

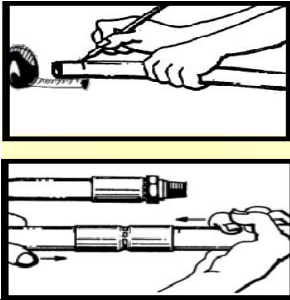
PIRANHA SEWER ASSEMBLY INSTRUCTIONS

HORIZONTAL SWAGE-ARMOR

The use of end fittings and assembly tooling other than that supplied by Piranha Hose Products is at the risk and liability of the user.

STEP 1

Cut the hose ends off square. Using a ruler measure the distance from the end of the hose equivalent to the "Insert Depth" shown on the chart below. Mark the hose with a marker.

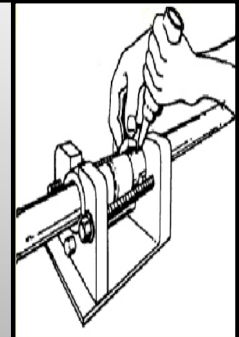


STEP 2

Insert hose into the fitting or mender to the insertion depth mark on the hose. You may have to do a twisting motion or a water soluble soap solution to assist you. **DO NOT USE OIL TO ASSEMBLE THE FITTING OR MENDER ON THE HOSE.**

STEP 3

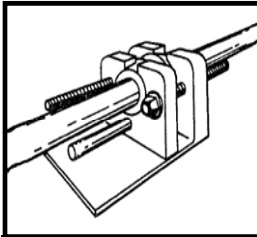
Place the hose with the fitting or mender in the swage machine along with the proper dies and pusher. Position the dies so that their splits are away from the openings. Lubricate insides of the dies with oil. **Please Note:** An end fitting will require 1 set of dies and 1 pusher. A mender will require 2 sets of dies.



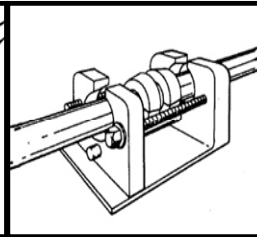
**ARMOR PIRANHA SEWER HOSE
INSERT DEPTH**

HOSE SIZE	END FITTINGS	MENDER
-8	1.438	1.438
-10	NA	NA
-12	1.750	1.750
-16	2.188	2.188
-20	1.875	NA

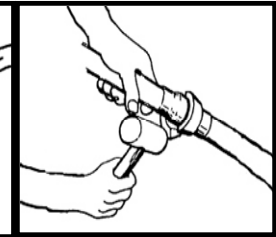
STEP 5



STEP 6

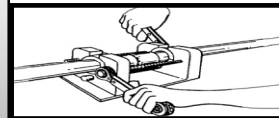


STEP 7



STEP 4

Run bolts up snug and square in the swage tool using two long handled wrenches or ratchet.



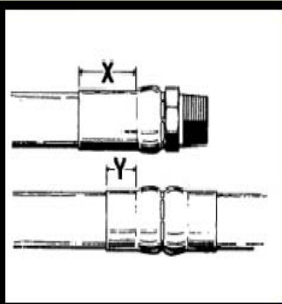
Draw up the bolts in a uniform pattern until dies have drawn to within 1/16" of each other.

Loosen bolts until the hose and dies are free in the tool.

Remove the hose from the tool. Tap the dies lightly with a rubber mallet from the fitting or mender.

STEP 8

Inspect the fitting or mender. The swage should be uniform. The bulge appearing on the fitting after the swaging operation should be minimum distance from the edge of the fitting or mender. The chart to the right gives this distance per hose size.



ARMOR PIRANHA SEWER HOSE

HOSE SIZE	END FITTINGS		MENDER	
	LENGTH (x)	DIAMETER	LENGTH (y)	DIAMETER
-8	0.938	0.965	1.050	0.965
-10	NA	NA	NA	NA
-12	1.125	1.300	1.188	1.300
-16	1.500	1.560	1.770	1.560
-20	1.950	1.880	NA	NA

End fittings and menders for thermoplastic hose are not interchangeable. It is essential that hose, end fittings, menders, and tooling be properly matched. Identification of Piranha Hose Products is simple. The inner tube of all Piranha Sewer Cleaning Hose is yellow, as assigned by WASTEC (Waste Equipment Technology Association) for the manufacture identification code. To assure proper matching of all components, the hose tube material, end fittings, menders, and tooling must be color coded yellow. While there may be several sources of end fittings and assembly tooling that bear the yellow color coding, for safety and reliability-end fittings and assembly tooling should be purchased directly from Piranha Hose Products.

A Piranha supplied swaging machine is required for the installation of end fittings and menders. All assembly tooling is designed and produced to be compatible with the Piranha Hose Products supplied swaging machines.



