



RST INSTRUMENTS LTD.

Mechanical Release Spider Magnet Instruction Manual

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Mechanical Release Spider Magnet

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SPIDER MAGNET ASSEMBLY

1. Fasten the 3 Spring legs as shown, using (2) screws per leg, to the Spider Magnet Body

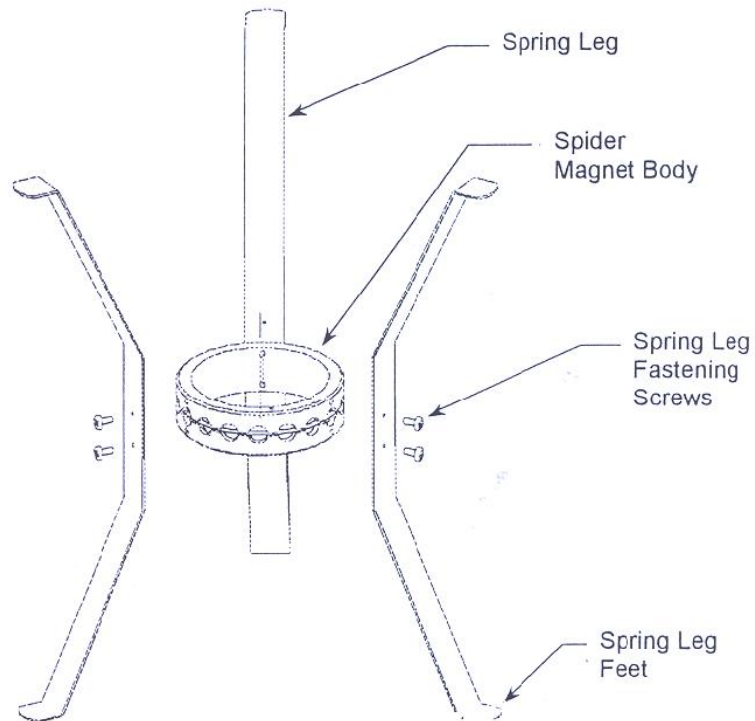


Figure 1 – Attach Spring Legs

2. Compress the upper portion of the Spring Legs together and hold them in position.

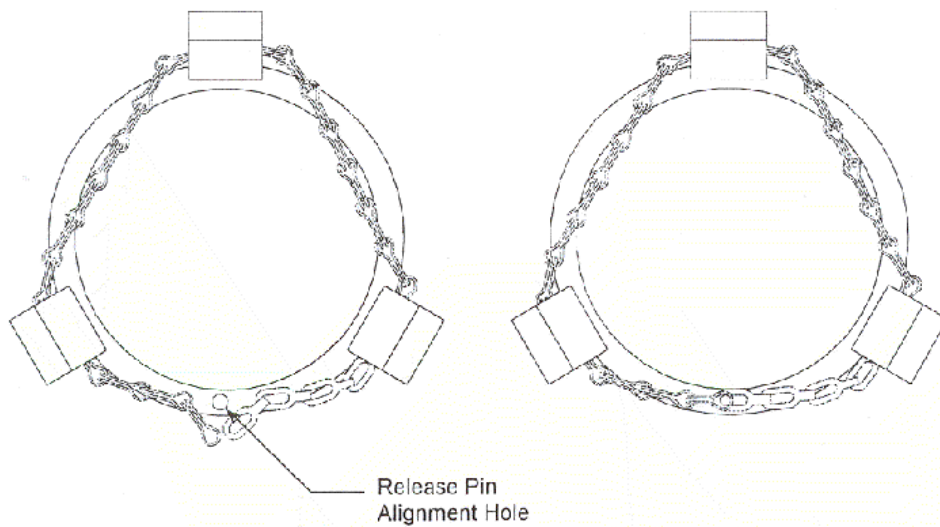


Figure 2 – Install Safety Chain

3. Take a piece of the supplied Safety Chain and wrap it around the compressed portion of the Spring Legs as shown in figure 2.
4. Ensure both ends of the chain are aligned with the Release Pin Alignment hole.
5. Insert a Release Pin through both ends of the Safety Chain and then into the Release Pin alignment hole, effectively locking the Spring Legs in place (figure 3).
6. Compress the lower portion of the Spring Legs together and hold them in position.
7. Take another piece of Safety Chain, supplied, and wrap it around the compressed portion of the Spring Legs, just above the feet of the Spring Legs.
8. Ensure both ends of the chain are aligned with the release Pin Alignment hole.
9. Push the Release Pin through both ends of the Safety Chain until the end of the Release Pin reaches the bottom of the Spring Legs (figure 3).

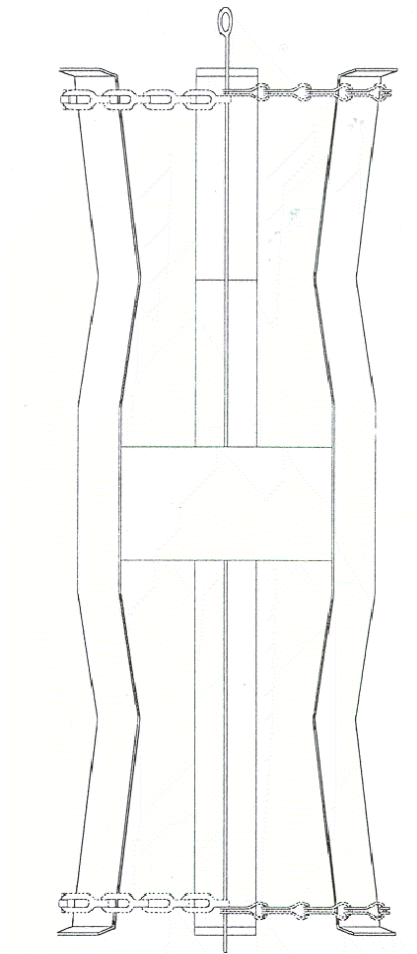


Figure 3 – Assembled Spider Magnet

Installation

Mechanical Release Spider magnets are installed onto the settlement system at site specific intervals.

1. Install the appropriate amount of the settlement pipes until the position for the first spider magnet has been reached.
2. Slide an assembled spider magnet over and along the settlement pipes until the spider magnet reaches the appropriate location.

(Ensure the spider magnet is orientated with the loop of the Release Pin closest to the mouth of the borehole in order to be able to pull out of the spider magnet).

3. Secure the spider magnet in place. This can be achieved by taping it in place, or filing a small flat into the OD of the settlement system, large enough for the safety chain to lock into.

(Spider Magnets for small diameter pipe have a tail on the lower chain for taping to the OD of the pipe, see figure 4).

4. Secure a release line to the loop in the loop in the Release Pin (ensure there is sufficient length of release line so that then the spider magnet has reached its target depth, there is a comfortable length of release line protruding from the borehole).

Note: maintain some slack in the release line(s), while lowering the settlement system into the borehole, to prevent a premature release of the spider magnet(s) legs and make sure the free end of the release line is secured, to prevent it from falling into the borehole.

5. Continue installing the settlement pipes until the next spider magnet should be installed.
6. Repeat steps 2-5 for the remaining spider magnets.
7. When the installation of the settlement system is complete, release the spider magnets by pulling their respective line until no resistance is felt. (It is recommended for small pipe applications).

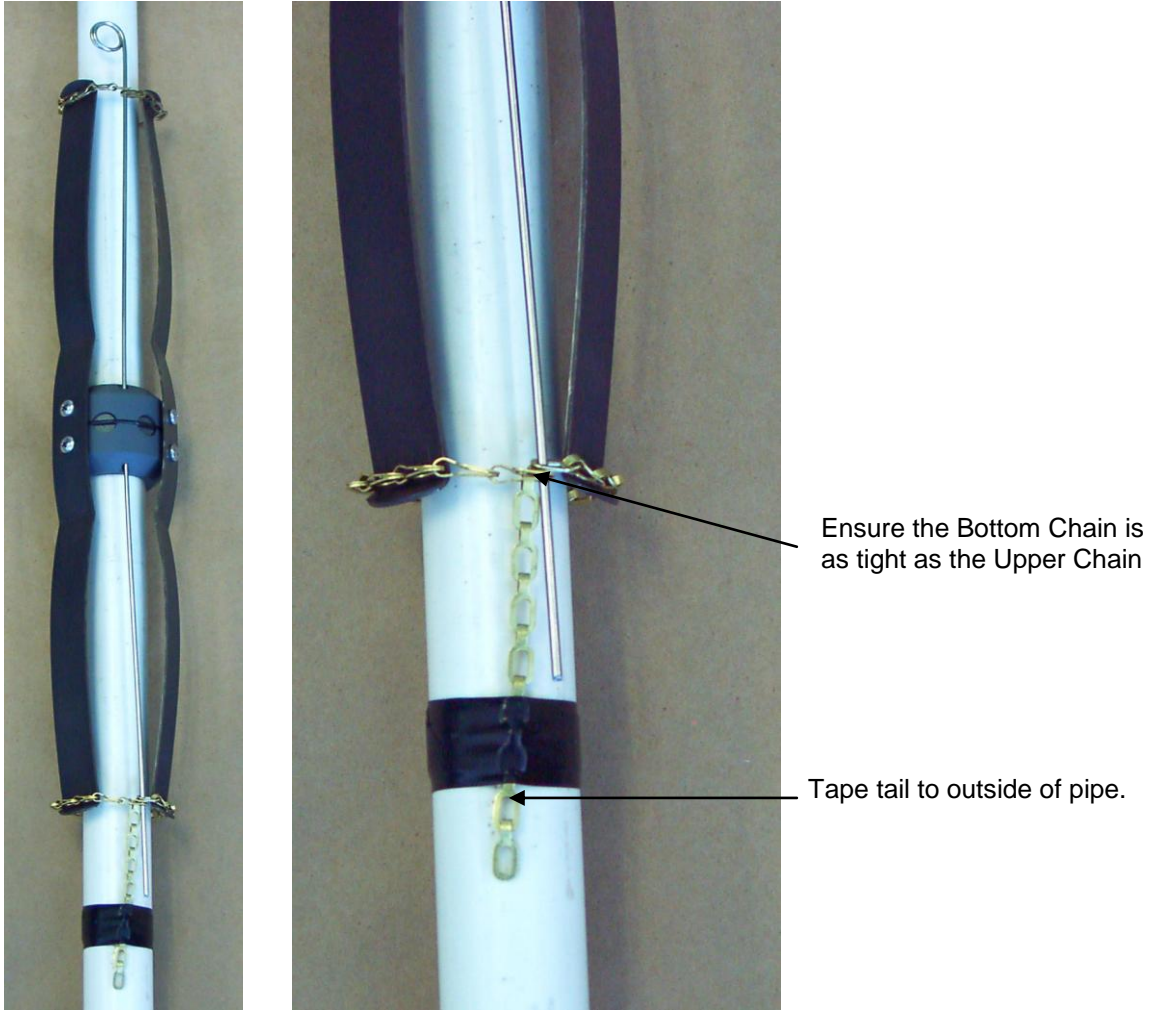


Figure 4 – Securing Small Pipe Spider Magnets

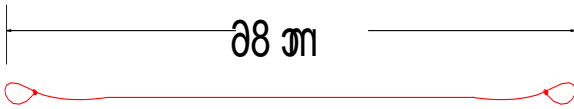
1. Cut a length of 18 kg fishing line or nylon twine.



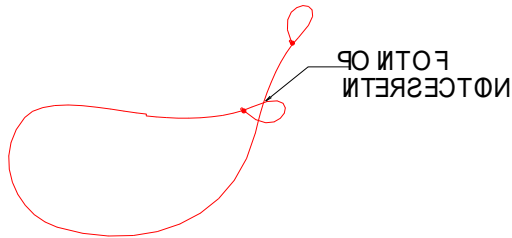
2. Overlap 5 cm of fishing line or nylon twine on one end.



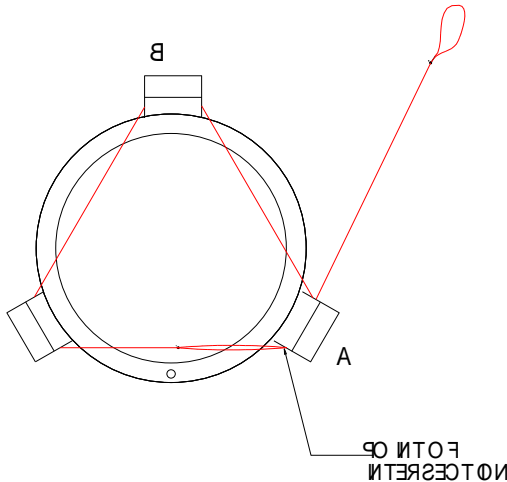
3. Tie a knot on the overlapping end so a loop is made. Repeat procedure 2 and 3 for the other end. From loop end to loop end the length should be 68 cm.



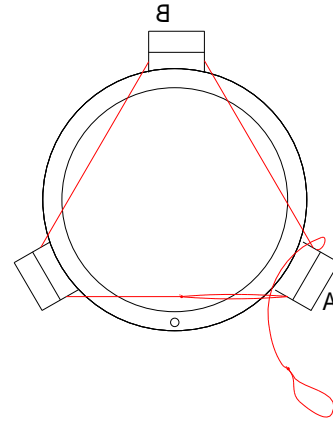
4. Thread one end of the fishing line or nylon twine through the other, making a noose. Make a note of the point of intersection which will be mentioned later.



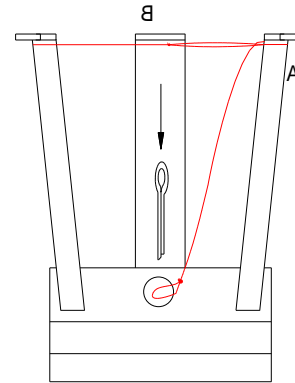
5. Compress the spider magnet legs inwards and strap the noose over the legs as shown in the figure below. Orientation of the fishing line or nylon twine is important.



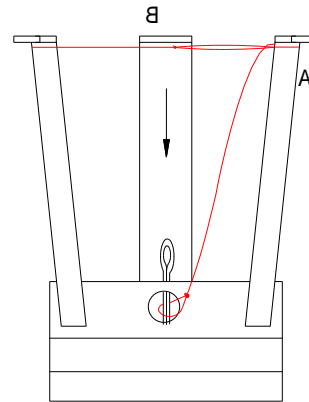
6. Wrap the free end of the fishing line or nylon twine around leg A and above the other exist lines.



7. Pull the line down toward the hole on the body of the spider magnet and over the point of intersection.



8. Lock the line using the cotter pin provided.



9. Tie a release line to the cotter pin.