



NITROSET®

SOLID PROPELLANT FASTENING SYSTEM



CATALOG 20.02

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Industry Leading Features & Benefits

INCREASE THE "STICK" RATE

The Nitroset solid propellant fastening system offers superior performance into hard concrete. The design of the Nitroset tool allows for the actuation of fasteners without a piston and has demonstrated a fastening success rate beyond 95% in high strength concrete.

The Complete Commercial Interior Fastening Solution

- Nitroset's unique tool design eliminates the need for multiple tools for different applications. One Nitroset Tool covers all ceiling, wall, and floor needs.
- The lightweight, low-profile tool design eases access and provides superior overhead fastening productivity, reducing cost to the user. Coupled with the Nitroset Pole, the system eliminates the need for lifts and ladders for overhead fastening.
- Nitroset's fastener offering encompasses acoustical, electrical, mechanical and specialty trades.
- USA made stainless steel fasteners are the ideal solution for tunnels, bridges, and other custom applications.

Protection for Workers and The Environment

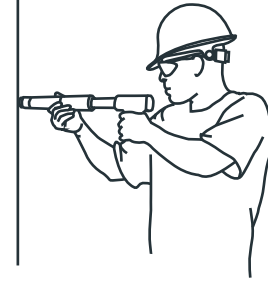
- Lead-free, primer-free, non-explosive Nitroset fasteners are safe to use in high security and lead-free zones such as schools, hospitals, airports and military bases.
- Nitroset fasteners are brass-free; eliminating fines and costs related to policing and storing other manufacturers' brass loads on the jobsite.
- Operation is quieter with the patented, vented tool design.





Side Wall Fastening

New lightweight alloy construction



Use the tool for horizontal applications

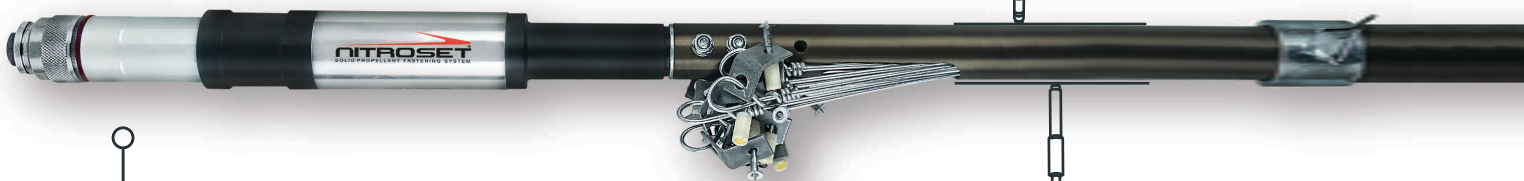


Track Fastening

Extension & hand grip for multiple applications



Use the tool for floor applications



Ceiling Fastening

Low profile for easy fitment between surrounding ductwork

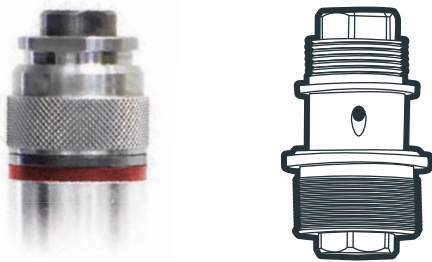


Use the tool for overhead applications

For All Your Interior Fastening Needs

NITROSET TRIPLE PLAY

technology eliminates the need for multiple tools for different applications. One Nitroset tool can be used for side wall fastening, track, and ceiling fastening without the need of a separate tool.



Universal nosepiece allows for fasteners from ½" to 1¼" in length

NITROSET SOLID PROPELLANT FASTENING SYSTEM

Reduced Materials
Higher success Rate

Less Labor
Higher Efficiency

Less
In-Place
Cost \$

Traditional Powder & Gas Fastening Systems

More Materials
Higher Failure Rate

More Labor
Less Efficient Systems

Higher
In-Place
Cost \$

Nitroset Tool Kits

| | DESCRIPTION | PACK | CASE |
|----------|--|------|------|
| NTS8X | Nitroset Tool Kit (without Extention & Hand Grip) | 1 PC | 4 PC |
| NTS8X-TP | Nitroset Triple Play Tool Kit (with Extension & Hand Grip) | 1 PC | 4 PC |

SAFETY EQUIPMENT

Nitroset offers personal protective equipment that will allow you to focus on getting the job done safely. All our safety products meet ANSI standards for protective gear.

If you need assistance selecting or purchasing these important products, please contact a Nitroset representative.





FASTENERS

Nitroset track pins and washered pins are used for structural attachment to a variety of exterior and interior building elements.

TRACK PINS



| CODE | DESCRIPTION | PACK | CASE |
|---------|------------------------------------|---------|----------|
| PIN219 | 3/4"x 0.125 Track Pin | 1000 pc | 10000 pc |
| PIN319 | 3/4"x 0.145 Track Pin | 1000 pc | 10000 pc |
| PIN219T | 3/4"x 0.125 Track Pin with Top Hat | 500 pc | 5000 pc |
| PIN222 | 7/8"x 0.125 Nitro Track Pin | 500 pc | 5000 pc |

Application: For attaching metal track to concrete.

WASHERED PINS



| CODE | DESCRIPTION | PACK | CASE |
|----------|---|--------|---------|
| PIN222W | 7/8"x 0.125 Pin with 9/16 Washer | 500 pc | 5000 pc |
| PIN222SW | 7/8"x 0.125 Pin with Square Washer | 100 pc | 1000 pc |
| PIN532NW | 1-1/4" Nitro Step Shank Pin with Nitro Washer | 100 pc | 1000 pc |

Application: For attaching elements to concrete including metal lath and track.

KNURL PINS



| CODE | DESCRIPTION | PACK | CASE |
|--------|-----------------------|--------|---------|
| PIK313 | 1/2"x 0.145 Knurl Pin | 500 pc | 5000 pc |
| PIK316 | 5/8"x 0.145 Knurl Pin | 500 pc | 5000 pc |

Application: For attaching elements to structural steel.

ACOUSTICAL CEILING HEADERS



Nitroset fasteners can support ceiling structures. CLAS Heavy duty clips offer optimum consistency and holding value into the toughest jobsite applications.

XL extended length clips allow the hanging of pencil rods directly in one single fastening operation. CLU utility clips are ideal for electricians and high-volume applications.

From everyday to the toughest applications we have the clip assembly for your job.

CEILING APPLICATIONS

UTILITY CLIP



| CODE | DESCRIPTION | PACK | CASE |
|--------|--|--------|---------|
| CLU222 | 7/8" x 0.125 Pin w/Pre-Mounted 120° Clip | 100 pc | 1000 pc |



Application: For vertical attachment of tie wire, chain, cable, or other fastening support to concrete or structural steel base materials.

STEP SHANK PIN & CLIP



| CODE | DESCRIPTION | PACK | CASE |
|---------|--|--------|---------|
| CLAS525 | 1" Step Shank Pin with Nitro Clip Assembly | 100 pc | 1000 pc |
| CLAS532 | 1 1/4" Step Shank Pin with Nitro Clip Assembly | 100 pc | 1000 pc |



Application: For wire suspension hanging acoustical ceiling systems or other overhead fixtures and applications such as hanging lights.

PENCIL ROD PIN & CLIP



| CODE | DESCRIPTION | PACK | CASE |
|-----------|---|--------|---------|
| CLSUPL525 | 1" Step Shank Pin with Extended Clip Assembly | 100 pc | 1000 pc |
| CLSUPL532 | 1 1/4" Step Shank Pin with Extended Clip Assembly | 100 pc | 1000 pc |



Application: For pencil rod and wire suspension hanging acoustical ceiling systems or other overhead fixtures and applications such as hanging lights.

ALLOWABLE LOADS FOR NITROSET ASSEMBLIES INSTALLED IN NORMAL-WEIGHT CONCRETE (lbf)^{1,2}

| ASSEMBLY | EMBEDMENT DEPTH (INCHES) | CONCRETE COMPRESSIVE STRENGTH | | | | | |
|----------|--------------------------|-------------------------------|-------|-----------|-----------|-------|-----------|
| | | 4,000 psi | | | 6,000 psi | | |
| | | Tension | Shear | 45-Degree | Tension | Shear | 45-Degree |
| CLU222 | 3/4 | 120 | 165 | 120 | 115 | 276 | 209 |
| CLAS525 | 13/16 | 158 | 242 | 151 | 163 | 184 | 168 |
| CLAS532 | 1-1/16 | 150 | 147 | 213 | 171 | 146 | 152 |

For SI: 1 inch = 25.4 mm; 1 lbf = 4.4 N; 1 psi = 6895 Pa.

¹Fasteners must not be driven until the concrete has reached the specified compressive strength.

²Concrete thickness at the point of penetration must be minimum of three times the embedment depth.



PRE-TIED CEILING WIRE

Nitroset pre-tied fasteners can be used to support many types of ceiling structures including grids and tiles, light fixtures, wiring harnesses; and other custom electrical and mechanical assemblies. Custom options are available upon request to meet specific jobsite needs. 12 gauge wire with 7/8", 1" and 1¼" size nail and clip assemblies in standard lengths available for expedited shipping.



Custom Options Available

- Custom lengths
- 8 or 9 gauge wire (12 gauge standard)
- Stainless steel wire
- Double tie wire

Custom crates are easy to handle and effectively protect Nitroset pre-tied wire during transit. Make sure to always store Nitroset Pre-ties indoors.



NITROSET POLES

The Nitroset telescopic pole provides maximum efficiency for overhead applications. The durable and lightweight design makes this a valuable, time-saving accessory for acoustical professionals.



Telescoping Extension

Varied extension lengths for multiple heights



Wire Holder

Maximize performance with easy access to ceiling wire



Rubber Handle

Extended rubber handle for a firm grip



NITROSET EXTENSION POLES

| | Number of Sections | Min & Max Extension | Item Weight | Pack |
|---------|--------------------|----------------------|-------------|--------|
| TOP8V | 2 | 4 ft - 8 ft | 5 LB | 1 Pole |
| TOP12V | 2 | 6 ft - 12 ft | 6 LB | 1 Pole |
| TOP123V | 3 | 4 ft - 8 ft - 12 ft | 6 LB | 1 Pole |
| TOP183V | 3 | 6 ft - 12 ft - 18 ft | 8 LB | 1 Pole |



MECHANICAL & ELECTRICAL T R A D E S

THREADED ROD HANGERS



| CODE | DESCRIPTION | PACK | CASE |
|-----------|---|--------|---------|
| CLR14-222 | 1/4"- 20 Threaded Rod Hanger with 7/8"x 0.125 Pin | 100 pc | 1000 pc |
| CLR38-222 | 3/8"- 16 Threaded Rod Hanger with 7/8"x 0.125 Pin | 100 pc | 1000 pc |

Application: For vertical attachment of the threaded rod to concrete or structural steel base material.



HEAVY DUTY THREADED ROD HANGERS



| CODE | DESCRIPTION | PACK | CASE |
|-------------|---|--------|---------|
| CLRHD14-525 | 1/4"- 20 Heavy Duty Threaded Rod Hanger with 1" Step Shank Pin | 100 pc | 1000 pc |
| CLRHD38-525 | 3/8" - 16 Heavy Duty Threaded Rod Hanger with 1" Step Shank Pin | 100 pc | 1000 pc |

Application: For heavy duty vertical attachment of the threaded rod to concrete or structural steel base material.

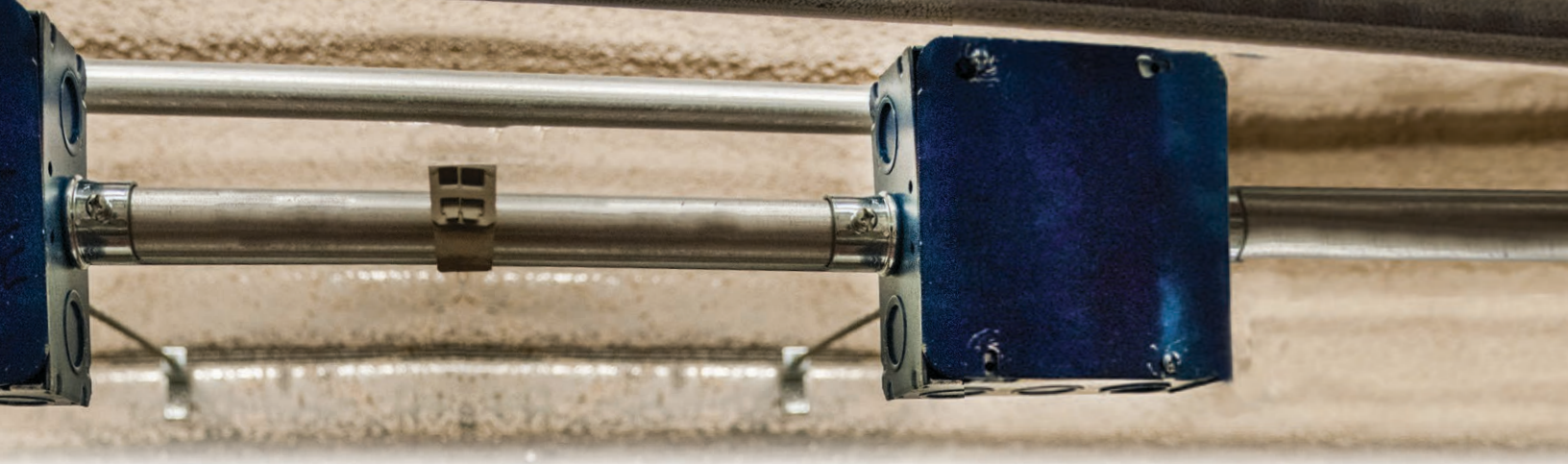


BRIDLE RING CLIP ASSEMBLY



| CODE | DESCRIPTION | PACK | CASE |
|-----------------|--|--------|---------|
| CLR14222-BRT114 | 1/4"-20 Threaded Rod Clip & 7/8" Pin with 1-1/4" Bridle Ring Combo | 100 pc | 1000 pc |
| CLR14222-BRT2 | 1/4"-20 Threaded Rod Clip & 7/8" Pin with 2" Bridle Ring Combo | 100 pc | 1000 pc |

Application: For hanging low voltage cable.



High production overhead fastening has never been easier.

Custom pre-assembled hangers can be installed directly from the floor without manlifts or ladders, saving labor & adding value to the fastening process.

ONE-HOLE STRAP



| CODE | DESCRIPTION | PACK | CASE |
|-----------|---|--------|---------|
| CLC38-222 | 3/8" One-Hole Strap Clip with 7/8"x 0.125 Pin | 100 pc | 1000 pc |
| CLC12-222 | 1/2" One-Hole Strap Clip with 7/8"x 0.125 Pin | 100 pc | 1000 pc |
| CLC34-222 | 3/4" One-Hole Strap Clip with 7/8"x 0.125 Pin | 100 pc | 1000 pc |
| CLC1E-222 | 1" One-Hole Strap Clip with 7/8"x 0.125 Pin | 50 pc | 500 pc |



Application: For multi-position (floor, wall, or ceiling) attachment of electrical conduit or armored cable to concrete or structural steel base material.

CABLE TIE CLIP ASSEMBLY



| CODE | DESCRIPTION | PACK | CASE |
|--------|-------------------------------------|--------|---------|
| CLT219 | Cable Tie Clip with 3/4"x 0.125 Pin | 100 pc | 1000 pc |

Application: For installing or securing electric fitting or cable to concrete. Uses a standard cable tie up to 3/8" width.

THREADED STUDS



| CODE | DESCRIPTION | PACK | CASE |
|-------|--------------------|--------|---------|
| STT14 | 1/4" Threaded Stud | 100 pc | 1000 pc |

Application: For attaching electrical components to concrete where removability of the component is required.

*Use NTS101-1-50 Nosepiece for STT14.



SR 99 Tunnel – Seattle, WA – Nitroset Stainless Steel Fasteners used in lath installation.

POWER-DRIVEN STAINLESS STEEL FASTENERS

FOR HIGH PSI CONCRETE

★ ★ ★ ——— **MADE IN USA** ——— ★ ★ ★

**NO MORE DRILLING
AND ANCHORING!**

Nitroset provides customized STAINLESS STEEL FASTENING solutions

- Power driven fastening system for high PSI precast concrete
- Ideal for installing metal lath to tunnel lining
- High corrosion resistant stainless steel pins
- Custom stainless steel washers, clips, and threaded fasteners

**For more information about our stainless steel fasteners,
contact a Nitroset representative at 1.800.524.4649**

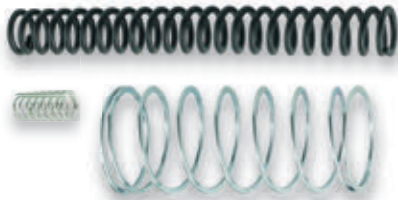
NITROSET PART KITS



NITROSET CLEANING KIT

► NTS101-20-KIT

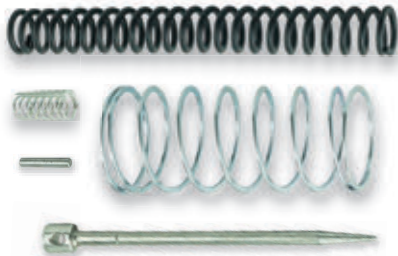
| | |
|-----------|-----------------------|
| NTS101-22 | Brush |
| NTS101-23 | Strike-Hold Degreaser |
| NTS101-24 | Cloth |



NITROSET SPRING KIT

► NTS101-20-KIT2

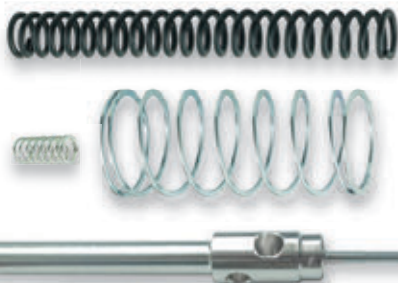
| | |
|----------------|---------------------|
| NTS101-5 | Trigger Ball Spring |
| NTS101-9S-OTCS | Firing Spring |
| NTS5X-11 | Reset Spring |



NITROSET TOOL REPAIR KIT

► NTS101-20-KIT3

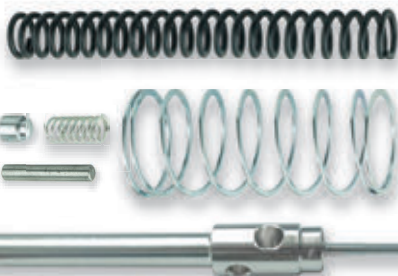
| | |
|----------------|---------------------|
| NTS101-4 | Firing Pin |
| NTS101-5 | Trigger Ball Spring |
| NTS101-8 | Roll Pin |
| NTS101-9S-OTCS | Firing Spring |
| NTS5X-11 | Reset Spring |



NITROSET FIRING PIN ASSEMBLY & SPRING REPLACEMENT KIT

► NTS101-20-KIT4

| | |
|----------------|---------------------|
| NTS101-4 | Firing Pin |
| NTS101-5 | Trigger Ball Spring |
| NTS101-6 | Firing Pin Holder |
| NTS101-8 | Roll Pin |
| NTS101-9S-OTCS | Firing Spring |
| NTS5X-11 | Reset Spring |



NITROSET COMPLETE REBUILD KIT

► NTS101-20-KIT5

| | |
|----------------|----------------------|
| NTS101-4 | Firing Pin |
| NTS101-5 | Trigger Ball Spring |
| NTS101-6 | Firing Pin holder |
| NTS101-7 | Trigger Ball Release |
| NTS101-8 | Roll Pin |
| NTS101-9S-OTCS | Firing Spring |
| NTS5X-11 | Reset Spring |
| NTS5X-12 | Main Assembly Pin |

NITROSET PART LIST



Spall Guard Clip
NTS101-0-U



2" Full-Cut Spall Guard
NTS101-0-C



3.5" Full-Cut Spall Guard *
NTS101-0-L-FC



3.5" U-Cut Spall Guard *
NTS101-0-L-C



Nosepiece Rubber Gasket
NTS101-29



Debris Cup Rubber Gasket
NTS101-30



Muzzle **
NTS101-C3



Debris Cup **
NTS101-2-C



Blue/Red Adapter
NTS101-17



Firing Pin Guide
NTS5X-3



Firing Pin
NTS101-4



Reset Sleeve
NTS8X-10



Trigger Ball Spring
NTS101-5



Firing Pin Holder
NTS101-6



Trigger Ball Release
NTS101-7



1/8" Roll Pin
NTS101-8



Firing Spring
NTS101-9S-OTCS



Buffer
NTS101-16



Reset Spring
NTS5X-11



1/4" Main Assembly Pin
NTS5X-12



Trigger Body
Not sold Separately



Outer Cover Sleeve
NTS8X-14



End Cap
NTS8X-15



Triple Play Extension ***
NTS101-18



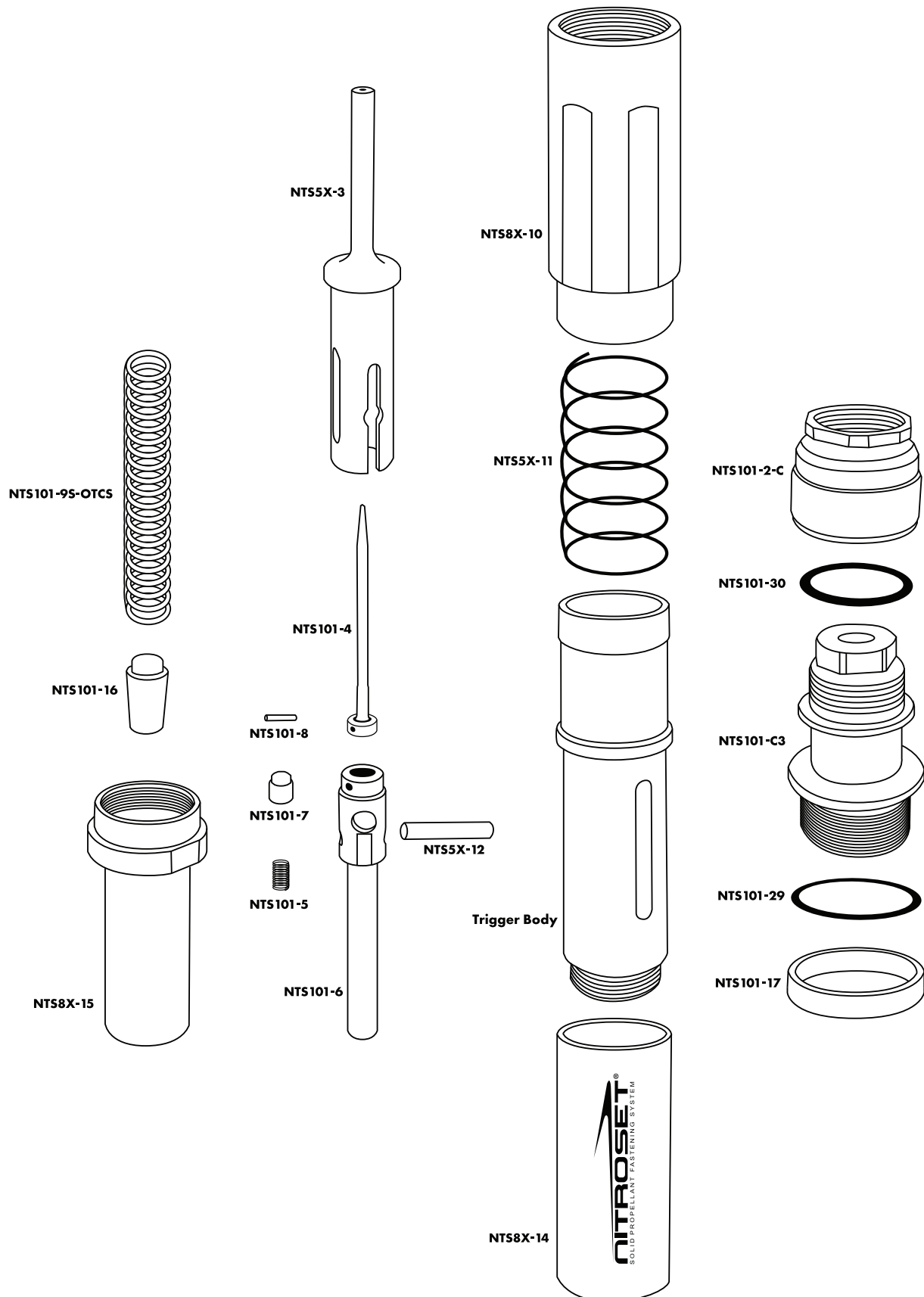
Hand Grip ***
NTS101-19

* These spall guards also have a magnet variant.

** The muzzle and the debris cup can only be ordered in the NTS101-IS-C3-C kit.
The kit also includes 1 each of NTS101-29 and NTS101-30.

*** These parts are included in the NTS8X-TP tool kit.

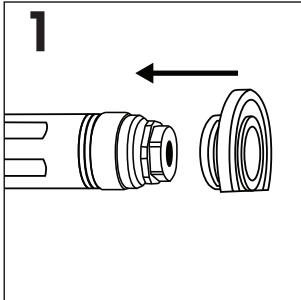
NITROSET PART DIAGRAM



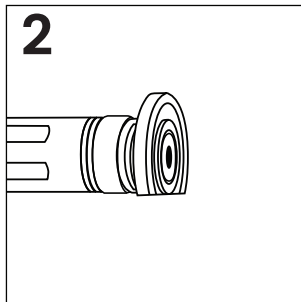
* Parts in this diagram are to scale.

INSTALLATION INSTRUCTIONS FOR HORIZONTAL, TRACK & OVERHEAD INTO CONCRETE

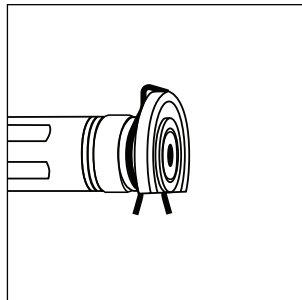
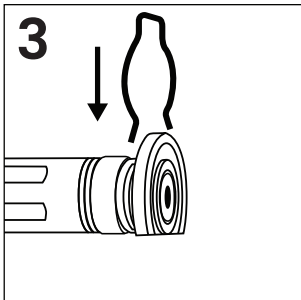
SPALL GUARD INSTALLATION



1 Install spall guard to nosepiece.

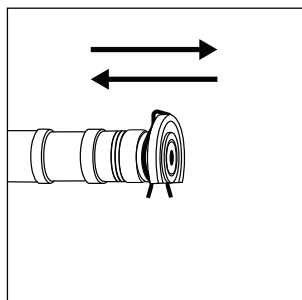
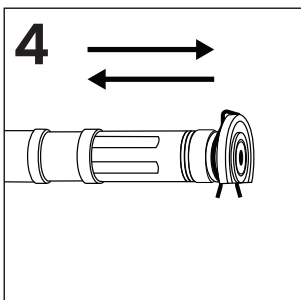


2 Ensure spall guard is installed flush.



3 Install the retention clip to the nosepiece to hold spall guard in place.

HORIZONTAL, TRACK & OVERHEAD INTO CONCRETE



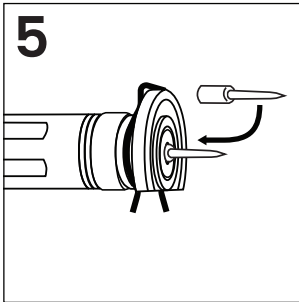
4 Reset the tool before each fastening to ensure the nosepiece barrel is clear of any debris.

- A. Pull back on front of nosepiece until reset spring fully collapses.
- B. Ensure firing pin guide clears all debris from nosepiece chamber prior to inserting new fastener assembly.

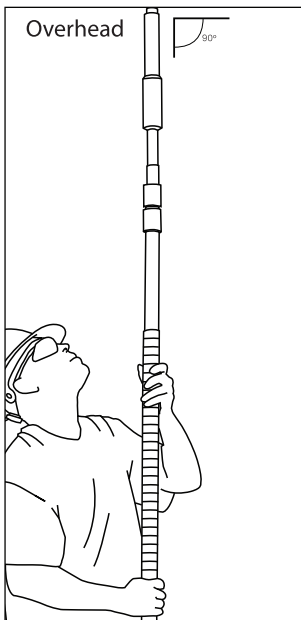
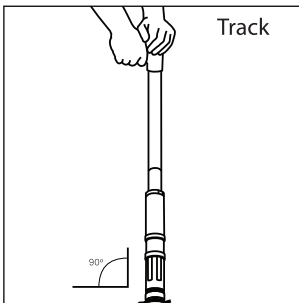
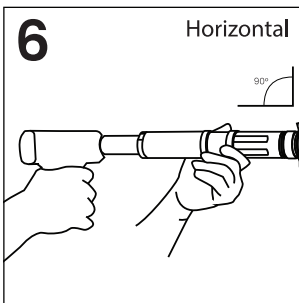
INSTALLATION INSTRUCTIONS FOR HORIZONTAL, TRACK & OVERHEAD INTO CONCRETE

! WARNING !

If the fastener assembly cannot be inserted into the nosepiece, do not force the fastener into the nosepiece. This can jam the fastener in the tool and damage the fastener. Fasteners that cannot be inserted should be removed and discarded appropriately.



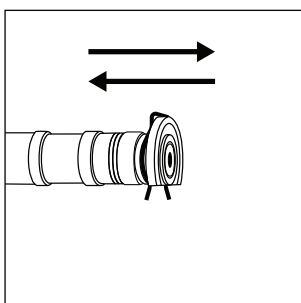
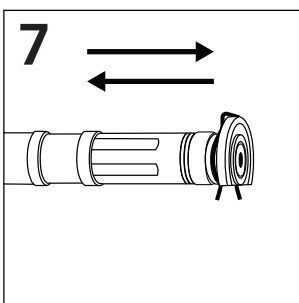
- 5** Insert the fastener fully into the nosepiece of the tool. Fasteners must be fully seated in nosepiece to ensure proper actuation.



- 6** Place the NITROSET® tool perpendicular (90°) against the fastening surface.

Position the tool and push directly to feel the engagement of the firing spring. Follow with a smooth and forceful motion to compress the firing spring to trigger the firing mechanism. This is the correct fastening procedure to minimize spalling and noise.

Important: DO NOT BOUNCE FIRE THE TOOL!



- 7** Reset the tool to ensure the nosepiece barrel is clear of debris and repeat from Step (4) to (7).

CONTACT US

Nitroset, LLC. is located in Houston, Texas where we design and manufacture the Nitroset solutions.

We believe in the timeliness of customer service and will do everything possible to satisfy our customers' needs. If you have any problems, comments, or suggestions, please call or e-mail our customer service representatives or sales associates.

**Our customer service representatives are available:
Monday through Friday, 8am - 4:30pm CST.**

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Our mission is to provide eco-friendly tools that are simple to operate and maintain while effectively meeting the most difficult jobsite challenges.

**FOR MORE INFORMATION VISIT
WWW.NITROSET.COM**