ZSK STICKMASCHINEN 2020

NSK MADE IN GERMANY

ZSK STICKMASCHINEN

ZSK STICKMASCHINEN ARE RENOWN WORLDWIDE FOR QUALITY, PRECISION AND LONGEVITY – MANUFACTURED AND DESIGNED IN GERMANY.

The heritage of ZSK dates back to 1875, when Hermann Schroers founded a company to produce weaving looms and other textile machinery. In later years the company was named ZANGS AG and became a leading textile machinery brand in the 20th century with up to 1.400 employees.

Multihead embroidery machines are produced since the early 1950's and are produced and distributed as ZSK Stickmaschinen since 1984.

Today ZSK and its associated firms produce the machine body in Oberhausen, the electronics and flat machines in Remscheid, SPRINT, RACER and technical machines are produced in Krefeld. Engineering, Service, After Sales, Atelier and Sales are located in Krefeld with easy reach to Düsseldorf International Airport.

ZSK is of worldwide renown for quality and precision industrial embroidery equipment that will last a life time. ZSK provides solutions for mass production, personalization and technical embroidery. Customer specific services and solutions make ZSK unique in the market place.

ZSK goes beyond supplying embroidery machines. Developing and implementing custom built solutions is a key characteristic of ZSK. A team of application engineers in Krefeld is excited every day to master new challenges.

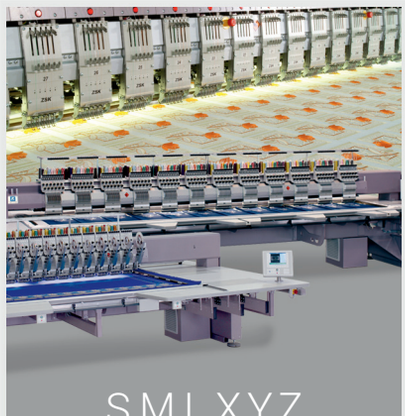
At ZSK embroidery is more than just the machine. ZSK develops digitizing software for more than 30 years and implements Industry 4.0 and Process Automation Solutions including Shop Systems to offer complete process solutions.

YOU HAVE A CHALLENGE FOR US?
WE ARE LOOKING FORWARD TO WORK WITH YOU!

ZSK
MADE IN GERMANY

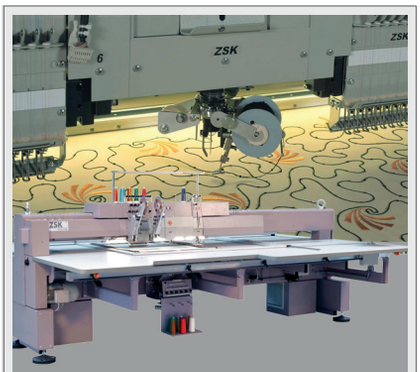
SPRINT
Single Head Embroidery Machines
Tubular System

RACER
Multi Head Embroidery Machines
Tubular System

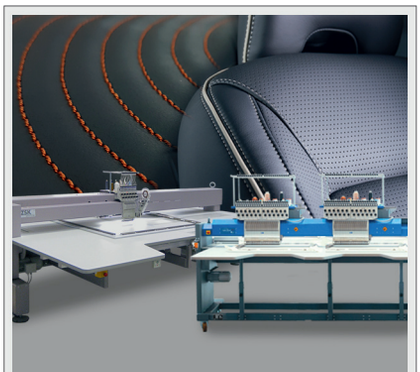


S,M,L,X.Y,Z
Multi Head Embroidery Machines
Flat System

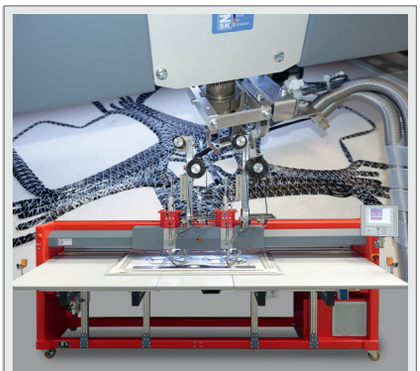
CHALLENGER
Multi Head Embroidery Machines
Flat System



CORDING & TAPING
Special Head Embroidery Machines
Flat System

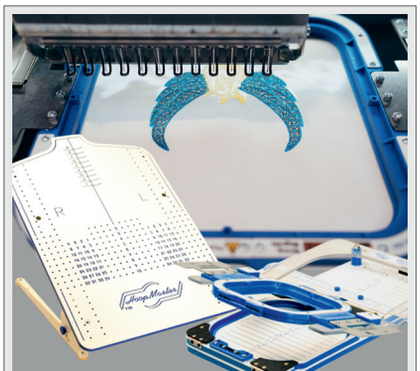


AUTOMOTIVE SOLUTIONS



TECHNICAL EMBROIDERY

ACCESSORIES



FRAMES

KEY FEATURES OF ZSK EMBROIDERY MACHINES

MADE IN GERMANY

All ZSK machines since the 1950's are manufactured and designed in Germany.

T8-2 CONTROL UNIT

The control unit is used on all ZSK machines. The control unit can be retro fitted on ZSK machines since 1998.

HEAD SELECTION

A standard feature in all flat machines and optional in the RACER Series. When a head is switched off, the take up lever is not moving.

SLIMMEST TUBULAR ARM

The slim tubular arm measures 44,3 by 43mm. The tubular arm works without a visible picker and an increased embroidery field.

STITCH PLATE INSERTS

Stich plate inserts on SPRINT and RACER Series are screwable and allow fast change over times between different inserts.

NETWORK READY

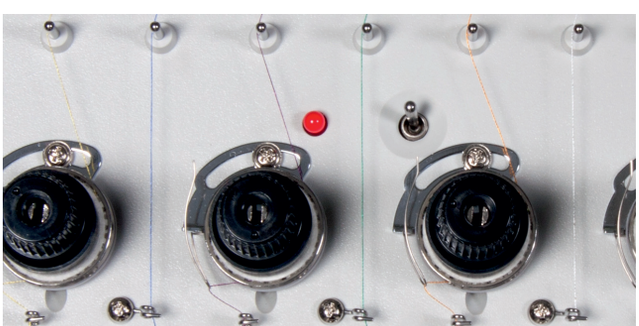
The T8-2 control unit offers a LAN plug. No additional licenses are required for networking.

BARCODE READY

A barcode reader can be connected directly via USB to the T8-2. Barcodes can be used to load designs and to operate machine features

ZSK WRITING

The T8-2 includes several fonts and templates for automatic creation of embroidered lettering and barcodes



MAINTENANCE LAMP

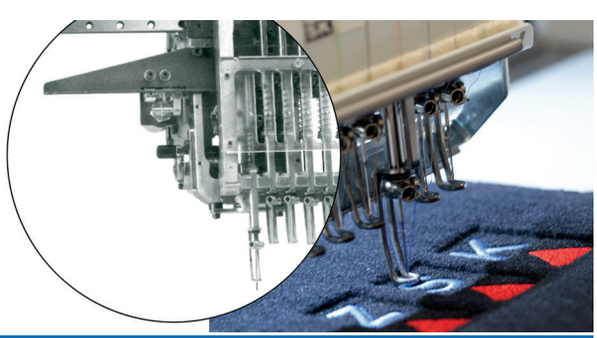
The lamp lights up when an abnormality occurs and guides the operator to the affected head.

TAKE UP LEVER GUARD

The covers avoid thread from cross tangling and present a safety feature.

THREAD BREAK DETECTION

The machine detects upper and lower thread breakages. The sensitivity of the sensor can be adjusted in the control



HEIGHT ADJUSTABLE PRESSER FOOT

The presser foot can be adjusted to 4 height positions. An ideal feature for sensitive materials and 3D embroidery

TUBULAR SYSTEM

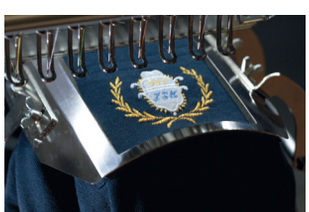
SPRINT

SINGLE-HEAD EMBROIDERY

SPRINT 6 - 12 NEEDLES

CAP

The SPRINT Series offers a cap window of 360x70mm. The design of the drive offers very high stability and avoids design shifting during the embroidery process.



POCKET FRAMES

The slim tubular arm allows large embroidery fields in tight areas. The frame is offered in three different sizes.

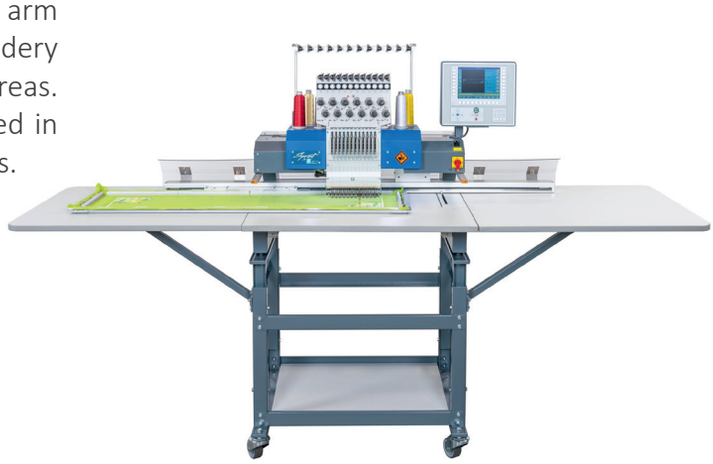
SPRINT 6

The SPRINT Series includes all features of an industrial embroidery machine that makes it the most advanced compact embroidery machine in the market. The quality and efficiency of the SPRINT Series represents German craftsmanship.

The SPRINT was the first machine at ZSK to be equipped with the slimmest tubular arm in the industry. Due to this feature, the machine is capable to embroider shirt and trousers pockets.

The slim tubular arm sets the benchmark for the industry. Operation without a picker avoids textiles being damaged from the picker pulling fabric into the hook.

The machine is available for tubular, cap and border frame embroidery with a maximum speed of 1.200 RPM. The strength of the industrial design and the precision of the components used allow the SPRINT to be your ideal solution for embroidery on shoes, leather products or even car mats. Being equipped with the T8-2 controller, the SPRINT Series is ideal for workflow solutions.



SPRINT 6XL - 12 NEEDLES

SPRINT 7

The SPRINT 7 Series is equipped with 18 needles and servo drives. The SPRINT 7 is ca. 7,5% more efficient than the SPRINT 6 due to increased speeds at longer stitch lengths. The benchmark of 18 needles increases efficiency by reduction of thread cone changes. 18 needles allow to keep standard colours on the machine or to equip certain needles with special needle sizes for thin or thick thread. The control unit saves the starting point of designs and can drive to a centre position after each embroidery job.

The SPRINT 7L and SPRINT 7XL can be used for tubular, cap and border frame embroidery. The machines are equipped with extra-large sewing fields and have no sidewalls. The drive systems are installed on the upper side of the body and allow embroidery on oversized jackets, blankets, duffel bags and suitcases. The Series presents the perfect combination of outstanding results on bulky products and very fine embroidery on smaller products.

SPRINT 7 - 18 NEEDLES

KEY FEATURES:

- 18 Needles
- Servo Drives
- Save of Design Starting Point
- Centre Position
- L and XL – without side walls

SPRINT 7XL - 18 NEEDLES

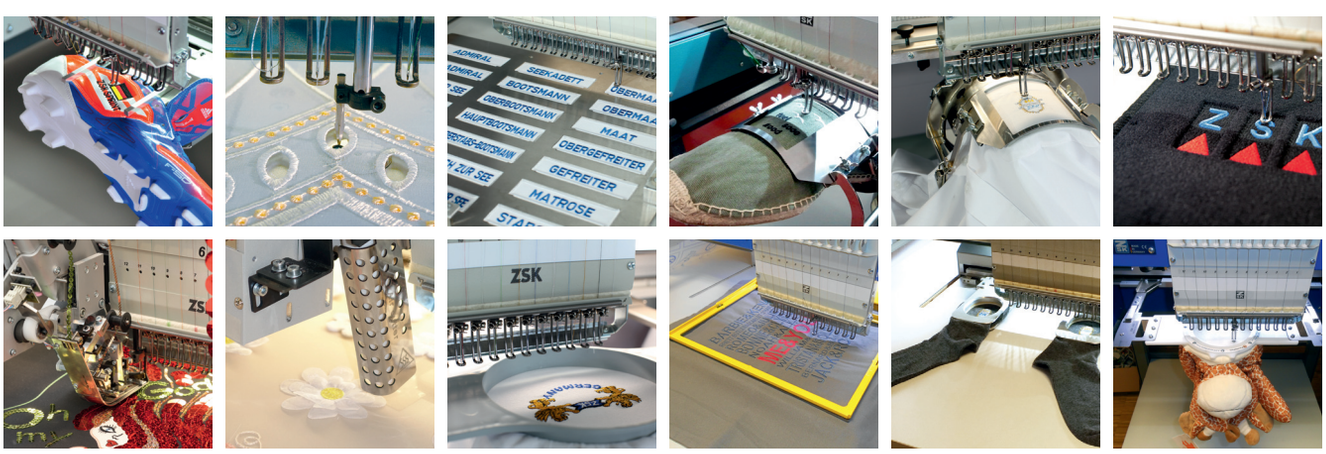
SPRINT 7L - 18 NEEDLES

TUBULAR SYSTEM

SPRINT

SINGLE-HEAD EMBROIDERY

FLEXIBLE AND VERSATILE



TECHNICAL DATA

	SPRINT 6	SPRINT 6L	SPRINT 6XL	SPRINT 7	SPRINT 7L	SPRINT 7XL
Heads	1	1	1	1	1	1
Needles	12	12	12	18	18	18
Pantograph Travel max. mm	460	600	1.200	460	600	1.400
Max. Stitches Tubular / Flat	1.200	1.200	850	1.200	1.200	1.000
Max. Stitches Cap	1.000	1.000	900	1.000	1.000	1.000
Embroidery Field Width max. mm	460	600	1.200	460	600	1.400
Embroidery Field Depth max. mm	310	280	280	310	400	400
Border Frame max. mm [WxD]	460 x 310	600 x 280	1.200 x 280	460 x 310	600 x 400	1.400 x 400
Tubular Frame max. mm [WxD]	400 x 300		350 x 280	400 x 300		
Cap 360 max. mm [WxD]	360 x 70	360 x 70	360 x 70	360 x 70	360 x 70	360 x 70
Shoes max. mm [WxD]	124 x 175	124 x 175	124 x 175	124 x 175	124 x 175	124 x 175
Machine Width mm	1.160		2580	1.260	1.410	2.925
Machine Depth mm	985		985	985	1.220	1.220
Machine Height mm	930		1.720	930	1.640	1.640
Power Supply [V]	230	230	230	230	230	230
Connected Load [Watt]	220	220	220	220	220	220

Technical changes reserved

TUBULAR SYSTEM

RACER

MULTIHEAD EMBROIDERY

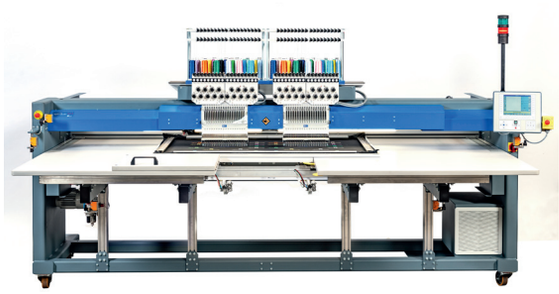
ZSK HAS ALWAYS THE RIGHT MACHINE FOR YOUR BUSINESS

RACER 1W | RACER 1WL

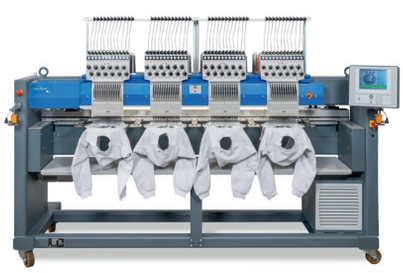
RACER 1XL

RACER 2W | RACER 2WL

RACER 2XL



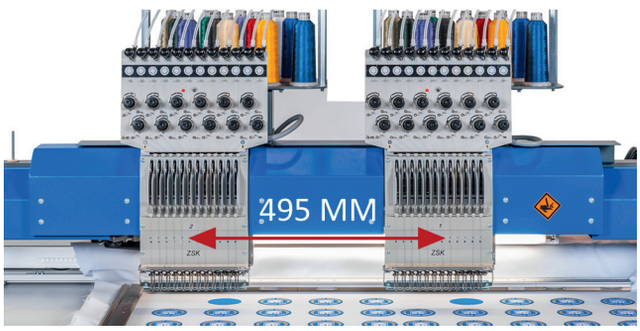
RACER 0218



RACER 4S | RACER 4W | RACER 4WL

RACER 6S | RACER 6SL | RACER 6W

RACER 8S

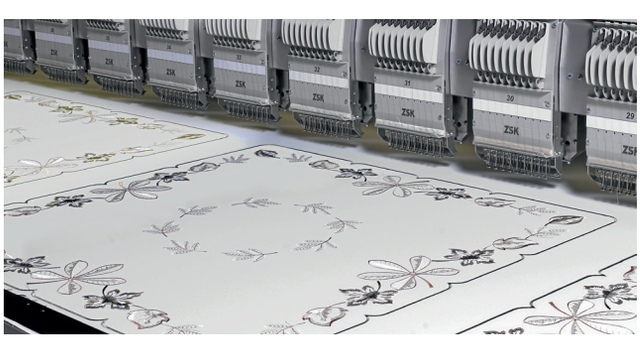


STANDARD VS. WIDE

ZSK offers the RACER Series with S (400mm) and W (495mm) head distance. The head distance describes the distance between the centre of two adjacent heads. The wide (495mm) head spacing is ideal for bulky products and large designs. Certain models are offered as L (large) models. These models offer a 700mm embroidery field depth when operating in the border frame mode.

Tubular, Cap and Border Frame

The RACER Series is always equipped for Tubular embroidery, the accessories for Cap and Border Frame embroidery are optional features. The RACER 6W and 8S are equipped with hydraulic lifting for the table plates when equipped with the border frame. The machines can be equipped with a Quick Change system that allows changing of operation modes without tools.



Head Selection

The RACER Series can be equipped with Head Selection. This feature is of use when stitching very large designs like flags, bed sheets of table clothes. The digitizing software is used to assign each head different parts of the design or in case of borders to operate all heads at the same time. The system allows automatic control of which head is sewing which design feature and switches heads on and off automatically. When a head is switched off, the take up lever is not moving. Using the Quicktext with Head Selection feature allows work wear production with same designs and different names at ease.

Barcode Operation

A barcode reader can be connected via USB to the T8-2 control unit. The reader can be used to scan barcodes and to load designs. A new feature allows the operation of T8-2 features via barcodes. A design can be loaded, turned by 180° etc. without pressing a single button. Only for starting the embroidery process, pressing of the green button is required.

TUBULAR SYSTEM

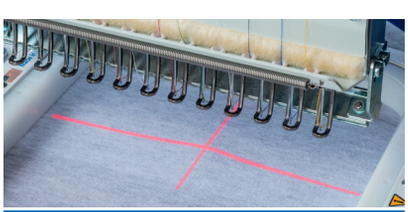
RACER

MULTIHEAD EMBROIDERY

TECHNICAL DATA

MACHINE	HEADS	NEEDLES	HEAD DISTANCE	EMBROIDERY FIELD DIMENSIONS [MM]					
				WIDTH	DEPTH		BORDER FRAME	TUBULAR	CAP
					500	700			
RACER 1W	1	12	-	500	•		500 x 500	405 x 395	70 x 360
RACER 1WL	1	12	-	500		•	500 x 700	405 x 395	70 x 360
RACER 1XL	1	24	-	700		•		405 x 395	70 x 360
RACER 2W	2	12	495	495	•		990 x 500	405 x 395	70 x 360
RACER 2WL	2	12	495	495		•	990 x 700	405 x 395	70 x 360
RACER 2XL	2	24	700	700		•	1.400 x 700	-	-
RACER 0218 D	2	18	550	550 / 1.100		•	1.100 x 500	-	-
RACER 4S	4	12	400	400	•		1.600 x 500	405 x 300	70 x 360
RACER 4W	4	12	495	495	•		1.980 x 500	405 x 395	70 x 360
RACER 4WL	4	12	495	495		•	1.980 x 700	405 x 395	70 x 360
RACER 6S	6	12	400	400	•		2.400 x 500	405 x 300	70 x 360
RACER 6SL	6	12	400	400		•	2.400 x 700	405 x 300	70 x 360
RACER 6W	6	12	495	495	•		2.970 x 500	405 x 395	70 x 360
RACER 8S	8	12	400	400	•		3.200 x 500	405 x 300	70 x 360

OPTIONS

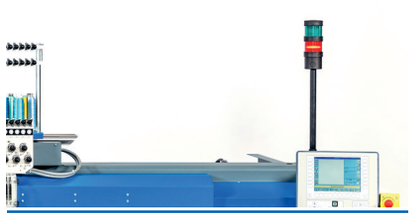


CROSS LASER POSITIONING

For easy positioning of the design starting point and to trace the embroidery design size.

LIGHT BARRIER

Safety feature can be installed on top and below the table plate for operator safety.



STATUS LIGHTS

Visual alert when machine is in operation or when error occurs.

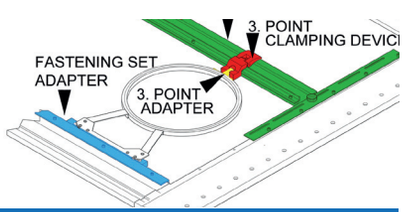
EMBROIDERY SPEED min^{1-}	MACHINE DIMENSIONS [MM]				NET MASS [KG]
STANDARD / CAP	LENGTH	DEPTH		HEIGHT	
		500	700		
1.000 / 1.000	1.570	1.330		1.750	400
1.000	1.570		1.840	1.750	430
1.000	1.960		1.825	1.784	505
1.000	2.000	1.330		1.750	490
1.000	2.000		1.840	1.750	550
1.000	2.560		1.840	1.765	792
1.000	3.380		1.840	1.765	940
1.000	2.520	1.330		1.740	700
1.000	3.440	1.330		1.740	850
1.000	3.440		1.840	1.740	920
1.000	3.440	1.330		1.740	880
1.000	3.440		1.840	1.740	950
1.000	4.400	1.640		1.740	1.260
1.000	4.400	1640		1.740	1.310

STRONG SPRINGS

When working with heavy materials like leather this feature avoids missing stitches.

MACHINE HEIGHT

Machine height can be increased by 120 or 200mm. Ideal when machine is mainly used for cap embroidery.

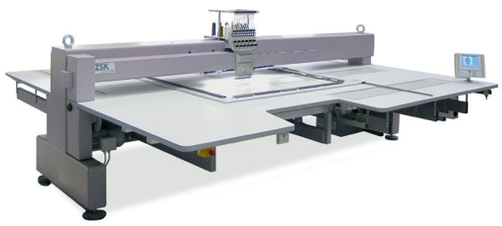


Z-200 CONNECTION

When using wooden hoops in the border frame, Z-200 connectors have to be used.

FLAT SYSTEM

S,M,L,X,Y,Z
MULTIHEAD EMBROIDERY



SGFA 0112

SGFA 1206

LBFB1212

XCFB1512

YCFA 4406

ZBFA 5606

Head Distances

ZSK offers a wide range of head distances for flat system embroidery machines. The range includes true Schiffli repeats of 24/4 and 48/4 for 12, 18, 22, 28, 44 and 56 head machines. Typical head distances offered by ZSK include 200, 240, 300, 350, 400, 480, 600 and 800mm. A number of machines are equipped with D (double) and T (triple) pantograph drives.

Field Depths

Flat system machines are offered with field depths of 500, 700, 1.000, 1.200, 1.400 and 1.500mm. For special applications field depths of up to 2.000mm can be offered. The embroidery field can be reduced in depth by using an adjusting rail and the width can be reduced with intermediate tensioner.

Head Selection

Flat system machines are always equipped with head selection. This feature is of use when stitching very large designs like flags, bed sheets or table clothes. The digitizing software is used to assign each head different parts of the design or in case of borders to operate all heads at the same time. The system allows automatic control of which head is sewing which design feature and switches heads on and off automatically. When a head is switched off, the take up lever is not moving. An ideal feature to make very efficient use of machines with small head distances.

Flexibility

All flat machines with head spacing greater 24/4 can be equipped with two devices per head (left and right side). Machines can be equipped with Cording, Hot Air Cutting, Sequins or Bead Devices to enhance the embroidery design. ZSK offers a unique range of devices for the flat system series that are all connected directly to the embroidery machine, no external power or compressed air supply is required. All devices are supported by GiS BasePac and EPCwin.

Clamping

ZSK is of renown to offer the strongest border frame clips that remain in place even with largest designs. ZSK offers three types of border frame clips in bronze with interlocking (extremely strong), bronze (very strong) and silver (weaker). When using thicker materials it is recommended to use silver clamping clips to allow easy clamping.

Industry 4.0

Via the T8-2 control unit the machine can be connected to My.ZSK to collect production data of the machine and its operator. The solution is offered as a Cloud and On Site solution. The system supports the OPC UA standard and allows data analysis in external systems.

FLAT SYSTEM

CHALLENGER

MULTIHEAD EMBROIDERY

BENEFITS OF CHALLENGER SERIES

Servo Drives:

The major advantage of the Challenger Series is the usage of Servo Motors instead of Stepper Motors to move the pantograph. The Servo Motors generate more and constant torque and this leads to an increased performance, efficiency and stitch quality. The Servo Motor lead to a reduced noise when moving the pantograph and a much smoother movement of the same.

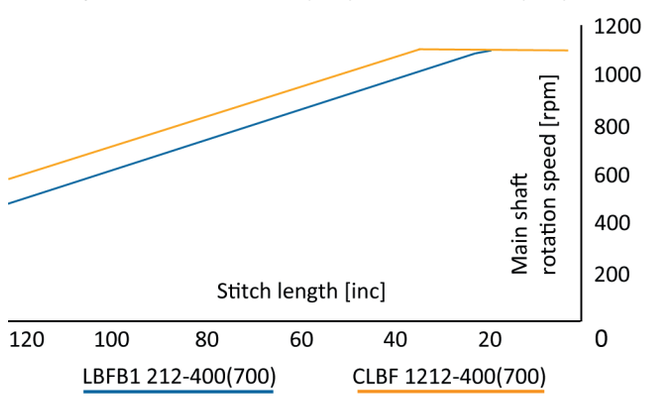
Figure 1 shows a comparison between a LBFB 1212-400 (700) and a Challenger CLBF 1212-400 (700). The Challenger Series runs the maximum speed of 1.100 RPM up to 3.5mm stitches, where the LBFB 1212 reduces the speed at 1.9mm stitches. Considering an average design with a reasonable number of longer stitches, the Challenger Series offers an increased performance of ca. 10%.

Energy Efficiency:

All Challenger machines are equipped with LED lightning. Comparing a CXCF 1512 with a XCFB 1512 this will lead to an energy saving of approx. 750kWh (24/5 operation, 50 weeks a year) in the Challenger machine.

Figure 1

Comparison LBFB1 212-400(700) / CLBF 1212-400(700)



Colour Change:

From beginning of 2019 the Challenger Series offers a new and optional colour change that reduces the colour change time by up to 75%. The standard Challenger Series already offers an improved colour change timing by about 2 seconds per process compared to a standard ZSK flat machine. The Challenger Series is equipped with a quicker catcher motor and the speed of the last stitches prior to a colour change, as well as the first stitches after a colour change have been improved.

Table Design:

All Challenger Series machines with an embroidery field of 1.000mm or more are equipped with 600mm table cuts to offer an improved access for the operator to the embroidery head. Other table designs can be offered upon request.

Support Design:

The design of the support rods below the table plates has been changed. The new design allows more space to move for the operator freely below the machine and to be quicker when changing bobbins.

MCP 35:

Challenger machines are equipped with MCP 35 electronic boards. This allows regular T8-2 software upgrades with the latest features.

FLAT SYSTEM

MODEL

MULTIHEAD EMBROIDERY

SERIES S,M,L,X,Y,Z

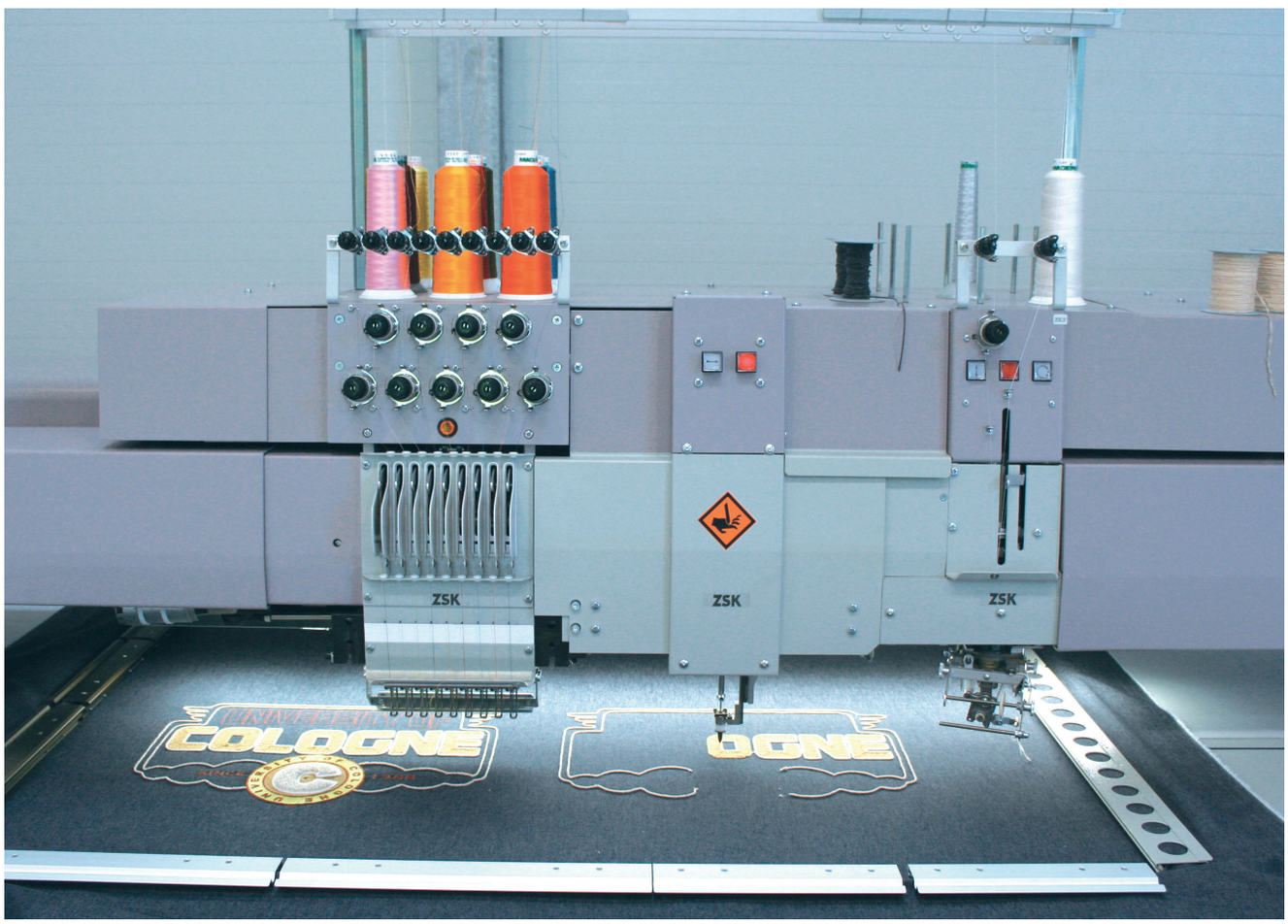
TYPE	HEADS	COLOURS	EMBROIDERY FIELD WIDTH MM	BORDER FRAME WIDTH MM
SGFA 0112- 1300	1	12	1.300	1.300
SGFA 0412- 480	4	12	480	1.920
SGFA 0609-300 D	6	9	300	1.800
SGFA 0609-300 D- IT	6	9	300	1.800
SGFA 1206-24/4 Q	12	6	162,42	1.950
SGFA 1206-24/4 Q	12	6	162,42	1.950
MCFB 0612- 600	6	12	600	3.600
MCFB 0812- 480	8	12	480	3.840
MCFB 1012- 400	10	12	400	4.000
MCFB 1212- 350	12	12	350	4.200
LBFB 1012- 480	10	12	480	4.800
LBFB 1209- 400	12	9	400	4.800
LBFB 1212- 400	12	12	400	4.800
XGFA 1012- 600	10	12	600	6.000
XCFB 1212- 480	12	12	480	5.760
XCFB 1509- 400	15	9	400	6.000
XCFB 1512- 400	15	12	400	6.000
XCFA 1812- 350	18	12	350	6.300
XGFA 1809-48/4 D	18	9	324,84	5.848
XGFA 1812-330 D	18	12	330	5.940
YCFA 1012-600 D	10	12	600	6.000
YCFA 1812- 400	18	12	400	7.200
YGFA 0912-800	9	12	800	7.200
YGFA 1406-480 D	14	6	480	6.720

TYPE	HEADS	COLOURS	EMBROIDERY FIELD WIDTH MM	BORDER FRAME WIDTH MM
YGFA 1412-480 D	14	12	480	6.720
YCFB 1506- 480	15	6	480	7.200
YCFB 1509- 480	15	9	480	7.200
YCFB 1512- 480	15	12	480	7.200
YGFA 1812-400 D	18	12	400	7.200
YCFA 2206-48/4	22	6	324,84	7.148
YCFA 2209-48/4	22	9	324,84	7.148
YCFA 3009-240 D	30	9	240	7.200
YCFA 3606-200 D	36	6	200	7.200
YCFA 4406-24/4 D	44	6	162,42	7.148
ZBFA 2809-48/4	28	9	324,84	9.096
ZCFA 3806-240 D	38	6	240	9.120
ZBFA 5606-24/4 D	56	6	162,42	9.096

SERIES CHALLENGER

TYPE	HEADS	COLOURS	EMBROIDERY FIELD WIDTH MM	BORDER FRAME WIDTH MM
CSGF 0112- 1300	1	12	1.300	1.300
CMCF 1012- 400	10	12	400	4.000
CLBF 1012- 480	10	12	480	4.800
CLBF 1212- 400	12	12	400	4.800
CXCF 1212- 480	12	12	480	5.760
CXCF 1509- 400	15	9	400	6.000
CXCF 1512- 400	15	12	400	6.000
CYCF 1012- 600 D	10	12	600	6.000
CYCF 3606- 200 D	36	06	200	7.200
CYGF 1209- 600 D	12	9	600	7.200
CYHF 2409- 330 D	24	9	330	7.920

SPECIAL
CORDING & TAPING / MOSS & CHAIN



V - TRIPLE COMBINATION MACHINES

The V Series offers the combination of a standard embroidery head, a W head for cording, taping and coiling and a K head for moss and chain stitch embroidery.

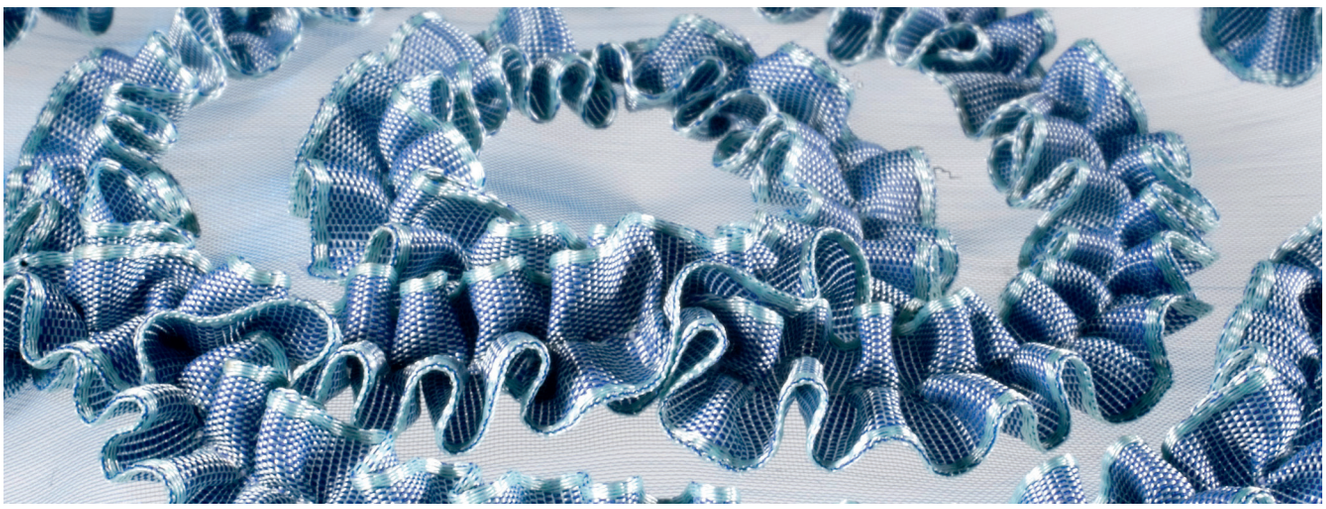
Features such as sequins, beads, cords and hot air cutting can be added to the embroidery head. Triple combination machines allow the creation of extraordinary design details.

W – CORDING, TAPING AND COILING MACHINES

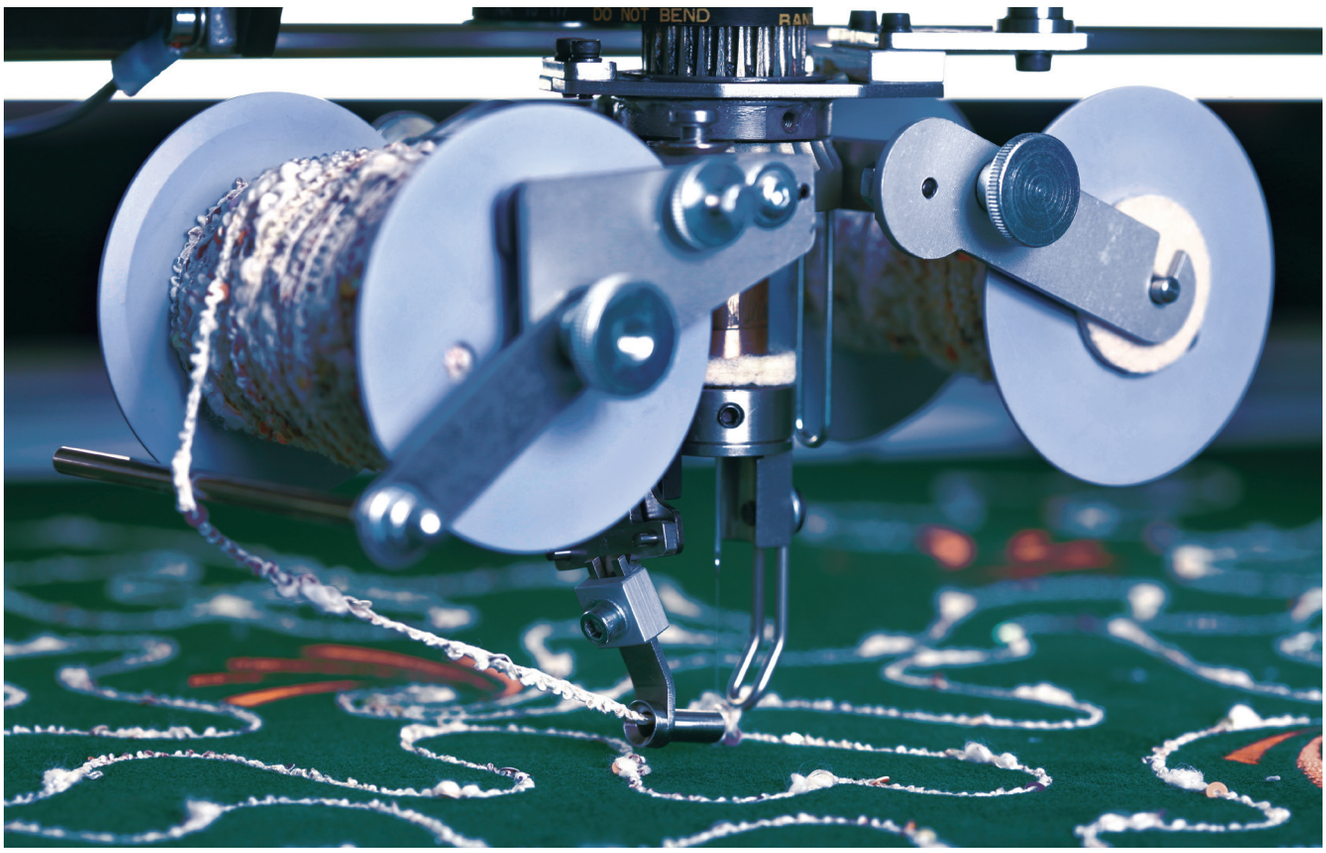
The W head is capable of cording, taping and coiling and operates at up to 850 RPM. The material can be supplied via two bobbins attached to the embroidery head or via cord supply units installed on the sides of the W head. If supply units are installed and designs with turns greater 360° are embroidered, the machine can be equipped with an unwinding function for the head. A material cutter is offered as an optional feature in combination with the cord supply unit. The machine is equipped with a number of feet for the W head to handle different sizes of cords and tapes. The T8-2 settings of the design can be saved in the .Z00 file.

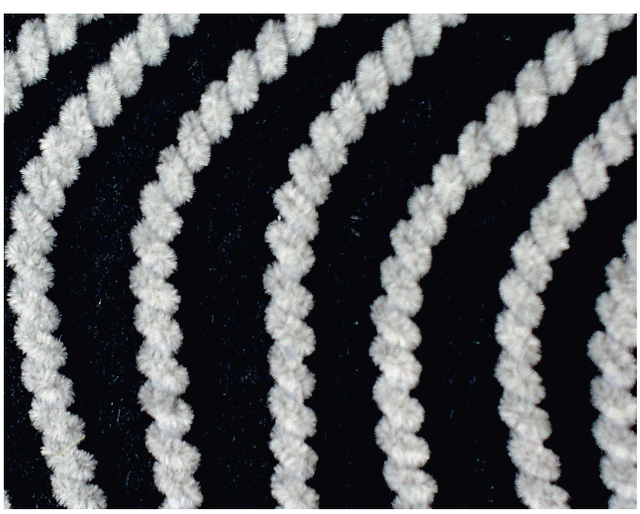
K – MOSS AND CHAIN STITCH MACHINES

ZSK offers machines with only K heads and combination machines with a standard embroidery head (H Series). The K head operates at 750 RPM and the embroidery head operates at 1.000 RPM. Combination machines are offered up to 14 head pairs. The machines are equipped with automatic needle height adjustment, automatic thread trimming and pneumatic colour change. The heads are controlled by several servo motors. The motors can be controlled via the T8-2 control unit – which allows unique designs by adjusting the head settings. Design settings can be saved in the .Z00 code. The pneumatic colour change for 6 thread colours for each K head is a key feature of ZSK.



ZSK


DO NOT BEND



AUTOMOTIVE SOLUTIONS

AUTOMOTIVE, FASHION & FURNITURE

RACER 2XL – 700 (700)

QUILTING & EMBROIDERY

A MARK OF DISTINCTION

ZSK Embroidery Machines are equipped with up to 24 needles per head. This allows a combination of a variety of thread thickness and colours.

Using custom DH needles for embroidery applications thread thickness up to AMANN Serafil size 10 can be stitched multi-directional.

Benefiting from height adjustable presser feet and specific presser feet for different applications even very thick materials and strong leathers can be embroidered.

A growing number of leather applications require the combination of perforation and stitching. ZSK has developed a unique camera detection system and an optical positioning system.

Previously perforated items can be detected and the embroidery can be stitched at the desired location. Throughout the process the camera can check the position and adjust the embroidery file to achieve results that fulfill highest expectations.

ZSK offers specific features in ist EPCwin CAD software to support design development for quilting, embroidery and the ZSK Vision System. DXF files can be loaded into the CAD software and be digitized to embroidery files. The system supports creation of ZEPL files for the ZSK Vision System.

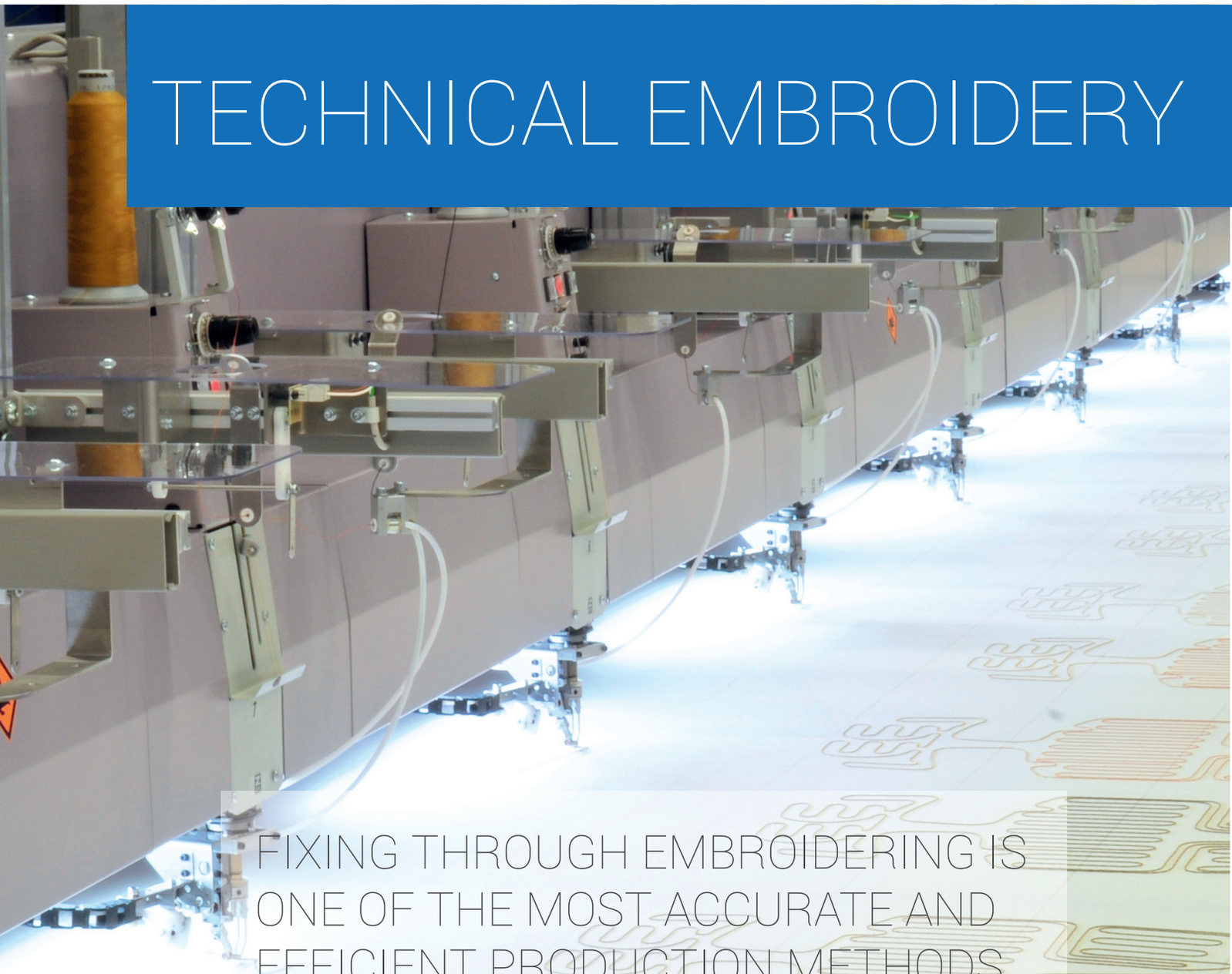
ZSK develops and manufactures custom frames to hold the material in place during the operation. This is especially required when working with perforated items. The frames will ensure perfect placement of the part and reduce shrinkage during the embroidery process.

The machine can scan barcodes for the frame and the design and therefore avoiding potential operator errors.

FEATURES

- ZSK VISION SYSTEM
- AUTO SELECT BOBBIN CHANGER
- SEWING FIELDS UP TO 1.300 X 1.500MM
- CUSTOM FRAMES
- 6 – 24 NEEDLES PER HEAD
- CAD SOFTWARE
- CUSTOM FRAMES
- SAFETY FEATURES
- MULTI DIRECTIONAL STITCHING
- MY.ZSK

TECHNICAL EMBROIDERY



FIXING THROUGH EMBROIDERING IS ONE OF THE MOST ACCURATE AND EFFICIENT PRODUCTION METHODS.

ZSK TECHNICAL EMBROIDERY SYSTEMS

MACHINES TO LAY AND EMBROIDER FIBERS, WIRES AND TUBES

The ZSK TECHNICAL EMBROIDERY SYSTEMS enables with the use of new and innovative techniques the laying and fixing of different media on textile and other flexible carrier material.

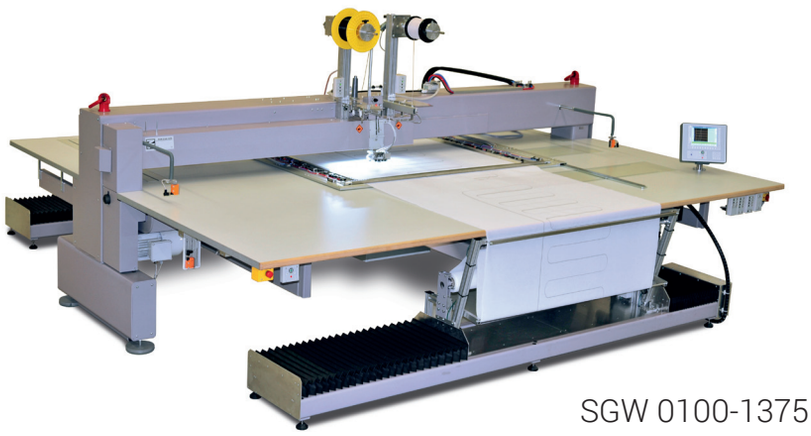
Media as wires and any kind of fibers, tubes and optical fibers can be layed flexible and will be fixed secure and strongly through embroidery techniques like the ZigZag stitch. Materials with different conditions like Polyamid, Polyester, PPS or Aramid are available as a yarn. For products with special load requirements yarns with a steel core can be used if applicable.

TAILORED FIBRE PLACEMENT

TFP offers a fundamentally different approach to composites production, drawing on embroidery techniques developed for the textile industry it is a highly mechanised and repeatable process. The rovings are deposited using a fixed stitching head, while the base material is moved around in X and Y direction beneath it on a pantograph system. Although the base material's primary function is to anchor the rovings it can also play a significant role in the part's physical properties.

ADVANTAGES OF TFP

- Reduce waste material
- Hybrid carbon and glass fiber composites
- Turnable fiber alignement and geometric tailor ability
- Tunable localized thickness
- Comingled fibrous materials
- Machine versatility without retooling



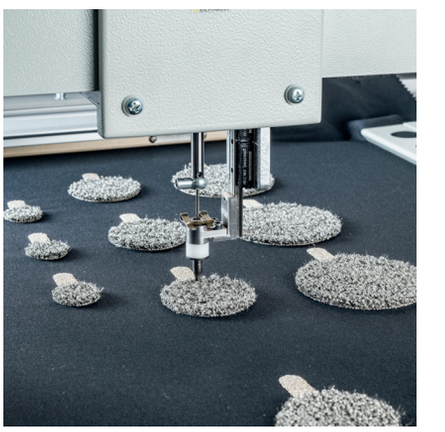
SGW 0100-1375

EMBROIDERED E-TEXTILES

The integration of electronics into textiles is a playground for textile, electronic and mechanical engineers as well as for people in the textile & fashion industry. Through a single embroidery process electronic boards can be placed on the fabric and connected with conductive threads. The connection is reliable and fully automatic. Existing electronic boards like the Adafruit Playground boards or the ZSK-E-Tex-Boards can be integrated into the textile to functionalize the fabric.

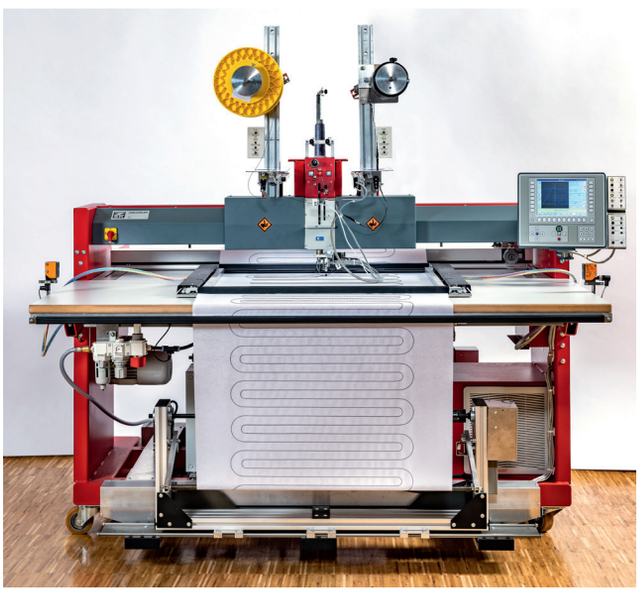
MOSS ELECTRODES

Moss embroidery has increasingly been used as a method of collecting biomedical signals from patients. Its versatility and use for eclectic signal types and biometrics has further inspired interest in the technology. Additionally, due to its low cost, high customization, and automatic embroidered production, moss electrodes are increasingly relevant in biometric signal collection.



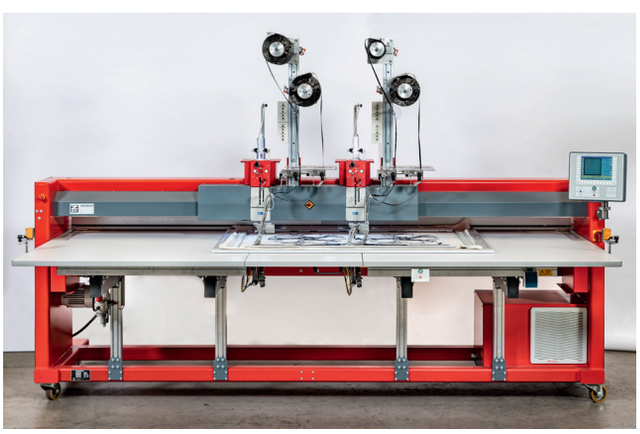
TECHNICAL EMBROIDERY

JCHA 0109-550



JGW 0100-650

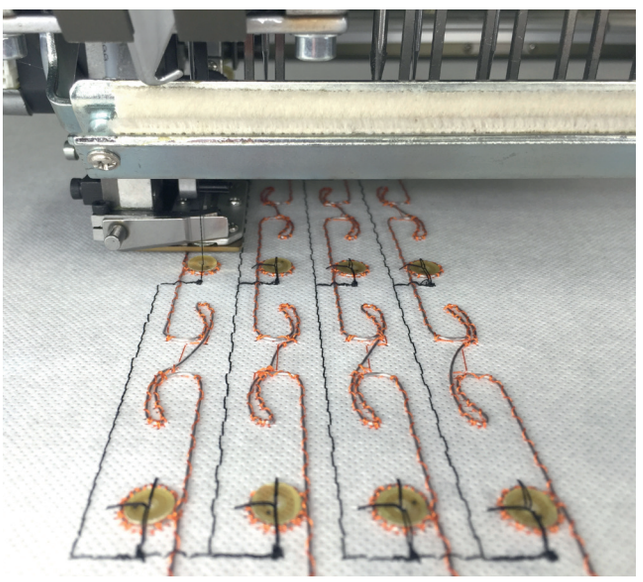
ZCW 0800-900 D (2000)



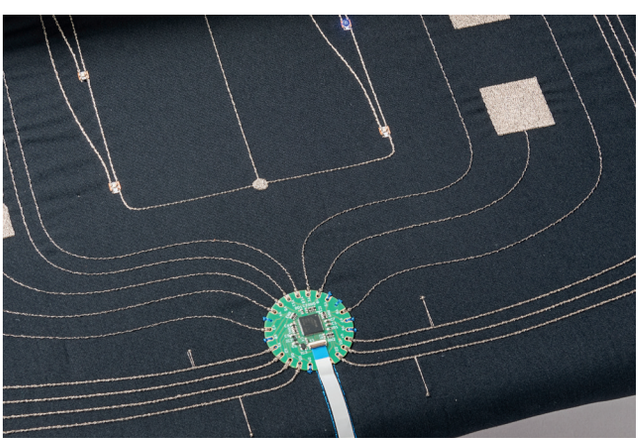
JGW 0200-550

ZCW 0800-900 D (1500)

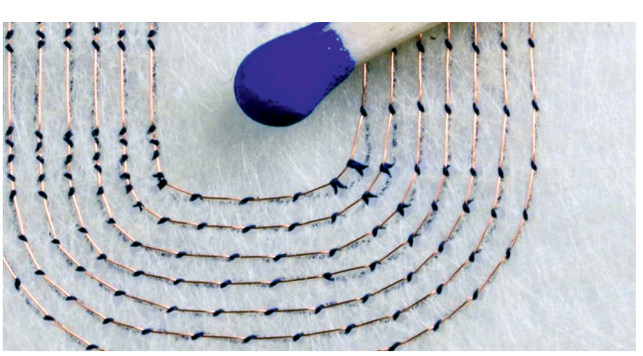
YCW-0600-1180



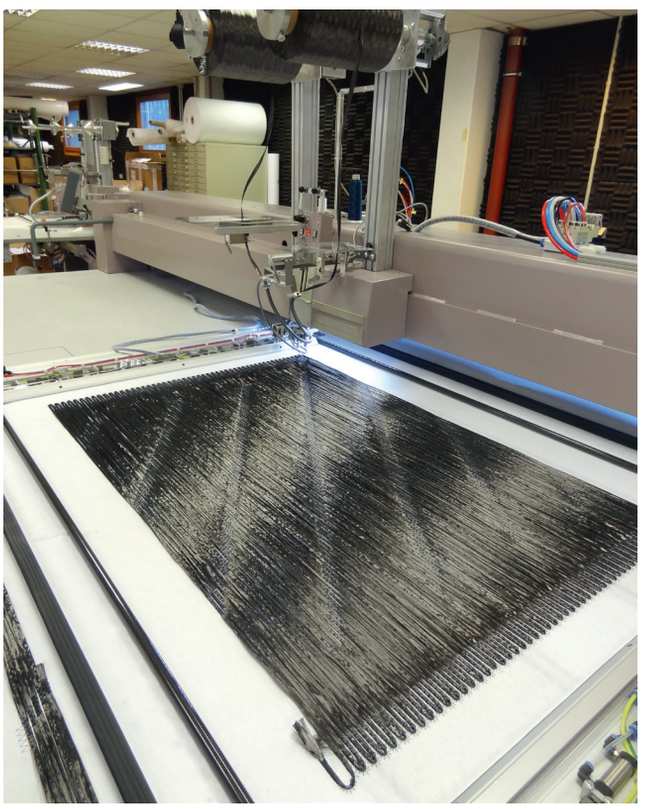
RFID antennas placed and fixed by embroidery.



Electronic board placed on fabric and connected with conductive threads.



Embroidered thin wire 0,07mm



ZSK Technical Option- Fast Fiber Laying

Multi layer carbon roving

Layed and fixed carbon

ACCESSORIES

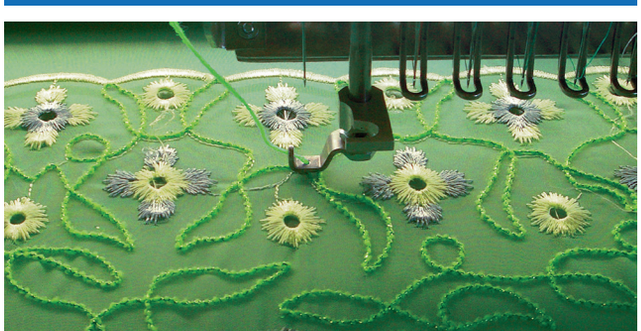
TWIN SEQUIN DEVICE T7 (2-9MM)

SINGLE SEQUIN DEVICE V6.1 (3-9MM)
SINGLE SEQUIN DEVICE V9 (3-19MM)

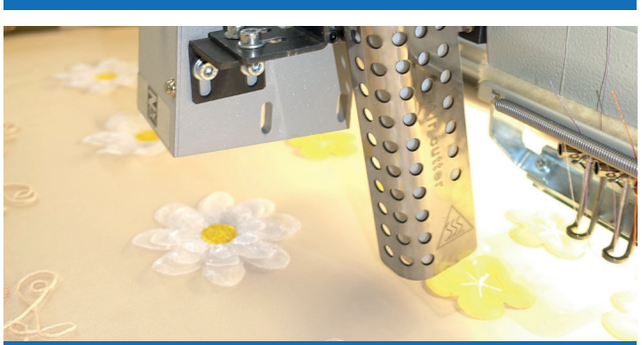
STRASS SEQUIN DEVICE

FUNCTIONAL SEQUIN DEVICE

CORDING DEVICE EP-1.2

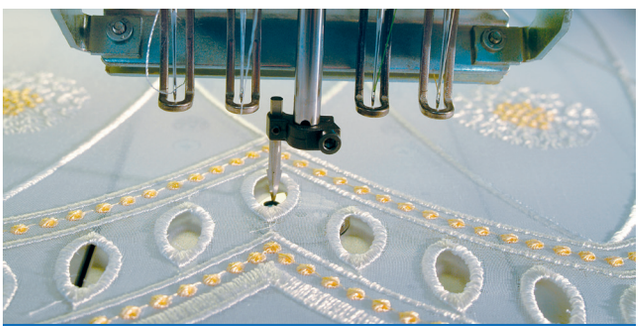


CORD / LOOP DEVICE

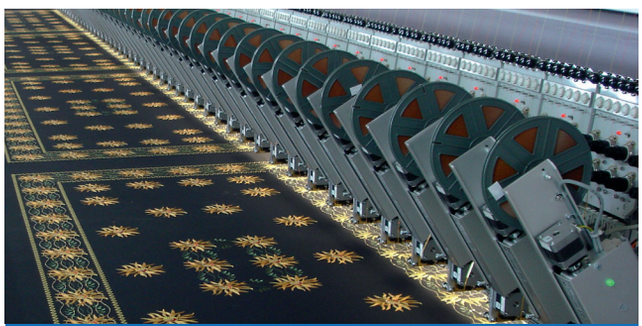


HOT AIR CUTTING ACUT 450

BEAD DEVICE



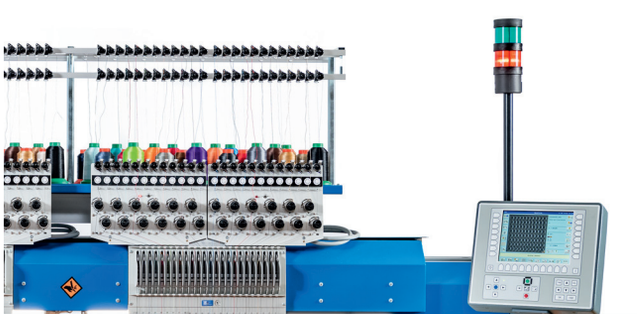
BORING



HEAD SELECTION

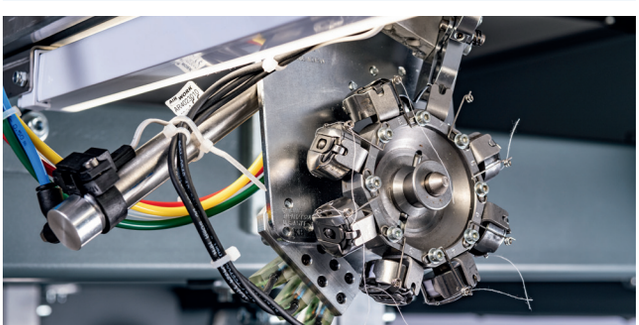
THICK THREAD OPTION

LIGHT BARRIER



MACHINE STATUS LIGHT

CAP FRAME



AUTOMATIC BOBBIN CHANGER
AUTO SELECT BOBBIN CHANGER

ROLL2BASKET

ACCESSORIES

ROLL2BASKET

SPRINT and RACER Series can be equipped with Roll2Basket devices.

- Device for the fully automated embroidery of textile ribbons
- Device can be retrofitted on SPRINT and RACER Series machines with border frame (SPRINT requires an extended table plate)
- Automatic clamping of ribbon
- Automatic positioning of embroidery field in Y-Axis with an optical sensor (optional)
- Embroidered ribbon can be collected in a basket or on the automatic winding station (optional)

The ZSK ROLL**2**BASKET device allows fully automated embroidery of textile ribbons with a width from 10 to 150mm.

ROLL**2**BASKET can handle material thicknesses from 0.2 to 5mm.

The ribbon is transported by a compressed air driven pull through unit in previously defined lengths. The ribbon is pulled from a roll that is installed behind the thread stand. The clamping mechanism of the device required compressed air. The digitizing is done by GiS BasePac and can be fully automated using the stencil functions.

As required, the embroidery can be single or multi-colour.

PRODUCTS (EXAMPLES)

- Textile safety ribbons
- Nametags
- Care Label
- Brand Label
- Ribbons for the textile industry
- Textile Borders
- Piping

Fig.: Automatic Clamping Frame of ROLL**2**BASKET

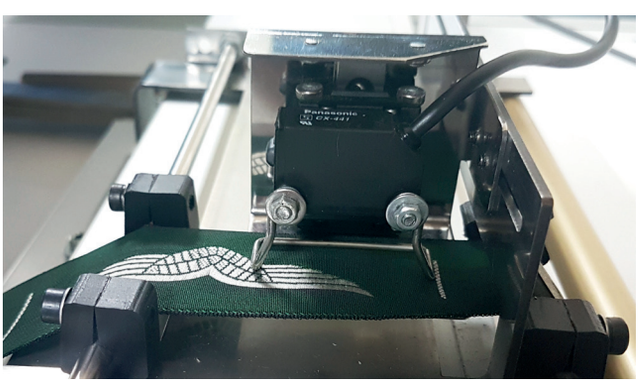
Fig.: Automatic Pull Through Device of ROLL**2**BASKET

OPTIONAL DEVICES

Optical Sensor

The optional Optical Sensor for ROLL**2**BASKET recognizes specific marking and elements on the ribbon. The pull through unit and the clamping device are controlled to allow perfect positioning of the embroidery in the Y-Axis.

Potential applications are ribbons with textile printing or weaving that have a defined area where embroidery needs to be placed on point.



Automatic Winding Station

If only the Roll**2**Basket unit is used, the ribbon is collected in a basket.

When using the device in industrial applications or applications with a follow up process, it is recommended to install the optional Winding Station. The Winding Station supports rolls with up to 400mm diameter and allows materials of up to 5mm thickness.

TECHNICAL DATA

MATERIAL / EMBROIDERY FIELD

Material Width (min/max) ..... 10 mm to 150 mm
Material Thickness (min/max) ..... 0,2 mm to 5,0 mm
Embroidery Field (W x D) ..... 150 mm x 200 mm

EMBROIDERY SPEED

Speed ..... 900 min^{-1}

WINDING STATION

Diameter of Roll max. ..... 400 mm

PRODUCT FAMILY ROLL2BASKET

ROLL2BASKET Basic Unit ..... ItemNo: 570.734
Electronic Machine Priming ..... ItemNo.: 570.733
Extended Table for SPRINT ..... ItemNo.: 360.007.806
Automatic Winding Unit(Optional) ItemNo.: 570.816
Optical Sensor(Optional) .....

NOTE: For Roll**2**Basket a T8-2 control unit is required with the latest software version.

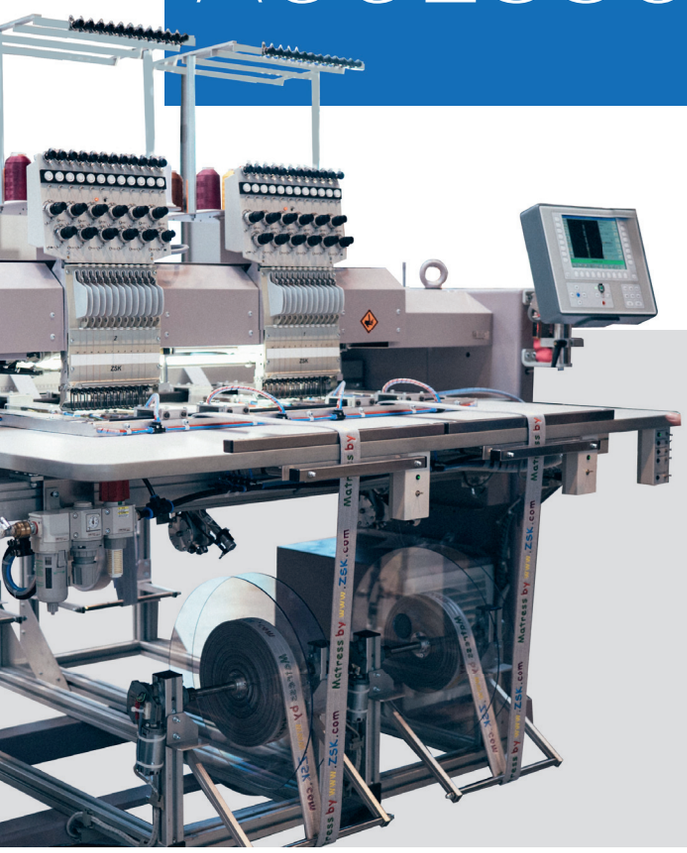
OPTIONAL DEVICES FOR F HEAD

- Sequin Device
- Borer
- Cord / Loop Device
- Cording Device EP-1.2

The devices can be combined with Roll**2**Basket. This allows creating technical applications and a greater product variety like with placing cords or wires on tape.

Fig.: Cording Device EP 1.2 at ZSK F-Head

ACCESSORIES



ROLL2ROLL

can be installed on JAFA/JNFA and RACER machines with border frame and at least 495mm head spacing.

- Device for semi- and fully automated embroidery of tapes and fabric reels
- For ZSK embroidery machines of JAFA / JNFA and RACER Series
- Pneumatic Clamping
- Automatic Pull Through from back to front
- Pull Through for up to 3 materials
- Can be combined with Automatic Bobbin Changer
- Automatic Positioning of Design in x and y direction (optional)

ROLL**2**ROLL is a Pull Through Device that has been developed for semi- and fully automated embroidery on tapes and fabric reels.

The system allows feeding of up to 3 materials that can be combined in the process (i.e. fabric and backings). At the front one material is rolled up.

MATERIAL HANDLING

When handling the material in the device, we differentiate between two methods:

Clamping: the maximum material width is 190mm and 140mm can be embroidered.

Guiding: the maximum material width is 190mm and 160mm can be embroidered

N.B.: upon request ZSK can develop similar devices for her measurements.

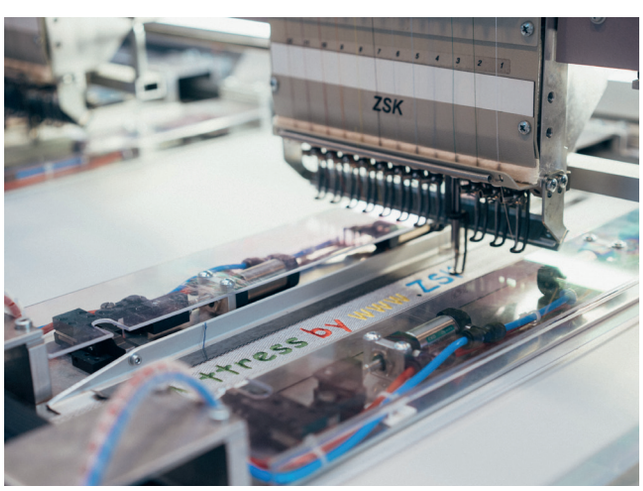


Fig: Clamping Frame of ROLL**2**ROLL

PRODUCTS (EXAMPLES)

- Mattress Handles
- Mattress Borders
- Office Curtains
- Emblems and Patches

OPTIONAL ENHANCEMENT

Optical Sensor (Optical Positioning System I)

The Optical Positioning System I (developed for Roll2Roll) can recognize specific markings on fabric or (woven, printed) design elements. The software positions the design and the frame in x and y direction to allow perfect positioning.

Potential applications are ribbons or tapes where weaving or printing defines an embroidery area and perfect placement is important.

TECHNICAL DATA

MATERIAL / EMBROIDERY FIELD

Max. Embroidery Depth. ..... 320 mm

CLAMPING

Max. Material Width ..... 190 mm

Max. Embroidery Width ..... 140 mm

GUIDING

Max. Material Width ..... 190 mm

Max. Embroidery Width ..... 160 mm

EMBROIDERY SPEED

Up to 1000 min^{-1} max.

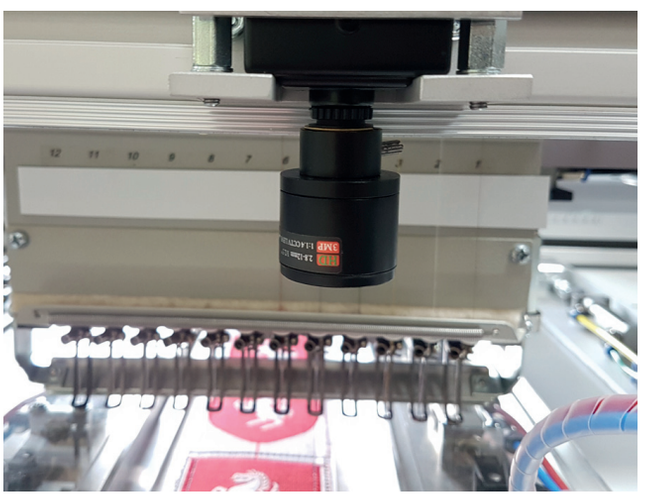
PULL THROUGH SYSTEM

Diameter of Rolls (max). ..... 400 mm

MACHINE OVERVIEW

The ROLL2ROLL system is developed for JAFA / JNFA and RACER Series with a head spacing of at least 495mm.

The device has been implemented on 1, 2 and 6 head machines. The Roll**2**Roll device **cannot** be retrofitted on an existing machine.



APPLICATIONS IN THE MATTRESS INDUSTRY

Embroidery is the method to embellish high end mattresses. The Roll2Roll device allows the automated embroidery of handles and borders in large quantities or by connecting the machine to the GiS BasePac, even production of personalized handles presents no longer a difficulty.

The GiS stencil function can be used to produce handles or borders with personalization from one piece onwards. The efficiency will be the same as producing 100 times the same logo.

Beckmann Automation offers fully automated solutions that take an embroidered roll of handles from the ZSK machine and automatically cut and sew them onto mattress borders.

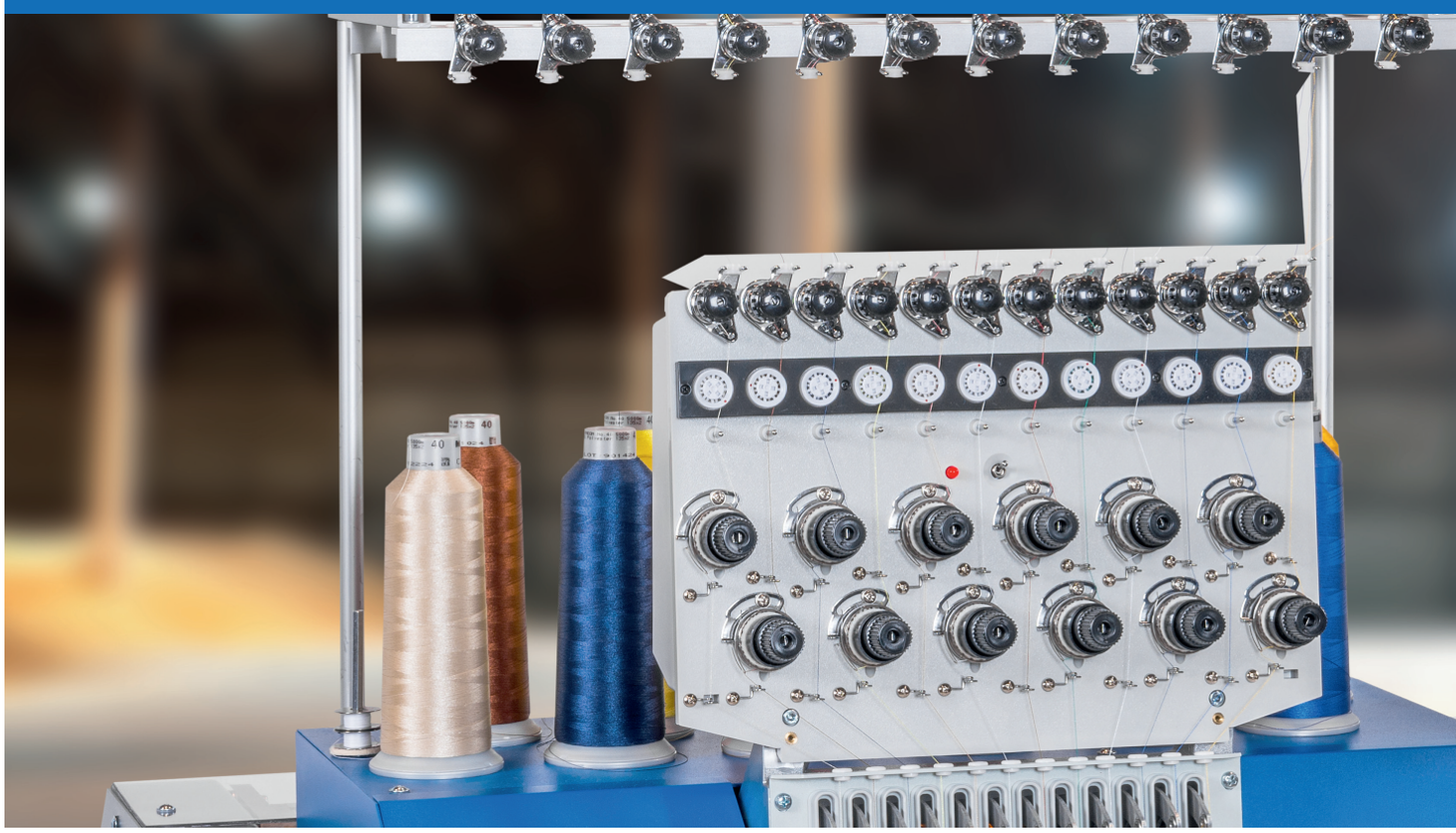
PRODUCT FAMILY ROLL2ROLL

ROLL**2**ROLL Device / Head .....

Technical Machine Setup .....

Optical Positioning System I (Optional) .....

CONTROL UNIT T8



T8-2 CONTROL UINIT

THE MAN-MACHINE INTERFACE

- INTUITIVE AND LOGICAL USE.
- READY FOR NETWORKING.
- ACCEPTS ALL COMMON INDUSTRIAL EMBROIDERY CODES.
- CAN BE OPERATED IN 13 LANGUAGES.
- STORAGE FOR UP TO 80.000.000 STITCHES.
- BARCODE CAPABILITY.

THE CONTROL UNIT T8-2 IS THE MAIN CONTROL OF ZSK EMBROIDERY MACHINES.

ZSK embroidery machines are valued and used all over the world. Of course, the T8-2 supports this with a user interface that can be viewed and operated in 13 different languages.

The languages are:

German, English, Italian, French, Russian, Portuguese, Dutch, Spanish, Turkish, Polish, Hungarian, Greek and Bulgarian.

Just as diverse as the available languages are the data formats with which the T8-2 can work with:

- Barudan (*.DSB)
- Barudan (*.Uxx)
- Brother (*.PEC)
- Brother (*.PES)
- Fortron (*.DSG)
- Melco (*.EXP)
- Pfaff (*.KSM)
- Tajima (*.TBF)
- Tajima (*.DST)
- Tajima (*.EXX)
- Zangs / Marco (*.DSZ)
- Zangs / Marco (*.FXX)
- Zangs / Marco (*.ZSK)

SOFTWARE

EPCWIN

The creation of embroidery design data for different embroidery processes still is one of the greatest challenges in professional embroidery.

In this area, the modular CAD software EPCwin sets completely new standards regarding functionality and user friendliness.

Whether technical embroidery, badges, logos, appliqués, haute couture designs, table cloths, curtains, all over or chemical lace embroidery is required, EPCwin features all program steps ranging from designing, drawing and punching up to editing. The system supports multi head and shuttle embroidery machines. The user is optimally supported and navigated through all work steps and can thus work quickly and efficiently. The system is supported by manuals and online tutorials.

The system includes the following features:

- Imaging
- Drawing
- Digitizing
- Special Design Functions
- Sequin Features
- Automatic Programs
- Editing
- Design Management
- Data Input (.dxf, .ai etc.) and Output (standard industry codes)
- ZSK Vision System – ZEPL Files
- Technical Embroidery Features
- Shuttle Design
- ZSK Thread Cone Management
- W and K Head Setting Management

BASEPAC

BasePac is the ideal digitizing solutions for beginners and intermediate digitizers.

BASEPAC PACKAGES:

BasePac Base

Incl. Design Management, Monogram, Print & Statistics, Editor

BasePac Premium

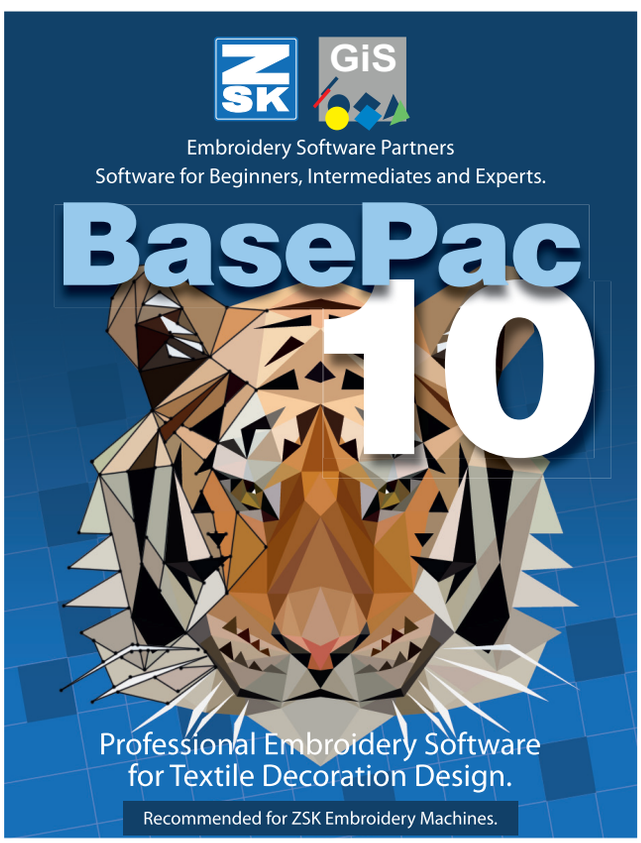
Incl. BasePac Base, Punch 1, ACE

BasePac Professional

Incl. BasePac Premium, Punch 2, Extended Data Output, QuickText with Head Selection

BasePac Technology

Incl. BasePac Professional, Shuttle Embroidery Features, Technical Embroidery Features



BasePac Braille

BasePac Braille is an Option that can be ordered with all BasePac Packages. The Braille functions allows lettering of the patented Braille font. This feature allows to embroider letters and numbers that can be touched by sightless people. The option requires machine connection by ring buffer.

MY.ZSK

My.ZSK 4.0 - Your Embroidery Machine Cockpit

My.ZSK 4.0 is a tool for collecting, archiving, processing and visualizing of all relevant data of the embroidery process in your company.

- Status Dashboard of all ZSK machines
- Progress view of all orders
- Productivity and usage for each machine
- Analysis of thread breakages based on designs, machines, heads and needles
- Design Analysis
- Operator- and Daily Reports
- Shift- and Location Reports
- ensor- and RFID Data for each machine
- Alarms for user defined events i.e. by E-Mail

This is an overview of the features that My.ZSK 4.0 offers in its latest and advanced version for your success.

The system allows you not only to analyse current data, but also to compare and analyse historical data, to recognize tendencies and potential machine or design issues.

My.ZSK provides you with transparency that supports you in organizing your production, to optimise the usage of machines and to strongly increase the efficiency of your production.

Optional sensors deliver information about the surrounding conditions under which production is carried out. Besides sensors for temperature, humidity and air pressure, any other sensor can be connected and integrated into our system and help you to comply with documentation requirements for your orders.

My.ZSK can trigger user defined alarms when certain defined events or values are exceeded.

All relevant data is collected by your personal Data Collector and the encrypted data is transferred to the My.ZSK Cloud. The available analysis tools can also be accessed via your mobile device from all over the world.

Alternatively, we are also offering My.ZSK as an OnPremise solution, where all data is stored in your network and data will never leave your environment.

Independent of your choice for My.ZSK in the Cloud or OnPremise, My.ZSK is using the industrial standard OPCUA-protocol to allow full integration in the “Internet of Things” in the future.

ACCESSORIES

QUCKTEXT WITH HEAD SELECTION

This new feature is part of GiS BasePac Professional Version 10.

The feature allows embroidery of team names (Quicktext) with an efficiency not known so far. The machine feature used for this is Head Selection. All ZSK flat machines (S-Z Series and Challenger Series) are always equipped with head selection, for RACER machines it is an option.

When a machine is equipped with head selection, the take up lever is no longer moving up and down when the head is switched off.

A typical embroidery job might involve patches with a company logo and a name below it. A requirement might be 3 patches per person. In this case the system allows all 4 heads to run the same logo and afterwards one head is automatically being switched off and the 3 equal names are embroidered. Afterwards the last head is automatically switched on to embroider one name of the next three names. The information can be exchanged via the Ringbuffer between machine and the GiS system.

ZSK POOL BOX

The ZSK Pool Box is a connector between your ZSK embroidery machine and your company network.

The Pool Box includes a Zotac PC, a router and a network cable. The system will ease the networking between Windows PCs (incl. Windows 10) and ZSK embroidery machines.

You can connect all your ZSK embroidery machines with T8 and T8-2 as well as all PC's in your company network. Any files that should be accessed by the machines are stored in the ZSK Pool Box. The ZSK machines are networked to the Pool Box and designs can be loaded via Barcode or via the T8-2.

The Windows CE that is operating on the ZSK T8-2 control unit requires them SMB 1 protocol for networking. Latest Windows 10 versions do not include the SMB 1 version anymore. Early Windows 10 versions include the SMB 1 protocol.

If a ZSK machine should be networked directly to a Windows 10 computer, then one should first install an early Windows 10 version and load all updates afterwards. Following this routine, the protocol

will remain on the computer and networking works without any issue. Otherwise the Pool Box will be the solution and a requirement to network Windows 10 computer with ZSK embroidery machines.

The ZSK Pool Box has two benefits in one. Beside acting as a design sever for the ZSK machines, the system can also act as a Data Collector for My.ZSK 4.0 (for the Cloud Version).

BARCODE OPERATIONS

Efficiency is key in every operation.

Reducing loading and operational times increases the profit of the business. The newly added T8-2 feature allows loading of designs via barcode, turning designs i.e. by 180° and many other functions purely by using a barcode scanner and scanning operations.

The new functionality does not require any pressing of keys on the T8-2 apart from the green button to safely start the embroidery process.

ZSK has released a detailed manual on this functionality and its capability.

FRAMES

MIGHTY HOOP KITS

Item	Description	Item No.
Basic Magnetic	Starter kit „Basic Magnetics“ to start immediately. HoopMaster Station, T-Square, 1 x Mighty Hoop 5.5“ , 1 x Fixture for Mighty Hooo, 1 Set Brackets	570.220
Extended Magnetics	„Extended Magnetics” for large Mighty Hoops. 10“ x 10“ Mighty Hoop , 1 x Adjustable Fixture , 1 Set Brackets	570.217

HOOPMASTER

ITEM	DESCRIPTION	ITEM NO.
HoopMaster - Infant	The station „Infant“ is about 215 mm or 8.5“ wide. It works great for baby and toddler sizes.	570.201
HoopMaster - Medium	The station „Medium“ is about 330 mm or 13“ wide. The station is bout 76 mm or 3“ narrower than the standard station.	570.248
HoopMaster - Standard	The station „Standard“ is 405 mm or 16“ wide and good for standard garment sizes. This station can be extended with the „Extender“ for large clothing sizes	570.234
HoopMaster - Extender	This plate will broaden the HoopMaster station „Standard“. This part allows the easier alignment of clothing sizes XL and larger.	570.215

ADDITIONAL EQUIPMENT FOR MIGHTY HOOP / HOOP MASTER

Item	Descripton	Item No.
Pocket Guide	Pocket Guide for Mighty Hoop 5.5“	570.244
Free Style Base	Portabel Base for Fixtures Mighyt hoop	570.216
Fold & Bag	Fold & bag helps to fold shirts and preadjued width and length and to bag them.	570.214
Extra Bottom Ring 5.5“	This ring is supplied with weaker magnets than the standard. That works well with shirts and light fabrics.	570.249

MIGHTY HOOP MAGNETIC FRAMES

MIGHTY HOOP	DIMENSIONS	FOR HEADDISTANCE	ITEM NO.
Mighty Hoop 4.25“	4.25“ / 108 mm	400 mm / 495 mm	570.231
Mighty Hoop 4.375“ round	4.375“ / 111.1 mm round	400 mm / 495 mm	570.259
Mighty Hoop 5.5“	5.5“ / 135 mm	400 mm / 495 mm	570.221
Mighty Hoop 6.5“	6.5“ / 165 mm	400 mm / 495 mm	570.257
Mighty Hoop 7.25“	7.25“ / 184 mm	400 mm / 495 mm	570.225
Mighty Hoop 10“	10“ / 254 mm	400 mm / 495 mm	570.223
Mighty Hoop 4.25“ x 13“	4.25“ x 13“/ 108 x 330 mm	495 mm	570.258
Mighty Hoop 6.25“ x 8.25“	6.25“ x 8.25“ / 159 x 210 mm	495 mm	570.245
Mighty Hoop 8“ x 9“	8“ x 9“ / 203 x 229 mm	400 mm / 495 mm	570.255
Mighty Hoop 8“ x 13“	8“ x 13“ / 203 x 330 mm	495 mm	570.233
Mighty Hoop 9“ x 5“	9“ x 5“ / 229 x 127 mm	400 mm / 495 mm	570.256
Mighty Hoop 11“ x 13“	11“ x 13“ / 280 x 330 mm	495 mm	570.227
Mighty Hoop 12“ x 11“	12“ x 11“ / 305 x 280 mm	400 mm	570.276
Mighty Hoop 12“ x 15“	12“ x 15“ / 305 x 381 mm	495 mm	570.235
Mighty Hoop 13“ x 16“	13“ x 16“ / 330 x 406 mm	495 mm	570.237
Mighty Hoop 13“ x 4.25“	13“ x 4.25“/330 x 108 mm	400 mm / 495 mm	570.229
Mighty Hoop 16“ x 4.25“	16“ x 4.25“/406 x 108 mm	400 mm / 495 mm	570.439

MIGHTY HOOP FIXTURE

For the HoopMaster System

FIXTURE	ITEM NO.
For Mighty Hoop 4.25“	570.232
For Mighty Hoop 4.375“	570.267
For Mighty Hoop 5.5“	570.222
For Mighty Hoop 6.5“	570.266
For Mighty Hoop 7,25“	570.226
Universal Fixture from 10“x10“ to 13“x16“	570.224
For Mighty Hoop 13“ x 4.25“	570.230
For Mighty Hoop 16“ x 4.25“	570.268

FIXTURE ALLIEDI AGL / PAGL

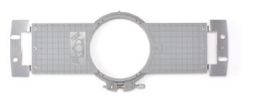
For the HoopMaster System

FIXTURE	ITEM NO.
For AGL / PAGL Hoop 80 mm / 3.15“	570.238
For AGL / PAGL Hoop 120 mm / 4.7“	570.239
For AGL / PAGL Hoop 150 mm“/5.9“	570.240
For AGL / PAGL Hoop 180 mm / 7“	570.241
For AGL / PAGL Hoop 210 mm / 8.3“	570.242
For AGL / PAGL Hoop 300 mm / 11.8“	570.243

FRAMES

PLASTIC FRAMES ROUND

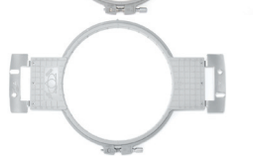
PAGL Hoop 80- Dimension: 80 mm / 3.15“ round. Item No.: 376.010.984
For ZSK embroidery machines with head distance 400 and 495 mm.



PAGL Hoop 120- Dimension: 120 mm / 4.72“ round. Item No.: 376.010.985
For ZSK embroidery machines with head distance 400 and 495 mm.

PAGL Hoop 150- Dimension: 150 mm / 5.9“ round. Item No.: 376.010.986
For ZSK embroidery machines with head distance 400 and 495 mm.

PAGL Hoop 180- Dimension: 180 mm / 7“ round. Item No.: 376.010.987
For ZSK embroidery machines with head distance 400 and 495 mm.



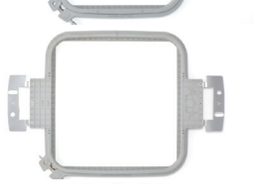
PAGL Hoop 210- Dimension: 210 mm / 8.26“ round. Item No.: 376.010.988
For ZSK embroidery machines with head distance 400 and 495 mm.

PLASTIC FRAMES SQUARE

PAGL Hoop 140 x 150- Dimension: 140 x 150 mm / 5.51“ x 5.9“. Item No.: 376.010.996
For ZSK embroidery machines with head distance 400 and 495 mm.

PAGL Hoop 160 x 170- Dimension: 160 x 170 mm / 6.29“ x 6.9“ Item No.: 376.010.995
For ZSK embroidery machines with head distance 400 and 495 mm.

PAGL Hoop 190 x 200- Dimension: 190 x 200 mm / 7.48“ x 7.87“ Item No.: 376.010.994
For ZSK embroidery machines with head
distance 400 and 495 mm.



PAGL Hoop 240 x 240- Dimension: 240 mm / 9.44“ Item No.: 376.010.989
For ZSK embroidery machines with head distance 400 and 495 mm.

PAGL Hoop 240 x 300- Dimension: 240 x 300 mm / 9.44“ x 11.8“ Item No.: 376.010.990
For ZSK embroidery machines with head distance 400 and 495 mm.

PAGL Hoop 300 x 300- Dimension: 300 mm / 11.8“ Item No.: 376.010.991
For ZSK embroidery machines with head distance 400 and 495 mm.

SPECIAL FRAMES

POCKET FRAME SET
ITEM NO.: 376.028.918

POCKET FRAME 55

POCKET FRAME 70

POCKET FRAME 130

SOCKS FRAME

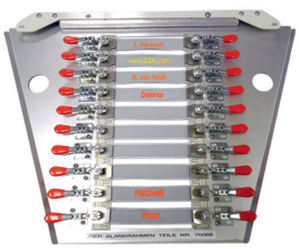
FRAMING JIG FOR SOCKS FRAME

SHIRT COLLAR FRAME

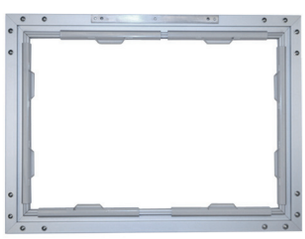
CAP FRAME

FRAMES

STENCIL FRAME

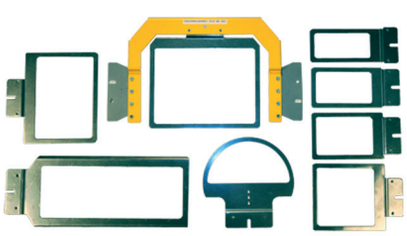


STENCIL FRAME

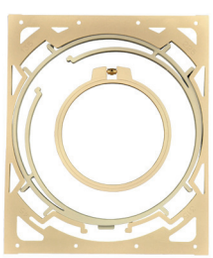


BORDER FRAME SPRINT SERIES

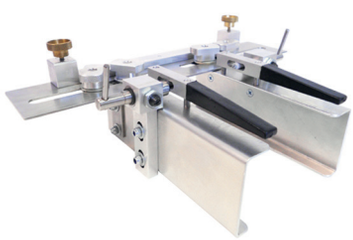
CLAMPING FRAME SYSTEM



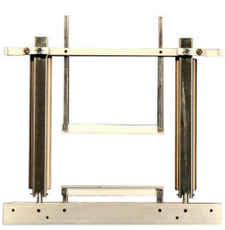
POCKET FRAMES SET „8 IN 1“



SPIDER FRAMES
FIBREGLASS FRAMES SET



SHOE FRAME



BELT STRAP FRAME - 3 SIZES

ZSK STICKMASCHINEN

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