

Review of the Benro Filter System



Waterfalls below Sgurr nan Gillean

ISO 100, F11, 30 seconds. Sony A7RII, Zeiss Batis 25mm.

Benro Filters used; CPL, 6 stop ND, 3 stop GND

In this age of digital wizardry and Photoshop manipulation, is there still a place for filters, or are they relics ripe for consignment to The Antiques Roadshow?

Until recently I was not a fan of filters and that's putting it mildly. Innovative sensor technology has led to massively improved dynamic range. Two photos can be blended together, one exposed perhaps for a bright sky, the other for the darker land. There are all sorts of work arounds but that's exactly what they are: work arounds and not necessarily the best practice and certainly not the most satisfying.

Long ago I had a set of Lee Filters but never really got on with them. The set up was fiddly, the resin filters scratched and damaged all too easily and there were horrible colour casts. In fact, I sold the lot and reckoned it was all a case of hype and people refusing to admit that they'd spent a fortune on something that didn't live up to it's reputation. Lee were the original big boys of the filter world with a reputation to match. That reputation still endures and only last week I was talking to a photographer who uses Lee filters mainly because all the photographers he admires use them.

For many years I used various work arounds and being very conscious of weight and bulk when climbing in the mountains made do with a few screw in filters; a polariser and a couple of neutral density filters. This was very minimal kit and largely relied on the light being exactly right throughout the composition. When the light played ball, this could produce stunning results but all too often I returned home frustrated.



I would probably have continued like this if Benro hadn't introduced their range of filters. The chance to try them out was too good an opportunity to pass up but I did feel a bit guilty, wondering how I could produce a worthwhile review of something that I probably wouldn't ever use after the test. How wrong could I have been?

Some things can be replicated in Photoshop but some can't. You can add a graduated filter in post processing or merge two photos of different exposures but you can't mimic a long exposure or remove reflections as a polariser would. Some of the effects produced by filters can be very Marmite like with people either loving or hating the result. Some wax lyrical about the serene flow of a waterfall in a long exposure shot whilst others will spit out their tea and moan about "milky water."

One of the first photos I took with the Benro filters raised a lot of love and hate on social media, the majority loving it but a vocal minority calling it a fake: some like that it showed the current in the river, others denounced it saying it must be a fake since they'd been there and knew there was no "whirlpool." The photo showed a pool in the river below Marsco and the use of a 6 stop Neutral Density filter enabled a long exposure which captured the circular motion of the current. A 3 stop Graduated Neutral Density filter helped prevent the sky burning out whilst a Circular Polarising filter countered some of the reflections on the surface of the water.



Marsco from Glen Sligachan

Sony A7RII, Zeiss Batis 25mm. ISO 100, F11, 30 seconds.

Benro Filters used; CPL, 6 stop ND, 3 stop GND

The pros and cons of using filters;

Pros

- + Can apply a range of actions in camera rather than having to spend time on the computer later.
- + Massively extend the dynamic range in a single shot by using graduated filters.
- + A polarising filter can reduce reflections, increase contrast and colour saturation.
- + Helps with the in camera process as an aid to composition because it is easier to see things through the viewfinder/monitor as a whole rather than trying to imagine how two images combined might look.
- + If there is any movement in the scene then it's definitely easier to get it right in a single photo rather than try to combine two with different exposures.
- + Can use neutral density filters to lengthen exposures to show movement in clouds, water etc or to capture a crowded scene without the people showing up.

Cons

- Possible bulk and weight considerations
- Cost. Decent filters certainly aren't cheap.
- Extra faff in the field especially in adverse weather conditions.

The ideal filters should be colour neutral even when multiple filters are used so you don't end up with nasty colour casts which need work in Photoshop. They need to be as optically pure as possible so as not to degrade the image and need to be reflection and flare proof. For long exposures the critical thing is that there are no light leaks.



Glen Sligachan at Dawn

ISO 100, F11, 4 seconds. Filters used; CPL and 3 stop GND. Sony A7RII and Zeiss Batis 25mm
Benro Filters used; CPL and 3 stop GND



Waiting for the light for the above Sligachan shot



Benro have certainly hit the ground running and offer a very wide range;

- **GNDs** Hard and soft graduated neutral density filters in 2,3 and 4 stops
- **NDs** 10 and 6 stop neutral density filters
- **Reverse GND**
- **CPLs** Circular polarising filters

The filters are available in a variety of sizes and materials;

Master Series Filters are made from the renowned German Schott glass before being coated to a high standard that ensures colour neutrality. Schott glass provides a superior optical performance, and high light transmission. A special coating is added both to reduce reflections from the filter's surface and any glare between the lens and filter. The anti reflection coating neutralises infrared light waves meaning low colour shift and high light transmission. A multi layered nano coating provides an anti scratch coating and it's hydrophobic properties help keep the surface free from dust, dirt and especially water drops. Apparently every Master Series filter is tested by hand to ensure it's optical qualities.

Universal Series Resin Filters are described as "budget friendly." Resin is less resistant to scratches but also less likely to break if dropped. The optical properties aren't as good as the glass master filters but they are nano coated.

The filters are available in sizes 100, 150 and 170mm, the latter only in glass. Filter Holders range from the minimalist FG100 to the top of the range FH150 suitable for extreme wide angle zooms such as the Sony FE 12-24mm lens.

Thus a very comprehensive range and I felt like a child in a toyshop when asked what I'd like to test. As usual, I opted for what I thought would be useful for my photography. From my Lee Filter use, I knew I didn't like resin filters. They are too easy to scratch and damage especially in the harsh Cuillin environment with dust, dirt, abrasive rocks and salt water so I opted totally for glass filters.

Benro kindly sent the following;

- Benro Master 100x150mm soft GNDs 2, 3 and 4 stops
- Benro Master 100x150mm Reverse GND 3 stops
- 100x100mm Glass ND filters 10 and 6 stops
- 82mm circular polariser
- Benro FH100M2 Filter Holder Kit with 82mm and 77mm lens rings
- 77-67mm drop down ring
- Extra 100x100mm and 100x150mm Filter Frames

Benro have built a great reputation for tripods and I hoped this would carry over into their filters. All photos were taken using the Benro TMA28C with the GD3WH.



Benro FH100M2 Filter Holder Kit
Filter Frames on the left, mounting ring on right



Having used the filters extensively for almost four months, this review is probably long overdue but I really wanted to put the kit through it's paces, give it some abuse and see how it stood up to things. Four months might not sound long but it has been pretty intensive; looking at my diary shows I have been out in the hills or on the coast for 92 days since the filters arrived. Some of those have been pretty long days and include nights spent out high in the mountains to be best placed for sunset/rise. They have included days out with clients, days of personal photography and venues ranged from coastal locations to mountain tops. Early on in the period the weather was dry and dusty, harsh conditions for photographic kit but most of the time the weather has been poor with lots of rain and high winds making for very atmospheric photos but also proving a torture test for gear.



Reverse of FH100 M2

Blue knob releases/locks the **red slide** to secure holder to ring on lens.

Red knob on left raises and lowers filters whilst the arrowed "rotate" areas show how large an area is accessible to turn the CPL. No small, fiddly knobs in this system



Circular Polariser
showing packaging and robust plastic case



Graduated Neutral Density Filter
with packaging and soft pouch



Dawn Breaks and Testing Starts

ISO 100, F11, 1/10 second. Sony A7, Zeiss Batis 25mm. Benro Filters used;CPL and 4 stop GND

Our location at Sconser provided a great location for some initial tests and to get used to the gear. Perhaps more importantly, it's a venue where lots of friends, clients, All Things Cuillin members etc are constantly dropping in. The new gear attracted a lot of interest from visiting photographers none of whom had seen Benro filters. As such I got to see and compare the Benro filters to some of their competitors both indoors, out on the pier and more importantly in the hills.







Not being used to using such filters, the initial setting up was a little daunting but soon everything slotted into place (literally) and the whole set up proved easy to use. Hence a bit of a shakedown on our pier, experimenting with different strengths of GNDs and NDs and the CPL. Everything seemed good. No reflections, no colour casts, no light leaks (although no exposures longer than 30 seconds), no vignetting.

Firstly an adaptor ring screws into the front of the lens then the filter holder is attached. This is a very positive action which I much prefer to the Lee. The red catch on the right retracts to let the holder slide over the adaptor ring then when released slides back to prevent the holder coming off. The blue knob is then tightened up to provide a very secure fit. Yes, I know it's bad practice and probably asking for trouble but I was more than happy to walk around with a small fortune's worth of filters on the front of the lens. Friends and clients all seemed to know someone who had experienced disasters with the Lee system.

The **FH100 M2** is a precision engineered work of art, an aluminium frame with a protective black coating and close fitting plastic guide rails to secure the filters and prevent the ingress of any light. AN 82mm CPL screws neatly into the holder so the polariser is behind the square filters. This seems a fantastic arrangement and whilst not an original Benro idea, does seem far superior to the Lee system. Lee 's CPL is a large 105mm which clips to the front of the filter holder. It needs to be large to prevent vignetting and the large size makes it an expensive item.

The Benro CPL has a lot of plus points; lots of photographers liked the huge knurled wheel to turn the filter. This to the rear of the filter holder and the wheel is easily accessed and provides control which is easily accessed even with gloved hands. Both the Nisi and Kase systems I saw had a similar set up with only a very small wheel which seemed quite fiddly by comparison. However, I did like the magnetic attachment of the Kase CPL making it a breeze to fit or remove. The Benro system with it's large faff free wheel is by far the easiest to use but I'd love to see a mark two version with magnetic rather than screw in attachment.

As a side note, make sure the CPL is screwed in properly. Initially I hadn't screwed it in completely and it must have gradually worked its way out to such an extent that I couldn't slide the filter adjacent to it in or out. This necessitated removing the plastic rails from the front, removing the filter and tightening the now accessible CPL. Probably just a stupid error on my part and something that hasn't happened since. Note to Benro the FH100 kit didn't include an allen key but luckily I had one the correct size. Perhaps something to include in the future?



The Cuillin from Sgurr na Stri

ISO 100, F11, $\frac{1}{3}$ second. Sony A7RII, Zeiss Batis 25mm.

Benro Filters used; CPL and 3 stop GND

Stitch of 6 shots

The **FH100 M2** is robust and I like that. It feels bomb proof and definitely an improvement on the plastic Lee holders. Kase and Nisi produce nice aluminium holders that look well made and durable but the Benro feels a level above albeit this is offset by added bulk and weight. If this is a concern then Benro also make the FG100 holder which is lighter, smaller, more streamlined with less features.



Checking out the competition

Benro left and Lee Filters on right. Notice large, expensive CPL on front of the Lee



Nisi system



Benro's FG100

Very similar to the Nisi if you are looking for light weight and minimal bulk



Kase in action at Elgol



The Cuillin from Elgol

ISO 100, F11, 30 seconds. Benro Filters used; CPL, 10 stop ND and 3 stop GND

Whilst not unique to Benro, the system uses “**Filter Frames.**” These are black plastic frames into which the glass/resin filters are fitted. At first this just seemed an added complication but now I really like this feature which is similar to the mega expensive Wine Country Camera “Filter Vaults” but at a much more reasonable cost.

These **Filter Frames** serve a variety of purposes;

- The main advertised advantage is that the sides of the frames is toothed and these teeth can be engaged with a cog on the Filter Holder. The red knob on the rear of the filter holder can be used to engage the teeth in any one of the 3 slots which accept the filter frames and used to precisely raise or lower graduate filters to get the exact position desired. Lots of photographers who saw this thought it a brilliant idea and lamented it not being available in other systems apart from the Wine Country range.
- Help eliminate internal reflections caused by any light entering via the edge of the filter
- Provide a level of protection both for when in transit or if dropped.
- The filter frames are easy enough to load the glass into but if possible get a couple of extra so you aren't constantly faffing around switching glass. The holder comes with one 100 x 100mm and one 100 x 150mm filter frames but I asked for a few extra.
- The filter frames will hold any 2mm thick filters of the requisite dimensions so you can easily transition from an existing system to save initial outlay.

- I love that the frames have to be slid in from the top and have a stop so they cannot be pushed right through or drop out something that seems blindingly obvious but will save a lot of expensive accidents.
- To my mind, the most useful is that you can handle the filters without actually touching the glass thus avoiding smeary finger prints. Also the frame makes for much more secure handling especially in the cold/wet and if wearing gloves. Glass is only too slippery and easy to drop but the plastic frames provide a good grip especially with the “handle” above the locking slot.



Filter Frames in FH100 M2 holder

100x100mm ND to rear and 100x150mm GND at front. Note blue knob top centre that locks the glass into the frame. The slot it sits in doubles as a secure handle to extract filter from case and place in filter holder. Nice to be able to pick the glass up without hassle or worry about fingerprints



Waterfall Below The Bhasteir Gorge

ISO100, F11, 2.5 seconds. Sony A7RII. Zeiss Batis 25mm. Filters used; CPL, 6 stop ND, 2 stop GND

In the field, the Benro system has proved robust with no sign of wear, tear or damage. Although seemingly initially complex, once you get used to the system it is incredibly quick to set up and very secure. Having used the system a lot in both bad weather and in water margin areas like coastlines and waterfalls, I really appreciate the nano coating on the filters. I have no way of knowing it's longevity but over 4 months of use and abuse it has continued working to shed water and dirt. Water just beads up on the coating and both water and any smears/dirt are easily wiped off. I can be heavy on my gear and getting the photo is more important to me than cosetting my gear. The coating still looks pristine on the CPL and square filters. The filter holder has a few light marks and scratches but nothing very significant.

The glass filters come in nice soft fabric pouches in rugged plastic boxes. What the system does lack is a dedicated filter pouch sized to accept the filters when in the filter frames but Benro are working on this.

Lacking a dedicated pouch, I used an old F Stop Harney which worked out fine. Usually I'd have some idea of the filters I'd be using on a particular trip and I would put these in the filter frames aboard the FH100 holder and wrap the lot in a soft cloth. This was placed in the centre of the pouch with the less likely to be used filters in their hard plastic cases either side to act as protection.

Once a dedicated pouch is available the system will pretty much be complete. For an initial foray into the world of filters, the system is extremely mature and covers most bases. It's certainly on a par with the other systems that I examined and, indeed, has some major benefits.



The Red Cuillin

ISO 200, F11, 30 seconds. Sony A7RII, Zeiss Batis 25mm. Filters used; CPL, 6 stop ND, 3 stop GND

Pros

- + No discernible colour casts or shifts
- + The glass filters show no discernible loss of resolution even when stacked
- + Robust build and well engineered design
- + Placement of CPL behind filters and with a very easy to use controls
- + Mechanical vertical adjustment system
- + Choice of resin or glass
- + Nano coating works well
- + No flare or reflections noticed
- + A comprehensive system
- + Filter frames offer a degree of protection and facilitate finger print free handling

Cons

- The system is competitively priced but still not cheap
- No dedicated filter pouch available but Benro are on the case (pun definitely intended).
- I realise the filters can be used on their own in the FG100 holder or those of other manufacturers but it would be handy if Benro offered an option to buy the filters complete with a Filter Frame and perhaps an oversized pouch and hard plastic box to fit them.
- No allen key for tightening/loosening/removing the frame guided on the holder



Waterfall below Coire Lagan

ISO 100, F11, 4 seconds. Sony A7RII, Zeiss Batis 25mm. Benro Filters used; CPL and 3 stop GND



The River Scavaig flowing into the sea

ISO 100, F11, 13 seconds. Sony A7RII, Zeiss Batis 25mm.

Benro Filters used; CPL, 6 stop ND and 3 stop GND

A lot of photographers using other systems have seen and tried the Benro Filter set up and the feedback was very positive. Lots of love for the big area of contact to control the CPL rather than a small, fiddly wheel; the mechanical adjustment for the GNDs was popular; everyone was impressed by the high quality build and the only negatives were about the size and bulk of the system. If this is a concern, then Benro do make the FG100 filter holder which is more akin to those offered by other manufacturers.

Most importantly, rediscovering filters has made my photography even more enjoyable. Extra time spent outside trying to perfect things in camera rather than battling with post processing in front of a computer screen is a huge bonus. It probably seems a bit odd, but going out with the filters has now become an integral part of my work flow and it has made the whole process more enjoyable. Benro's website says the "filters can help take your photography to the next level." Now I can't say my photography has improved by a quantum leap but the filters have enabled me to achieve lots of photos long envisioned. It is now hard for me to envisage going out of the house without the filters.

If you are in the market for a top of the range set of filters then definitely put Benro on your short list alongside Lee, Nisi, Kase etc. Not long ago Lee Filters were unchallenged as producers of premium filters but now they are matched or even bettered by Nisi, Kase etc and Benro are right up there with the pack. A few tweaks and I can see Benro on top. With excellent coatings, optical clarity, lack of colour cast and the like, Nisi, Kase and Benro seem pretty much on a par. Whilst nothing scientific was proven, pixel peeping and comparison suggests little difference in the glass side of things. Each range has its quirks and unique selling points. They all do a good job. I'm more than happy with the Benro system and like its filter holder

which is probably only bettered by the offering from Wine Country but this comes with major disadvantages; huge costs, bulk and possibly the triumph of form over function.

So, best filter holder, glass equal to the others, then how could Benro improve? Simple; adopt a magnetic CPL retention system and make the GNDs and NDs out of the same toughened glass as the Benro circular filters. This toughened glass is designed to withstand steel ball bearings of up to 20mm diameter being repeatedly dropped from 1.2 metres. That would really appeal to me because no matter how careful I am, things do get dropped.

Obviously, your choice is very personal so try and see, feel and use the different systems. Try and envisage will it work in the wind and rain, snow and hail. Can you operate it when wearing gloves or at night by torchlight. Lots of ATC members have already seen the filters in Sconser but any photographers are free to pop in and check them out. There's usually coffee and Cuillin Cookies on offer and photos on the walls. If you want and the weather plays ball then pop out onto the pier and try the filters and tripod.

NB I'm not a product photographer so if you want to drool over shiny new kit then visit the Benro site which has the whole range of filters, holders and accessories and a lot of information;

<https://benrofilters.com/>

PS just back from Elgol where spray and breaking waves soaked everything. The nano coating works superbly and a quick wipe returns the filters to optimum shooting condition. No smears, marks or flare problems. Love it.

