

TRACK & TRACE

TQS



FOR **MAXIMUM PROTECTION** AGAINST
DRUG COUNTERFEITING ALONG THE
ENTIRE **PHARMACEUTICAL SUPPLY CHAIN**

TQS – THE OPTIMAL MODULAR TRACK & TRACE SYSTEM FOR GLOBAL SERIALISATION REQUIREMENTS

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Our comprehensive knowledge network is available to you anywhere in the world



TQS-SP

Single Pack Serialisation



TQS-HC-A

Tamper-Evident/Serialisation/Weighing



TQS-BP

Bundle Pack Aggregation



TQS-CP

Case Aggregation



THE GUARANTEE FOR PROCESS AND PRODUCT SAFETY: TQS – TRACEABLE QUALITY SYSTEM FROM WIPOTEC-OCS

WHAT IS TRACK & TRACE?

Greater health risks and immense economic losses are the consequences of the reckless product piracy in the pharmaceutical industry. The total product safety demanded by the end user requires a fully controllable product flow – from producer through to distribution to the patient. Track & Trace is the solution for implementing the statutory provisions concerning increased drug safety. A globally unique machine readable code, in the form of a product code and a serial number assigned to the product, serves as the basis for ensuring safe tamper-free drugs at the pharmacy. Serialisation and continuous aggregation provide transparency at the point of origin and throughout the distribution, enhancing both trust and safety.

RELIABLE TRACK & TRACE FOR MAXIMUM FLEXIBILITY

Track & Trace is the individual identification feature in the drug industry and key to guaranteeing drug authenticity. The identification and complete traceability of original preparations, in conjunction with Tamper-Evident seals on the folding boxes, forms the basis for unrestricted trust on the part of the consumer. A special challenge for Track & Trace is taking into account all of the internationally binding requirements regarding falsified medicines.

The WIPOTEC-OCS Traceable Quality System (TQS) represents a unique solution that combines all the future global Track & Trace requirements in one single system. Intuitive and very easy to operate, TQS is the benchmark for universal system compatibility at the highest level.

TQS provides maximum flexibility with the greatest ease of implementation and commissioning. Whether serialisation, folding boxes with Tamper-Evident labels, continuous aggregation, or the reliable integration in the packaging lines – TQS applications from WIPOTEC-OCS stand for first class, high-tech solutions that have unrestricted compatibility with existing machines and system components.



Solution Partner
WIPOTEC-OCS
GmbH

WIPOTEC-OCS is a solution provider to GS1 Germany and also a voting member of the GS1 Global Healthcare Solution Provider Network. We actively participate in joint ventures with the major pharmaceuticals and implement, the relevant targets and modifications regarding serialisation and aggregation.



WIPOTEC-OCS is a member of the Open SCS Working Group. This indicates our commitment to flexible options for the integration in existing production infrastructures, as well as to the philosophy of open and standardised connections to higher-level systems.

COMBINED EXPERTISE UNDER ONE ROOF CUTTING-EDGE TECHNOLOGY MADE IN GERMANY

WIPOTEC HEADQUARTERS



WIPOTEC-OCS is a sales and service company for dynamic, high-precision weighing and inspection solutions. As a wholly-owned subsidiary of the high-tech specialist WIPOTEC, which develops and produces all machinery solutions at its headquarters in Kaiserslautern, WIPOTEC-OCS has been setting global standards in the production lines of leading manufacturers for more than 25 years. Throughout the world, customers in the pharmaceutical, food and chemical industries and in the mail and logistics sectors highly appreciate the solutions provided by WIPOTEC-OCS.

EXCELLENT SOLUTIONS FOR YOUR APPLICATION

WIPOTEC-OCS stands for sophisticated high-tech systems with maximum ease of use. The impressive product portfolio provides solutions for nearly all customer applications. If necessary, we take special requirements and conditions into account in supplying customized equipment.

EXTRAORDINARY MANUFACTURING DEPTH, ALL SIDE BY SIDE

WIPOTEC-OCS contributes great importance to the in-house development of all necessary technologies as well as the in-house manufacturing of all core components. Consequently, we develop a depth of manufacturing that differentiates us from other vendors and makes us largely independent of suppliers, while forming the basis for our delivery reliability. At WIPOTEC, the entire value chain from basic research, to planning, design, and manufacture to sales and service is all under one roof. The benefit of short channels of communication is the guarantee of maximum flexibility in the implementation of every individual product configuration. No matter how unusual your application may be, we will show you a possible solution that is sure to convince you. That's what makes the difference.



GLOBALLY RESPECTED, INDEPENDENT, FLEXIBLE, AND INNOVATIVE: THAT IS WIPOTEC

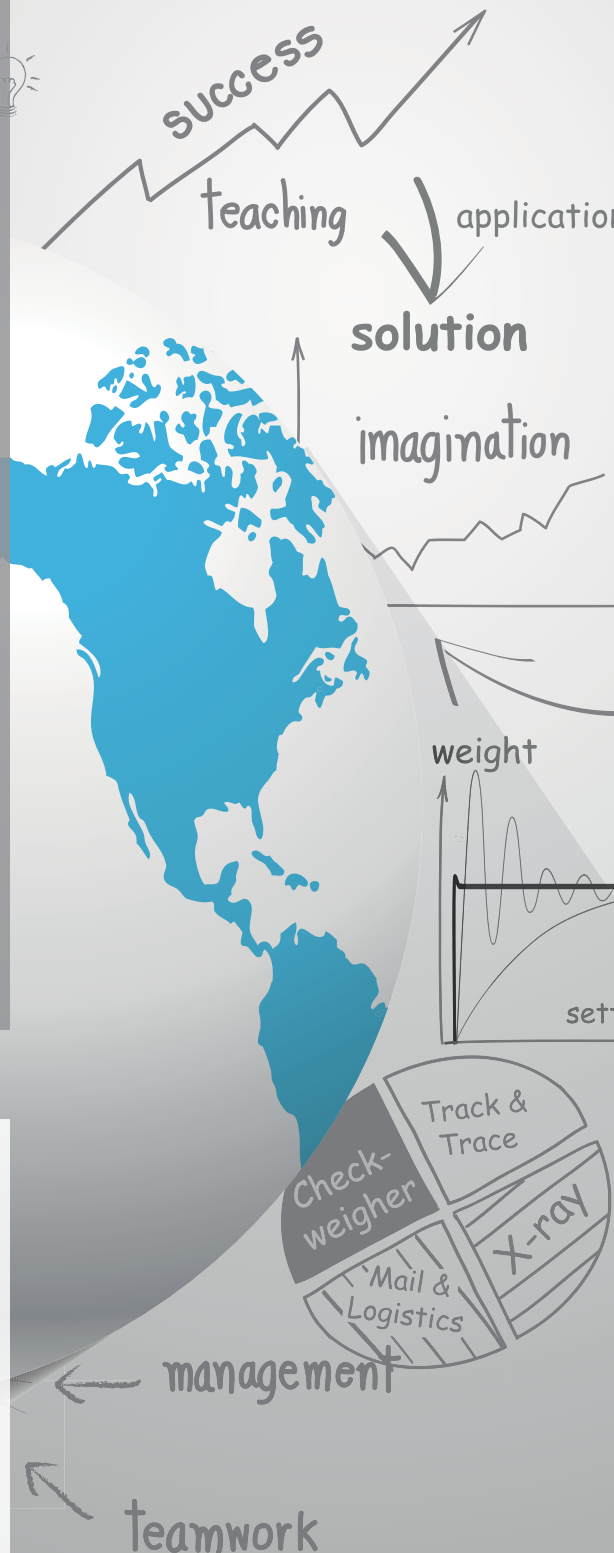
- ✓ GLOBALLY RESPECTED PARTNER IN INDUSTRY FOR MORE THAN 25 YEARS
- ✓ WORLDWIDE PRESENCE THANKS TO NUMEROUS SUBSIDIARIES AND PARTNERS
- ✓ FOUNDER MANAGED COMPANY
- ✓ COMPANY WITH HIGH INNOVATION POWER THROUGH LARGE R&D EFFORT, INCL. BASIC RESEARCH
- ✓ ALL EXPERTISE COMBINED UNDER ONE ROOF
- ✓ IN-HOUSE PRODUCTION OF ALL KEY COMPONENTS
- ✓ BROAD PRODUCT RANGE FOR ALMOST EVERY APPLICATION
- ✓ BROAD EXPERIENCE IN IMPLEMENTING CUSTOMER-SPECIFIC SYSTEMS
- ✓ USE OF HIGH PRECISION WIPOTEC WEIGHING SYSTEMS FOR OPTIMUM PRODUCT QUALITY
- ✓ PARTNER OF GS1 AND MEMBER OF THE OPEN SCS WORKING GROUP
- ✓ OUTSTANDING SERVICE CAPABILITIES

MORE THAN 1000 TRACK & TRACE PROJECTS WORLDWIDE

Trust the professional industry experts at WIPOTEC-OCS with more than 1000 successfully completed Track & Trace projects worldwide. Our specialists will find the perfect solution for your requirements. We stand for top quality global serialisation and aggregation.

COME AND VISIT US!

Interested in the high-tech solutions from WIPOTEC-OCS? Perhaps you would like to visit our ultra-modern plant. Our prominent market position is no accident, but rather the logical consequence of the creative and competent efforts made by our staff on behalf of our customers. Come and see for yourself. Just schedule an appointment for a tour with us!



TQS: COMBINED EXPERTISE FOR YOUR CUSTOM APPLICATION

Track & Trace begins with the right advice on how the TQS system implements country-specific regulations. On this basis, our project engineers work out the best possible machine and line configurations with you. They support you throughout the order processing and help later on, along with our service department, in the installation of your production lines. This approach ensures project and customer-specific requirements are met and, equally, respected for a timely project completion.

HIGH PRECISION PRODUCT TRANSPORT ENSURES OPTIMAL PRINT QUALITY

Designed specifically for the TQS product series, the top belt features continuous height and width adjustments to ensure the safe transfer of the folding boxes and provide the necessary forced guidance. The sprocket belts for the conveyor are coated with a special, high grip rubber surface that provides optimal hold of the packages. Small tolerances are balanced in elevation of the boxes.

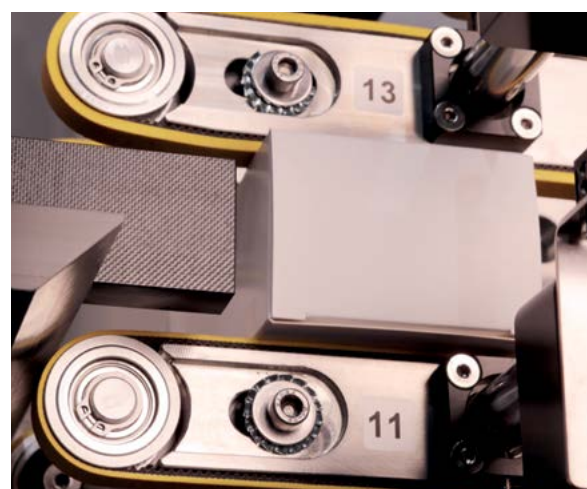
This construction eliminates slippage and movement of the packages during printing. In addition, this ensures highly accurate printing and verification, which can be increased even more with the aid of an optional synchronisation sensor. All TQS machines feature high precision product transport, which enables extremely accurate coding even at a high throughput rate.

The safe transport of all packages is ensured by the time-tested NT belt technology, which also serves as the basis of high precision weighing. The use of proven modular systems facilitates the implementation of a very broad range of product dimensions.

IN-LINE GRADING

All TQS serialisation machines (TQS-SP and TQS-HC-A) are designed with a function that checks the print quality of the printed codes in line. This control (grading) takes place continuously during throughput of the packages and is based on ISO/IEC 15415 (for 2D Codes) and 15416 (for 1D Codes).

This evaluation is a good indicator of the print quality and is useful as a trend indicator. In-line grading does not replace the full-scale, standardised verification of the printing results.



Stable transfer positioning of folding boxes for best print results



CIP: 4053213000004
EXP: 02 2019
LOT: 321TQS



GTIN: 04053213000004
SN: 6585HR7C08XNA5D
EXP: 09.02.2019
LOT: 321TQS



Global coding

TQS: INTELLIGENT SYSTEMS FOR MORE DRUG SAFETY

ConfigureFast: FOR QUICK AND EASY HANDLING

With flexible and intuitive operations thanks to ConfigureFast, TQS provides maximum ease of use. In ConfigureFast, the transport system, coding unit, camera, scales and labeler are all controlled with a single software. This ensures convenient setups and short changeover times for the operator when switching products, as the usual irritating need to change to various user interfaces is eliminated. This consistency extends to all levels of aggregation.

VERIFICATION

To comply with the applicable standards ISO 15415 (for 2D codes) and 15416 (for 1D codes) for offline verification of print quality (grading), we provide a code verifier. Depending on code geometry and dimensions, this can be selected and ordered as an application-specific option.



Safe and dependable Tamper-Evident seals

TAMPER-EVIDENT SEALS

A key component in meeting European regulations regarding drug safety, is the application of a Tamper-Evident seal on every individual package. The Tamper-Evident seal can be implemented in various ways. The serialisation modules TQS-SP and TQS-HC-A use our very compact Tamper-Evident labeler to apply the safety seals. Our unique top belt system gives the necessary support to the packages.

IN-LINE THERMO TRANSFER PRINTING OF LABELS

It is necessary in some applications to provide the individual packages with an additional, country-specific label or vignette. This step is also performed in the TQS-SP and TQS-HC-A machines by means of space-saving labeling units. There is an option of using thermal transfer printing facilitates, for example, the flexible printing of batch data.



Maximum flexibility when printing country-specific labels

” WIPOTEC-OCS makes a flexible and modular Track & Trace system that was perfectly customised to satisfy our needs. TQS supports all widely used forms of packaging, whether cartons, bottles, or their

aggregations. In terms of implementing future global Track & Trace requirements, with TQS we are in the best possible position.“

Dr. Marco Klingele
**Track & Trace Program Lead/
Head of Administration**
Losan Pharma GmbH

TQS WITH ConfigureFast: EASY OPERATIONS VIA A SINGLE INTERFACE

TQS from WIPOTEC-OCS is the logical way to implement Track & Trace. The system is easy to use and, thanks to ConfigureFast, provides very impressive handling via a single user interface.

In TQS, ConfigureFast simultaneously generates content as well as print layout for the required labels. The print data is sent in parallel to the printer and to the image processing unit. This simple operation saves you the usual and sometimes complicated configuration of the various individual units. By means of the print data, the camera already has the accurate pixel information about the printed image. The error prone method of „teaching“ all the cameras via manually prepared print patterns is completely eliminated. The user saves time by working in just one system, fully integrated and centrally controlled from a touchscreen panel display.

The display gives a clear picture of extensive amounts of information. The user has everything directly in view and can interactively and easily make changes as authorised by the user rights.

ConfigureFast lets you operate and control either our thermal ink jet (TIJ), or the CO₂ laser printer, or the thermal transfer printer (TTO) for the labels. The operator sees no difference in operating the various systems. The print layout is always generated in the simplest way. All of this means that it is very intuitive and easy to configure all of the TQS equipment.

STEP 01

ConfigureFast User Interface



STEP 02

Define a print layout one time:
Print data goes to printer and
camera at the same time



STEP 03

Machine is configured



“Aenova selected WIPOTEC-OCS as its Track & Trace System supplier because of the impressive technology, in particular, the very simple and easy to learn innovative operating concept. It is a great advantage that, because of the fully integrated ConfigureFast

operating software in all TQS modules, we no longer have to configure the individual print layout and image processor separately. This results in extremely short set up times and, as a consequence, substantially higher productivity in the lines.”

Alexander Pohl
Technical Expert Packaging
Aenova-Group

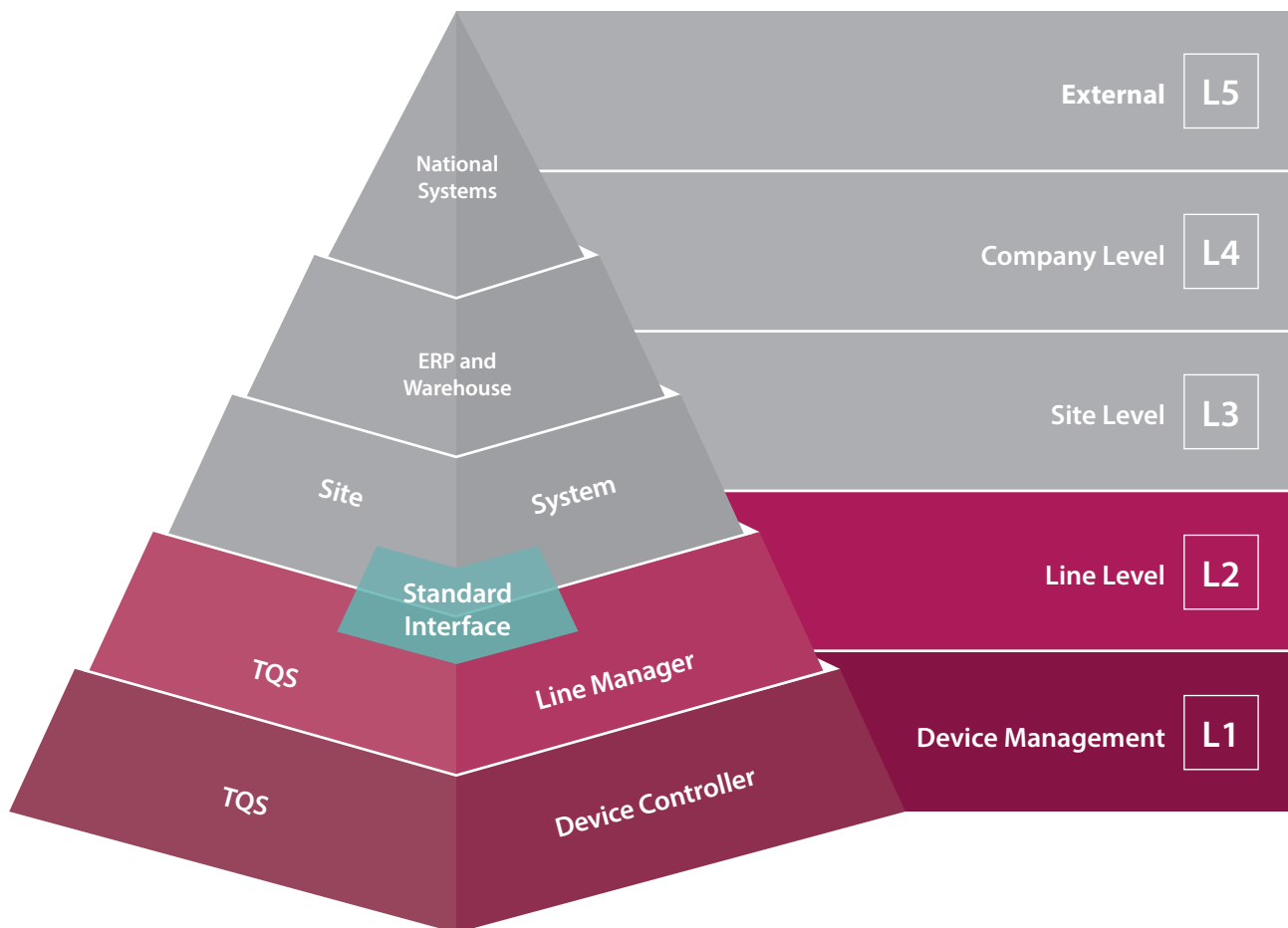
TQS: OPEN XML-INTERFACES FOR SECURE AND DEPENDABLE DATA TRANSPORT

No matter what your current IT structure looks like, you must always integrate the required or generated Track & Trace data. The following applies: The lower the number of optional modules to be installed, the better the system will operate.

TQS relies on the use of open XML standard interfaces, avoiding the creation of any proprietary island solutions. The TQS Line Manager gives you the lowest possible IT overhead. The job order data can be input directly into the machine. The Line Manager runs on any TQS module on the line and can easily and conveniently connect to a variety of Level 3 providers.

The core of the Line Manager is the production database which stores the data during the production operations. In the event of a temporary server and network infrastructure failure, the production line is secured by means of a local buffer memory. The permanent data storage is performed only in the Level 3 systems.

EASY INTEGRATION THROUGH A HIGHLY FLEXIBLE SOFTWARE SOLUTION DISTINGUISHED BY OPEN INTERFACES



USER FRIENDLY SERIALISATION FOR USE IN SMALL SPACES

TQS SP

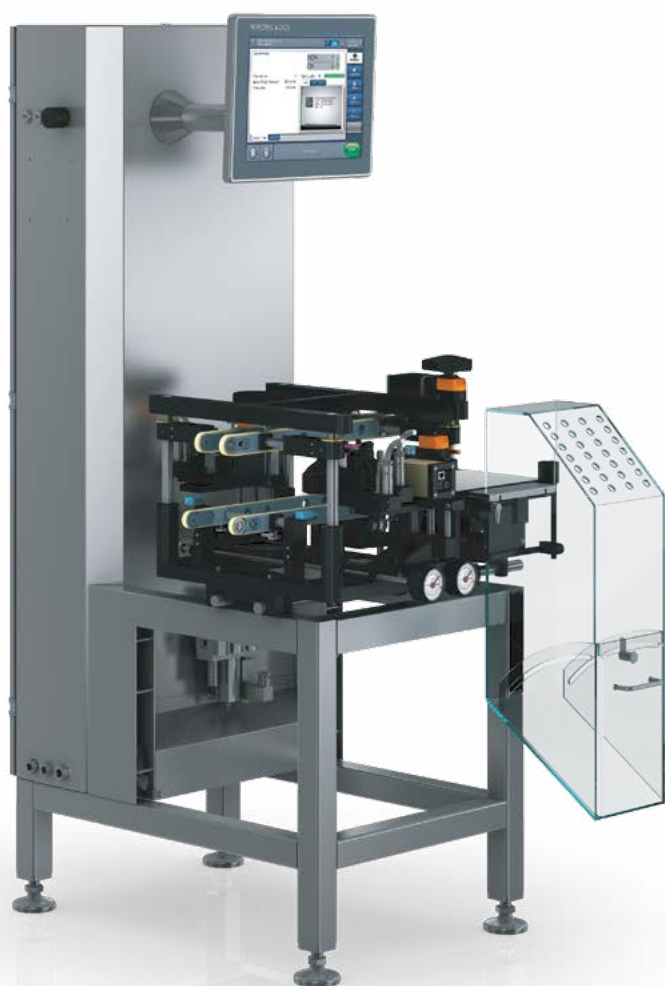
TQS-SP is a user friendly solution for the serialisation of individual cartons. The folding boxes are conveyed by a specially designed, double guided top band system that ensures stable positioning after leaving the cartoner.

The TQS top bottom band is fully adjustable in three dimensions to quickly and easily accommodate various carton formats. The labels are applied as required on the flaps (front or back side) or the top of the folding boxes. The TQS-SP can be installed into a line network with automated product feed or as a mobile stand-alone unit with manual supply. The unit can be retrofitted into any existing packaging line.

Thanks to ConfigureFast, identical print data is sent directly to the printer and to the camera's print imager. All system components are quickly and easily controlled from one single user interface without having to switch programs.

As an option for the TQS-SP, TQS-HC-A and TQS-BP, WIPOTEC-OCS supplies a fully automated grouping table that facilitates

placing the folding boxes or bundles into rows in preparation for packing or even aggregation to the next higher packaging level (for example, shipment carton). The grouping table does not require any separate setup. It is controlled from the TQS machine.



MAIN FEATURES

- ✓ Stable transfer positioning of folding boxes and guided transport for safe and optimal printing and reading results
- ✓ TQS InkPrint printer with print head and fully integrated user guides
- ✓ TQS VIO1 camera with fully integrated user guides
- ✓ Flexible print head/camera mounting position
- ✓ Large 15" with touchscreen display and intuitive control menu (19" optional)
- ✓ Validation packets and documentation IQ/OQ, FDS, RA, TM (optional)
- ✓ Tool free format change

YOUR BENEFITS

- ✓ All-in-one operations concept for quick and easy handling
- ✓ High throughput rate of up to 600 pcs/min (300 pcs/min is standard)
- ✓ Space-saving unit for quick integration and operational readiness helps achieve cost reductions

TECHNICAL DATA

Max. output	up to 600 pcs/min (300 pcs/min is standard) ¹⁾
Rated voltage	L1/N/PE 100-240 V
Rated frequency	50/60 Hz
Power capacity	approx. 1.0 kVA
Compressed air supply	approx. 6 bar 16 NI/min Quality class 5/3/3 per DIN ISO 8573-1
Protection class	IP54 ⁴⁾
Stainless steel	V2A/AISI 304
Working height	700-850/800-950/900-1.050 mm ²⁾
Folding box dimensions (L x W x H)	min. 30 x 40 x 15 mm, max. 120 x 200 x 100 mm ³⁾
Camera resolution	1.2 MPix
Unit weight	from approx. 180 kg

1) By limiting the speed of the traditional coding systems to 60 m/min at a resolution of 300 dpi

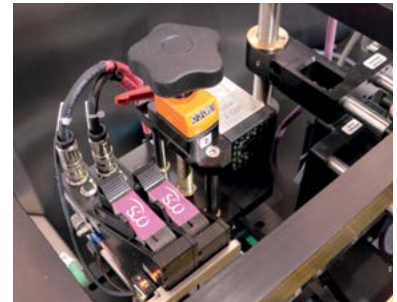
2) Other working heights by request

3) Other carton dimensions on request

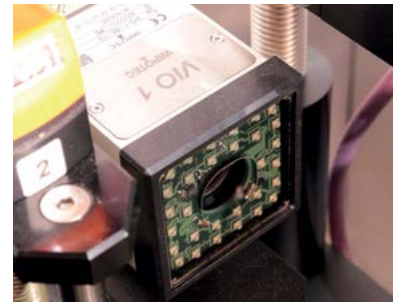
4) Water jet from above



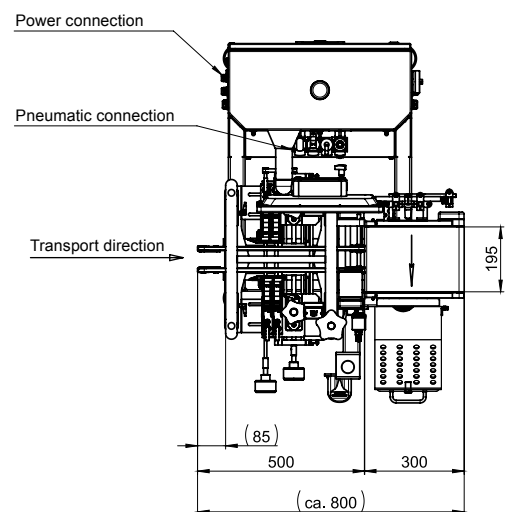
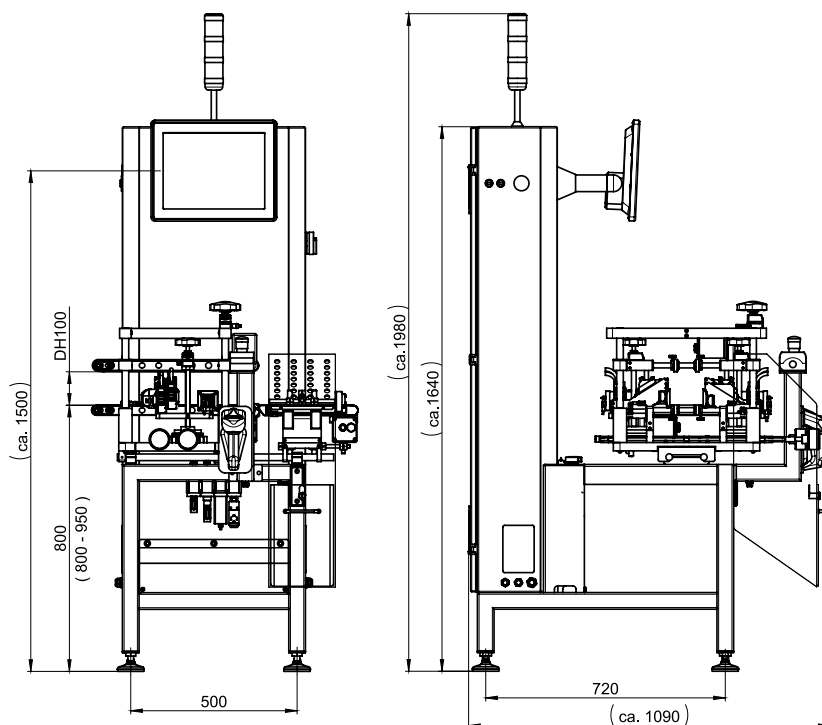
Other machine specifications
→ Technical Data Sheet



Highest grades when printing



Continuous authentication of folding boxes



All entries in mm | Photo shows optional equipment

SERIALISATION AND WEIGHT INSPECTION – CUSTOMISED FOR YOUR NEEDS

TQS HC-A

TQS-HC-A continues the convenient features of TQS-SP in terms of product management and serialisation, expanding them with a final completeness check by means of weight. Optional modules integrate the functionalities of our compact Tamper-Evident technology and country-specific vignette applicator.

The folding boxes are received from the upstream cartoner over a perfectly synchronised, adjustable top belt. This high precision product transport is the basis for smoothly guided coding and final verification. Products with faulty codes are discharged into a separate, lockable container in front of the weighing belt. Products with a faulty weight use a second ejection system directly behind the weighing belt.

Thanks to ConfigureFast, identical print data is sent directly to the printer and to the camera's print imager; all system components are quickly and easily controlled from one single user interface without having to switch programs. A more detailed description of the checkweigher component is provided in the HC-Avantgarde brochure.

As a supplement to TQS HC-A, WIPOTEC-OCS supplies a fully automated grouping table that facilitates placing the folding boxes or bundles into rows in preparation for packing or even aggregation to the next higher packaging level (for example, shipment cartons). The grouping table requires no separate configuration as it is controlled by the respective TQS machine.



MAIN FEATURES

- ✔ Stable transfer positioning of folding boxes and guided transport for safe and optimal printing and reading results
- ✔ TQS InkPrint printer with print head and fully integrated user guides
- ✔ TQS VIO1 camera with fully integrated user guides
- ✔ Flexible print head/camera mounting position
- ✔ High-tech Weigh Cells from WIPOTEC Weighing Technology for high precision weighing
- ✔ Large 15" touchscreen display and intuitive control menu (19" optional)
- ✔ Validation packets and documentation IQ/OQ, FDS, RA, TM (optional)
- ✔ Tool free format change

YOUR BENEFITS

- ✔ All-in-one operations concept for quick and easy handling
- ✔ Compact, high-tech, multi-functional unit for optimal productivity
- ✔ High throughput rate of up to 600 pcs/min (300 pcs/min is standard)
- ✔ Maximal integration flexibility through modular design

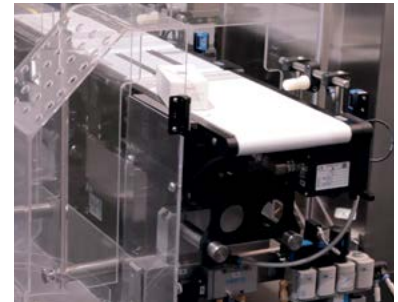
TECHNICAL DATA

Max. output	up to 600 pcs/min (300 pcs/min is standard) ¹⁾
Weight range	750 g
Display value (d)	0.01 g
Calibration value (e)	0.1 g
Standard deviation (1s)	from 50 mg ²⁾
Rated voltage	L1/N/PE 100-240 V
Rated frequency	50/60 Hz
Power capacity	approx. 0.8 kVA
Compressed air supply	approx. 6 bar 16 NI/min Quality class 5/3/3 per DIN ISO 8573-1
Protection class	IP54 ³⁾
Stainless steel	V2A/AISI 304
Working height	700-850/800-950/900-1.050 mm ⁴⁾
Folding box dimensions (L x W x H)	min. 30 x 40 x 15 mm, max 120 x 200 x 100 mm ⁵⁾
Camera resolution	1.2 MPix
Weight with Tamper-Evident technology	approx. 400 kg/approx. 600 kg

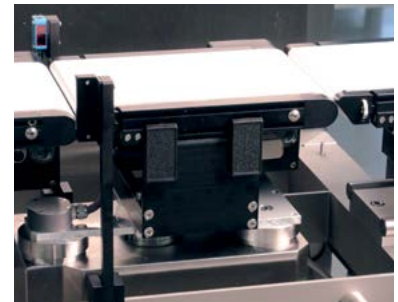
- 1) By limiting the speed of the traditional coding systems to 60 m/min at a resolution of 300 dpi
2) Dependent on product form, product behavior, transport speed, and local conditions
3) Water jet from above
4) Other working heights by request
5) Other carton dimensions on request



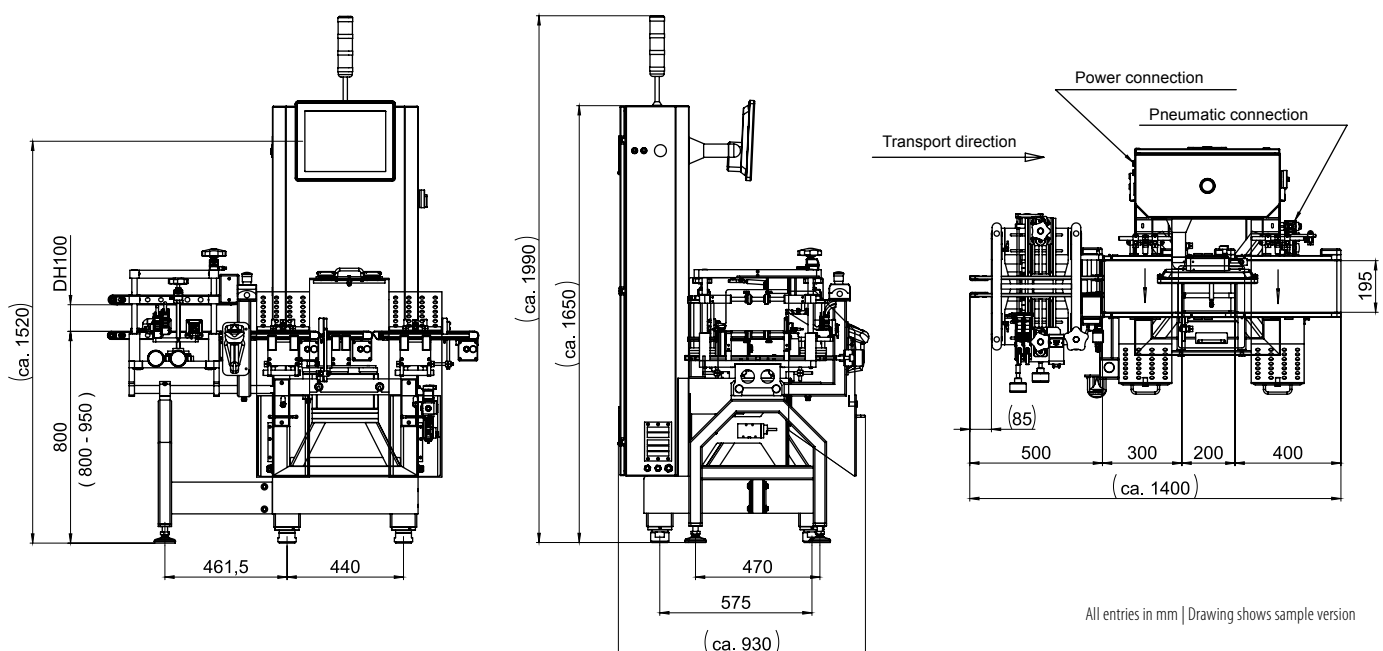
Other machine specifications
→ Technical Data Sheet



Dependable ejection of faulty containers



WIPOTEC Weighing Technology - High precision weighing with EMFR Weigh Cells



All entries in mm | Drawing shows sample version

SERIALISATION, WEIGHT INSPECTION, AND TAMPER-EVIDENT LABELS FOR YOUR PRODUCT SAFETY

TQS HC-A

TQS-HC-A, equipped with Tamper-Evident labeling systems on both sides, allows you to serialize the folding boxes, to verify the print, to seal the insertion flaps with Tamper-Evident labels, to apply vignettes from above, to discharge products according to diverse sort rules, and to determine the weight – all during throughput operations.

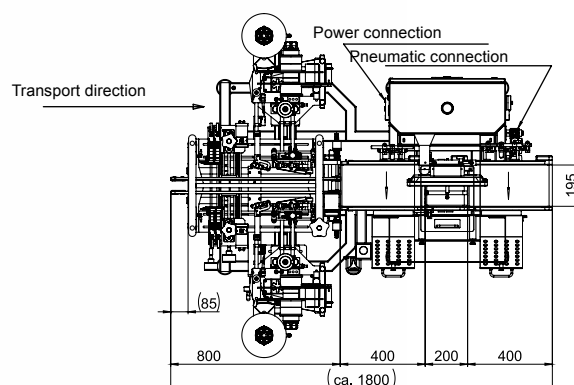
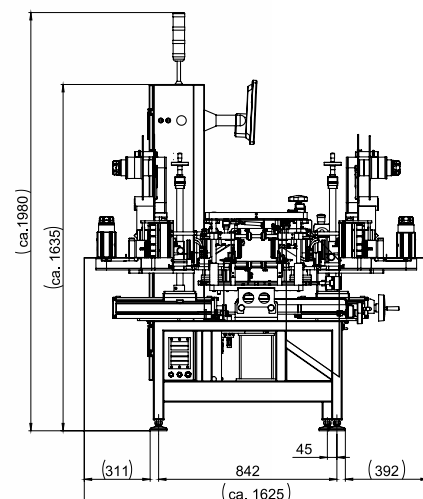
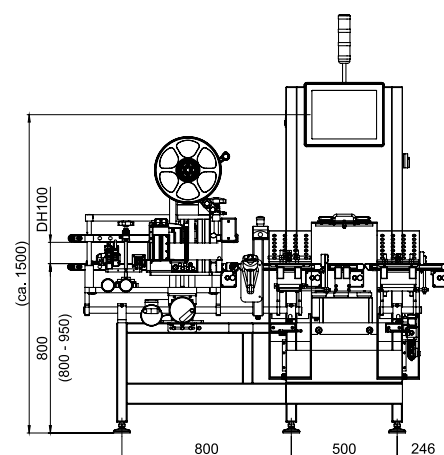
Country-specific labels or vignettes are applied by means of compact labeling units. Alternatively, the system can also be equipped with optional thermal transfer printers to print in-line batch or serialisation data.

What this means for you: All foreseeable regulations regarding serialisation world-wide can be met with just one space-saving and user-friendly machine.

TQS-HC-A
with Tamper-Evident
technology



Other machine specifications
→ Technical Data Sheet



All entries in mm | Drawing shows sample version



THE MOST COMPACT ALL-IN-ONE SERIALISATION MACHINE IN THE WORLD

TQS HC-A

Products with faulty coding are ejected ahead of the weighing belt into a separate lockable container. Products with a faulty weight use a second ejection system directly behind the weighing belt. The intuitive operation of all components is conveniently and centrally organised in a single interface. This means that all system components are directly, quickly, and easily controlled by a single software interface, without any program changes.

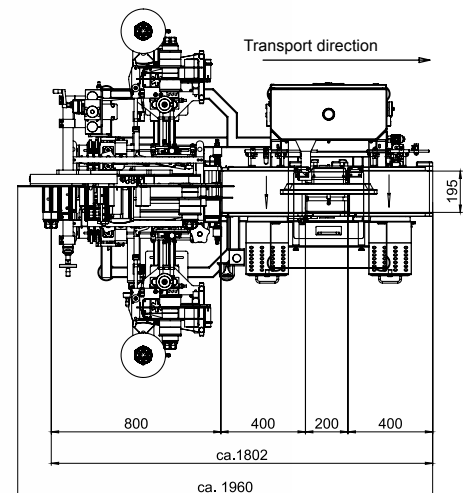
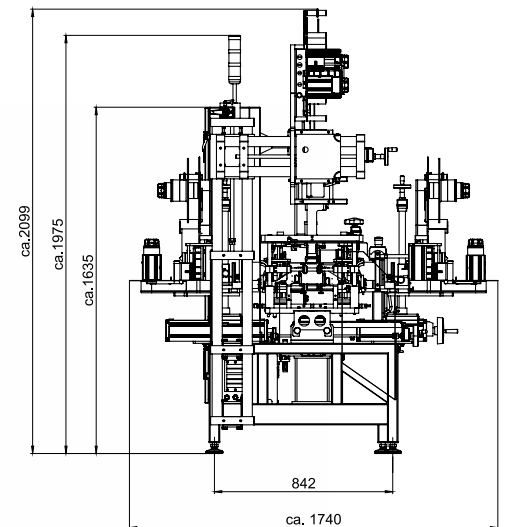
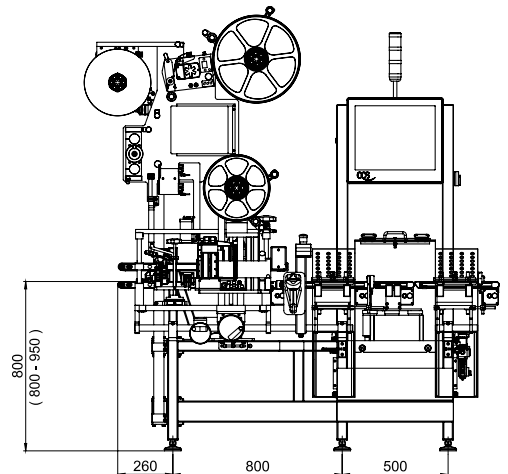
Five functions (serialisation, Tamper-Evident seal, vignette labeler, additive label printing, weighing) in one unit are what make TQS-HC-A the most compact serialisation machine worldwide. Easily integrated as a space-saver in the tightest production environments, it also has an outstanding price performance ratio in comparison with individual components.



Other machine specifications
→ Technical Data Sheet

TQS-HC-A

All-in-one with Tamper-Evident technology and vignette labeler



All entries in mm | Drawing shows sample version

SIMPLE AGGREGATION OF SETS/BUNDLES – FLEXIBLE AND FORMAT-INDEPENDENT

TQS BP

TQS-BP is perfectly equipped for the simple implementation of the first aggregation level. The system enables the serial numbers from multiple single packages to be combined to form one unique serial number for the set.

The model has a format independent transport and reading system. The bundles are received directly from the bundler or, can also be manually introduced. The machine's intelligent code ID provides optimal flexibility, even with any eventual variations in geometry.

Regardless of whether the packaged sets are rounded by stretch wrapping, shrink wrapped, or fully overwrapped, they can be reliably and safely read by means of the optional UV camera.

As a supplement to TQS-BP, WIPOTEC-OCS supplies a fully automated grouping table that facilitates placing the sets or bundles into rows in preparation for packing or even aggregation to the next higher packaging level (for example, shipment cartons). The grouping table requires no separate configuration as it is controlled by the respective TQS machine.



MAIN FEATURES

- ✓ Fully integrated label printer and applicator unit, incl. camera control
- ✓ High performance TQS VIO 2 camera for precise code verification
- ✓ Handheld scanner for manual read in and changing aggregation hierarchies
- ✓ Reliable discharge by means of the traction pusher
- ✓ Large 15" with touchscreen display and intuitive control menu (19" optional)
- ✓ Validation packets and documentation IQ/OQ, FDS, RA, TM (optional)
- ✓ Camera mounts front and back (optional)
- ✓ Tool free format change

YOUR BENEFITS

- ✓ All-in-one operations concept for quick and easy handling
- ✓ Space saving design facilitates integration in existing lines
- ✓ High throughput rate (up to 75 pcs/min, 30 pcs/min standard) enables significant increase in productivity

TECHNICAL DATA

Max. output	up to 75 pcs/min (30 pcs/min standard) ¹⁾
Rated voltage	L1/N/PE 100-240 V
Rated frequency	50/60 Hz
Power capacity	approx. 0.8 kVA
Compressed air supply	approx. 6 bar 16 NI/min Quality class 5/3/3 per DIN ISO 8573-1
Protection class	IP54 ²⁾
Stainless steel	V2A/AISI 304
Working height	700-850/800-950/900-1.050 mm ³⁾
Bundle dimensions (L x W x H)	max. 300 x 200 x 220 mm ⁴⁾
Camera resolution	5 MPix
Workable kinds of code	1D Barcodes, 2D Codes
Weight	approx. 210 kg

- 1) Dependent on set size, number of cartons included, and transport conditions
 2) Water jet from above
 3) Other working heights by request
 4) Other carton dimension on request



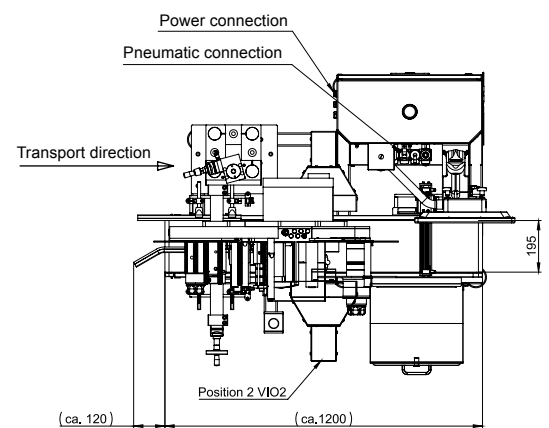
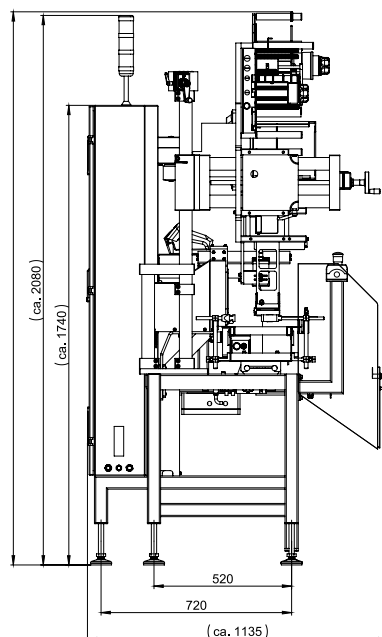
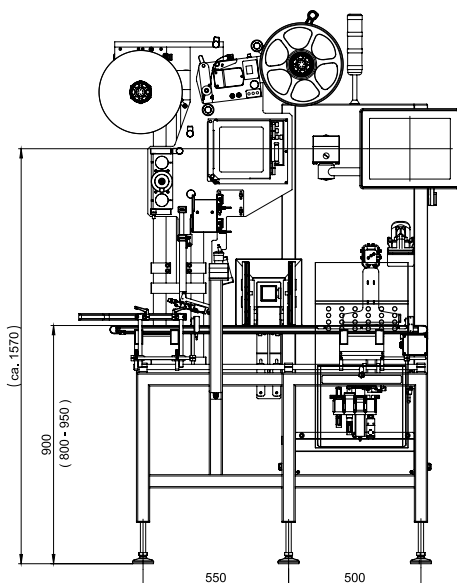
Other machine specifications
 → Technical Data Sheet



Professional labeling with TQS-BP



Option: fully automated grouping table



All entries in mm | Drawing shows sample version

THE PERFECT SEMI-AUTOMATIC AGGREGATION FOR SHIPMENT CARTONS AND PALLETS

TQS CP

TQS-CP stands for the successful semi-automatic aggregation of manually repacked folding boxes. It lets you conveniently assign units from a lower level (folding box or bundle) to a higher packaging level (shipment carton).

The operator places the packaged units layer-by-layer in the shipment carton. Each completed layer is then photographed from above by the fully integrated camera. The camera automatically moves to the preset height for packing in order to always ensure the proper focus

distance. After the defined number of layers and units has been reached, the aggregation level is completed and a label is automatically generated.

TQS-CP also manages the next packaging level (for example, shipment cartons on

pallets). The aggregation of the pallets can be managed in parallel by the optional TQS-MP-EXT. The operator is supported by the integrated display on the mobile scanner.



MAIN FEATURES

- ✔ Industrial scale labeler on adjustable height table
- ✔ State of the art camera for multicode-reading from above and fully integrated operator guidance
- ✔ Large 19" with touchscreen display and intuitive control menu
- ✔ Ergonomic design with adjustable product table height
- ✔ Validation packets and documentation IQ/OQ, FDS, RA, TM (optional)
- ✔ Weighing platform (optional)
- ✔ Tool free format change

YOUR BENEFITS

- ✔ All-in-one operations concept for quick and easy handling
- ✔ Safe and reliable aggregation of every single product
- ✔ Greater value from one machine for the aggregation of shipment cartons and pallets (optional)

TECHNICAL DATA

Max. output	Manual product feed by operator
Rated voltage	L1/N/PE 100-240 V
Rated frequency	50/60 Hz
Power capacity	approx. 0.8 kVA
Protection class	IP54 ²⁾
Stainless steel	V2A/AISI 304
Package dimensions (L x W x H)	min. 10 x 40 x 10 mm to max. 600 x 400 x 400 mm ¹⁾
Camera resolution	16 MPix
Workable kinds of code	1D Barcodes, 2D Codes
Weight	approx. 160 kg

- 1) Other package dimensions by request
2) Water jet from above



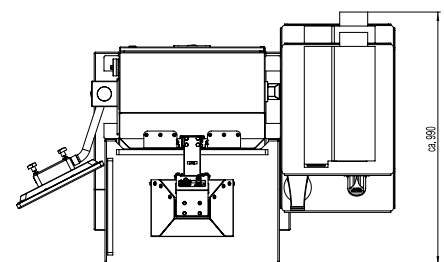
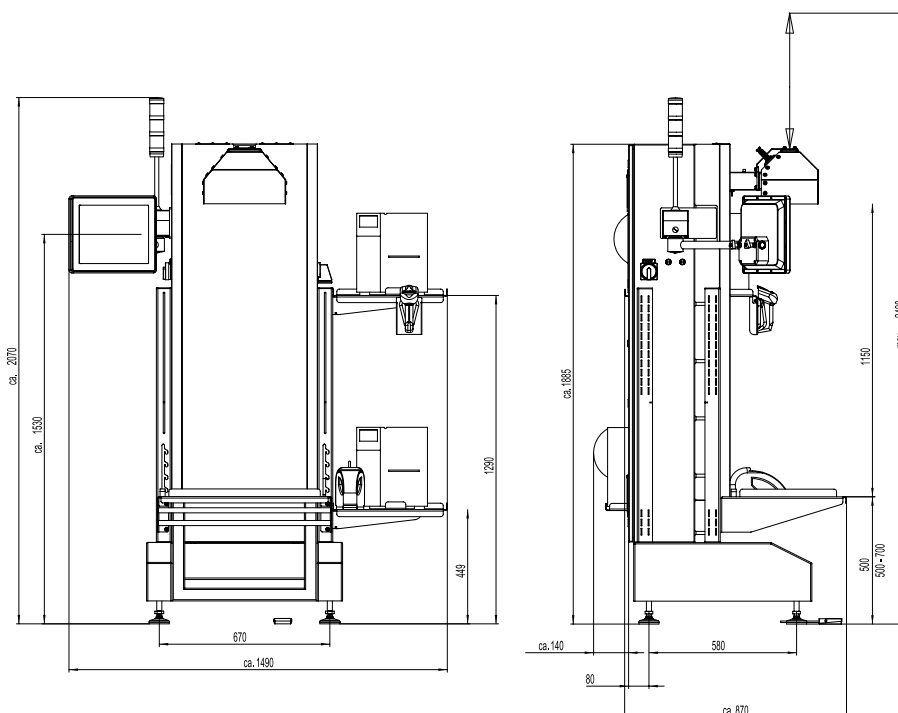
Other machine specifications
→ Technical Data Sheet



High resolution camera for full surface images



Optional: TQS-MP-EXT for pallet aggregation



All entries in mm | Drawing shows sample version

AUXILIARY CODE PRINTING AND ULTRAFAST ALL ROUND INSPECTION OF BOTTLES AND VIALS

TQS SP-Bottle

TQS-SP-Bottle prints auxiliary codes and verifies bottles and vials. Printing is completed by the CIJ printer either on the underside or the top of the container (visible only under UV light, if required). Subsequently, the machine verifies the previously serialised bottle or vial labels.

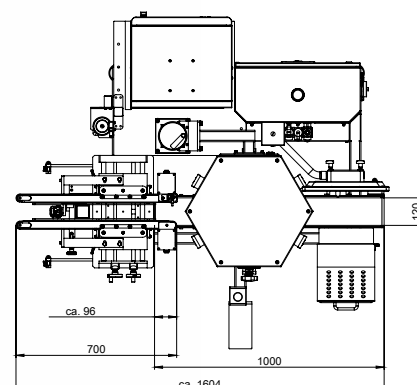
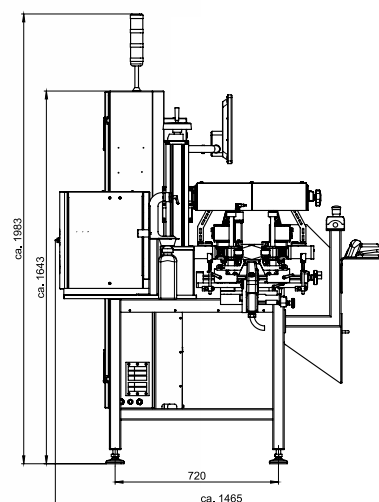
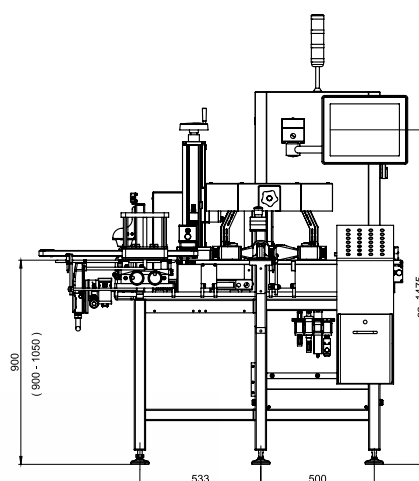
The auxiliary aggregation code is for the higher-level aggregation in bundles or cartons. Additionally the integrated 360° camera unit manages the all round inspection of cylindrical objects, for example, the optical control of the coding, layout, and plain text on vials or bottles. Multiple ultrafast cameras are used for the omnidirectional detection of the objects.

Coded containers with faulty labels or an incorrect auxiliary code are separately ejected from the product flow and stored in lockable containers.

ConfigureFast will quickly and easily configure all sub-components, like the printer and camera, from a single interface.



Other machine specifications
→ Technical Data Sheet



All entries in mm | Drawing shows sample version

RELIABLE 360° INSPECTION FOR SEMI-AUTOMATIC AGGREGATION

TQS CP-Bottle

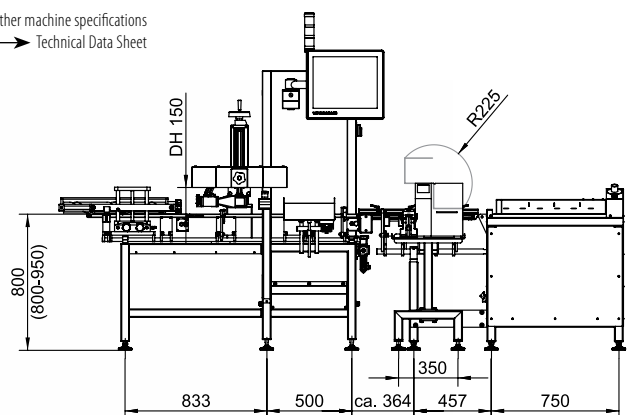
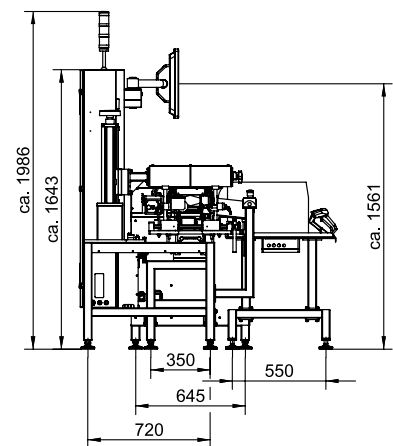
TQS-CP-Bottle is designed for the perfect integration in bottle or vial production lines. The system can be set up directly at the outlet of any conventional labeling machine to verify the previously serialised labels on individual cylindrical containers via an omnidirectional, 360° inspection. This is done by a 360° camera, which features a central adjustment unit to facilitate the tool free adjustment of all cameras to the respective diameter of the bottles.

Bottle-shaped products are transported to the machine via a conveyor screw. The codes of previously serialised products are identified in a 360 degree process. A non-readable or invalid serial number leads to its discharge. A fully automated grouping table facilitates placing the products into rows in preparation for packing or even aggregation to the next

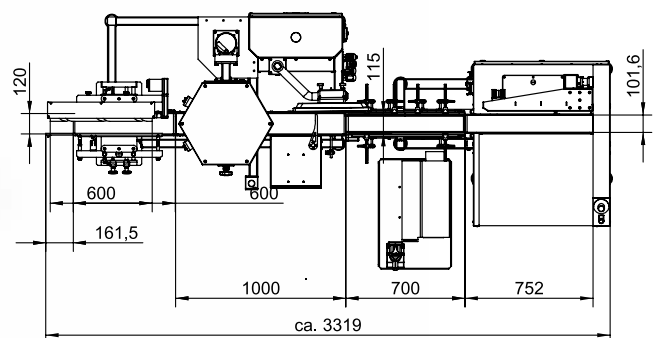
higher packaging level (for example, shipment carton). The grouping table does not require any separate setup. It is controlled from the TQS machine. Once the carton is full, the operator applies the automatically printed label to the shipment carton and verifies it with the handheld scanner.



Other machine specifications
→ Technical Data Sheet



Transport direction →



All entries in mm | Drawing shows sample version

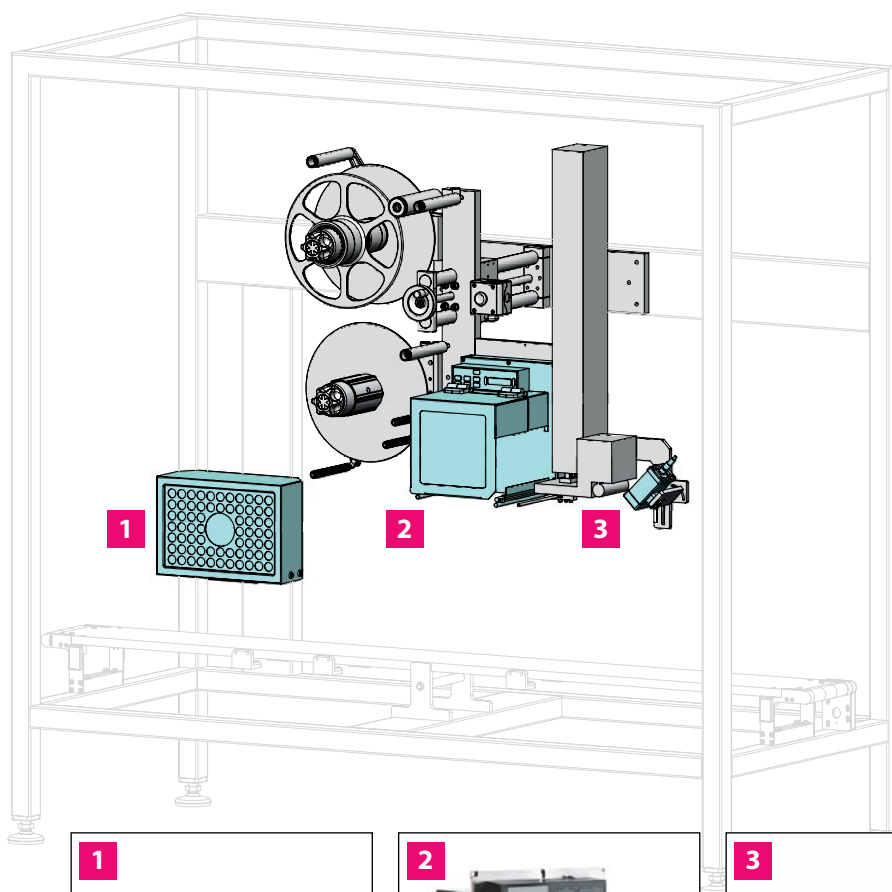
OEM COMPONENTS: TQS FOR DIRECT INTEGRATION

OEM KITS FOR MAXIMUM FLEXIBILITY

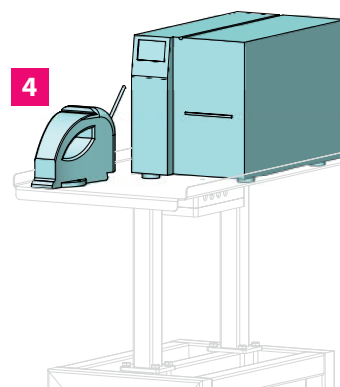
In addition to the independent machine components of the TQS series, we also supply components for the direct integration in packaging machines. These options modules are given the "OEM" designation. TQS-OEM Kits and their functional ranges correspond to those of the separate machines. Consequently, the TQS-SP-OEM for serialisation is integrated in the cartoner. Similarly, TQS-CP-OEM for fully automated aggregation of shipment cartons is placed directly in the end-packaging machine.

SPACE SAVING INTEGRATION

The TQS integration variants are especially practical if the existing installation conditions do not offer adequate space. Both variants may also be used in mixed operations. That creates space for your other individual requirements. The integration of these components generally requires the cooperation of the equipment manufacturer because it always involves plant-specific installations.



Drawings and data sheets for the respective integration kits provided on request.



TQS-VIO3 camera for layer-by-layer reading of full surface data at case-packing level



Thermal transfer printer (TTO) for shipment carton labels



TQS-VIO S verifies shipment carton labels



Wireless handheld scanner incl. integrated control panel with industrial scale thermal transfer printer for labels

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