

TOOL DESCRIPTION

The powder-actuated tool **GB 45** is a safe and versatile semi automatic fastening tool. It operates on the piston principle making it a low velocity tool. The piston principle provides optimal working and fastening safety.

The piston is returned to the starting position and the cartridges are fed to the firing chamber automatically by gas pressure from the red cartridge. This enables you to fasten very quickly and economically with nails and threaded studs.

The tool is designed for professional use in fastening applications where nails are driven into concrete, steel and sand-lime block masonry, working with cartridges of 6.8/11M (.27 caliber). Fastening can be made directly, through the object being fastened without drilling holes, aligning and bolting materials together. The tool also includes an inbuilt power regulation system meaning that most fastening jobs can be accomplished with one power load level. Its Silenced operation and low recoil increase operator comfort leading to higher productivity. No external power source is required, as the system is completely portable, which allows the tool to be used in some of the most awkward places.

THE PISTON PRINCIPLE

Indirect acting

In a tool which operates using the indirect acting principle, **the expanding gases act directly on a captive piston that drives the fastener which is housed within the barrel of the tool.** The piston drives the fastener into the base material providing better control over the penetration of the fastener. There is no threat of ricochets because the piston is captive within the tool and the drive pin cannot at anytime become a projectile. In a tool of this type, most of the energy developed by the powder load is maintained by the piston.

Penetration of the fastener into the base material is controlled by the design of the piston, the load level selected, and the density of the base material. This makes dangerous through-shots virtually impossible when the tool is used correctly.



OPERATOR SAFETY

Loading safety

Cartridge chamber moved away automatically from cartridges during loading sequence.

Cocking safety

Tool must be pressed against work surface before cartridge will fire.

Free lighting

The firing pin cannot be released until the tool is pressed against the work surface.

Through shots and ricochets

The piston keeps the fastener velocity low, and any excess energy is absorbed inside the tool.

Silencer

Reduces noise level and protects both operator and those around him.

The piston principle

The tool uses the piston principle in which the piston disperses kinetic energy. The piston cannot leave the tool.

Fastening safety

A high level of fastening safety results from the welding effect of fasteners driven into steel and the sintering effect when driven into concrete.

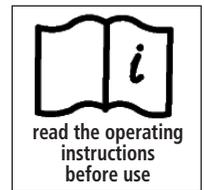
G&B powder actuated tool, fastener and cartridge are all part of an engineered system. These parts are carefully designed for each other, ensuring in this way the highest degree of safety. Thus, if fasteners or cartridges of another make are used, this system is disrupted and safety impaired.

SAFETY PRINCIPLES

To make sure you use a powder actuated tool correctly, please take the time to review the following safety procedures.

NEVER attempt to operate any **GB 45** until you have carefully read and understand the operating instructions supplied with the tool.

GB 45 power loads and power fasteners are made to firm quality standards for the most reliable performance in any fastening job. By following the procedures set forth in the operating instructions, you will be prepared to make the most efficient use of the **GB 45**.



Prior to use

- **ALWAYS** handle the tool as if it were loaded. Before starting work, check that the tool is unloaded and the muzzle is clear. **NEVER** load a tool unless it is going to be used.
- **ALWAYS** inspect to make sure the tool is working properly. If the tool does not work properly, remove from service and tag **DEFECTIVE**. **DO NOT** use the tool again until it has been properly repaired.
- Operators and bystanders must wear personal safety gear at all times. Serious eye injury and hearing loss can result if proper gear is not worn.
- **ALWAYS** clear the work area on all sides and post warning signs when powder actuated tools are in use. Signs should state "Powder Actuated Tool in Use" and should be located within 15 meters of the area where tool is being used.
- **ALWAYS** make sure the work area is clean from loose material and debris.
- Do not eat, drink or smoke whilst using cartridges.

Correct handling of the tool

- **NEVER** place any part of your body over the front muzzle of the tool even if no fastener is present. The fastener, pin or tool piston can cause serious injury or death in the event of an accidental discharge.
- **NEVER** place your finger on the trigger until the tool's muzzle is against the work surface.
- **ALWAYS** hold the tool perpendicular to the work surface to avoid serious injury or death from ricocheting fasteners. Use the spall guard whenever possible.
- **ALWAYS** store **UNLOADED** powder actuated tool and power loads in a locked container. Keep power loads of different power levels in separate containers.
- **NEVER** carry or pass a loaded powder actuated tool. **NEVER** point a powder actuated tool at anyone.
- If the tool is dropped, inspect for damage and repair it before continuing work. **NEVER** use a damaged tool.

- ALWAYS take precautions to maintain your balance while operating a powder actuated tool.
- An operator taking medication should take extra precautions while handling the tool. NEVER drink alcoholic beverages or take medications which impair your vision, balance or judgment before using a powder actuated tool.
- ALWAYS store the loads and tool, UNLOADED, under lock and key. Keep tool box and keys out of the reach of children.
- NEVER attempt to bypass or circumvent any of the safety features on a powder actuated tool.
- Only trained personnel may handle cartridges.
- Keep away from sources of heat and open fires.
- Avoid contact with acids, caustic solutions, oils and aromatic hydrocarbons.
- Cartridges must not be thrown.
- Do not attempt to open cartridges.
- Do not apply mechanical force (e.g. impact) or heat.
- Do not apply force to cartridges when loading or unloading a tool.
- Hard objects must not be allowed to strike or rub against the cartridges or, in particular, the bases of the cartridges. Such action may cause detonation of the cartridges.

Know your fastening base material

- ALWAYS know the thickness and type of base material into which you are fastening. NEVER GUESS. Test the base material by using the **Center Punch Test**. The Center Punch Test is performed by using a hammer to test drive the particular power fastener to be used into the material. If the point penetrates easily, the material is too soft. If the point becomes blunt, the material is too hard. If the material fractures, cracks or shatters, the material is too brittle.

Test fastenings should always be made starting with the lowest power load. If the power fastener does not seat properly, try the next highest power load until correct. ALWAYS wear approved goggles.

- NEVER fire into very hard or brittle materials such as cast iron, tile, glass or rock. These materials can shatter, causing sharp fragments and/or the fastener to fly freely. Never fasten into soft materials such as drywall.
- NEVER make fastenings in spalled or cracked areas of concrete materials.
- NEVER drive power fasteners into thin or easily penetrated materials unless it is backed by concrete or steel. When in doubt, such as when base material is concealed, conduct a Center Punch Test. Check continually to avoid fastening into unsuitable material, especially in older buildings.
- DO NOT fasten through or within **13 mm** of predrilled or pre-punched holes in metal or steel materials.
- DO NOT drive power fasteners into concrete less than three times as thick as the intended fastener penetration, within **75 mm** of another fastener or within **75 mm** of a failed fastener.
- DO NOT drive power fasteners into steel base material less than 5mm thick, within 50mm of a weld, within **13 mm** of the edge or within **38 mm** of another fastener.
- When fastening into masonry walls, always drive into horizontal mortar joints, NEVER into vertical mortar joints. **BE CAREFUL**, a poorly laid joint may permit too much penetration, and/or unsatisfactory holding power.
- When fastening in concrete block, position power fasteners so they penetrate the wall between the cells for best holding power.



wear ear protection



wear eye protection



wear protective gloves



wear a hard hat

Operating the tool

- ALWAYS hold tool perpendicular to work surface.
- Should the tool fail to fire, hold the muzzle firmly against the work surface for **30 seconds**. Release the trigger and remove pressure on the tool while holding the muzzle against the work surface. Again press the tool firmly against the work surface and pull the trigger. If the tool still fails to fire, hold firmly against the work surface for another **30 seconds** before unloading and carefully discarding the misfired load into water or oil.
- ALWAYS use a spall shield when driving into concrete or steel.
- NEVER use a powder actuated tool in an explosive or flammable atmosphere or when nonsparking tools are required.

Power loads and fasteners

- NEVER leave unfired power loads on floors or work surfaces.
- NEVER use power loads in firearms.
- Never transport fasteners or other hard objects in the same pocket or container with powder loads. These objects may strike the powder loads, thereby setting them off and causing serious injury or death.
- A colorblind person must take extra precautions to prevent the chance of mixing the power loads of various levels.
- NEVER use common nails or other materials as power fasteners.
- NEVER pry a load out of the chamber. Prying can discharge the load, causing serious injury.
- ALWAYS insert the fastener first, then the power load. If work is interrupted for any reason, ALWAYS remove the power load before removing the power fastener.
- Cartridges may not be sent by post.
- Cartridges may not be taken on public transport.
- Store the central supply of cartridges in their original packaging in a metal cabinet or a dry cool room which is kept locked with restricted access to personnel.
- Protect from dampness and humidity.
- **The temperature must not drop below -20°C or exceed +35°C for long periods.**

Selecting the appropriate power load

To determine the proper power load, each power load is recognized by color. Listed are the colors for Low Velocity loads, starting with the lowest power strength and moving up to the most powerful. Always start with the lowest power strength when testing a fastening. If the power fastener does not penetrate the required depth, then try the next strength power load until the required penetration is obtained.

Never start with the highest strength power load; always be safe and start with the lightest power load.

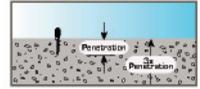
colour	intern. n° code	strength
GREEN	n° 3	low
YELLOW	n° 4	low/medium
RED	n° 6	medium/high
BLACK	n° 7	high

FASTENING GUIDELINE

Concrete

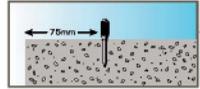
Base material thickness

Concrete base material should be at least three times as thick as the fastener embedment penetration. If the concrete is too thin, the compressive forces forming at the fasteners point can cause the free face of the concrete to break away. This can create a dangerous condition from flying concrete and/or the fastener and also results in a reduction of fastener holding power. For applications in the face shell of concrete masonry block, select a fastener length which will not exceed the thickness of the face shell.



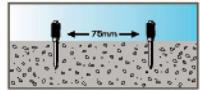
Edge distance

Do not fasten closer than **75 mm** from the edge of concrete. If the concrete cracks, the fastener may not hold. Closer edge distances for applications such as sill plates may be permitted if specific fastener testing has been carried out.



Spacing

Setting fasteners too close together in concrete or masonry can cause cracking. The suggested minimum distance between fasteners is **75 mm** center to center.

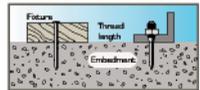


Fastener length selection in concrete

For permanent applications using pins in concrete, first find out the thickness of the fixture to be fastened. To this, add the required embedment or penetration into the base material. This will be the fastener shank length required.

For applications in the face shell of masonry block, select a fastener length which will not surpass the thickness of the face shell.

For removable applications with threaded studs, the shank length required is equal to the embedment depth required. To find out the minimum threaded length, add the thickness of the fixture and the nut/washer thickness. The nut and washer thickness is equal to the nominal thread diameter. For applications where **10 mm** threaded studs are used at an embedment depth of **35 mm** the fasteners were driven up to the threaded portion of the part. Do not over tighten threaded parts. Use of a nut setter is recommended to diminish the possibility of over tightening the fasteners. For critical applications, carry out a job site test.



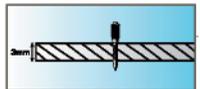
Steel

The following guidelines are based on the installation of a fastener in structural steel with the point fully penetrating the steel member. Suggested steel material thickness ranges from a minimum of **3 mm** to a maximum of **10 mm**.

For use in higher strength structural steel, applications where the point does not penetrate the steel member, or a thickness of steel greater than **10 mm**, job site performance tests are suggested.

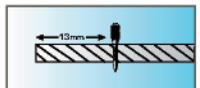
Base material thickness

Steel base materials should be a minimum of **3 mm** in thickness.



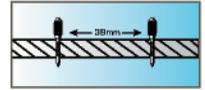
Edge distance

For installations in steel, **13 mm** is the suggested minimum edge distance.



Spacing

The suggested minimum distance between fastenings is **38 mm** center to center for installations to steel.



Fastener length selection in steel

For permanent applications when using pins in steel, first determine the thickness of the fixture to be fastened. To this add the thickness of the steel base material plus a minimum of **6 mm** to permit for proper point penetration. This will be the minimum fastener shank length required.



TOOL OPERATION

- Hold tool with muzzle facing upwards. Insert fastener point first in cocking lever and allow it to slide into place.
- Pull firmly to release and swing over cocking lever till aligned with muzzle.
- Pull loading grip on cocking lever as far back as it goes. This places fastener correctly in guide. Return grip and pivot cocking lever back to original position.
- Collated cartridge to be inserted in base of grip.



CAUTION!

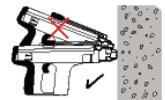
Do not insert collated cartridge until fastener has been loaded. In the event that this sequence is not observed the first cartridge will be missed (not fired).

- Check power regulator. An indicator in rear position indicates maximum power.

CAUTION!

Never use hand or any part of the body to push back the fastener guide and never attempt to pull it back by way of the nail / washer. This could present a risk of injury to the operator!

- Hold the tool perpendicularly to the material in which the fastener is to be driven, firmly press the muzzle against the work surface and pull the trigger.



To prepare for the next fastening, point the tool in a safe direction. Always insert a new fastener before loading or advancing the collated cartridge. Insert the fastener as described previously. Once the fastener is inserted, cycle the tool as described previously. Go over this procedure for subsequent fastenings.

When the ten cartridge strip has been completely fired, remove it by pulling it from the top of the tool body.

Note: Do not try to unload or disassemble a jammed, stuck or broken tool as improper handling may cause it to discharge and strike the operator and/or bystander. A jammed tool should be pointed in a safe direction at all times.

PROPER MAINTENANCE AND CLEANING

All parts should be cleaned with detergent oil and the wire brushes supplied with your tool kit. Remove heavy dirt buildup with the brush. After cleaning with oil, all parts must be wiped thoroughly dry. Excess oil is likely to collect dirt and dust.

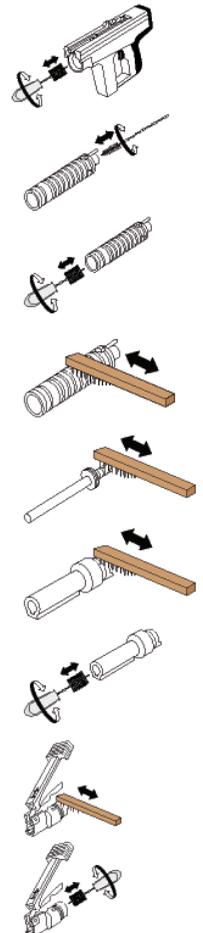
Wear eye protection when cleaning the tool. The piston rod, barrel assembly, and receiver must all be cleaned of excess dirt on a daily basis. Check the condition of the piston for damage from wear and deformation.

To keep this tool in good working condition, it is essential to disassemble and clean the whole tool if dirt is apparent in the breech face, or if the tool appears to lose power. All parts must be cleaned with oil and wire brushes. Remove heavy dirt. All parts must be wiped thoroughly dry after cleaning with oil.

General tool maintenance must be carried out at one month intervals.

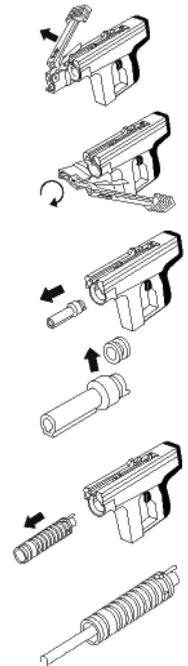
Make sure the tool is not loaded. Be sure the tool is not hot before attempting disassembly or cleaning.

- Inside housing
- Inside of cartridge chamber
- Inside of piston guide
- Outside of piston guide
- Piston
- Outside of fastener guide
- Inside of fastener guide
- Outside of base plate
- Inside of base plate



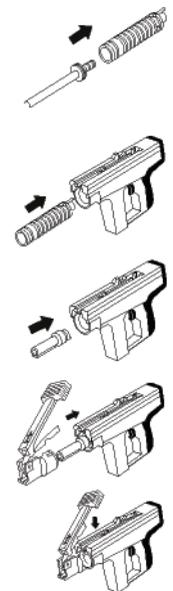
TOOL DISASSEMBLY

- Swivel cocking lever to forward position. Apply pressure to forward connector in housing while lifting catch (link) to disengage
- Unscrew base plate
- Pull fastener guide off piston guide
- Pull stop ring off fastener guide to one side
- Slide piston out of housing
- Using supplied rod push piston out of piston guide



TOOL ASSEMBLY

- Slide piston into its guide
- Slide piston guide into housing. (Slot in piston guide must align with silencer)
- Press stop ring on fastener guide Insert fastener guide in piston guide
- Slide over base plate
(Base plate indentation must align with raised part of fastener guide.)
- Screw on base plate to the maximum, then screw back until it snaps in place. Swing over cocking lever to resting position. Connector and link will automatically latch again

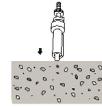


REPLACING A DEFORMED STOP RING

A deformed stop ring could jam on the piston. Separate the piston and fastener guide.

Procedure

Strike the sticking out piston stridently against a hard surface. Doing this will separate piston and stop ring. Completely remove piston from fastener guide. Pull stop ring off fastener guide to one side and press in a new one.



WARNING

- The tool is ready to fire when pressed against any surface.
- Never press the muzzle of the tool over any part of your body even if no fastener is present.
- In the event of accidental discharge against any part of the body, the pin or tool piston can cause injury or death.



DATI TECNICI

GB 45 - tool

Weight	3,10 kg
Tool length	350 mm
Nail length	Max. 82 mm
Cartridge	6.8/11 M (.27 caliber)
Cartridge/colour	GREEN, YELLOW, RED, BLACK

Right of technical changes reserved.

COLLATED SAFETY CARTRIDGES

.27 caliber short crimped rim fire powder loads having power levels ranging from 3 to 7. The loads are supplied 10 to a strip, and are molded in a special length to provide a visual indication that the tool is loaded, making it a secure and reliable system. The power level of G&B power loads is marked on each box of loads. As the number increases the power level also increases. Power level is also indicated by the color of the box, label, the tip of each individual cartridge and plastic strip. A combination of numerals and colors are used in case the operator has color deficient vision.



Product code	Caliber mm	Cartridge diameter mm	Cartridge length	Cartridge color	Cartridge strength	Strength level	Package content
-	0.27	6.8	11	GREEN	Low	3	100
-	0.27	6.8	11	YELLOW	Low/Medium	4	100
-	0.27	6.8	11	RED	Medium/High	6	100
-	0.27	6.8	11	BLACK	High	7	100

DRIVE PINS

DRIVE PINS

Accurate guidance of the drive pins ensures that the full driving force is applied directly along the shank. Optimum tensile strength - from head to point - and the correct surface finish, allows the drive pin to penetrate through materials up to five times harder than itself. Whilst a hardened ballistic point gives real penetration and ensures even displacement of the base material for a really positive fix. The **12 mm** steel washer is for avoiding punching through the material to be fastened in addition to very high pullover values.



Product code	Shank length mm	Shank diameter mm	Washer diameter mm	Shank type	Package content
-	13	3.7	12	Knurled	100
-	16	3.7	12	Knurled	100
-	19	3.7	12	Knurled	100
-	22	3.7	12	Smooth	100
-	27	3.7	12	Smooth	100
-	32	3.7	12	Smooth	100
-	37	3.7	12	Smooth	100
-	42	3.7	12	Smooth	100
-	47	3.7	12	Smooth	100
-	54	3.7	12	Smooth	100
-	62	3.7	12	Smooth	100
-	72	3.7	12	Smooth	100
-	82	4.0	12	Smooth	100
-	97	4.0	12	Smooth	100

EYELET PIN

The eyelet pin with **4 mm** shank diameter pre-mounted drive pin is for acoustical applications and suspended ceiling system or light fixtures. The pre-mounted ballistic pointed drive pin is for better penetration behavior even in high grade base materials.

Product code	Shank length mm	Shank diameter mm	Package content
-	22	4.0	100
-	27	4.0	100
-	32	4.0	100



THREADED STUD

The threaded stud has an M6 thread diameter with a variety of thread and shank lengths for use in concrete, some types of concrete block and structural steel. Its heat-treated shank is for a high bending strength and a ballistic point for better penetration behavior even in high grade base materials. Knurled shank designs are available to increase performance in steel base materials. A guide component with metal washer for an improved fastening quality.

Codice	Shank length mm	Shank diameter mm	Washer diameter mm	Threaded size	Thread length	Package content
-	12	3.7	12	M6	8	100
-	17	3.7	12	M6	8	100
-	22	3.7	12	M6	8	100
-	27	3.7	12	M6	8	100
-	12	3.7	12	M6	11	100
-	17	3.7	12	M6	11	100
-	22	3.7	12	M6	11	100
-	27	3.7	12	M6	11	100
-	32	3.7	12	M6	11	100
-	42	3.7	12	M6	11	100



SPARE PARTS

Code	Item	Description	Quantity
-	3	steel liner	1
-	4	piston guide assembly	1
-	5	piston 45/NK with ring	1
-	6	fastener guide assembly 45/F1	1
-	7	base plate assembly 45/S1	1
-	8	silencer assembly	1
-	9	connector assembly	1
-	10	firing pin assembly	1
-	11	cocking lever assembly	1
-	12	ram assembly	1
-	13	cocking lever parts set	1
-	20	housing	1
-	21	rubber grip	1
-	22	jacket	1
-	23	trigger	1
-	24	sear guide	1
-	25	thumb wheel	1
-	26	regulating pin	1
-	27	sear	1
-	28	special screw	1
-	29	spring guide	1
-	30	support strip	1

Code	Item	Description	Quantity
-	31	special pin	1
-	32	special pin sleeve	1
-	33	magazine detent	1
-	34	retention plate	1
-	35	nut	1
-	36	transport lever	1
-	37	leaf spring	1
-	38	cover plate	1
-	39	regulating pin	1
-	41	firing pin spring	1
-	42	tension spring	1
-	43	tension spring	1
-	44	firing pin spring	1
-	45	stop ring	1
-	46	cocking grip	1
-	47	holder	1
-	48	circlip	1
-	50	pivot pin	1
-	51	special screw	1
-	53	disc	1
-	56	threaded pin	1
-	58	fastener detent	1
-	59	spring	1
-	60	pivot pin	1
-	61	detent spring	1
-	62	pressure pin	1
-	64	release lever	1
-	65	dowel pin	1
-	67	friction pin	1
-	68	pivot pin	1
-	69	base plate 45/S1	1
-	72	retention ring	1
-	73	retention ring	1
-	76	fastener symbol	1
-	78	warning plate	1
-	79	data plate	1
-	80	retention ring	1
-	96	compression spring 0.5 x 5.3 x 121	1
-	97	self tapping screw M4 x 12	1
-	98	self tapping screw M4 x 12	1
-	99	O ring 32 x 3	1
-	100	compression spring 1 x 12.5 x 21	1
-	101	compression spring 0.5 x 2.8 x 21	1
-	102	blind rivet 2.4 x 7.4	2
-	104	allen cap screw M6 x 12	1
-	105	allen cap screw M6 x 30	1
-	108	circlip 13 x 1	1
-	109	dowel pin VITE M6 x 24	1
-	110	steel pin 7/32" IV	1
-	111	stabiliser	1

TROUBLESHOOTING

FAULT: Cartridge not transported

CAUSE

- Damage to cartridge strip
- Carbon build up
- Tool damaged

POSSIBLE REMEDIAL MEASURES

- Replace cartridge strip
- Clean cartridge strip guideway

If the problem persists:

- Contact **G&B Repair Centre**



FAULT: Cartridge strip cannot be removed

CAUSE

- Tool overheated due to high setting rate
- Tool damaged

WARNING

Never attempt to pry a cartridge from the magazine strip or tool

POSSIBLE REMEDIAL MEASURES

- Leave tool to cool down and then carefully try to remove cartridge strip

If not possible:

- Contact **G&B Repair Centre**



FAULT: Cartridge cannot be fired

CAUSE

- Cartridge defected
- Carbon build-up

WARNING

Never attempt to pry a cartridge from the magazine strip or tool

POSSIBLE REMEDIAL MEASURES

- Manually advance cartridge strip one cartridge.

If the problem occurs more often: Clean tool.

If the problem persists:

- Contact **G&B Repair Centre**



FAULT: Cartridge strip melts

CAUSE

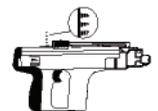
- Tool is compressed too long while fastening
- Fastening frequency is too high

POSSIBLE REMEDIAL MEASURES

- Compress tool for shorter period while fastening
- Remove the cartridge strip
- Disassemble the tool to allow fast cooling and to avoid possible damage

If the tool cannot be disassembled:

- Contact **G&B Repair Centre**



FAULT: Cartridge falls out of the cartridge strip

CAUSE

- Fastening frequency is too high

WARNING.

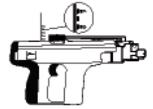
Never attempt to pry a cartridge from the magazine strip or tool

POSSIBLE REMEDIAL MEASURES

- Stop using the tool at once and let it cool down
- Remove cartridge strip
- Allow tool cool down
- Clean tool and remove loose cartridge

If it is impossible to disassemble the tool:

- Contact **G&B Repair Centre**



FAULT: The operator notices:

- increased contact pressure
- increased trigger force
- power regulation stiff to adjust
- cartridge strip is difficult to remove

CAUSE

- Carbon build-up

POSSIBLE REMEDIAL MEASURES

- Clean tool

FAULT: Varying depths of penetration

CAUSE

- Incorrect piston position
- Carbon build-up

POSSIBLE REMEDIAL MEASURES

- 1 Remove cartridge strip and use enclosed pushrod to push piston fully back

If problem persists:

- Clean tool
- Check piston and buffer, replace if necessary



FAULT: Stiff cycling action

CAUSE

POSSIBLE REMEDIAL MEASURES

Use lubricating spray to lubricate the piston and baseplate

FAULT: Misfire: the fastener is only partly driven into the base material

CAUSE

- Incorrect piston position
- Cartridge defected

POSSIBLE REMEDIAL MEASURES

- Remove cartridge strip and use enclosed pushrod to push piston fully back

If problem persists:

- Change cartridge strip
- Clean tool.



FAULT: Piston guide will not open easily

CAUSE

- Carbon build-up
- Piston stop is damaged

POSSIBLE REMEDIAL MEASURES

- Clean tool
 - Replace piston stop
-

FAULT: Tool cannot be opened or cycled 1CAUSA

- Tool lacks proper cleaning
- Damaged or bent piston
- Broken or damaged parts

POSSIBLE REMEDIAL MEASURES

- Clean tool
- Remove and replace piston
- Tag tool with warning "Defective - Do Not Use" place in locked container and contact

G&B Repair Centre

FAULT: Piston stuck in forward position

CAUSE

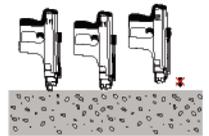
- Carbon build-up

POSSIBLE REMEDIAL MEASURES

- 1 Pull the front part of the piston return unit manually out of the tool
- Clean tool

If the problem persists:

- Contact **G&B Repair Centre**
-



FAULT: Tool does not depress completely

CAUSE

- Damaged firing pin parts, ejector, etc... Parts assembled incorrectly

POSSIBLE REMEDIAL MEASURES

- Check the parts for damage or incorrect assembly
-

FAULT: COLPO Load will not fire when tool is fully depressed and trigger is pulled

CAUSA

- Used load
- Load misfire
- Damaged or missing firing pin

POSSIBLE REMEDIAL MEASURES

- 1 Cycle tool
- Follow safety procedure
- Replace firing pin nut.

This firing pin nut should be replaced by qualified individuals

FAULT: The tool fires but no fastener is driven

CAUSE

- Incorrect piston position

POSSIBLE REMEDIAL MEASURES

- Remove cartridge strip and use enclosed pushrod to push piston fully back

If problem persists:

- Clean tool



FAULT: Fastener penetrates too deep

CAUSE

- Fastener too short for application
- Power level too high

POSSIBLE REMEDIAL MEASURES

- Use longer fastener
- Reduce power level
- Use lighter cartridge



FAULT: Fastener does not penetrate deeply enough

CAUSE

- Fastener too long
- Driving power too low

POSSIBLE REMEDIAL MEASURES

- Use shorter fastener
- Increase power level
- Use heavier cartridge



FAULT: Fastener bends

CAUSE

- Hard or large aggregate in concrete
- Rebar close to surface of concrete
- Hard surface (steel)

POSSIBLE REMEDIAL MEASURES

- Reduce fastener length
- Make sure tool is perpendicular to work surface
- Move over 75mm and try fastening again



FAULT: Base material spalls

CAUSE

- High strength concrete
- Hard or large aggregate in concrete
- Old concrete

POSSIBLE REMEDIAL MEASURES

- Reduce fastener length



FAULT: Damage to fastener head

CAUSE

- Power level too high
- Wrong piston used
- Damage to piston



POSSIBLE REMEDIAL MEASURES

- Reduce power level
- Use lighter cartridge
- Check fastener/piston combination
- Change piston

FAULT: Fastener does not penetrate surface CAUSE

- Power level too low
- Material too hard for forced entry fastener

POSSIBLE REMEDIAL MEASURES

- Try higher power level or heavier cartridge



FAULT: Fastener does not hold in base material CAUSE

- Steel base material too thin (3 to 5 mm steel)

POSSIBLE REMEDIAL MEASURES

- Try different power setting or cartridge of different power level



FAULT: Fastener breaks CAUSE

- Power level too low
- Fastener too long
- Material too hard for forced entry fastener

POSSIBLE REMEDIAL MEASURES

- Try higher power setting or heavier cartridge
- Reduce fastener length



FAULT: Fastener head penetrates through material fastened (metal sheet) CAUSE

- Power level too high

POSSIBLE REMEDIAL MEASURES

- 1 Reduce power level
- Use lighter cartridge
- Use fastener with washer

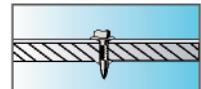


FAULT: Damage to fastener head CAUSE

- Power level too high
- Wrong piston used
- Worn-out piston

POSSIBLE REMEDIAL MEASURES

- Reduce power level
- Use lighter cartridge
- Check fastener/piston combination
- Change piston



WARRANTY

G&B warrants that the tool supplied is free of faults in material and workmanship. This warranty is valid so long as the tool is operated and handled correctly, cleaned and serviced in the right way and in compliance with the **G&B Operating Instructions**, all warranty claims are made within **5 years** for the tool and 1 year for the fastener magazine and fastener guide from the date of the purchase (invoice date), and the technical system is maintained. This means that only original **G&B** consumables, components and spare parts, or other products of equivalent quality, may be used in the tool.

This warranty provides the free-of-charge repair or replacement of faulty parts only. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

Additional claims are excluded, unless stringent national rules prohibit such exclusion. In particular, **G&B** is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.

For repair or replacement, send tool and/or related parts immediately upon discovery of the defect to the address of the local **G&B** marketing organisation provided. This constitutes **G&B's** entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.