



The FLUIDSTITCH-9 — a tube and EL-wire placement platform for fluidic, pneumatic, and technical textiles.

TUBE & EL-WIRE CORDING

FLUIDSTITCH-9

Stitched-down tubes, EL wire, fluidic and pneumatic routes — the technical-textile workhorse.

A nine-needle flat head paired with a single PD (taping) head, configured for couching continuous tube and cord under engineered stitch paths. The platform does Tailored Tube Placement — routing silicone tubing, EL wire, and other tube-like structures and stitching them down — turning embroidery into a fluidic and technical-textile assembly process.

WHY THIS MACHINE

Drop a silicone tube under the PD head, route a serpentine, and you have a textile-integrated fluid line. Swap to EL wire and you have a glowing display. Run agricultural drip tube or air line and you have a soft pneumatic harness. One machine, one workflow, the entire technical-textile stack.



Silicone tube in textile carrier

CAPABILITIES

- Couches silicone, TPU, and PU tubing up to 15 mm OD without crimping the lumen
- Tailored Tube Placement for fluid, air, and EL-wire routes
- Pneumatic and hydraulic lines — soft actuators, thermal management, wearable cooling
- EL wire and tube-like structures stitched down for lighting and display
- Agricultural and technical routing — drip lines, microfluidic channels, lab-on-textile
- Combined fluidic + electrical routing on the same workpiece

IDEAL FOR

Soft robotics labs, microfluidics groups, wearable cooling / heating startups, agricultural-textile developers, and prosthetics R&D.

SAMPLING Bring your spec — we'll stitch a sample on this platform at our showroom.

PRICING Contact for current pricing and availability.

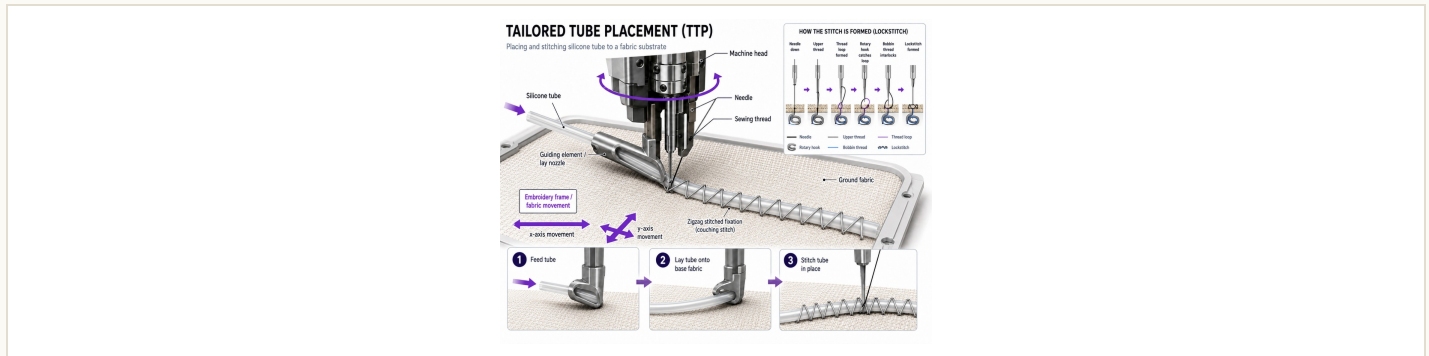
SPECIFICATIONS

Configuration	9 needles × 1 flat head + 1 taping (PD) head
Functions	Flat • Cording • Taping (fluidic) • Sequin • Laser
Embroidery area	650 × 1200 mm
Maximum speed	1,200 spm
Couching capacity	Tubing up to 15 mm OD
Control	12" colour touchscreen LCD
Power	Standard 120 V — quiet operation
Machine size	2,470 × 1,630 × 1,600 mm
Net weight	650 kg

WHAT THE PLATFORM MAKES

Tailored Tube Placement for Technical Textiles

Tailored Tube Placement (TTP) lays continuous tube exactly along a programmed path and stitches it down to a fabric substrate — no clamps, no manual routing. The FLUIDSTITCH-9 routes silicone tubing, EL wire and other tube-like structures, embedding fluid lines, air channels and lit cord directly into the textile for fluid transport, air transport, agricultural and other technical uses.



THE PROCESS • TAILORED TUBE PLACEMENT

How TTP works

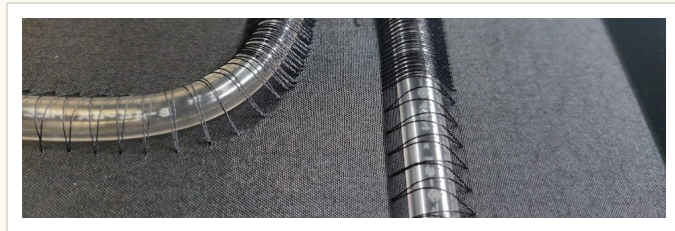
A guiding nozzle lays continuous tube onto a moving base fabric while a needle couches it down with a zigzag lockstitch. The embroidery frame moves in X and Y so the head follows any programmed path — placing tube only where the route demands it, without crimping the lumen.



SILICONE TUBE • FLUID ROUTE

Couched fluid line

Continuous silicone tube couched in a tight serpentine and stitched flat to the carrier — a textile-integrated fluid or pneumatic line for soft actuators and wearable cooling.



COUCHING DETAIL • LUMEN INTACT

Stitched tube detail

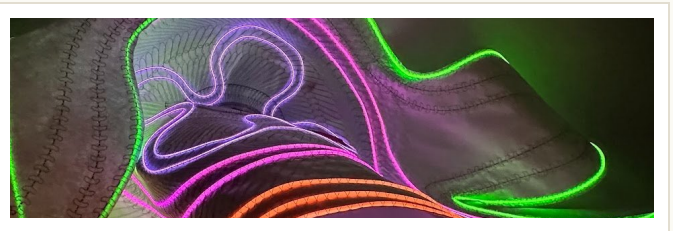
A close look at the zigzag couching stitch anchoring clear tube to fabric — firm fixation along the route with the lumen left fully open for flow.



TECHNICAL TUBE • AGRICULTURAL

Tube routing on mesh

Tubing laid in parallel U-turn rows on an open mesh carrier — the basis for irrigation, drip and air-transport panels stitched for agricultural and technical use.



EL WIRE • LIT TEXTILE

EL-wire display

Electroluminescent wire couched in flowing multicolour paths — showing how TTP stitches tube-like structures into a flexible, illuminated technical textile.

One machine, the entire technical-textile stack. Couch silicone, TPU and PU tubing up to 15 mm OD, route EL wire and other tube-like structures, and combine fluidic with electrical routing on the same workpiece — fluid lines, air channels, agricultural tube and lit cord, all stitched on a single platform.