

Instruction for Vacuum Suction Cups

Load and Environmental Conditions

Use the cup on clean, relatively smooth, nonporous surfaces, at temperatures from -12° to 49° Celsius.

Moisture or contaminants can reduce the slip resistance of the cup. The red-line indicator may not perform reliably at elevations above 1524 meters; see Service.

OPERATION

To Attach

1) Position the hand cup on the contact surface so the red line will be visible if it should appear while lifting the load.

CAUTION: Test the cup for staining or deformation of load surfaces with light colors or soft coatings.

2) Pump the plunger until the cup attaches completely. When the red line is hidden, vacuum is sufficient for lifting.

3) Check the plunger frequently to make sure the cup remains securely attached. If the red line appears while lifting, set down the load immediately and pump the plunger until the red line is hidden.

4) Always use tie-down straps or equal safety-equipment and attach the rig to the vehicle.

To Release

1) Set the load on a secure support.

2) Pull one of the release tabs until the cup disengages completely.

CAUTION: Remove the cup when not in use.

MAINTENANCE

Service

Since aging and wear reduce the capacity of the rubber pad, it should be replaced at least once every 2 years or whenever damage is discovered (see Inspection).

If the hand cup does not function normally, the cup face may be dirty or the cup may require service. First clean the cup face according to the directions to follow.

Cleaning

- 1) Remove the air filter from the cup face.
- 2) Use a clean sponge or lint-free cloth to apply soapy water or another mild cleanser to the cup face. **CAUTION:** To prevent liquid from contaminating the pump, hold the cup face-down or cover the suction hole in the filter recess.
- 3) Wipe all residues from the cup face.
- 4) Allow the cup to dry and reinstall the air filter.

Inspection

Examine and test the cup regularly to make sure it does not exhibit the following faults:

- cuts or damage to sealing edges of rubber pad.
- cracks or dents in handle or pump.
- reappearance of red line soon after attaching cup.
- sluggishness or dramatic changes in pump action.
- excessive glaze or stiffness of rubber pad.
- air filter missing from cup face.

Correct any faults before using the cup (see Service).

Storage

Store the cup in clean, dry condition within its protective carrying case.

WARNINGS

Failure to observe WARNINGS could damage the hand cup or the load, or cause injury to the user or others.

- **Do not use the cup to lift loads that exceed the Maximum Load Capacity or the effective capacity (see SPECIFICATIONS).**
- **Do not use the cup to support a person.**
- **Do not place the cup face against surfaces which could damage the sealing edges.**
- **Avoid conditions that could cause the cup to slip or to disengage prematurely, such as: contaminants, cuts or scratches in the cup face or contact surface; applying the cup to porous materials; or applying pressure against the cup edge.**
- **Do not use the cup to lift when the red line is visible. If the red line reappears frequently, discontinue use and see Service.**
- **Do not allow anything to interfere with free movement of the plunger while the cup is attached.**
- **Do not touch the release tabs while lifting.**
- **Do not attach cups to thin, fragile materials.**
- **Do not use harsh chemicals to clean the cup.**