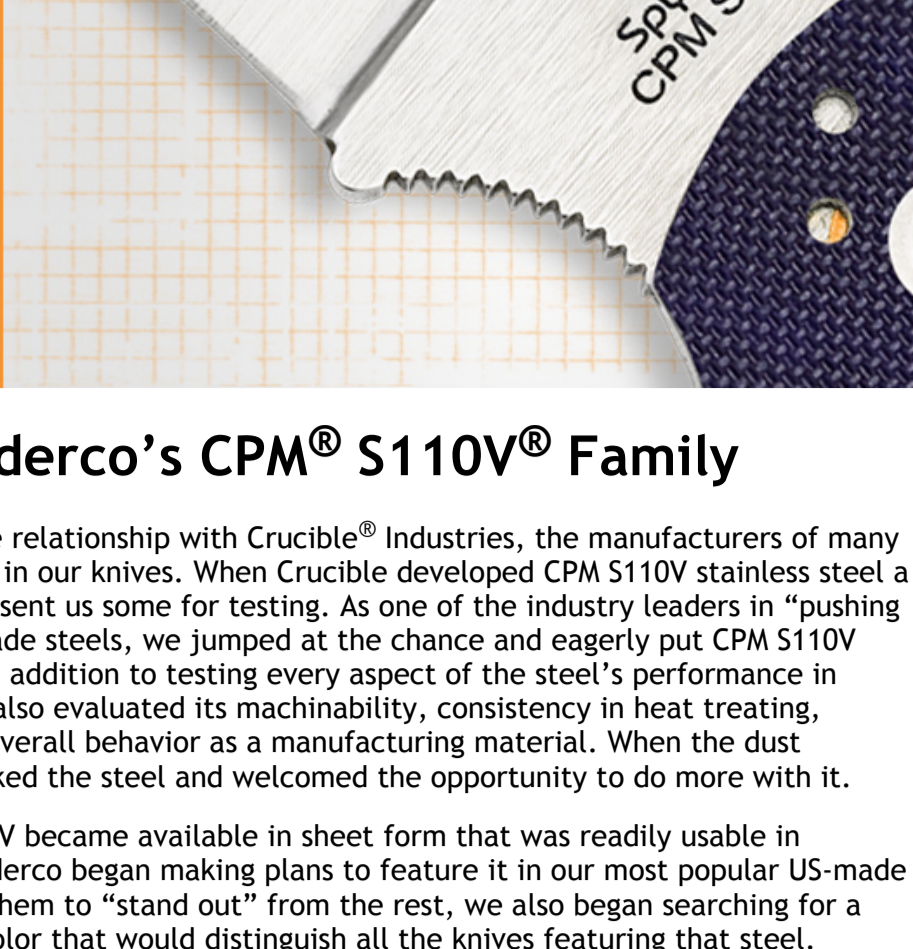




MARCH 2016

FEATURED PRODUCT



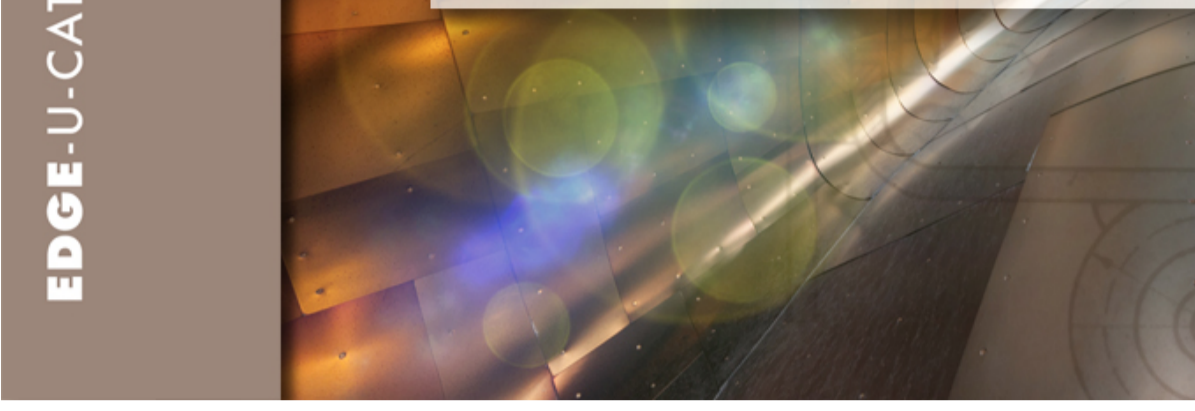
## Spyderco's CPM® S110V® Family

Spyderco has a close relationship with Crucible® Industries, the manufacturers of many of the steels we use in our knives. When Crucible developed CPM S110V stainless steel a few years ago, they sent us some for testing. As one of the industry leaders in "pushing the envelope" of blade steels, we jumped at the chance and eagerly put CPM S110V through its paces. In addition to testing every aspect of the steel's performance in finished knives, we also evaluated its machinability, consistency in heat treating, surface finish, and overall behavior as a manufacturing material. When the dust settled, we really liked the steel and welcomed the opportunity to do more with it.

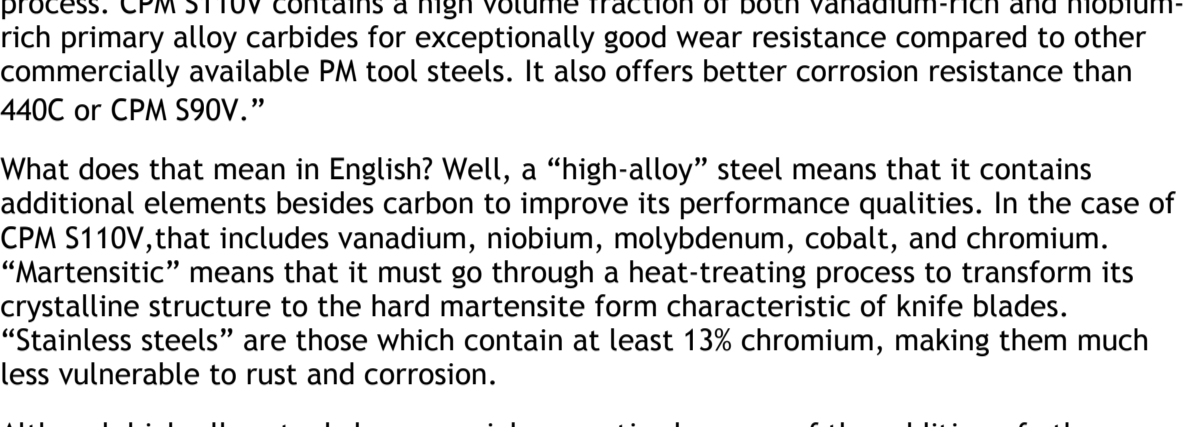
As soon as CPM S110V became available in sheet form that was readily usable in manufacturing, Spyderco began making plans to feature it in our most popular US-made products. To allow them to "stand out" from the rest, we also began searching for a distinctive handle color that would distinguish all the knives featuring that steel. Although it's officially known as "midnight blue," Spyderco forimites have affectionately dubbed it "blurple," because of its purplish-blue hue.

Our elite "family" of US-made knives featuring CPM S110V steel now includes:

- C36GPDBL Military™ Model
- C41GPDBL5 Native® 5
- C41PDBL5 Native 5 Lightweight
- C81GPDBL2 Para Military™ 2
- C101GPDBL2 Manix™ 2
- C101PDBL2 Manix 2 Lightweight



What other CPM S110V knives are on the horizon? Look for more information on the Spyderco forum and in future editions of the byte to find out. As we add new models, we promise that you'll be the first to know!



## What's So Special About CPM S110V?

To get excited about knives featuring CPM S110V blades, it helps to know what makes this material so special. According to Crucible Industries, "CPM S110V is a high-alloy martensitic stainless tool steel produced by the Crucible Particle Metallurgy (CPM) process. CPM S110V contains a high volume fraction of both vanadium-rich and niobium-rich primary alloy carbides for exceptional good wear resistance compared to other commercially available PM tool steels. It also offers better corrosion resistance than 440C or CPM S90V."

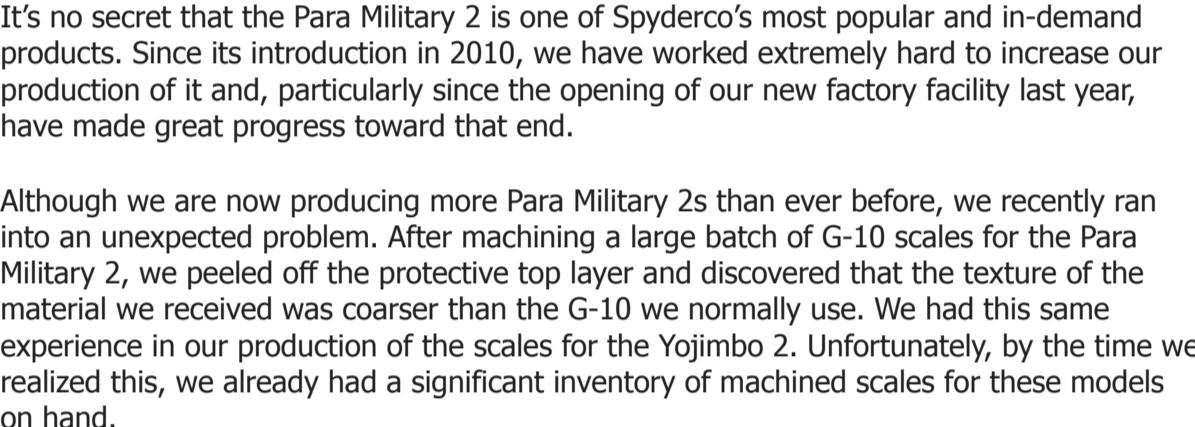
What does that mean in English? Well, a "high-alloy" steel means that it contains additional elements besides carbon to improve its performance qualities. In the case of CPM S110V, that includes vanadium, niobium, molybdenum, cobalt, and chromium. "Martensitic" means that it must go through a heat-treating process to transform its crystalline structure to the hard martensite form characteristic of knife blades. "Stainless steels" are those which contain at least 13% chromium, making them much less vulnerable to rust and corrosion.

Although high-alloy steels have special properties because of the addition of other elements to the steel, when they are processed in the traditional manner—poured into an ingot and then progressively rolled into bars or sheets—the alloys within the steel have a tendency to "segregate" or settle unevenly. This makes the steel's structure less uniform. The Crucible Particle Metallurgy (CPM) process fixes that. Instead of pouring the molten steel into an ingot, it is forced through a nozzle with high-pressure nitrogen gas. This process creates tiny droplets of steel that quickly cool into a powder. Because of their small size and rapid cooling rate, the perfect mix of alloys achieved in the molten steel is "frozen" in each particle. When the powder is then re-melted to process the steel into finished form, the alloys remain mixed, producing a finer and more homogeneous microstructure in the steel.

In simple terms, the CPM process ensures that all the good stuff mixed into the steel to make it perform well stays uniformly mixed throughout the entire manufacturing process. That makes a better steel and, ultimately, a better performing blade.

The alloy composition of CPM S110V includes: Carbon - 2.8%, Chromium - 15.25%, Vanadium - 9.0%, Niobium - 3.0%, Molybdenum - 2.25%, and Cobalt - 2.50%. Collectively, they combine to make a steel that is relatively easy to machine and grind and yields a knife blade that offers exceptionally good wear resistance, a high degree of toughness, and better corrosion resistance than 440C or CPM S90V.

Spyderco is very proud to offer CPM S110V in its elite family of US-made products and looks forward to producing more best-in-class designs with this impressive blade material.



## Para Military 2 Production Deviation

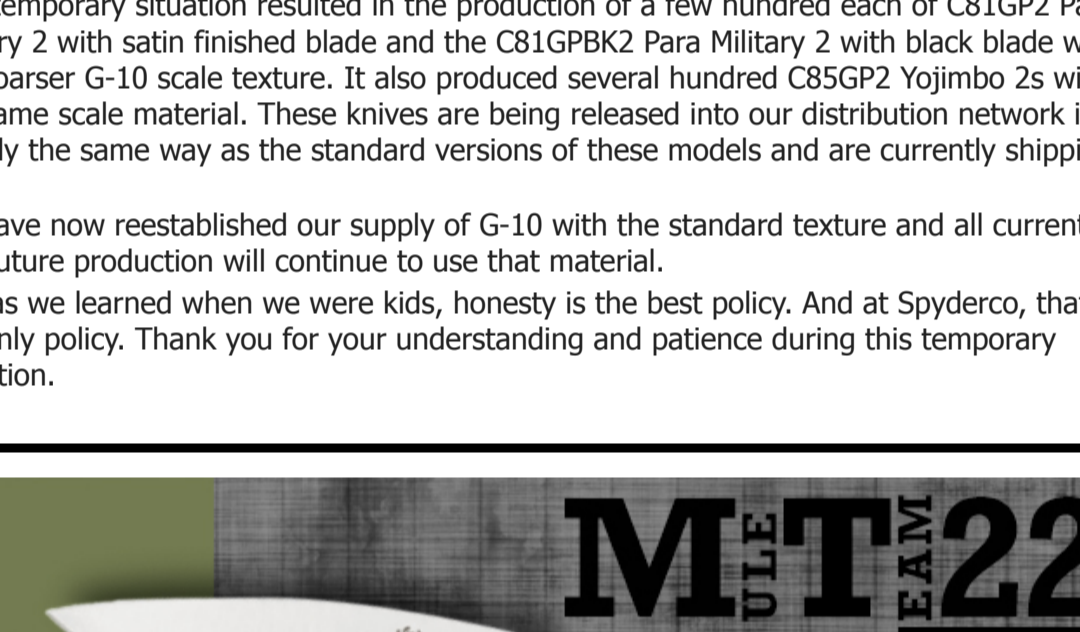
It's no secret that the Para Military 2 is one of Spyderco's most popular and in-demand products. Since its introduction in 2010, we have worked extremely hard to increase our production of it and, particularly since the opening of our new factory facility last year, have made great progress toward that end.

Although we are now producing more Para Military 2s than ever before, we recently ran into an unexpected problem. After machining a large batch of G-10 scales for the Para Military 2, we peeled off the protective top layer and discovered that the texture of the material we received was coarser than the G-10 we normally use. We had this same experience in our production of the scales for the Yojimbo 2. Unfortunately, by the time we realized this, we already had a significant inventory of machined scales for these models on hand.

After careful consideration of all the options, we decided the best course of action was to maintain our manufacturing stride and temporarily fulfill the ongoing demand for these models using the coarser G-10 material. This material is made to the same exacting quality standards as the G-10 we typically use, it just has a somewhat coarser texture pattern. To give you an idea of the difference, here's a close-up photo of a standard G-10 scale next to the coarser one.

Standard Texture

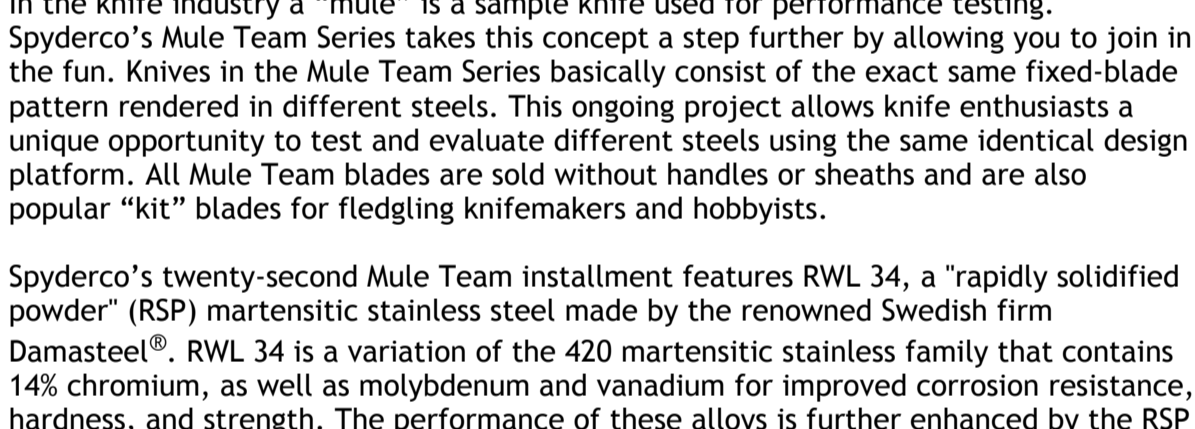
Temporary Texture



This temporary situation resulted in the production of a few hundred each of black GP2 Para Military 2 with satin finished blade and the C81GPBK2 Para Military 2 with black blade with the coarser G-10 scale texture. It also produced several hundred C85GP2 Yojimbo 2s with the same scale material. These knives are being released into our distribution network in exactly the same way as the standard versions of these models and are currently shipping.

We have now reestablished our supply of G-10 with the standard texture and all current and future production will continue to use that material.

Just as we learned when we were kids, honesty is the best policy. And at Spyderco, that's our only policy. Thank you for your understanding and patience during this temporary deviation.



## MT22 Mule Team with RWL 34

While we're on the subject of steels, we thought it would be an excellent time to announce the release of our newest Mule Team knife: the MT22 in RWL 34 blade steel.

In the knife industry a "mule" is a sample knife used for performance testing. Spyderco's Mule Team Series takes this concept a step further by allowing you to join in the fun. Knives in the Mule Team Series basically consist of the exact same fixed-blade pattern rendered in different steels. This ongoing project allows knife enthusiasts a unique opportunity to test and evaluate different steels using the same identical design platform. All Mule Team blades are sold without handles or sheaths and are also popular "kit" blades for fledgling knifemakers and hobbyists.

Spyderco's twenty-second Mule Team installment features the RWL 34, a "rapidly solidified powder" (RSP) martensitic stainless steel made by the renowned Swedish firm Damasteel®. RWL 34 is a variation of the 420 martensitic stainless family that contains 14% chromium, as well as molybdenum and vanadium for improved corrosion resistance, hardness, and strength. The performance of these alloys is further enhanced by the RSP process, which involves using high-pressure nitrogen gas to force the molten steel through a nozzle. Just as in the CPM process used by Crucible, this creates a spray of small spherical droplets that rapidly solidify into powder particles, drastically reducing the segregation, or settling, of the alloys in the steel to produce an extremely fine, uniform carbide structure.

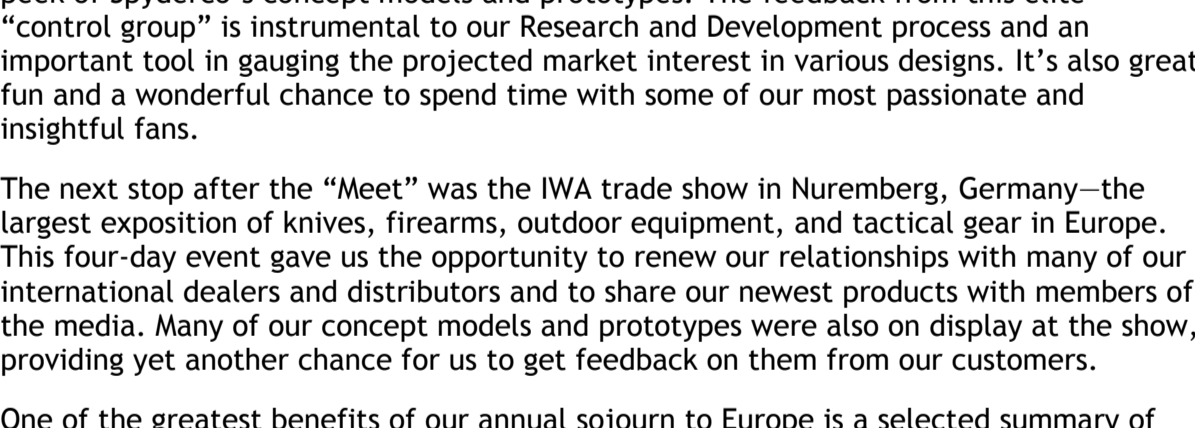
RWL 34 has long been a favorite of custom knifemakers—particularly Canadian maker Brian Tighe, designer of the Tighe Stick—because of its high-performance characteristics and the fact that it is capable of taking an extremely high polish. However, it has not been used in the production of factory-made knives because it was not available in large sheets. Recent improvements in the availability of the material have changed that situation, so Spyderco quickly seized the opportunity to incorporate RWL 34 into our Mule Team Project.

RWL 34's alloy composition is as follows: Carbon - 1.05%, Manganese - 0.50%, Silicon - 0.50%, Chromium - 14.0%, Molybdenum - 4.00%, Vanadium - 0.20%. This advanced alloy mix makes it a very close equivalent of 154 CM and AT5-34 stainless steels, but since it has the additional advantages offered by the RSP process, it is actually closest to CPM 154—Crucible's particle metallurgy version of 154 CM—with the addition of several trace elements.

We are extremely excited about the MT22 Mule Team and look forward to receiving feedback on your experiences with its use. Like all Mule Team knives, the MT22 is sold directly to consumers and is available exclusively through our Factory Outlet Store.

Purchase Here for \$69.<sup>95</sup>

[MT22 Mule Team](#)

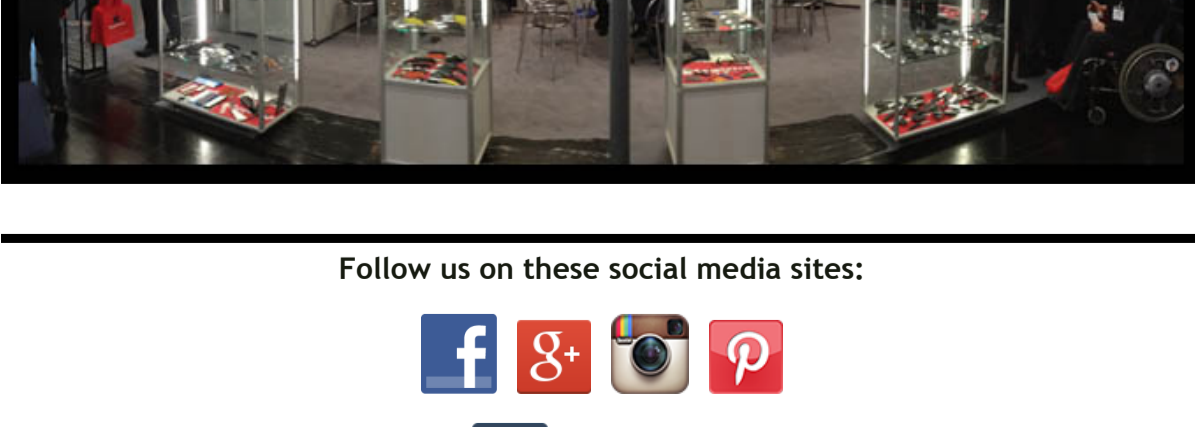
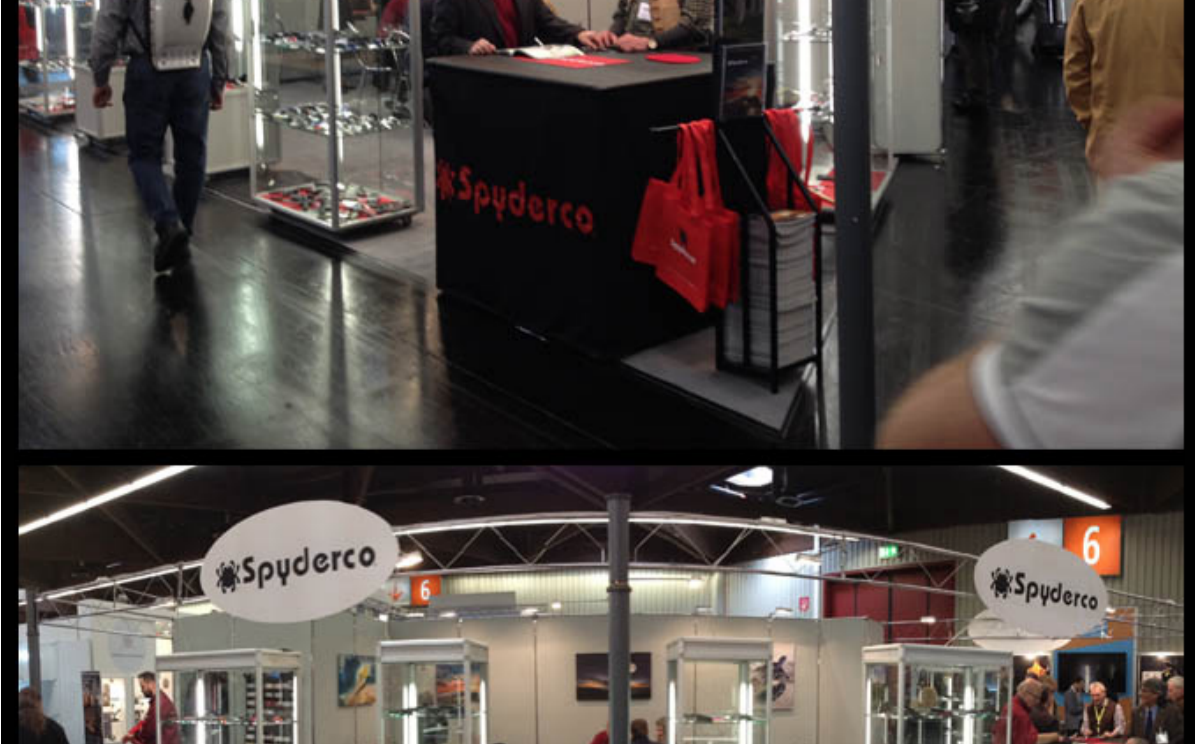


## Spyderco Insider: The Amsterdam Meet and IWA

This has been an incredibly busy month for Spyderco's Sales, Marketing, and Public Relations Crew. It actually began in late February with our annual "Meet" in Amsterdam, the Netherlands. This one-of-a-kind event brings together a select group of knife enthusiasts from all over Europe (and other places as well) to receive an exclusive sneak peek of Spyderco's conceptual models and prototypes. The feedback from this elite "control group" is instrumental to our Research and Development process and an important tool in gauging the projected market interest in various designs. It's also great fun and a wonderful chance to spend time with some of our most passionate and insightful fans.

The next stop after the "Meet" was the IWA trade show in Nuremberg, Germany—the largest exposition of knives, firearms, outdoor equipment, and tactical gear in Europe. This four-day event gave us the opportunity to renew our relationships with many of our international dealers and distributors and to share our newest products with members of the media. Many of our concept models and prototypes were also on display at the show, providing yet another chance for us to get feedback on them from our customers.

One of the greatest benefits of our annual sojourn to Europe is a selected summary of the knives featured at the meet, courtesy of Wouter of [www.spydercollector.com](http://www.spydercollector.com). Known to Spyderco forimites as "Mr. Blonde," Wouter does an incredible job of photographing and documenting prototypes and production samples that are cleared for public exposure. We are extremely grateful to Wouter for his outstanding support at the Meet and the IWA show! If you'd like to share in the excitement and enjoy his work, please visit his incredibly popular thread on the Spyderco General Discussion Forum or his web site [www.spydercollector.com](http://www.spydercollector.com). Thank you, Wouter!!!



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