ZSK STICKMASCHINEN

Embroidery Solutions
Made in Germany

NEWS

Online Shop

Original ZSK spare parts, embroidery frames, software and much more!

T8.3 Control Unit

- 1 Billion Stitch Storage
- Linux Operating System
- Lightning-Fast Start

SPRINT 7 MAX

- 24 Needles - huge colour variety!
- Ideal with ZSK Thread Cone Matching
- Ideal for Fulfillment Provider

RACER Increased Productivity

Enhanced performance for our RACER machines, now operating at 1.100rpm.


Flatbed machines with 18/24 needles / colours

We can now also offer our customers flatbed machines with 18 and 24 needles.
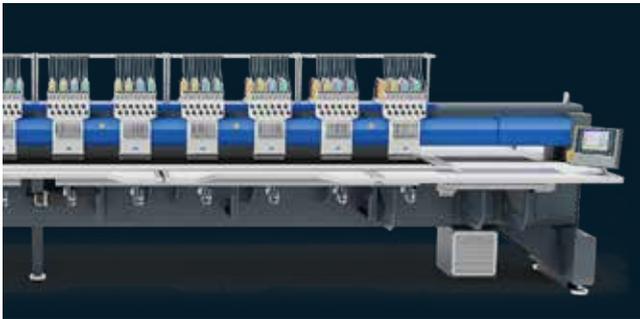
CHALLENGER II

- Lower Noise
- Soft Stitch Feature
- Improved Stitch Quality
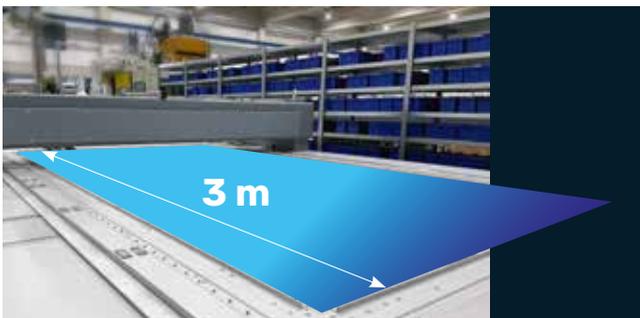
Large embroidery field depth

We offer large embroidery field depths of 2.000mm, 2.500mm, and even 3.000mm.

3 m

Optimization F-Head

- Noise reduction
- Improved thread feeding
- Improved bearing for needle package
- Shorter needle block
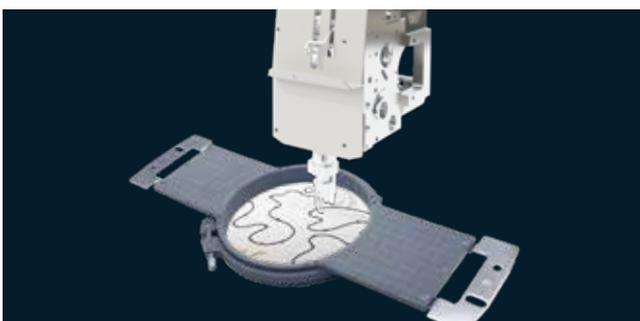
Tubular operations W-Head

The new Racer Z 0118- 495 (500) SF allows the use of the W-Head on tubular goods due to the removable tabletop.

End of Thread Detection - W-Head

End of the thread is detected directly at the cone. Prevents need for new threading. Optimized upper thread guidance.

NEWS

Switching K-Head thread tension

Different underthread tensions are needed for chain and moss embroidery.
The switching of the thread tension is now controlled by the embroidery pattern.

Border frame accessories

- Heavy duty border frame clamps
- Border frame clamps with deflectors
- Border frame divider

Quick Clamp

- Simple to assemble and easy to use.
- Arms are adjustable to the product width and the material thickness.

Saddle Pad Frame

- Ideal for embroidering saddle pads.

Premium Cap Frame Device

- Easy connect system
- Extra rigid connection for even more precise embroidery results
- Suitable for all RACER and SPRINT (excluding Classic)

Roll2Roll Frame

- Flexible adjustment in width
- Suitable for RACER models with a border frame depth of 700mm

Coloreel Integration

- Direct communication between Single Head ZSK and Coloreel
- Exchange of stitch position
- Allows for repeat design quality and colours

SPRINT 7 Patch Solution

Seamless, Automated Patch Production and Velcro Attachment.
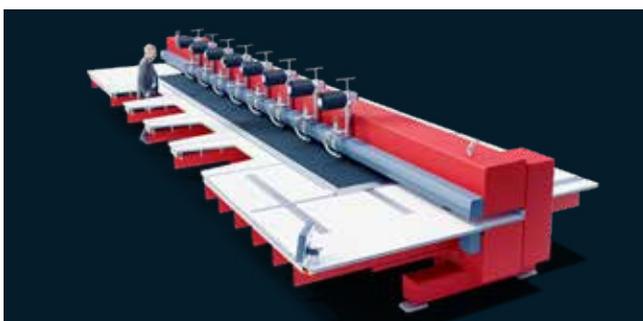
Frame geometry for side pull-through

Due to the modified frame geometry, the new side pull-through principle does not cause material deflection.
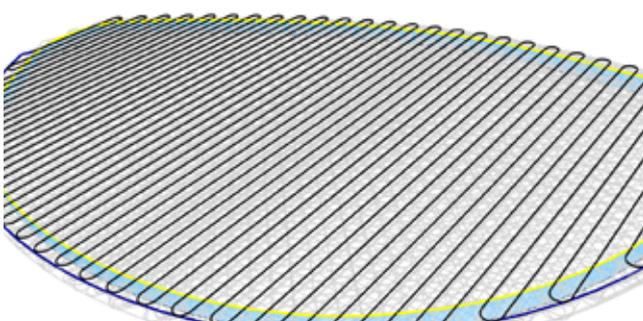
CAESA® TFP Software

- Automated creation of Lay Ups
- Adjusts direction and spacing of fibers
- Exports layers or full parts as a line „ready for EPCwin"

KEY FEATURES

OF ZSK EMBROIDERY MACHINES

Slimmest Tubular Arm

The slim tubular arm measures 44,3 by 43mm. The tubular arm works without a visible picker.

T8 Control Unit

The control unit is used on all ZSK embroidery machines. The T8 control unit can be retro fitted on ZSK machines since 1998.

Network Ready

The T8-3 is equipped with 1x USB-C, 3x USB-2.0 and 1x LAN Port. No additional licenses are required for networking. Touchscreen Tablets can be connected.


Automatic Head Selection

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

Height Adjustable Presser Foot

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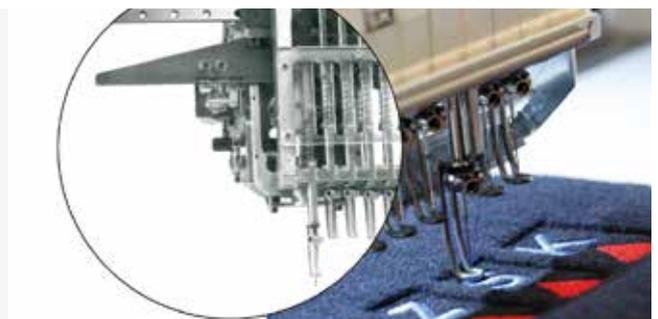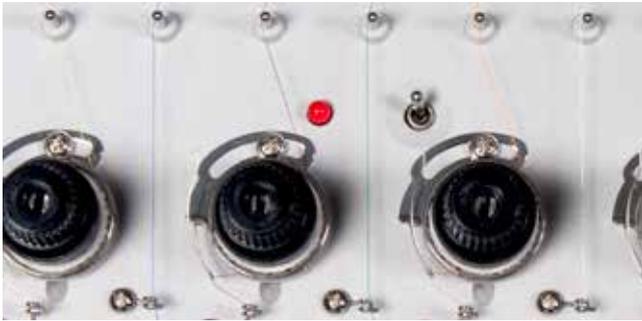
Maintenance Lamp

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

Thread Break Detection

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

Take Up Lever Guard

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

Barcode Ready

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

Fast Threading Presser Foot

The split presser foot design allows for fast threading for the operator. This makes threading simple and increases efficiency.

SPRINT

WHERE TECHNOLOGY AND CRAFTSMANSHIP INTERSECT

Celebrated globally, SPRINT is the essence of technology and efficiency, consistently delivering unparalleled embroidery outcomes.

Available in 12, 18 and 24 needle models, SPRINT showcases unmatched versatility, effortlessly changeable between tubular, cap, and flat embroidery modes, ensuring your creative visions are never limited.

While each SPRINT model stands distinct, catering to specific needs, they are united in offering ZSK's advantages.

Dive into the world of SPRINT, where the nexus of state-of-the-art technology, unrivaled efficiency, and flawless embroidery unleashes a canvas of boundless artistic opportunities.

SPRINT CLASSIC

SPRINT 6 / 6L / 6XL

SPRINT 7 / 7L / 7XL / 7 MAX

SPRINT 8

QR CODE
Scan the QR code and view a comparison of all SPRINT models as PDF.

SPRINT

SPRINT CLASSIC - THE STRENGTH OF SIMPLICITY

KEY FEATURES

- Standard Tubular Arm
- Expandable with Accessories
- Stepper Motor
- Optional: Sewing Thread Setup

SPRINT 6 / 6L / 6XL - UNLEASH YOUR CREATIVITY

SPRINT 6L   SPRINT 6XL

KEY FEATURES

- Slim Tubular Arm
- Expandable with Accessories
- Stepper Motor
- Larger Sewing Field Versions available

SPRINT 7 / 7L / 7XL - EMBROIDERY EXCELLENCE

SPRINT 7L   SPRINT 7XL

KEY FEATURES

- 18 Colours
- Slim Tubular Arm
- Expandable with Accessories
- Servo Drives
- Optional: SPRINT 7L with Sewing Thread Setup

SPRINT 7 MAX - FULFILLMENT SPECIALIST

KEY FEATURES

- 24 Colours
- Slim Tubular Arm
- Expandable with Accessories
- Fast Colour Change
- Servo Drives

SPRINT

SPRINT 8 - NEXT-LEVEL PERFORMANCE

KEY FEATURES

- Slim Tubular Arm
- Reinfored Machine Body for heavy applications
- Soft Embroidery Stitch Feature
- Reduced Noise Level
- Quick Change Technology (frames)
- Fast Colour Change
- Improved Thread Tension
- 3D Embroidery Feature
- Servo Drives
- Optional: Status Light with Noise

SPRINT MODEL	CLASSIC	6	6L	6XL	7	7L / 7L SONDER	7XL	7 MAX	8
Needles	12	12	12	12	18	18	18	24	18
Stitches Tubular / Flat max. (per minute)	1.200	1.200	1.200	850 / 1.000	1.200	1.200	1.000	1.200	1.200
Stitches Cap max. (per minute)	1.000	1.000	1.000	900	1.000	1.000	1.000	1.000	1.000
Embroidery Field [WxD] max. (mm)	460 x 310	460 x 310	600 x 280	1.200 x 280	460 x 310	600 x 400	1.400 x 400	460 x 310	460 x 310
Border Frame [WxD] max. (mm)	460 x 310	460 x 310	600 x 280	1.200 x 280	460 x 310	600 x 400	1.400 x 400	460 x 310	460 x 310
Tubular Frame [WxD] max. (mm)	400 x 300	400 x 300	400 x 280	400 x 280	400 x 300	400 x 300	400 x 300	400 x 300	400 x 300
Cap 360 [WxD] max. (mm)	360 x 70	360 x 70	360 x 70	360 x 70	360 x 70	360 x 70	360 x 70	360 x 70	360 x 70
Shoes [WxD] max. (mm)	124 x 175	124 x 175	124 x 175	124 x 175	124 x 175	124 x 175	124 x 175	124 x 175	124 x 175
Machine Size [WxDxH] max. (mm)	1.160 x 943 x 875	1.160 x 943 x 875	1.340 x 985 x 875	2.580 x 985 x 1.595	1.260 x 940 x 875	1.410 x 1.215 x 1.650	2.925 x 1.215 x 1.650	1.340 x 940 x 875	1.250 x 960 x 980
Power Supply (V)	230	230	230	230	230	230	230	230	230
Weight (Kg)	130	90**	130	90**	140	100**	180	140	100**	225	270	110	190	130**

OPERATING MODES

Border Frame Embroidery

Cap Embroidery

Tubular Embroidery

3D EMBROIDERY ON CAPS

COLOREEL

KEY FEATURES

- **Exactly the right colours**
  The Coloreel unit offers unlimited colours and always provides exactly the right colour when needed.

- **Amazing colour effects**
  Rapid colour changes or smooth transitions between any solid colour.

- **Increased productivity**
  Only one thread reel, no unnecessary trims and lock stitches give faster production.

- **No thread waste**
  Dyeing only the amount of thread required reduces waste.

EPS HOOP STATION

ADVANTAGES

- Visualize your embroidery files directly on the fabric (.DST .Z00)
- Move embroidery files within the hoop and transfer them to the ZSK embroidery machine (only)
- Draw and save virtual guide lines
- Use tools such as grids or rulers
- With the help of the production wizard print barcodes and scan them directly at the machine

Brochure EPS Hoop Station:

EPS BOW

ADVANTAGES

- Visualize lines, logos and virtual ruler. Display information texts or press times directly
- Load image files directly into the EPS via USB stick, network or directly via barcode
- Use one of the many help tools such as: Virtual lines, grids, parallel-double lines, and more

Brochure EPS Bow:

RACER

THE SINGLE- AND MULTI-HEAD EMBROIDERY MACHINES

For large quantity orders, quickly changing motives and special requirements, ZSK STICKMASCHINEN multi-head embroidery machines are the perfect solution.

In the areas of promotion and advertising, corporate fashion, clubwear and the individualization of textiles, the RACER leave nothing to be desired.

RACER CLASSIC

RACER

RACER II

RACER XL

RACER

FEATURES OF SERIES RACER

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.

Ergonomic Machine Height

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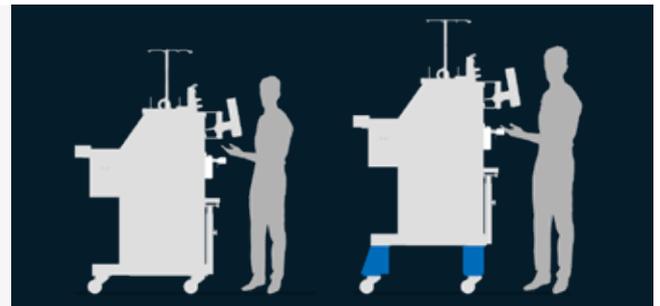
Barcode Operation

A barcode reader can be connected via USB to the T8 control unit. The reader can be used to scan barcodes and to load designs. A new feature allows the operation of T8 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.

Cross Laser Positioning

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

Strong Springs

When working with heavy materials like leather this feature avoids missing stitches.
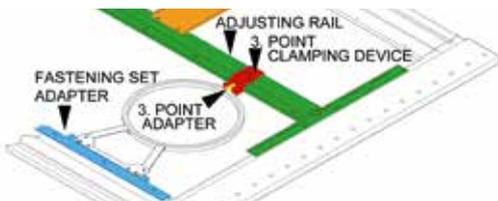
Z-200 Connection

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

Head Selection

The automatic Head Selection is a standard feature of series RACER (excl. CLASSIC).

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.

QR Code

Scan the QR code and view a comparison of all RACER models as PDF.

RACER

THE RACER CLASSIC - TIMELESS CLASSIC

RACER 4 CLASSIC

RACER 6 CLASSIC

RACER 8 CLASSIC

KEY FEATURES

- 12 Needles / Colours
- Available with 4, 6 and 8 heads
- Head distance of 400mm only
- Embroidery field depth of max. 500mm
- Standard tubular arm with protective cover
- For tubular, cap and flat operations
- Expandable with accessories
- T8 controller unit
- Network compatible
- Stepper motor
- Assembled in Czech Republic
- Designed in Germany

The standard tubular arm offers a protective flap, that no material will get caught by the picker.

THE RACER XL - EMBROIDERY FIELD TOO SMALL?

RACER 1XL / RACER 0124
24 NEEDLES

RACER 2XL / RACER 0224 • 24 NEEDLES
RACER 0218 • 18 NEEDLES

RACER XL- Integration of SEIT Laser System

KEY FEATURES

- 18 and 24 Needles / Colours
- Available with 1 and 2 heads
- Head distance of 550, 700 and 1.000mm
- Embroidery field depth of max. 700mm
- Automatic Head Selection
- Servo drives
- Double Drive (on selected models)
  allowing embroidery fields of up to 1.400x700mm
- Optional ZSK Vision System
  For precision in combination with perforation
- Network compatible
- Built for 24/7 - 365 days a year
- Made in Germany

ZSK STICKMASCHINEN

RACER

THE ORIGINAL RACER

DO YOU WANT TO GROW?

Welcome to the original RACER series, featuring models RACER 1, RACER 2, RACER 4, RACER 6, RACER 8, and RACER 12.

This powerful series of workhorses is designed to maximize efficiency and precision, allowing you to complete projects in record time.

ZSK's RACER concept guarantees the shortest return of investment thanks to the highest embroidery speed.

With 12 needles per head and the industry's slimmest tubular arm, they ensure precise and easy embroidery in even the tightest spots.

Choose a model to suit your needs: The series offer head distances of 400mm (S) and 495mm (W) and embroidery field depths of 500mm and 700mm (L).

Use standards like the automatic head selection and the license free network possibilities for your workflow. Enhance your creativity with a multitude of optional accessories like sequin devices.

Experience the thrill of accelerated embroidery with the RACER and take your craftsmanship to new heights.

RACER 1W | Racer 1WL

RACER 2W | RACER 2WL

RACER 4S | RACER 4W | RACER 4WL

RACER 6S | RACER 6SL | RACER 6W

KEY FEATURES

- 12 Needles / Colours
- Available with 1, 2, 4, 6, 8 and 12 heads
- Head distance of 400 / 495mm
- Embr. field depth of max. 500 / 700mm
- Slim tubular arm
- For tubular, cap and flat operations
- Servo Drives

- Infinite creativity with a multitude of accessories
- Automatic Head Selection
- T8 controller unit
- Network compatible
- Built for 24/7 - 365 days a year
- Made in Germany

RACER 8S

RACER 12S

RACER

THE RACER II

DO NOT WASTE TIME CHANGING THREADS

Discover the extraordinary ZSK RACER II, a groundbreaking series of embroidery machines.

With 18 needles per embroidery head, it offers unparalleled design possibilities.

Benefit of time-saving developments including the Fast Colour Change and Fast Catcher. Using the Thread Cone Matching feature of ZSK Terminal Software allows ideal usage of 18 colours.

Create vibrant designs without wasting precious time. Switch between needles and colours quickly with the Fast Colour Change feature, reducing operation time and maximizing productivity.

The RACER II maintains the industry's slimmest tubular arm and includes automatic thread cutter, upper and lower thread control, automatic backstitch function, adjustable presser foot, and more.

Unlock your creativity and economic success with the RACER II series, where efficiency, precision, and limitless possibilities converge.

Experience embroidery innovation at its finest.

RACER 1WL II

RACER 2W II

RACER 4W II | RACER 4WL II

KEY FEATURES

- 18 Needles / Colours
- Available with 1, 2, 4, 6 and 8 heads
- Head distance of 495mm only
- Embroidery field depth of max. 500 / 700mm
- Slim tubular arm
- Servo drives
- Expandable with accessories

- For tubular, cap and flat operations
- Fast Colour Change and Fast Catcher
- High stitch quality due to 18 needle heads
- Automatic Head Selection
- Network compatible
- Built for 24/7 - 365 days a year
- Made in Germany

RACER 6W II

RACER 8WL II

RACER

COMPARISON BY TECHNICAL DATA

MACHINE	HEADS	NEEDLES	HEAD DISTANCE [MM]	DEPTH 500 19,7"	DEPTH 700 27,5"	BORDER FRAME	TUBULAR	CAP
RACER CLASSIC								
RACER 4S Classic	4	12	400	✔		1.600 x 500	405 x 300	70 x 360
RACER 6S Classic	6	12	400	✔		2.400 x 500	405 x 300	70 x 360
RACER 8S Classic	8	12	400	✔		3.200 x 500	405 x 300	70 x 360
RACER								
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 2W	2	12	495	✔		990 x 500	405 x 395	70 x 360
RACER 2WL	2	12	495		✔	990 x 700	405 x 395	70 x 360
RACER 4S	4	12	400	✔		1.600 x 500	405 x 300	70 x 360
RACER 4W	4	12	495	✔		1.980 x 500	405 x 395	70 x 360
RACER 4WL	4	12	495		✔	1.980 x 700	405 x 395	70 x 360
RACER 6S	6	12	400	✔		2.400 x 500	405 x 300	70 x 360
RACER 6SL	6	12	400		✔	2.400 x 700	405 x 300	70 x 360
RACER 6W	6	12	495	✔		2.970 x 500	405 x 395	70 x 360
RACER 8S	8	12	400	✔		3.200 x 500	405 x 300	70 x 360
RACER 12S	12	12	400	✔		-	405 x 300	70 x 360
RACER II								
RACER 1 WL II	1	18	-		✔	500 x 700	405 x 395	70 x 360
RACER 2W II	2	18	495	✔		990 x 500	405 x 395	70 x 360
RACER 4W II	4	18	495	✔		1.980 x 500	405 x 395	70 x 360
RACER 4WL II	4	18	495		✔	1.980 x 700	405 x 395	70 x 360
RACER 6W II	6	18	495	✔		2.970 x 500	405 x 395	70 x 360
RACER 8WL II	8	18	495		✔	3.960 x 700	405 x 395	70 x 360
RACER XL								
RACER 1XL	1	24	-		✔	700 x 700	-	-
RACER 0124	1	24	-		✔	1.000 x 700	-	-
RACER 2XL	2	24	700		✔	1.400 x 700	-	-
RACER 0218	2	18	550		✔	1.100 x 700	-	-
RACER 0224	2	24	700		✔	1.400 x 700	-	-

EMBROIDERY SPEED min^{-1}	MACHINE DIMENSIONS [MM]			NET MASS [KG]
FLAT / TUBULAR / CAP	LENGTH [MAX. / MIN]	DEPTH [MAX. / MIN]	HEIGHT	
1.000 / 1.100 / 1.000	2.580 / 2.470	1.330 / 830	1.720 / 1.490	700
1.000 / 1.100 / 1.000	3.380 / 3.270	1.330 / 830	1.720 / 1.490	850
1.000 / 1.100 / 1.000	4.360 / 4.250	1.640 / 1.170	1.680 / 1.430	1.310
1.000 / 1.100 / 1.000	1.550 / 1.430	1.330 / 830	1.750 / 1.490	400
1.000 / 1.100 / 1.000	1.550 / 1.430	1.825 / 1.080	1.750 / 1.490	430
1.000 / 1.100 / 1.000	1.960 / 1.840	1.330 / 830	1.750 / 1.490	490
1.000 / 1.100 / 1.000	1.960 / 1.840	1.825 / 1.080	1.750 / 1.490	550
1.000 / 1.100 / 1.000	2.580 / 2.470	1.330 / 830	1.720 / 1.490	700
1.000 / 1.100 / 1.000	3.380 / 3.270	1.330 / 830	1.720 / 1.490	850
1.000 / 1.100 / 1.000	3.380 / 3.270	1.840 / 1.080	1.720 / 1.490	920
1.000 / 1.100 / 1.000	3.380 / 3.270	1.330 / 830	1.720 / 1.490	850
1.000 / 1.100 / 1.000	3.380 / 3.270	1.840 / 1.080	1.720 / 1.490	950
1.000 / 1.100 / 1.000	4.360 / 4.250	1.640 / 1.170	1.680 / 1.490	1.260
1.000 / 1.100 / 1.000	4.360 / 4.250	1.640 / 1.170	1.680 / 1.430	1.310
- / 1.100 / 1.000	6.015 / 5.900	1.150	1.760 / 1.450	2.250
1.000 / 1.100 / 1.000	1.960 / 1.840	1.330 / 830	1.720 / 1.500	
1.000 / 1.100 / 1.000	3.380 / 3.270	1.330 / 830	1.720 / 1.500	850
1.000 / 1.100 / 1.000	3.380 / 3.270	1.840 / 1.080	1.720 / 1.500	920
1.000 / 1.100 / 1.000	4.360 / 4.250	1.640 / 1.170	1.720 / 1.500	1.260
1.000 / 1.100 / 1.000	6.015 / 5.900	2.050 / 1.350	1.760 / 1.450	
1.000 / 1.100 / 1.000	6.015 / 5.895	2.050 / 1.350	1.760	
1.000 /- /-	1.960 / 1.850	1.825 / 1.080	1.790 / 1.490	505
1.000 /- /-	2.580 / 2.470	1.840 / 1.080	1.790 / 1.490	400
1.000 /- /-	2.580 / 2.470	1.840	1.790 / 1.490	792
1.000 /- /-	3.380 / 3.270	1.840	1.760 / 1.490	790
1.000 /- /-	3.380 / 3.270	1.840	1.760 / 1.490	790

The Future of Embroidery

INNOVATIVE TECHNOLOGY WITH 2.020 RPM

Revolutionize your embroidery with ZSK's ground-breaking R-Head, boasting unrivaled precision and speed at 2.020 rpm.

The R-Head is not just about speed. It represents a quantum leap in embroidery quality and reliability. Expect a massive reduction in noise levels, providing a more serene working environment.

This new technology brings superior embroidery quality, making intricate and detailed designs a breeze.

For service convenience the R-Head can be easily and quickly exchanged, a substantial service benefit that saves time and reduces potential headaches.

The R-Head winning the Texprocess Innovation Award 2022 solidifies its position as the latest in embroidery technology, cementing ZSK's industry leadership.

AVAILABLE MODELS

RACER R 1W

RACER R 4W

RACER R 0218-700D (700) SKW

CHALLENGER SGR 0218-700D (1000) SKW

QMBR 0118-1200 (1600) JSKW
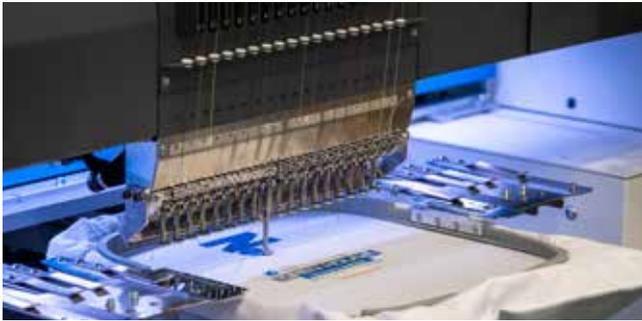
High Speed

Embroidery head, pantograph, drives, frame - each part designed for high speeds of up to 2020rpm.

Improved Embroidery Quality

Smooth operation, low vibration, and ideal needle-rotary hook alignment. Separate drives for needle and presser foot with the use of ZSKs Intelligent Presser Foot (IPF) Technology.
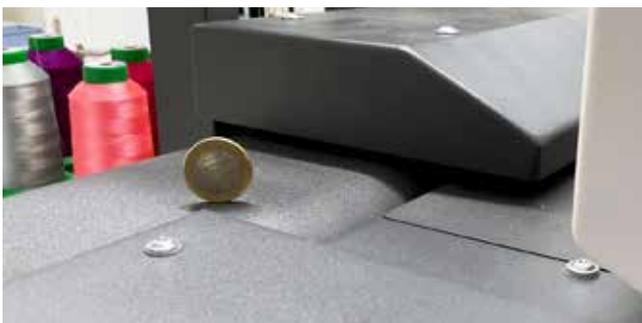
Low Vibration and Noise Reduction

The R-Series machines are noticeably quieter, even at highest speeds.

Ergonomic Operating

Improved yarn stand accessibility at ergonomic height and cone visibility. Snap Back Overload Protection (SBOP) for fast pawl latch-in during crashes. Electronic IPF control via design file or controller streamlines material changes.
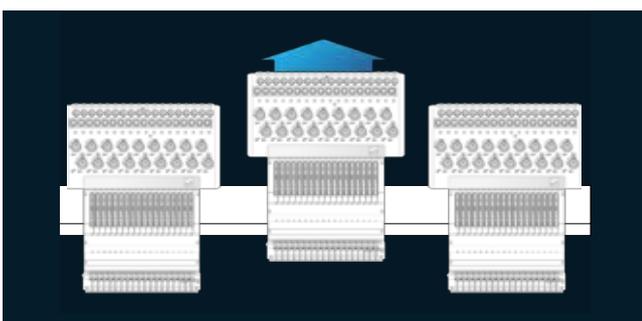
Easy Maintenance

The embroidery head can be easily removed without the need to pull out and readjust the shaft. Simplified access to controls and drives.

FLATSYSTEM

S, M, L, X, Y, Z SINGLE- & MULTIHEAD EMBROIDERY

SGFA 0112

XCFB1512

YCFA 4406

ZBFA 5606

KEY FEATURES

- 6, 9, 12, 18, 24 Needle
- Flat Series with 1 - 56 Embroidery Heads
- Head Distances of 24/4, 48/4, 200, 240, 300, 350, 400, 480, 600, 700, 800, 1.200, 1.400, 2.100mm
- Embroidery Field Depth 500, 700, 1.000, 1.200, 1.400, 1.500, 2.000, 2.500, 3.000mm
- Speed up to 1.100 RPM
- Upper and lower thread control
- Head Selection to create motifs in border frame up to 9.000mm

- Automatic Back Stitching in case of thread breakage
- Industry 4.0 - Data Recording and Analysis (MY.ZSK)
- Servo Motors in Challenger and Challenger II Series
- Fast Colour Change in Challenger (optional) and Challenger II
- Soft Stitch Feature in Challenger II
- Linking Schiffli and Multi Head Embroidery with 24/4 and 48/4 Head Distances

CHALLENGER

EMBROIDERY FIELD DEPTHS: 2.000MM, 2.500MM, 3.000MM

CHALLENGER II

CHALLENGER 18N / 24N

Q-SERIES

ZSK STICKMASCHINEN

FLATSYSTEM

CHALLENGER

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
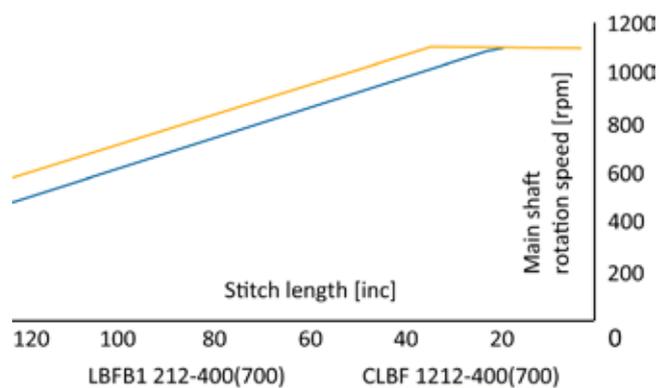
Colour Change:

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.

CORDING & TAPING / MOSS & CHAIN

YOU NEED A CHANGE?

K - HEAD

The K-Head is ZSKs embroidery head for Chain and Moss embroidery – often described as Chenille embroidery.

- The K-Head uses a crooked needle to pull thread from underneath the machine to create Moss and Chain stitches

- Operated by four servo motors – allows adjustment of design parameters (height adjustment of Chenille loops) in embroidery file and via T8 Controller

- 6 and 12 Needles per Embroidery Head – Auto Colour Change System

- Fast Colour Change (optional) for 12 Needle version

- 750 Stitches per Minute

- Mixed type machine with F- and K-Head (H) and F-, K- and W-Head (V) available

K-HEAD BROCHURE

RACER K 0200

W-HEAD Chain Stitch Embroidery

K-HEAD Moss Stitch Embroidery

W – HEAD

The W-Head is ZSKs embroidery head for Cording, Taping and Coiling – often described as Zig Zag embroidery.

- The material can be provided from two spools at the W-Head or from large cones above the W-Head.

- If material is supplied from Supply Units (above the W-Head) the Unwinding Function can unwind the head if turns are greater than360°.

- The W-Head can be used for ribbons, cording, fancy yarns, sequin ropes and much more.

- A large variety of feet are available to guide materials of different types and dimensions. (i.e. for standing tapes, frill embroidery etc.)

- Control of W-Head parameters and Zig Zag Stitch Types via design file and T8 setting (Z axis start direction, swing control etc.)

- Small and large spools available for W-Head

- High stitch quality due to low vibration and maintenance free bearings

- 850 Stitches per Minute

- Mixed type machine with F- and W-Head (Z) and F-, K- and W-Head (V) available

W-HEAD Standing Embroidery

W-HEAD Frill Embroidery
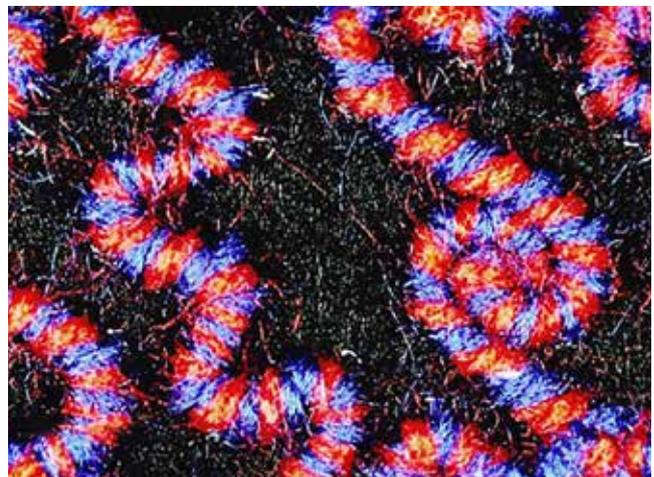
W-HEAD BROCHURE

W-HEAD Coiling

COMBINATION MACHINES

CORDING & TAPING / MOSS & CHAIN

COMBINATION MACHINES

Mixed type (combination) machines with F- and W-Head (Z), F- and K-Head (H) and F-, K- and W-Head (V) are available.

The combination machines are offered as Single and Multihead Machines in a variety of Head Distances and Field Depths.

Machines can be equipped with 6, 9, 12, 18 and 24 Needles on the F-Head (depending on Head Distance) and 6 and 12 Needles on the K-Head.

The minimum head distance between different head types is 275mm.

RACER H 0118

- 18 Needles F-Head with Fast Colour Change

- 6 Needle K-Head with a thread stand ready for Chenille cones

- K-Head allows Chain and Moss Embroidery 495 x 500mm embroidery field

- Split Table to enable F-Head to run Tubular and Cap embroidery

- Both heads can operate together in Border Frame mode

RACER Z 0118

- 18 Needles F-Head with Fast Colour Change

- 1 Needle W-Head – able to stitch in tubular hoops (new feature)

- W Head allows Cording, Taping and Coiling

- 495 x 500mm embroidery field

- Removeable Table to enable F-Head to run Tubular and Cap embroidery

- Both heads can operate together in Border Frame mode

ZSK STICKMASCHINEN

ACCESSORIES

TWIN SEQUIN DEVICE T7 (2-9MM)

SEQUIN DEVICE (3-9MM / 3-19MM)

STRASS SEQUIN DEVICE

FUNCTIONAL SEQUIN DEVICE

CORDING DEVICE
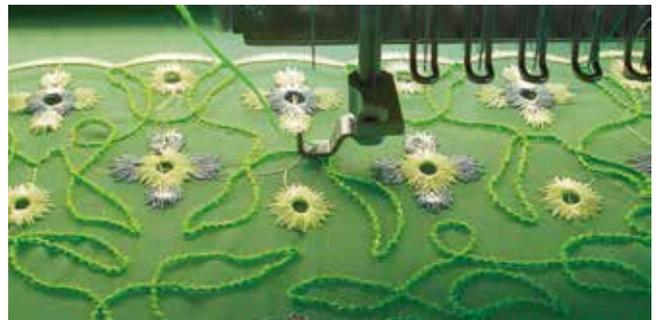
CORD / LOOP DEVICE

HAC - HOT AIR CUTTING

BEAD DEVICE TWIN

BORING
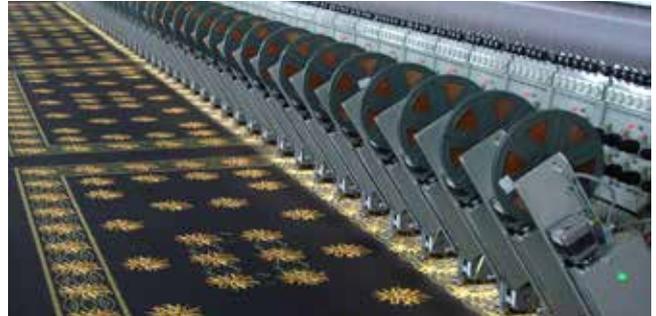
AUTOMATIC HEAD SELECTION

SEWING THREAD OPTION

SAFETY FEATURES


MACHINE STATUS LIGHT

CAP FRAME

BOBBIN CHANGER (AUTOMATIC / AUTO SELECT)

EMBROIDERY ON RIBBON!

SEAMLESS PRODUCTION SOLUTIONS
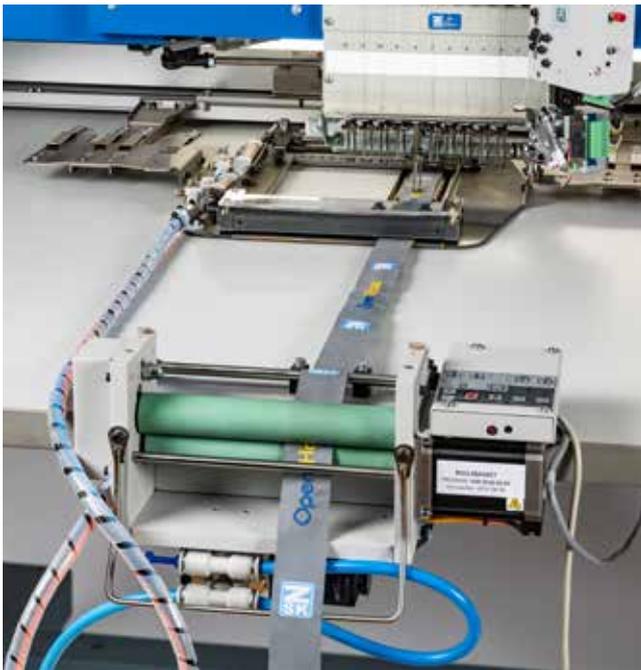
ZSK provides a variety of Roll2Basket or Roll2Roll automation solutions to enhance workflow efficiency for RACER and SPRINT Series.

Potential applications:

- Textile safety ribbons
- Nametags (+Velcro)
- Care Label
- Brand Label
- Ribbons for the textile industry
- Textile Borders
- Piping

Features:

Pneumatic clamping, automatic pull-through and, support for up to 3 materials.

Options:

Automatic bobbin changer, automatic positioning of designs in x and y directions

ROLL2BASKET FOR SPRINT AND RACER

ROLL2BASKET is a retrofittable device offering automated embroidery on textile ribbons, handling widths from 10 to 150mm and material thicknesses from 0.2 to 5mm.

It utilizes compressed air for ribbon transport and clamping. The final product is collected in a basket in front of the machine.

Digitizing is automated using GiS BasePac software, supporting single or multi-colour embroidery.

Options:

- Optical Sensor ensures precise positioning

- Automatic Winding Station collects ribbon for industrial use.

- Devices like the Sequin Device and Cord/Loop Device expand product variety.

FROM ROLL TO ROLL

ROLL2ROLL FOR JAFA / JNFA AND RACER

ROLL2ROLL is a Pull Through Device for semi- and fully automated embroidery on tapes and ribbon.

It handles up to 3 materials, allowing combinations like fabric and backings. Material handling offers clamping (max 190mm width, 140mm embroidery) or guiding (max 190mm width, 160mm embroidery).

An Optical Sensor ensures precise positioning for intricate designs.

Compatible with JAFA/JNFA and RACER Series machines (minimum 495mm head spacing), available for 1, 2, and 6 head machines.

Note:

Roll2Roll cannot be retrofitted onto existing machines.

SPRINT 7 PATCH SOLUTION

SPRINT 7 Patch Solution is designed for the fully automatic production of embroidered patches on hook and loop fasteners.

In an automatic two-step process, the machine performs decorative embroidery and attaches the hook and loop, without compromising the fastening strength.

It supports ribbon widths up to 50mm and embroidery areas of 100x50mm.

Note:

Not suitable for retrofitting conventional SPRINT models.

Pat.: DE 10 2022 126 769.5

UNLIMITED SPACIOUS

ROLL2ROLL
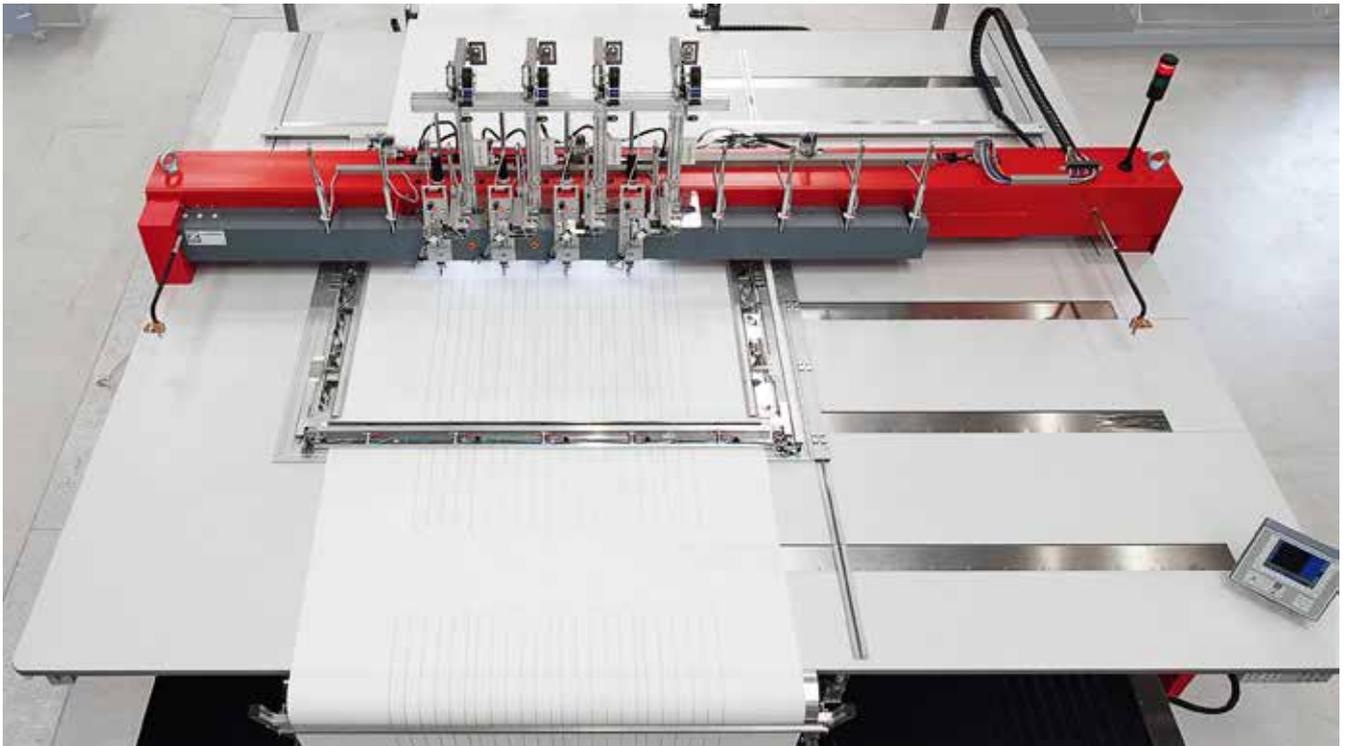
Roll2Roll is a semi and fully-automatic embroidery production on belts, tapes and other textile rolls. Multiple materials, i.e. cloth and felt, will be supplied, then embroidered and finally rolled up again at the front of the machine – completely automatically.

- Pull through back to front and side to side
- Various dimensions (single- and multihead)
- For textile and technical embroidery
- Pneumatic clamping and tensioning
- Stamps close to the needle secure high accuracy of the fabrics position during retensioning. Pull through back and forth leads to a possible embroidery field multiple times the depth of the frame.
- Custom solutions (e.g. storage magazine)

BROCHURE
TECHNICAL EMBROIDERY

FACTORY AUTOMATION

ROLL2CUT
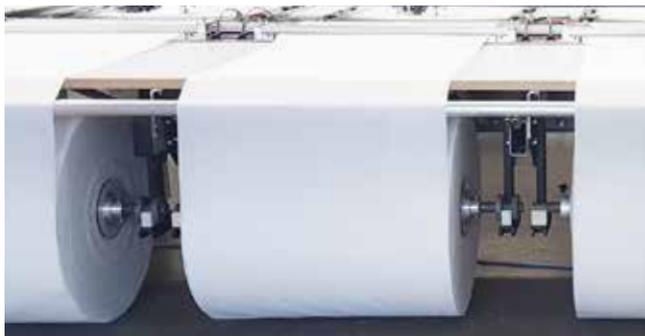
Roll2Cut Fabric is taken from a roll and fed to the embroidery machine. Once the embroidery is complete, the product is cut into specific pieces and stacked in front of the machine.

- Cutting solutions for back to front or side to side pull-through.

NEWS TECHNICAL EMBROIDERY

- High Volume (HV) - Wire Laying
- Jumbo Hooks (50% more bobbin)
- EP-30 Placement Device, SPIDUI Moulding Cell
- High Precision Roll2Roll

T8-3 CONTROL UNIT

KEY FEATURES

- 1 Billion Stitch Memory Capacity
- 8.4" Color LCD Display
- High Resolution 800x600
- Linux Operating System
- Intuitive and User Friendly Icons with Info Text
- ZSK Stitch Calculation Technology
- 2 Way Networking Technology (Pull and Push Functionality)
- 14 Languages
- Barcode and QR Code Capability
- 1x USB-C, 3x USB 2.0, 1x LAN Connections
- Design Outline Tracer (optional with Crosshair Laser)
- SEIT Laser Cutter Integration
- Reporting and Monitoring Technology (in combination with MY.ZSK)
- Remote Job Technology (Ringbuffer)
- Dual Tasking – Load next design during embroidery process
- USB Mouse Control (ideal for Editor operation)
- Help Files – Error and Solution Diagnosis
- Name Drop Feature – separate names in a multiple name design file
- Barcode Operation Feature – scan barcodes to operate the T8 functions
- Load Designs via Barcode from Network or USB
- Design Start Points – move / save in the design
- Design Parameter Control – adjust / save design parameter for F- / W- / K-Head
- Speed Control – for design and needles
- Home Feature – Select Start Point for each Design
- Limited Operator Mode
- Frame Outlines – define outlines in Controller
- Power Failure Back Up

WHAT IS THE T8?

The T8 is the main control of all ZSK embroidery machines. The T8 control unit is packed with the latest electronic components and ensures high quality and top-efficiency embroidery with ZSK embroidery machines in the future.

Accepted Industrial Embroidery Codes:

- 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)

Different Operation Languages:

- German
- English
- Italian
- French
- Russian
- Portuguese
- Dutch
- Spanish
- Turkish
- Polish
- Hungarian
- Greek
- Romanian
- Bulgarian

MY.ZSK

MY.ZSK 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
- Sensor- and RFID Data for each machine
- Alarms for user defined events i.e. by E-Mail

TABLET SOLUTIONS

- Touch Screen Monitors can be connected to a ZSK Pool Box and T8-3
- Customer Specific Applications can be created to simplify processes for the operator
- Loading of designs from server and selecting from defined starting points
- Loading same design on different ZSK machines and matching starting points to machine models
- Keeping track of maintenance processes
- Providing customer specific manuals to operators; logging errors, data, order data into a database; operation is possible with screen or via barcode

HOW TO T8

DID YOU KNOW THESE T8 FUNCTIONS YET?

Explore simple step-by-step guides for useful T8 features. Discover the ones below and many more on our website.

PREVIOUS TOPICS

- Snap in back stitching
- Monogram writing
- Displacement after trimming
- Reset counter
- Virtual needles
- Retract sequin feeder
- Colour change during reverse embroidery
- Adjusting colour change speed
- Duplicate needle assignment
- Simplified speed adjustment
- Start slowly
- Automatic stop at restart point
- Set notifications
- Guidelines
- Simple Operation Mode
- Screenshot of machine information
- Select a stitch
- T8 operation with USB Mouse
- more

RESET COUNTER
Did you know this T8 function yet?

Did you know?

What?
In addition to the standard counters, the completed designs counter can now be reset. So far, aside from the automatic reset when changing patterns, there was no manual reset option.

Why?
If the products are packaged after embroidery, the counter can be reset after reaching the packaging unit quantity.

2 | DID YOU KNOW? – RESET COUNTER

Did you know?

Step1
Navigate to the MDA stitch counters tab by pressing the U4 function key.

Step2
Press the L8 function key to enter the Clear MDA counter tab.

Step3
Select the Completed designs counter using the L6 function key. Press L8 to clear counter.

3 | DID YOU KNOW? – RESET COUNTER

BARCODE OPERATION

- Load your design with its starting point, stops and head selection from network using barcodes
- Load the corresponding import settings also by barcode (e.g. design rotating for cap embroidery)
- Load frame with field limitation and center using barcodes
- No more tracing, no more needle breakage due to contact with the frame

EASY NETWORKING FOR ZSK MACHINES
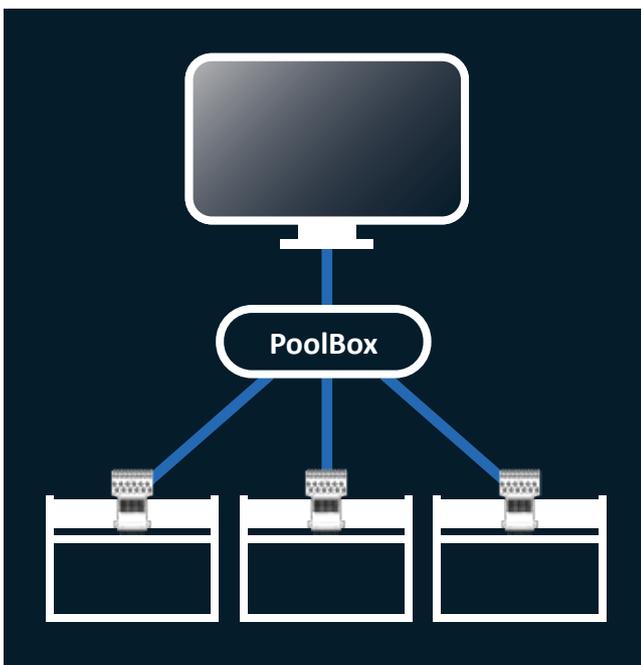
- Wired or Wirelessly Networking
- T8 controller can be networked via PoolBox or directly with a Network
- Fast loading of designs from network, use of Thread Cone Matching Technology- reducing downtimes and operator errors
- 2 Way Networking Technology (Pulling and Pushing of Designs)
- Eliminate time consuming design handling via USB drives
- PoolBox can be used as design storage and MY.ZSK data hub

LEATHER APPLICATIONS
FOR AUTOMOTIVE, FASHION & FURNITURE

QUILTING & EMBROIDERY

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

Using custom DH and SD (100, 110, 120, 130) needles for embroidery applications thread sizes up to AMANN Serafil #10 can be stitched multi-directional.

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

A growing number of leather applications require the combination of perforation and stitching. ZSK has developed a unique Optical Positioning System (OPS 2).

Previously perforated holes and elements 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. The latest software version supports material edge recognition.

ZSK offers specific features in its EPCwin CAD software to support design development for quilting, embroidery and the OPS 2. DXF files can be loaded into the CAD software and be digitized to embroidery files. The system supports creation of ZEPL and ZHF files for the OPS 2 system.

ZSK develops and manufactures custom frames to hold the material in place during the operation.

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

RACER 2XL – 700 (700)

RACER 0124 with 24 needles and ZSK Vision System (Optical Positioning Sytem- OPS 2).
Frame: Custom frame with pneumatic clamps and QR code for automation.

FEATURES

- Sewing Fields up to
  2.100 x 2.500mm / 82,67" x 98,4"
- 6 – 24 Needles per Head
- Custom Frames
- ZSK Vision System (OPS 2)
- Auto Select Bobbin Changer

- CAD Software EPCWIN
- Safety Features
- Multi Directional Stitching
- MY.ZSK

SOLUTIONS

OPS 2 Version 4.0

- Hole Type 17: Center-Center with Edge
- Hole Type 18: Edge with Group of Perforation with Edge
- Brigthness Adjustment of Light
- Manual Selection of Center - Center
- New setting: Hole colour black or white
- Enlarged Camera Area (75mm)
- Disabling Frame (for camera) via ZHF file
- Filtering of positive and negative Notches on edges

Customized Table Designs

- Create customized table designs
- Cut outs and door for operator to reach machine easier

Laptop / T8 Holder

- Longer T8 holder for easier operator access
- One holder for OPS computer and T8

Camera Protection

- Protection ensures a safe OPS camera position
- Jigs can be opened in front of the camera without the risk to damage the camera

Ringlight with adjustable Light

- Lightning of larger areas
- Adjustment of light intensity
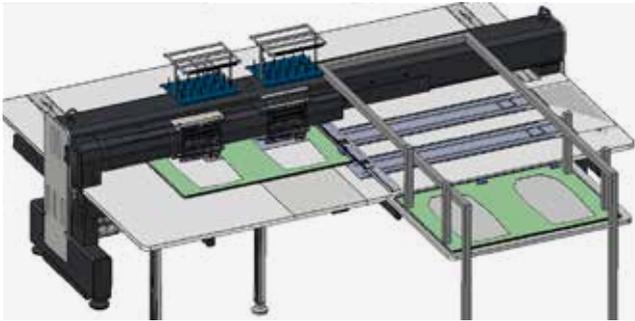
Frame Loader Automation

- Automation Solution
- Loading of Frames without operator
- Reducing downtimes

Tablet Solution

- Touch Screen Monitor with customer specific applications.
- Keeping track of Maintenance processes
- Access to manuals or process data
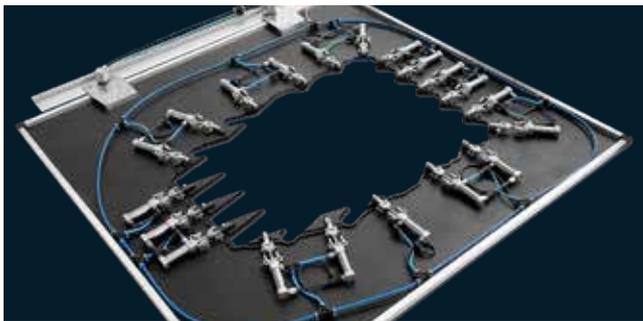
Control of Frame Position and Pistons

Control of pneumatic frames whether all pistons are open or closed on one or more embroidery heads
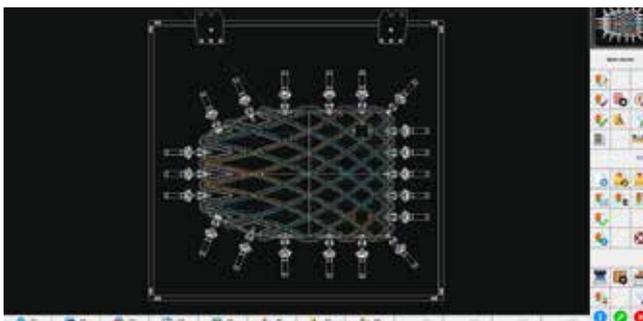
EPCwin 7.0 Automotive Edition

- Update of EPCwin for Automotive Applications to support new Hole Types for OPS II
- Support for creation of zhf files (for edge recognition of materials)

Table Plate Inserts

Support to better recognize different leather colours and hole types

TECHNOLOGY FOR TOMORROW

ZSK TECHNICAL EMBROIDERY SYSTEMS enable the use of new and innovative techniques to place and fix different media on textiles and other flexible carrier materials.

Media as wires, fibers, tubes, and optical fibers can be placed flexibly and will be secured strongly through embroidery techniques like the ZigZag stitch. E-textile and smart textile products can be realized in semi-fully automated.

The different embroidery technologies developed by ZSK TECHNICAL EMBROIDERY SYSTEMS enable a wide scope of products, applications, and methodical procedures tp be implemented for specific design goals and constraints.

Solutions

- Integration of wire into fabrics for heating and sensing (e.g. moisture, temperature, stretch) applications, via Tailored Wire Placement (TWP)

- Fixation of fibrous material like carbon, glass, basalt, aramid, natural, thermoplastic, ceramic fibers, producing near net shape preforms via Tailored Fibre Placement (TFP)

- Automated placement of LED and/or RFID and circuit boards.

- Embroidery with conductive yarn to create textile electrodes for body signal monitoring (e.g. ECG) or electro stimulation (EMS or TENS) or embroidered connectors between electronic parts and textiles (conductive paths and connection pads).

ZSK Technical System CZCW 0809- with eight W-Heads laying and fixing fibers.

ZSK's K head technology creating sensors with conductive yarn.

ZSK's Technical System CYCW 0600- placing and fixing wires for heating systems.
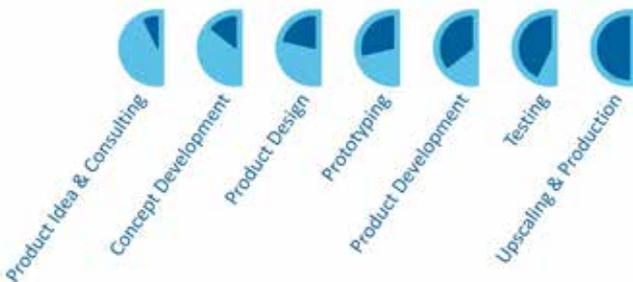
Smart and e-textiles play an important role in shaping the future.

Whether in aerospace, automotive, medical, sports or fashion, ZSK STICKMASCHINEN enables innovation through reliability, automation, and scalability.

With its own engineering office, 3E Smart Solutions, ZSK STICKMASCHINEN offers customers a unique combination of technology and know-how transfer to make your innovation a reality.

The 3E Smart Solutions team is made up of experts in various fields such as electrical engineering, embroidery, and electronic integration, bringing together a complete knowledge of what is needed to successfully develop smart and e-textiles.

Visit 3E Smart Solutions online:
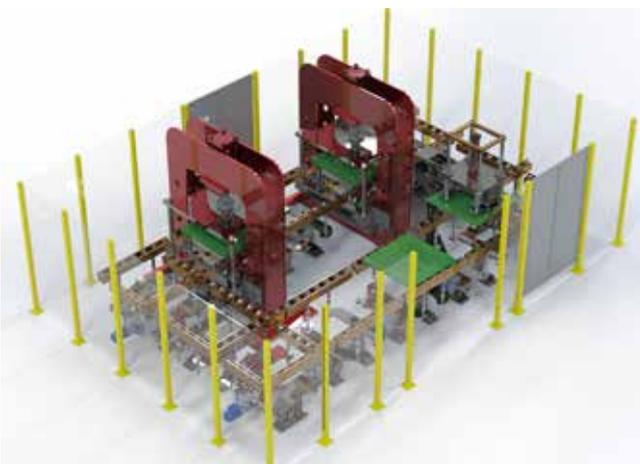
Introducing UNWIND3D, your gateway to advanced and automated composites manufacturing, for the production of sustainable, customized and cost-efficient composites parts.

Through ZSK Additive Manufacturing machines, and in house developed molding solutions, Unwind3D provides customers with TURN-KEY solutions for the production of composites parts, from small to high-volumes.

Unwind3D, born from ZSK and located in the north of Italy, provides you with unparalleled services thanks to combined expertises, worldwide network of partners and a global supply chain.

Visit UNWIND 3D online:

SOFTWARE

FOR DESIGN, DATA MANAGEMENT AND PRODUCTION

EPCWIN - THE HIGH-END CREATOR SUITE
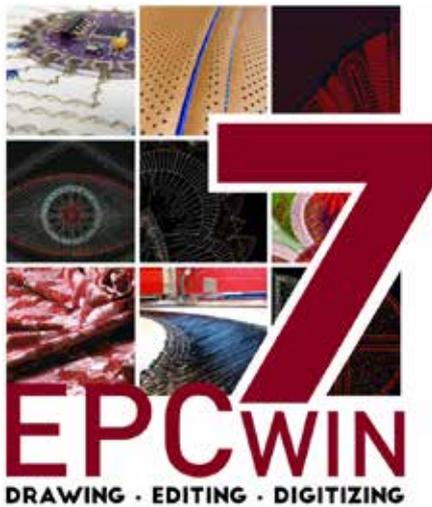
Introducing EPCwin 7, the ultimate creator suite revolutionizing the embroidery and additive textile manufacturing industry.

With its unparalleled range of intelligent features, lightning-fast shortcuts and and precise stitching with an accuracy of 0.1mm, EPCwin 7 sets a new standard for professional requirements in all sectors.

Collaborate seamlessly in your organization, store designs in a separate component library, and benefit from direct machine-to-software connectivity, enhancing production efficiency and achieving unparalleled embroidery quality. Plus with EPCwin, you have a full-fledged CAD drawing program at your fingertips.

Elevate your embroidery game with EPCwin 7- the perfect blend of power and precision.

BASEPAC - DIGITIZING SOFTWARE THAT GROWS WITH YOUR NEEDS

BasePac is the ideal digitization solution for beginners through to professional digitizers.

BasePac 10 is characterized by its simplified program structure, clustered in four packages considering different user profiles and their needs.

Profit from a lot of automations whilst having full control of the stitch quality thanks to detailed parameter settings. Further optimize existing stitch files with the BasePac Base stitch editor.

Take advantage from different tools that are intuitive and comparable to other graphic programs. Wether the eye dropper, magic wand or multiple grouping functions - the usage of the software will easily feel familiar to you.

Start with the smallest BasePac package and get a bigger package if you need access to more.

TERMINAL - LETS GET THINGS DONE!

Save time on preparation - with ZSK TERMINAL by your side!

Create stitch files for personalizing textiles quick and easy. Combine existing stitch data for logos or other graphics with individual text, convert a photo into stitch data automatically or just setup new colours to a design with Thread Cone Matching.

TERMINAL and TERMINAL PRO are two packages, tailored to different requirements.

No matter if you are new to embroidery or an expert, whether you have one small ZSK machine or a big machine park – ZSK TERMINAL is by your side at every step from the embroidery design to the finished product.

WORKFLOW AND E-COMMERCE SOLUTIONS

ZSK offers customized software solutions for:

• Networking for improved workflows

• Personalization Automation

• Workflow Automation

• API Lettering and Design Solutions

• Tablet (Operation) Solutions

• Thread Cone Matching (ZSK Terminal)

• Maintenance Reporting (ZSK Terminal)

• Online and Offline Production Data Analysis (MY.ZSK)

• Production Data Reporting (MY.ZSK)

FIND ZSK REPRESENTATIVES WORLDWIDE

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- zskfilm
- ZSKDigitizingAcademy
- zsk_stickmaschinen
- zskembroidery

ZSK - DIE STICKMASCHINE.