; also by the color of the box and each powder load. As the number increases, the power level increases.



## SELECTION CHARTS

### RAMSET LOADS FOR LOW VELOCITY TOOLS

TOOL MODEL	PART NUMBER	POWER LEVEL	COLOR	CALIBER/TYPE	PACKAGING
D60, D45A and AutoFast	<b>2D60</b>	2	Brown	.25 Disc	all 10 disc 10 discs/box
	<b>3D60</b>	3	Green	.25 Disc	
	<b>4D60</b>	4	Yellow	.25 Disc	
D45A and AutoFast	<b>5D45</b>	5	Red	.25 Disc	10 discs/box
R25	<b>3RS25</b>	3	Green	.25 Strip	all 10 strip 10 strips/box
	<b>4RS25</b>	4	Yellow	.25 Strip	
	<b>5RS25</b>	5	Red	.25 Strip	
721, M70, RS22, HD22	<b>22CW</b>	2	Brown	.22 Single	all 100/box
	<b>32CW</b>	3	Green	.22 Single	
	<b>42CW</b>	4	Yellow	.22 Single	
SA270, Cobra, Viper, Rocket and XT540	<b>3RS27</b>	3	Green	.27 Strip	all 10 strip 10 strips/box
	<b>4RS27</b>	4	Yellow	.27 Strip	
	<b>5RS27</b>	5	Red	.27 Strip	
L1600	<b>L674</b>	4	Yellow	.22 Single	all 100/box
	<b>L675</b>	5	Red	.22 Single	

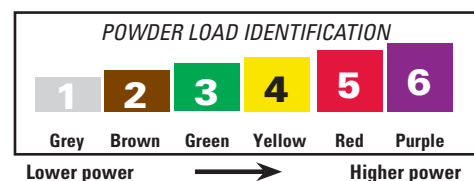
### RAMSET LOADS FOR LOW VELOCITY TOOLS

TOOL MODEL	PART NUMBER	POWER LEVEL	COLOR	CALIBER/TYPE	PACKAGING
DX-35	<b>3RS27</b>	3	Green	.25 Strip	all 10 strip 10 strips/box
	<b>4RS25</b>	4	Yellow	.25 Strip	
	<b>5RS25</b>	5	Red	.25 Strip	
DX-350, DX-351, DX-36M, DX460	<b>3RS27</b>	3	Green	.27 Strip	all 10 strip 10 strips/box
	<b>4RS27</b>	4	Yellow	.27 Strip	
DX-350, DX-351, DX-36M, DX-451, DX460	<b>5RS27</b>	5	Red	.27 Strip	all 10 Strip 10 strips/box
DX-451, DX-460	<b>6RS27</b>	6	Purple	.27 Strip	all 10 strip 10 strips/box
DXE37, DXE72	<b>22CW</b>	2	Brown	.22 Single	all 100/box
	<b>32CW</b>	3	Green	.22 Single	
	<b>42CW</b>	4	Yellow	.22 Single	

.25 and .27 caliber strips available in 1000 pack

\*1000-Pak/100 Strips/Box

Hilti® is a registered trademark of Hilti, Corp.



**Ramset provides the architect and engineer the following suggested language and helpful information for the purpose of fastening specifications.**

## Plywood to Metal Framing or Truss

### Part Number PLY138

Fasteners used shall have a 0.100 nominal shank diameter with helical knurl and a length of 1-3/8-inches.



## Track or Clip to Steel Beam

### Part Number 1503K

Fasteners used shall have a 0.300 head with a 0.145 knurled shank diameter and a length of 1/2-inches.

### Part Number SP58TH

Fasteners used shall be designated power point type with a 0.150 nominal shank diameter and a length of 5/8-inches.



## Exterior Sheathing to Metal Stud

### Part Number GF112

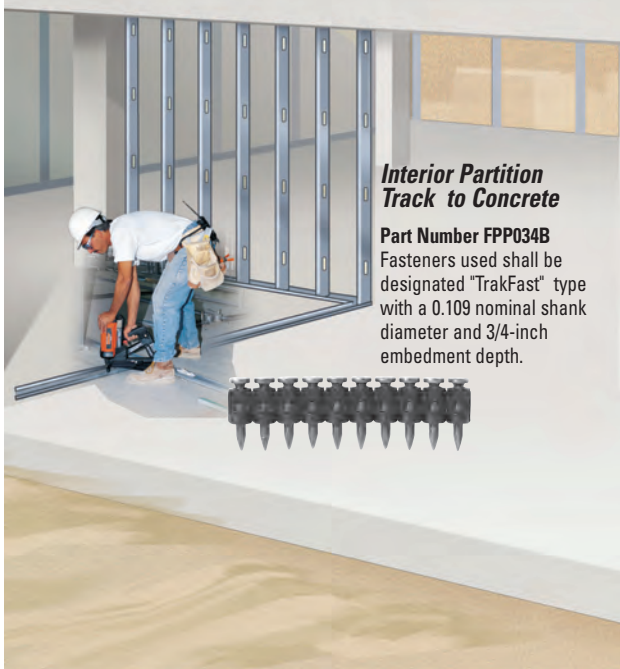
Fasteners designated "GYPFast" and have a helical knurled shank with a 1-1/2" Length



## Interior Partition Track to Concrete

### Part Number FPP034B

Fasteners used shall be designated "TrakFast" type with a 0.109 nominal shank diameter and 3/4-inch embedment depth.



## Exterior Perimeter Track to Concrete

### Part Number 1510SD

Fasteners used shall have a 0.145 nominal shank diameter and a length of 1-1/4 inches. The fastener shall have a pre-assembled 7/8-inch washer.



### Part Number SP114

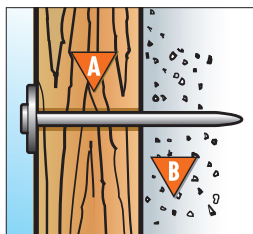
Fasteners used shall be designated PowerPoint type with a 0.150/.180 stepped shank and a length of 1-1/4 inches.



**For assistance with specifications and/or substitutions, contact Technical Service at 800-726-7386.**

## SELECTING THE CORRECT FASTENER LENGTH

### SELECTING THE CORRECT FASTENER LENGTH



High quality fasteners provide consistent and reliable performance in concrete, block, masonry, and steel applications. Choosing the correct fastener for the job will assure professional results.

**A** Determine thickness of material being attached.

**B** Fastener must be long enough to drive approximately 1" into concrete, cement block or penetrate thickness of steel.

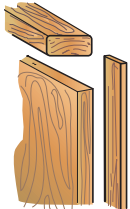
## POWER LEVEL GUIDE FOR LOADS

All loads are color coded and load level numbered. As the number increases, the power level increases.

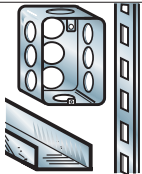
*Always start with the lightest load.* If the fastener does not set completely, use the next higher load and repeat the process.



## TYPICAL USES

	WOOD ATTACHMENT MATERIAL*	CONCRETE BASE MATERIAL		STRUCTURAL STEEL BASE	
		Commonly Used Fastener	Commonly Used Load	Commonly Used Fastener	Commonly Used Load
	2 x 4	1516SDC (2-1/2")	Yellow #4	1514SD (2") SP178 (1-7/8")	Red #5 Red #5
	3/4" Plywood for furring strip	1512 (1-1/2")	Yellow #4	1510 (1-1/4")	Yellow #4
	1/4" - 1/2"	1510 (1-1/4")	Green #3	SP34 (3/4")	Yellow #4

\* Use Ramguard Pin for treated lumber.

	THIN GAGE STEEL	CONCRETE BASE MATERIAL		STRUCTURAL STEEL BASE	
		Commonly Used Fastener	Commonly Used Load	Commonly Used Fastener	Commonly Used Load
	Electrical Junction Boxes	M100BB (1")	Green #3	SP58TH (5/8")	Yellow #4
	Shelf Brackets	M100BB (1")	Green #3	SP34 (3/4")	Yellow #4
	Interior Drywall Track	1506B (3/4")	Brown #2	SP12 (1/2")	Yellow #4
	Perimeter Track	1510 (1-1/4")	Yellow #4	SP12 (1/2")	Yellow #4

**NOTE:** This chart is presented as a guide only. Start with the lightest load. If the fastener does not set completely, use the next higher load and repeat the process. Product suggestions may not be suitable for all types of base materials. Contact Technical Services if you have further questions.

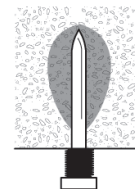
## DESCRIPTION

### FASTENING TO CONCRETE

As the fastener enters the concrete, extreme pressures and heat are created. This creates a bond that provides high loading strength in concrete snugly and provides tool protection.

### FASTENING TO STEEL

The resilience of steel provides a clamping effect to the fastener. This combined with the tremendous heat that is created, provides a welding and clamping effect to give maximum holding power.



## FASTENING PLACEMENT AND PENETRATION

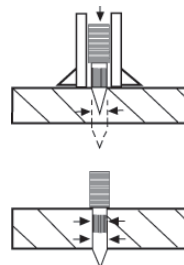
The following represents the minimum edge and spacing requirements, plus base material thickness requirements:

### CONCRETE

- 1. Edge distance.** Do not fasten closer than 3 inches from the edge of concrete. If the concrete cracks, the fastener may not hold and may allow the fastener to ricochet, causing serious injury or death to the operator or bystanders.
- 2. Recommended minimum fastener spacing.** Setting fasteners too close together can cause the concrete to crack. The recommended MINIMUM DISTANCE between fastening is three (3) inches. Never attempt a fastener application too close to another previously inserted fastener to prevent the second fastener from ricocheting off the previously installed fastener. A ricochet can result in serious injury or death to the operator or bystanders.
- 3. Concrete thickness.** It is important that the concrete be at least three (3) times as thick as the fastener penetration. If the concrete is too thin, the compressive forces forming at the fastener's point can cause the free face of the concrete to break away. This creates a dangerous condition from flying concrete and/or the fastener and also results in a reduction of fastener holding power.

### STEEL

- 1. Edge distance.** The recommended edge distance for a fastener to the edge of steel is 1/2 inch. Never fire the tool within 1/2 inch of the edge of a steel base material because the steel may bend or break off, allowing the fastener to ricochet, causing serious injury or death to the operator or bystanders.
- 2. Recommended minimum fastener spacing.** The recommended minimum distance between fastening is 1 inch. Never attempt a fastening application too close to another previously inserted fastener to prevent the second fastener from ricocheting off the previously installed fastener. A ricochet can result in serious injury or death to the operator or bystanders.
- 3. Steel thickness.** Do not fasten into steel base material thinner than the fastener shank diameter. Holding power will be reduced and the fastener may be over-driven, creating a dangerous situation to the operator or bystanders due to a free-flying fastener.



## HOW TO SELECT A POWDER ACTUATED FASTENER

- DRIVE PINS** are used to directly fasten an object (permanent installation).
- THREADED STUDS** are used where the object fastened is to be removed or where shimming is required. The following shows how to determine shank and thread length. Required penetration is determined by load requirement (illustrated in the following examples).

*Ramset fasteners may be specified by their type or catalog number to satisfy fastening requirements.*

### Permanent Installation

#### To Concrete



$$\text{Minimum Shank Length} = \text{Thickness of Material (M)} + \text{Required Penetration (P)}$$

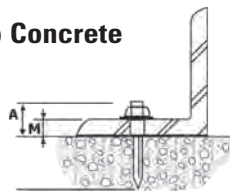
#### To Steel



$$\text{Minimum Shank Length} = \text{Thickness of Material (M)} + \text{Thickness of Steel (T)} + \text{1/4 Min. Point Allowance}$$

### Removable Installation

#### To Concrete

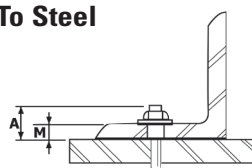


$$\text{Thread Length (A)} = \text{Thickness of Material (M)} + \text{Allowance* For Nut \& Washer}$$

$$\text{Shank Length} = 1"$$

\*Allowance for thickness of nut & washer = thread size (i.e. allow 1/4" for 1/4-20 thread, etc.)

#### To Steel



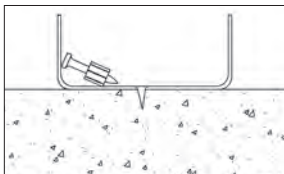
$$\text{Thread Length (A)} = \text{Thickness of Material (M)} + \text{Allowance* For Nut \& Washer}$$

$$\text{Shank Length} = 1/2"$$



## CONCRETE SYMPTOM

### FASTENER DOES NOT HOLD IN BASE MATERIAL OR BASE MATERIAL SPALLS



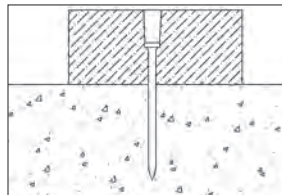
#### CAUSE

- High strength concrete
- Hard or large aggregate in concrete

#### ACTION

- Use shorter fastener
- Use PowerPoint pin
- Use load with a different power level

### FASTENER PENETRATES TOO DEEP



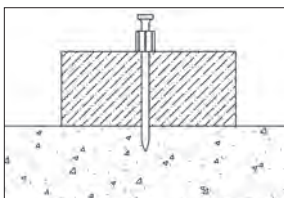
#### CAUSE

- Fastener too short for application
- Tool power level too high

#### ACTION

- Use longer fastener
- Use a lighter powder load

### FASTENER DOES NOT PENETRATE DEEP ENOUGH



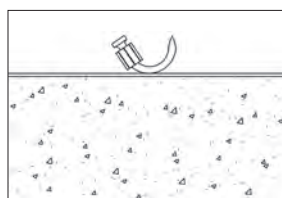
#### CAUSE

- Fastener too long
- Tool power level too low

#### ACTION

- Use shorter fastener
- Use a stronger powder load

### FASTENER BENDS



#### CAUSE

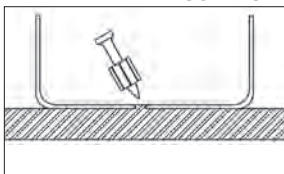
- Fastener hit large aggregate on entry
- Concrete too hard
- Fastener hit rebar just under the surface

#### ACTION

- Use shorter fastener
- Use PowerPoint pin
- Make sure tool is perpendicular to the work surface
- Move over 3 inches, try to fasten again

## STEEL SYMPTOM

### FASTENER DOES NOT PENETRATE THE SURFACE



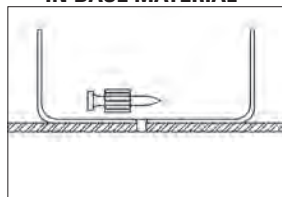
#### CAUSE

- Driving power too low
- Material may be too hard for forced entry fastener

#### ACTION

- Increase powder load level
- Use PowerPoint pin

### FASTENER DOES NOT HOLD IN BASE MATERIAL



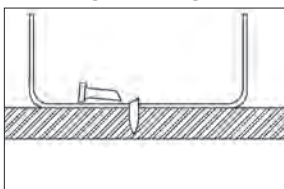
#### CAUSE

- Steel base material too thin

#### ACTION

- Use gas system tools with smaller Shank pin or Tek pin

### FASTENER BREAKS OR BENDS



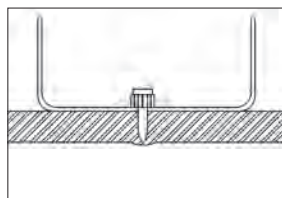
#### CAUSE

- Driving power is too low
- Fastener is too long
- Material may be too hard for forced entry fastener

#### ACTION

- Increase powder load level
- Reduce fastener length

### FASTENER DOES NOT FULLY PENETRATE STEEL



#### CAUSE

- Driving power too low
- Steel base material too thick
- Application limit may have been reached

#### ACTION

- Increase powder load level
- Use PowerPoint pin

**Ramset fasteners may be specified by their type or catalog number to satisfy fastening requirements.**

## PIN SPECIFICATIONS

- Made from AISI 1060-1065 steel. Austempered to a core hardness of 52-56 Rc
- Typical tensile strength: 270,000 psi
- Typical shear strength: 162,000 psi
- **STANDARD FINISHES**
  - Proprietary black
  - Mechanical zinc plate to a minimum thickness of .0002 meets requirements of ASTM B695
  - Electroplated zinc with yellow chromate
  - Ramguard

## APPROVALS/LISTINGS

- **ICC Evaluation Service, Inc.**
  - #ESR-2579 TrakFast Pins
  - #ESR-1955 T3 Fasteners
- **City of Los Angeles**
  - #RR-25739 T3 pins
  - #RR-25264 TrakFast pins

## COLLATED GAS FASTENERS IN CONCRETE (TRAKFAST, T2 AND T3)

PART NUMBER SERIES	SHANK DIAMETER (INCH)	MINIMUM PENETRATION (INCH)	INSTALLED IN STONE AGGREGATE CONCRETE CONCRETE COMPRESSIVE STRENGTH ALLOWABLE LOAD - <i>Ultimate Load</i>							
			2000 PSI		3000 PSI		4000 PSI			
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
FPP - Straight Shank	0.109	5/8	<b>60</b> <i>434</i>	<b>55</b> <i>546</i>	<b>55</b> <i>453</i>	<b>75</b> <i>615</i>	<b>55</b> <i>472</i>	<b>95</b> <i>685</i>		
		3/4	<b>60</b> <i>595</i>	<b>80</b> <i>650</i>	<b>55</b> <i>583</i>	<b>95</b> <i>699</i>	<b>55</b> <i>571</i>	<b>115</b> <i>749</i>		
FPP - Step Shank	0.104/0.118	3/4	.....	.....	.....	.....	<b>51</b> <i>256</i>	<b>83</b> <i>418</i>		
			2000 PSI		4000 PSI		6000 PSI			
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
T3 Straight Shank	0.125	5/8	<b>83</b> <i>414</i>	<b>109</b> <i>611</i>	<b>78</b> <i>426</i>	<b>80</b> <i>574</i>	.....	.....	.....	.....
		3/4	<b>107</b> <i>541</i>	<b>156</b> <i>855</i>	<b>104</b> <i>593</i>	<b>195</b> <i>977</i>	.....	.....	.....	.....
T3 Step Shank	0.104/0.125	5/8	.....	.....	<b>60</b> <i>357</i>	<b>117</b> <i>587</i>	<b>107</b> <i>533</i>	<b>191</b> <i>957</i>		

PART NUMBER SERIES	SHANK DIAMETER (INCH)	MINIMUM PENETRATION (INCH)	INSTALLED IN STONE AGGREGATE CONCRETE CONCRETE COMPRESSIVE STRENGTH ALLOWABLE LOAD - <i>Ultimate Load</i>							
			3000 PSI LIGHT WEIGHT CONCRETE		3000 PSI LIGHT WEIGHT CONCRETE WITH METAL DECK		HOLLOW CONCRETE MASONRY UNITS (CMU ANY LOCATION)			
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
FPP - Straight Shank	0.109	5/8	<b>35</b> <i>234</i>	<b>55</b> <i>403</i>	<b>30</b> <i>239</i>	<b>205</b> <i>1025</i>	<b>35</b> <i>347</i>	<b>50</b> <i>435</i>		
		3/4	<b>80</b> <i>630</i>	<b>100</b> <i>756</i>	<b>40</b> <i>330</i>	<b>235</b> <i>1248</i>	.....	.....	.....	.....
FPP - Step Shank	0.104/0.118	3/4	.....	.....	.....	.....	<b>36</b> <i>184</i>	<b>58</b> <i>290</i>		
T3 Straight Shank	0.125	5/8	<b>84</b> <i>418</i>	<b>108</b> <i>540</i>	<b>72</b> <i>361</i>	<b>242</b> <i>1210</i>	<b>20</b> <i>243</i>	<b>34</b> <i>264</i>		
		3/4	<b>108</b> <i>540</i>	<b>173</b> <i>864</i>	<b>93</b> <i>470</i>	<b>288</b> <i>1442</i>	.....	.....	.....	.....
T3 Step Shank	0.104/0.125	5/8	.....	.....	<b>54</b> <i>269</i>	<b>230</b> <i>1150</i>	<b>71</b> <i>357</i>	<b>123</b> <i>613</i>		

**Note 1:** ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190. **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Values shown in concrete are for the fastener only. Connected members must be investigated separately. **Note 5:** Cyclic, fatigue, shock loads, and other design criteria may require a different safety factor. **Note 6:** Job site testing may be required to determine actual job site values. **Note 7:** Minimum edge distance in concrete is 3 inches unless otherwise approved. **Note 8:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa. **Note 9:** T3 straight shank allowable tension value in face shell of hollow CMU is 133 lbs.

**FASTENERS IN CONCRETE**

FASTENER PART NUMBER	SHANK DIA. (INCH)	MINIMUM PENETRATION (INCH)	INSTALLED IN STONE AGGREGATE CONCRETE CONCRETE COMPRESSIVE STRENGTH ALLOWABLE LOAD - <i>Ultimate Load</i>						HOLLOW BLOCK Grade N, Type 1	
			4000 PSI		6000 PSI		3000 PSI Light weight LOWER FLUTE		FACE SHELL Min 1-1/4" face thickness	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
GAS ASSEMBLIES	MP034TH*, M034* M100*, BR2*	0.125	5/8	<b>78</b> 426 <i>80</i> 574	<b>62</b> 308 <i>.....</i> <i>.....</i>	<b>72</b> 361 <i>242</i> 1210	<b>133</b> 691 <i>.....</i> <i>.....</i>			
		3/4	<b>104</b> 593 <i>195</i> 977	<b>132</b> 658 <i>206</i> 1057	<b>93</b> 470 <i>288</i> 1442	<b>84</b> 444 <i>84</i> 446				
	14STUD	0.125	5/8	<b>91</b> 454 <i>.....</i> <i>.....</i>	<b>57</b> 373 <i>.....</i> <i>.....</i>	<i>.....</i> <i>.....</i>	<i>.....</i> <i>.....</i>			
	M034BB	0.104/.118	3/4	<b>51</b> 256 <i>83</i> 418	<i>.....</i> <i>.....</i>	<i>.....</i> <i>.....</i>	<b>36</b> 184 <i>58</i> 290			
	34 CLIP	0.104/.125	5/8	<b>62</b> 310 <i>.....</i> <i>.....</i>	<b>106</b> 528 <i>.....</i> <i>.....</i>	<b>44</b> 220 <i>.....</i> <i>.....</i>	<i>.....</i> <i>.....</i>			
POWDER ASSEMBLIES	38HSMP034, 12HSMP034 34HSMP034, 10HSMP034 114HSMP034, 14TRHMP034 38TRHMP034, TSHMP034 12CCMP034L, 34CCMP034L	0.104/.125	5/8	<b>60</b> 357 <i>117</i> 587	<b>107</b> 533 <i>191</i> 957	<b>54</b> 269 <i>230</i> 1150	<b>71</b> 357 <i>123</i> 613			
	M100BB, 38HSS10 12HSS10, 34HSS10 10HSS10, 14TRHSS10, 38TRHSS10	0.125/.150	3/4	<b>107</b> 559 <i>213</i> 1067	<b>161</b> 803 <i>248</i> 1240	<b>96</b> 478 <i>231</i> 1156	<b>102</b> 512 <i>166</i> 831			

\* ESR-1955 pin data applies. **Note 1:** ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190 **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Values shown in concrete are for fastener only. Connected members must be investigated separately. **Note 5:** Cyclic, fatigue, shock loads and other design criteria may require a different safety factor. **Note 6:** Job-site testing may be required to determine actual job site values. **Note 7:** Minimum edge distance is 3 inches unless otherwise approved. In hollow block applications, no more than one fastener per cell. **Note 8:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa.

**GAS FASTENERS IN STEEL**

PART NUMBER	SHANK DIAMETER (INCH)	TYPE OF SHANK	INSTALLED IN A36 STRUCTURAL STEEL STEEL THICKNESS INCHES ALLOWABLE LOAD - <i>Ultimate Load</i>					
			3/16 (.1875)		1/4 (.250)		3/8 (.375)	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
FPP012	0.109	SMOOTH	<b>195</b> 1047 <i>292</i> 1570	<b>223</b> 1220 <i>278</i> 1526	<b>181</b> 1048 <sup>7</sup> <i>186</i> 1076 <sup>7</sup>			
M012 FPP012S	0.104/0.118	SMOOTH	<i>.....</i> <i>.....</i>	<i>.....</i> <i>.....</i>	<b>148</b> 744 <i>157</i> 787	<b>166</b> 832 <sup>7</sup> <i>157</i> 787 <sup>7</sup>		
T3012	0.125	SMOOTH	<b>63</b> 676 <i>162</i> 1356	<b>239</b> 1285 <i>211</i> 1417	<b>113</b> 914 <sup>8</sup> <i>197</i> 1327 <sup>8</sup>			
T3012S	0.125	TAPER SMOOTH	<i>.....</i> <i>.....</i>	<i>.....</i> <i>.....</i>	<b>237</b> 1184 <i>356</i> 1782	<b>189</b> 943 <sup>10</sup> <i>392</i> 1960 <sup>7</sup>		
INSTALLED IN ASTM A 572 GRADE 50 STEEL STEEL THICKNESS INCHES								
T3012	0.125	SMOOTH	<b>103</b> 733 <i>222</i> 1682	<b>147</b> 950 <i>119</i> 973	<b>147</b> 856 <sup>9</sup> <i>112</i> 1014 <sup>9</sup>			

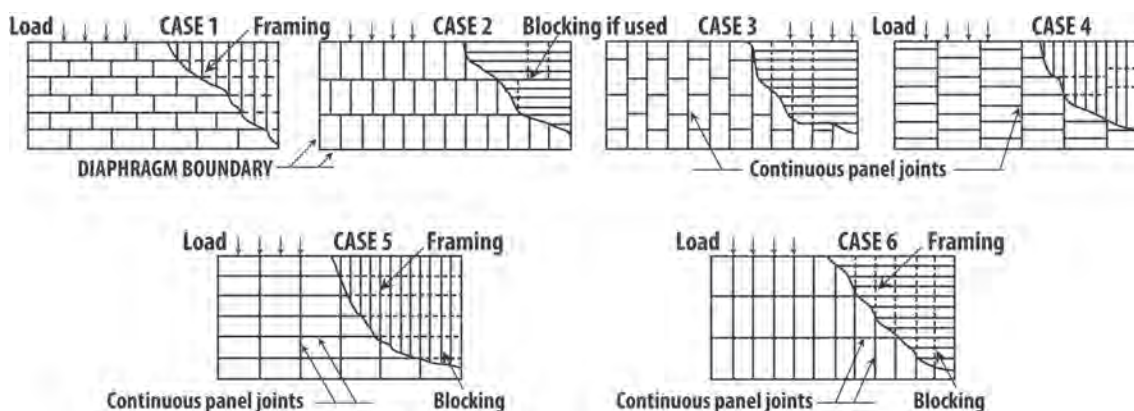
**Note 1:** ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190. **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Cyclic, fatigue, shock loads and other design criteria may require a different safety factor. **Note 5:** Job site testing may be required to determine actual job site values. **Note 6:** Values shown are for fastenings that have the entire pointed end of the fastener driven through the steel plate; except as noted below. **Note 7:** Fastener penetration is .31" minimum. **Note 8:** Fastener penetration is .29" minimum. **Note 9:** Fastener penetration is .27" minimum. **Note 10:** Fastener penetration is .25" minimum. **Note 11:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa

## PLY138 TRAKFAST PLYWOOD TO STEEL PIN PERFORMANCE TABLES

ALLOWABLE SHEAR FOR WIND OR SEISMIC FORCES IN POUNDS PER FOOT FOR HORIZONTAL PLYWOOD DIAPHRAGMS WITH STEEL FRAMING

PLYWOOD GRADE	MINIMUM STEEL GAGE <sup>4, 6</sup>	MINIMUM PANEL THICKNESS (Inches)	BLOCKED DIAPHRAGM PIN SPACING (Inches) <sup>5, 6</sup> Pin spacing at diaphragm boundaries (all cases), at continuous panel edges parallel to load (cases 3 & 4) and at the panel edges (cases 5 & 6) <b>ALLOWABLE LOAD</b>				UNBLOCKED DIAPHRAGM PIN SPACING (Inches) <sup>5, 6</sup> Pins spaced 6 inches max. at supported edges	
			6	4	2-1/2	2	Case 1 (no unblocked edges or continuous joints parallel to load)	All other configurations (cases 2, 3, 4, 5 & 6)
			Pin spacing at other panel edges					
			6	6	4	3		
Structural 1	20	7/16	185	280	420	475	185	140
	16	15/32	205	305	460	520	205	150
Grades other than Structural 1	20	7/16	165	250	380	430	165	125
	16	15/32	185	275	415	470	185	140

**Note 1:** These values are for short-time loads due to wind or earthquake and shall be reduced by 25 percent for normal loading. **Note 2:** The pin shall be long enough to penetrate through the thickness of the steel a minimum of 1/4 inch. **Note 3:** Minimum width of framing is 1-1/2 inches. **Note 4:** These shear values also apply to framing made of thicker steel. **Note 5:** Spacing of fasteners along intermediate framing members is 12 inches on center. **Note 6:** The minimum panel edge distance is 3/8 inch. **Note 7:** Values shown reflect a 5:1 safety factor. **Note 8:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa



**Note:** Framing is permitted to be oriented in either direction for diaphragms, provided sheathing is designed for vertical loading.

ALLOWABLE WITHDRAWAL LOADS IN POUNDS PER FASTENER DUE TO WIND OR SEISMIC FORCES FOR PLYWOOD AND LUMBER ATTACHED TO STEEL FRAMING <sup>1, 2, 3, 4</sup>

PIN DIAMETER (Inches)	MINIMUM STEEL THICKNESS (Gage or Inches)	MINIMUM THICKNESS OF PLYWOOD (Inches)					
		ALLOWABLE LOAD - Ultimate Load					
		3/8	7/16	15/32	19/32	23/32	1-1/8
0.100	22	15	15	.....	.....	.....	.....
0.100	20	20	25	25	25	.....	.....
0.100	18	30	35	40	40	.....	.....
0.100	16	40	45	60	60	.....	.....

**Note 1:** Plywood shall be Structural 1 rated. For other grades, values shall be reduced by 10 percent. **Note 2:** These values are for loads due to wind or earthquake and shall be reduced by 25 percent for other applications. **Note 3:** Minimum panel edge distance is 3/8 inch. **Note 4:** The pin shall be long enough to penetrate through the metal a minimum of 1/4 inch. **Note 5:** Values shown reflect a 8:1 safety factor. **Note 6:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa



**PLY138 TRAKFAST PLYWOOD TO STEEL PIN PERFORMANCE TABLES**
**ALLOWABLE SHEAR FOR WIND FORCES IN POUNDS PER FOOT FOR PLYWOOD SHEAR WALLS WITH STEEL FRAMING**

PLYWOOD GRADE	MINIMUM STEEL GAGE <sup>5</sup>	MINIMUM PANEL THICKNESS (Inches)	PIN SPACING, ALL PANEL EDGES (Inches)			
			ALLOWABLE LOAD			
			6	4	3	2
Structural 1	22	3/8 <sup>6</sup>	120	180	240	305
	22	7/16 <sup>6</sup>	130	195	260	330
	22	15/32	145	215	290	365
	20	3/8 <sup>6</sup>	155	235	310	395
	20	7/16 <sup>6</sup>	170	255	340	435
	20	15/32	205	305	410	520
Grades other than Structural 1	22	3/8 <sup>6</sup>	110	165	215	275
	22	7/16 <sup>6</sup>	120	175	235	300
	22	15/32	130	195	260	330
	20	3/8 <sup>6</sup>	140	210	280	360
	20	7/16 <sup>6</sup>	155	230	310	390
	20	15/32	185	275	370	470

**Note 1:** Values are for loads imposed by wind and shall be reduced by 25 percent for normal loading. **Note 2:** The pin shall be long enough to penetrate through the metal framing a minimum of 1/4 inch. **Note 3:** The minimum panel edge distance for pin placement is 3/8 inch. **Note 4:** Spacing of fasteners along intermediate framing members is 6 inches on center for 3/8 inch and 7/16 inch panels when studs are 24 inches on center and 12 inches on center when studs are 16 inches on center. For other panel thickness, spacing along intermediate framing members is 12 inches from center. **Note 5:** Framing to be spaced 24 inches on center or closer except as provided in Footnote 6. **Note 6:** The values for 3/8-inch and 7/16-inch panels may be increased by 20 percent and 10 percent, respectively, for framing spaced 16 inches on center. **Note 7:** Values shown reflect a 5:1 safety factor. **Note 8:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa

**ALLOWABLE LATERAL LOADS IN POUNDS PER FASTENER DUE TO WIND OR SEISMIC FORCES FOR STRUCTURAL<sup>1</sup> PLYWOOD AND LUMBER ATTACHED TO STEEL FRAMING<sup>1, 2, 3, 4, 6</sup>**

PIN DIAMETER (INCHES)	MINIMUM PANEL THICKNESS (Inches)	MINIMUM THICKNESS OF PLYWOOD (Inches)					
		ALLOWABLE LOAD					
		3/8	7/16	15/32	19/32	23/32	1-1/8
0.100	22	80	80	80	80	80	80
0.100	20	105	105	115	115	115	115
0.100	16	105	105	115	170	170	170

**Note 1:** Plywood shall be Structural 1 rated. For other grades, values shall be reduced by 10 percent. **Note 2:** These values are for loads due to wind or earthquake and shall be reduced by 25 percent for other applications. **Note 3:** Minimum panel edge distance for placement is 1 inch from the fastener to the sheathing edge measured in the direction of the load and 3/8 inch measured perpendicular to the direction of the load. **Note 4:** The pin shall be long enough to penetrate through the metal a minimum of 1/4 inch. **Note 5:** Values for 16 gage also apply to 14 gage. **Note 6:** The above values apply to groups of at least five fasteners. For fewer fasteners in a group, use one-half of the tabulated value. **Note 7:** Values shown reflect a 5:1 safety factor. **Note 8:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa

## GypFast fasteners for the attachment of gypsum sheathing to light gage steel framing

### PIN SPECIFICATIONS

- Made from AISI 1060-1065 steel. Austempered to a core hardness of 52-56 Rc
- Typical tensile strength: 270,000 psi
- Typical shear strength: 162,000 psi
- **STANDARD FINISHES**
  - Mechanical zinc plate to a minimum thickness of .0002 meets requirements of ASTM B695
  - Climacoat

### APPROVALS/LISTINGS

- **ICC Evaluation Service, Inc.**
  - #ESR-2174 GypFast
  - #ER-5380 GypFast
- **City of Los Angeles**
  - #RR-25638 GypFast

### ALLOWABLE NEGATIVE LOADS USING RAMSET GYPFAST FASTENERS

SHEATHING TYPE	MINIMUM STEEL STUD GAGE	MAXIMUM STEEL STUD SPACING (IN)	FASTENER SPACING (IN)	ALLOWABLE NEGATIVE LOAD (PSF)
1/2" GP DensGlass Gold Exterior Sheathing	20g to 12g	24	8	6
		16	8	8
5/8" GP DensGlass Gold Fireguard Type X Sheathing	20g to 12g	24	8	24
		16	8	32
1/2" USG Sheetrock Brand Sheathing	20g to 12g	24	8	12
		16	8	16
5/8" USG Sheetrock Brand Fire Code Type X Sheathing	20g to 12g	24	8	18
		16	8	24
1/2" USG Fiberock Brand Aquatough	20g to 12g	24	8	30
		16	8	40
5/8" USG Securock Glass-Mat Sheathing	18g	16	8	35
5/8" CertainTeed GlasRoc Sheathing Type X	18g	24	8	20
5/8" CertainTeed GlasRoc Sheathing Type X	16g	24	8	18
National Gypsum e2XP Extended Exposure Sheathing	18g	16	8	39

**Note 1:** Tested in accordance with ASTM E330. **Note 2:** Values shown reflect a 3:1 safety factor. **Note 3:** The fasteners must be driven to a depth at which the shank pierces the steel, such that the tip protrudes from the base metal a minimum of 1/2-inch. **Note 4:** Tabulated values do not allow any overdriving of fasteners into sheathing.

### CORROSION DATA ASTM B117 SALT SPRAY

GF112		S-12 SELF DRILL SCREW
1560 hours (10% Red Rust)	Driven	
3240 Hours (10% Red Rust)	UnDriven	24 Hours (5% Red Rust)

GypFast Fastener has Climacoat Long Life Polymer Coating; S-12 Screw has .0002" Electro zinc and Clear Chromate.

**Ramset fasteners may be specified by their type or catalog number to satisfy fastening requirements.**

## PIN SPECIFICATIONS

- Made from AISI 1060-1065 steel. Austempered to a core hardness of 52-56 Rc
- Typical tensile strength: 270,000 psi
- Typical shear strength: 162,000 psi
- **STANDARD FINISHES**
  - Proprietary black
  - Mechanical zinc plate to a minimum thickness of .0002 meets requirements of ASTM B695
  - Ramguard

## APPROVALS/LISTINGS

- **ICC Evaluation Service, Inc.**
  - #ESR-2690 Sill Plate
  - #ESR-1799 Powder Pins & Clips
- **City of Los Angeles**
  - #RR-22668 Powder pins

## FASTENERS IN NORMAL WEIGHT CONCRETE

PART NUMBER SERIES	SHANK DIAMETER (INCH)	MINIMUM PENETRATION (INCH)	INSTALLED IN STONE AGGREGATE CONCRETE CONCRETE COMPRESSIVE STRENGTH ALLOWABLE LOAD - <i>Ultimate Load</i>					
			2000 PSI		4000 PSI		6000 PSI	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
1500/1600 SERIES	0.145	3/4	<b>50</b> <i>655</i>	<b>66</b> <i>739</i>	<b>100</b> <i>511</i>	<b>104</b> <i>552</i>	.....	.....
		1	<b>152</b> <i>943</i>	<b>166</b> <i>1229</i>	<b>157</b> <i>937</i>	<b>182</b> <i>1342</i>	.....	.....
		1-1/4	<b>159</b> <i>1078</i>	<b>265</b> <i>1665</i>	<b>179</b> <i>1043</i>	<b>267</b> <i>1538</i>	.....	.....
		1-1/2	<b>154</b> <i>1450</i>	<b>340</b> <i>2027</i>	<b>209</b> <i>1357</i>	<b>342</b> <i>1712</i>	.....	.....
SP	0.150	3/4	.....	.....	<b>150</b> <i>803</i>	<b>105</b> <i>786</i>	<b>81</b> <i>493</i>	<b>82</b> <i>454</i>
SP SERIES	.150/.180	1	<b>154</b> <i>1043</i>	<b>200</b> <i>1173</i>	<b>243</b> <i>1307</i>	<b>175</b> <i>1037</i>	<b>189</b> <i>1125</i>	<b>210</b> <i>1177</i>
		1-1/4	<b>207</b> <i>1553</i>	<b>230</b> <i>1636</i>	<b>298</b> <i>1749</i>	<b>218</b> <i>1471</i>	<b>213</b> <i>1568</i>	<b>305</b> <i>1780</i>
		1-1/2	.....	.....	<b>384</b> <i>2126</i>	<b>391</b> <i>1957</i>	<b>239</b> <i>1886</i>	<b>594</b> <i>2968</i>
1900	0.145	3/4	<b>105</b> <i>694</i>	<b>71</b> <i>458</i>	<b>101</b> <i>685</i>	<b>99</b> <i>627</i>	.....	.....

**Note 1:** ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190. **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Values shown in concrete are for the fastener only. Connected members must be investigated separately. **Note 5:** Cyclic, fatigue, shock loads, and other design criteria may require a different safety factor. **Note 6:** Job site testing may be required to determine actual job site values. **Note 7:** Minimum edge distance is 3 inches unless otherwise approved. **Note 8:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa

## FASTENER IN STEEL

PART NUMBER SERIES	SHANK DIA (INCH)	TYPE OF SHANK	INSTALLED IN A36 STRUCTURAL STEEL-STEEL THICKNESS (INCHES) ALLOWABLE LOAD - <i>Ultimate Load</i>									
			3/16		1/4		3/8		1/2		3/4	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
1500/ 1600	0.145	SMOOTH	<b>81</b> 790	<b>373</b> 2039	<b>181</b> 1269	<b>273</b> 1642	<b>397</b> 2169	<b>489</b> 2771	<b>243</b> 1328 <sup>8</sup>	<b>277</b> 1514 <sup>8</sup>	.....	.....
		KNURLED	<b>296</b> 1633	<b>636</b> 3516	<b>584</b> 3384	<b>659</b> 3822	<b>680</b> 3755	<b>730</b> 4030	<b>253</b> 1459 <sup>8</sup>	<b>293</b> 1632 <sup>8</sup>	.....	.....
SP	0.150	SMOOTH	<b>385</b> 2107	<b>662</b> 3618	<b>445</b> 2549	<b>477</b> 2736	<b>393</b> 2145	<b>574</b> 3137	<b>948</b> 5180	<b>597</b> 3500	<b>234</b> 1244 <sup>8</sup>	<b>356</b> 1895 <sup>8</sup>

PART NUMBER SERIES	SHANK DIA (INCH)	TYPE OF SHANK	INSTALLED IN A572 GRADE 50 STRUCTURAL STEEL-STEEL THICKNESS (INCHES) ALLOWABLE LOAD - <i>Ultimate Load</i>									
			3/16		1/4		3/8		1/2		3/4	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
1500/ 1600	0.145	SMOOTH	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		KNURLED	<b>260</b> 1609	<b>499</b> 3182	<b>579</b> 3411	<b>725</b> 4272	<b>383</b> 2216 <sup>7</sup>	<b>595</b> 3431 <sup>7</sup>	.....	.....	.....	.....
SP	0.150	SMOOTH	<b>356</b> 2123	<b>569</b> 3394	<b>554</b> 3232	<b>637</b> 3710	<b>604</b> 3447	<b>602</b> 3437	<b>814</b> 4473 <sup>9</sup>	<b>820</b> 4503 <sup>9</sup>	<b>243</b> 1362 <sup>8</sup>	<b>381</b> 2141 <sup>8</sup>

**Note 1:** ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190. **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Cyclic, fatigue, shock loads, and other design criteria may require a different safety factor. **Note 5:** Job site testing may be required to determine actual job site values. **Note 6:** Values shown are for fastenings that have the entire pointed end of the fastener driven through the steel plate; except as noted below. **Note 7:** Fastener penetration is 3/8" minimum. **Note 8:** Fastener penetration is 7/16" minimum. **Note 9:** Fastener penetration is 1/2" minimum **Note 10:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa

## FASTENER IN LIGHTWEIGHT CONCRETE

PART NUMBER SERIES	SHANK DIAMETER (INCH)	MINIMUM PENETRATION (INCH)	ALLOWABLE WORKING VALUES INSTALLED IN 3000 PSI LIGHTWEIGHT CONCRETE ALLOWABLE LOAD - <i>Ultimate Load</i>			
			3000 PSI LIGHTWEIGHT W/DECKING		3000 PSI LIGHTWEIGHT	
			LOWER FLUTE TENSION	LOWER FLUTE SHEAR	TENSION	SHEAR
1500 SERIES	0.145	3/4	<b>76</b> 395	<b>260</b> 1409	<b>167</b> 837	<b>179</b> 894
		1	<b>134</b> 668	<b>265</b> 1505	<b>200</b> 998	<b>228</b> 1141
		1-1/4	<b>157</b> 784	<b>269</b> 1344	<b>333</b> 1664	<b>400</b> 2090
		1-1/2	<b>233</b> 1163	<b>346</b> 1728	<b>391</b> 1957	<b>410</b> 2050
SP SERIES	.150/.180	1	<b>119</b> 593	<b>336</b> 1679	<b>226</b> 1129	<b>250</b> 1249
		1-1/4	<b>175</b> 957	<b>372</b> 1860	<b>329</b> 1644	<b>377</b> 1885
		1-1/2	<b>179</b> 1055	<b>426</b> 2128	<b>406</b> 2030	<b>380</b> 1900

**Note 1:** ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190. **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Values shown in concrete are for the fastener only. Connected members must be investigated separately. **Note 5:** Cyclic, fatigue, shock loads, and other design criteria may require a different safety factor. **Note 6:** Job site testing may be required to determine actual job site values. **Note 7:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa



**ANGLE CLIP IN CONCRETE**

PART NUMBER SERIES	SHANK DIAMETER (INCH)	MINIMUM PENETRATION (INCH)	ALLOWABLE WORKING VALUES INSTALLED IN 3000 PSI LIGHTWEIGHT CONCRETE ALLOWABLE LOAD - <i>Ultimate Load</i>					
			4000 PSI			6000 PSI		
			TENSION (LBS)	SHEAR (LBS)	OBLIQUE (LBS)	TENSION (LBS)	SHEAR (LBS)	OBLIQUE (LBS)
SDC100 SDC125	0.145	7/8	<b>115</b> <i>575</i>	<b>120</b> <i>1014</i>	<b>145</b> <i>726</i>	.....	.....	.....
SDC125	0.145	1-1/8	<b>130</b> <i>744</i>	<b>167</b> <i>1090</i>	<b>205</b> <i>1032</i>	.....	.....	.....
SPC78	0.150	3/4	<b>155</b> <i>897</i>	<b>188</b> <i>1050</i>	.....	<b>150</b> <i>788</i>	<b>153</b> <i>949</i>	<b>140</b> <i>769</i>
SPC114	.150/.180	1-1/8	<b>127</b> <i>811</i>	<b>226</b> <i>1130</i>	<b>181</b> <i>904</i>	<b>169</b> <i>853</i>	<b>300</b> <i>1500</i>	<b>223</b> <i>1114</i>

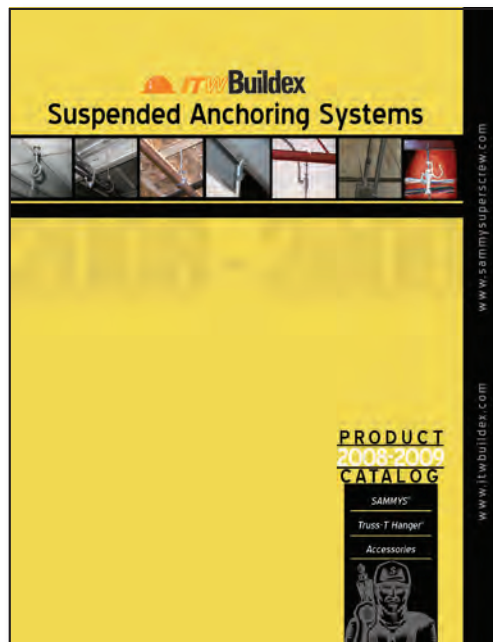
PART NUMBER SERIES	SHANK DIAMETER (INCH)	MINIMUM PENETRATION (INCH)	ALLOWABLE WORKING VALUES INSTALLED IN 3000 PSI LIGHTWEIGHT CONCRETE ALLOWABLE LOAD - <i>Ultimate Load</i>				
			3000 PSI LIGHTWEIGHT WITH METAL DECKING				
			LOWER FLUTE TENSION (LBS)	LOWER FLUTE SHEAR (LBS)	LOWER FLUTE OBLIQUE (LBS)	UPPER FLUTE TENSION (LBS)	UPPER FLUTE SHEAR (LBS)
SDC100 SDC125	0.145	7/8	<b>67</b> <i>335</i>	<b>237</b> <i>1186</i>	<b>90</b> <i>448</i>	<b>104</b> <i>571</i>	<b>310</b> <i>1678</i>
SDC125	0.145	1-1/8	<b>94</b> <i>471</i>	<b>276</b> <i>1378</i>	<b>119</b> <i>596</i>	<b>106</b> <i>528</i>	<b>319</b> <i>1597</i>
SPC78	0.150	3/4	<b>59</b> <i>293</i>	<b>202</b> <i>1109</i>	<b>65</b> <i>323</i>	<b>84</b> <i>419</i>	<b>324</b> <i>1622</i>
SPC114	.150/.180	1-1/8	<b>157</b> <i>786</i>	<b>272</b> <i>1358</i>	<b>153</b> <i>766</i>	<b>180</b> <i>899</i>	<b>334</b> <i>1673</i>

**Note 1:** ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190. **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Values shown in concrete are for the clip assembly only. Connected members must be investigated separately. **Note 5:** Cyclic, fatigue, shock loads, and other design criteria may require a different safety factor. **Note 6:** Job site testing may be required to determine actual job site values. **Note 7:** Minimum edge distance is 3 inches unless otherwise approved. **Note 8:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa. **Note 9:** Metal deck is 20g.

**LADD 652 ANGLE CLIP ASSEMBLY**

PART NUMBER SERIES	SHANK DIAMETER (INCH)	MINIMUM PENETRATION (INCH)	ALLOWABLE WORKING VALUES INSTALLED IN STONE AGGREGATE CONCRETE CONCRETE COMPRESSIVE STRENGTH ALLOWABLE LOAD - <i>Ultimate Load</i>			
			3000 PSI		4000 PSI	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
LADD CEILING SYSTEM	0.152	1-1/8	<b>211</b> <i>1688</i>	.....	<b>193</b> <i>1544</i>	.....

**Note 1:** ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Except as noted, values shown reflect an 8 to 1 safety factor. **Note 3:** Values shown are for concrete at the designed strength and are for the clip system only. **Note 4:** Cyclic, fatigue or shock loads and other design criteria may require a different safety factor. **Note 5:** Job site testing may be required to determine actual job site values. **Note 6:** Edge distance is 3 inches unless otherwise approved. **Note 7:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa





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## **Operator Training, Test and License Available on the Internet**

Only properly trained and licensed operators as described in ANSI Standard A 10.3 and/or local regulations may operate powder actuated tools. ITW Ramset distributors offer complete training programs for end users. Contact your local Ramset distributor for complete details.

A Ramset powder actuated tool Operator's Training, Test and License program is also available via the Internet at [www.ramset.com](http://www.ramset.com).



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