



Stoll-weave-in® for loom-like knits with loom-like properties on ADF 32 W multi gauge



Introduction Finally, Weft-Knitting, the so-called umbrella term for circular and flatbed knitting, can be taken literally. Stoll-weave-in® is a technique where floats can be interlaced into knits in a weft direction. The outcome is a loom-like knit with loom-like properties. This is what provides the stretch and comfort of knits in the vertical direction and, depending on stitch construction, the reduced flexibility in the horizontal direction. Woven knits surpass traditional loom fabrics in many aspects. For example, loom fabrics can't be pre-shaped into the machine nor can they hold 3D elements. These aspects are crucial because the fit, comfort, function and aesthetics of garments are all directly related to the design. On the following pages you will see how the new Stoll-weave-in® technique enriches the world of design. Classic knitting techniques are woven seamlessly together, especially in conjunction with the ADF Inverse Plating features, making the innovative potential for any kind of product unparalleled. Jörg Hartmann Head of Fashion & Technology











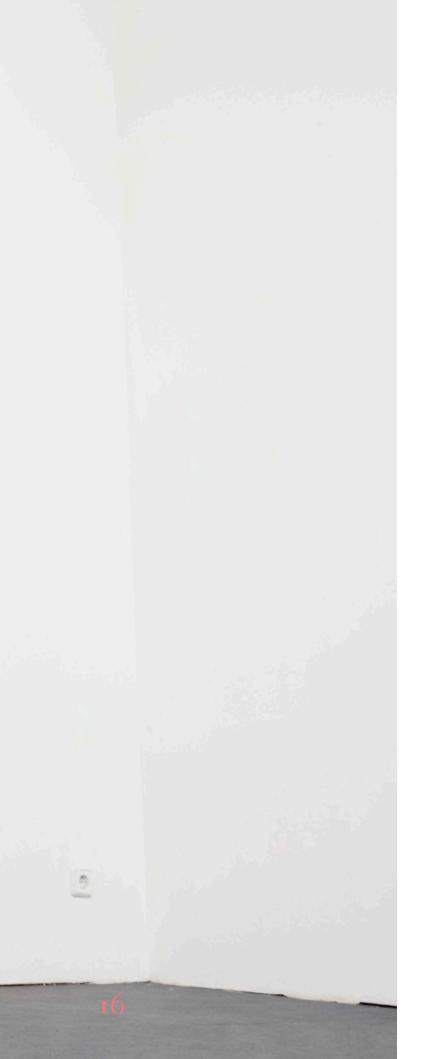












1510044 / CMS ADF 32 W multi gauge / E 7.2 Stoll-ikat plating® / Stoll-weave-in®

- $\boldsymbol{\cdot}$ Fully Fashion leg warmers, shaping at the ankle by gore technique

 · Base fabric: inverse plated 2x2 rib
- · Intarsia weft insert with varying needle set-ups



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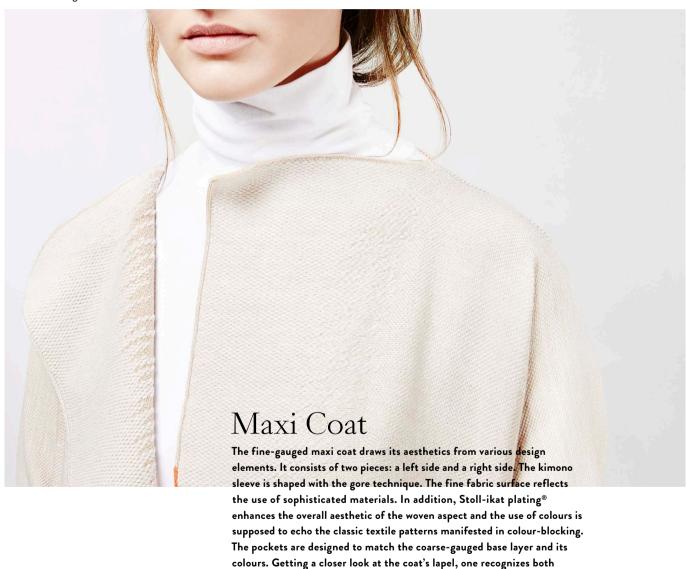
- Tablet-sleeve with single jersey selvages
 Front layer: inverse, selective plated jersey with partial changes of weft-threads into stitches, and vice versa, in the same knitting row
- · Weft insert only in front layer with alternate IXI needle set-up
- · Back layer: IXI net back with spacer construction



The Details

A closer look at the collection

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light and heavy weave construction fading into each other. The floats in the coarse section are laid in more frequently than in the finer sections.

This provides more body and better drape for the lapel collar.

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Backpack

Another great example of how Stoll-weave-in® enables designers to create lifestyle items in other product categories. The physical requirements of a backpack fabric certainly differ from those in apparel. With the before-mentioned technique, one can engineer robust fabrics on knitting machines that are directly comparable to loom fabrics. These properties can be enhanced by inserting yarns with a coarser yarn count and a higher twist. Fusible yarns can be incorporated to enhance tenacity. Referring to the intro text of this brochure, Stoll-weave-in® offers a variety of advantages when compared to loom fabrics. For example, the fabric for the backpack comes off the knitting machine in one piece, already knitted into shape. The backpack's graphic appearance was achieved using Stoll-ikat plating® which plays an outstanding role here. Only two seams are necessary to turn the piece into a 3D object. A small zip pocket on the inner bottom of the backpack is part of the concept.

Coarse Oversized Coat

Oversized coats are key fashion items these days. There is a patchwork of patterns that reflects the huge variety of textures possible. Coarse gauge weft yarns are woven into a fine gauge single jersey layer. The relief-like optic is achieved by using transfer structures, which simultaneously stiffen the fabric to become more voluminous. At the same time one can make use of Inverse Plating features on ADF machines. The pockets are fully knitted-in with neon coloured technical multifilament fibres creating a nice contrast. Both pocket layers feature the characteristic weave optic. The selvages of the front panels are fully fashioned and finished, meaning they do not require further cut&sew nor trimming. They also will not curl back thanks to the weave structure. This is another great benefit that Stoll-weave-in® provides to design.

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Pullover

When designing with Stoll-weave-in® one can work with a huge variety of textures. The locking of the weave yarn into the single jersey base can be varied in many ways, making it possible to have sections with optically and physically tighter elements. In the sleeve you will notice that this method can be applied either all over the piece or just sectional with Intarsia technique. The front piece is a great example of how Stoll-ikat plating® enables the designer to render graphics onto fabrics – in this case a subtle change of tones.

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Skirt

The design objective for this skirt was to create a godet-skirt in Stoll-weave-in®. To achieve this silhouette with loom fabrics, one would have to apply many vertical darts all over the skirt. But with knitting it is possible to translate the darts into gore technique. Because the gorings have to be placed horizontally, this skirt had to be knitted in traverse direction. The beauty of this approach is the homogeneous and clean appearance that can be achieved, as no bulky seams are visible. The skirt is knitted in one piece with the sole seam at the back of the garment. A short waist-zipper in this seam facilitates dressing. The texture of the piece is made with Stoll-weave-in® where coarse yarns are woven-in all over the width of the knit. The base layer, which comforts the weft yarns, is made up of a single jersey construction. The latter was plated in Stoll-ikat plating® technique where subtle changes in colours are derived from colour-blocking and different materials. All of these aspects along with transfer structures refine the overall aesthetic of this garment.

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Leg Warmers

Like almost all tight fitting clothes, leg warmers require a highly elastic fabric construction. Unlike loom fabrics, knitting with Stoll-weave-in® techniques allows us to design garments with highly elastic zones – such as rib elements – while also incorporating stiff elements. What you see here are Fully Fashion pieces where the ribs tighten the woven section for a tighter fit around the leg. The single seam follows the contour of the design along the inside of the calf. The curved goring section placed at the ankle is designed to perfectly fit the anatomy.

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Tablet-Sleeve

The approach for this piece was to design a tablet-sleeve with a technical look and high degree of function that is easy to manufacture. The piece consists of one panel in a spacer construction to provide cushioning for the tablet. On the outer shell of the spacer section, Stoll-weave-in® was applied in order to strengthen the fabric. The quilted look is due to stitch techniques and the appearance of the colours changes at the moment when weft-threads turn into stitches, and stitches into weft-threads - all in the same knitting row. At the sides, the panels are adjoined by ultrasonic welding technology. In tune with Stoll-ikat plating®, multifilament yarns, fusible yarn and vivid colours, the tablet-sleeve exemplifies how knitted fabrics can be applied for diverse lifestyle products. The potential for innovation is limitless.



Yarn Details

Page	Pattern No	Yarn
2/19/27	1510042	Filpucci: Lumiere, Nm 60 (100% VI) Pinori Filati: Glow, Nm 60 (100% PES) Fein-Elast Grabher: PA 6.6, 78 dtex f 46x4 (100% PA) Colorific: Monofil T, 100 den (100% PA) EMS-Griltech: Grilon KE-60, 167 dtex f 34 (PES)
6/7	1510006	Filpucci: Lumiere, Nm 60 (100% VI) Botto Poala: Millennium, Nm 60/2 (100% WV) Zegna Baruffa/Chiavazza: Supergeelong, Nm 15/1 (100% WV) Pinori Filati: Glow, Nm 60 (100% PES)
8/9	1510027	Zegna Baruffa: Cashwool, Nm 30/2 (100% WV) Gebrüder Otto: kbA Baumwolle, Nm 50/3 (100% CO) Zegna Baruffa/Chiavazza: Maxi Must, Nm 4/1 (100% WV) EMS-Griltech: Grilon KE-60, 167 dtex f 34 (PES)
10/11	1510033	Zegna Baruffa: Cashwool, Nm 30/2 (100% WV) Gebrüder Otto: kbA Baumwolle, Nm 50/3 (100% CO) Filpucci: Viscrepe, Nm 30 (100% VI) Zegna Baruffa: Azhar, Nm 2,8 (100% WV) Zegna Baruffa/Chiavazza: Maxi Must, Nm 4/1 (100% WV) Pinori Filati: Glow, Nm 60 (100% PES)
12/13	1510036	Filpucci: Lumiere, Nm 60 (100% VI) Botto Poala: Millennium, Nm 60/2 (100% WV) Zegna Baruffa: Mousse, Nm 14 (70% WV, 30% PA) Zegna Baruffa/Chiavazza: Supergeelong, Nm 15/1 (100% WV) Pinori Filati: Glow, Nm 60 (100% PES)
14/15	1510007	Filpucci: Viscrepe, Nm 30 (100% VI) Botto Poala: Millennium, Nm 60/2 (100% WV) Zegna Baruffa/Chiavazza: Maxi Must, Nm 4/1 (100% WV)
17	1510044	Pinori Filati: Glow, Nm 60 (100% PES) Zegna Baruffa/Chiavazza: Maxi Must, Nm 4/1 (100% WV) Zimmermann: 3772X, Lycra 44 dtex (82,6% PA, 17,4% EA)

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