

# Drysuit Ring Systems

By Ocean Eye, Inc.'s  
Chris Gabel



It's come to my attention lately that there seems to be some confusion about the layout of some drysuit ring systems. It may be that the instructions are nonexistent, confusing, or you just plain can't find any information from the standard resources. I thought that this would be a good opportunity to cover some of the systems that are out there and hopefully clear some things up.

I've seen people put on dry gloves with no cuffs, ring systems that are supposed to be glued but pinched to the outside of the suit, and various other configurations that range from interesting to downright frightening. This is especially true if the diver is in contaminated water conditions (and lets face it, these days that seems to be everywhere).

There are two major designs implemented on the market today. That's not to say there aren't others out there, but in this discussion, we're covering the two most common options. One is simply a hard insert surrounded by a cuff and rubber outer ring. The other is a more complicated multi-ring system that has a plethora of options, sizes, and locks.

You may be wondering about other changeable seal systems, such as the DUI Zip Seals. Since they are not ring systems, they are not pertinent to this article.

## CUFF AND RUBBER

First, let's cover the simple system, like that of the Viking variety. Hunter calls theirs the Glove Ring System, but it works similarly. Other companies have this same option but call it by different marketing names. You end up with some additional parts with the Hunter variety if you're adding gloves (interestingly enough, the other parts are called the glove retainer).

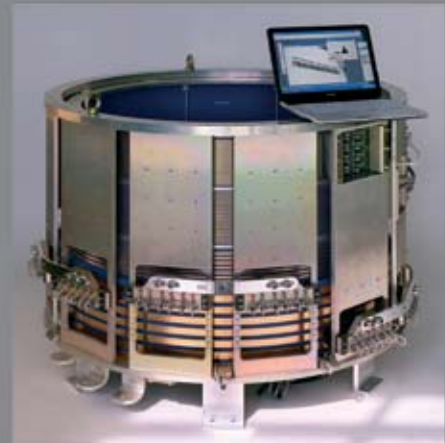
This design is a very simple and elegant system that comprises of three parts (four if you attach dry gloves from Viking and five if you get the Hunter system). Basically, you have an inner plastic ring, a cuff, and an outer rubber ring. First, the outer rubber ring is secured to the end of the drysuit sleeve (meaning glued properly). The cuff goes around the inner plastic ring, with the larger gap going towards the exterior of the suit.

OK, here is where the cursing begins. The reason is that if you don't somehow secure the inner ring to the cuff, it has a tendency to slip

## SCHLEIFRING

revolutionary transmission technologies

SCHLEIFRING covers all sectors of the worldwide requirement for highly sophisticated rotary joints and slip ring systems.



[leading technologies in any field  
of power, signal & data transmission]

[www.schleifring.com](http://www.schleifring.com)

SCHLEIFRING North America LLC  
Email: [sales-ind@schleifring.com](mailto:sales-ind@schleifring.com)

off. Here is the trick: electrical tape. Yes, that wonderful second fiddle to duct tape. You use enough to tape the cuff to the inner ring so that everything stays in its proper place. It's not a requirement to use electrical tape, it just makes your life a bit easier.

Then that assembly gets inserted down the appropriate sleeve, pulled in to place, and voilà, you have a sealed cuff. In this case, there is a ridge located on the lower edge of the outside of the rubber outer ring. If you purchase the Viking gloves, there is a bead, or rounded edge, on the glove opening. Here is one of the cool things about this system. The glove just gets stretched over the ridge of the outer ring and between the ridge and bead, you have a seal. Cool, huh?

### READ THE DIRECTIONS?!?!

There is another ring system offered by other vendors such as Viking and Whites. It's a bit more parts intensive and requires the ever-resistant male act of *actually reading the directions*. Come on guys, we all do it from time to time, just admit it to yourself and we'll move on. Don't get intimidated.

There are more parts and it may take some additional time and effort to get everything in its proper place, but if this is more the plan you want, then you can make it happen. This configuration is pretty similar to the first ring system described above. The difference is that you have some additional options and you can configure things a bit differently.

Viking calls theirs the Bayonet ring system, while Whites calls theirs simply the ring system. Both designs are similar in makeup. According to Trelleborg's website, "The Viking Bayonet Glove system is built around a chemically resistant bayonet fitted ring that is easy to mount to any kind of drysuit without glue."

Basically you have color-coded rings that fit together and create a seal with the gloves attached (not glued this time) to a male ring and inserted into the female ring on the suit so that the glove can be easily removed.

The Whites version is similar with one big exception. The male ring attached to the glove has a threaded collar that needs to be spun to remove the male ring from the female ring. Make sense?

One point to note, these systems can incorporate o-rings for the seals. These o-rings need to be checked and cleaned periodically and have a liberal dose of lubrication (such as silicone) applied to make sure that you maintain a good seal. If you have any questions, don't hesitate to contact the manufacturer or a reputable dealer for assistance.

### ROUTINE MAINTENANCE CHECKS

Remember, no matter what system you use, make sure that you perform a maintenance check before putting the assembly in water to make sure that the integrity of the suit is not compromised. Basically, you can have someone don the suit after you've finished configuring your ring system. Pressurize the suit (you can, if you wish, turn the suit wearer at this point in to a human balloon, but it's not necessary to use that much pressure). Take a spray bottle of your choice and fill it with a mixture of mild soap (Dawn or similar) and water (mostly just water). Spray the drysuit down and look for bubbles. If you find any, you know you have a problem and can resolve it accordingly. This will allow you to see problems before you enter the water rather than be cold or, worse, contaminated later.

Is one better than the other? Not really. It comes down to personal opinion, application, and experience. One type of system isn't necessarily better than the other, just a different concept in design. You may read on the different online blogs and forums that one design is absolute garbage while another is the best thing since sliced bread. While some of that may be true, I always find that I need to ask myself a few questions first: Did the person making the statement have the ring system installed properly? Do they know really how to use it? Although the Internet can offer valuable information, it can also be misleading.

So if you're thinking about a ring system, ask other reputable divers you know in the field. They are going to be your best source of information. There is also the option of talking to a drysuit technician and your local dealer (although keep in mind that they may have a bit of a biased opinion, based on what brands they carry, etc.). Dive safe. **UW**

*Email your maintenance questions to Ocean Eye Inc.'s Chris Gabel at [cgabel@ocean-eye.net](mailto:cgabel@ocean-eye.net).*

# Safety. Communication. Education.



## Make a difference. Join today.

The Association of Diving Contractors International  
281-893-8388  
[www.adc-int.org](http://www.adc-int.org)