

## TENN GXP-38-SM

### Gas Nailer

*The Tenn GXP-38-SM Gas Nailer drives hundreds of nails a day accurately and consistently with very little effort. This special nailer is designed for sinking nails into concrete but it is also very effective for nailing into brickwork, concrete block, and even thick steel.*

The GXP-38-SM is basically an internal combustion engine, with a cylinder and piston, battery and spark plug. A disposable fuel cell supplies the fuel, a combination of butane and propane gas.

When the nose of the tool is depressed against the work surface, a tiny amount of gas is injected into the cylinder. Pulling the trigger generates a spark, which ignites the gas, resulting in a small explosion above the piston. The energy released actuates the piston which in turn hammers the nail into the work surface.

#### BENEFITS

- *Speed – Tenn GXP-38-SM is much faster than other nailing methods.*
- *Portability – no need for air compressors, hoses or electrical cords.*
- *Economy – significantly lower in-place costs than other nailing methods.*
- *Intelligent design and quality manufacturing ensure years of dependable service*
- *Requires only minimal cleaning due to its advanced ignition system. Cleaner fuel burning means less carbon deposits, a cleaner engine and longer service intervals.*
- *Simple to clean – easy access to the air filter and combustion chamber. A clean air filter results in efficient tool operation and maximum number of shots per minute.*

#### FEATURES

- *Powerful – drive force 91 joules (67 ft.-lb.)*
- *Efficient cooling system prevents heat jams*
- *Compact, light, excellent balance*
- *“No fire” function – tool does not fire when last 2 nails remain in the magazine*
- *Low noise, minimal recoil*
- *Magazine capacity: 20 + 2 nails*
- *NiMH 6V 1300 mAH battery, 2 hour charging time*
- *Approx. 3200 shots per charge*
- *Fuel cell contains no CFC, friendly to the environment*

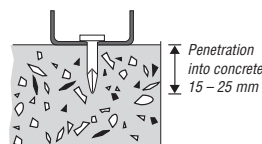


**Tool dimensions**  
 Length: 425 mm  
 Width: 107 mm  
 Height: 392 mm  
 Weight: 3.7 kg

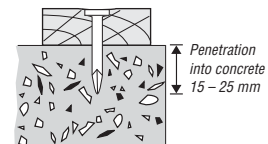
**Up to 1300 shots per fuel cell**

#### APPLICATIONS

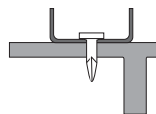
##### Steel to Concrete



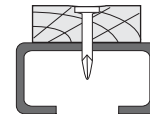
##### Wood to Concrete



##### Steel to Steel



##### Wood to Steel



- *Light gauge steel to concrete e.g. drywall track*
- *Acoustical ceilings*
- *Plywood panels to concrete e.g. underlayment for hardwood flooring, formwork*

- *Waterproofing membrane onto foundations*
- *Metal deck to steel substructure*
- *Fence erection*
- *Electrical fittings*
- *Aluminium works*



## TENN AXP-38

Pneumatic Nailer

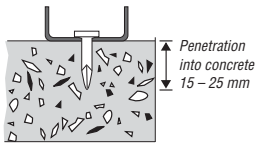
*Rugged, hardworking, and simple to use, the Tenn AXP-38 Pneumatic Nailer gets the job done right from start to finish! It is also designed ergonomically for comfortable, easier handling on a wide range of nailing tasks.*



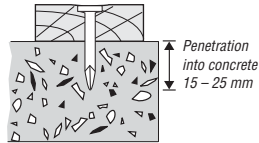
Length: 425 mm  
Width: 107 mm  
Height: 320 mm  
Weight: 3.4 kg

### APPLICATIONS

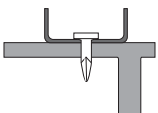
#### Steel to Concrete



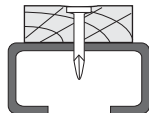
#### Wood to Concrete



#### Steel to Steel



#### Wood to Steel



- Drywall and partition work
- Accoustical ceilings
- Plywood panels to concrete e.g. underlayment for hardwood flooring, formwork
- Waterproofing membrane onto foundations
- Metal deck to steel substructure

### SPECIFICATIONS

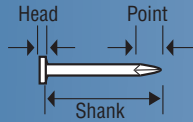
- Powerful – drive force 90 joules (66 ft.-lb.)
- Air consumption: 5.2 SCFM @ 60 nails/min.
- Operating pressure: 6 – 9 bar (80 – 120 psi)
- Recommended air compressor size: 1½ HP/2.5 Gal.
- Magazine capacity: 42 XP Nails
- Air inlet: 3/8" NPT
- Trigger type: sequential actuation

### BENEFITS

- Works with conventional air compressors – high pressure air compressors, which are costly, are not required
- 5 times faster than power-actuated systems
- Drives XP Nails from 14 to 38 mm
- Intelligent design and quality manufacturing ensure years of dependable service
- Nail penetration depth adjustment dial



## TENN XP NAILS – DESIGN INFORMATION



Tenn XP Nails are made from high carbon steel wire and heat treated by austempering to produce very hard and yet ductile fasteners. These properties are essential for the nails to penetrate concrete and structural steel without breaking. XP Nails have ballistic points to displace the substrates into which they are driven and large diameter heads to prevent overdriving.

**Concrete.** During penetration, XP Nails displace and compress the concrete. The displacement of concrete produces a compressive reaction force around the shank, gripping it like a vice. During driving, a small amount of spalling may occur at the concrete surface. Minor spalling however does not usually affect the strength of the fastening.

**Steel.** When a XP Nail is driven into structural steel, small bulges of displaced steel will form on the steel at both the entry and exit sides. The nail point does not fully protrude beyond the steel. If the nail point does not fully protrude, the compressive reaction force in the steel may squeeze out the nail.

### DRYWALL TRACK APPLICATIONS

The attachment of thin metal drywall runner track to concrete slabs and steel beams is the most typical application for XP Nails. The advantage of using XP gas or pneumatic nailing tools is that they can install nails more quickly. Other fastening methods involve much higher labour costs.

The designer must first identify the connections that are to use XP Nails. Secondly, he must properly detail nail spacing and edge distance and determine whether the capacity of the connection is sufficient for the application.

The capacity of a XP nail connection is based on 1) the strength of the attached sheet, or 2) the grip of the nail within the substrate, whichever is the lower value.

### Strength of Attached Sheet

As stated above, the strength of a connection may be limited by the attached sheet material.

**Shear Loading.** When subjected to a shear load, the attached sheet may experience yield in bearing (bearing failure mode in which the hole around the nail is elongated) or edge tear out. Therefore, a minimum edge distance of 13 mm should be maintained at the end or edge of the attached sheet. Safe working shear values for the sheet material are given in Table 1 below.

**Table 1. Shear Capacity of Steel Sheets**

Sheet Thickness (mm)	Nail Dia. (mm)	Safe Working Shear Loads (kN)*
0.88	2.7	0.66
1.14	2.7	0.86
1.44	2.7	1.08
1.81	2.7	1.36
2.58	2.7	1.94

\*Safe working loads include a safety factor of 3.

**Tension Loading.** When subjected to tension loading, the attached sheet or sheets may experience pull-over failure (failure mode in which the sheet pulls over the head of the fastener).

Safe working pull-over values are given in Table 2 below.

**Table 2. Pull-over Capacity of Steel Sheets**

Sheet Thickness (mm)	Nail Head Dia. (mm)	Safe Working Pull-over Loads (kN)*
0.88	6.4	0.87
1.14	6.4	1.13
1.44	6.4	1.41
1.81	6.4	1.78
2.58	6.4	2.54

\*Safe working loads include a safety factor of 3.

### Strength in Concrete

The tension and shear capacities of a nail connection in concrete are a function of nail diameter, depth of embedment, concrete compressive strength as well as spacing and edge distance.

Safe working tension and shear loads for XP Nails in concrete are given in Tables 3 & 4.

**Table 3. Tension Capacity of XP Nails in Concrete**

Embedment Depth $h_{ef}$ , mm	Safe Working Tension Loads (kN)*		
	Concrete Strength $f_{cc}$		
	20 N/mm <sup>2</sup>	25 N/mm <sup>2</sup>	35 N/mm <sup>2</sup>
13	0.08	0.12	0.16
16	0.13	0.17	0.22
19	0.18	0.21	0.26

\*Safe working loads include a safety factor of 5.

Minimum spacing: 75 mm  
Minimum edge distance: 100 mm

**Table 4. Shear Capacity of XP Nails in Concrete**

Embedment Depth $h_{ef}$ , mm	Safe Working Shear Loads (kN)*		
	Concrete Strength $f_{cc}$		
	20 N/mm <sup>2</sup>	25 N/mm <sup>2</sup>	35 N/mm <sup>2</sup>
13	0.09	0.08	0.09
16	0.11	0.12	0.13
19	0.26	0.33	0.36

\*Safe working loads include a safety factor of 5.

Minimum spacing: 75 mm  
Minimum edge distance: 100 mm

### Strength in Structural Steel

Connection strength in structural steel is a function of nail diameter as well as plate thickness and steel grade.

Safe working loads in structural steel are given in Table 5.

**Table 5. Shear & Tension Capacity in Steel**

Plate Thickness		Safe Working Loads (kN)*	
		Steel 400 – 550 MPa	
inch	mm	Shear	Tension
1/8	3.2	1.15	0.56
3/16	4.8	1.20	0.90
1/4	6.4	0.90	1.10
5/16	7.8	0.90	1.50

\*Safe working loads include a safety factor of 5.

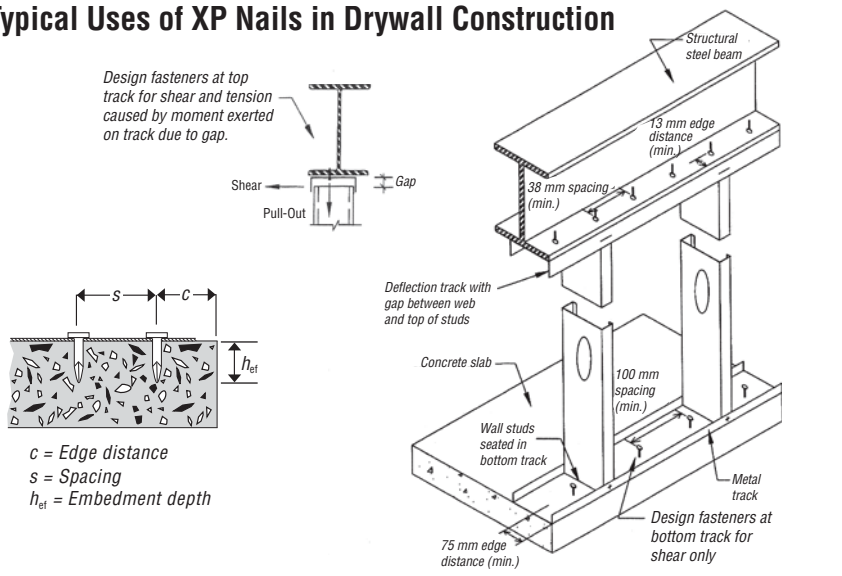
### Connection Design

Once the respective capacities of an individual nail and connected sheet are known, the designer must carefully assess all loads acting on a group of nails.

For example, the bottom track connections carry shear loads only; the top track carries shear as well as some tension. Where shear and tension act on a fastener, interaction should be resolved with the equation below:

$$\frac{\text{Actual tension load}}{\text{Safe working tension load}} + \frac{\text{Actual shear load}}{\text{Safe working shear load}} \leq 1$$

### Typical Uses of XP Nails in Drywall Construction







## SAFETY INSTRUCTIONS

### Gas and Pneumatic Nailers

KEEP ALL NAILERS AND NAILS OUT OF THE REACH OF CHILDREN.

DO NOT ALLOW PERSONS NOT TRAINED IN THE USE OF THE NAILER TO HANDLE IT.

ALWAYS WEAR SUITABLE EYE, EAR AND HEAD PROTECTION WHEN USING A NAILER.

NEVER ENGAGE IN HORSEPLAY WITH A NAILER.

NEVER POINT THE NAILER AT YOURSELF OR OTHERS EVEN IF IT IS NOT LOADED.

KEEP FINGERS AWAY FROM THE TRIGGER WHEN NOT DRIVING NAILS.

DO NOT LOAD NAILS WITH TRIGGER DEPRESSED.

CHECK FOR CONCEALED WIRES IN THE WALL, FLOOR OR CEILING TO AVOID THE RISK OF ELECTRICAL SHOCK.

DO NOT DRIVE A NAIL ON TOP OF ANOTHER NAIL.

WHEN USING THE NAILER, KEEP YOUR FACE, HANDS AND FEET AT LEAST 200 MM AWAY FROM THE MUZZLE OF THE NAILER BECAUSE INJURIES CAN RESULT IF THE NAILS ARE DEFLECTED AWAY FROM THE POINT OF ENTRY.

DO NOT DRIVE NAIL AT TOO STEEP AN ANGLE AS IT MAY RICOCHET AND INJURE A BYSTANDER.

DO NOT DRIVE NAILS TOO CLOSE TO AN EDGE.

### Gas Nailers

KEEP NAILERS, BATTERIES, FUEL CELLS AND NAILS OUT OF THE REACH OF CHILDREN.

REMOVE FUEL CELL WHEN NOT IN USE.

REMOVE FUEL CELL WHEN CLEARING A JAM, OR DOING MAINTENANCE AND INSPECTION ON THE NAILER.

DO NOT SMOKE WHEN USING THE NAILER.

DO NOT USE GAS-ACTUATED TOOLS IN ENCLOSED OR POORLY VENTILATED AREAS.

WHEN NOT IN USE, ALWAYS STORE THE NAILER WITH FUEL CELL AND BATTERY REMOVED.

KEEP THE NAILER, BATTERY AND FUEL CELL OUT OF DIRECT SUNLIGHT WHEN PLACED IN A VEHICLE.

KEEP FUEL CELL WELL AWAY FROM ANY IGNITION SOURCES.

NEVER SPRAY GAS INTO A NAKED FLAME.

## 2-YEAR LIMITED WARRANTY

for

### TENN GXP-38-SM GAS NAILER TENN AXP-38 PNEUMATIC NAILER

Tenn Holdings Sdn. Bhd. warrants to the original retail purchaser that the products named above will be free from defects in material or workmanship. This warranty is subject to the following limitations and exclusions:

#### Limitations and Exclusions

1. This warranty is to the original purchaser only and is not transferable.
2. This warranty is valid for 24 (twenty-four) months from the date of delivery to the purchaser, whether or not actual use of the product begins on that date.
3. Tenn Holdings Sdn. Bhd.'s obligations under this warranty and the sole remedy for its breach are limited to either repair of any part or parts of the warranted product; or in its sole discretion, replacement of the product.
4. Tenn Holdings Sdn. Bhd. is not liable for loss or damage incurred during shipment, hence it is the purchaser's responsibility to buy insurance. Tenn Holdings Sdn. Bhd.'s responsibility ceases when the package is handed over to a transporter or carrier approved or nominated by the purchaser.
5. This warranty covers all charges for labor or other costs, including the cost of replacement parts, incurred in the troubleshooting, repair, and servicing.
6. This warranty covers only damage resulting from defects in material or workmanship. It does not cover conditions or malfunctions resulting from normal wear, neglect, abuse, accident or repairs made or attempted by other than Tenn's service centers.
7. Wear parts such as driver blades, bumpers, O-rings, pistons, piston rings, electronic circuit boards and batteries are not covered.
8. The warranty provided herein shall be void and of no effect in the event that the product has been subjected to unauthorized modifications, misuse, neglect, improper or inadequate maintenance and use in corrosive environments.

This limited warranty is for repair or replacement only. Tenn Holdings Sdn. Bhd. shall not be liable for any incidental, consequential, exemplary, special, or punitive damages, nor for any loss of revenue, profit or use, arising out of a breach of this warranty or in connection with the sale, maintenance, use, operation or repair of the product. In no event will Tenn Holdings Sdn. Bhd. be liable for any amount greater than the purchase price of a defective product.

**THIS WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY FOR THE PRODUCTS AND IS IN LIEU OF ALL OTHER EXPRESSED AND IMPLIED WARRANTIES INCLUDING BUT NOT LIMITED TO, ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

No person or entity is authorized to bind Tenn Holdings Sdn. Bhd. to any other warranty, obligation or liability.

Acceptance, operation or use of the products for which this limited warranty is issued shall constitute acceptance by the customer of the terms listed hereof.

## XP PRODUCT RANGE

### XP TOOLS



**Tenn GXP-38-SM Gas Nailer**  
supplied with Battery Charger, 2pcs NiMH Batteries, Set of Allen Keys and Carrying Case



**Tenn AXP-38 Pneumatic Nailer**

### XP NAILS



Product ID	Shank Dia. mm	Shank Length mm
XPN.2714	2.7	14
XPN.2716	2.7	16
XPN.2719	2.7	19
XPN.2722	2.7	22
XPN.2725	2.7	25
XPN.2729	2.7	29
XPN.2734	2.7	34
XPN.2738	2.7	38
XPN.3019	3.0	19
XPN.3022	3.0	22
XPN.3025	3.0	25
XPN.3029	3.0	29
XPN.3034	3.0	34
XPN.3038	3.0	38

### FUEL CELLS

for Tenn GXP-38-SM



Product ID: GFC.32152  
Net Contents: 40 grams

for other gas tools



Product ID: GFC.32115  
Net Contents: 25 grams