

FAST MOVING TECHNOLOGY

STÄUBLI

SX Jacquard machine

Shedding solution for flat, terry and technical fabrics





INTRODUCTION

Universal,
precise and durable





Origin

Joseph Marie Jacquard was born in Lyon, France in 1752. In 1805 his imaginative research led to the first programmable machine, the Jacquard loom, which still carries his name today. In 1884, it was again in Lyon that Jules Verdol invented a reading device to replace the cumbersome large punched cards by thinner and lighter paper. Today, Stäubli develops and manufactures electronic Jacquard weaving machines with performance characteristics and reliability that carries on the prestigious tradition associated with the Jacquard weaving industry.

Applications

The Stäubli SX electronic Jacquard machine produces excellent results in the form of terry cloth, upholstery, tapestry, silk fabric, apparels, seat covers and technical fabrics on all types of air jet, rapier and water jet Machines.

This Jacquard machine is available in two formats: 1,408 or 2,688 hooks.

Design

The SX Jacquard machine features a new design that is particularly reliable, easy to access and minimizes maintenance. This innovative concept, combined with MX modules, ensures highest performance.

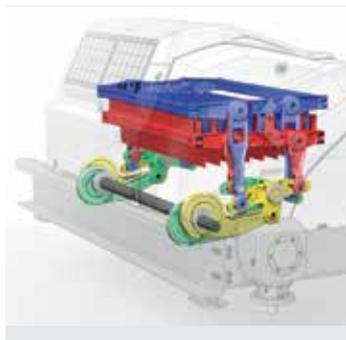
Advantages

The SX Jacquard machine is very robust, wear-resistant, and designed for many years of daily use with a minimum of maintenance. Due to its compactness this machine can easily be integrated in any weaving mill.

- Quick and easy to install
- Precise kinematics with no vibration
- Low-friction engineering reduces energy consumption
- Safe, straightforward access to make adjustments
- Lubricated-for-life bearings throughout
- Optimum sealing and ventilation to prevent dust penetration and for maximum lifespan

PRINCIPLE OF OPERATION

The special lifting mechanism of the SX Jacquard machine ensures accurate shed geometry and absolutely vibration-free operation, even at high weaving speed. The knife frames are driven by double eccentrics, using a precise guidance system. The extra-strong drive elements and the rigid subframe permit even higher loads.



Kinematics

Optimized moving parts are precisely balanced and linked without gaps to ensure weaving at high speeds.



Balanced guiding

This high-precision system of rocking arms and bearings ensures perfect linear guidance of the knife frames and enhances the machine lifespan.



Adjustment

Quick easy shed adjustment to support optimal efficiency of the weaving mill.

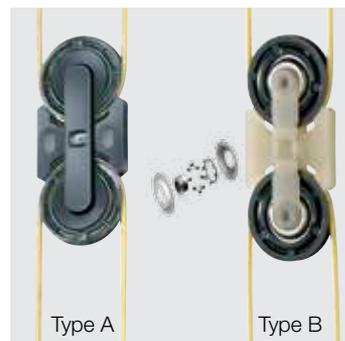
PRINCIPLE OF SELECTION

The MX module, heart of the Jacquard machine, provides reliable hook selection for all kinds of woven fabrics. The compact, maintenance-free MX module with dimensionally stable composite materials has a sealed read-in chamber. Reduced space requirements for the MX module allow better air circulation. The module is easy and quick to install.



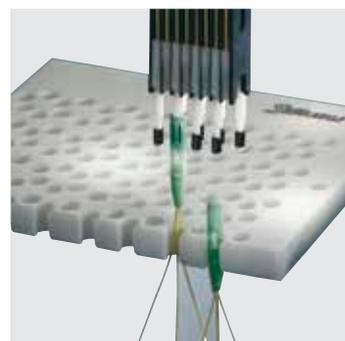
Selection

Thanks to its sealed read-in chamber and right choice of material, the MX offers unsurpassed reliability and requires extremely low energy consumption.



Pulley

The MX module is available with two types of pulley in order to match different load and speed requirements. The standard pulley type A includes sliding bearings. The type B with permanently lubricated low-friction ball bearings answers the most demanding textile.



QUICK LINK connector

The Stäubli QUICK LINK connector with anti-drop design significantly speeds fitting and removal of the harness - gaining time for the weaving process.

ACCESSORIES

JC7 controller

Each Jacquard installation is equipped with the JC7 controller, which can drive up to 96,768 hooks.



Following features are available:

- Open connectivity, reliable data storage: The advanced electronics with high-reliability flash memory to store data. Data is transferred via USB, external drive, or the network (1)
- Integrated design editor (2)
- Dedicated filters for harness optimization
- Electronic false selvedge motion settings
- Scheduled maintenance assistance: oil change and filter cleaning or replacement (3)
- Enhanced diagnostics
- International interface: up to 25 languages (4)
- Green product: The JC7 is an ecological unit consistent with the RoHS Directive

Harnesses

Stäubli harnesses form the perfect link between the Jacquard machine and the warp threads of the weaving machine. Stäubli's Jacquard machine and harness constitute a precisely matched system which is optimal for particular weaving machines and has high performance potential.



Special advantages

- High-quality optimized harness components
- Rapid installation (QUICK LINK connectors)
- Easy to fit and adjust
- Vibration damping and anti-static system
- Harness cord designed and produced by Stäubli with soil-retardant and anti-static treatment
- Optimal drilling of the comber board



Mechanical false selvedge device

The optional false selvedge device allows perfect weaving of false selvedges. It enables the false selvedges to be set separately from the shed of the warp.



Independent Stäubli drive

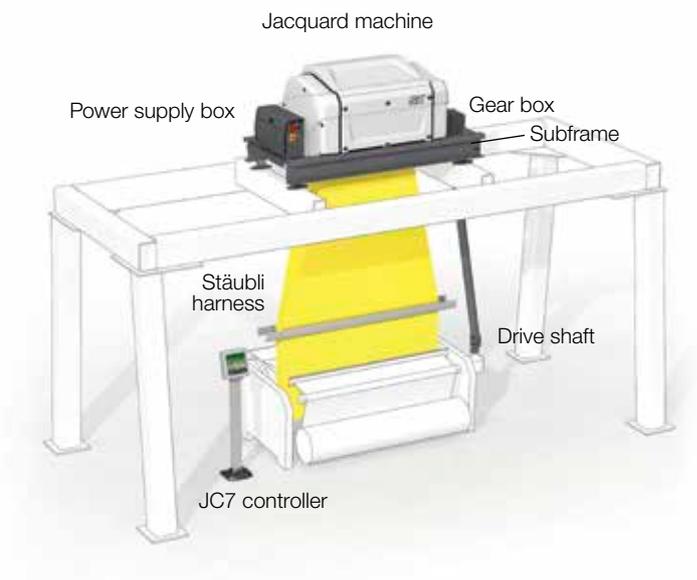
This electronic drive system enables special setups that are impossible with conventional transmission systems, such as chains or belts.



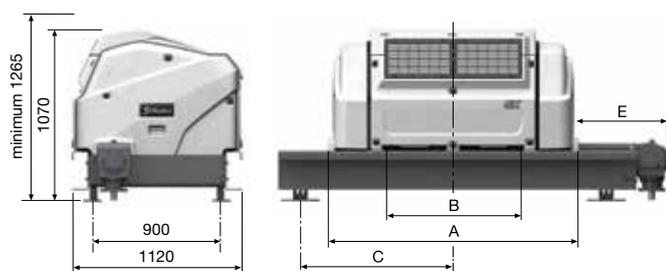
ADAPTATION, OPERATION

Dimensions, adaptation

The SX Jacquard machine is very compact and is available in numerous configurations to suit customer requirements. This enables it to fit readily into existing weaving mills even where those with limited space.



TECHNICAL DATA



Format (hooks)	A [mm]	B [mm]	C [mm]	Weight [kg]
1,408	1,135	497	784	790
2,688	1,607	969	1,018	1,050

Length E is variable depending on the weaving machine width

Main features	SX
Field of application	All types of weaving machine
Fabrics suitability	All flat fabrics and terry cloth, technical fabrics
Drive system and shedding	<ul style="list-style-type: none"> ▪ Double-lift open-shed Jacquard machine ▪ Knife frames with high-precision guidance system ▪ Precise adjustment of shed geometry
Hook selection	Stäubli MX modules with QUICK LINK connection
Electronic control	Independent Stäubli JC7 control unit, synchronized with the weaving machine

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