

Nauticam MFO-3

By Rob Aarsen

This autumn, divers in the Netherlands were captivated by a grey triggerfish. Normally, they live further south in the Atlantic Ocean. But this wanderer had made a burrow in the Frans Kok Reef – one of the busiest diving sites in the Grevelingenmeer – where he (or she) seemed quite content. Naturally, such a rare sighting calls for photographs. The question is: do you take the 105mm macro or the wider 60mm for a portrait? The 105 is perfect for a goby, but this creature – an adult about 45 centimeters long – won't fit in the frame with a 105. So go for the 60 after all...? A new close-up wet lens from Nauticam, the Mid-Range Focus Optimizer (MFO-3), solves this dilemma.

Turning the 105 into a 60

The MFO-3 is a wet lens that mounts in front of the port on your underwater housing. It was developed at the request of Alex Mustard, who found during a blackwater photo trip that some subjects were simply too large to capture with his 105 macro lens. At his request, Nauticam developed a wet lens that gives longer macro lenses a wider angle of

view (38° instead of 23°) and a shorter focusing distance (0–150 centimeters instead of 31 centimeters–infinity). This effectively turns a 105 macro into a 60 macro – ideal for photographing larger subjects at close range. The magnification factor remains roughly 1:1.

On full-frame cameras, the MFO-3 can be used with, among other lenses, 100 (Canon), 105 (Nikon – used for this test), and 90mm (Sony) macro lenses. For OM System cameras with an M43 sensor, the MFO-3 can be paired with 90mm or 60mm lenses. Nauticam is continuing to expand the range of lenses optimized for use with the MFO-3.

The fish portrait

Our triggerfish has an inquisitive nature and comes closer when I gently tap on an oyster with my pointer. Sometimes he gets so close that I have to fin backwards to keep his head fully in the frame.

I estimate that the portrait shot was taken from about 30 centimetres away. With just the 105mm macro, I would have had to shoot from much farther back to fit the fish in –



Nikon D810, Nauticam housing, 105mm macro with Nauticam MFO-3 lens. Sea & Sea strobes. 1/25th@F7.1. ISO 64



*With the Nauticam MFO-3.
Nikon D810, Nauticam housing, 105mm macro with Nauticam MFO-3 lens. Sea & Sea strobes. 1/160th@F9. ISO 64*



*Without the Nauticam MFO-3.
Nikon D810, Nauticam housing, 105mm macro lens. Sea & Sea strobes. 1/160th@F18. ISO 64*

resulting in flatter, less vibrant images.

While diving with the MFO-3, I steer clear of the oysters that are abundant in the Grevelingen. The wet lens is 11.4 centimeters long and protrudes quite a bit, so a scratch is easily done. Despite the large “snout” at the front, the camera doesn’t tend to tip forward. The lens group sits towards the back, close to the housing port, keeping the setup well balanced.

An added bonus of the extra length is that I can position my strobes more easily on either side of the lens

— a perfect start for a fish portrait.

In the swimming pool, I carried out an unscientific test with a metal fish and a measuring tape. With the 105mm lens alone, the whole fish fits in the frame at 1.5 meters.

At 40 centimeters, only the upper-left part of the head and one eye are visible. With the MFO on the 105mm, the whole fish fits in the frame at 40 centimeters (measured from the front of the macro lens).

There is quite a bit of vignetting in the corners — that’s because my macro



Pool test. Left: the fish at 40 cm with only the 105 macro. Right: same distance with the 105 plus MFO-3. Notice the difference in perspective and depth of field.

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Grevelingen jetty was constructed exclusively to provide easy access for divers to the water.

lens sits in a port that is slightly too long. Without the MFO, this isn't an issue, but with the wider angle of the wet lens, it becomes noticeable. Using the correct port length, where the lens sits against the front glass of the port, solves this.

So, what do we think?

With the MFO-3, it's like diving with two macro lenses at once. You can photograph tiny nudibranchs and large lobsters on the same dive.

Thanks to the wider field of view and shorter working distance, you can get much closer to larger subjects — reducing the amount of water between you and your subject. You notice the difference in the viewfinder image: a better, much clearer view on the subject and more responsive autofocus.

The 3D autofocus tracking in my Nikon D810 easily followed the fish's eye, even without a focus light (which the fish didn't like). And you

really see the difference when reviewing the shots on the big screen at home.

The photos taken with the MFO-3 are sharper with more depth of field, more contrasty, and more vibrant than those taken from a larger distance with just the 105mm.

As the dives went on, I found myself using the MFO-3 more and more. In short: it's a keeper.

Many thanks to Onderwaterhuis.nl for providing the test unit.

Rob Aarsen

www.in2thedeep.com

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