

MINING / CONSTRUCTION

SAAB GRIPPER A REVOLUTIONARY PUSH ON PLATE

DESCRIPTION

The Saab Gripper* is a push on plate designed to install mine screen to the back and sides of mine excavations. Typically used with mechanically anchored rockbolts (threaded at both ends) and/or threaded re-bar Gripper plates are available in three sizes to accommodate thread diameters of 5/8, 3/4, and 7/8 inches respectively. The unique design of the Gripper features four legs which allow for easy installation of the Gripper onto the threaded end of the bolt. As the plate is pushed onto a bolt or rebar, these legs engage the root of the threads, locking the plate onto the bolt. This design also allows for movement of the plate in one direction only, thus preventing the plate from slipping backwards off the bolt.

FEATURES

All facets of conventional screen installation are outperformed by the Saab Gripper, including vibration resistance. Heat treating to 45 Rockwell on the 'C' scale gives the Gripper its strength and allows deformation and not failure under load. The plate is also embossed to provide stiffness and extra strength. Where conventional plates become loose and may even fall off due to nearby blasting, the Gripper will not fail without warning. The plate will buckle, and the legs will slide down along each thread as opposed to breaking off. Tests have concluded that the Gripper will carry loads of 3 to 4 tons and still retain a residual load capacity of 1 ton after failure. This is beneficial under blasting and rock bursting conditions where sustained resistance is needed after an initial shock wave. The Saab Gripper has proven to be stronger than the screen that it supports and is solution-dipped to ensure corrosion resistance in an environment which can quickly cause deterioration of mine screen.



ADVANTAGES

- Installation of the Gripper is fast, effective and safe.
- When a Gripper is used, no time is wasted fumbling with a second rockbolt plate and nut.
- The Gripper can even be installed on bent bolts or bolts with damaged threads—conditions which prevent the use of a rockbolt plate.
- The Gripper will not damage rockbolt threads and can be used to install all types of mine screen, including expanded mesh and chain link.
- The Gripper features two hanging tabs which can be used to hang vent tubing, service wires, blasting lines, and other devices requiring permanent or temporary installation.



*US Patent: 6004077



HAND INSTALLATION TOOL



Miner picks up plate from carrying holder with magnetic end of installation tool.

Plate is pressed on threaded rod so it will stay in place.





Installation tool is reversed, allowing miner To hammer plate tight with driving head.

TDS_SAAB GRIPPER PLATE_05FEB2019_ AMER_EN

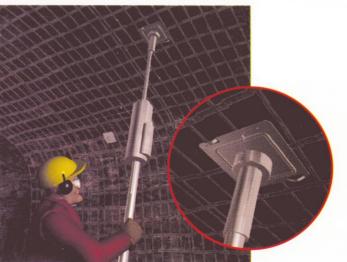


MACHINE INSTALLATION TOOL



Place magnetic Saab installation tool into the chuck of the drill.

Place Saab Gripper plate on magnet and press into place with force of the drill leg. Do not use rotation.





Lower drill and move to next installation. Tool works equally well on wall installations, hold-ing plate, allowing for easy installation.

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APPLICATION METHOD

A magnetic installation tool is used to achieve fast, effective and safe installation of the Gripper plate on the threaded end of a bolt. Two variations of this tool can be supplied which allows hand installation or stoper (machine) installation. The **hand installation tool** consists of a 4-foot length of 1 1/2-inch diameter pipe with a magnetic head welded at one end and a 5-inch length of 3-inch diameter pipe welded at the other end.

The **stopper installation tool** consists of a 6-inch-long dolly with a magnetic head which can be used with standard mine dolly steel.



Saab Gripper

Parameter	Value
Size	5 3/4 inches square
Thickness	0.06 inches
Hole Diameter	5/8, 3/4, 7/8 inches



Installation Tool

Parameter	Value
Sizes	Steel – 2 foot, 4 foot
Sizes	Aluminum, 4 foot



APPROVALS AND CERTIFICATES



an ISO 9001:2015 Quality Management System Certified Company.

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ADDITIONAL DOCUMENTATION

Started more than 135 years ago, Minova is a global manufacturer and supplier of chemical and mechanical earth control products and support equipment. With manufacturing plants on five continents and operations in more than 25 countries, Minova is an industry-leading provider of ground support solutions for the underground mining, construction and energy industries.

If further information is required consult Minova Americas website: <u>www.minovaglobal.com</u>.

- Steel Bolts, Plates, Other Steel Articles Safety Data Sheet (SDS)
- Minova Guide to Rock Bolting
- Minova Chemicals, Polymers & Steel Application Guide

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