

Field Report: Nauticam Fisheye Conversion Port

by Alex Mustard

The FCP-1 or fisheye conversion port is a new lens for underwater photography developed by Nauticam.

The lens is similar to Nauticam's other underwater optics like the WACP or the WWL series of lenses, in that it takes a standard lens on your camera and converts it into a wide angle underwater lens, that is corrected to specifically work in water and therefore delivers superior optical performance. But it is also different from its siblings because this is Nauticam's widest lens - rather than just changing your lens into a 130° wide angle, it converts it into a >170° fisheye, while at the same time allowing you to zoom in. And since most of the angle stretch is in the corners of the frame - when you zoom in you get a double zooming effect, meaning monster versatility!

It is also different because it has been designed to work with a wide variety of lenses, meaning that on many systems you can use it with at least two different lenses. I will come back to that.

The transition to mirrorless cameras, that's currently gripping

our community, has brought many advantages for underwater shooting. However, one frustration is a lack of a mirrorless format fisheye lens.

One of the attractions of the FCP is that it allows fisheye shooting while using a native mirrorless lens, rather than an SLR lens on an adapter. But far more exciting is the FCP is the most flexible underwater lens imaginable, allowing you to photograph a huge variety of wide angle subjects on any dive.

It's hard to convert these things into focal lengths and better to talk in terms of Field of View (FoV). If you are using a 28-70mm, for example, you will at 28mm get a >170° and at 70mm around 60° Field Of View. For comparison, if you used the much loved Tokina 10-17mm fisheye zoom on a crop sensor SLR you undoubtedly loved having a super flexible lens, but that could only zoom in to around 110°, the FCP offers considerably more zoom.

Furthermore, it is the small size of the front element of the FCP, and



Nauticam's new FCP-1 lens

the fact that it allows any lens to focus right to the glass, that greatly enhances how smaller subjects can fill the frame with this setup, compared to other full frame options.

Zooming a wide angle lens allows us to shoot a variety of subjects, but what is not often stressed is how it helps us compose.

A wide angle fisheye gives us fine control over the relative sizes of the foreground and background in our images. For example if we are shooting a coral against a silhouetted reef, and we want the reef a little larger in the frame, we can just back away very slightly and zoom in slightly. The foreground subject stays



The FCP in the field, the production version, top, and the prototype version, bottom, in Raja Ampat

the same size, but because of the slight zooming in, the background is now bigger. And vice versa.

One of the most interesting aspects with the FCP is that it can be used with many different lenses. If you are a Canon R shooter, for example, you can shoot the FCP with the RF 24-50mm (>170-87°), but interestingly you can also shoot it with the 14-35mm.

With the 14-35mm, the lens at 14mm is a circular fisheye, and the port shade is very easily detached mid-dive for shooting circular shots.



The FCP can shoot the biggest scenes. Sony A1, Nauticam housing. Retra Pro Max flashes. 28-60mm with Nauticam FCP-1. 1/160th @ f/13, ISO 400.

Then zoomed in to 28mm is becomes a full frame fisheye, seeing that >170° corner to corner of the frame. And then you can zoom on to 35mm, where it views 122°.

But, and there is a but, the FCP-1 is expensive. Nauticam needed to use two large and expensive aspherical lens elements, made of high refractive index/low dispersion glass in the lens design to get the FCP to work. It means that the FCP-1 is currently listed at close to \$7000 USD.

So what it is like and can this price be justified? The price versus performance equation is very personal, and I won't comment on that but Nauticam do have pretty packed order books, so the equation clearly balances for some.

What I can say is that this is a lens that negates the needs for others. In January I took the production version of the lens on a liveaboard trip in Raja Ampat. I made 26 dives and I used the FCP on 21 of them. I was only tempted to exchange it



At the widest end we can shoot full impact fisheye scenics. Sony A1, Nauticam housing. Retra Pro Max flashes. 28-60mm with Nauticam FCP-1. 1/30th @ f/14, ISO 500.

on night dives and also because I had the recent Nikonos RS-13mm fisheye conversion for Sony to try on the trip too. Without that it might never have come off the camera.

Weighing only slightly more than a 230mm



Zoom allows us to precisely fill the frame with wide angle scenes. Sony A1, Nauticam housing. Retra Pro Max flashes. 28-60mm with Nauticam FCP-1. 1/8th @ f/14, ISO 40

glass dome, the do-it-all FCP-1 will, ironically, be seen both as a money saver (on other lenses) and a weight saver in the luggage.

I can also fully understand any photographer feeling the cost is simply not worth it. I think the WACP lenses were more justifiable because as well as offering more zoom range than say a 16-35mm, they also delivered better image quality.

Standard fisheye lenses already have excellent image quality – so the FCP doesn't give such an obvious step forward in this department.

I will leave it to others to write

a full review of the FCP-1 in future issues, because even though I've never been paid by Nauticam, I have been involved in this project from the start. But I will say that I have loaned the FCP prototype to many photographers on my workshops over the last 6 months and everyone just loves this "do-it-all" lens from dive one.

It is just very easy to like because it just does everything you want it to. You start with it zoomed out and when you can't get any closer and fill the frame, you just zoom it in. Despite having the production version, I also



Zoomed in, but not cropped, I was able to shoot this frame filler of anemonefish. Sony A1, Nauticam housing. Scubalamp SUPE D-Pro flashes. 28-60mm with Nauticam FCP-1. 1/160th @ f/13, ISO 320

took the prototype to Raja Ampat and it was taken by photographers on every single dive, such is its appeal!

I've said it before, but it's a great time to be an underwater photographer. We've had the digital revolution in cameras and now we are living through the optical revolution in underwater photography.

The price tag of the FCP-1 means it is clearly not a mass-market product and its requirement for large elements of specialist optical glass means that Nauticam can only build them in

relatively small numbers. But I have been loving having the loaner version on my camera, and if Nauticam are reading this, it appears to be stuck on there!

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