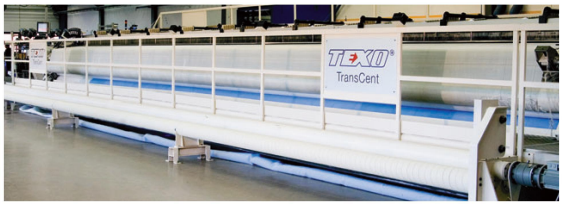
Technical data

Dimensions

Total machine width:	Weaving width +9,0 m
Total machine height:	2,5 m incl. foundation
Total machine depth:	6,8 m incl. weaver's bridge, wind-up and two warp beam

Warp tension

Max. warp tension:	1500 kg/m
Max. beat-up tension:	3000 kg/m



TransCent is a high-speed forming loom developed by TEXO who is one of the leading PMC loom manufacturer. TransCent is developed from very well-known technology such as, our band rapier with its "POZI-GRIP" system, TEXO "DISCO" Dobby system, our Loom Control system "LoCoMo" and many other high "tech" features developed by TEXO through many years of experience in the industry.

TEXO is one of the worlds leading manufactures of weaving machines for the production of paper machine clothing. Our goal is to increase the value and profitability of our customers´ business with the help of customized products and comprehensive service.

Since our founding in 1946, we have developed, designed and supplied over 1,000 weaving machines over the years.

TEXO´s headquarters and manufacturing facilites are located in Älmhult. Sweden. Our subsidary, TEXO Inc. in Greenville, USA, is responseble for sales and support in North and South America.

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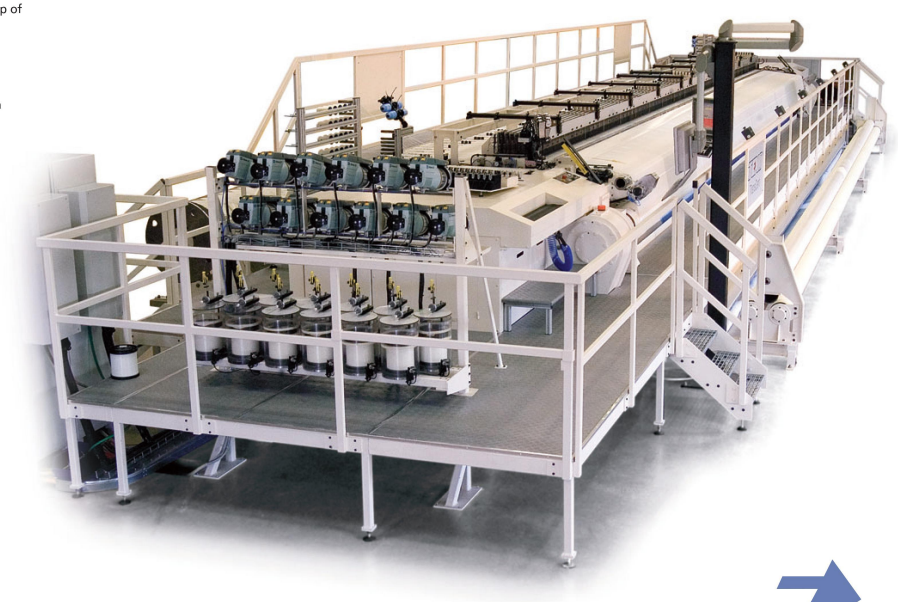
TransCent TCR



TEXO® TRANSCENT TCR - A HIGH SPEED FORMING LOOM

Frame and foundations
TEXO's idea of a smooth and easy installation consist, the whole loom is pre mounted on a concrete filled I-beam foundation designed for installation on "flat" floor. The concrete filling makes it very stable. Each frame module is adapted to fit in to a standard freight carrier. All in order to give our customer a cost effective investment.

Drive and lay movement
TransCent is driven by frequency controlled AC-motor and Ortlinghaus clutches through heavy-duty gearboxes placed on the loom frame between intermediate sections. Lay motion is achieved via cam drive and toggle joint actuation of lay sword. Lay beam of aluminum supported on each lay sword section

Take-up system
The TEXO three roll take up system gives You the possibility to, compensate for different speeds of top and bottom layer in the fabric via separately driven AC servo upper roll.

Upper roll is supported with caterpillar belts for one solid roll surface to achieve better friction and by that higher quality to the fabric.

Intermediate and lower roll are driven together via separate AC-servo drive. Intermediate beam is pneumatically operated for opening and closing.

Breast beam is fixed and breast beam bar of sword type.

Warp beam arrangement
Warp beams of steel in machined execution in 1 pce. Warp beams carried on support rolls. The warp beam/beams are individually driven by AC-servo motor and reduction gearbox at one end of the warp beam. Warp tension is controlled by canister wide load cell/cells in-stalled between the non-rotating lead rolls and gives the warp yarn a constant angle regardless of warp diameter. TransCent from TEXO has warp beam handling system for easier canister change as standard.

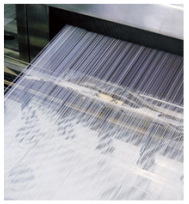
Control system
The entire TransCent is controlled by TEXO LoCoMo control system with Omron PLC. The loom frame located cabinets and the loom is pre-wired at delivery. User interface is a Windows based program made to be very easy to operate on an industrial PC with touch screen, including WinTexo software LAN connectable.

Fully integrated water-cooling system for electrical cabinets and rapier AC-servos. TransCent is built in compliance with EC-directives for machinery, low voltage and electromagnetic compatibility.

Weft insertion
AC-servo driven double side middle transfer band rapier for up to 12 weft yarns from left hand side of the loom. Drive unit is stationary mounted to the frame and is separated from the lay beam movement.

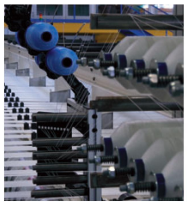
Hooks mounted on a separate beam, which moves in position at time of the weft insertion.

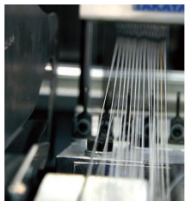
Weft presentation trough Texo's patented PoziGrip weft positioning system is controlled by weft tension monitoring and regulation system type TEXO TWTS, including Eltex ETM unit. Electronic adjustment of tension is through recipe. Weft stop motion, average tension, peak tension and weft protection are some of the built in supervisions as standard on a TransCent.



Subject to change in construction

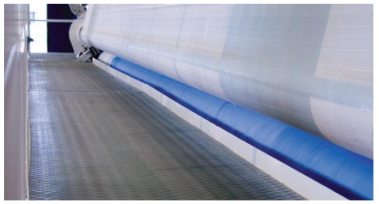
Dobby
TEXO's DISCO is a Direct Individual Servo Controlled dobby with modular build up in 12 mm pitch. Each frame is driven by AC servomotor, which gives it close to endless possibilities such as adjustable start time, adjustable stroke and "relax" pattern at stop. The frames are operated from below and connected via quick connectors to allow quick warp changes. The DISCO Dobby build-up is very clear and easy to overview and since it is a modular system, additional frames up to a total of 56 frames, can be added afterwards. The entire unit is designed for a minimum of maintenance. Frame position is controlled and visualized at operations menu on screen.





Edge cords
Complete set-up of edge yarns, including creel, brakes, twisters, temple and roll up

Wind-up
Three-beam wind-up system driven by a torque controlled motor in order to maintain a constant pull. Polished beams under walkway for low friction against fabric.



Weaver's bridge
TransCent is built to be user friendly, accessible all around the loom. Personnel can walk around the entire loom without using weaving room floor. Walkway is covered with non-slip carpet and secured with hand rail.

TransCent TCR
- a high speed loom