

3-stop ND

6-stop ND

10-stop ND

16-stop ND

Variable Density

Graduated

Square

Circular

# Kase<sup>®</sup>

## BUYERS GUIDE

#capturewithconfidence

# KASE FILTERS

## BUYERS GUIDE

If you're just starting out in your filter journey, you will have come across a multitude of filters, so where do you begin? What stops do you need? Do you need graduated filters and what about variable density or filters for astrophotography? This ND Buying guide will help guide you through what is right for you and what to avoid.

Let's start with fixed f-stop neutral density (ND) filters.

Each ND filter will reduce the light reaching the camera sensor by a number of f-stops. The higher the f-stop, the less light is allowed to reach your camera sensor.



Paul Bonito-Brook



Jim Cossey



Ivor Miller



Alan Howe

# 3-STOP

# ND FILTER



The 3-stop ND filter is best for wedding, portrait photographers and videographers, but also very helpful for landscape photographers where long exposures are not required.

If shooting weddings, portraits or video where you require a shallow depth of field, combined low ISO for the cleanest photographs, the 3-stop ND is best suited. In bright and consistent lighting, the 3-stop ND will allow you to shoot wide open with f/2.8-4, whilst maintaining ISO 100-200 with a fast shutter speed to freeze any movement.

For landscape photographers a 3-stop is often over looked but can become very helpful around sunrise and sunset where you may not want a long exposure, as to capture cloud definition and creating more impact in your photograph.

A 10-stop is not particular suited for sunrise and sunset as it often goes beyond the ideal exposure range and can result in exposure times that exceed the sunrise or sunset itself.

# 6-STOP

# ND FILTER

The 6-stop ND filter is a landscape photographers second best friend. Right next to the tripod.

A 6-stop ND filter is great for anyone who wants to shoot long exposure sunrise or sunsets, waterfalls and capture moving water. It is without doubt one of the most used and versatile fixed ND filters. Most landscape photographers, if you asked them what one filter would you only carry in to the field, would be the 6-stop ND.

A 6-stop ND is the ideal filter for shooting waterfalls, cascading rivers and sunsets in the mountains, or even on the coast and urban environments where you want to reduce human movement from a composition.



If you primarily shoot landscapes and work in the outdoors then acquiring a 6 stop would be highly recommended.

Anyone looking to shoot coastal, urban environments and abstract Black and White photographs, a 10-stop ND is the better choice, however also consider shooting with a 6-stop at low ISO range 50-100 or stacking a 3-stop and 6-stop for great versatility.

# 10-STOP

# ND FILTER

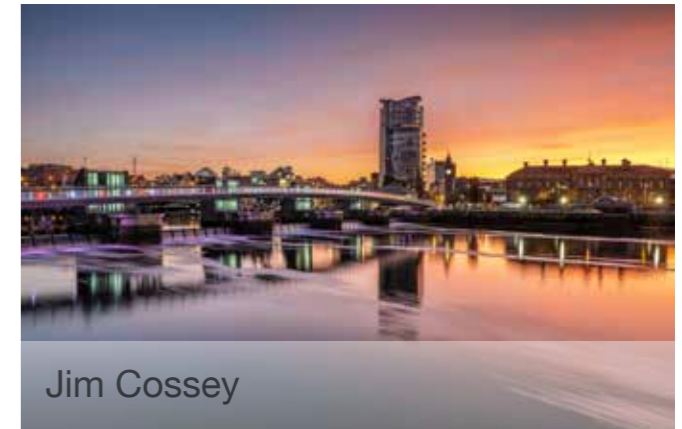
The 10-stop ND filter is a must for anyone considering coastal long exposures or abstract Black & White or urban long exposures, especially in brighter light conditions.

With a 10-stop ND filter you can push exposure times beyond many cameras maximum standard shutter speeds which is typically 30-60 seconds depending on the brand and model of camera. This means using remote shutters or Intervalometers you control shutter speeds as you will typically be working in minutes, not seconds, because of this you can achieve some dramatic results if the technique and composition are strong.

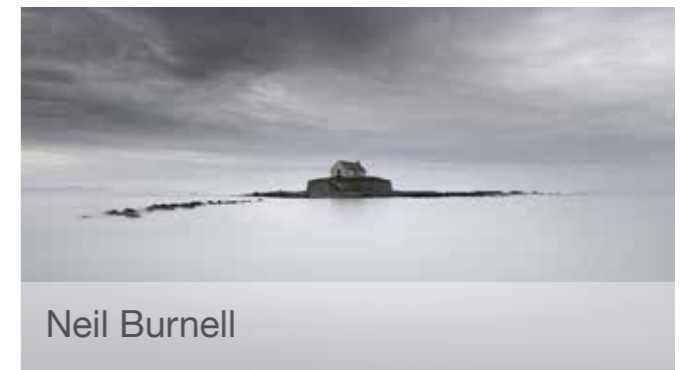
In summary, the 10-stop ND filter isn't suitable for sunrise or sunsets and often not the primary choice for many landscape photographers working in wooded or mountainous regions. More often is the prime choice for many coastal photographers, wishing to prolong exposure times and to achieve clean and minimalist compositions.



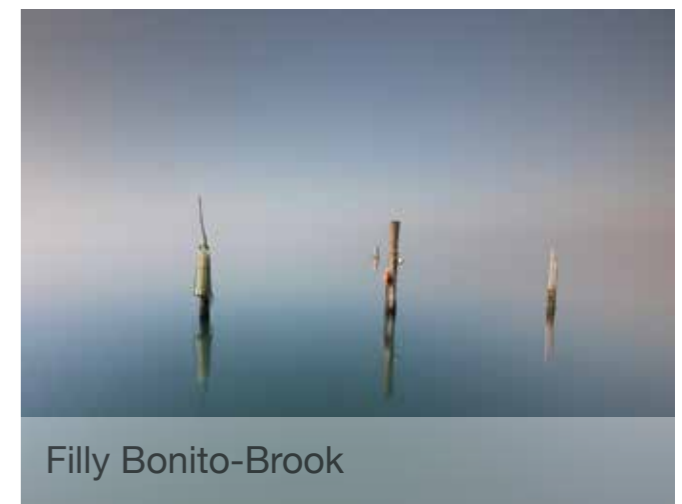
Ivor Miller



Jim Cossey



Neil Burnell



Filly Bonito-Brook

# 16-STOP

# ND FILTER

The 16-stop ND filter can be considered a specialist filter, this is used almost exclusively with landscape photographers wishing to achieve long exposure times resulting in ethereal cinematic images.

A 16-stop ND filter is almost exclusively used in coastal or urban environments to extend the shutter speeds in to minutes and will require gradient filters to help control the balance of light across the composition. This choice of filter often requires more skills out of camera, with increased use of post-processing with programmes such as Adobe Photoshop to blend and stack exposures.

Some difficulties in this area of photography comes from colour casting. Cheaper resin ND filters can impact the colour balance and result in unpleasing casting across the photograph. Using a premium filter, such as Kase's Wolverine glass which has virtually no colour casting, makes your work visually more pleasing and means less work in post production, fixing casting issues from filters.

For this reason, the 16 stop ND filter would be advised when you are a confident in long exposure photography.



Matthew Holland



Andrew Yu



Neil Burnell

# VARIABLE

# DENSITY FILTER

Variable density filters (VDF) are often disliked or often picked up as an introduction to filters and long exposure photography but these filters get a lot of bad rap for the wrong reasons.

A variable density filter uses two rotating polarising layers of glass to reduce light hitting the sensor and because of this variable density filters have some set backs. Cross polarisation (A large X across the photo) and vignetting around the corners as you rotate the filter to increase polarisation and reducing light hitting the sensor. This will happen on any variable density filter, no matter the brand or it's price tag but some manufacturing advances help to reduce this.

Adding stop gauges to prevent the user from rotating the filter beyond the minimum or maximum settings and reducing the density in which the filters work within.

For example, 2-8 stops, rather than 1-10 stops.

Furthermore, the polarised glass used on a variable density filter are not the same as a traditional circular polariser used to reduce glare or boost colours in a landscape. So if you want to achieve a polarising effect, you need a polarising filter.



Matthew Holland

**A variable density filter is best served for videographers,** this allows the user to quickly rotate the filter without the need to switch fixed f-stop filters, making it quicker and easier to continue shooting continuously without stopping the footage, and all the while still achieving a shallow depth of field and maintain a constant shutter speed for video in bright light.

For photographers, the above benefits are useful for wedding and portrait photographers to allow quick and adaptable filter on the front of the lens without compromising in time, preventing you from missing a shot. However, magnetic circular filters maybe be a better solution for photographers in this category.

As for landscape photographers, those wishing to capture long exposures, sunrise or sunset can use a variable density filter but additional methods may be required to help reduce the impact of the cross polarisation through exposure blending and creating composites which will require post-processing knowledge. The variable density filter can benefit those looking to shoot fast, in changing light conditions and looking for convenience as it saves you having to carry around separate filters.

# GRADUATED

# FILTERS

Graduated filters have a gradient across the plain of glass which varies in strength and density, referred to as soft edge, medium edge, hard edge or reverse graduated filters and depending what you wish to shoot, will determine what is best for you.

A soft edge graduated filter is best suited too busy horizons, photographers working in woodland, mountainous or urban environments will benefit most from the soft edge across the horizon, giving a soft blend across the gradient.

Medium edge can also be used in similar areas but some cautious is needed to ensure no harsh lines across trees or buildings. A hard edge is best on open hill tops, coast lines and empty horizons as the gradient is harder and more abrupt.

For example, if used in woodland you will see the hard line of the gradient across trees and foliage which will give an unnatural appearance to the photo.



# GRADUATED

# FILTERS

A reverse gradient filter is best suited too that of clean horizons and often a vital tool for any coastal photographer looking to shoot during sunrise or sunset hours. This is because the darkest area of the filter is located in the middle and allow the user to capture the colours and definition in the sky, all while maintaining a clear exposure in the foreground.

All these graduated filters come in various densities too, however not to the same depth as fixed or variable density filters. You will find all graduated filters in 2, 3 and 4-stop densities. Much like what plain of the gradient you need the density will vary between requirements.

Clear, bright skies will require a stronger density to balance the sky and foreground. For example a sunset by the coast will require a 3-stop or even 4-stop hard edge or reverse graduated filter, where as a thick woodland may only require a 2-stop soft edge graduated filter to help balance the light.



Nick Hanson

3-stop reverse



Dave Brightwell

3-stop soft grad



John Finney

3-stop reverse



Daniel Wretham

3-stop hard grad

# SQUARE

# VS CIRCULAR

Depending on your needs, square or circular filters can be beneficial to you or cumbersome. Let's first look at the benefits of square filters.

Square filters are best suited to landscape photographers, particularly those who enjoy long exposures. The benefits come with the filter system like the K9 holder, where the user can drop in filters to balance the exposure in camera.

Using graduated filters and fixed f-stop ND filters together can create pleasing and better exposed photographs if controlled accurately.



Ivor Miller

Square filters



Martin Dolan

Square filters



Matthew Holland

Circular filters

The weaknesses of square filters are: weight and size in comparison to circular filters and in poor weather the filters and holder are exposed to the elements furthermore investing in a square filter system can be expensive for any newcomer.

Circular filters by comparison are lighter and compact, which makes them great for travel photographers and those looking to be light weight. They are also far quicker to use, especially the Kase Wolverine Magnetic Circular Filters.

Graduated filters are available for circular systems, but they are fixed graduated filters, which are less flexible than a square system.

The photographer may find issues with vignetting with circular filters, especially when stacked so it is beneficial to use wider thread filters to overcome this issue. For example, a 72mm thread lens with a 72-77mm step up ring and using 77mm filters.

# WHAT FILTER IS

# BEST FOR ME?

Ultimately, what you shoot will determine which ND densities and choice of filter is most important to you. Here are our recommendations to help you pick:

## *Which filter is best for a landscape photographer?*

The 6-stop and 3-stop soft edge graduated filter are the most versatile and useful filters in the kit bag of a landscape photographer. The 6-stop will allow you to extend your shutter speed up to 2 minutes, with the 3-stop graduated filter, allowing you to control and balance the difference in exposure between the land and sky.

## *I want to start experimenting with long exposures?*

The 10-stop ND filter will give you the best results, especially at coasts or urban environments where you can turn busy, crashing waves in to smooth, flat seas or cut out human movement in a busy city. Consider adding a reverse or medium edge graduated filter to help balance your exposure between the sky and foreground in camera.

## *I'm looking for a filter to help when shooting video?*

A variable density filter or smaller stop fixed ND filters are preferred by videographer.

The variable density filter will allow you to change the density of the filter without needing to stop production, meanwhile you can maintain a shallow depth of field, fixed shutter speed and low ISO in changing light conditions.

## *Why Kase Wolverine Filters?*

The Kase Wolverine series filters are ranked as some of the best optically by independent reviews and their toughened glass construction adds extra durability and peace of mind. Kase Wolverine filters are not indestructible but are rated to be tougher than standard glass filters, hopefully withstanding an occasional accidental drop allowing you to keep shooting great images.

With no discernible colour cast, you will be able to capture the true scene colours and the optical quality of the glass will give you great sharpness. The special metallic nano electro-coated glass makes Kase Wolverine filters scratch resistant, water repellent, anti-reflective and easy to clean. Making the Kase Wolverine series a joy to use in the field, no matter what conditions you shoot in.

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