



Hose Assembly Equipment

Operating Instructions for the Banner BS16

This portable model is designed for bench or mobile use and may be bolted down if required. Ensure that the machine is only used on a firm flat surface at a safe and comfortable operating position.

When operating a new machine for the first time or when the machine has been moved around or idle for some time, a small amount of air may have entered the machine head. This may cause an apparent lack of pump pressure. To remove this air, operate the pump in the normal way until the apparent lack of pump pressure is noticed on the pump handle. Leave the machine in this pressurized state for a few minutes. This allows the oil to 'absorb' any pressurized air. Release the pump pressure control and allow the machine to fully open. Any entrapped air will now be taken back to the pump reservoir. Leave the machine in this position for a few minutes to allow any entrapped air to drain out of the oil. Repeat if required. Please note that the machine and pump are filled with the correct amount of oil and operate as a sealed system. Do not open the pump vent or add oil.

If top up oil is needed following damage or repairs use ISO 10 hydraulic only.

Note that the addition of any other type of oil may result in permanent damage to the equipment.

Setting the machine

Establish the finished diameter in millimeters of the fittings that are to be assembled. If you are in any doubt contact your hose and fitting manufacturer. Remember that recommended sizes may vary between manufacturers.

Select the dies that are marked as the nearest in size on or below your established finished diameter and fit them into the machine. For example: for a finished diameter of 22.1mm the nearest die on or below this size is die set 20. To calculate the gauge setting deduct the die size selected from the required finished size. In this example $22.1 - 20 = 2.1$. Using the cursor mark on the gauge barrel, align the gauge to show the '2' then further advance the gauge by the smaller increments to show '2.1'. Note that one complete turn of the gauge = 2mm. The machine is now set to achieve a 22.1 finished diameter.

To complete the assembly, pass the pre-assembled hose and fittings into the dies from the back of the machine. Take care when positioning the components within the dies that an allowance is made for any increase in ferrule length that may occur during compression. Operate the pump until the indicator pin, located in the centre of the gauge becomes flush with front face of the gauge. The assembly is now compressed to the preset size. Release the pump pressure control and allow the machine dies to open far enough to allow fitting removal. The pump pressure control may be closed at this point to prevent any unnecessary die opening. Remove the assembly and check the assembly for any ferrule recovery. Adjust the setting if required.

Caution Notes

Do not operate this machine with the gauge set below 'zero'. Failure to observe this may result in damage to the machine. The Banner BS16 is designed and set for use with a maximum working pressure of 700 bar. Do not try to adjust the pump to exceed this pressure under any circumstances. To do so may cause injury to personnel and cause extensive damage to the equipment. **WHEN MACHINE IS NOT IN USE, IT SHOULD ALWAYS BE LEFT IN THE OPEN POSITION ON DIE HOLDER AT ALL TIMES**

Maintenance

Keep the machine clean and dry. Avoid use in areas where abrasive dust may be present. Use grease gun to lubricate the die holders sliding surfaces daily via the grease nipples located at the rear of the ram with Lubron MG-2 high impact grease, available from Banner. The Banner BS16 hydraulic system is factory sealed and should not need any attention given normal use.

Technical Data

Machine gross wt including dies:	40kl	Maximum opening over dies:	26mm
Machine wt:	34kl	Standard dies:	16, 20, 23, 29 and 35mm.