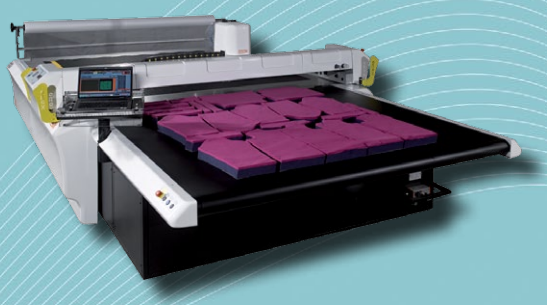
Inventex
Bright Fashion Side

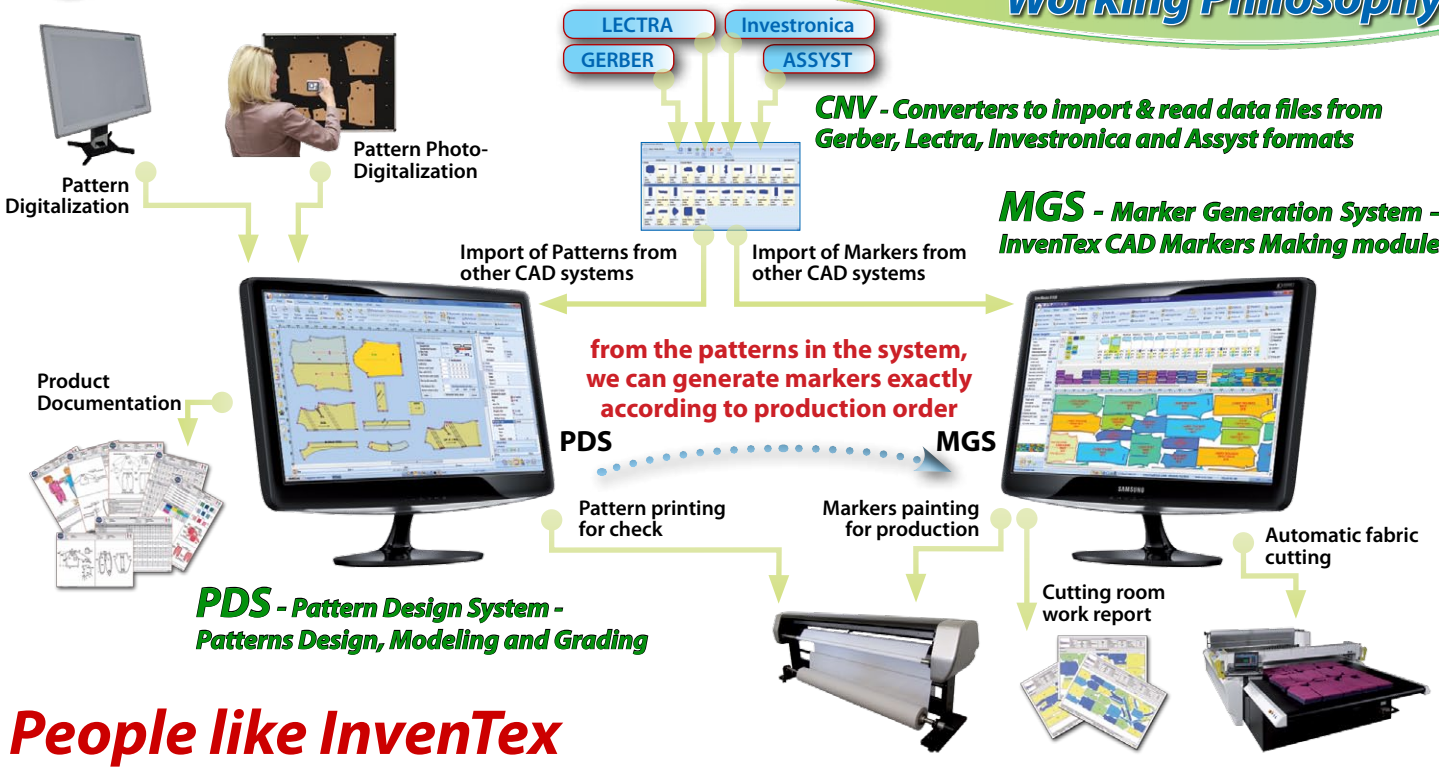
CAD/CAM Systems

Complex & Innovative Solutions



www.inventex.eu

InvenTex CAD System Working Philosophy



People like InvenTex

Let us give the voice to InvenTex CAD Users, listening to their short comments

"Your software is better – very clear and well ordered. With that presented on the screen, what is just necessary"

"Savings on fabrics what we have got here at once after start-up InvenTex Intelligent Master Marker module meant return of investment for InvenTex.... within 1 week only! Now we continuously get savings earning more money!"

"InvenTex is easy for operation and easy to understand. For me, pattern designer, this is a very good tool. I work quite effectively, do not learning on computer systems."

"I have spent 5 hard working hours trying to make the best optimized marker, to prove InvenTex Intelligent Master Marker cannot beat me. When I've started IMM module, within 3 minutes it has got a result better of mine by 2%! This was really unbelievable how fast and efficiently IMM makes markers that looks close to perfection."

"Maybe another system I worked with for last 4 years can do same things I make now on InvenTex. But I admit, I didn't know how to make it there. InvenTex is for me much more intuitive."

"We cooperate with other companies that use other CAD systems. I was afraid that data interchange between us will be difficult and troublesome. At the beginning there was need to learn a little more on data interchange general and specific rules. Now this is behind us, and it's Ok."

"I know that using InvenTex I can make all the model within 15-30 minutes! And this with verification of distances for corresponding lines to be sewn together. Interactive Measurement Table is a perfect tool I never seen before at any other CAD system I've used before. When I see "zero" values for sewing control measurements, I'm sure it fits correct."

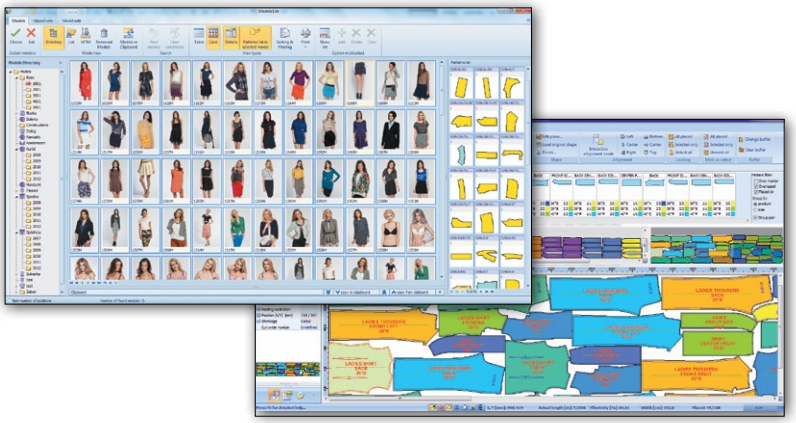
I worked on the old CAD system and we wanted to replace it for something new and better. But the old digitizer and the old plotter were still good. Finally we have choosen InvenTex and we do not regret. I have now many new capabilities, not accessible before. All very simple and very intuitive. And the old digitizer and the old plotter are successfully connected and are still running."

"We have thought to buy and implement CAD system into our manual pre-production process by last 5 years or more. I was thinking, I was sure it costs too much. We have bought InvenTex, and now I see how wrong I was! Though now I'm really happy to use it, anyway very often a question returns to my mind: why I didn't take it earlier? Now it's clear for me, how much money I've lost by this "waiting time". We 've lost money, some clients and some business opportunities. Now we rebuild our good statement step by step."

This is not a Content only – This is a possible, successive plan of your development ...

InvenTex CAD (PDS & MGS)

Innovative Pattern Design and Markers Generation system for textile industry



Main Benefits for the Users

- *End of paper templates! Easy and well ordered management over models, patterns and markers in the computer*
- *Availability of easy to use all the tools for patterns efficient design*
- *Always correct, mistake-free patterns thanks to digital processing and control by computer system*
- *Digital patterns processing in garment gives possibility to operate with almost unlimited range of sizes*
- *Minimization of fabrics consumption with Intelligent Master Marker module what makes top efficient markers within minutes*
- *High, stable products quality thanks to supply always the correct shape cut elements to the production*
- *Shortest training and start-up time. Unmatched user-friendly, modern and well ordered user interface*
- *System and interface easily customized, according to individual user necessities or preferences*
- *Multi-operator system – all operators connect and operate with one SQL database, always serving the actual data*
- *Data interchange with all professional CAD systems, cooperation with all professional digitizers, plotters, cutters*
- *Return of investment in the shortest time – continuous, extra profits collected during long-term use*

- InvenTex CAD – innovative computer system for pre-production processing on garment, upholstery and every other textile production.
- InvenTex CAD - complex 2D patterns processing: digitalization of paper patterns, pattern design and modeling, patterns grading (garment), markers making.
- InvenTex CAD – system that helps to be in the first line of competitiveness and efficiency, to survive on difficult market.
- InvenTex CAD – the highest standard of data protection, ensuring that your information are always secure.
- InvenTex CAD – pleasant and efficient system, that supports high creativity, production flexibility, high productivity and competitiveness.

Can be work with patterns and cutting markers so simple and so enjoyable?

YES – running InvenTex CAD it is obvious !!! This is the most modern system just for You !!!

InvenTex CAD:

- ✓ *highest efficiency*
- ✓ *easy work, best functionality*
- ✓ *multi-tasking, group work*
- ✓ *information security*
- ✓ *professionalism*
- ✓ *continuous development*

Others do not offer it at all, and some only for the high additional cost !!!

SQL Relational Database - Only and Exclusively InvenTex CAD...

encrypted recording, perfect cataloging, data integrity – all in standard !!!

possible to fully protect your information from unauthorized copying !!!

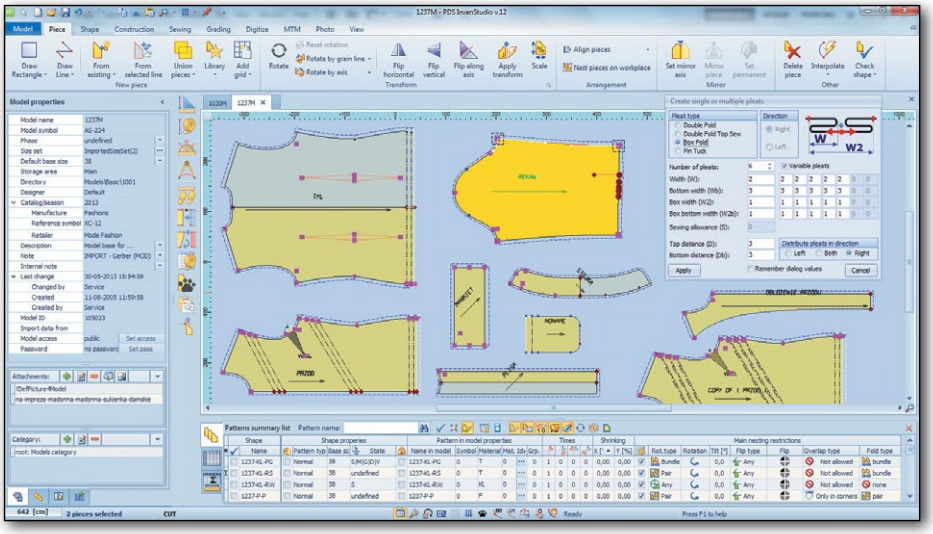
- ✓ *logical, the most friendly organization of patterns, models and markers in the SQL database*
- ✓ *SQL database, through internal relations, allows automatic updates, ensuring you always get the most current patterns and markers*
- ✓ *Built-in a very fast data explorer with multiple criteria, provides the highest data-searching efficiency*
- ✓ *SQL database shares and exchange information with other systems within company organization*
- ✓ *SQL database provides the highest possible data security*

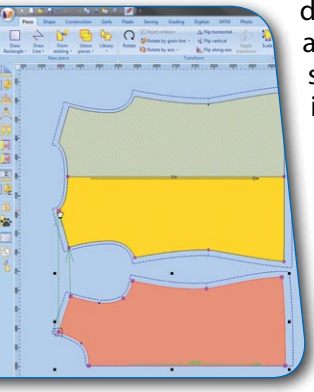
PDS

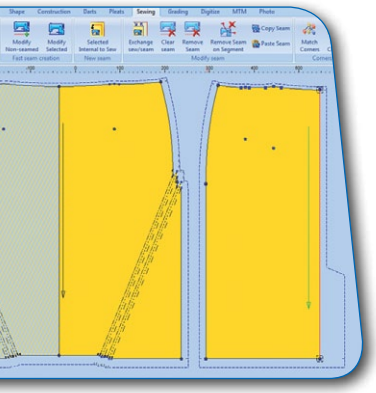
Pattern Design System

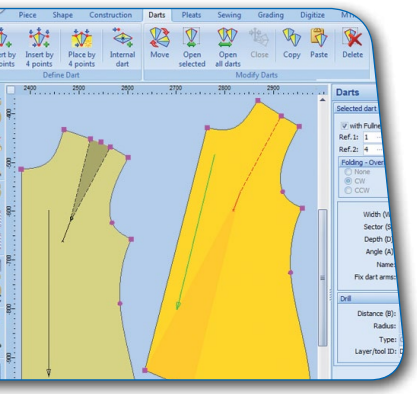
Complete patterns processing – designing, modeling, grading
- for garment, upholstery and other textile industry
- all in unmatched most effective and easiest way

InvenTex PDS - modern system, enabling the most ergonomic, intuitive and comfort operation with the patterns on the computer screen. Perfectly realizes all needs concerned to patterns design at pre-production process. InvenTex PDS – pattern design is made in computer, without use of ineffective and prone to errors manual working methods. Advanced functions makes every working day more comfortable and limits-fre for high skilled operator making complex job.



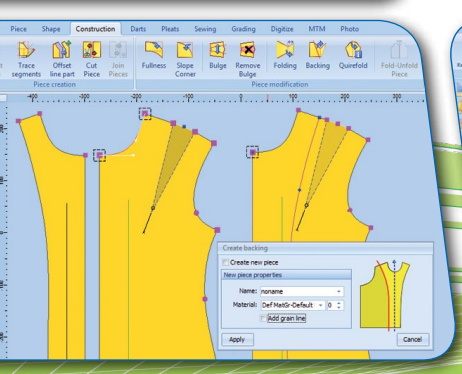


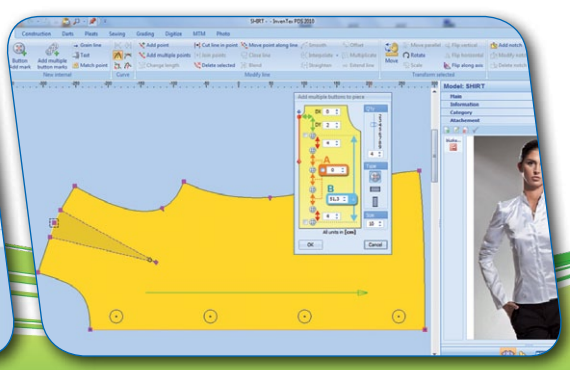




Program Main Functions / Benefis for Users

- *Ability to input patterns with traditional digitizers, by photo-digitizing or by import from other CAD systems*
- *Create new and change existing patterns quickly and intuitively directly on your computer*
- *All necessary tools for patterns modeling and design: darts, pleats, ruffles, notches, various forms of angles, symmetry, adding internal lines and marks, etc. - with ability for change at any moment*
- *Work with many open models in same time for easier pattern recognizing and easier elements transfer between different models*
- *Recordable user-defined, unlimited patterns arrangements on the screen work area*
- *Ability to work at the contour line (pattern line) or seam line (form line), depending on the actual processing need, with easy switch between*
- *Advanced function of interactive fitting pattern to pattern (walk function) simulates stitching of corresponding pattern parts*
- *Professional, modern and precise zoom methods*
- *Unmatched possibilities of product cataloging, the most effective product searching and exploring methods, advanced data filtering*
- *We can attach to every product/model unlimited files with additional information at any format*
- *Curve lines are Bezier curves - the most suitable, convenient and professional way to work with curve contour*
- *All functions are interactive with a preview of their result prior to actions confirming*
- *Dynamic measurement of the line lengths, with the possibility to put selected dimensions to the interactive comparison table*
- *The largest work area on the screen, most information on one screen, work with full resolution Full-HD or higher (1920x1200, 2.3 million pixels)*
- *Active prompts on the subsequent steps to follow for more advanced functions, make work easier and faster*
- *and many others…*





DIG

Conversion of traditional patterns for the digital ones in the computer

PGS

Interactive, advanced grading of garment patterns

InvenTex CAD uses interactive digitizer table for conversion traditional patterns to a digital format, all visible on the screen while digitizing. We can digitize all types of contours with inner elements, at once assigning to them all necessary attributes and/or information.

Digitization with digitizer board:

- *We can digitize and automatically grade all the sizes in the model, simply by digitizing patterns set of two different sizes.*
- *Digitization process is accompanied by a voice assistant, which facilitates the user time savings, provides the convenience and precision of a workflow.*
- *Auto-joining feature allows the use of digitizers of any, even small size, regardless of the size of the patterns.*
- *Digitization of all patterns, regardless of their quality and format.*

Digitizers for CAD system

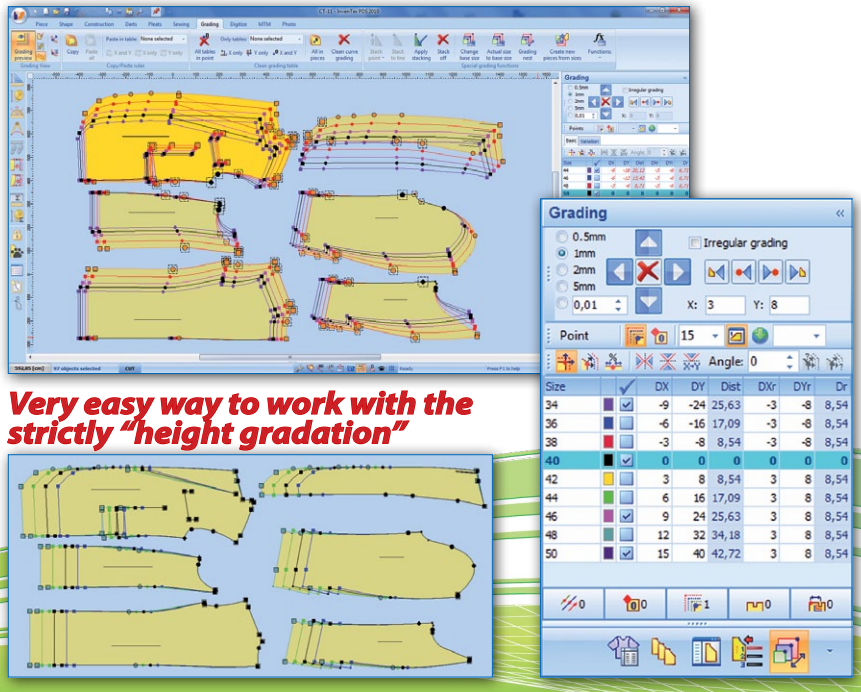
InvenGraph ID	-1824C	-3648CS	-4460CS
Format:	A2	A0	A0+
Working area [cm]:	46x61	91x122	112x152

All digitizers supplied with 16-buttons programmable cursor, comunications port COM or USB, for A0&A0+ with adjustable stand

InvenTex PGS provides a perfect grading module, specialized for garment applications. It ensures incomparable time savings and the best grading functions. Grading facilitates size variations. If required, we can define two, three, four or even more parameters (values) describing the size (e.g. circumference, height and figure style). InvenTex is an unique system, that can process the highest quality garment production. Within a few minutes we can grade a model at hundred sizes. Extension of any sizing table is unlimited at any time. This is not reachable with manual grading operation. Time spent for completion grading process of the 100-sizes model usually does not exceed 10-20 minutes. We evaluate this can be 100 times less in comparison to make it manually. If job is made manually, to modify it, this is so time-consuming that mostly not possible to do!

Main Benefits for the Users

- *Lots of user-friendly tools for professional interactive grading*
- *Efficient unlimited sizes grading – within minutes we can grade 50-, 100- or 200-sizes model*
- *Grading completion for 100-sizes model normally does not exceed 15-30 minutes – this is 10-100 times more efficient than manual making*
- *InvenTex CAD grading provides significant savings of time and money, increase productivity and quality*
- *Possible correction of shape and/or grading rules individually in any one size of the complete size set*
- *Every size convenient display on the screen with different color*
- *Grading rules can be copied freely between points, lines or the entire patterns*
- *Many different grading methods available: increments in X and Y coordinates, increments given in tangential and perpendicular lines, increments as distances measured along the line (notches, etc.).*
- *Possible rotation of X and Y coordinates by a defined angle from base X and Y position, to define increments more conveniently in some cases*
- *and many others…*



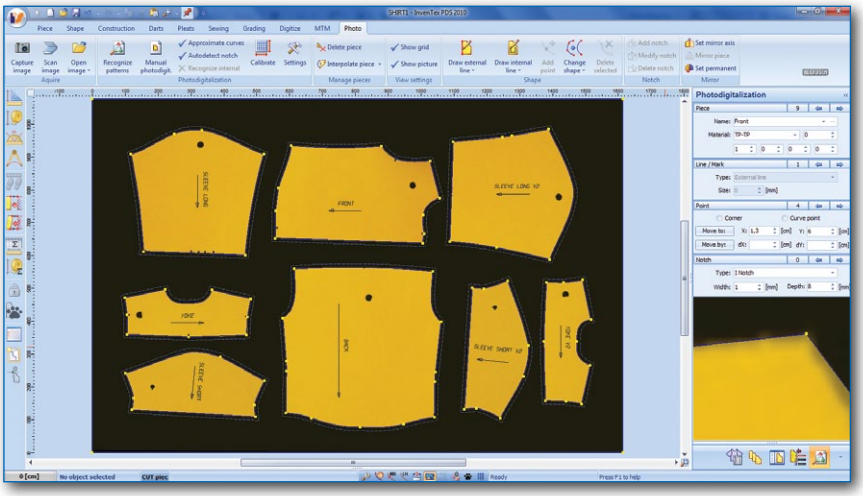
Very easy way to work with the strictly "height gradation"

IPD

InvenTex Photo Digitizer

Innovative solution for a fast patterns digitizing using a digital photo camera

For significant speed-up of patterns digitizing, we have developed the advanced InvenTex Photo Digitizing module. Using a standard digital photo camera we can easily and quickly transform any size paper patterns to digital form. System automatically calibrates patterns from the photo in purpose to remove any optical or spherical aberration fault effects. In a very short time, shapes for all shot patterns are autmatically recognized and saved in computer memory. Advanced algorithm for image processing ensures high precision of digital shapes transformation. The innovation is we can shot the photos by photo camera mounted on a fixed support or shot by hand. We get full mobility. Without need to make a calibration of photo-camera structure each time, when camera position changes in relation to a surface that digitized patterns are set.



Three easy operations, to speed-up a few times patterns digitizing process, getting the highest accuracy at a time:

1. Capture a photo or scan patterns → **2.** Recognize patterns shape → **3.** Save or Export model

Three digitizing methods delivered in one software. You can always choose photo-digitizing method best fitting to circumstances.
Integraly built-in into PDS module InvenTex Photo Digitizer assures the best operability. It can be anyway supplied as a separate module capable to be used with any other CAD software.

Professional method with a fixed photo-camera

- *High efficiency thanks to direct photo-camera connection with a computer capturing an image at once*
- *Continuous preview of digitized patterns on computer screen makes possible to set patterns best position on a table surface*
- *High image quality by using a professional photo-camera*
- *Ability to use any table covered with non-reflex black fabric*
- *Solid support keeps camera fixed avoiding calibration repeating*
- *Patterns easily set on a table lying firmly by their own weight*

Innovative mobile method with auto-calibration

- *Ability to use any photo-camera with min. 6 MPix. dot-matrix*
- *Full mobility to make photo-digitizing in any place, ex. make patterns images at client place, then process them after return back*
- *Innovative auto-calibration method, processed for each image recognize, guarantees high accuracy for pattern shape transform.*
- *Saves a surface by installing black table on a wall*
- *The best price rate in compare to function capabilities*

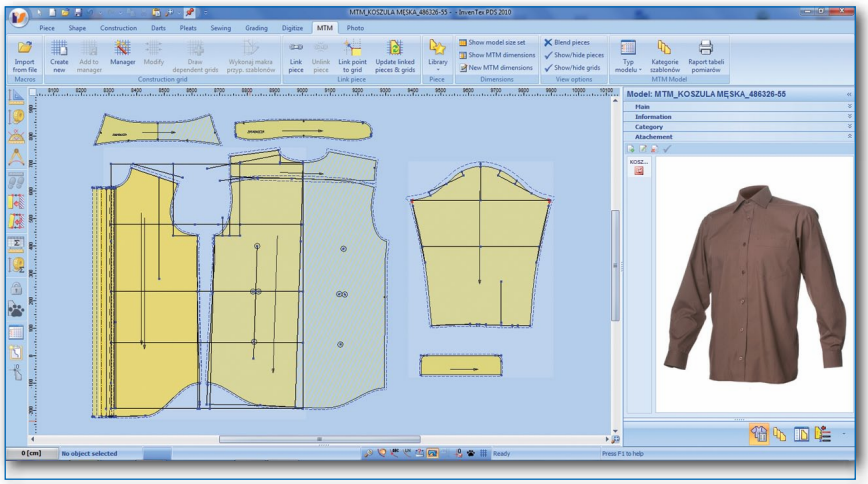
Solution with a scanner and auto-calibration

- *Ability to use any cheapest flat scanner of A4 format*
- *Comfortable method for digitizing small patterns (lingerie)*
- *Half-pattern scan method for internally symmetrical pattern*
- *Ability to connect & use a professional, wide-format scanner*

MTM

Made To Measure

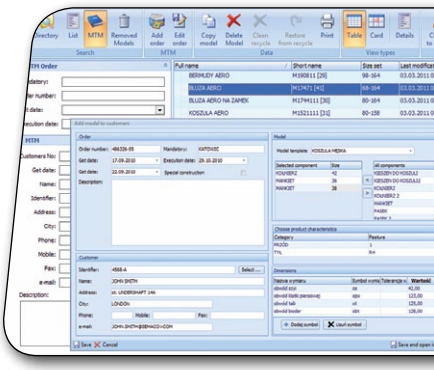
Automatic garment pattern creation for Made to Measure production

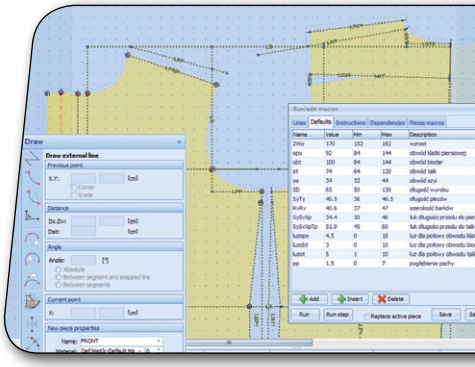


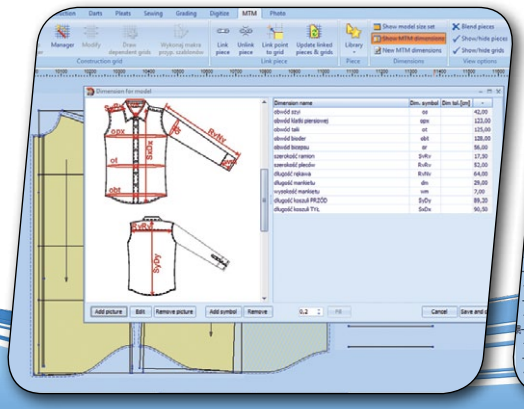
MTM module enables parametric garment patterns construction, base on anthropometric measurements. Clear functionality enables easy of use and short training time. Garment patterns creation and modification is based on construction grid. Very important InvenTex MTM feature is ability to define construction grids that are dependent from the main, base construction grid. It ensures correct fitting e.g. sleeve and collar to their corresponding contour sections on the main patterns (shape). All modifications are processed automatically for all the patterns in one time. InvenTex MTM can be used for every garment style, when we need a garment perfectly fitting to person's individual body shape, having priory measured defined person's body dimensions.

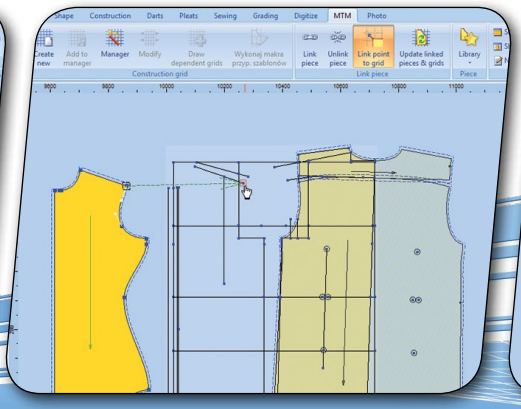
Main InvenTex MTM features & specifications:

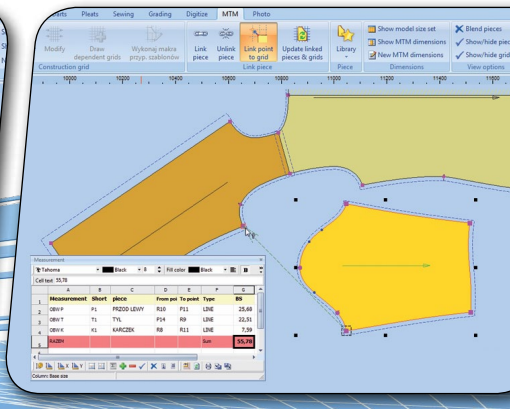
- *Full integration with InvenTex PDS pattern design module enables complex operability and function sharing*
- *Patterns are created base on clear macro instructions, specially made for parametric construction purposes*
- *Easy methods to link patterns with parametric construction grid enable also automatic shape modification of digitized patterns or imported from other CAD systems*
- *Ability to use dynamic definitions for plies, folds, compounds, etc., controled by macro-instructions*
- *Additional separate definitions of special corners for seam allowance, enables auto-creation of correct, ready to cut patterns*
- *Additionally available MTM Order Manager enabling to catalog and keep an order over all made & saved measurements and previously processed MTM orders for easy finding them back and repeat if necessary*
- *Dynamic table for veryfing user-defined control measurements of patterns, enables in real time to check fitting of corresponding patterns sections to be sewn together*









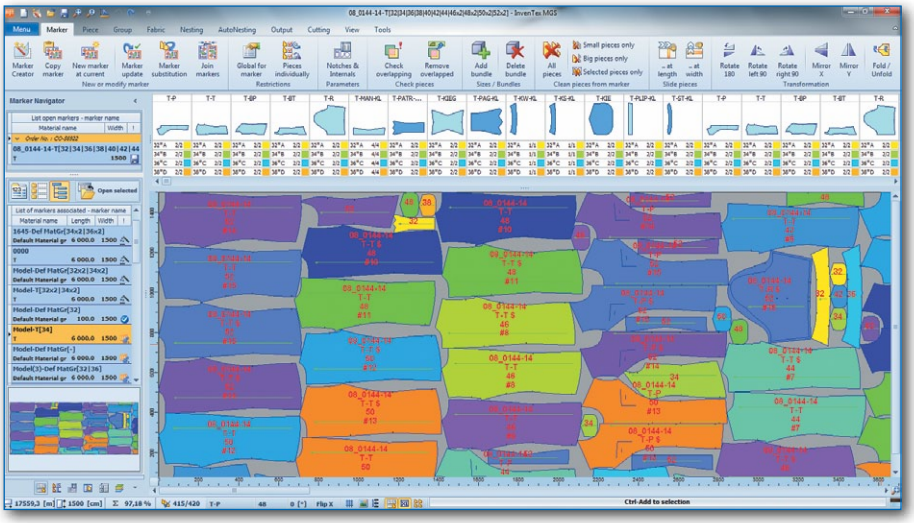


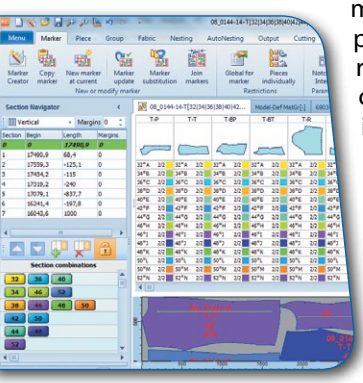
MGS

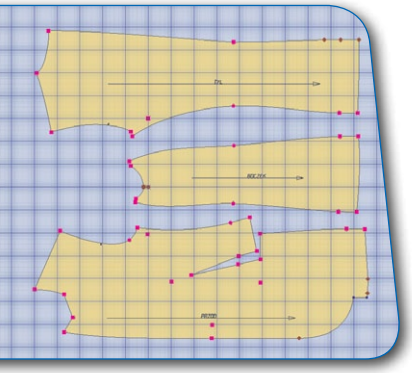
Marker Generation System

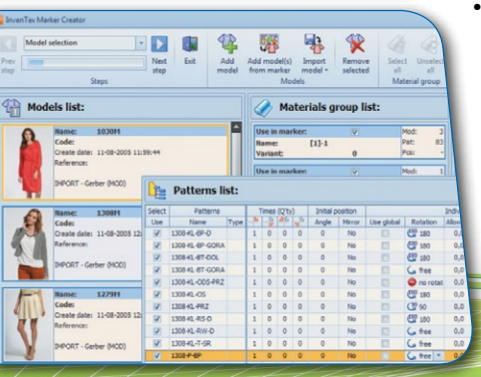
Effective markers planning of highly optimized markers for a cutting room

InvenTex MGS marker generation software module, this is a very strong tool of InvenTex CAD system. Using of the module gives at once significant, at least 5% material savings. Intuitively grouped functions for easy operation. Intelligent Master Marker module intelligently and automatically creates the markers with the highest efficiency (lowest material waste) and in the shortest time. The system supports checks, strips and/or pattern fabrics. Fabric consumption when creating the marker is constantly monitored. The work plan of the cutting room masterfully optimizes another intelligent module - InvenTex Cut Plan.









Program Main Functions / Benefits for Users

- *very easy to create new cutting markers through an intuitive marker wizard*
- *creation of new markers on the base of existing ones, swapping sizes in the marker while maintaining their position, joining few markers into one marker*
- *ability to work with multiple open markers at the same time*
- *simultaneous generation of markers for different groups of materials within one cutting order*
- *automatic templates fitting to the materials checks report, strips report or fabrics motives formulas*
- *automatic patterns scaling for selected shrinkage parameters, assigning the shrinkage values to the fabrics*
- *support of faults on the fabrics, defining of overlap lines for fabric spreading process*
- *ability to group and catalog the markers by many criteria, easy searching and filtering for the markers*
- *ability to edit the shape and key parameters of elements directly from MGS module*
- *fast copy and move of patterns between sections and other markers*
- *synchronization of elements rotation within each bundle, synchronization of rotation for the elements within all bundles at one given size (all elements in the bundle will always rotate synchronously), or synchronization of rotation for the elements within all bundles for the all sizes together*
- *advanced creation of fusing groups with separated support of their shrinkage ratio. Possibility to move fusing group automatically from the marker for main fabric to the "fusing" marker consisting of elements to be fused*
- *adding to just ready marker of new size, new product/model or next elements even from the another model, not existing in the ready marker – ex. in purpose to make marker efficiency higher*
- *ability to cut selected elements in the marker in purpose to obtain higher marker efficiency (less fabric waste)*
- *smart update of existing ready-made markers in case of: change of pattern shape, change of notches, change of patterns quantity in a model, or making another changes in the patterns. Update is supported by list of changes.*
- *The largest work area on the screen, most information on one screen, work with full resolution Full-HD or higher (1920x1200, 2.3 million pixels)*
- *user-profiled interface (icons, tool bar, keyboard shortcuts, colors, etc.)*
- *profiled data import from the cooperating parties, recorded in all international formats*
- *generation and profiling of marker files to be used with professional plotters and automatic cutting machines*
- *and many others…*

possibility of placing elements in selected areas of the marker, so-called "sections" (horizontal or vertical)

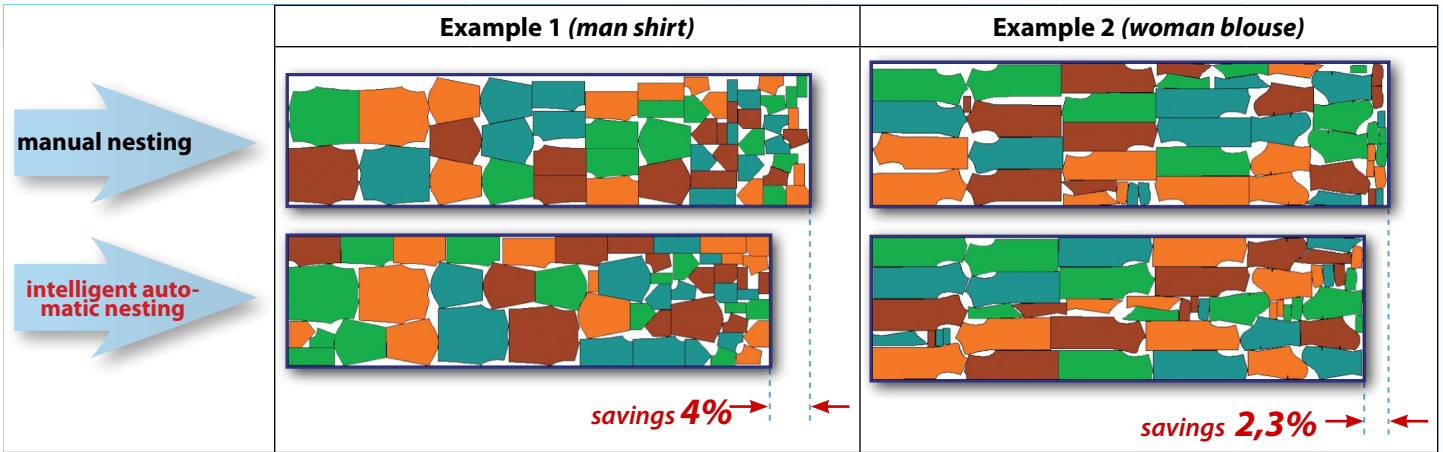
IMM

Intelligent Master Marker

Perfect, automatic module that brings the highest time and material savings

Intelligent Master Marker automatically calculates the best optimized markers at a shortest time, just within 2-3 min. !!!

- minimize fabric consumption by unmatched efficient markers
- huge time savings due to the calculation of the each highly optimized maker in no more than 3 minutes
- the highest markers efficiency does not dependent on the skills, experience and commitment of the people
- handle paterns fitting on fabric with checks, stripes and decorative motif five-stars method
- with the fast markers creation, there is no delay in the pre-cutting process, even when orders are overflow
- cooperation with other CAD system for optimizing therein created and there existing not optimal markers
- ANS Server version can work 24h/7d providing the highest efficiency of the optimal markers creation
- the shortest payback time - continuous achievement of cost savings and increased profits in the future



	Example 1 *(man shirt)*			Example 2 *(woman blouse)*		
Markers quantity per day	1 per day	10 per day	10 per day -->> per month	1 per day	10 per day	10 per day -->> per month
Comparing of fabric consumption:						
marker nested manually	5,851 m	58,51 m	1228,71 m	5,519 m	55,19 m	1158,99 m
automatically by IMM	5,588 m	55,88 m	1173,48 m	5,378 m	53,78 m	1129,38 m
Fabric savings on 1 layer	**0,263 m**	**2,63 m**	**~55 m**	**0,141 m**	**1,41 m**	**~30 m**
Fabric savings on 10 layers	**2,63 m**	**26,3 m**	**~550 m**	**1,41 m**	**14,1 m**	**~300 m**
Comparing of labor time:						
marker nested manually	15 min.	150 min.	53 h	25 min.	250 min.	88 h
automatically by IMM	3 min.	30 min.	11 h	4 min.	40 min.	14 h
Time savings	**12 min.**	**120 min.**	**~42 h = ~5 days**	**21 min.**	**210 min.**	**~74 h = ~9 days**
Money savings per each month:	**550m * $7/m + 42h * $4/h = $4000 !!!***			**300m * $7/m + 74h * $4/h = $2400 !!!***		

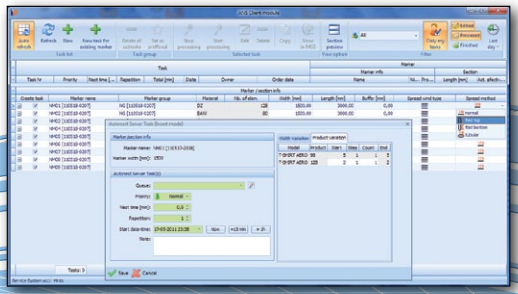
** All values are given as example only, the values are estimated and cannot be used for any formal claims*

ANS / ANC

Automatic Nesting Server / Automatic Nesting Client

Server for Automatic Nesting to Produce Maximally Optimized Markers

- *any number of user workstations connected to the server – well priced solution and very high performance – one server computer makes the markers for many users*
- *several queues with different priorities for the tasks of markers making*
- *sampling of markers efficiency for different fabric widths (selected from the list) for the highest level of markers optimization*
- *sampling of markers efficiency for different number of the model sets nested in the marker, for the highest level of markers optimization*
- *can work non-stop 24 hours/7 days, without slowdown of any other open programs and tasks*
- *automatic network communication on status of commissioned and completed tasks*



Price near to 1-license module – Access for many users !!!

ICP

Intelligent Cut Plan

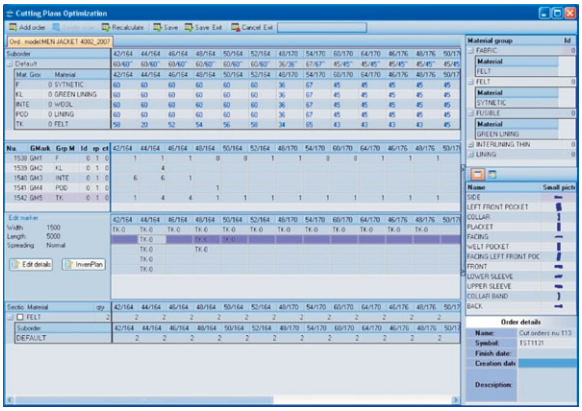
Automatic, intelligent planning of optimum cutting room orders

Intelligent module to optimize process that most commonly is still made manually, extremely time-consuming, never bringing optimum results. **Questions to answer: How many layouts to make? How many layers in each layout? What fabric to spread? What colors for the layers? And many others…**

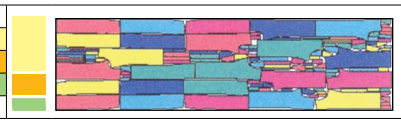
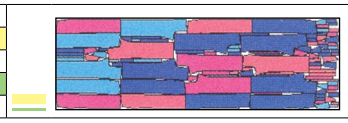
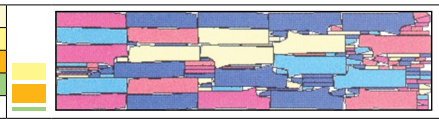
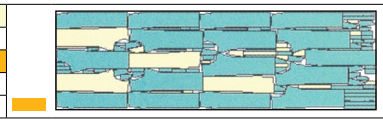
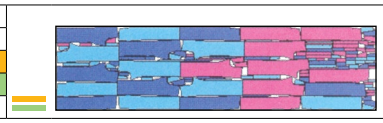
We input a Production Order to Cut Plan …

Order Production Order		List of sizes in the order						
		38	40	42	44	46	48	50
Color variants	Color 1	51	74	74	97	74	51	15
	Color 2	19	36	44	61	44	43	23
	Color 3	12	18	26	32	26	12	4

… and after 20 minutes



we get all of the best optimized Markers Cut Plan

	Sizes:		38	40	42	44	46	48	50	View of result markers	The result efficiency	
Marker 1	Number of complete size in the marker	1	1	1	1	1	1	1	0		Marker length	4,51
	Color 1 – Layers quantity	51	51	51	51	51	51	51	0		Marker length (for 100% efficiency)	4,13
	Color 2 – Layers quantity	19	19	19	19	19	19	19	0		The real length of fabric used	369,8
	Color 3 – Layers quantity	12	12	12	12	12	12	12	0		Length of fabric used (for 100% effic.)	338,5
	Total quantity of layers–marker 1	82									Efficiency of fabric consumption	91,54%
Marker 2	Number of complete size in the marker	0	1	1	2	1	0	0			Marker length	3,83
	Color 1 – Layers quantity	8	0	8	8	16	8	0	0		Marker length (for 100% efficiency)	3,50
	Color 2 – Layers quantity	0	0	0	0	0	0	0	0		The real length of fabric used	38,3
	Color 3 – Layers quantity	2	0	2	2	4	2	0	0		Length of fabric used (for 100% effic.)	35,0
	Total quantity of layers–marker 2	10									Efficiency of fabric consumption	91,31%
Marker 3	Number of complete size in the marker	0	1	1	2	1	0	1			Marker length	5,00
	Color 1 – Layers quantity	15	0	15	15	30	15	0	5		Marker length (for 100% efficiency)	4,56
	Color 2 – Layers quantity	17	0	17	17	34	17	0	17		The real length of fabric used	180,0
	Color 3 – Layers quantity	4	0	4	4	8	4	0	4		Length of fabric used (for 100% effic.)	164,3
	Total quantity of layers–marker 3	36									Efficiency of fabric consumption	91,27%
Marker 4	Number of complete size in the marker	0	0	0	0	0	4	1			Marker length	4,25
	Color 1 – Layers quantity	0	0	0	0	0	0	0	0		Marker length (for 100% efficiency)	3,88
	Color 2 – Layers quantity	6	0	0	0	0	0	24	6		The real length of fabric used	25,5
	Color 3 – Layers quantity	0	0	0	0	0	0	0	0		Length of fabric used (for 100% effic.)	23,3
	Total quantity of layers–marker 4	6									Efficiency of fabric consumption	91,23%
Marker 5	Number of complete size in the marker	0	0	2	2	2	0	0			Marker length	4,97
	Color 1 – Layers quantity	0	0	0	0	0	0	0	0		Marker length (for 100% efficiency)	4,55
	Color 2 – Layers quantity	4	0	0	8	8	8	0	0		The real length of fabric used	39,8
	Color 3 – Layers quantity	4	0	0	8	8	8	0	0		Length of fabric used (for 100% effic.)	36,4
	Total quantity of layers–marker 5	8									Efficiency of fabric consumption	91,45%

Summary for Markers / Markers 1-5	Length of Total Fabric Used:	653,4
Total Efficiency of Fabric Consumption: 91,43%	Efficiency of Total Fabric Consumption:	597,4

InvenTex Cut Plan – specify the Production Order – Automatically in a short time the most optimum Cutting Room Production Plan with complete specification of markers to process !!!

- *Enter the main parameters: max. marker length, the labor cost for marker layout manual make, the labor cost of manual cutting, etc.*
- *Enter the production order, a list of models, ordered quantities, the sizes and colors*
- *You will get the best thought-out list of markers, the number of layers, sizes and colors in each*
- *You will get the result in no more than 15-30min., saving in the same time no less than 2-3% of the fabric*
- *Save time, remove people from the time-consuming and inefficient manual made operations*
- *Reduce material waste to a minimum, save a lot of money and invest it wisely*
- *Result of InvenTex Cut Plan is unbeatable with traditional manual methods*

InvenTex Cut Plan takes into account the actual cost values, hence the results are close to reality. Having your work Cut Plan - a ready list of the most thought cut markers, each of the following pre-markers can be subsequently calculated with more thorough, advanced analysis with implemented Intelligent Master Marker software module. Giving to the analysis of these markers sufficiently long time, You always get the best results to reduce the fabric waste.

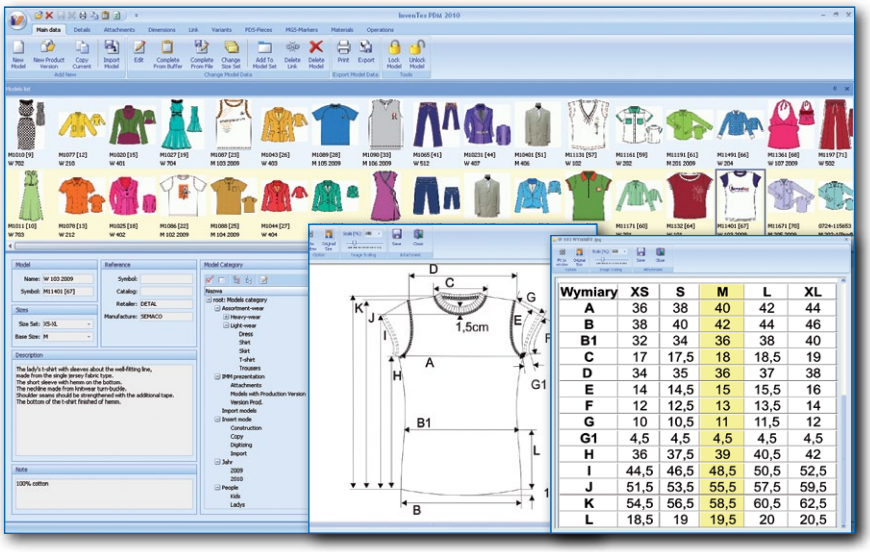
Cut Plan - no one can do it better Cutting Room Orders Plan !!!

Cut Plan - minimizes Cutting Room total labor costs !!!

PDM

Product Data Management

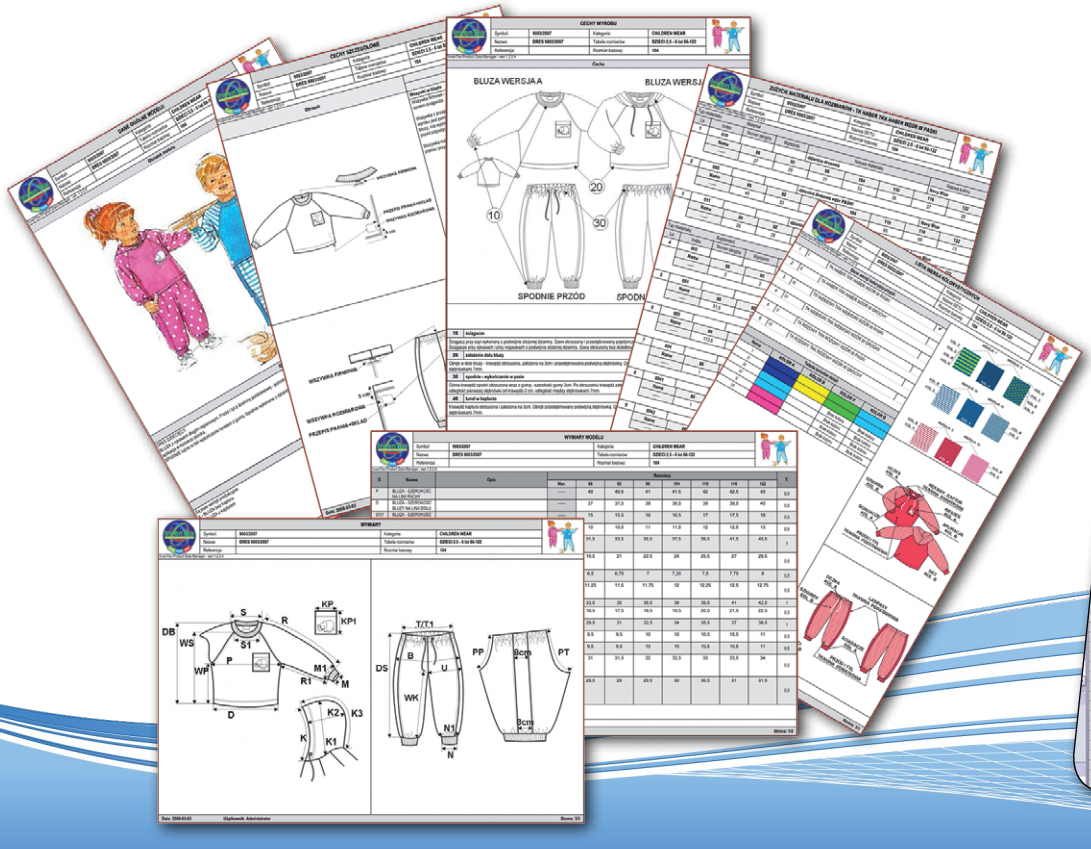
Product Data Management
Technical and technological product documentation
Product costing and calculations

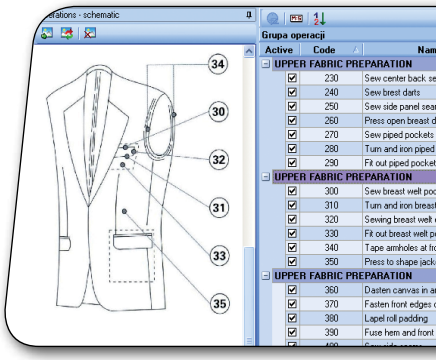


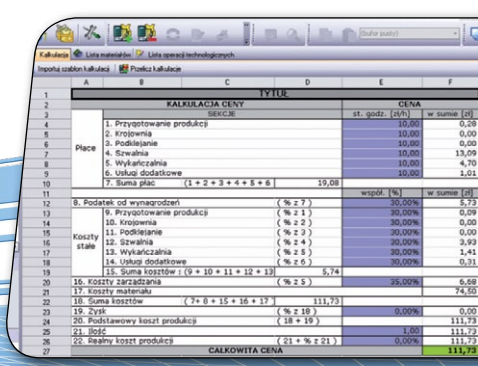
- Management over product technical data and documentation. Starting from general properties, through detailed description of products components, technical sketches, production technology in the subsequent cutting, sewing and finishing sections, used fabrics and additives, etc.
- Any information put once to the system, is always accessible ensuring the necessary control and management over the product production process.
- Production process described by the subsequent operations list linked with unitary operation times.
- We can manage with many different production versions created within one model.
- InvenTex PDM - much more than only a software. This is a realized idea of integrated management over the all important product aspects.
- InvenTex PDM saves Your time and money.

The range of the index-cards handled and additional modules functionality:

- *Main index-cards of the models*
- *Model features and detailed descriptions*
- *Dynamic categorization in a tree form*
- *Individually defined info cards in a form of calculation sheet*
- *Production and color versions of the model and construction variants*
- *Management over additional, attached files*
- *Completing of the models into the sets*
- *Lists of the patterns used in CAD system*
- *Lists of the ready markers consisting of subject model*
- *Measurement tables for figures and models*
- *Controlling over model measures*
- *List of model materials and its other components and additives*
- *List of production operations with index-card for each operation*
- *Costing calculations of the models*



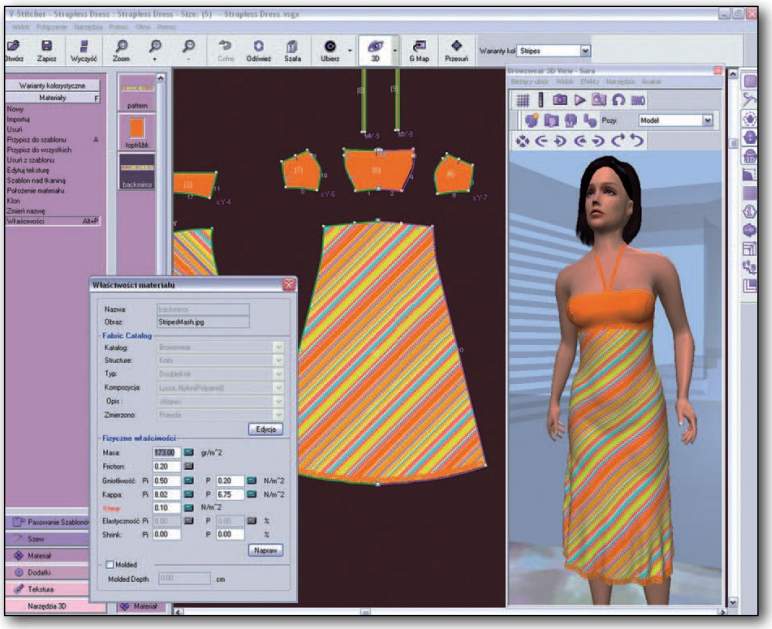




VST

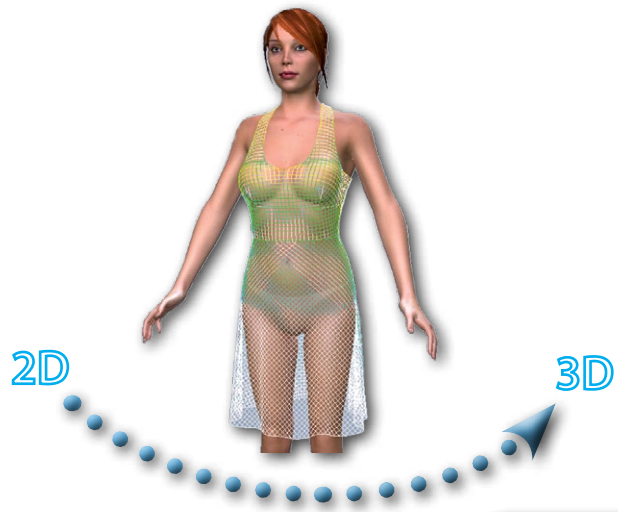
V-Stitcher 3D

Electronic 3D garment sewing, prototyping, visualizing and fitting



Main Program Functions

- *Creating 3-Dimensional models in the computer, based on electronically stitched clothing forms created in CAD*
- *Electronic trying on and modeling on parameterized human avatars - preview of fabric stress on an avatar grid*
- *Modeling directly on an avatar with correspond changes transferred to the 2-Dimensional patterns*
- *3D visualization for fashion designers, patterns designers and persons approving the models to produce*
- *Endless styling possibilities with different textures and fabric color variants*



- Electronic stitching of patterns doming from any other CAD system
- Perfect 3D visualization and presentation
- Preview of the stretching grid on the avatar surface
- Unlimited styling capability
- Style modeling directly on parameterized avatars with reference to 2D patterns

Advantages coming from VST:

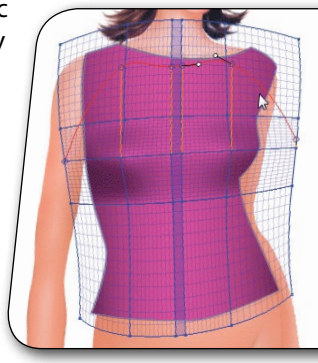
- visualizations of artistic designer ideas are presented in 3D in very realistic form
- matching and fitting of garment collections is processed on parameterized avatars
- perfectly finished-up patterns and perfectly fitting styles within the all sizes
- new collections come much faster and without costly sample sewing stage
- styling and color variants selection by only a one or few mouse moves
- effective and suggestive support for marketing actions including internet (eShop)
- high return on investment ratio, ensuring the best achievements and new capabilities

FDS

Fashion Design System

Garment computer aided design with 3D-alike effects

InvenTex FDS is a computer tool to support modern garment designer. It's a combination of vector graphic processing programs (such as Corel Draw) and raster graphic processing (like Photoshop), into a highly functional one product dedicated for garment designing. InvenTex FDS simplifies and accelerates the design of clothing, prints and fabrics. It provides a quick visualization of the project in many different colors variants. InvenTex FDS raises creativity of designers, while reducing the time and cost of this initial phase of the product life, of which to further work go usually not more than 15-30% of new projects. InvenTex FDS allows you to create drawings and sketches for the technical documentation performed and used in the InvenTex PDM module. Program works with a spreadsheet.



Benefits for Users

- ***Reduced time and cost of design-clothes. Fabrics and garment visualizations are created on the computer***
- ***Increase the designers creativity, fast communication and decision-making at the design stage***
- ***Virtual directory with thousands of proposals, without buying fabrics, accessories and sewing prototypes***
- ***Over 15,000 Pantone Textile colors provides unparalleled authentic simulation of colors***
- ***Create your own drawings for the technical documentation needs***
- ***Short-term return on investment - then continued to achieve additional profits***

«InvenTex FDS» - one program providing three software studies:

«e-Style» - a studio for processing vector graphics. Here we draw, cut lines, add decorative stitching, add the project descriptions, create 3D-alike effects, add ribbons and laces, etc. Here we prepare realistic proposals for new collections, journal sketches and technical drawings.

«e-Material» - a studio used to design fabrics with defining the type of warp and weft strands. Quickly change the color of the scanned patterns. Library of different fabrics.

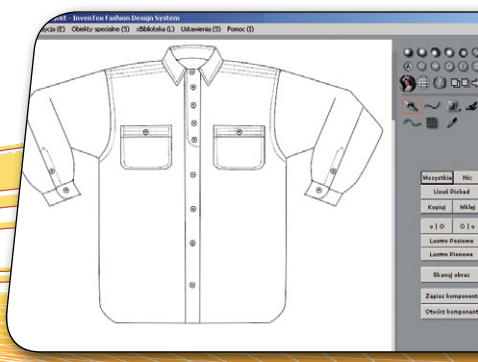
«e-Photo» - a studio for processing raster graphics. Here we realize all the steps to frame a fashion show picture, rub out, clean the background, etc. Here we fill the selected area with the so-called color «bucket» or with color brushes. Saving your own photos, sketches and fabric scans expands an extensive library system. Read and record images in many popular graphic formats such as JPG, TIF, BMP, PSD, CST, DYE.

Virtual Apparel/Garment Design

- In the second You prepare a visualization of multiple color design, with 3D-alike effects, all to help in a very natural way to introduce the model. No need to draw on the paper many, usually very similar drawings.
- With one mouse click you can copy the model, then modify it freely. Without use of paper. Without a manual, time-consuming drawing. Keep your work results on the computer, always ready for the next change..
- Attractive new projects directory You send easily to Your clients, though all are only virtual, no real prototypes yet exist. With the minimum cost You will get a market answer to Your new product proposals.

Program Main Functions

- **Visualization** – Creating models is performed using a computer which substantially reduces design time. Imported or scanned drawings, patterns, fabrics processed with digital tools – all that finally gives a realistic effect. The program allows you to present projects in a variety of sizes and types of silhouettes, using the structure of the material, additives and make the 3D effect. InvenTex FDS visualization is a powerful tool for the cloth-designer to present their projects.
- **Texture Mapping** – Scanned, realistic fabric treated in the program make the design looks very real. Intuitive, easy-to-use tools make it possible to present the model in almost limitless colors. We can easily design a fabric with a report or set of strands of warp and weft.
- **Color Options** – Automatic edition of Pantone Textile allows you to quickly select a color. Using a color palette allows you to create any combination of color, with the ability to record for later use. The program comes with easy-to-use search tools and modify colors. The color palette is presented by using the expansion RGB, CMYK, LAB and HLS. This facilitates communication and allows you to quickly select the desired effect.



Let us make once again a summary! FDS guarantees:

- **Time & costs reduction of cloth-designing process, high increase designers creativity**
- **Fast communication and decision making, as all fashions, fabric designs, catalogues & presentations are made and transferred electronically, thus globally and without limits**
- **Virtual catalogue, which can consist the thousand design proposals and projects without any investments in fabrics and additives purchase or real new garment models samples sewing, vast color palette assures unlimited color simulations**

Complete System Example Configurations

...these are selected, the most commonly offered sets only

1. Pattern Design Service Office

Hardware of the set: Mobile 17" computer, digitizer board A2 format (46x61cm) or photo-digitizing table (90x120cm), pen plotter InvenPen 1000, max. printing width 90cm or inkjet plotter InvenJet 1200S-1H, max. printing width 120cm

Software: InvenTex CAD modules DIG/IPD+PDS+PGS

2. Economy Set for a Small/Medium Size Company

Hardware of the set: 1x computer workstation + 23"/24" LED LCD monitor + UPS, Digitizer table A0 format (91x122cm) or photo-digitizing table (120x180cm), ink-jet plotter InvenJet 1650C-1H (speed 42m2/h, max. printing width 165cm)

Software: InvenTex CAD modules DIG/IPD+PDS+PGS+MGS

3. Primary System Set with One Comp.Workstation

Hardware of the set: 1x computer workstation + 23"/24" LED LCD monitor + UPS, Digitizer table A0 format (91x122cm) or photo-digitizing table (120x180cm), ink-jet plotter InvenJet 1850-1H (speed 42m2/h, max. printing width 185cm)

Software: InvenTex CAD modules DIG/IPD+PDS+PGS +MGS+IMM

4. Primary System Set with 2x Comp. Workstations

Hardware of the set: 2x computer workstation + 23"/24" LED LCD monitors + UPS, Digitizer table A0 format (91x122cm) or photo-digitizing table (120x180cm), ink-jet plotter InvenJet 1850-2H (speed 70m2/h, max. printing width 185cm)

Software: InvenTex CAD modules DIG/IPD+PDS+PGS(1st station) +MGS+IMM(2nd station)

5. Ultimate Set with MTM, 3x Comp. Workstations

Hardware of the set: 3x computer workstation + 23"/24" LED LCD monitors + UPS, Digitizer table A0 format (91x122cm) or photo-digitizing table (120x180cm), ink-jet plotter InvenJet PowerBrain 180-2H (speed 80m2/h, max. printing width 184cm)

Software: InvenTex CAD modules DIG/IPD+PDS+PGS(1st station) +PDS+MTM(2nd station) +MGS+IMM(3rd station)

6. Ultimate Multi-station System for max. productivity

Hardware of the set: 3x computer workstation + 23"/24" LED LCD monitors + UPS, Digitizer table A0 format (91x122cm) or photo-digitizing prof. table 120x180cm, ink-jet plotter InvenJet PowerBrain 180-4H (speed 160m2/h, max. printing width 184cm)

Software: InvenTex CAD modules DIG/IPD+PDS+PGS(1st station) +MGS+ICP(2nd station) +PDM(3rd station)

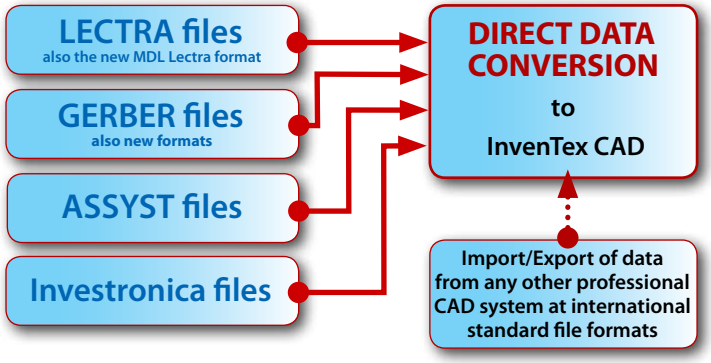
CNV

InvenTex CAD Converters

Converters for data import and export enabling data interchange between other professional CAD systems

InvenTex CAD offers converters to read models/patterns and markers recorded in the original (native) data files of Gerber, Lectra, Investronica and Assyst CAD systems. Thanks to converters, InvenTex CAD is a ready system for unlimited data interchange with any other professional CAD system. InvenTex CAD is ready for data interchange with any other system in the chain of today's global business. InvenTex CAD operates as standard with international DXF, DXF/RUL-AAMA and ASTM data formats. InvenTex CAD can also Import/Export data in STDM, HPGL and ISO formats.

InvenTex Data Converters - this is a powerful advantage among the competition.
It distinguishes and exceeds InvenTex CAD from the most of other CAD systems.



InvenSpread & InvenCut Flexo

Automatic Cutting Room

InvenSpread Master Spreading Machines

Main Benefits for the Users:

- ✓ *Multiply growth of spreading process output – both for woven and knitted materials*
- ✓ *Ability of real no-stress spreading with intelligent dancing-bar (important for elastic fabrics)*
- ✓ *Quality and exactness of spreading thanks to automatic material edge control*
- ✓ *Speed-up also for 1-lay spreading only thanks to cradle feeding, thus easy & fast fabric load & unload*
- ✓ *Elimination of bad effect of uncontrolled fabric stretching and different fabric tensions at every layer, so common for manual spreading*
- ✓ *Spreading of layouts without limit of length (only table length limit) always with stable, high quality*
- ✓ *Single operator control – labor costs reduction with multiply output growth at same time*
- ✓ *Easier to implement preceding fabric inspection process to verify real roll lengths, weights and quality*

Automatic InvenCut Flexo Cutters for Multiply Cutting

Main Benefits for the Users:

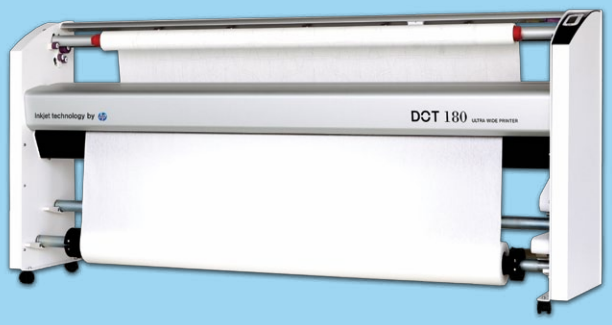
- ✓ *Multiply growth of cutting room output with commonly one person operating a machine*
- ✓ *Fast execution of low-series and singular-unitary orders*
- ✓ *Highest quality of cut pieces delivered for sewing room, thanks to digital cutting control*
- ✓ *Highest reduction of cutting room dependence on people experience and their manual skills*
- ✓ *Highest reliability in operation thanks to implemented solutions from robotics*
- ✓ *Lowest regular exploitation costs and spare parts & consumable costs*
- ✓ *Easy and user-friendly operation, possible also by unqualified personnel*
- ✓ *Unmatched financial savings, the shortest return time of investment*

Modern Plotters for CAD/CAM Systems for Printing or Printing & Cutting

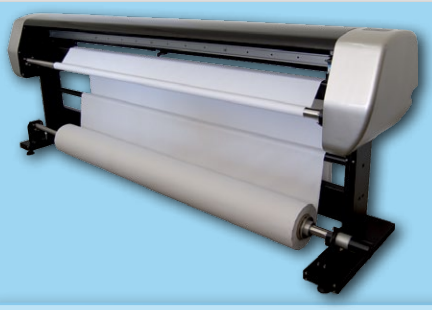
InvenJet PowerBrain - Unique Innovative Plotters for the Best Market Price !!!

PowerBrain serie plotters offer the following, innovative and exceptional features:

- Compact, stiff & light construction, comfortable and modern look
- Fastest plotter (160m2/h for 4-head), Lightest paper accepted (>20g/m^2), Lowest energy use (70W), Most quiet work (<40dB),
- Ultra light paper collection roll made of an aluminum alloy, innovative easy paper grip at start and easy paper release after printing end
- Paper feeding & collection rolls placed in front side – easy handling of paper rolls
- Dual paper collection - printed paper can be wound onto the roll or released freely
- Paper winding can be with printing side outside or inwards – easy direction change
- Integrated, intuitive operator's panel with mini-keyboard and LCD display
- 2-heads and 4-heads versions, easy 2-head to 4-head upgrade, HP45 cartridge standard
- Available two versions of max. printing width: 180 (183cm) and 220 (223cm)



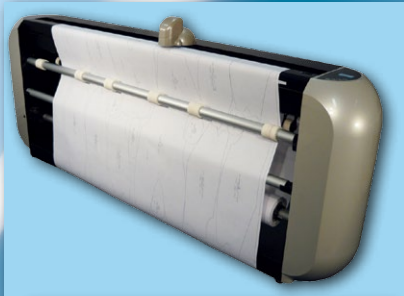
- Intelligent cartridges control – automatic switch-on of installed cartridges – ability to work with only 1, 2 or 3 cartridges installed in 4-head plotter
- Option: two independent paper feeding rolls, e.g. for two different paper width
- Option: Cleaning & Parking Zone to fully prevent nozzles from dry-out



InvenJet 180 series: P-1H P-2H
Ink-jet printing heads: 1 x HP 2 x HP
Printing speed: 42m2/h 70m2/h
Max. printing width: 185cm
Paper feeding and collection: from roll to roll

InvenJet series: C-Z-1H C-Z-2H
Dual Paper Collect: on roll or free take out

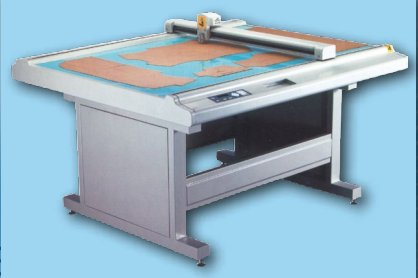
InvenJet series: C-1H C-2H
IInk-jet printing heads: 1 x HP 2 x HP
Printing speed: 42m^2/h 70m^2/h
Max. print. width: 165, 185, 205, 225 cm
Paper feeding and collection: from roll to roll



Algotex TUNE 180
Ink-jet plotter, 2x HP printing heads
Printing speed: 75m2/h
Max. printing width: 183cm
Dual paper collection: on roll or free take out

InvenPen/InvenJet P-100 J-120
Printing method: Pen Ink-jet
Printing speed (max): 0,8m/s 32m2/h
Max. printing width: 90cm 120cm
Paper feeding & collection: from roll / free take out

InvenPlotCut PC series, vertical type
Printing by Pen & Cutting by 2mm Drag Knife
Paper weight for Plot/Cut: 40-250g / 60-350g
Media/Work widths: 128/120, 173/165, 200/185cm
Media transport: auto paper feeder and auto stacker



InvenPlotCut DE series, flat bed type
Printing by Pen & Cutting by 3mm Drag Knife
Paper thickness for Plot/Cut: 0,5-2mm
Working area: 120x90, 150x90/120, 180x90/120cm
Cardboard held in place by vacuum during operation

SEMACO SEWING MACHINES TRADING COMPANY
PRZEDSIĘBIORSTWO FAIR PLAY
os. Szkolne 19a, 31-977 Cracow, Poland
Tel.: +48 12 6432588, Fax: +48 12 6801020
www.inventex.eu e-mail: ask@inventex.eu