

Reassembly

Reassembly is the reverse of the disassembly procedure. A short length of plastic rod is supplied to help push in and seat the O-ring correctly.

Occasionally it is advisable to replace the O-ring and PTFE needle guide components. This will very much depend upon the service and in particular the condition of the needle (i.e. how abrasive it is). However we would recommend changing the PTFE needle guide at least every 10,000 injections.

When reassembling the magnets to the needle guide, pay particular care to the polarity of them to ensure that they are not magnetically opposed. (The combined polarity is unimportant). Place the PTFE needle guide upside down on a flat surface and push the two magnets firmly onto it taking care not to buckle the PTFE needle guide.

Replacing the O-ring is straightforward but critical. After cleaning, examine the O-ring aperture with a magnifying glass to ensure the seat is clean and free from dirt. Check that the O-ring is not damaged or misshapen. Then wet the O-ring with DI water so that it pushes in easily. Pay particular care that the O-ring is seated squarely in the aperture. After fitting the O-ring, carefully place the olive on top of it, ensuring that it is fitted squarely. The olive may be fitted either way up.

Sealing Problems?

If the MagSep does not seal correctly and you know that this is not because the needle guide is worn, it is likely that either the seating area for the O-ring is not clean or that the O-ring is damaged or fitted incorrectly.

If there is a leak, before disassembling the Magsep, first try removing the ball and cleaning the O-ring seat. Then refit the ball and push it gently onto the seat to help push the O-ring into the correct shape.

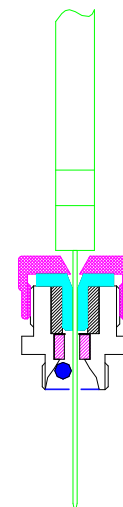
Cleaning

All the parts, except the magnets, may be cleaned in an ultrasonic bath.

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MagSep Assembly and Operating Instructions

Part Number 9060, Magnetic Septum
Version 1.2



Operation

The MagSep is designed to provide a septum seal for syringe needles without the problems associated with septum coring. The seal works by using magnets to pull a ball up on to a seal to provide a gas tight seal. When the syringe is inserted, it pushes the ball away from the seal. At this stage, the assembly remains leak-tight by the seal formed between the needle and the PTFE needle guide. Different needle guides are available to suit needle diameters up to a maximum of 1.5mm.

Installation

The Magsep is delivered assembled and may be fitted directly into the injection port of your instrument. The thread is 7/16" x 32, which is compatible with the Thermalox injection port, as well as a range of other instruments.

Ensure that the O-ring is fitted onto the 7/16" thread. Place the injection port onto a firm surface, put the packing washer in then place the guard washer on top. Screw the Magsep into the injection port and tighten.

With some older port designs, where there is a larger space underneath the MagSep, you will need to fit an adaptor spring (Pt No M108) under the packing washer to push that washer and the guard washer firmly up onto the body of the MagSep. These older Injection Ports have five small holes drilled through. Newer versions have only one.

Maintenance

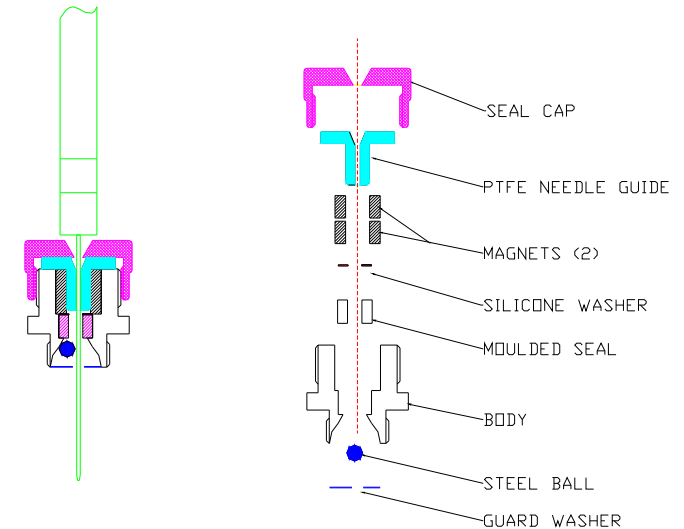
Periodically (we would recommend every 1000 injections) unscrew the MagSep, carefully remove the stainless steel ball. Using DI water, clean the ball, the cavity and the ball seat. It is not necessary to fully disassemble the MagSep for this operation. With a magnifying glass carefully examine the seat area and the ball for any debris and replace the ball if it appears pitted or corroded. Reassemble the MagSep into the injection port and then test (by inserting a needle and putting a drop of water onto the top of the seal cap) that the PTFE needle guide is leak tight. If there is bubbling from the top of the seal cap when the needle is inserted, replace the needle guide.

Disassembly

Firstly remove the stainless steel ball. Next unscrew the seal cap and pull out the PTFE needle guide. The two magnets are fitted onto the PTFE needle guide to form one assembly and may be pulled off.

Put the needle guide and magnets to one side. Carefully shake out the washer and using a small screwdriver or tweezers pull out the moulded seal.

All the parts, except the magnets, may be cleaned in an ultrasonic bath.



Parts List	
Description	Part no
Seal Cap	M100
Needle guide	M101- (specify needle diameter)
Magnet	M102
Silicone Washer	C138
Moulded Seal	C139
Body	M105
SS Ball	C136
Guard Disk and Washer	M107
7/16" O-ring	C118
Repair Kit comprising Needle guide, O-rings, SS ball, disk and washer.	C132-(specify needle diameter)