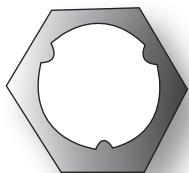


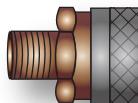
Welcome to Dr Bob's retro-fit quick-fill system

This package contains the components to enable you to refill the buddy bottle on your Theoben Rapid Mk1, Mk11, MFR or BSA S10 without having to remove it from the rifle. It also incorporates a pressure gauge so that you can see when a re-fill is necessary.

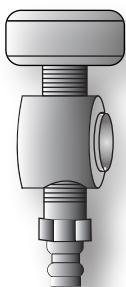
Your package should contain:



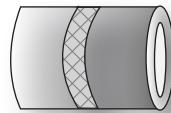
Valve removal tool x 1
(Theoben only)



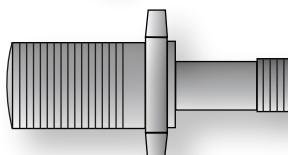
Female connector x 1



Banjo, gauge and
male nipple assembly x 1



Connecting sleeve x 1 - enables
easy operation of the female
connector on deep stocked rifles



Bottle neck extension



'O' rings x 2



Stainless steel bleed pins x 2
(one spare)

Please note: items not shown to scale

The sequence of operations required is listed briefly below followed by a more detailed description.

- A Remove the action from the stock
- B Remove the valve from your buddy bottle
- C Replace the bottle neck valve with the supplied bottle neck extension
- D Fit the quick - fill assembly to your rifle
- E Drill your stock

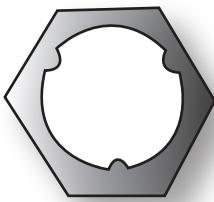
A Remove the action from the stock

The work is easier done with the stock off - you will also need the stock off to drill a hole to give access to the filler connector.

B Remove the valve from your Buddy Bottle

The buddy bottle valve needs to be removed so that your bottle will screw directly onto your new adaptor. Before you can do this you have to empty the air from your buddy bottle. To do this, remove the bottle from your rifle in the usual way, remove the 'O' ring from the thread on the bottle and then refit the bottle to your rifle. N.B. Owners of the MFR Thoben need to remove the small 'O' ring on the stem inside the regulator and discard it. Because there is now no seal you will hear the air emptying from the bottle as you refit it. When the noise stops, the bottle is empty and you can remove it from the rifle.

You now need to remove the valve from the Buddy Bottle. In your kit is a valve removal tool like this:

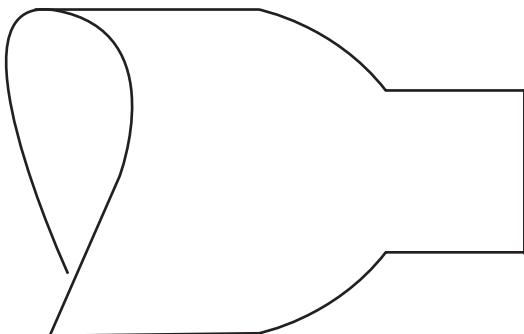


Slip this over the neck of the bottle and the three little projections will fit into the three little notches in the bottle cap. Wrap the bottle in some padding and carefully grip it in a vise. With an appropriate spanner unscrew the cap from the bottle. This may take some effort because the plug is firmly secured. Gentle heat may be required.

C Replace the bottle neck valve with the bottle neck extension

Make sure the new O' ring is still seated inside the neck of the bottle. Screw the new adaptor into the bottle tighten up with a spanner to 30 ft/lbs (a car wheel nut is tightened to approximately 70ft/lbs).

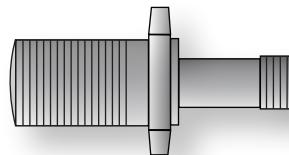
Buddy Bottle



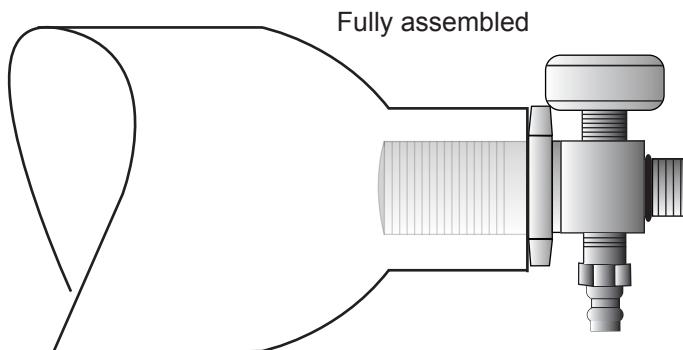
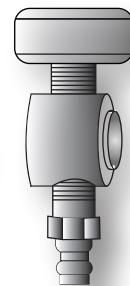
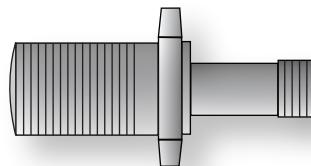
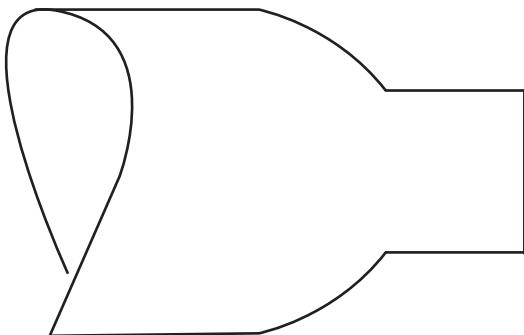
'O' ring



Dr Bob adaptor

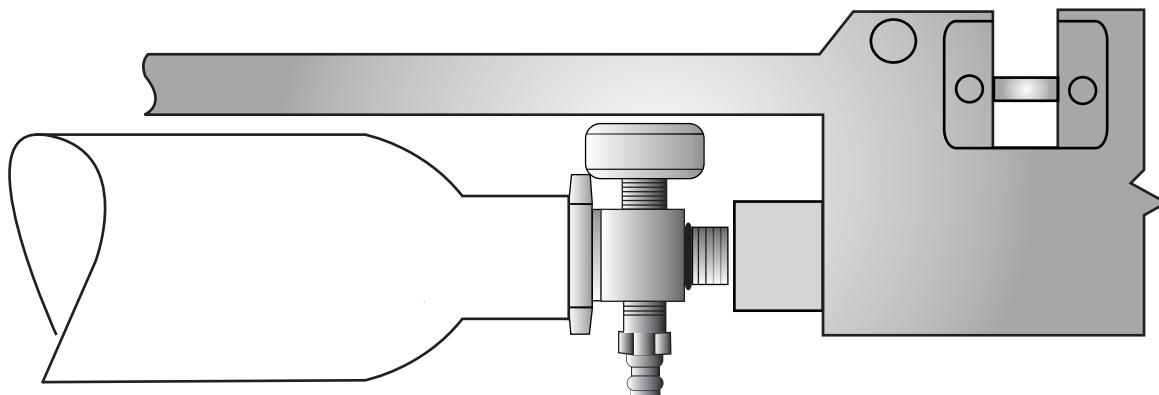


The 'O' rings and gauge can now be fitted to the adaptor. The diagram below shows the order of assembly



D Fit the Quick - Fill assembly to your rifle

You can now screw this assembly directly into your rifle (where you used to screw the buddy bottle). Before final tightening, turn the ring so that the gauge faces the gun barrel and the male connector points directly downwards. For bull barrel models the gauge is fitted at 90 degrees to the fill valve.



E Drilling the stock to give access to the male connector

You must drill the stock to give access to the male nipple filler adaptor. Make it approximately 25mm diameter to accept the connecting sleeve which in turn, works the outer sleeve of the female connector (when pulled) at the end of your flexible fill hose.

Measure the distance from the back end of the action to the centre-line of the nipple and transfer that to the outer side of your stock. This will give you a flat, stable surface to locate on your bench or drill table.

Carefully drill your hole. Ideally this is best done on a drill press if you have one or can have the use of one. A spade drill or a Forstner bit is probably better than a twist drill because they will not snatch and spoil your work.

After drilling, clean up, lightly chamfer with fine sandpaper and then treat the bare wood with oil or a lick of French polish. Fit your action back to your stock, re-fill the Buddy Bottle from your tank, disconnect - and you're ready to go!

Notes:

The High Pressure Hose Connector

You may need some fittings to connect this to your diver's bottle. These are not supplied as there are many different types of bottle. They can be obtained from www.bestfittings.co.uk

Bleed pins

Included in the kit are two stainless pins. If you intend to do any work on the pressurised parts of your rifle (firing valve etc.) you can use the stainless steel pin to relieve the pressure rather than having to multiple dry-fire your rifle to empty it. To do this, take the female connector, unscrew the small grub-screw inside the brass section, connect it to the male fill nipple and drop one of the pins into the grub screw hole refitting the grub screw on top of it. This will lift the valve off the seat and empty the system.

When you have finished the job, take the pin out and keep it in a safe place. Why two pins? One to use and one to lose!