

SEWING FOCUS

TECHNICAL SEWING INFORMATION

SERVICEHOUSE



Swimwear

Checklist for Sewing Swimwear

Sewing Parameters: SCHMETZ Tip:

Needle size	NM	SIZE
	60 – 80	8 – 12
	Depending on the thickness of the material. We recommend the use of the SCHMETZ SERV 7 needle.	

Needle point In the production of swimwear needles with ball points are mostly used. Those are the light ball point “SES” as well as the medium ball point “SUK”. When sewing elastic materials with highly elastomeric threads or rubber threads we recommend especially the heavy ball point “SKF” and the special ball point “SKL”.

Sewing thread Needle thread and hook/looper thread are mostly core spun threads made from 100 % polyester, micro-fiber sewing threads and texturized sewing threads made from 100 % polyester or polyamide.

Machine Many processes are carried out using industrial high-speed sewing machines. As the range in swimwear is however very comprehensive a number of automats as well as special sewing machines for closing seams and hems are required. The ideal sewing speed is around 3,000–4,000 stitches/min.

Other factors:





Thread tension The necessary thread tension depends on the fabric, the sewing thread and the sewing machine. The thread tension should be as low as possible to allow an optimal stitch formation.

Stitch type Double lockstitch (stitch type 301 and 304), double chain stitch (stitch type 401), types of overedge chain stitch and cover stitch (class 500 and 600); all stitch types and classes according to DIN 61400.

Stitch density The higher the stitch density the higher the elasticity and strength of the seam. For highly elastic materials used for swimwear up to 7 stitches/cm are recommended.

Quick Reference for Typical Sewing Problems in Swimwear Manufacturing

Symptoms	Effect	Cause
No interlacing/interlooping of needle thread and bobbin/looper thread	Reduced seam strength, especially with double chain stitch	Incorrect thread tension
Thread breakage	Sub-standard, defective seam appearance	Incorrect needle system
Ravelling of the needle thread	Opening of the whole seam especially with double chain stitch	Needle incorrectly fitted
	Thread breakage after skip stitch	Adhesion of melted residues, clogging of the needle eye and needle groove
	Jamming of the sewing thread due to stitch holes which are stuck together	Use of an oversized sewing thread in relation to the needle size
	Partly or whole melting through of the needle thread	Wrong sized aperture of throat plate, material is pulled into it or jammed and prevents the loop formation
		Overheating of sewing machine needle
		Mechanical damage to needle, throat plate, feed etc.
		“Tipping over” of the needle thread loop
		Arching up of the material due to insufficient presser foot pressure
		Jamming of the sewing thread between needle and fabric
		Incorrect thread guidance

Solution			
NM SIZE	Point style	Thread	Machine
			
<p>Use the SCHMETZ SERV 7 needle</p> <p>Adjust needle size to the material, amount of layers and thread size</p> <p>Change needle regularly (after every shift or in a shorter interval depending on the stress)</p> <p>Check needle eye and groove for damage, if in doubt: change needle</p>	<p>Check point for damage</p>	<p>Adjust sewing thread size to the needle size</p> <p>Optimize thread tension</p>	<p>Optimize the hook/looper setting</p> <p>Examine the thread guiding elements</p> <p>Adjust the sewing accessories such as throat plate, feed etc. depending on material thickness and sewing thread/needle</p> <p>Change worn out or defective sewing accessories regularly such as thread guiding elements, hook/looper, throat plate etc.</p> <p>Use the right presser foot and the right adjustment of the presser foot pressure</p> <p>Check throat plate for damage</p>

Quick Reference for Typical Sewing Problems in Swimwear Manufacturing

Symptoms	Effect	Cause
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Uneven seam appearance

Stitch sequence is irregular, resulting in a zig-zagging seam	<p>Reduced seam strength</p> <p>Sub-standard, defective seam appearance</p>	<p>Incorrect adjustment of the sewing accessories such as hook/looper, feed etc.</p> <p>Incorrect balance of thread tension</p> <p>Incorrect thread guidance</p> <p>Needle deflection too heavy</p> <p>Damaged thread guiding elements</p> <p>Flagging of elastic material</p>
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Material damage

Mesh damage	Reduced tensile strength of the material	Oversized needle and/or wrong point style
Pulled out weft and warp threads	Sub-standard, defective seam appearance	Excessive sewing speed
Thread pulls	Reduced seam strength	Defective/worn out needles
		Unsuitable finish
		Wrong sized aperture of the throat plate
		Damaged sewing accessories such as throat plate, feed etc.

Solution

NM SIZE



Point style



Thread



Machine



Use the SCHMETZ SERV 7 needle

Adjust needle size to the material and amount of layers

Optimize thread tension

Check thread flow

Choose the right sewing thread size according to the needle size and the fabric

Examine the thread guiding elements

Check and adjust the material transport

Use the SCHMETZ SERV 7 needle

Adjust needle size to the material and amount of layers

Choose the correct point style

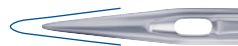
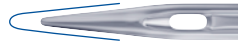
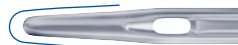


CAUTION: Change needle regularly (after every shift or in a shorter interval depending on the stress)

Choose the right sewing thread size according to the needle size and the fabric

Adjust the sewing accessories such as throat plate, feed etc. depending on material thickness and sewing thread/needle

Check and adjust the material transport

Selection of Point Style and Needle Size

Material	Number of layers	Needle size NM / SIZE	Point style
Fine elastic knitted fabric	2-4	60-70 / 8-10	SES light ball point 
Medium elastic knitted fabric	2-4	65-75 / 9-11	SUK medium ball point 
Highly elastic materials or materials with covered elastomeric threads (Elastane, Lycra® etc.):	Fine	65-70 / 9-10	SKF heavy ball point 
	Medium	80-90 / 12-14	SKF heavy ball point 
	Coarse	80-90 / 12-14	SKL special ball point 

General recommendation for swimwear:

Use of the SERV 7-needle version with the appropriate point style



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1. Manufacturing of swimwear

The ancient Romans had swimwear resembling our bikini, as is demonstrated by Sicilian mosaics. Similarly, we know from ancient records that Greek women also bathed in a two-piece garment. During the course of history, swimwear has developed in many different and, from today's point of view, curious ways. One thing is true: no matter how swimwear has changed through the ages, it has always been a source of excitement.

During the rococo period, the courtly society bathed in the lakes, rivers and castle ponds fully dressed. The aristocratic ladies strolled along the beach in silk dresses and moistened their uncovered ankles. The ladies in particular had to carry a heavy burden: not only were women forced to do sports wearing corsets until the end of the 19th century, ladies' swimwear was not much more practical than that either. The many ruches and puffed sleeves on bathing costumes, which had to be worn with silk stockings and sandals, made it extremely difficult not to sink. Some ladies went as far as bathing in a linen fisherwoman skirt and all the petticoats as well as corset, boots, hat and gloves.

Gentlemen, on the other hand, did not have such obligations. They were, for example, permitted to bathe in the Seine naked until 1830, until the police issued a general ban on bathing without a swimming costume. In 1860 in supposedly prudish England, a gentleman caused a stir when he wore large and baggy underpants in St. George's bath in London, whereupon the London Times denounced wearing clothing when bathing as a 'dirty practice'. The Americans were less self-conscious in this regard: a book published in 1846



describes how people bathe in shirt and trousers on the Atlantic coast. Twenty years later, an eccentric gentleman of the name of Dunlop promoted his “rubber aqua suit”, which covered you up from head to toe. Unfortunately, the suit not only did not fit very well, it was also far too expensive. His invention can nonetheless be regarded as the precursor of today’s diving-suit.

The so-called bathing costumes which were developed towards the end of the 18th century took their inspiration from the underclothes of the time and therefore looked a lot like nightgowns. By the middle of the 19th century, bathing suits were made from strong cotton fabrics. Women’s tunic-like navy-style garments reached well below the knee. With the advent of more relaxed times and the introduction of the one-piece bathing costumes in the “Golden Twenties” such gowns got displaced. The fashion was now above-the-knee, and women’s bathing suits became increasingly smaller. American examples shaped German swimwear after 1945 and the bikini began its triumph. Spaghetti straps increasingly exposed most of female skin. The first bikini (bloomers with sewn on little skirts and reinforced brassiere) was presented to the Parisian public on the 5th July 1946. It owes its name to the Frenchman Louis Read (1897-1984), who was inspired by press reports of the time of nuclear tests on the Bikini-Atoll. The name is apt, and the new garment is as controversial as its namesake: on the one hand, both products are similarly “striking”, and on the other, there is the cynical assumption that the result of tailoring a bikini is the same as the result of dropping a nuclear bomb, namely almost nothing. When all Parisian fashion models refused to model the tiny garment, Read engaged the revue dancer Micheline Bernadini. The bikini promptly turned into a moral scandal, which the bikini-decree of Passau attempted to avert. The final breakthrough came in 1962, when Ursula Andress appeared in the James Bond film “007 — Dr. No”. Ever since, the most expensive ladies’ garment per square inch has been the most popular bathing accessory.

The use of nylon fabrics from the 1950’s onwards made the female swimming costume into a second skin, which covers up, but no longer hides anything. Young men’s swimming trunks became tiny briefs. This fashion trend was the precursor of the swimming fashion as we know it today. From 1970 onwards, the classic swimming trunk is made from more or less elastic materials. As far as shape is concerned, only the length at the side varies. In 1998, long Bermuda shorts

became fashionable. Since then, there have been other important developments such as thinner, fast-drying and easy-care fabrics.

1.1 Typical sewing problems

Swimwear is made from elastic knitted fabric. The fibers of these fine materials and the incorporated elastomeric fibers are in fact reacting extremely delicate to sewing.

Typical difficulties are an uneven seam appearance with skip stitches and material damage appearing as “needle cuts” in the knitted fabric. Most problematic are combinations of different materials with quite different requirements in terms of needle sizes and sewing threads. The important thing here is to find a suitable compromise.

In order to avoid sewing problems, an article’s sewing properties will have to be born in mind during the design stage.

Fine elastic material, many material layers and the combination of various materials are potential sources for production problems such as:

- Skip stitches/Thread breakage
- Material damage

1.2 Quality seams with the right sewing parameters

Material, needle, thread and machine settings are important sewing parameters which influence production. Therefore they must be carefully coordinated.

In swimwear, quality seams must be elastic and tearproof as well as flat and eudermic. It is most important when working with very fine, delicate materials to bear in mind that material, thread and needle are forming an “inseparable trio”.

In order to meet these demands, it is necessary to coordinate all sewing parameters. If one parameter is changed the others must be checked and if necessary adapted.

Needle

2. Selection of the right needle

Choosing the right needle size and point style is one of the most important decisions and requirements for any quality assurance.

If the influence of needle and point style on seam quality is not taken into consideration when planning the work process, the result can be thread breakage and damage to the material. The choice of needle always depends on material composition, number of material layers, combination of materials and sewing thread.

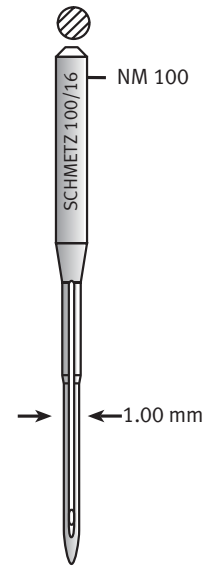
2.1 Needle size

Before deciding upon the required needle point style the correct needle size should be selected. It is important to match it with the thread size: The thread size and the size of the needle eye have to be adjusted to each other in order to allow the thread pass through the needle eye with as little friction as possible. This becomes obvious considering that in double lockstitch any point on the upper thread is pulled back and forth through the needle eye 25–60 times before forming a stitch together with the bobbin thread. This places heavy stress on the sewing thread.

The correct choice of needle size also depends on the material to be sewn. The basic principle is: the finer the knitwear structure, the finer the needle. In other words: the smaller the diameter of the needle (NM/SIZE), the less it will displace or open the individual knitwear fibers.

Given sufficient inherent elasticity and low friction at the cross points of the knitwear fibers, no damage should be expected because the meshes are able to adapt to the needle diameter. If too large a needle is used, the material will be damaged; the knitwear fibers will be “cut”. The typical fine materials used for swimwear are therefore best processed using needles of size NM 60–70 allowing for a damage-free penetration of the needle. If the material requires the use of a finer needle the sewing thread must also be adjusted accordingly.

A final point: if damaged and cut fibers still occur despite the right selection of the needle size this is often caused by the finish of the material; the knitwear fibers are low in elasticity and there is excessive friction at the cross points of the meshes.



2.2 Point style

Besides the needle size the point style is at least equally important for a smooth production process and a perfect end result. For processing of knitted fabric and any kind of elastic goods the needles to use are SCHMETZ ball points which gently displace the woven or knitted fabric fibers when the needle is penetrating. These needles are known as round points/displacement points and come in different variations of tip roundings. Which exact point style to use in every individual case depends on the properties of the material to be sewn and the production technique in question (number of layers, stitch type, linings etc.).

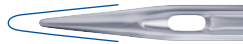
Fine elastic knitwear and particularly dense knitwear such as micro-fiber material are best sewn with the “SES” point (light ball point) in the smallest possible needle size. In comparison to the “normal” round point (R) the tip of the “SES” point is shaped like a small hemisphere and thus prevents any penetration or cutting of the knitwear fibers. This allows a displacement of the knitwear fibers without damage.

SES light ball point



For medium to coarse knitted fabric which is also sewn in swimwear production, we recommend the use of needles with a medium ball point “SUK” especially in a very thin needle size. They have a more pronounced, more rounded point style than the light ball point “SES” for an optimum displacement of the knitted fabrics.

SUK medium ball point



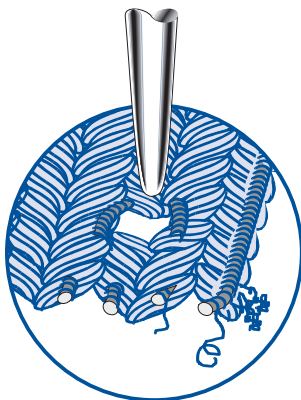
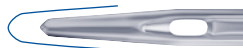
Special requirements are placed on the needle by very coarse and knitted fabrics and elastic materials with covered elastomeric threads such as those used in the manufacture of swimwear, for example. Here one should resort to the “SKF” point, the heavy ball point. Thanks to its extremely rounded point form, this needle point guarantees that coarse, broad meshes are pushed aside as the needle goes down, without perforating the fabric threads.

SKF heavy ball point



A material which has been in use for some time due to its good wearing properties is Lycra® by Du Pont. With finer Lycra material the best sewing results are achieved with the “SKF” point (heavy ball point) in a very thin needle size (NM 65 to NM 75). By contrast, medium to coarse Lycra, e.g. for swimwear, is best sewn with the “SKL” point (special ball point), likewise in a very thin needle size. The special shaping of this needle ensures the optimum displacement of the material; the needle stitches in the spaces between the fibers and beside the elastomeric threads without damaging them.

SKL special ball point



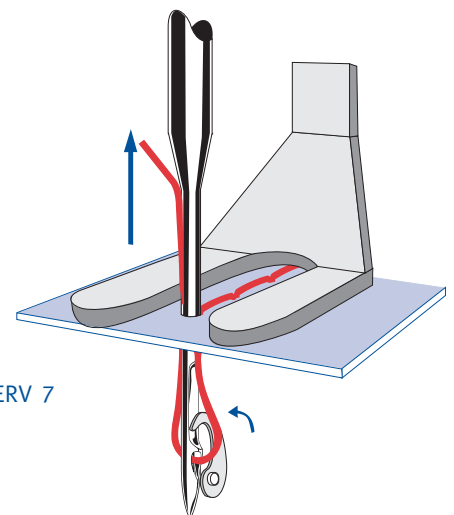
2.3 SERV 7 needle construction

A particular recommendation for manufacturing of swimwear is the “SES” point in combination with the SERV 7 needle construction, a needle design for special requirements. The features of this needle construction are an optimized humpscarf and a specially reinforced blade to avoid skip stitches and needle breakage. This type of needle comes with various point styles that meet the demands of different materials.

The reinforced blade of the SERV 7 construction ensures greater needle stability. This makes it possible to use a smaller size of needle without sacrificing needle stability. If trying to keep the stitch holes as small as possible a needle size NM 75 can be reduced to a SERV 7 needle size NM 65 – but the needle will retain the same stability. The SERV 7 construction is the needle of choice especially for joining the bra pieces and attaching hook-and-eye closures. Using fine needles without reinforced blade the thickness of the material (two or more layers of fabric plus lining) could easily result in “needle deflection”.

SCHMETZ Tip:

Benefit 1: SERV 7 hump scarf produces optimum loop formation and prevents skip stitches.



The SERV 7 needle's optimized humpscarf also prevents skip stitches which easily occur when sewing elastic materials and multiple layers. Skip stitches occur during stitch formation when the thread loop is not caught by the hook/looper, interrupting the interlacing or interlooping of upper and lower thread. Skip stitches significantly impair the run and the strength of the seam and therefore the quality of the end product. The humpscarf ensures that even when the loop is small or missing, there is sufficient space between the bottom of scarf and the needle thread. The looper or hook point can catch the needle thread securely every time.



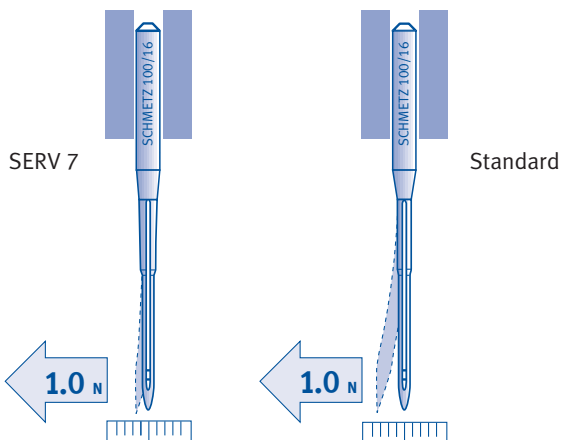
Illustration of a damaged needle point

SCHMETZ Tip:

Benefit 2: SERV 7 needle has higher stability which prolongs the needle's operational life.

SCHMETZ Tip:

Testing methods such as the nail test inform about the state of the needle. The needle point is run across the finger nail. The damage can be felt (nail will be scratched).



2.4 Changing of the needle

Even minimal damages to the needle point can cause damage to the material and impair the quality of the end product. Only a perfectly round, smooth ball point guarantees that the needle optimally displaces the knitted threads and finds its way through the material layers undamaged. The needle should thus be changed often and at regular intervals.

Sewing thread

3. Selection of sewing threads and stitch parameters

Swimwear is distinctive for its elastic materials. It is crucial to the quality and comfort of the final product that the seams should be elastic and eudermic.

The seams should be elastic enough not to burst when the material is stretched. Seam elasticity is substantially affected by the stitch type, the stitch density and the tension of the thread.

3.1 Composition and size of the sewing thread

Elastic seams should normally be sewn with synthetic sewing threads. Even the finest ones are tearproof and elastic, so even fine needles can be used.

Mainly the following are used:

- Core spun made from 100 % polyester (as needle thread)
- Micro-fiber sewing threads
- Texturized sewing threads made from 100 % polyester (as looper/hook and cover thread)
- Texturized sewing threads made from 100 % polyamide

Core spun thread has a core made of multi filaments and an outer layer made from fine fibers. It is used as needle thread. It has the advantage of being more tearproof and of having greater abrasion resistance, both of which result in greater seam strength.

Micro-fiber sewing thread can be used as needle and bobbin thread and is mainly used for flat seams that will push against the skin. The thread is so fine that it can hardly be felt, but nonetheless it is robust and leaves no marks.

Texturized (puckered) multi filament threads are puffy and bulky. Because it has those properties, a texturized sewing thread is used for finishing and overlock seams. Another reason for using this yarn when sewing swimwear is the soft and skin-friendly seam.

The texturized polyester sewing thread is a bobbin and cover thread. It makes a particularly soft seam and covers up very well.

3.2 Stitch type

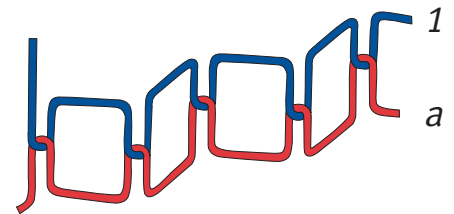
For swimwear the stitch types zig-zag, chain stitch, flatlock and overlock are particularly suitable, since they give a high degree of seam elasticity. In selecting a stitch type, it is important to observe that there is sufficient thread in the seam, the thread reserve. If the thread reserve is insufficient, the seams could burst at the slightest stress.

The seam elasticity that is required for swimwear can be achieved with stitch types of class 500 (overedge chain stitch) and 600 (cover chain stitch).

When sewing swimwear, the zig-zag stitch is rarely used. It is used for finishing the inner lining, and also for decorative purposes.

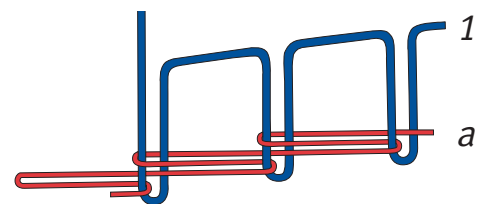
Stitch type 304 – double lock stitch (zig-zag)

For inner lining finishing seams and decorative seams



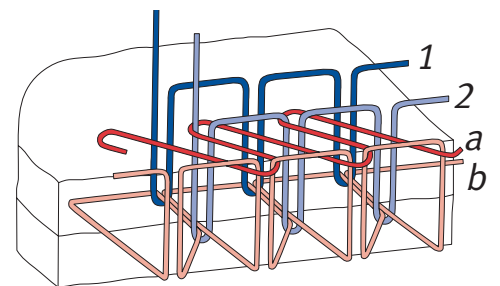
Stitch type 401 – double chain stitch (2-thread-chainstitch)

For elastic closing seams (e.g. joining of side pieces)



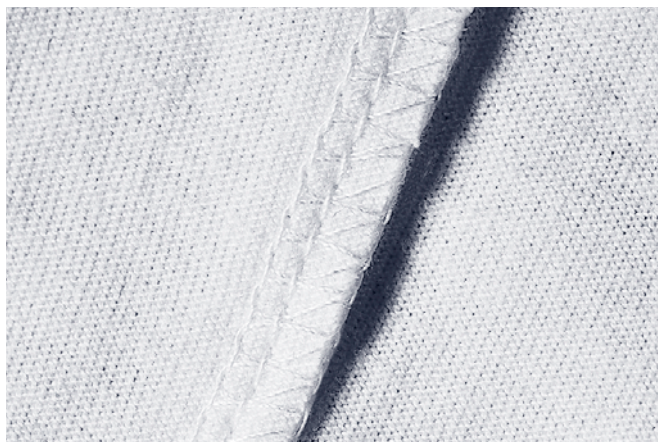
Stitch type 512 – 4-thread overlock stitch (mock safety stitch)

For finishing and separating and side seams



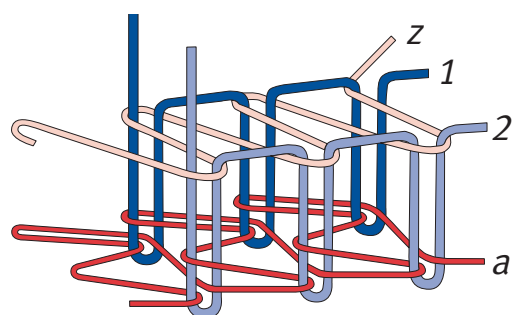
The advantages of this stitch type out of class 500 are:

- excellent seam elasticity for serged seams
- excellent elastic properties
- good back-formation properties
- savings in processing operations when using a mock safety stitch machine
- needle threads determine the seam strength as looper threads care for an excellent seam appearance and a soft seam
- low mechanical stress on the sewing thread during stitch formation
- high sewing speed possible
- high productivity because of continuous thread supply from cones (no bobbin winding necessary)



Stitch type 602 – 2-needle cover stitch with cover thread

For flat seams and hems, for stitching up excess seam in the case of pre-sewn leg opening, arm and neck openings



SCHMETZ Tip:

The elasticity of the seam improves the greater the thread reserve included in the seam. Therefore we recommend the selection of “elastic” stitch types such as zig-zag, chain stitch, flatlock and overlock.

3.3 Stitch density

The elasticity of a seam is also influenced by the thread tension.

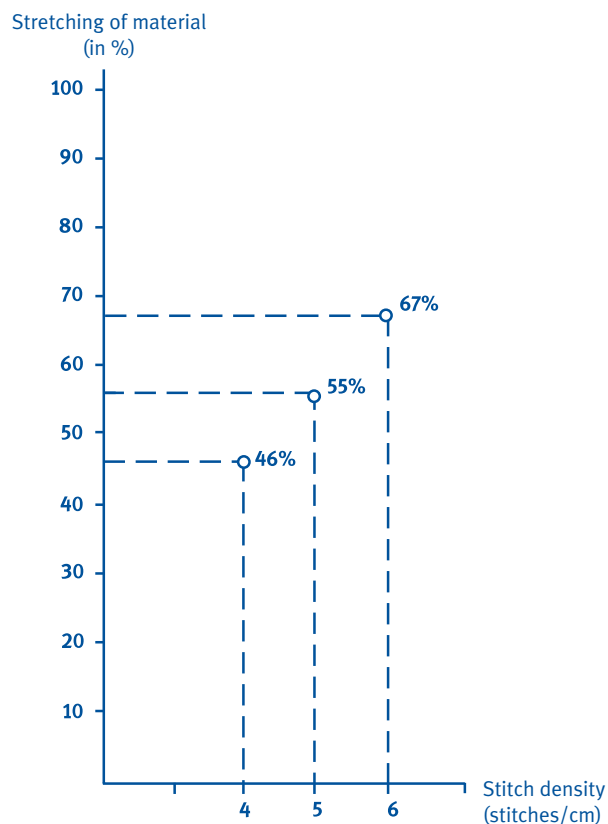
The stitch density should be adjusted according to the material, the number of layers and the desired seam strength as well as the seam elasticity.

At the same time, the type and the size of the sewing thread are also important to determine optimal stitch density.

The number of stitches per cm determines seam strength and elasticity. Stitch density is thus very important when sewing swimwear. The amount of thread in the seam and therefore the seam’s elasticity follow from it. If stitch density is less than 3.5 stitches/cm the seam may burst due to the insufficient amount of available thread. For highly elastic materials, a stitch density of 7 stitches/cm is therefore recommended.

The type of thread is also very important for stitch density. Texturized threads, for example, have elasticity of only 26 %, and a type of thread made of PTT (polytrimethylenterephthalate) has elasticity of 63 %. In such a case, stitch density of 4 stitches/cm (instead of 7 stitches/cm) would be sufficient.

If you cannot obtain the desired elasticity using the maximum stitch density, it is advisable to choose a different stitch type.



Influence of stitch density on the elasticity of the seam Source: Amann

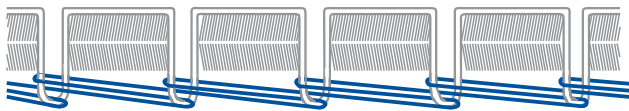
- Material: Knitwear
- Needle: “SES” point (light ball point)
- Sewing thread: No. 120
- Stitch type: Double chain stitch 401

3.4 Thread tension

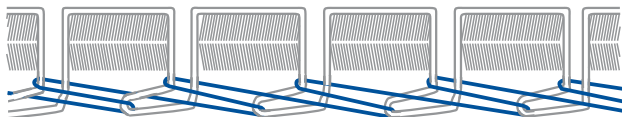
The elasticity of a seam is also influenced by the thread tension. It is therefore advantageous to use low thread tension for elastic seams. That way, premature stretching of the sewing thread can be avoided.

In general, the thread tension should be adjusted as low as possible in order to obtain a smooth seam and a good seam appearance and to prevent from tension pucker. The specific thread tension setting depends on the stitch type, the sewing thread, the material and the needle. For zig-zag, chain stitch, flatlock and overlock, the tension setting should generally not be too high.

Double chainstitch type 401



Correct distribution of needle- and looper thread



Incorrect distribution of needle- and looper thread

Source: Amann

Machine

4. Sewing machines for the manufacturing of swimwear

Together with the needle and sewing thread the sewing machine settings are an essential factor if the sewing results are to meet the desired quality standard. In the production of swimwear, mostly industrial high sewing speed machines with different accessories are used.



Flatbed Sewing Machine Closing and joining seams, finishing and topstitching seams, also for hemming with narrow band



Free-Arm Sewing Machine

For hemming flat pieces of clothing while at the same time sewing in or sewing on elastic bands, e.g. at swimwear leg openings



Mono Block Sewing Machine

Closing seams, serging of fabric edges

4.1 Feed

Sewing machines for swimwear are equipped with various accessories, depending on one's requirements such as various types of feed that make it easier to sew the fabric. The top feed prevents fabric layers from moving against each other and it also prevents the material from moving out of shape.

Top and bottom feed with running presser foot are used for sewing seams.

Bottom feed with webfoot is used for sewing seams at the sides and also prevents seams from pulling together.

Last but not least, as with the needle, it must be considered that even small damages to feed dog, throat plate and hook/looper can lead to material damage.



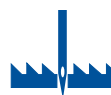
Drop feed

For pucker-free sewing of fine to medium materials



Drop feed and roller top feed

For sewing feed-critical materials and feed-critical seams



Drop feed and needle feed

For pucker-free sewing and topstitching



Differential feed

For pucker-free sewing of fine to medium materials

4.2 Throat plate/Throat plate aperture size

The choice of throat plate is determined by type of feed, needle size as well as additional accessories.

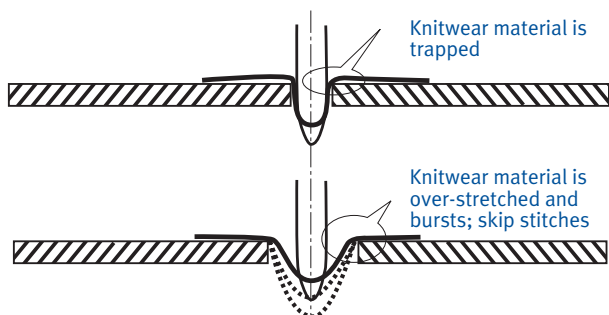
For sewing of elastic materials it is important to adjust the size of the throat plate stitchhole to the needle size. The fabric is placed on the throat plate, which also serves as counter the pressure of the presser feet.

If the throat plate aperture size is too small the knitwear material could be trapped at the edge of the aperture while the needle is penetrating causing damage.

The wider the throat plate aperture, the more freedom of movement has the sewing good.

But if the aperture becomes too large a funnel will appear from the material drawn into the aperture by the needle.

If this happens the hook point could hit the fabric or skipping will occur because there is no sufficient loop formation anymore on the needle for the hook or looper to catch.



Unfavourable selection of throat plate aperture size in relation to the needle size

The suitable throat plate aperture sizes in relation to the needle size can be found in the following table:

Needle size / Throat plate aperture size								
Needle sizes [NM]	60	65	70	80	90	100	110	120
Throat plate aperture size [mm]	1.00	1.20	1.20	1.40	1.60	1.60	2.00	2.00

Relationship of needle size to throat plate aperture size

4.3 Sewing speed

Sewing speed varies from machine to machine, with a maximum speed of 4,200–7,000 stitches/min.

Sewing speed depends on the length of the seam, but also on the way the seamstress handles the fabric.

Since swimwear has mainly short and curvy seams, we recommend a sewing speed of 2,500–3,000 stitches/min.

If the seams are longer and straighter, sewing speed can go up to 4,000 stitches/min.

Elastic material with a high portion of synthetic fibers should not be sewn at excessive speed because the generated needle heat may cause burning of the needle holes and melted fibers may adhere to the needle.

In order to avoid thermal damage we recommend for partly synthetic materials or materials with elastomeric fibers to adjust the sewing speed in the range of 2,000 to 3,500 stitches/min. In some cases the sewing speed has to be reduced even further.

Good production efficiency does not mean: high production through high sewing speeds.

If there is the danger of thermal damage it is advisable to reduce the sewing speed in order to produce damage-free seams.

5. Our advice

You can achieve damage-free quality seams if all the sewing parameters are precisely coordinated with one another.

Material, needle, thread and machine are the key variables. The **SCHMETZ SERVICEHOUSE** offers various service packages:

From recommending the ideal needle for your fabrics to sending out sample needles and providing assistance with special sewing requirements. In addition the **SCHMETZ SERVICEHOUSE** offers competent on-site advice on your production line and training courses for your employees.

**Challenge us –
let us show you our competence!**

Form to copy and fax: + 49 (0) 24 06 / 85-186

Do you have further questions about sewing swimwear?
Would you like support in solving your individual sewing problem?
Would you like recommendations on needle selection and sewability of your fabrics in advance of production?
Challenge the SERVICEHOUSE experts and take advantage of our offer.

We will be pleased to send you information on:

Our range of service:

CONSULTING

SAMPLE NEEDLES

Sample needles, tips and information

DOCUMENTED SEWING REPORTS

Sewing reports tailored to match your sewing goods as well as solutions for your complex sewing demands

EXPRESS CONSULTING

Express consulting by phone, fax or e-mail

INFORMATION

SEWING FOCUS

Sewing information for special industries and applications

PRODUCT FOCUS

Product information for special industries and applications

GUIDE TO SEWING TECHNIQUES

Manual for sewing industry

TRAINING/SYMPOSIUM

TRAINING-ON-SITE

Industry specific training including the latest information on needles, threads, machines and applications

SYMPOSIUM

Interdisciplinary knowledge sharing and exchange of expertise for skilled sewing industry staff



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