

... really unique

topex[®]



You name it, we'll label it

Thermal transfer labeling and laser marking • Peripheral devices • Labeling machines and special-purpose machines

A unique level of competence and innovation in the areas of marking, identification and labeling

System supplier of labels and machines • Service partner • Label scout



Portrait

Truly unique

As a specialist for custom component labeling and marking as well as for innovative manufacturing solutions, topex offers technically mature, reliable and durable products that meet the highest standards of quality and precision.

We are certified according DIN-EN-ISO-9001:2008 and DIN-EN-ISO-14000:2004 and have developed a reputation as an outstanding high-tech producer – as a progressive problem solver with a focus on first-class production rather than mass production. Renowned companies from the automotive sector and the pharmaceuticals/medical industry, for instance, have placed their trust in us for many years.

Philosophy

If our customers find it useful, it's good

topex sees itself as a system supplier. With a focus on detailed customer consultation, our goal is to develop solutions together with our customers. During consultations we identify potential concepts and subsequently have our experts check and analyze them. We then put forward specific solutions based on these findings.

Our range of products and solutions include informational labels and functional labels with appropriate adhesives together with suitable thermal transfer foils for automatic processing in topex labeling systems that are incorporated in production and assembly lines and integrated in PC or PLC control systems with bus interfaces and scanner or camera solutions.

topex service

We provide a comprehensive 24-hour service network at home and abroad.

This is what we mean with our topex system solution – everything from a single source.

Team

Achieving more together

At topex, partnership is something we put into practice – both inside and outside our company. An open, honest and trusting relationship with our customers is a part of this. topex places great importance on the training and further education of its employees and on environmental sustainability.

Sustainability

Part of the solar energy collected from the roof is directly put to use in our production plant. Rainwater on our premises is returned to the environment in an ecological way.

topex is involved in developing the "Swabian Alb Biosphere Reserve", in community projects and much more.

Topics



Workflow

Everything from a single source
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Labeling systems

Series 50 label dispenser and process examples
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Peripheral devices

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Label scout and contract marking

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topex 7000 thermal transfer labeling systems

topex Series 7054 / 7108 / 7162 and process examples
Page 6 – 9



topex 5000 laser marking systems

Marking lasers and process examples
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topex special-purpose machines

What you can expect from topex, with process examples
Page 22 – 25



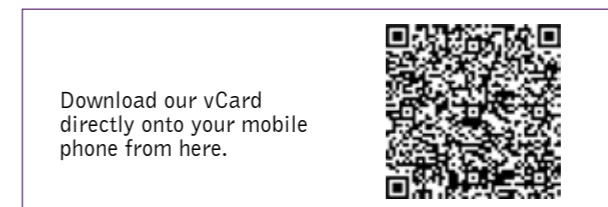
CD with topex application videos

Page 27



Film-CD

Topics displaying this symbol refer to in-depth films on the respective topic that you can view on the CD on page 27.



Download our vCard directly onto your mobile phone from here.

Accessing digital datasheets using QR codes

In this brochure you will see that various topics have QR codes that give you access to datasheets. To read the barcode, first install an appropriate app onto your smartphone from your app store. Then run the app and position the app's displayed scanning box over the bar code.



Once the QR code has been scanned, a website will open that allows you to download the topic's datasheet as a PDF document via a link.

Consultation, development, construction, production and service

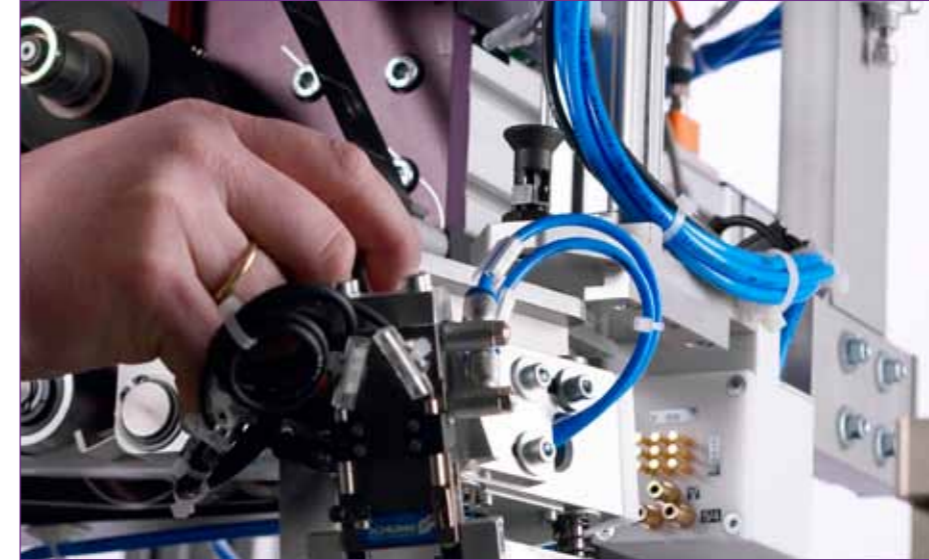
Consultation



To ensure we achieve the optimum solution for your needs, we take a very close look at your particular requirements right from the very first consultation. During the meeting we discuss your wishes, what you have in mind and in particular what you want to achieve with regard to your planned labeling solution. During the entire consultation process, we always consider the package as a whole, comprising the machine, label and the aspect of automation.

The consultation is carried out by qualified employees from our technology, construction, control system manufacturing and label material development teams. This is the basis on which we develop your tailored solution: standard labeling machines or special-purpose machines and systems, with perfectly matched label solutions including the electrical controllers – systems that make a valuable contribution to the success of your business.

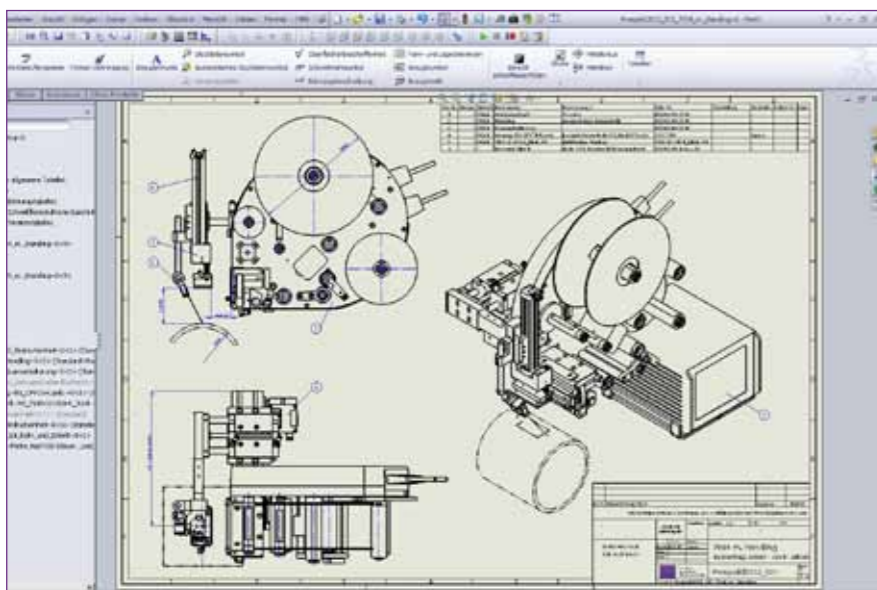
Production



We are sure you will be most satisfied with our in-house production of your labeling and marking solutions and with our optimum order processing using the latest ERP systems. Our extremely well equipped manufacturing department and the skills of our motivated employees give testimony to a high level of competence.

We are of course in a position to perform tests for relevant criteria – such as print quality – using the latest technologies. Furthermore, we have been certified according to DIN ISO 9001 since 1996. Please do feel free to visit us and see our production facilities for yourself – we are sure they will convince you of our capabilities

Development and design



topex's special level of expertise is distinguished by the combination of its many years of experience in the area of marking and labeling technologies and its capacity for innovation that the company has demonstrated time and again. We use the latest development tools in our design and programming processes to achieve innovative labeling and marking solutions for complex problems.

We plan and develop the entire system solution for you or the integration of our systems in your existing production environment.

Service and support

We provide a maximum in dependability. Even the best production lines are of little use if a link in the chain is not performing as it should. Our experienced service teams therefore ensure that if a problem or downtime does occur, everything is up and running again quickly. We respond immediately and bring the necessary replacement or wearing parts along with us.

You can also benefit from our training program. In courses fine-tuned to your specific requirements, we prepare your employees for handling topex systems safely and with confidence. We can offer maintenance, software and operator courses either in our training centre or on your own premises.

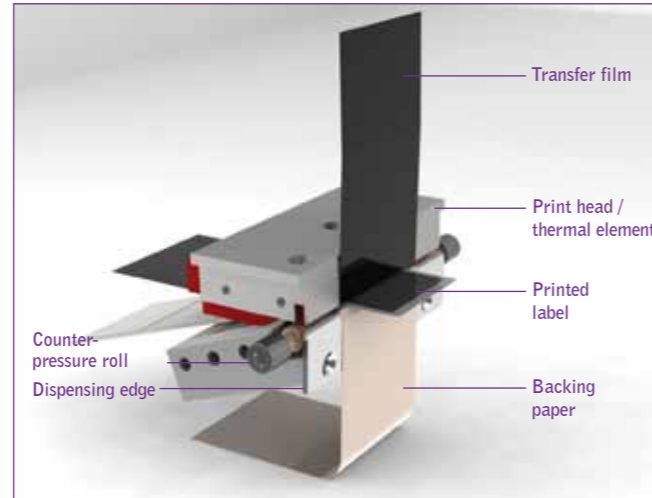




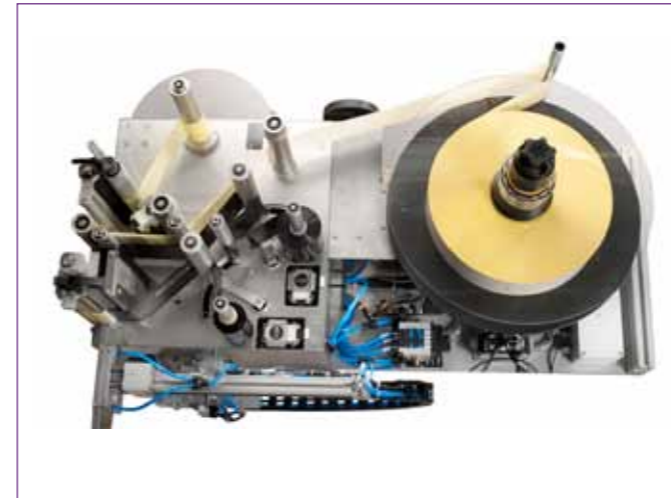
topex Series 7054 / 7108 / 7162
of printing systems



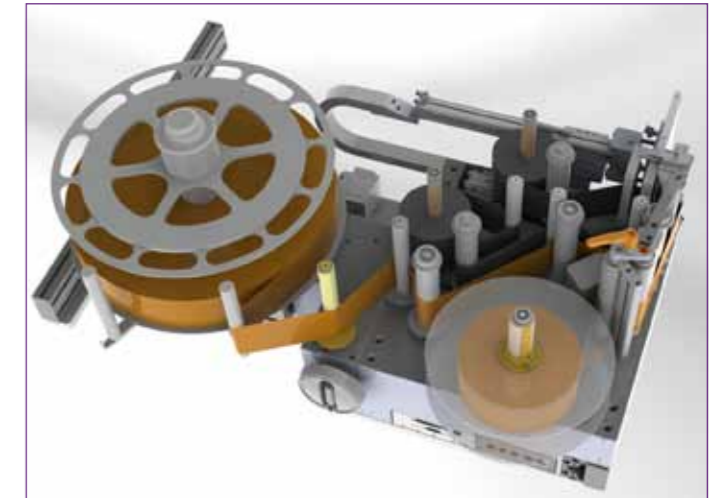
topex 7000 labeling machine



Thermal transfer print process



topex 7000 special solution with automatic unspooling of large rolls



Detailed view of the drive unit

Features	
Compact, space saving and can therefore be flexibly integrated at any time	
Left and right version depending on the integration	
Custom handling equipment	
High precision positioning of the print and label to a minimum label size of 10 x 4 mm	
Can be installed in any position	
PC-based print control system, optionally with integrated sequence controller for handling systems	
Interface-independent	
Media dimensions	
Min. label size 10 x 4 mm, other formats possible, approval by topex	
Min. label spacing 6 mm when printing across the entire surface, max. outer diameter 300 mm	
Core diameter of the label roll 40 / 76 / 100 mm	
Max. backing paper width 70 / 120 / 170 mm	
Transfer foil length up to 1000 m	
Technical data	
Printing method	Direct thermal, thermal transfer
Print width	Type 7054-12-300 = 54 mm, type 7108-12-300 = 108 mm, type 7162-12-300 = 162 mm
Label detection	Optical via fork light barrier, capacitive in the case of transparent labels, special sensors in the case of alternative materials
Monitoring systems	End of labels / backing paper tear, end of transfer foil, advance warning of end of labels (option)
Printer controller	32-bit CISC microprocessor controller in 1/2 19" housing, integrated real-time clock, integrated 5 V DC fan
Display	8" touch panel, TFT 800 x 600 pixels, menu-driven setup, plain text errors and warning messages
Interfaces	3 serial (RS232), one of which is configurable (RS232/RS422/RS485), TCP-IP / bus connection, 24 V DC I/O interface
Codes	All common 1D and 2D codes
Dimensions	482 x 321 x 488 mm (L x W x H)
Electrical data	Voltage 230 V / 110 V / 3 A, control voltage 24 V DC, frequency 50 Hz / 60 Hz

Features	
Customer-specific version, compact, space saving and can therefore be flexibly integrated at any time	
Custom handling equipment	
Motor-driven unspooling of large label rolls up to 500 mm as well as separately attached transfer foil spooling and unspooling unit	
Can be installed in any position	
PC-based print control system, optionally with integrated sequence controller for handling systems	
Interface-independent	
Media dimensions	
Min. label size 10 x 4 mm, other formats possible, approval by topex	
Min. label spacing 6 mm when printing across the entire surface	
Max. outer diameter 500 mm	
Core diameter of the label roll 40 / 76 / 100 mm	
Max. backing paper width 70 / 120 / 170 mm	
Transfer foil length up to 1000 m	
Technical data	
Printing method	Direct thermal, thermal transfer
Print width	54 / 108 / 162 mm
Label detection	Optical via fork light barrier
Monitoring systems	End of labels / backing paper tear, end of transfer foil, advance warning of end of labels (option)
Printer controller	32-bit CISC microprocessor controller in 1/2 19" housing, integrated real-time clock, integrated 5 V DC fan
Display	8" touch panel, TFT 800 x 600 pixels, menu-driven setup, plain text errors and warning messages
Interfaces	3 serial (RS232), one of which is configurable (RS232/RS422/RS485), TCP-IP, bus connection, 24 V DC I/O interface
Codes	All common 1D and 2D codes
Dimensions	482 x 321 x 488 mm (L x W x H)
Electrical data	Voltage 230 V / 110 V / 3 A, control voltage 24 V DC, frequency 50 Hz / 60 Hz



Process example 1
Labeling of surge protection devices

Task
High precision application of labels to surge protection devices with different label formats
Solution
Semi-automatic topex labeling system with integrated topex Series 7000 standard printing system on a 4-station rotary table with manual placement and removal of the devices
Technical data
topex Series 7054 label printer with 54 mm print width and capacity for 300 mm label rolls
Handling of extremely thin label material (34 µm)
Pneumatically driven label handling
Pneumatic label centering mechanism for ≤ 0.2 mm label positioning
Quick-change vacuum plate with integrated centering mechanism as well as a pneumatic system and clamping attachment for 3 different label formats
Workpiece fixture changing system for various product variants
Machine frame with protective housing and light curtain in accordance with Machinery Directive 2006/42 EG
Air conditioning for increasing process reliability
Machine sequence control system via toplabel operator as a PC solution
Connection of master computer via TCP/IP
Documentation in accordance with Machinery Directive 2006/42 EG

Process example 2
Labeling memory cards

Task definition for CF cards
1. Single-sided or simultaneous two-sided application of pre-printed labels 2. Application of pre-printed labels on one side and simultaneous printing and application of labels on the other side
Task definition for SD cards
Single-sided application of pre-printed labels
General requirements
topex Series 7054 label printer with 54 mm print width and capacity for 300 mm label rolls
Fully automated solution with card separation and automatic delivery into the labeling position
Parallel application of labels on the upper and lower faces of the cards
Absolute bubble-free application of labels
High label positioning accuracy (±0.2 mm)
Handling of different label materials and color prints



Label printed by thermal transfer method, centred and applied



Product loading



Product removal



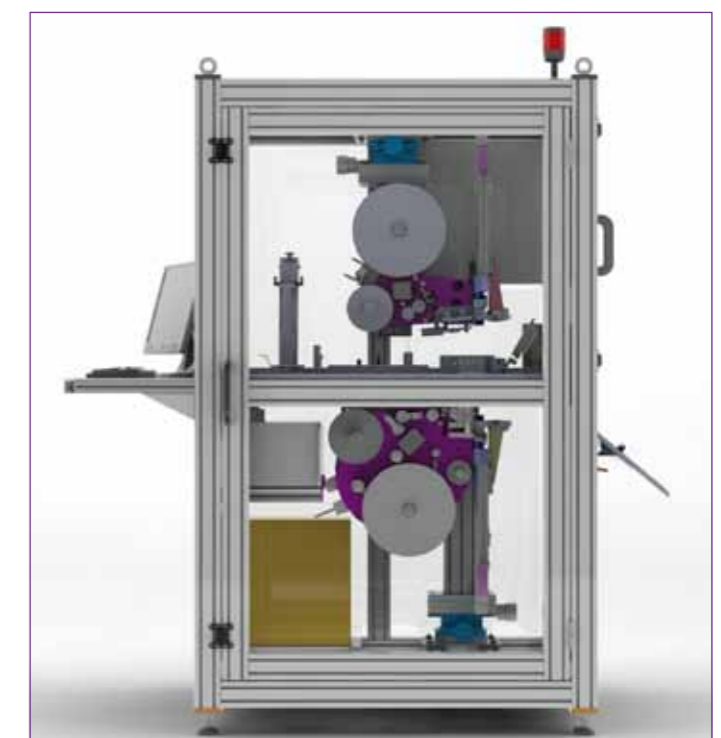
SD or CF card



Label centering mechanism in open position



Quick-change magazine



Complete system

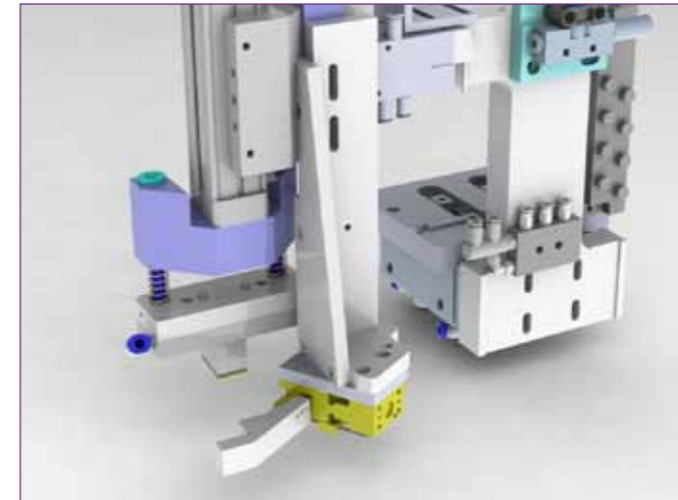
Series 50
label dispenser



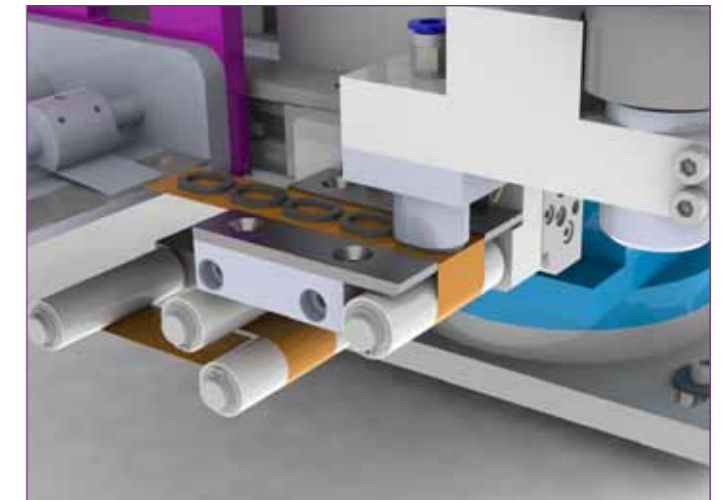
Options
Centering unit and retractable dispensing edge



topex 50 labeling system



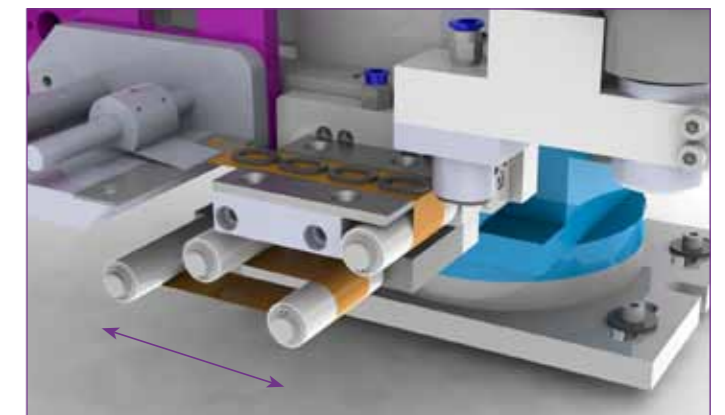
Label centering mechanism – gripping jaws open



Retractable dispensing edge 1 – label acquisition position



Label centering mechanism – gripping jaws closed



Retractable dispensing edge 2 – label dispensing position

Features

- Compact, space saving and can be flexibly integrated
- Implementation as a left or right system depending on the space available
- High application precision is possible through custom handling equipment, such as alignment, rotation and retractable dispensing edge
- Can be installed and integrated in any position
- PC-based print control system, optionally with integrated sequence controller for handling systems

Media dimensions

- Min. label size 10 x 4 mm, custom formats possible in coordination with topex
- Min. label spacing 2 mm
- Max. outer diameter 300 mm
- Core diameter of the label roll 76 / 100 mm
- Max. backing paper width 50 / 100 / 160 mm

Technical data

Label detection	Optical via fork light barrier, capacitive in the case of transparent labels, electromechanical sensing
Monitoring systems	End of labels, backing paper tear, optional advance warning of end of labels
Dispenser controller	32-bit CISC microprocessor controller in w1/2 19" housing, integrated real-time clock, integrated 5 V DC fan
Interfaces	3 serial (RS232), one of which is configurable (RS232/RS422/RS485), TCP-IP, bus connection, 24 V DC I/O interface
Dimensions	355 x 215 x 400 mm
Electrical data	Voltage 230 V / 110 V / 3 A, control voltage 24 V DC, frequency 50 Hz / 60 Hz

Models	Dispensing width	Outer Ø of roll
topex 50/50/200	50 mm	200 mm
topex 50/50/300	50 mm	300 mm
topex 50/100/200	100 mm	200 mm
topex 50/100/300	100 mm	300 mm
topex 50/160/300	160 mm	300 mm

Special widths and larger roll diameters possible on request

Label centering unit

- For precise labeling inside depressions and within mould cavities
- Mechanical alignment of the label on the label applicator head
- Positioning accuracy ± 0.2 mm
- Applicator head with the same size as the label
- No interfering contours in the immediate vicinity

Retractable dispensing edge

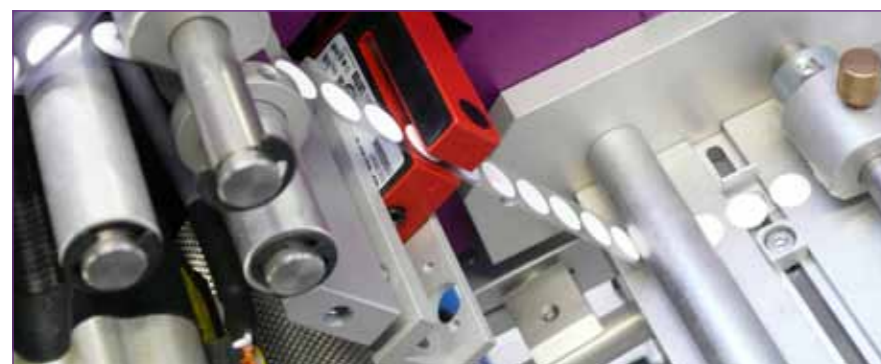
- Handling of difficult-to-dispense labels and functional parts
- Labels are positioned precisely on the retractable dispensing edge
- The vacuum plate moves onto the label
- The vacuum is activated thus securing the label
- The dispensing edge is retracted pneumatically. The backing foil is pulled away from under the label and the label is made available for application.
- Positioning accuracy ± 0.5 mm



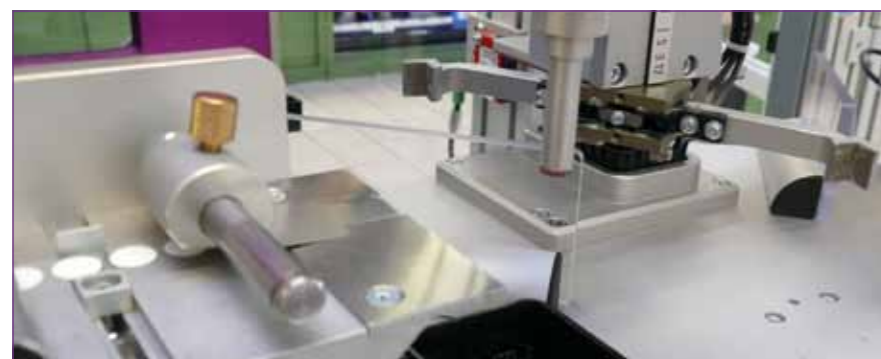
Process example 1
Dispensing and checking pressure equalization elements



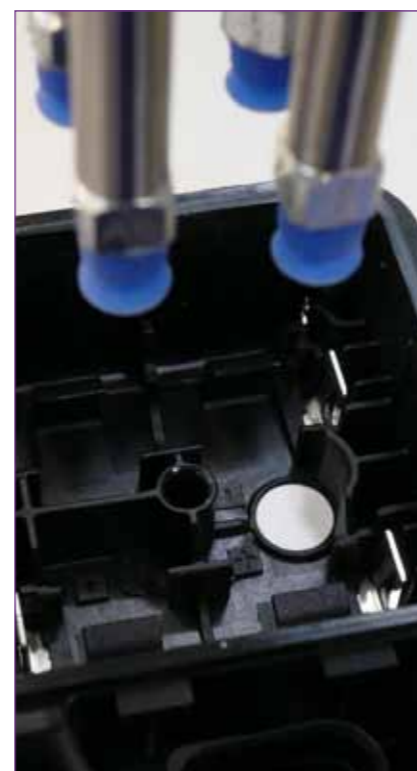
Task
Application of pressure equalization elements in a control unit housing made of plastic. Each element must be dispensed with an accuracy of ± 0.2 mm in a mould cavity and must then be subjected to a flow test. After testing, the housings must be removed from the system separated into those that are OK and those that are not OK.
Solution
Semi-automatic topex labeling system with integrated topex 50-50-200 label dispensing system. Motor-driven rotary table with 4 stations. Work pieces are loaded manually by the worker and the OK work pieces are removed by the worker. Not OK work pieces are sorted out automatically into a separate box by a pick-and-place handling system with suction cups.
Technical data
topex 50-50-200 label dispenser with 50 mm dispensing width and holder for 200 mm label rolls
Workpiece fixture changing system for various product variants
Handling of pressure equalization elements with a diameter of 10 mm
Pneumatically operated label handling system
Pneumatic label centering mechanism for positioning pressure equalization elements to within $< \pm 0.2$ mm
Pneumatic clamping device and pneumatic flow measuring probe
Flow measurement by Ateq D-520 flow testing instrument
Pneumatic pick-and-place handling system for the automatic removal of the not OK work pieces by vacuum cups
Machine frame with light curtain in accordance with Machinery Directive 2006/42 EG
Machine sequence control via Siemens S7
Documentation in accordance with Machinery Directive 2006/42 EG



Pressure equalization elements delivered by dispenser



Labeling and alignment station



Labeled work piece



Process example 2
Labeling buckets

Requirements
Labeling of oval buckets of different sizes from 2.5 l to 10 l volume
Each label must be applied in such a way that it is bubble-free, crease-free and parallel to the bucket's lid and bottom
The labels are pre-printed in multicolor and have plain white fields for printing on a barcode and production date
Label sizes from 100 x 70 mm to 200 x 300 mm
Cycle time: 4 seconds
Labeling system must be integrated in the existing data system and transport line
Print data is sent in PDF format to the printer
All the basic components of the system must be designed to be easy to change / replace
Solution
topex special-purpose labeling system 2500-7100, with the capacity to unspool large rolls and with a vacuum belt
PDF print data are sent to the printer and printed in the designated fields
The label is printed and dispensed on the vacuum belt. The label is transported to the transfer position that is monitored by sensors.
The customer's transport belt conveys the bucket to the label transfer position
Bubble-free and crease-free application of the label to the side of the bucket by a squeegee on the vacuum belt
Handling of different label formats without any conversion thanks to dispensing on the vacuum belt plus transportation to the labeling position



topex label dispensing system



Detailed view of the drive unit

topex 5000 marking laser

Component option 1
Nd:YAG / Nd:YVO4 / Yb-Fiber




- Compact design
- Integration module
- Air cooling (optional water cooling – depending on laser type)
- Modular design
- Service-friendly
- Optimum process times
- Fast material processing

Technical data

- Laser medium: Nd:YAG / Nd: YVO4 / Yb-Fiber
- Wavelength: 1064 nm or 532 nm
- Focus diameter at f=160 mm: 24 µm – 114 µm (depending on laser type)
- Labeling field size at f=160 mm: 110 mm x 110 mm (additional optional flat field lenses possible for other labeling field sizes)

Component option 2
CO2 marking laser



- Ultra-compact size
- Integration module
- Air cooling (optional water cooling – depending on laser type)
- Unique safety concept
- Service-friendly
- Optimum process times
- Fast material processing

Technical data

- Laser medium: CO2
- Wavelength: 10600 nm
- Up to 1700 characters/s
- Protection rating IP20, IP55
- Labeling field size: 50 mm x 50 mm / 70 mm x 70 mm / 100 mm x 100 mm / 140 mm x 140 mm / 180 mm x 180 mm

Basis topex 5000 laser workstation



Technical data

- Protective housing in accordance with Laser Safety Class 1
- Manual workpiece loading door
- Laser safety glass for observing the process
- Motor-driven Z-axis – height of travel 300 mm
- Base frame made of sturdy aluminum section

Areas of application

- Stand-alone cabin for manual workpiece loading

Workstation for the integration of:

- topex roll handling unit LM 5200
- topex rating plate handling unit TM 5200
- Motor-driven indexing device for labeling cylindrical components
- Laser station for integration in production or assembly lines
- Optional air extraction

Basis topex 5000 laser workstation



Technical data

- Protective housing in accordance with Laser Safety Class 1
- Manual workpiece loading door
- Laser safety glass for observing the process
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Workstation for the integration of:

- topex roll handling unit LM 5200
- topex rating plate handling unit TM 5200
- Motor-driven indexing device for labeling cylindrical components
- Laser station for integration in production or assembly lines
- Optional air extraction

Integration option 1
Roll handling unit LM 5200



Film 6



Integration option 2
Rating plate handling unit TM 5200



Film 7



Process example 1
Labeling of diesel pumps with laser-markable labels

Task
Labeling of diesel pump housings with laser-markable labels that have added protection against paint
Solution
Semi-automatic topex laser labeling system with integrated topex Series 50 standard label dispenser
Technical data
topex Series 50 label dispenser with 50 mm dispensing width and capacity for 300 mm label rolls
Nd-YAG Laser TruMark 3020 with $f = 160$ mm for an inscription area of 110 mm x 110 mm
Reading system for verification of the lasered Data Matrix code
Pneumatically driven label handling system
Workpiece fixture changing system for various product variants
Machine frame with protective housing in accordance with Laser Safety Class 1 and Machinery Directive 2006/42 EG
Control via Siemens S7
Connection of master computer via TCP/IP
Documentation in accordance with Machinery Directive 2006/42 EG

Process example 2
Laser marking of pistons for the automotive industry

Task
Direct laser marking of pistons for the automotive industry
Solution
Fully automatic topex laser marking system with workpiece feeding and handling system for different product variants Control concept based on a Siemens S7, with the master computer connected via Profibus
Technical data
Delivery of the pistons via a powered conveyor belt
Pick-and-place handling for acquisition, delivery and removal of the pistons
4-station rotary table with enclosed area conforming to Laser Safety Class 1
Nd-YAG laser for variable marking
Reading station with camera system for verification



Manual loading of component



Laser marking of label



Reading of finished label

Information about the paint protection label

At the beginning of the assembly process, a part needs to be labeled clearly for production control and for later identification. The identification markings must be legible before and after the lacquering process.



Solution

The complete composite comprising a foil, transparent laminate and paint protection is applied to the component after laser marking. The transparent laminate with the added paint protection ensures that the label is protected during the lacquering process. After lacquering, the paint protection is peeled off manually. Legibility is thus assured throughout the entire process.



Pistons



Nd-YAG laser with an integrated water-cooling. Optics: $f = 163$ mm



Laser protection enclosure in accordance with Laser Safety Class 1



Camera system for reading the directly lasered Data Matrix code



Complete system

topex
Thermal transfer desktop printing systems



Description
10/100 print server
USB 2.0 port for faster integration and higher throughput (plug and play)
Serial and parallel ports
Sensors for transparent and reflective media
16 MB SDRAM; 8 MB of non-volatile flash memory as standard, optionally 64 MB
Real-time clock
Media characteristics for labels
Max. roll size: outer diameter 203 mm for Ø 76 mm
Width of label and backing: 20 mm – 220 mm
Media characteristics for transfer ribbons
Max. roll size: outer diameter 81.3 mm for Ø 25.4 mm
Color ribbon width: 20 mm – 220 mm
Standard lengths: 300 m or 450 m
Technical data
Maximum print area: width 220 mm and length (with standard memory) 991 mm
Resolution 200 – 600 dpi / 8 – 24 dots/mm
Maximum printing speed: 305 mm per second
Printing method: direct thermal, thermal transfer
Width: up to 430.9 mm
Backlit multilingual LCD
32-bit RISC processors
Real-time clock with applicator interface

Ambient conditions
Operating temperature: 5 – 40° C
Air humidity: 20 – 85 %
non-condensing
Schnittstellen USB 2.0
RS 232C/parallel
Optional RS 422/485
Barcodes Codabar, Code 11, Code 39, Code 93, Code 128 with subsets A/B/C und UCC Case C Codes, EAN-8, EAN-13, 2/5 Industrie, 2/5 Interleaved, ISBT-128, Logmars, MSI, Planet Code, Plessey, Postnet, 2/5 Standard
UPC-A, UPC-E, UPC and EAN with 2-digit or 5-digit supplement
Two-dimensional codes Codablock, PDF 417, Code49, DataMatrix, Maxi Code, QR Code
MicroPDF417

We can, on request, set up the device ready for operation and test the original accessories.

Process example 1
Semi-automatic label dispenser

Features
Suitable for dispensing single-column labels and multi-column labels/booklets from rolls or fan-folded
Light barrier that can be freely positioned anywhere across the entire dispensing width for optimum scanning particularly in the case of multi-column labels (detachment starting from the left or right)
Sturdy and stable mechanical assembly based on the basic components of the proven topex Series 50 labeling system
Driven by a topex standard stepper motor with an integrated motor driver
Roll handling up to 300 mm outer diameter and backing paper width up to 120 mm passage width
Sturdy dispensing edge, can be optionally adapted to the dispensability of the labels
Ability to handle labels of any material thickness (e.g. booklet labels) thanks to the non-contact scanning of labels by way of a reflection light sensor
Technical data
Dispensing speed: 10 – 150 mm/sec. (optionally extendible)
Max. passage width for backing paper: 120 mm
Label length: min. 10 mm, max. unlimited
Roll outer diameter: max. 300 mm
Core diameter: standard 76 mm (optionally other sizes)
Label spooling: inner and outer spooling
Label forward feed: M-Drive stepper motor with integrated motor driver
Label scanning: by a reflection light sensor with background suppression that can be freely positioned anywhere across the entire dispensing width
Buttons: power switch, forward feed on/off, fault quit
Controller: Siemens SIMATIC S7-1200, CPU 1212C, 8 DI/ 6 DO
Operating voltage: 230 V / 50 Hz
Safety fuse: 0.5 A



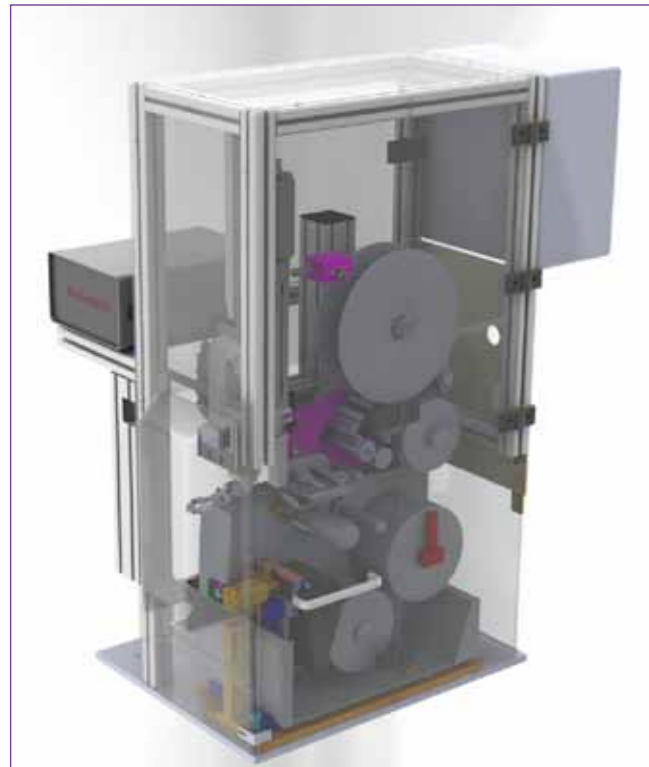
topex manual dispenser 50/100/H



Manual label removal



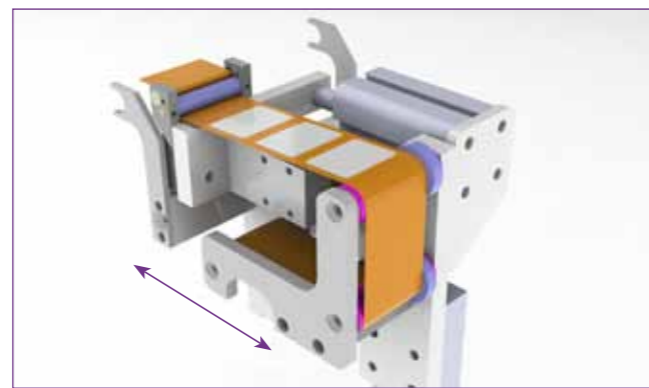
Process example 2
Facility for producing laminated labels



Desktop printer with topex dispenser

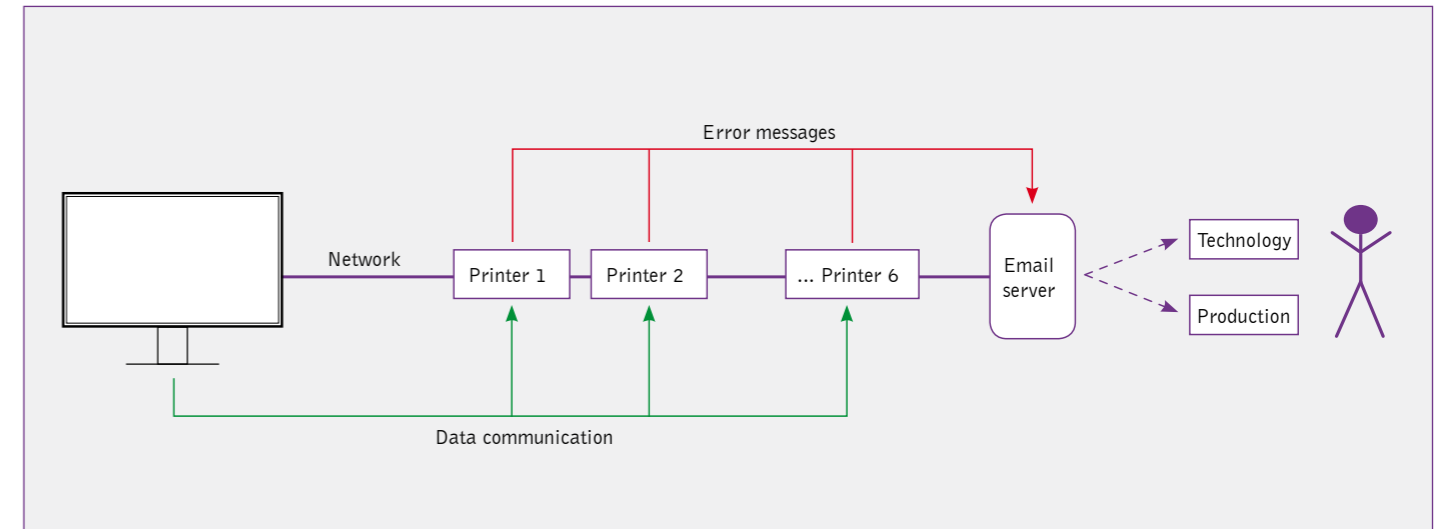


Handling system with stamp



Retractable dispensing edge

Process example 3



Description of a software solution with desktop printing systems

A topex EasyCoder PM4i offering 300 dpi and an Ethernet connection were used for this project. The software was designed to print out six label types whose layouts are stored on the printer. These were created in a previous stage according to the wishes of the customer. The labels each comprise fixed and variable elements and data fields. The data for the variable fields are sent by a host computer to the printers via Ethernet. A special protocol was devised for this that is embedded in the standard TCP/IP and Telnet network protocols supported by the printer. This protocol is used, on the one hand, to select the desired label and, on the other hand, to initialize the data fields on the respective label. As soon as the printer receives a data packet, the label is generated, initialized with the received payload data and then automatically printed.

The special feature of this project is the error handling and error output method: normally errors that are detected by the printer (such as "end of paper", "transfer foil finished", etc.) are output in the printer's display. After seeing the error, the user can then remedy the fault and acknowledge the error directly using the built-in keypad on the printer.

With this project, it was, however, necessary that the printers could be monitored centrally, since several printers are distributed throughout the workshop. The Ethernet networking of the printers enabled a further capability to be utilized: email dispatch via SMTP. For this reason, the standard error handling facility of the customer-specific software was extended in such a way that in the case of an error occurring, the printer automatically makes contact with a central email server and sends an email containing the precise error description to a predefined email address. This capability enables the printer status to be queried from anywhere in the plant. The project demonstrated very well a selection of the printer's supported network protocols in conjunction with the flexible programmability.

Expandability of the printer via an industrial I/O card. This enables the printer to be used as a PLC or it can exchange signals with the card.

Memory can be expanded via CFCs, WLAN, USB and further network protocols: HTTP with CGI, which means that Web pages can be stored on the printer (Web server) and printer actions can then be triggered via these Web pages using CGI scripting; FTP server for file transfer, management and storage on the printer via the network.

Programmability of the printers using the built-in programming language that is similar to BASIC.

Example of a design with a desktop printing system and topex dispenser

Label is printed and stopped
Laminate is applied from above by the topex printer
Vacuum plate of the topex printer bonds the lamination comprising the label and laminate
The backing paper is peeled off via the pneumatically retractable dispensing edge
The entire lamination is made available for further manual handling

What you can expect from topex:



Process example 1
Fully automatic labeling of steel coils



Many years of experience in designing and implementing turnkey solutions in the area of automatic product labeling.

Know-how in the implementation of modern control and interface concepts, e. g.

Realization of complex software projects, e.g. connection to higher level ERP systems or project-specific database solutions for collecting test data or production data

Construction of the systems in accordance with Machinery Directive 2006/42 EG
 Design and development of suitable label materials that are matched to the particular application
 System installation and start-up by our technicians – worldwide
 Operator, maintenance and service training courses – worldwide
 Integrated sequence controller for handling systems

Requirements
Fully automatic labeling of steel coils within an existing production line
Application of two labels at different labeling positions
Coil diameter from 600 mm – 2000 mm
Labeling surface "slightly" oily
Harsh / dirty industrial environment
Control-related integration of the topex labeling system in the existing master computer control system and production control system
topex solution as an integrated concept comprising
topex 7162-12-300 thermal transfer label printer
6-axis robot system made by KUKA
Integrated vacuum plate for applying the labels onto the steel coils
Sensor system for detecting the coil diameter and coil edge
Scanner for verifying the printed barcode
Machinery frame with protective housing and corresponding safety features and equipment
Higher level Siemens S7 controller for controlling the entire range of operational sequences including robot functionality
Profibus interface for communication with the master computer for transferring the variable printing information
Matched label material in DIN A5 format with special adhesive for oily surfaces
Integration and start-up of the entire system in the Spanish plant of a globally operating steel group

Process example 2
Fully automatic labeling / handling of self-adhesive spacers
on particulate filters



Complete system



Label handling system



Particulate filter with spacers

Task definition

Fully automatic application of self-adhesive punched parts (spacers and tapes) onto particulate filters
Very short cycle times
Large number of variants with a wide range of particulate filter sizes

Solution – topex special-purpose machine design with the following features

Each machine has 6 topex Series 50 label dispensers for handling the self-adhesive tapes and spacers
Automatic parts feed and parts transfer to the next processing station
Flexible workpiece carrier design
Automatic parts handling
Automatic label handling
Machine frame with protective housing
Control concept based on Siemens S7
Specially matched and developed label material



Process example 3
Fully automatic labeling of control unit housings

Task

Fully automatic labeling and testing system for control unit housings
Two product variants
Traceability concept for the acquisition of test data and production data

Solution – topex special-purpose machine concept with the following features

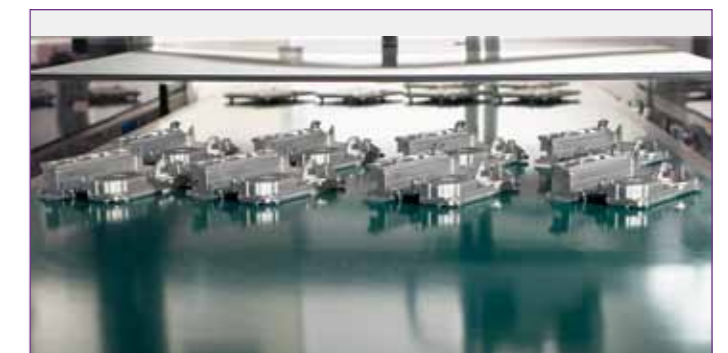
topex 7054-12-300 thermal transfer labeling system for printing the data plate
topex Series 50 label dispenser for processing the pressure equalization element membrane with High-Protect Label
8-station rotary table
Fully automatic leak test of the housing
Fully automatic flow test of the membrane
Sensor bridge for testing the flange edge
Camera system for detecting the product variant
Control concept based on Siemens S7
SQL database for recording the test data and production data



Complete system



8-station rotary table



Conveyor with OK parts



The task determines the material

Choosing suitable materials is decisive for achieving an optimum result, that is to say, the best possible label adhesion and legibility. When making this choice, all the conditions of use as well as all influencing factors and requirements specific to the application must be considered. We would be pleased to assist you in this choice – with our sound advice and tailor-made solutions.

Unique expertise

Thanks to our many years of experience and know-how coupled with creativity that is typical of topex, we are in a position to always supply you with perfect label solutions for your particular needs – tailored with the appropriate upper material and adhesive and suitable for a wide variety of applications in almost all technical industries.

Unique range

Whether you require classic informational labels or functional labels, our highly diverse product portfolio offers the right solution for every application: from high-quality labels made from standard or special-purpose materials to suitable transfer foils for durable, wear-resistant printing.

We create custom labels for you

You wish to label your components for smaller production runs? Or your production runs suddenly become too large and delivery deadlines are in danger of not being met due to insufficient labeling capacities? No problem! topex can be contracted to correctly and professionally inscribe your labels and data plates as well as label your work pieces. We perform these tasks exactly according to your specifications, on time and cost-effectively – even for the smallest of production runs.

Besides laser marking, our portfolio naturally also includes label creation using the thermal transfer printing method – with and without lamination. Our material specialists determine which label materials are most suitable for the particular application. We only use high-quality and proven materials from well-known manufacturers.



Thermal transfer labeling systems
- Film 1 – topex Series 7054 / 7108 / 7162
- Film 2 – Labeling surge protection devices
Labeling systems
- Film 3 – Retractable dispensing edge
- Film 4 – Dispensing and testing pressure equalization elements
- Film 5 – Labeling buckets
Laser marking systems
- Film 6 – Roll handling unit LM 5100
- Film 7 – Rating plate handling unit TM 5200
- Film 8 – Labeling diesel pumps with laser-markable labels
Peripheral devices
- Film 9 – Facility for producing laminated labels
topex special-purpose machines
- Film 10 – Fully automatic labeling of steel coils
- Film 11 – Fully automatic labeling of control unit housings



... really unique

topex[®]



The whole world of labeling

- Labeling systems
- Laser marking
- Special-purpose machines
- Peripheral devices
- Software
- Controllers
- Labels and transfer foils
- Contract labeling
- Service

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