

sewing, embroidery AND HAND APPLICATION

There are a wide variety of SWAROVSKI ELEMENTS that are suitable for sewing and embroidering. These products can be easily applied either by hand, or with standard domestic or industrial sewing and embroidery machines. SWAROVSKI ELEMENTS also offers an ideal selection of products for a variety of creative techniques by hand.



The following products are suitable for sewing, embroidery or hand application:

	SEWING	EMBROIDERY	HAND APPLICATION TECHNIQUES
Sew-on Stones	✓	✓ ¹	✓
Beads	✓		✓
Crystal Pearls	✓		✓
Pendants	✓		✓
Crystaltex ³	✓		
Crystal Yarn	✓	✓	✓
Plastic Trimmings	✓	✓ ²	✓
Buttons	✓		✓
Zippers	✓		
Chaton & Flat Back Bandings	✓		✓
Roses & Chaton Montées	✓		✓
Crystal Mesh	✓		
Cupchains & Findings	✓		✓
Settings	✓		✓

¹ Art. 3129 P288

² Art. 50002, 50003 and 50004 (single row)

³ Not suitable for Crystaltex Chaton Bandings

MACHINES, TOOLS, AND AIDS

The following machines, tools and aids are necessary for sewing and embroidering SWAROVSKI ELEMENTS.



Various **fully automatic embroidery machines** can be used for application, depending on the product.



The **lock stitch head** is ideal for applying Crystal Yarn and single-row Plastic Trimmings.



Using the **Crystal Stone Head** for Schifflli embroidery machines, Lochrose 3129 P288 can be applied fully automatically.



Embroidery interfacing stabilizes the fabric.



Spray glue is used to fix the fabric on the interfacing.



A **frame** serves to stabilize thin and elastic fabrics during industrial embroidery processes.



A **household sewing machine** offers a range of stitch types such as straight stitch, zigzag stitch and a program for sewing on buttons, and is therefore well suited to applying SWAROVSKI ELEMENTS.



An **industrial sewing machine** is suitable for most sewing applications. However, a machine with a zigzag stitching program is necessary for some elements.



A **button sewer** can also be used for the application of special Buttons.



Adapted presser feet are available from Swarovski (for Pfaff models) and other manufacturers.



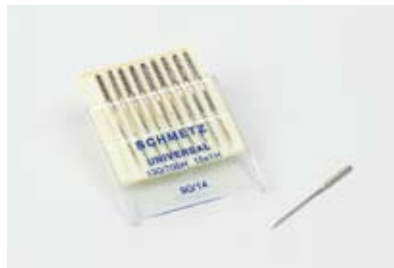
In addition, by gluing on **small metal plates**, an adapted presser foot can be made.



Application aid for Sew-on Stones 3265 26x21 mm (Art. 9040/060) and 20x16 mm (Art. 9060/061)



For zippers and products with net-edge, a **zipper foot** is helpful. A **button foot** can be used for the application of Crystal Buttons and Sew-on Stones.



Sewing and embroidery machine needles sizes Nm 70–100.



Sewing thread (minimum strength 50); stronger synthetic thread is more suitable for sewing on items.

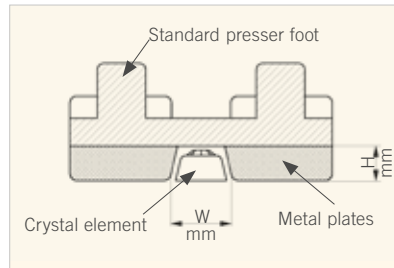
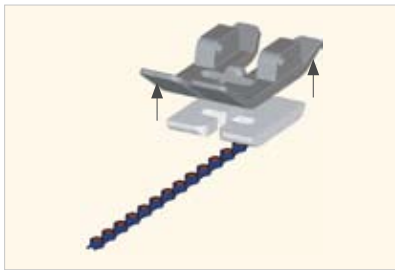


It is recommended that **protective eyewear** is worn when using a sewing machine, so as to prevent injury.

Adapted presser foot

To adapt a sewing machine's standard presser foot, affix two small plates to the underside with epoxy resin. This makes sewing Plastic Trimmings and Crystal Yarn onto garments much easier.

The plates should be tailored to the height of the relevant crystal element. When gluing, you should be aware of the recommended width.



The **metal plates** are glued to the left and right of the standard presser foot.

Adapted presser foot

ADAPTED PRESSER FEET AND METAL PLATES AVAILABLE FROM SWAROVSKI				
	Width	Height	Adapted presser foot (Pfaff)	Metal plates
Plastic Trimmings				
50 002	2.7 mm	2.3 mm	Art. 9040/033	Art. 9040/055
50 003	3.4 mm	2.5 mm	Art. 9040/034	Art. 9040/056
50 004	4.4 mm	3.5 mm	Art. 9040/035	Art. 9040/057
Crystal Yarn				
59 000	4.4 mm	3.5 mm	Art. 9040/035	Art. 9040/057
59 100	4.4 mm	3.5 mm	Art. 9040/035	Art. 9040/057
59 200	2.7 mm	2.3 mm	Art. 9040/033	Art. 9040/055

This list provides an overview of select suppliers worldwide.

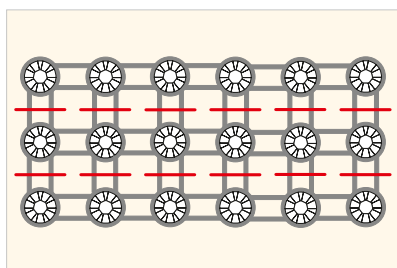
MACHINES / TOOLS / AIDS	SUPPLIER	CONTACT
Industrial embroidery machines (for Crystal Yarn and Plastic Trimmings)	Tajima Tokai industrial Sewing Machine Co. Machine types: TMLH 1, TMLH 2	www.tajima.com
	ZSK GmbH Machine types: YCZ, XGZ, MGZ, SCZ, JCW (special sewing head only)	www.zsk.com
	Meca S.p.A. Machine types: Multi Tech 65" Ecording	www.meca.it
	Barudan America, Inc. Machine types: HIZ1210, BEVS-HIZ1206, BEVX-HICIZ1104	www.barudan.com
Crystal Stone Head for Schiffli embroidery machines	Lässer AG	www.laesser.ch
Sewing machines	Pfaff	www.pfaff.com
	Elna international corp. S.A.	www.elna.com
Button sewer	Pfaff	www.pfaff.com
Adapted presser foot	Elna international corp. S.A. For Plastic Trimming 50002: Elna Art. 495265-20	www.elna.com
	For Plastic Trimmings 50003, 50004 and Crystal Yarn 59000, 59100, 59200: Elna Art. 495260-20	
	Swarovski (for Pfaff sewing machines) For Plastic Trimming 50002 and Crystal Yarn 59200: Art. 9040/033	www.swarovski-elements.com/business www.pfaff.com
	For Plastic Trimming 50003: Art. 9040/034 For Plastic Trimming 50004 and Crystal Yarn 59000, 59100: Art. 9040/035	
Metal plates	Swarovski For Plastic Trimming 50002 and Crystal Yarn 59200: Art. 9040/055	www.swarovski-elements.com/business
	For Plastic Trimming 50003: Art. 9040/056	
	For Plastic Trimming 50004 and Crystal Yarn 59000, 59100: Art. 9040/057	
Application aids	Swarovski For Sew-on Stone 3265 20x16 mm: Art. 9040/061	www.swarovski-elements.com/business
	For Sew-on Stone 3265 26x21 mm: Art. 9040/060	
Machine needles	Prym	www.prym-consumer.de
	Ferd. Schmetz GmbH	www.schmetz.com
	Groz-Beckert Group	www.groz-beckert.de
Sewing threads	Coats	www.coats.com
	Amann & Söhne GmbH & Co. KG	www.amann.com
	Madeira Garnfabrik KG	www.madeira.de
	Rayher Hobby GmbH	www.rayher-hobby.de



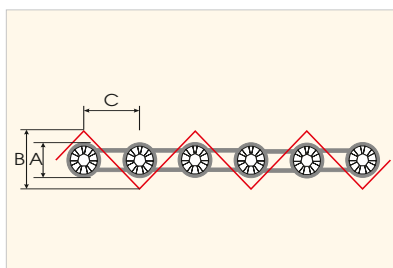
When sewing SWAROVSKI ELEMENTS, particularly Sew-on Stones and Beads, **synthetic threads with a thread count of Nm 50–60** are most suitable, due to their abrasion resistance. Monofilament and pure cotton yarns are not recommended due to their limited abrasion resistance. **?!**



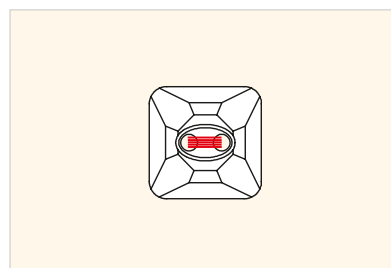
In general, SWAROVSKI ELEMENTS can be sewn on using a variety of stitch types.



Multi-row products
Straight stitch



Single-row products
Zigzag stitch



Crystal Buttons and Sew-on Stones
Button sewing program or zigzag stitch

Straight stitch

A stitch length should be selected that allows the stitches to fall in the spaces between the cups.

Zigzag stitch

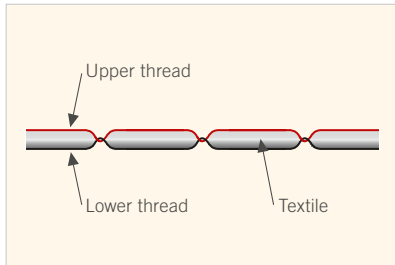
The length and width of the stitch must be adjusted to suit the element being applied. The width of the stitch (B) should be 0.5 mm –1 mm broader on both sides than the crystal element (A) being applied. The length of the stitch (C) should be equal to about 2/3 of the width of the stitch. In some cases the tension of the upper thread must be reduced. **?!**

When applying products using a zigzag stitch, the use of an adapted presser foot is recommended.

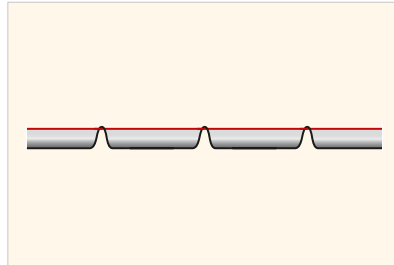
Button sewing program

Crystal Buttons and Sew-on Stones can be applied using a button sewing program. Here the hole spacing must be selected.

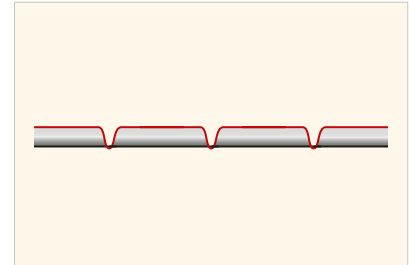
If the upper thread tension is too tight or too loose, the resulting seam is not strong. The tension of the thread must therefore be adjusted accordingly.



If the **tension is correct**, the threads cross in the middle of the textile.



If the **tension is too tight**, then the lower thread is visible on the upper surface of the fabric and the fabric can become gathered.



If the **tension is too loose**, the crossing of the threads is visible on the upper surface of the fabric.

Alongside sewing by hand, the following table provides a summary of all machine application techniques.

Machine application

SWAROVSKI ELEMENTS		MACHINE	TOOL/AID	PROGRAM	NOTE
Sew-on Stones		Sewing machines	Button foot or application aid for Sew-on Stone 3265 (26x21 mm Art. 9040/060 and for 20x16 mm Art. 9040/061)	Button sewing program or zigzag stitch without feed function	Switch off the lower feed, adjust the stitch width to the product. The use of the application aid in some makes of sewing machines can require some readjustment of the tension release
	3129 P288	Schiffli embroidery machine	Lässer Crystal Stone Head		
Crystaltex		Sewing machines	Standard presser foot	Straight stitch, zigzag stitch (single row)	
Crystal Yarn	59000 59100 59200	Sewing machines	Adapted presser foot	Zigzag stitch	Adjust the stitch width to the product
	59000 59100 59200	Embroidery machine	Lock stitch head	Zigzag stitch Coiling technique	
Plastic Trimmings	Basic Bandings (single row)	Sewing machines	Adapted standard presser foot	Zigzag stitch	Adjust the stitch width to the product
			Zipper foot	Straight stitch	When working with net-edge
	Basic Bandings (single row)	Embroidery machine	Lock stitch head	Zigzag stitch	
	Basic Bandings (multi row)	Sewing machines	Standard presser foot	Straight stitch, zigzag stitch	Adjust the stitch width to the product
			Zipper foot	Straight stitch	When working with net-edge
	Fishnet Bandings	Sewing machines	Adapted standard presser foot	Straight stitch	
	Decorative Bandings	Sewing machines	Zipper foot	Straight stitch	When working with net-edge
Special sewing machine			Special presser foot	Programmed stitch	
Plastic Components	Sewing machines	Button foot	Zigzag stitch	Switch off the lower feed, adjust the stitch width to the product	
Zippers		Sewing machines	Zipper foot	Straight stitch	
Buttons & Fasteners	Crystal Buttons	Sewing machines	Button foot	Button sewing program or zigzag stitch without feed function	Switch off the lower feed, adjust the stitch width to the product
		Button sewer		Button sewing program	Holding clamps must be adjusted to the shape of the button
	Buttons with Plastic Shank / Metal Shank	Button sewer		Button sewing program	Holding clamps must be adjusted to the shape of the button
	Magnet Fasteners	Sewing machines	Standard presser foot	Straight stitch	
Metal Trimmings	Chaton & Flat Back Bandings	Sewing machines	Standard presser foot	Straight stitch	
			Zipper foot	Straight stitch	When working with net-edge

SWAROVSKI ELEMENTS		MACHINE	TOOL/AID	PROGRAM	NOTE
Crystal Mesh		Sewing machines	Standard presser foot	Straight stitch	Remove the transparent support film before sewing
Cupchains & Findings	Cupchains	Sewing machines	Adapted standard presser foot	Zigzag stitch	Adjust the stitch width to the product

Application using a sewing machine

The right choice of needle (strength Nm 70–100), sewing thread and thread tension (upper and lower thread) are particularly important for applications with a sewing machine. The fabric must not become gathered and the upper and lower thread should run easily and smoothly.

Tests should be conducted on the original material before beginning production.

Before sewing on Crystal Buttons with a machine it is essential to set the sewing machine to the correct hole and stitch length, and stitch width. This prevents the crystal from being damaged during application and reduces the risk of injury.

When sewing high, multi-row products, there can be problems with the sewing machine feed, caused by a slanting presser foot. To avoid this, position a **height compensator** beneath the presser foot to ensure it sits parallel to the material, allowing the fabric to feed through properly.



The foot lies flat due to the **height compensator**.



A slanting presser foot can cause problems with the feed of the base material.



Sew-on Stones
Switch off the lower feed and adjust the stitch width to the product.



Place the aid for the Sew-on Stone 3265 underneath the foot and choose a button sewing program or a zigzag stitch. The lower feed must be turned off.



Crystaltex Bandings
Sew between the rows of stones.



Crystal Yarn
Make sure that the Crystal Yarn runs parallel to the foot.



Basic Bandings (single row)
Make sure that the Basic Banding runs parallel to the foot.



Basic Bandings (multi row)
Stitch the banding between the first and second rows of crystals and if necessary strengthen the corners with a zigzag stitch.



Fishnet Bandings

Adjust the needle bar so that the stitches are next to the crystals.



Zippers

It is possible to sew very close to the teeth of the zipper when using a zipper foot. In some cases, it can also be very helpful to adjust the needle bar.



Crystal Buttons

Switch off the lower feed and adjust the stitch width to the product.



Magnet Fasteners

Thread the material through the eyelet and stitch next to the fastener.



Chaton & Flat Back Bandings

Stitch the banding between the first and second rows of crystals.



Crystal Mesh

Stitch the banding between the first and second rows of crystals.
Note: Please be aware of useful information for sewing with support film.



Cupchains

Make sure that the Cupchain runs parallel to the foot.

Application using a button sewer

Amongst other elements, Crystal Buttons, Buttons with Plastic Shank and Buttons with Metal Shank can also be applied using a button sewer.

Crystal Buttons

Before application, it is essential to set the button sewer according to the product being used. This prevents the Crystal Button from being damaged during application and reduces the risk of injury.

Buttons with Plastic Shank and Buttons with Metal Shank

Just like Crystal Buttons, Buttons with Plastic Shank and Buttons with Metal Shank can be efficiently and easily affixed using a button sewer. To do this, they must be positioned in the application slot of the button holder, and the machine must be adjusted beforehand.



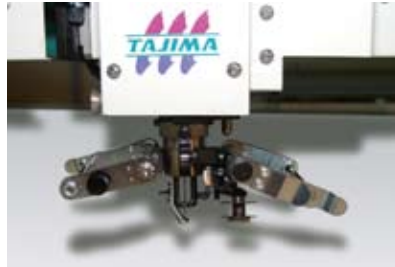
Application using an embroidery machine

The industrial application of Crystal Yarn, single-row Plastic Trimmings and 3129 P288 Lochrose can be carried out on fully automatic embroidery machines.

Crystal Yarn



1 Design the motif and choose the desired type of Crystal Yarn, the embroidery thread and the embroidery technique (coiling or zigzag stitch).



2 A lock stitch head can be used for applying Crystal Yarn because it allows the Crystal Yarn to be fixed to the carrier material by means of either zigzag stitch or coiling.



3 After the spool and thread are in place, the material to be embroidered is temporarily fixed into place with spray glue and correctly positioned.



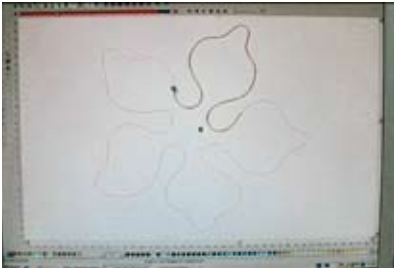
4 Stitching process (in this case a coiling technique has been applied).



5 The customized material is now ready for further processing.

A comprehensive video about working with Crystal Yarn can be found on the website WWW.SWAROVSKI-ELEMENTS.COM/BUSINESS.

Plastic Trimmings



1 Design the motif and choose the desired type of Plastic Trimming and the embroidery thread.



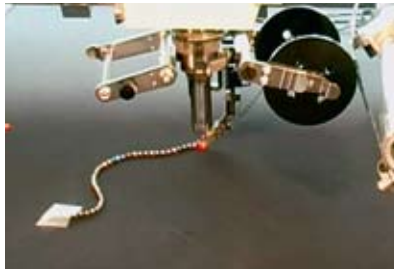
2 A lock stitch head can be used for applying Plastic Trimmings because it allows the Plastic Trimmings to be fixed to the carrier material by using zigzag stitch.



3 Wind the Plastic Trimming onto a suitable spool.



4 After the spool and thread are in place, the material to be embroidered is fixed into place with spray glue.



5 Stitching process.



6 The customized material is now ready for further processing.

A comprehensive video about working with Plastic Trimmings can be found on the website WWW.SWAROVSKI-ELEMENTS.COM/BUSINESS.

3129 P288 Lochrose

An innovative product application solution has been developed in conjunction with the company Lässer for the industrial application of Lochrose. The Lochrose 3129 P288 was specially designed for fully automatic application using Schiffli embroidery machines, with the help of the new LÄSSER CRYSTAL STONE HEAD. The application is based on standard embroidery technology and allows the unique combination of first-class Schiffli embroidery yarns (e.g. SETAFIL®) and crystal applications in a single production stage.

The majority of Lässer Schiffli embroidery machines can be adapted with the new LÄSSER CRYSTAL STONE HEAD:

LÄSSER MD (Multi Drive) with LC (LÄSSER CONTROL)	ATC CUT ATC MTC CUT MTC
LÄSSER CHALLENGE SYSTEM (base body to attach the LÄSSER CRYSTAL STONE HEAD)	The CHALLENGE SYSTEM is compulsory



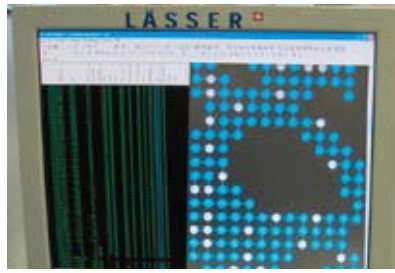
The Lässer Crystal Stone Head for Schiffli embroidery machines can be ordered directly from Lässer AG.



Orders for the Lochrose 3129 P288, as well as sample and production orders, can be placed directly with your Swarovski sales partner.



1 Drawing of the desired motif or design.



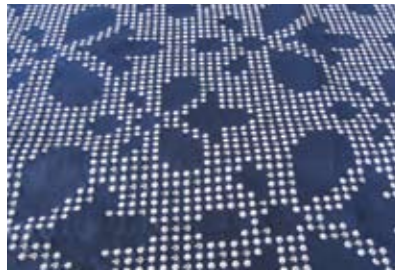
2 Enter the design into the embroidery software.



3 Fill the embroidery machine with Lochrose 3129 P288.



4 Embroidery is carried out automatically using the Lässer Challenge Crystal Stone system.

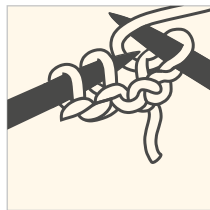


5 The embroidered material is now ready for further processing.

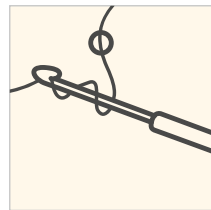
Picture source: S. Jurkowsch

Hand application techniques

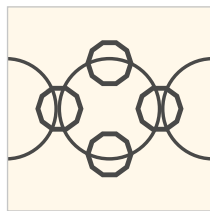
All of the SWAROVSKI ELEMENTS listed in the product overview at the beginning of this chapter can alternatively also be applied by hand. A range of further creative application techniques in addition to sewing and embroidery can be used.



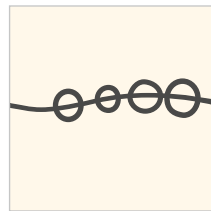
Knitting



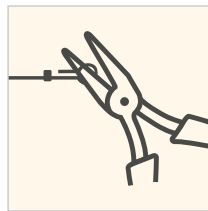
Crocheting



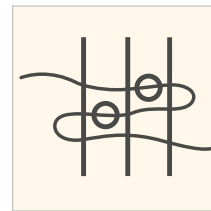
Beading



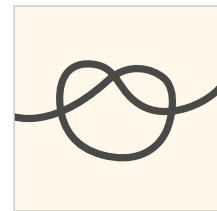
Threading



Wire working



Weaving



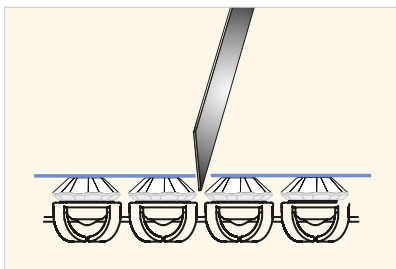
Knotting

Please note that Crystal Pearls larger than 6 mm must be either knotted or attached with suitable wire (steel, French).

Detailed instructions for these techniques and information concerning the necessary tools and aids required for the work are given on WWW.CREATE-YOUR-STYLE.COM.

Cutting and sewing Crystal Mesh

Before cutting and sewing, the transparent film must not be removed. The film allows the individual crystals to be aligned perfectly, and provides Crystal Mesh with the stability necessary for flawless application.



Pre-scoring: Score the transparent film between the rows of crystals with a Stanley knife, though do not pull them apart – otherwise the stability of the crystals during cutting and sewing will be lost.

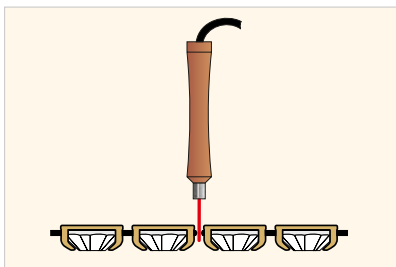
Cutting: Cut the metal mesh with scissors along the scored line, and remove the excess link rings. The Crystal Mesh is now ready for sewing.

Sewing: When sewing Crystal Mesh, it is recommended that the film is scored along the course of the stitching beforehand (see illustration).

Cutting Metal Trimmings

When cutting down Metal Trimmings, to avoid the support fabric entering the cutting point and consequently reducing the rigidity of the product, it is recommended that the frayed ends are removed using heat.

Alternatively, the cutting and removal can be carried out in a single process using a hot knife fabric cutter (www.brennpeter.eu).



Cutting and removal of ends in a single process.

The following table outlines common problems and their causes when sewing, and offers advice on how to avoid them. Further details and more extensive descriptions can be found in the section marked with a **?!**

PROBLEM	CAUSE
Product or fabric is not fed through correctly.	1, 2, 3
The machine misses out stitches.	4, 5, 6, 7
The thread breaks.	4, 6, 8, 9
The needle breaks.	10, 11, 12, 13
The crystals break out of the cups.	14

CAUSE		RECOMMENDATION
1	The foot pressure may be too low.	Increase the foot pressure according to the instructions.
2	There may be dust between the feeder teeth.	Clean the teeth.
3	Upper feed is faulty.	Replace the upper feed.
4	The needle may be bent or damaged.	Replace the needle.
5	The needle is not fitted correctly.	It must be pushed right up to the top.
6	The machine may be threaded wrongly.	Rethread the machine.
7	The tension of the threads may be incorrect.	Check the thread tension.
8	There may be knots in the thread or it may be too thin.	Check the thread for faults and if necessary, change it.
9	The components that form the stitches may be damaged.	Have the sewing machine checked by a specialist technician.
10	The wrong needle may have been chosen.	Choose a needle that is the correct size for the carrier material.
11	The bobbin may not be fitted correctly.	Check the bobbin case.
12	The needle is too thick and gets stuck in the product.	Use a thinner needle.
13	The needle hits the crystal.	Sew more slowly and feed the product through the machine more carefully.
14	The needle damages the cup.	Check the length of the stitch and the thickness of the needle.