Labelling heads **intrex 100+** and **intrex 200**

**intrex 100+**

Combination of proven mechanics and modern electronics

Based on our long-term experience we developed a versatile machine - a comfortable tool for automatic label application for various production lines of low to medium capacity. The main targets were components improving machine safety, ease of installation in various environments, simplification of work, operation, product changeovers and servicing, while maintaining high consistency of results and attractive price.

**intrex 200**

High speed and high precision labelling

- Intrex 200 solid mechanical construction is based on a rigid aluminum plate.
- Precise, high torque, 3-phase Berger Lahr stepper motor allows high labelling precision.
- Carefully chosen construction materials ensure many years operation without deterioration of labelling properties.

Intrex 200 labelling head is an ideal solution for high capacity production lines up to 25 000 products/h. This construction allows to apply labels 220 mm wide from a roll of 300 mm diameter. Optional unwinders for rolls of up to 500 mm diameter can shorten changing labels downtimes.

**Auxiliary head accessories**

**intrex 100+** and **intrex 200**

- transparent label sensors,
- low level label sensors,
- backing paper rewinder full sensors,
- visual or visual and audible warning signals,
- external labels unwinder.

Intrex 100+ advanced design and wide range of application does not mean high price.

**TECHNICAL SPECIFICATION**

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th><strong>intrex 100+</strong></th>
<th><strong>intrex 200</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>versions</strong></td>
<td>right, left</td>
<td>right, left</td>
</tr>
<tr>
<td><strong>max label</strong></td>
<td>90 mm</td>
<td>90 mm</td>
</tr>
<tr>
<td><strong>roll width</strong></td>
<td>160 mm</td>
<td>160 mm</td>
</tr>
<tr>
<td>(optional)</td>
<td>220 mm</td>
<td>220 mm</td>
</tr>
<tr>
<td><strong>label roll</strong></td>
<td>300 mm</td>
<td>300 mm</td>
</tr>
<tr>
<td>(optional)</td>
<td>350 mm</td>
<td>350 mm</td>
</tr>
<tr>
<td>diameter (optional)</td>
<td>500 mm</td>
<td>500 mm</td>
</tr>
<tr>
<td>(external unwinder)</td>
<td>(external unwinder)</td>
<td></td>
</tr>
<tr>
<td><strong>labelling speed</strong></td>
<td>up to 25 m/min</td>
<td>up to 50 m/min</td>
</tr>
<tr>
<td>with standard unwinder:</td>
<td>up to 40 m/min</td>
<td>up to 35 m/min</td>
</tr>
<tr>
<td>- up to 90 mm</td>
<td>up to 10 m/min</td>
<td></td>
</tr>
<tr>
<td>- up to 180 mm</td>
<td>up to 16 m/min</td>
<td></td>
</tr>
<tr>
<td>- up to 220 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>labelling precision</strong></td>
<td>± 1 mm</td>
<td>± 0.4 mm</td>
</tr>
<tr>
<td><strong>dispensers</strong></td>
<td>fixed dispenser</td>
<td>fixed dispenser</td>
</tr>
<tr>
<td>flap dispenser (optional)</td>
<td>flap dispenser (optional)</td>
<td></td>
</tr>
<tr>
<td>(below, on top)</td>
<td>(below, on top)</td>
<td></td>
</tr>
<tr>
<td><strong>label sensor</strong></td>
<td>optical, mechanical (optional)</td>
<td>optical, mechanical (optional)</td>
</tr>
<tr>
<td>ultrasonic (optional)</td>
<td>ultrasonic (optional)</td>
<td></td>
</tr>
<tr>
<td><strong>lcd panel, 4 lines, 6-key keypad, polish menu</strong></td>
<td>head built-in</td>
<td>separate module</td>
</tr>
<tr>
<td><strong>memory</strong></td>
<td>16 programs</td>
<td>16 programs with alphanumeric names</td>
</tr>
<tr>
<td><strong>parameters</strong></td>
<td>- label positioning</td>
<td>- label positioning</td>
</tr>
<tr>
<td>- 2 stage label feed</td>
<td>- 2 stage label feed</td>
<td></td>
</tr>
<tr>
<td>- speed: fixed, encoder</td>
<td>- speed: fixed, encoder</td>
<td></td>
</tr>
<tr>
<td>- sensor disable</td>
<td>- sensor disable</td>
<td></td>
</tr>
<tr>
<td>- labels out</td>
<td>- labels out</td>
<td></td>
</tr>
<tr>
<td>- label sensor disable</td>
<td>- label sensor disable</td>
<td></td>
</tr>
<tr>
<td>- product sensor disable</td>
<td>- product sensor disable</td>
<td></td>
</tr>
<tr>
<td>- tempos</td>
<td></td>
<td>- multiple labelling: 2 or more labels</td>
</tr>
<tr>
<td>- compensation of missing labels</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>drive</strong></td>
<td>2 phase stepper motor</td>
<td>3 phase stepper motor</td>
</tr>
<tr>
<td><strong>power supply</strong></td>
<td>230 V AC, 50 Hz</td>
<td>230 V AC, 50 Hz</td>
</tr>
</tbody>
</table>
Labelling head **intrex**300
Labelling speed up to 80m/min

Intrex 300 labelling head is another model from the Intrex labellers range. It is designed for very high speed applications. Three independent drives (labeller, unwinder, rewinder) allow to apply labels on products moving at 80 m/min. It is an ideal solution for applications like vacuum tables in printing industry or high capacity rotary labelling systems, with capacity up to 600 pieces per minute.

**Specification:**

- **Versions:** right, left
- **Maximum label web width:** 90, 160 or 220mm
- **Label roll diameter:** 400mm
- **Labelling speed:** up to 80m/min
- **Labelling precision:** +/- 1mm
- **Drive:** three independent stepper motors

Intrex labelling heads on packaging machines
Compact and rigid construction makes it possible to mount our labelling heads on various horizontal or vertical packaging machines. Our labellers are mounted on automatic machines from SIG, SASIB, Fuj, Laudenberg, Polpack, Record, and many other. Labelling heads work excellent at capacities up to 250 products per minute. They can operate on machines using continuous or intermittent mode.

**Properties:**
- high capacity up to several hundreds of labels per minute,
- simple label roll replacement,
- convenient control panel placement,
- continuous or intermittent mode operation,
- conventional or blow applicator,
- automatic operating speed adaptation.

**intrex 100+ and intrex 200 labelling heads**
**with thermal transfer printer**

Combination of Intrex 100+ or Intrex 200 labelling head with a Domino V120i thermal transfer printer is the easiest way to the world of labels overprinted with variable data. Our solution meets the requirements of most popular applications regarding speed, labelling precision as well as print area.

**PARAMETER**

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>intrex 100+</th>
<th>intrex 200</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERSIONS</td>
<td>right, left</td>
<td>right, left</td>
</tr>
<tr>
<td>MAX LABEL ROLL WIDTH</td>
<td>90 mm</td>
<td>90 mm</td>
</tr>
<tr>
<td></td>
<td>160 mm</td>
<td>160 mm</td>
</tr>
<tr>
<td></td>
<td>200 mm (option)</td>
<td>200 mm (option)</td>
</tr>
<tr>
<td>LABEL ROLL DIAMETER</td>
<td>300 mm</td>
<td>300 mm</td>
</tr>
<tr>
<td></td>
<td>350 mm (option)</td>
<td>350 mm (option)</td>
</tr>
<tr>
<td></td>
<td>500 mm (external unwinder)</td>
<td>500 mm (external unwinder)</td>
</tr>
<tr>
<td>LABELLING SPEED</td>
<td>up to 90 mm</td>
<td>up to 90 mm</td>
</tr>
<tr>
<td>WITH STANDARD UNWINDER:</td>
<td>up to 160 mm</td>
<td>up to 160 mm</td>
</tr>
<tr>
<td></td>
<td>up to 250 mm</td>
<td>up to 250 mm</td>
</tr>
<tr>
<td>LABELLING PRECISION</td>
<td>±1 mm</td>
<td>±0.4 mm</td>
</tr>
<tr>
<td>MEMORY</td>
<td>16 programs</td>
<td>16 programs</td>
</tr>
<tr>
<td></td>
<td>alphanumeric names</td>
<td>alphanumeric names</td>
</tr>
<tr>
<td>DRIVE</td>
<td>2 phase stepper motor</td>
<td>2 phase stepper motor</td>
</tr>
<tr>
<td>POWER SUPPLY</td>
<td>~230 V AC, 50 Hz</td>
<td>~230 V AC, 50 Hz</td>
</tr>
</tbody>
</table>

**THERMAL TRANSFER PRINTER DOMINO V120i**

<table>
<thead>
<tr>
<th>PRINTER RESOLUTION</th>
<th>300dpi</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAX PRINT AREA</td>
<td>32 x 56 mm</td>
</tr>
<tr>
<td>PRINTER SPEED</td>
<td>400 mm/s</td>
</tr>
<tr>
<td>MAX RIBBON LENGTH</td>
<td>650 m (up to 1625 m effective length with economy mode)</td>
</tr>
<tr>
<td>ECONOMY MODE</td>
<td>variable, up to 60%</td>
</tr>
<tr>
<td>CONNECTIVITY</td>
<td>Ethernet (USB x 2) mini USB (service)</td>
</tr>
<tr>
<td>LABEL CREATION</td>
<td>Onboard or via EasyDesign (included)</td>
</tr>
<tr>
<td>ELECTRICAL REQUIREMENTS</td>
<td>90-240V AC 50/60 Hz, or 24V DC (+/2%) at 5A (if drive)</td>
</tr>
</tbody>
</table>
Intrex labelling systems
Intrex labelling heads are designed to operate regardless of label placement or machine localization. Our products range from simple automatic labelers to complex systems, with their capacity, quality and other requirements tailored to fit customer's needs.
Intrex labelling systems use a simple, open frame construction or, for more demanding customers, a stainless steel table. An improved IP rating, closed frame or PHARMA versions are available for the most demanding applications.

**SET 1501**
**Simple on top labelling**
Labelling system for stable products with a flat top surface.

**SET 1891**
**Bottom labelling**
System for bottom label application. Simple construction and small dimensions work excellent in applying labels to the bottom of a product.

Options and auxiliary equipment:
- carton,
- cardboard box,
- jar,
- multi-pack,
- other packagings with a flattened top wall.
Ideal solution for semiautomatic operation with optional customer's production line integration.

**SET 1551**
**Corner wrap labelling**
System for around a corner labelling used e.g. to improve identification or protect packaging from opening.

In this case label is applied front-top around a corner. SET 1551 automatic machine is a simple and effective device - useful for small and big boxes. Its capacity can be as high as 6000 items/h.

**AE-02/Flap applicator**
Front labelling
This automatic machine is used to apply label to the front flat wall of a moving product: carton, cardboard box, multi-pack, etc. The concept of this machine is to use rotary pneumatic applicator.

**SET 1201**
**Side labelling**
System for stable products with a flat side wall like carton, cardboard box, multi-pack and other similar packagings. Small dimensions and mobility allow easy integration as well as manual load/unload operation.

Options and auxiliary equipment:
- hot stamp, ink-jet or thermal transfer printer,
- various frame construction available,
- beacon,
- full enclosure,
- inverter controlled conveyor speed,
- standalone or inline versions.

Ideal solution for semiautomatic operation with optional customer's production line integration.
**SET 1001**

Full or partial wrap-around labelling

Optimal solution for applying single label on most of cylindrical products. Available as an open frame construction as well as a stainless steel table construction.

Applying labels to cylindrical products using side band. Simple and compact construction allows free moving and placement of the machine. Fully automatic machine - for standalone or inline operation, applying labels on empty or full packaging material.

Properties:
- Capacity up to 120 products/min,
- Labelling precision ±1 mm,
- Label height up to 220 mm,
- Capable of labeling products having different diameters,
- Ease of operation.

**Options and auxiliary equipment:**
- Pneumatic separator, roller or star type,
- Polycarbonate guards,
- Hot stamp, thermal transfer or ink-jet printer.

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**SET 1101**

Cylindrical products labelling with optional label positioning

System for precision cylindrical products labelling, full or partial wrap-around labelling using single or multiple labels. A fully automatic machine - for standalone or inline operation - with an option to position the label relative to product element, maintaining high precision and high quality of labelling thanks to precision labelling of Intrex 200 head and SIEMENS control equipment. Suitable for empty or full cylindrical packagings: bottles, sprays, cans etc. where quality and precision of label application is a primary target. Construction of a 3-roller module ensures easy roller replacement and quick module adjustment for different products.

Properties:
- Capacity up to 60 products/min,
- High labelling precision up to ± 0.25 mm,
- On-product label height up to 220 mm,
- Capable of labelling products with capacity ranging from 10 ml to several liters,
- Ease of operation and simple format determining parts replacement.

**Options and auxiliary equipment:**
- Camera system – OMRON camera used for on product label positioning or label checking,
- Pneumatic separator, roller or star type,
- Polycarbonate guards,
- Hot stamp, thermal transfer or ink-jet printer.
**SET 2163**
Universal labelling system for bottling industry

Automatic machine for decorative label application on glass or PET bottles of various shapes and sizes. Labels can be positioned not only relative to each other but also relative to e.g. bottle decoration. SET 2163 system allows labelling bottles of 0.1 up to 2 liters capacity. Changing product format requires as much as to replacing only a few format parts taking only several minutes to complete. Machine is designed to simplify operation and to make product change easier. This is facilitated by:

- SIEMENS touch panel with a functional and clear menu on a swiveling control panel,
- precise and rigid stands with position counters make it possible to take a note of the settings and restore them for certain product-label combinations,
- markings on format parts and adjustment points.

**Properties:**
- capacity up to 60 products/min,
- high labelling precision up to +/- 0.25 mm,
- multiple labels can be applied – main label, back label, neck label,
- transparent label application,
- machine control via touch panel mounted together with labelling head panels on a swiveling control panel,
- simple new product readjustment,
- clear controls.

**Options and auxiliary equipment:**
- pneumatic separator, roller or star type,
- full enclosure - guards,
- ink-jet printer,
- camera systems for label checking,
- swiveling control panel.
**SEP 3691**

Rotary star

High capacity and high precision labelling system for cylindrical products. This machine fills the capacity gap between 3 roller automatic machines and rotary labelling systems. Rotary star is the essential operating part and the only format part - feeding products to label application and press-on station. Products can be fed in using intermittent mode - this allows positioning and application of a single or multiple labels from a single tape, or in continuous mode - this increases capacity. Rotary star is servomotor - driven. Construction allows to reach capacity of 300 products per minute using continuous mode, without label positioning, or up to 120 products per minute using intermittent mode that allows label positioning. With this capacity high precision and high application quality is retained.

Properties:
- capacity up to 300 products/min without positioning or up to 120 products/min using on product label positioning,
- vertical labelling precision +/- 0.3 mm,
- horizontal labelling precision +/- 0.7 mm,
- on product label height up to 220 mm,
- various capacity products labelling,
- ease of operation – there is only one replaceable format part,
- SIEMENS S7 control,
- touch panel operation.

**SET 2162 and SEP 3964**

Cans and buckets labelling

This is a group of labelling systems designed for paints packaging of various types and sizes as well as other products in cans or buckets. These automatic machines can apply up to four labels. All knobs and setting points have scales or position counters and they are numbered. Each element of a setting is written down on a paper and saved in a menu on a control touch panel. Everything including barb detectors calibration or camera calibration was prepared having in mind ease of operation when changing product. These solutions allow quick production setup, which is important for short production runs.

Properties:
- capacity up to 40 cans (∅100 mm) per minute,
- high labelling precision up to +/- 0.25 mm,
- easy setup for new packaging or new order,
- multiple labels can be applied, one or two decorative labels, one to three information labels (color, bar code, on-pack premium).
**SET2002 light**

**Linear system with modular design**

Our new inline labelling machine proves to be an excellent solution for labelling most of the types of flattened bottles. Central control system with a large, clear touch panel controlling labelling heads as well as entire system provides a simple and intuitive „one-point“ operation. Modular construction allows for future extensions and adaptation for various products.

- capacity up to 120 products/minute,
- label height up to 90, 160 or 220mm,
- stainless steel plate conveyor or belt conveyor,
- simple and easy to set up roller product separator,
- centering station with plastic chains does not damage products,
- narrow top belt with precision vertical adjustment
- light, stable open frame construction
- new labelling heads Intrex 100+
- new central control system for the entire machine

**SET2232**

**Inline labelling systems**

This range of automatic labeling machines usually offers application of two or three labels on a flattened-shape products e.g. those with ellipsoidal cross section. Labelling, label application and press-on takes place when the product moves between the conveyor and the top belt which stabilizes products For repeatable product positioning you can choose between chain centering station, double worm drive or simple guides. Systems can be equipped with various active press-on components depending on label shape and product surface. Lack of format parts and fairly high capacity of 150 products per minute makes them a convenient solution for medium capacity lines used for short to medium production runs, especially in the branch of cosmetics or household chemistry.

**Properties:**
- capacity up to 150 products/min,
- high labelling precision,
- label width (height) up to 220 mm,
- labelling products of various capacity,
- ease of operation and simple readjustments.

**Options and auxiliary equipment:**
- camera system – OMRON camera for product orientation or label checking,
- polycarbonate guards,
- worm or chain product centering station,
- hot stamp or ink-jet printer.
Pharma standard labelling systems

Machines marked PHARMA meet several requirements which make them suitable for labelling products in pharmaceutical industry. Each of the systems described above can have PHARMA version provided that it fulfills the requirements mentioned below. Strict quality requirements and qualification tests (DQ - Design Qualification, IQ - Installation Qualification, OQ - Operational Qualification, FAT - Factory Acceptance Testing) required for machine application demand highest quality and fully professional attitude towards customers.

PHARMA series consist of systems manufactured using SIEMENS S7 based control systems operated using touch panels. Among other things standard version of these machines is equipped with:
- camera systems checking printout and labelling quality,
- counters for ingoing and outgoing products, counters for products properly or improperly labelled which allow accurate process control.
- full machine enclosure for process protection against any external influence.

Properties:
- full control of labelling process through cameras used to check labelling and label printout correctness,
- automatic counting properly and improperly labelled products,
- automatic reject gate for improperly marked products,
- beacons,
- complete validation documents,
- printing additional data on a label using ink-jet, thermal transfer or other technique,
- labelling precision up to +/- 1 mm,
- capacity and dimensions adjusted to the packaging line,
- comfortable touch panel operation,
- SIEMENS S7 based control system.

GMP standard
Machines are delivered with all accessories required by production process and with validation documents.
Technical specification: 6 000 12 000 18 000 24 000
Capacity (pcs/h) up to 6.000 up to 12.000 up to 18.000 up to 24.000

Label diameter (mm)
Label height (mm)
Bottle diameter (mm)
Label material
Power consumption

44 - 210
40 - 220
25 - 130
PCV/PET/OPS
about 2 kVA (without shrink tunnel)

Shrink sleeve Intrex labellers

- User-friendly software and a color touch panel
- High quality mechanical and electrical components
- Simple format parts changeover and easy, no tool film loading
- Rotating blades cutoff module requiring no changeovers in the whole range of diameters
- Steam or electrical tunnels as required

Shrink sleeve Intrex labelling machines are modern, robust labellers. They are designed to make the operation and product changeovers as simple as possible.

Intrex shrink sleeve

Modern central control system that rises to the challenges of the 21st century

Everything in one place
Intrex Control System is an integrated system that allows to comfortably control all areas of the machine using single control panel. All components: labelling head drives, inverters, servomotors, safety modules or even power supply have full central control including central storage and changing of parameters.

Key benefits
- **Password controlled access levels** - in a standard version there are three password controlled access levels: for operator, admin (production manager or controller) and service (technical servicing or maintenance)
- **Clean and intuitive menu system** - a color touch panel providing easy access to basic settings and clear system messages is aimed at user-friendly operation. In effect the number of downtimes and total time spent on product changes or changing settings will decrease significantly.
- **Diagnostics and reports** - any alarm, failure or error like activating emergency button or open labelling head cover are displayed on the control panel and logged with a timestamp in the event log. Some system parameters like currently measured label length can be checked making the diagnostics tasks easier. Thanks to single component supplier and storing all parameters in one place in the controller all tasks like inverter replacement are very simple with no need to load any settings.
- **Connectivity** - connecting the machine control system to the site Ethernet network significantly improves machine management and control. Even the simplest version – virtual panel – allows to check and change machine settings using any authorized computer or smartphone the same way like using the touch panel of the machine. More advanced versions of software include maintenance and production modules. Event reports and analysis aimed at different departments and requirements are available according to customer needs. Production or technical maintenance manager can send messages to the machine’s display and receive information using a simple text communicator.

Intrex remote servicing
This valuable tool allows service personnel to remotely work on the machine using Ethernet network. The machine can also send e-mails or SMS reporting selected events.