

UNIQUE READY-TO-WEAR TECHNOLOGY

CONTENTS

KNIT AND WEAR INTRODUCTION
NEW KNITELLIGENCE® MACHINE GENERATION
KNIT AND WEAR ALL-ROUNDER
PATTERNS
ADF - KNIT AND WEAR
KNIT AND WEAR MACHINES
M1plus® SUPPORT
TECHNICAL DETAILS

STOLL-knit and wear^{*} sweater, in colour-blocking design. The placement of colours show knit and wear specifications, whereas the colour change in the body is plated. The weft insertion on one sleeve seamlessly crosses over narrowings into the shoulder area. Pattern No. 1810085

ALMOST UNLIMITED FLEXIBILITY

STOLL-knit and wear® – STOLL offers an innovative tool for the knitting of tomorrow. With the solid STOLL-knit and wear® machines you can produce ready-to-wear garments in high quality – quickly and efficiently.

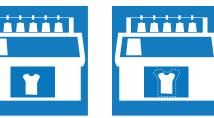
By investing in STOLL-knit and wear[®] you keep your total flexibility and reduce your operating costs. Coarse gauge, fine gauge, all sizes, plenty of pattern possibilities – even jacquards and intarsias. And the best thing is: one and the same knit and wear machine can also knit fully fashion, multi gauge and extra-wide fabrics, which means total flexibility for you. Furthermore, spare parts are available for machines for both knit and wear and fully fashioned garments.

What can be knit on a knit and wear machine?





1. knit and wear



3. oversized fully fashioned garments

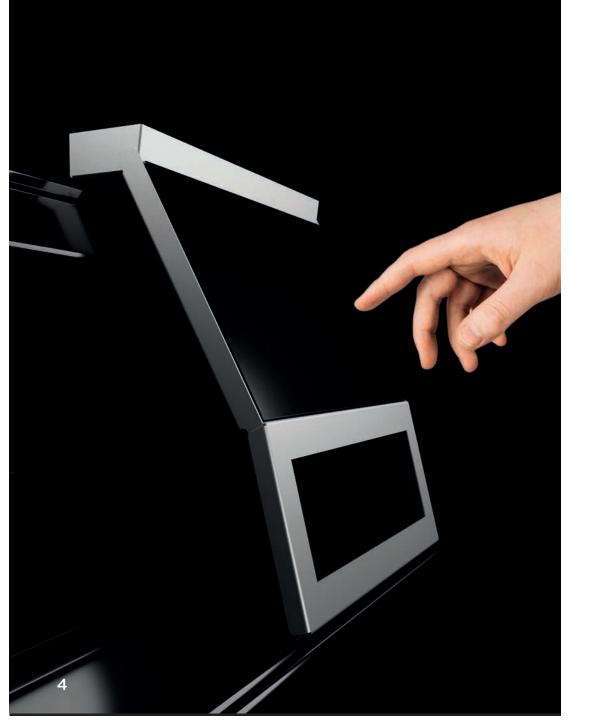


4. extra-wide fabrics*



5. double fully fashion or double knit and wear garments without sleeves or baby articles

NEW KNITELLIGENCE® MACHINE GENERATION



KNITELLIGENCE® MACHINE GENERATION CONNECTING INNOVATION & EXPERIENCE

The new knit & wear knitelligence[®] generation fulfils special requirements of the modern digital era by combining the advanced machine technology with new and innovative features. With this machine generation, your company will remain competitive with process automation, more transparency, shorter reaction times, shorter production cycles and higher productivity.

The new knit & wear knitelligence® generation offers:

- New Multi-Touch Panel with improved legibility, useabiliy and new gestures
- Remote desktop to M1plus®, PPS, e-Spareparts catalogue, etc.
- PPS: Extended Knit Report without EVP; Many new features
- STOLL-knitrobotic®
- Individual registration via RFID
- QR- and Barcode-Scanner
- Import and export machine configuration
- 1 system Devoré-kit
- Belt take-down machines with comb
- CMS 502 ki models now with STOLL-multiflex® take-down
- Yarn carrier upgrade on ADF 530-16 models to 24 (coarse gauges) or 32 (fine gauges)
- ASCON® for ADF machines with direct yarn feeding; without lateral covers







ENTER THE WORLD OF KNIT AND WEAR MACHINES

STOLL-knit and wear[®] is the intelligent solution for readyto-wear designs. The unique STOLL-knit and wear[®] technology combines several manufacturing operations into one economical process.

This means that knitting, shaping and connecting the knitted pieces can be performed with only one machine, within a single process. The result: the machine produces a garment that is almost ready-to-wear. Moreover, processing steps are omitted completely. The result is a first-class seamless knitted garment that offers a high degree of comfort.

The quality of STOLL-knit and wear® is appreciated by end customers, producers and retailers. Production can be performed efficiently and in a time-saving manner. And the seamless properties of the garments speak for themselves. Thus, the entire logistic and material usage can be reduced – hello, sustainable production!







IN TIMES OF SHORT LABOUR WE HAVE THE ANSWER: STOLL-KNIT AND WEAR®

With a STOLL-knit and wear[®] machine you can produce nearly ready-to-wear garments. The garments are completely programmed and shaped on our STOLL M1plus[®]. After making all the adjustments on the knitting machine, the garment will be produced as a whole on your STOLL-knit and wear[®] machine.

Finishing work is almost completely eliminated. In times when manpower is low

or turnover is high, you can automate the production and eliminate significant steps in the finishing process.

In times of short labour, the answer is STOLL-knit and wear[®].





PATTERNS



A MATTER OF PATTERN

You have plenty of possibilities with the STOLL-knit and wear[®] machines. From fine to coarse gauges, knitting two pieces or more simultaneously and manufacturing extra-large sizes.

All STOLL machines can knit several articles at the same time. With just one mouse click, a second piece can be automatically created in the M1plus[®].

Pullovers, dresses, leggings, articles for babies and children or accessories - the possibilities are nearly unlimited.

Fully Fashion? Even this is absolutely possible. Effective, time-saving and economical – intarsia, STOLL-multi gauges®, STOLL-applications®, STOLL racking effects®, structures or any other conventional technique in fully fashioned garments can be knitted on one and the same knit and wear machine.

Every knit and wear pattern can be created with the established pattern software M1plus® from STOLL. Both pattern technicians and designers will be assisted with basic and advanced information about knit and wear. Straightforward and intuitive.

If you choose a STOLL-knit and wear® machine, then you can get the knitting results / gauge examples below, according to the production method:

Gauge R Production method	177 (7) 177 (7		m 0 0	2 17		m (5-2-
STOLL-knit and wear® / STOLL-applications®	3 3,5 4	3,5 4 5	5	7 8	7 8 10	10 12	12 14
STOLL-multi gauges® / STOLL-flexible gauge®	3 3,5 4 5	3,5 4 5 7	5 7 8 10	7 8 10 12	7 8 10 12 14	10 12 14 16 18	12 14 16 18 20

Yarn characteristics and finishing methods determine whether the gauge appearance is finer or coarser than shown in the table above.



FIND PLENTY OF PATTERNS AND PROGRAMS ON: PATTERNSHOP.STOLL.COM

PATTERNS



COMBINE THE POSSIBILITIES OF AN ADDF WITH KNIT AND WEAR KNITTING



Expand your patterning possibilities and reduce production times with STOLL's ADF 830-24 ki W knit and wear.

Watch your orders become more productive with the ADF's applications, and independent yarn feeders! You knit basic patterns? That was yesterday. Now you can use the whole range of ADF possibilities (Inverse Plating, STOLL- ikat plating[®], Selective Plating, Intarsia Plating, STOLL-weave-in[®] for woven-like effects and Intarsia) for your knit and wear patterns.

ADF 830-24 ki W knit and wear

Working width: 84"/213 cm Gauge range: E6.2 - E10.2

Functionality:

- Knits large articles or several small ones
- Convenient pattern creation
- Knits long patterns lengthwise (e.g. leggings)
- Knits demanding knit and wear garments
- Knits loom-like articles with loom-like properties (woven like fabrics)
- Easy programming with many yarn carriers/colors
- Knits more color variations within optimum productivity thanks to STOLL yarn carrier technology

Features:

- Oversized 84" needle bed
- 24 yarn carriers independent from carriage
- Intarsia plating and inlay-compatible without yarn carrier exchange
- 12-fold thread clamping and cutting device (left/right)
- 2 extra yarn carriers with bypass to be able to knit woven like fabrics with coarser yarns
- Take-down system:
- STOLL-multiflex®
- Auxiliary take-down
- Comb take-down
- Weave-in device (W)



CMS 822 ki knit and wear

Working width: 84"/213 cm | 2x 42" / 107 cm Gauge range: E2,5.2 - E7.2

Functionality:

- Knits large articles or several small ones
- For extra-large articles with a maximum width of 84"/213 cm (coupled carriages)
- Knits 2 knit and wear articles at the same time with a maximum width of 42"/107 cm (uncoupled carriages)
- Quick coupling and uncoupling of the 2 carriages
- Production of knitted products with different widths with almost no downtime
- Both fully fashioned and double knit and wear without sleeves

Features:

- 2 carriages (coupled / uncoupled)
- Knitting 2 pieces is even more productive due the use of 2 carriages

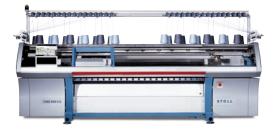


CMS 830 ki knit and wear

Working width: 84"/213 cm Gauge range: E2,5.2 - E10.2

Functionality:

- Knits large articles or several small ones
- All classic knitting techniques as well as the economical and efficient production of complex patterns and fabrics
- Ability to perform fully fashion knitting and multi gauge knitting
- For extra-large articles
- Offers all well-known basic knit and wear functions



CMS 830 ki C knit and wear

Working width: 84"/213 cm Gauge range: E2,5.2

Functionality:

- Knits large articles or several small ones
- With a gauge of E 2,5.2 it's the right machine for ultra-coarse knit and wear garments – and this with minimal time and yarn consumption

Features:

• Spring-loaded holding-down jacks on both needle beds



CMS 830 ki S knit and wear

Working width: 86"/218 cm Gauge range: E3,5.2 | E6.2 | E7.2 | E9.2

Functionality:

- Knits large articles or several small ones
- Everything is optimized for producing knit and wear fabrics in extra-large sizes

Features:

- Spring-loaded holding-down jacks
- Presser foot unit
- Variable second stitch tension



CMS 730 ki T knit and wear

Working width: 72"/183 cm Gauge range: E6.2 | E7.2

Functionality:

- Knits large articles or several small ones
- Equipped with additional transfer beds allowing knit and wear garments to be knitted with all needles in the fine-gauge range
- Both fine and half gauges as well as fully fashion fabrics are possible

Features:

- 2 additional transfer beds
- Adjustable holding-down jacks on both needle beds



CMS 530 ki knit and wear

Working width: 50"/127 cm Gauge range: E2,5.2 | E10.2

Functionality:

- Knits one piece or several small ones
- All classic knitting techniques as well as the economical and efficient production of complex patterns and fabrics
- Productive solution for small sizes
- Well-suited for baby and children knit and wear garments and accessories such as caps, scarves, gloves, etc.
- Adult garments without sleeves
- Ability to perform fully fashion and multi gauge knitting



CMS 202 ki B knit and wear Working width: 24"/61cm Gauge range: E6.2 | E7.2 (further gauges on request)

Functionality:

- Compact and space-saving adapted to your production requirements
- Perfect for technical textiles and fashion
- The right solution for short 2D and 3D knitted fabrics and accessories such as socks, collars, caps, sport braces, shoe fabric components and much more

Features:

- 24" working width
- Yarn carriers: 10 normal, 2 plating
- 12-fold thread clamping and cutting device (only right)
- Friction feed wheel: 1x right side
- Take-down system:
- Belt take-down
- ASCON® for consistent knit-piece lengths even with unstable yarn properties (option)

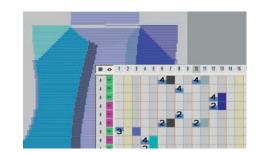
KNIT AND WEAR AND ACCESSORIES

Gloves, hats, scarves, collars, shoe uppers – whatever you can knit on a 24" needle bed, you can do it on our CMS 202 ki B knit and wear.

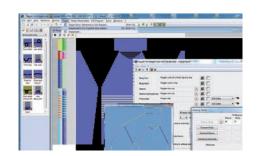
With its small outer dimensions, the machine can fit in almost any available space.

Knit gloves, hats and other accessories with the easy supplies of our STOLL-M1plus[®]. Or use the machine for swatch knitting and yarn testing in your design office.

THE KNIT AND WEAR PATTERNING SOLUTION









KNIT AND WEAR PROGRAMMING WITH M1plus®

The STOLL pattern software M1plus[®] simultaneously offers pattern solutions and important know-how.

Numerous STOLL-knit and wear® modules and pattern elements can be found in the module explorer database. Additionally, thanks to the knit and wear training manual and the knit and wear technique templates, production and design expertise is provided in a modularly structured way. With the STOLL M1plus® knit and wear fabrics are easy to produce. All knitting programs from the knit and wear support service can be found in the M1plus® software DVD and are ready to use.

Knit and wear technique templates – ready-to-use pattern solutions

- Catalogue with pattern examples for knit and wear solutions such as gore, shoulder, widening and narrowing techniques, etc.
- Adjustment of existing basic patterns to any desired size
- Elements from different patterns can be combined to make a totally new one, according to your own requirements and ideas
- Illustrated explanations of the whole knit and wear process as well as the pattern creation in single steps
- Explanation for each knit and wear module with illustrations and text instructions

Knit and wear training manual – illustrated information

- Basic training: all the basics for STOLL-knit and wear® knitting technology at a glance
- Prepared content for easy learning of STOLLknit and wear[®] knitting technology
- Step-by-step instructions until the knit and wear product is finished
- Refresh your knowledge quickly and easily

STOLL WILL SUPPORT YOU AT ANY TIME. PLEASE CONTACT US: M1-HELPLINE@STOLL.COM

SIMPLIFIED KNIT AND WEAR WITH M1plus®

Knitting Unit	CMS 830 ki knit and wear	CMS 730 ki T knit and wear	CMS 530 ki knit and wear	CMS 202 ki B knit and wear
Carriages Combined knitting-transfer systems with split function ¹	1×3	1 x 3	1 x 3	1 x 2
Electronic wear-free selection systems with 2 selection points	8	8	8	6
Dynamic tension setting with step motors. Extremely quick adjustments of stitch tension with PTS (Power Tension Setting)	•	•	٠	•
Drive Racking				
Main drive: programmable speed; variable stroke; Power-RCR-System (Rapid Carriage Return); flexible speed adjustment using starting bar; CFC-protective system (Carriage Force Control)	٠	٠	٠	•
Max. knitting speed (m/s) ²	1.2	1.2	1.2	1.2
Max. speed by empty rows (m/s)	1.5	1.5	1.5	1.5
Racking course max. 4", programmable racking speed	•	• 3	٠	•
Needle bed				
Nominal width max. working width, in inches (cm) in tandem version max. inches (cm)	84 (213)	72 (183)	50 (127)	24 (60)
Gauges ⁴	E2,5.2 - 10.2	E6.2 E7.2	E2,5.2 - E10.2	E6.2 E7.2
Gauge conversion ⁵	٠	٠	•	•
Knock-over bits	٠	٠	٠	•
Moveable holding-down jacks on both needle beds	٠	Depth adjustable	•	•
Spring-loaded holding-down jacks	-	-	-	-
Pelerine spring-transfer needle with spring-loaded latch	•	٠	•	•
Needle detector	٠	٠	•	•
Needle exchange	0	0	0	0
Thread clamping and cutting devices, left right	8 8	8 8 6	8 8	- 12
Illuminated working space	•	•	•	•
Shock stop motion, front rear	• •	• •	• •	• •
Central lubrication of needle bed elements and carriage slide bars	0	-	0	-
Dimensions Weights				
Length: unpacked in the case on pallet, approx. in mm	4025 4488 4488	3550 3840 3840	2700 2970 2970	1838 2000 2000
Width: unpacked in the case on pallet, approx. in mm	909 1150 1102	909 1150 1100	909 1140 1100	909 1140 1100
Height: unpacked in the case on pallet, approx. in mm	2050 1938 1810	2050 1940 1810	2050 1900 1810	2050 1900 1800
Weight: net gross with case gross with pallet, approx. in kg	1650 2410 1910	1510 1994 1709	1290 1618 1383	736 994 831
Control system Data processing				
Slide Multi-Touch Panel with color display	٠	٠	٠	• 7
2 USB ports; online via Ethernet	•	•	•	•
Battery backup: correct continuation of the knitting process after power failure	•	•	٠	•
Safety devices				
Fully enclosed working area	٠	٠	•	•
Machine complies with EC regulations (CE label)	•	•	•	•
Machine status lamp with alarm buzzer	•	•	•	•

Yarn guide	CMS 830 ki knit and wear	CMS 730 ki T knit and wear	CMS 530 ki knit and wear	CMS 202 ki B knit and wear
Yarn control units	20-32 ⁸	20-24 ⁸	20-24 ⁸	12
Active thread clamps, left right	• •	• •	• •	- •
Lateral yarn tensioners with scale, left right	12 12	12 12	12 12	818
Lateral thread brake, left right	818	818	818	- 8
Thread deflectors for optimum yarn guidance, left right	•	•	•	•
Yarn carrier rail tracks yarn carrier	4 8 12	4 8 16	4 8 12	4 8 10
Intarsia yarn carrier	0	0	0	-
Plating yarn carrier	0	0	0	2
Plating kit consisting of plating yarn carrier and bobbin holder	0	0	0	0
Devoré kit with 1 system ⁹	0	-	0	0
Devoré kit with 2 systems ¹⁰	0	-	0	-
Plush device	0	-	-	-
Holders for bobbins, mounted on the rear side of machine	0 (2 × 5)	0 (2 x 5)	• (2 × 4)	0 (1 x 6)
Yarn feed unit				
Friction feed wheel, 8 tracks each, left right	• •	$\bullet \mid \bullet$	$\bullet \mid \bullet$	0
Storage feed wheel	0	0	0	0
$ASCON^{\otimes\ 1\!1}$, automatic stitch control, 8 measurement units, left right	0	0	0	0
Fabric take-down system				
Comb take-down	•	•	•	-
Main take-down	Stoll-multiflex*	Stoll-multiflex®	Stoll-multiflex®	Belt take-down
Auxiliary take-down	•	•	•	-
Cleaning device				
Suction device with turbine; with suction tube	٠	•	•	-
Power				
Voltage connection	(AC 400 V +/-10%)	(AC 400 V +/-10%)	(AC 230 V/400 V +/-10%)	(AC 230 V +/-10%)
Connection value, depending on operating status (kW)	2.3	2.3	2.3	1.7

• Standard equipment

0 Special equipment

¹ All systems are fully independent. Knitting with the three-way technique, or simultaneous transfer to the front and rear.

² Depends on yarn and pattern structure.

³ Additional beds: 2"

⁴ Further gauges on request.

⁵ Possible within the same gauge range.

⁶ Independent of the carriage.

⁷ Not moveable display.

⁸ Depends on the gauge.

⁹ Only for fine gauges.

- ¹⁰ Gauge availability on request.
- ¹¹ System for measuring and regulating the stitch length.

Further special equipment on request.

We reserve the right to make technical changes as our products are continuously undergoing further development. All data valid at time of printing.

Knitting Unit	ADF 830-24 ki W knit and wear	CMS 822 ki knit and wear	CMS 830 ki S knit and wear	CMS 830 ki C knit and wear
Carriages Combined knitting-transfer systems with split function ¹	1×3	2 x 2	1 x 3	1 x 3
Electronic wear-free selection systems with 2 selection points	8	12	8	8
Dynamic tension setting with step motors. Extremely quick adjustments of stitch tension with PTS (Power Tension Setting)	•	٠	•	٠
Drive Racking				
Main drive: programmable speed; variable stroke; Power-RCR-System (Rapid Carriage Return); flexible speed adjustment using starting bar; CFC-protective system (Carriage Force Control)	٠	٠	•	٠
Max. knitting speed (m/s) ²	1.2	1.2	1.2	1.0
Max. speed by empty rows (m/s)	1.5	1.5	1.5	1.2
Racking course max. 4", programmable racking speed	•	•	•	•
Needle bed				
Nominal width max. working width, in inches (cm) in tandem version max. inches (cm)	84 (213)	84 (213)	86 (218)	84 (213)
Gauges ³	E6.2 - 10.2	E2,5.2 - 7.2	E3,5.2 E7.2 E9.2	E2,5.2
Gauge conversion	•4	•4	•	-
Knock-over bits	•	•	-	-
Moveable holding-down jacks on both needle beds	•	•	•	•
Closed spring-loaded holding-down jacks	-	-	•	•
Pelerine spring-transfer needle with spring-loaded latch	•	•	•	•
Needle detector	٠	•	•	•
Needle exchange	0	0	-	-
Thread clamping and cutting devices, left right	12 12	8 8	8 8	8 8
Illuminated working space	•	•	•	•
Shock stop motion, front rear	• •	• •	• •	• •
Central lubrication of needle bed elements and carriage slide bars	0	0	•	-
Dimensions Weights				
Length: unpacked in the case on pallet, approx. in mm	3950 4490 4490	4025 4490 4490	4025 4490 4490	4025 4490 4490
Width: unpacked in the case on pallet, approx. in mm	1203 1150 1100	909 1150 1100	909 1150 1100	909 1150 1100
Height: unpacked in the case on pallet, approx. in mm	1810 1940 1810	2050 1940 1810	2050 1940 1810	2050 1940 1810
Weight: net gross with case gross with pallet, approx. in kg	1750 2510 2010	1670 2430 1930	1600 2359 1859	1690 2449 1949
Control system Data processing				
Slide Multi-Touch Panel with color display	•	•	•	•
2 USB ports; online via Ethernet	•	•	•	•
Battery backup: correct continuation of the knitting process after power failure	•	•	•	•
Safety devices				
Fully enclosed working area	٠	٠	•	•
Machine complies with EC regulations (CE label)	•	•	•	•

Yarn guide	ADF 830-24 ki W knit and wear	CMS 822 ki knit and wear	CMS 830 ki S knit and wear	CMS 830 ki C knit and wear
Yarn control units	32	20-32 5	20-24 5	32
Active thread clamps, left right	-	• •	• •	• •
Lateral yarn tensioners with scale, left right	-	12 12	12 12	12 12
Lateral thread brake, left right	-	818	12 12	8 8
Thread deflectors for optimum yarn guidance, left right	-	•	•	•
Yarn carrier rail tracks yarn carrier	6 12 24	4 8 16	4 8 16	4 8 16
Intarsia yarn carrier	24 (all in one)	0	-	0
Plating yarn carrier	24 (all in one)	0	0	0
Plating kit consisting of plating yarn carrier and bobbin holder	-	0	0	0
Devoré kit with 1 system ⁶	0	0	-	-
Devoré kit with 2 systems 7	-	-	-	-
Plush device	0	-	-	-
Additional holders for bobbins, mounted on the rear side of machine	• (2 × 4)	• (2 x 5) ⁸	○(2 × 5)	• (2 x 5)
Yarn feed unit				
Friction feed wheel, 8 tracks each	0	• •	• • ⁹	• •
Storage feed wheel	0	0	• 10	-
ASCON $^{\circ$ 11, automatic stitch control, 8 measurement units, left right	0	O ¹²	0 0 ⁹	0 0
Fabric take-down system				
Comb take-down	•	•	•	•
Main take-down	Stoll-multiflex®	Stoll-multiflex®	Stoll-multiflex®	Stoll-multiflex®
Auxiliary take-down	•	•	•	•
Cleaning device				
Suction device with turbine; with suction tube	٠	•	•	٠
Power				
Voltage connection	(AC 230 V/400 V +/-10%)	(AC 400 V +/-10%)	(AC 400 V +/-10%)	(AC 400 V +/-10%)
Connection value, depending on operating status (kW)	2.3	2.6	2.7	2.3

• Standard equipment

O Special equipment

- 1 All systems are fully independent. Knitting with the threeway technique or simultaneous transfer to the front and rear.
- 2 Depends on yarn and pattern structure.
- 3 Other gauges available on demand.
- 4 Possible within the same gauge range.
- 5 Depends on the gauge.

- 6 Only for fine gauges.
- 7 Gauge availability on request.
- 8 For gauges E2,5.2 + E3,5.2 + E5.2 / option for gauges E6.2 and higher.
- 9 Standard right and left side for E7.2.
- 10 Standard 6x LGL ECOPOWER for E9.2 | E3,5.2.
- 11 System for measuring and regulating the stitch length.
- 12 Standard right and left side for E16 | E18 | E8.2.

Further special equipment on request.

We reserve the right to make technical changes as our products are continuously undergoing further development. All data valid at time of printing: 04/21-E.

KARL MAYER STOLL Textilmaschinenfabrik GmbH

Stollweg 1 72760 Reutlingen Germany

Phone: +49(0)7121 313-0 Fax: +49(0)7121 313-110

contact@stoll.com www.stoll.com