

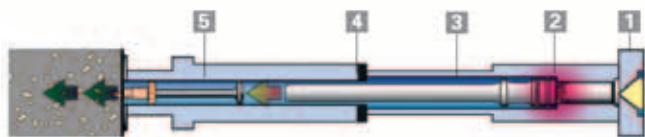
FIXING TECHNOLOGY



POWDER ACTUATED SYSTEMS



Powder Actuated Technology - How it works



- 1. Firing Pin
- 2. Power Load
- 3. Captive Piston
- 4. Buffer
- 5. Powder Actuated Fastener

Ramset™ Powder Actuated Technology uses a captive piston to transfer the energy from the power load to the fastener. In this way the majority of any excess energy, which is produced by the power load, is absorbed within the tool by the buffer.

Ramset™ Powder Actuated tools are powerful and reliable which allows them to fasten to steel, concrete and masonry year after year.

Product Range - Washer

Fixing to concrete

As the fixing enters the concrete, extreme pressure and heat are created. This creates a bond that provides high loading strength in concrete.

Edge distance

Do not fix closer than 75mm from the edge of concrete. If the concrete cracks, the fixing may not hold.

Recommended minimum fixing spacing

Setting fixings too close together can cause the concrete to crack. The recommended minimum distance between fixings is 75mm. Never attempt a fixing application too close to another fixing as this could affect the previously inserted fixing's embedment.

Concrete thickness

It is important that the concrete be at least three times as thick as the fixing penetration. If the concrete is too thin, the compressive forces forming at the fixing's point can cause the free face of the concrete to break away. This creates a dangerous condition from flying concrete and / or the fixing and also results in a reduction of fastener holding power.

Fixing to steel

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

Edge distance

The recommended edge distance for a fixing to the edge of steel is 13mm. Never fire the tool within 13mm of the edge of a steel base material because the steel may bend or break off, allowing the fixing to ricochet.

Recommended minimum fastener spacing

The recommended minimum distance between fixings is 25mm. Never attempt a fixing application too close to another fixing as this could affect the previously installed fixing's embedment.

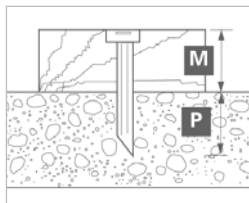
Steel thickness

Do not fasten into steel base material thinner than the fastener shank diameter. Holding power may be reduced and the fastener may be overdriven.

As a guide when:

- Fixing into steel - min. steel thickness = 4mm

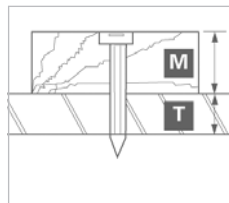
Minimum Shank Length



Minimum Shank Length

Thickness + 25mm
of material
(M)

Minimum Shank Length



Minimum Shank Length

Thickness + Thickness + 5mm
of material of steel point
(M) (T) allowance

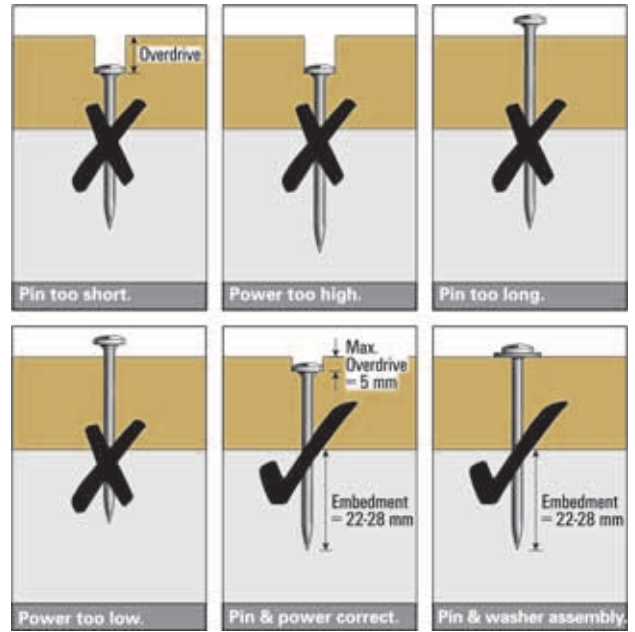
POWDER ACTUATED SYSTEMS

Fastener Selection and Correct Setting

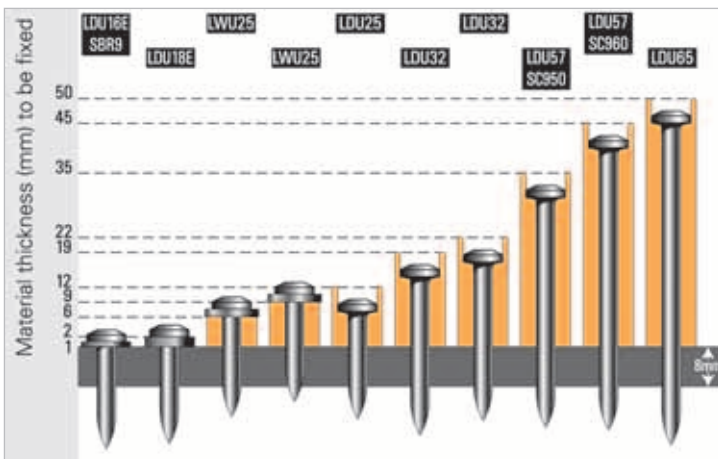
The correct selection and setting of Powder Actuated Fasteners is critical with all tools to ensure a secure fixing and long tool life.

The correct setting of the fastener should be as detailed in the diagrams to avoid excessive overdrive and a secure fix.

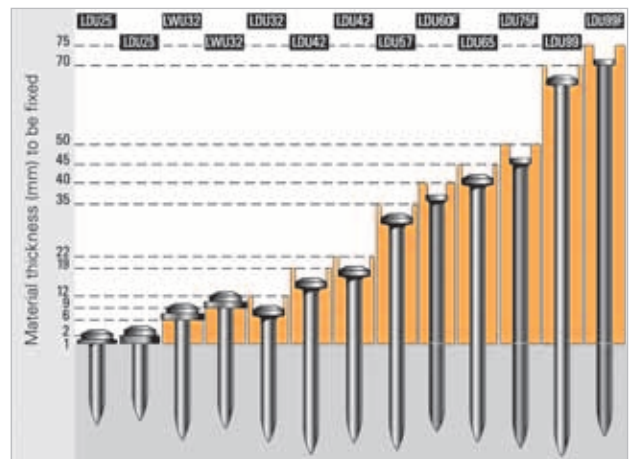
Where possible, a washer or a washered fastener should be used. (Application permitting, to reduce overdrive and produce maximum clamping force). Repeated excessive overdrive will result in damage and short life of tool parts.



Fixing Wood or Metal to Steel



Fixing Wood or Metal to Concrete



Powerload Selection Guide - Concrete

Tool	20 MPa Concrete	30 MPa Concrete	40 MPa Concrete
	Low Strength	Medium Strength	High Strength
FixMaster™ TS60P	PLSGR22	PLSYW22	PLSRD22
FrameMaster™ TS750P	PLSGR22	PLSYW22	PLSRD22

This chart is to be used as a guide only.

Ramset™ recommends to always start a new application with the minimum powerload strength, and if applicable, the tool at minimum power setting, then gradually increase power with load strengths, and if applicable, a combination of power adjustment setting powerload and pin length.

FrameMaster™ TS750P - Power Adjustable Tool



FrameMaster™ TS750P - the timber framing expert

Power adjustable tool for fixing timber framing to concrete & general repetitive work.

Product Advantages

- Fast – 10 shot strip feed with automatic advance
- Optimum fixing – positive power adjustment ensures consistent performance
- Power – adjustable for use with steel or concrete
- Minimal maintenance – easy to dismantle & clean to reduce downtime
- Long Life – long life piston & buffer

Substrates

- Concrete
- Steel
- Masonry

Tool Specifications

Weight	2.5kg
Impact force	300J
Fixing capacity:	
Timber to concrete	60mm
Timber to steel	50mm
Metal to concrete	3mm
Metal to steel	3mm
Pin capacity	up to 85mm
Overall length	380mm

Supplied with carry case, maintenance kit & safety glasses

Applications



- Fixing timber to concrete & steel
- Fixing partitioning track to concrete & steel
- Threaded pin applications to concrete & steel
- Fixing brick ties

Product Range - FrameMaster™ TS750P

Part No.	Description	Order Qty
7A-TS75-0PVV	FrameMaster™ TS750P Piston tool	1

Kit includes: FrameMaster™ TS705P tool, high impact carry case, safety glasses, maintenance kit and instruction manual.