



SFL-2000 Series

SMART FILTER LINE
FOR AUTOMATIC PRODUCTION
OF FILTER BAGS

The SFL-2000 Series is an industry leading solution for the production of industrial filter bags on a variety of different media. The all in one solution can produce high quality and accurate seams to predefined parameters. The optional modules allow for custom constructions that suit your production needs.

MEDIA ROLLS **A** | SECTION

The SFL-2000 Series comes with one media roll holder as standard but it is possible to have two textile rolls on separate shafts (Optional Module A). The maximum diameter of the rolls is 800 mm meaning a wide variety of different media is possible. With a Juki MO-6903G head the machine allows to rolls to be joined while the machine is in operation. With no need to stop the line and the possibility to have continuous production allows for a high output without depreciating quality.

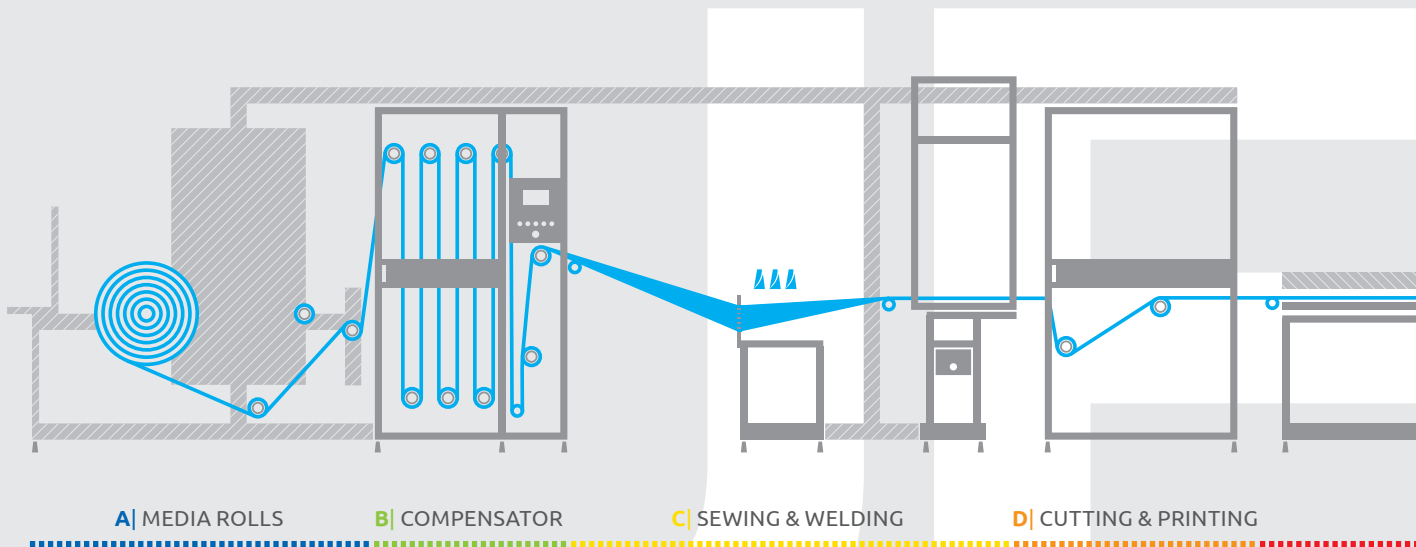


COMPENSATOR **B** | SECTION

The machine can buffer up to 10 m of filter material in the compensator section. This in combination with the media roll joining function of the previous machine section means the SFL-2000 can work continuously. An optional steel brush (Module I) is used to prepare the certain materials for welding during the feeding process. Membrane coated media will require this preparation to ensure accurate welding seams.



The smart filter line has been developed in cooperation with some of the industry's leading companies - Job Group, ACG Kinna Automatic and Juki. Job Group with decades of knowledge in filtration and technical textiles provided the industry insights needed for some of the innovations seen in the SFL-2000. ACG Kinna Automatic, whom have extensive experience in the automation of textile lines, provided the solutions that make this series of machines truly unique. Finally Juki, with over 80 years of experience in joining solutions and innovation that leads the textile industry, has provided the core technology finishing the filter bags in the SFL-2000.





SEWING & WELDING **C** | SECTION

The SFL-2000 Series can be built in 3 different subclasses: SFL-2000S for sewn seams, SFL-2000W for welded seams and SFL-2000SW for both sewing and welding seams.

The custom pre-folding system creates the tubular form for the filter bag. The folding system overlaps the filter material just before sewing needle. S-seams or simple overlap seams can be created depending on your requirements. The Juki MS-3580 joins the filter tube with a three-needle chain stitch seam. For the SFL-2000SW if sewing is not needed the head can be moved on Rolco rails allowing for only welding or sewing or a combination of both. An edge control system uses an Omron camera (Module D) that monitors the filter material movement. The exact center of the material is recognized and material feeding is adjusted accordingly. This ensures that the seam is centered before creating the seam. The JEUX-AI-001 machine head is used weld. The machine has the ability to position the nozzle in three axis's, allowing for the precision needed to ensure the tempter profile remains consistent. There is an additional adjustable folding system that can also be used in case of welding seams.

CUTTING & PRINTING **D** | SECTION

The pair of rollers seen in this section constantly feed the material through the complete line. A buffer of up to 1.5 meters takes place to prevent stops in the line during cutting. An inkjet printer (Module E) can be used to apply additional information to the finished bag.

Barcodes, QR codes and product information can all be applied to finished bags without a slow down in the production line. A counter wheel measures the material is to the right length for cutting.

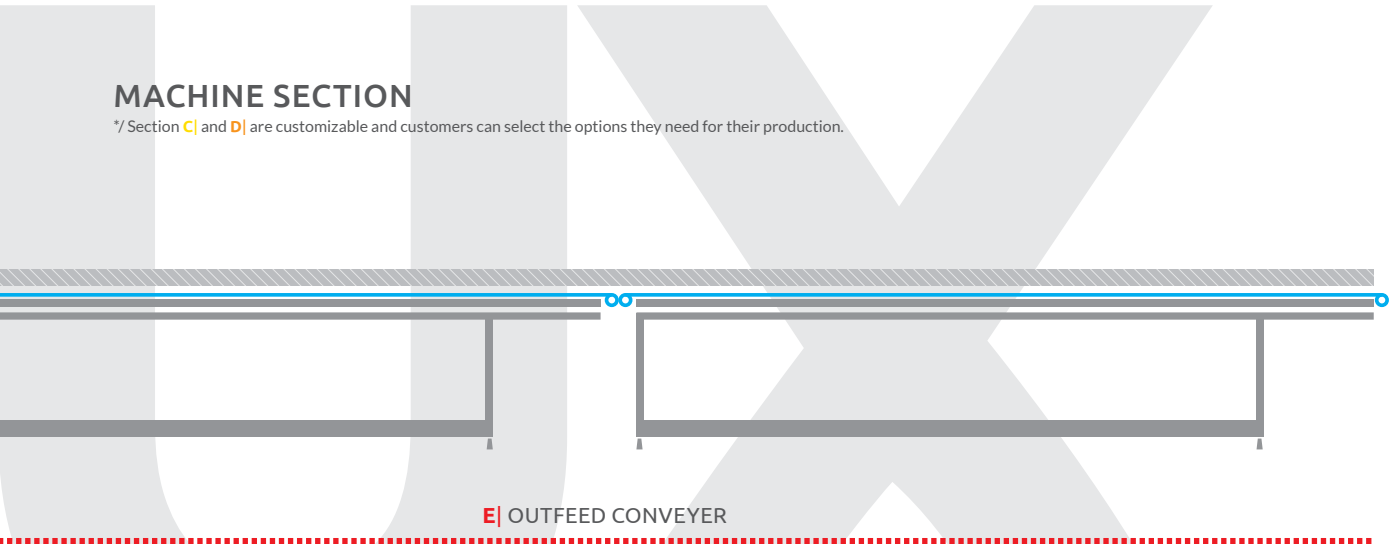


OUTFEED CONVEYER **E** | SECTION

After the filter bag has been cut the material will automatically be fed out on a 4 m conveyor as standard. The conveyor can be extended in 4 m lengths with option module B. A pushing unit (module C) easily moves the material of the outfeed conveyor via a retractable arm. This module allows for the entire line to run automatically except for media loading.

MACHINE SECTION

* / Section **C** and **D** are customizable and customers can select the options they need for their production.



E | OUTFEED CONVEYER

SPECIFICATION

ITEM CODE	JEUX-SFL-2000W	JEUX-SFL-2000S	JEUX-SFL-2000SW
Seam Type	Welding	Sewing (flat lock)	Sewing (flat lock) and Welding
Roll max diameter	800 mm		
Edge control, buffer before sewing/welding	9.6 m		
Overlock model for joining rolls	N/A	MO-6903G	
Outfeed Conveyor	4 m Standard (other options possible)		
Material width max.	1000 m		
Max Speed	20 m/min	11 m/min @ 78% capacity	
Max Welding Temperature	900°C	N/A	900°C
Sewing Machine Head	N/A	MS-3580	
Welding Machine Head	JEUX-AI-001	N/A	JEUX-AI-001

OPTIONAL MODULES DESCRIPTION

MODULE	DESCRIPTION
A Fabric Stand For 2 Rolls	Stand for 2 rolls with max diameter 800 mm. Including Juki join-sewing machine with clamp device. Joining 2 rolls together with a flat seam. Used for continuous running and less downtime.
B Outfeed Conveyor	(4 metres are included in the standard setup.) It's possible to connect a total of 3 of these modules (12 m total).
C Pushing System	Mounted on the outfeed conveyor to push the filterbag off the conveyor on to a stacking table.
D Omron Camera	Quality checking - If there is any deviation on the seam the line stops.
E Ink Jet Printer	2 printing heads are included. Totally 4 printing heads is possible. In the printers separate touch screen it's possible to print text, numbers, logos and barcodes.
F S-seam Folding Device	For making an overlapping S-seam for special materials such as glass fibre. One device is needed for each diameter.
G Ventilation Hood & Exhaust Unit	The JEUX welding unit is encapsulated in a plexiglass hood so no fumes can leak out. Specially needed when using tape.
H Tape Device & Edge Control System	The tape device is integrated into the JEUX welding unit for applying tape on to the seam for a tight seal.
I Brush Device	For using when the materials are more difficult to weld such (i.e. with membranes). The brush device prepares the edge before welding.

OPTIONAL MODULES COMPATIBILITY

Fabric Stand For 2 Rolls
 Outfeed Conveyor (Additional 4 m Section)
 Pushing System Including Stacking Table
 Omron Camera
 Ink Jet Printer
 S-seam Folding Device
 Ventilation Hood & Exhaust Unit
 Tape Device & Edge Control System
 Brush Device

OPTION NAME	A	B	C	D	E	F	G	H	I
Option Fits with JEUX-SFL-2000W	•	•	•	-	•	-	•	-	•
Option Fits with JEUX-SFL-2000S	•	•	•	•	•	•	-	-	-
Option Fits with JEUX-SFL-2000SW	•	•	•	•	•	•	•	•	•