

**PLEASE READ AND COMPLETELY UNDERSTAND THE MANUAL BEFORE
USING SAVA PNEUMATIC PIPE PLUGS**

PNEUMATIC PIPE PLUG KIT

SAFETY, OPERATION AND MAINTENANCE INSTRUCTIONS



NON-COMPLIANCE WITH INSTRUCTIONS AND WARNINGS FOR SAFE OPERATION OF PNEUMATIC PLUGS CAN DAMAGE PRODUCTS, CAUSE SERIOUS BODILY INJURIES OR POSSIBLY EVEN DEATH.

To understand the operational characteristics of pipe plugs in general, and to determine the usability of this product for any purpose, it is important to thoroughly understand the plug limitations and how the plugs react in many different situations.

Factors influencing pipe plug performance includes; Internal plug pressure, external back pressure (behind the plug), and the friction coefficient of the rubber against the pipe in the presence of a liquid (vapor and/or gas) under pressure. It is important to be aware that the plug can slip in the pipe due to very small pressure differentials (back-pressure) from behind the plug.

It should also be understood that the typical safety hazards that exist with the use of pipe plugs increase with the larger diameter pipes and/or large backpressures behind the plug. The built-in safety factors and the design of these smaller plugs minimize most hazards (associated with larger plugs) that will be encountered when using these plugs as a tanker or hazmat tanker blocking plug.

Ultimately it is up to the user to determine usability of this product for any particular application. Understanding the safety manual gives every user the necessary knowledge to determine if this product can be used safely for any application. It is up to the safety supervisor to set the necessary safety guidelines and insure adequate user training (and understanding) before allowing personnel to use this product in the field under actual conditions.

Never inflate the plug to a larger diameter than it is intended for, regardless of the amount of pressure inside it.

Never use more pressure than prescribed on the plug.

If in doubt about pressure, use a pressure gauge.

In addition to standard safety precautions illustrated in the following safety manual, it is necessary to take additional precautions when using the plugs near highly combustible materials, oxidizers, flammable or potentially explosive materials.

1. Keep away all non-essential personnel and vehicles from the area before starting.
2. Electrically ground all tools, plugs, vehicles and personnel before entering a flammable area.
3. Eliminate hazards related to personal electronic devices, cell phones and radio transmitters.
4. Avoid sharply striking any metal objects together to eliminate friction sparking hazards.
5. Mechanically fix or block the inflated plug into the pipe if plug backpressure slippage is possible.

Included in the kit:

THE PIPE PLUG KIT CONSISTS OF:		
PART NUMBER	DESCRIPTION	QUANTITY [pc]
542488	Elliptical Plugy G1 50-80 C	1
542489	Elliptical Plugy G2 80-130 C	1
542490	Elliptical Plugy G3 100-160 C	1
523289	Pneumatic plug type Z1 C	1
523290	Pneumatic plug type Z1 1/2 C	1
523292	Pneumatic plug type Z2/3 C	1
523294	Pneumatic plug type Z3/4 C	1
523296	Pneumatic plug type Z4/6 C	1
523302	Pneumatic plug type S2 C	1
523304	Pneumatic plug type S3/4 C	1
523307	Pneumatic plug type S4/6 C	1
541951	Tyre valve extension hose 1 m (3')	2
551285	Inflation hose 3 m (10'), antistatic	1
541957	Static discharge kit	1
541960	Hand pump - mini	1
541952	Shut-off valve R 1/8"	1
541953	Shut-off valve R 1/2"	1
541958	Bag of corks	1
580018	Controlling pressure gauge - up to 3 bar (44 psi)	1
542217	Portable case type 3, 609 x 409 x 140 mm (24" x 16" x 5,5") with foam	1

*STATIC DISCHARGE KIT consist of:

- Ground wire - static discharge conductor for tool and plug grounding
- Anti-static Wrist strap
- Aluminum Ground rod

PRODUCT USE

SETUP OF PLUGS

ALL PLUGS IN THIS KIT ARE EQUIPPED WITH STANDARD TR-15 TIRE VALVE!

1. Connect TYRE VALVE EXTENSION HOSE (part nr. 551285) with any of plugs from the kit above

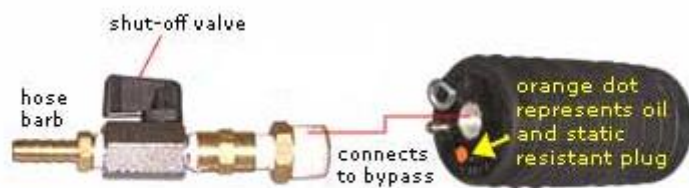
2. Connect MINI HAND PUMP (part nr.541960) to the system from point 1.



SETUP OF PLUGS WITH DRAINAGE HOSE

1 . Connect SHUT-off valve (part nr. 541952 or 541958) to plug

Picture:



2. Connect 3 m DRAINAGE HOSE (part nr. 551285) to shut-off valve (part nr. 541952 or 541958)

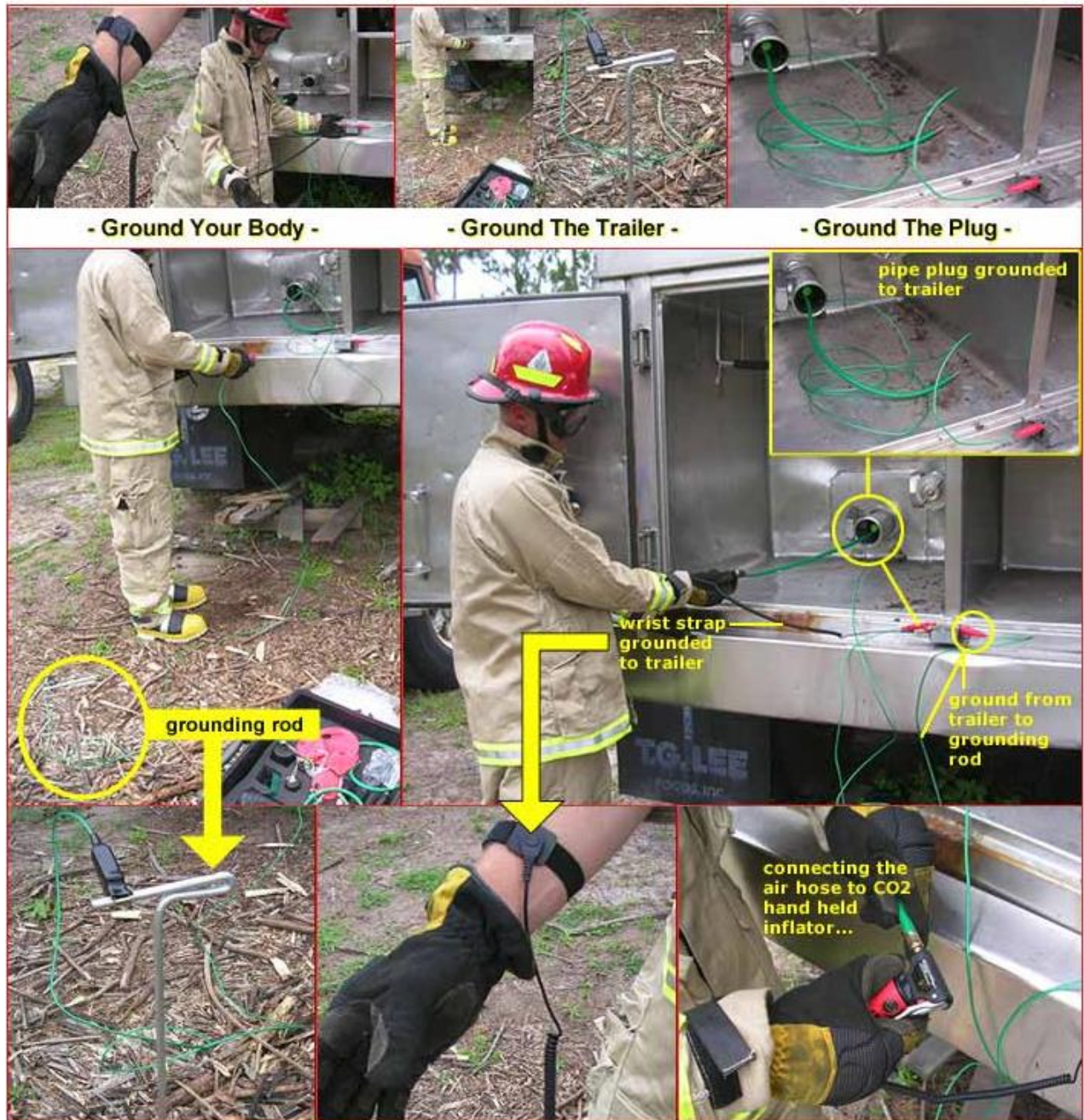
Picture:



STATIC DISCHARGE KIT

- Ground wire - static discharge conductor for tool and plug grounding
- Anti-static Wrist strap

- Aluminum Ground rod



SAFETY PRECAUTIONS

APPROACH CAUTIOUSLY FROM UPWIND. Resist the urge to rush in; others cannot be helped until the situation has been fully assessed.

SECURE THE SCENE. Without entering the immediate hazard area, isolate the area and assure the safety of people and the environment, keep people away from the scene and outside the safety perimeter. Allow enough room to move and remove your own equipment.

IDENTIFY THE HAZARDS. Placards, container labels, shipping documents, material safety data sheets, Rail Car and Road Trailer Identification Charts, and/or knowledgeable persons on the scene are valuable information sources. Evaluate all available information and consult the recommended guide to reduce immediate risks. Additional information, provided by the shipper or obtained from another authoritative source, may change some of the emphasis or details found in the guide. Remember, the guide provides only the most important and worst case scenario information for the initial response in relation to a family or class of dangerous goods. As more material-specific information becomes available, the response should be tailored to the situation.

ASSESS THE SITUATION.

Consider the following:

Is there a fire, a spill or a leak?

What are the weather conditions?

What is the terrain like?

Who/what is at risk: people, property or the environment?

What actions should be taken: Is an evacuation necessary?

Is damming or diking necessary? What resources (human and equipment) are required and are readily available?

What can be done immediately?

OBTAIN HELP. Advise your headquarters to notify responsible agencies and call for assistance from qualified personnel.

DECIDE ON SITE ENTRY. Any efforts made to rescue persons, protect property or the environment must be weighed against the possibility that you could become part of the problem. Enter the area only when wearing appropriate protective gear (see PROTECTIVE

CLOTHING. Always wear protective clothing which is appropriate to potential hazard(s) involved.

RESPOND. Respond in an appropriate manner. Establish a command post and lines of communication. Rescue casualties where possible and evacuate if necessary. Maintain control of the site. Continually reassess the situation and modify the response accordingly. The first duty is to consider the safety of people in the immediate area, including your own.

ABOVE ALL --- Do not walk into or touch spilled material. Avoid inhalation of fumes, smoke and vapors, even if no dangerous goods are known to be involved. Do not assume that gases or vapors are harmless because of lack of a smell - odorless gases or vapors may be harmful.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapors through sewers, ventilation systems and confined areas.
- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

Pipe Plug Kit inspection, maintenance and parts replacement.

- When inspecting the system, use the included parts list to insure that all parts are present and working properly.
- Inspect the system periodically for function, degradation (micro-cracks, rotting or surface roughness) and wear, even if not in use. Chemical reactions may not become visually apparent until several days after use.
- Thoroughly clean, inspect, dry and test all parts immediately after each use.
- Clean all parts with a mild solution of Dawn dishwashing detergent and water and rinse thoroughly.
- Do not expose to direct sunlight or heat source after cleaning, air-dry indoors or in the shade.

Warranty excludes improper or unsafe use, abuse, or any use that is not consistent with the operating instructions.

For parts replacement, training or technical support, please contact us.