



The Lean Management of auxiliary materials



The Concept of Lean management is applied by Manufacturing Enterprises to reduce waste and to rationalize all management operations.

Our new Automated Systems Argo *PRO* represent the result of more than fifteen years of field experience of our Company in the PPE Automated Distribution.

Recently, a full range of automated devices has been entirely designed and produced in Italy to offer to the Enterprises choosing a Lean Management of the auxiliary materials (PPE, MRO, tools, workshop equipment) quick and flexible replies. In proximity of working areas, we provide distribution points to assure the availability and traceability of all materials 24h/365.

Automated Dispensers, Lockers, Warehouse Terminals, Collection Units, Access control...are designed with common Design Concept, all connected on-line and in real time to Ethernet net, Wi-Fi, GSM. All these devices use our new Software Argo *PRO* platform, easily interfaced to User Companies Management Software, from Procurement to Logistics and Human Resources.

The enabled users, identified by personal badge reading or other identification ways, are authorized or refused to withdrawals/ accesses according to the parameters assigned to job profiles, set on user-friendly database, monitoring all events in real time. A wide customizable reporting allows data treatment and storage.

Our Technical Department offers a full hardware and software assistance by the web portal www.supportlanzi.com providing a wide experience for Argo Pro software integration with the most common Management Software (e.g. SAP, AS400, Teamsystem, Microarea, Zucchetti...)



Software solutions

Argo DA *P******RO***.XL** : Automated dispenser for small/medium sized PPEs and high turnover materials.

Argo DR *P******P******C***.XL** : Distribution unit and materials collection.

Argo LK **PRO** : Multifunction Automated Locker.

Argo TM *P***?***O* : Management system of indirect materials distribution.

Argo GR PRO : Automated collection Unit.

Argo TS \mathcal{PRO} : Automated warehouse with turning carousels for spare parts.

Argo AC PRO : Access control system by personal badge identification linked on line to Argo PRO software.

Software functions

- Users' identification by company personal ID badge.
- Enabling the withdrawal of the assigned products to users according to their job profile.
- Comply with the pre-set maximum withdrawal limit.
- Identify users that are withdrawing less than the pre-set minimum product withdrawal limit during working days (which may be calculated also for the actual working days if interfaced to the HR System).
- All vends are recorded in real-time as well as the attempts to get an unauthorized or exceeding limits PPE.
- Warning on low stock products level, by constant monitoring and alert e-mail sending.
- In case of frequent job rotation the software can interface with both HR and EHS managements.

- Automatic job profile assignment according to the settings configured at customer's care (department, job requirements, cost center...).
- The loading plan can be set up for various products on the same plate.
- The withdrawal can be bound to the disposal of an used product into Argo GR *PR0*.
- Detailed or brief reports with summary tables and trend graphs.

Management benefits of the automated distribution

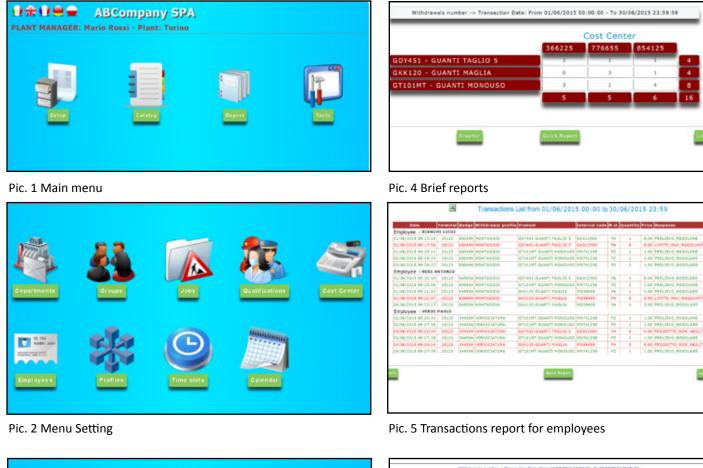
- Continuous PPEs availability in workshops 24 X 365
- Distribution trend control
- Saving on inefficiencies, waste elimination
- Best optimization of stock planning
- On line available reports
- Comply with European Supervisory Obligations to provide

each worker with the right PPE

Adoption of suitable, stable and documented management models

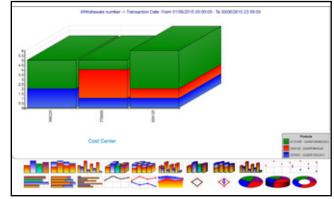


All data are stored on the Company server. Data mining is available anytime in the most common formats (Excel, CSV, pdf)





Pic. 3 Detailed reports



Pic. 6 Graphic report

Argo DA PRO-XL

PPE and high turnover materials Automated Dispense



	Power supply 220 VAC	supply 220 VAC - 50 Hz - 150 W	
	Dimensions (mm)	H= 2000	
lechnical eatures		W = 1000	
chnat		D = 755	
Teo Fe	Weight: abt 270 kg		

Lighted push buttons to show the enabled products and for the selection of the product to withdraw



- Wide LED illuminated showcase with convex-profile according to the turning carousel's curvature.
- 14 multiple slots trays on a rotating carousel activated by a frontal push-button.
- Slots 100 mm high, can be adjusted for each tray (6-12-18-24-36-72 slots per tray). Maximum product capacity: 1008 slots.
- Optional slots 200 mm high, can be adjusted for each tray (6-12-18-24 slots per tray).
- Easy on site re-adjustment of the number of slots per tray.
- Management of different products on the same tray (up to 18 products per tray).
- Convex-profile sliding doors with manual handling, visual and acoustic warning when the door has been wrongly left open.
- ID badge reader (magnetic/contactless,..)
- Lighted push buttons to show the enabled products and for the selection of the product to withdraw.
- Graphic product identification by icons beside each sliding door.
- Automatic positioning of the selected product on the first full slot.
- Large 4 line LCD alpha-numeric back-lighted display to alert users.
- 7" display to communicate with users by images or texts in HD graphic format.
- Connection to Ethernet LAN/Wi-Fi/GSM.
- Data storage for each user job profile to allow the withdrawal of the assigned products only, also in case of network offline.
- Self-diagnosis at pre-settable time frame with automatic warnings in case of malfunctioning.
- Embedded shelf : 180 liters capacity for products storage.
- Energy Saving function for stand-by mode activation during periods of inactivity.

Slots 100 mm high, can be adjusted for each tray (6-12-18-24-36-72 slots per tray)



Option: slots 200 mm high, can be adjusted for each tray (6-12-18-24 slots per tray)



Argo DR PRO-XL

Distribution unit and materials collection



Up to 72 slots per tray (maximum product capacity : 72x14=1008 slots)



Argo DR **PRO** -XL is the variant of automated dispenser Argo DA **PRO** -XL .

It permits the contemporary withdrawal and the return of tools and other materials, where the traceability of distribution and return is required, by the use of the Company personal badge, according to the assigned job profile, with the following steps:

- User is identified through personal badge.
- Argo DR **PRO** -XL advises the user about withdrawable products according the current authorizations.
- User selects the product, opens the sliding door, withdraws the new item and in the same time returns the used item in the same empty slot.

Withdrawals data are stored, reporting time, day, tray/slot and user's name. In case of missing return it is easy to identify to the improper operator.

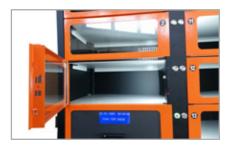


Multifunction Automated Locker



	Power Supply 220 VAC - 50 Hz - 150 W		
19-	Locker dimensions(mm)	H = 2000	
et -		L= 1000	
		P = 580	
Fechnical sheet - slot model	Slot dimensions(mm)	H= 160	
t m		L= 400	
Te(slo		P = 550	

Slow door with the showcase



- **FUNCTION**: Storage, items withdrawal/return by authorized and identified employees trhough the company badge, and immediate registration of each operation.
- **STORAGE CAPACITY**: Standard version with 19 lockers for each Argo LK *PRO*-19 occupying 0.58 sm in total. .
- **ONLINE**: Cable or Wi-Fi Ethernet connection to the company network for real-time management of transactions and availabilities by the authorized users.
- WITHDRAWAL/RETURN/RLOADING PROCEDURE: Argo LK PRO shows the user the available slots for withdrawal; the user shall press the button of the desired slot.
- **OFFLINE**: In case of connection break Argo LK **PRO** will save a copy of the server database. Argo LK **PRO** will therefore operate normally and update the server as soon as the network signal is back.
- AUTODIAGNOSIS: Argo LK *PRO* regularly performes the auto diagnosis and sends signals in case of breakdown
- INVENTORY: Real-time report, always up-to-date
- EFFICIENCY: In order to save time during multiple withdrawal, return and restock operations with Argo LK PRO the doors are sequentially unlocked and enlightened.
- EMERGENCY: In case of need it is always possible to open the slots with the provided emergency key (NON-DUPLICABLE).
- STORAGE CONTROL: An e-mail report can be scheduled on Argo LK PRO to be forwarded to specific receipients and containing the list of the withdrawn items and required re-stock of the same. Furthermore, for each article a minimum stock amount is set out and, when reached, an e-mail message of warning is sent to the people in charge of the restocking items.
- INTERCONNECTION WITH THE CORPORATE
- INFORMATION SYSTEM: Argo LK PRO can operate with the most common IT managemen systems for automatic data registration.

Illuminated button to highlight the available slots for withdrawal, in the first place, and the selected slot, in the second place.



Argo TM 220

Management system of indirect materials distribution

Argo TM \mathcal{PRO} system allows the authorized operator to book, deliver and return indirect materials with a low turnover and/or dimensionally incompatible with AD (shoes, garments, tools, spare parts etc..), with the on line registration of all transactions through any stationary or mobile device being at operator's disposal.

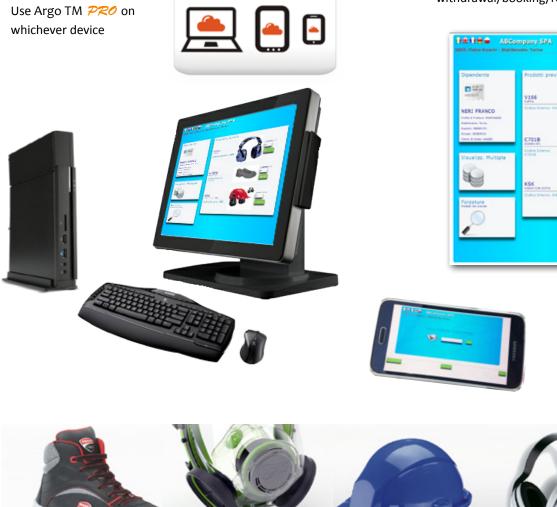
Functions

- Booking/Delivery/Return of the materials chosen from the personalized electronic catalogue;
- Management of maximum/minimum quantities (withdrawal limits);
- On-line connection in real time to Argo **PP** on-line;
- Allocation of products to the users on the basis of withdrawals profiles;
- Withdrawals data management in real time;
- Elaboration on the supervisor PC of reports per booking/ delivery point, per user, per user's profile, per product, per service, per Cost Centre,
- Database in common with Argo DA **PRO-XL** system.





Selection of the operation requested: withdrawal/booking/return







Automated collection Unit

- Reader for Company ID badge (magnetic, contactless...).
- Alpha-numeric display to alert users.
- 7" display to communicate with users by images or texts in HD graphic format.
- Connection to Ethernet LAN/Wi-Fi/GSM.
- Graphic identification for the products to be stored by the means of personalized icons.
- Horizontal door with sliding opening to deposit the used items in the bin.
- Warning on the unit collection filling level and message sending to the operators in charge of the collection.
- Frontal key door for the wheeled bins of 120/240 litres UNI 840

Software functions

- Users' identification by the company ID badge. Authorization of enabled users for products deposit.
- Record of storages and unauthorized deposit attempts.
- In case of frequent job rotation, the software can interface with both HR and EHS Management Systems.
- Automatic workers' authorisation according to the settings configured at customer's care (department, position, cost centre, role,...).
- Possibility of bounding the withdrawal from Argo DA *PRO-XL* to a previous disposal of an used product.
- Real-time monitoring of the storage operations.
- Detailed or brief reports with summary tables and trend graphs.

Everything under control

echnical Feature

- Improvement on users sense of responsibility about collection, recovery and recycling of materials.
- Inefficiency reduction due to disposal of unsuitable materials.
- Integration of the distribution process and of the processes of disposal/ recovery and regeneration of the collected materials.

	Power supply 220 VAC - 50 Hz		
	Dimensions (mm)	H = 1450	
ន		W = 700	
		D = 800	
	Deposit automatic door dimensions (mm)	W=400 D=270	
Lec lec	Access space for bin's repla- cement	H=1050 W=610	









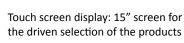
Automated warehouse with turning carousels for spare parts



- FUNCTIONS: real time tracking of the identified and authorized personnel through the company's badge for the storage, withdrawal and return of spare parts
- STORAGE CAPACITY: a maximum of 1008 different products for each ARGO TS *PRO* on 0,75 mg in plan dimensions. 14 turning carousels subdivided in 100 mm high slots trays with adjustable width (6-12-18-24-36-72 slots/turning carousel per turning carousel)
- TOUCH SCREEN DISPLAY: 15" screen for the driven selection of the products
- **EXPANDABILITY:** to each Argo TS **PRO** can be combined different "slave" devices to a maximum of 64. A lighted push buttons shows which unit contains the requested product.
- **ON LINE**: via LAN/Wi-Fi connection to the company's Ethernet net for the management and the real time update of the transactions and of the availability of the spare parts by the enabled users.

		Power supply 220 VAC	- 50 Hz - 150 W
		Dimensions (mm)	H= 2000
<u> </u>	res		W = 1000
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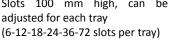




Slots 100 mm high, can be adjusted for each tray



Lighted push button to show the slots ready to be opened in order to withdrawn/return/refill the product





Option: Slots 200 mm high, can be adjusted for each tray (6-12-18-24 slots per tray)



- WITHDRAWAL PROCEDURE: the enabled user specifies on the touch screen display the type of operation he has to accomplish (ordinary/extraordinary maintenance, breakdown etc), the eventual order number and the specific automated dispenser. Argo TS *PRO* shows the available spare parts (showing images, commercial codes, descriptions, management codes) per category with the possibility to directly type in the management code. The user indicates the desired spare parts quantity (according to presetted withdrawal limits) and activates a lighted push button in correspondance of the first full slot (going in sequence). If a spare part is not available inside the Argo TS *PRO* that contains the needed spare part.
- **RETURNING PROCEDURE:** a user that has not utilized a withdrawn product is able to return it pointing it on the touch screen display. Argo TS *PRO* shows the latest withdrawn spare parts, activating a lighted push button in correspondence of the first slot to open in order to return the unused spare part.
- **REFILLING PROCEDURE:** the enabled user to the refilling activity indicates on the touch screen display the product code needs to be reinstated, then Argo TS *PRO* activates a lighted push button in correspondence of the first slot to open in order to complete the refilling.
- PLANNING PROCEDURE: the enabled user can schedule the maintenance activity, specifying the spare parts need to be utilized in the activity. Once the maintenance technician has been identified through his company's badge Argo TS *PRO* delivers all the components have been previously reserved for the specific activity.
- SETUP PROCEDURE: the quantity per product needs to be stored in can be planned from a remote PC according to the slots positions (close or overlying to each other) in order to optimize the subsequent withdrawal/refilling activities.
- OFFLINE: in case of network off-line each Argo TS PRO contains inside a PC with the server's data storage replica. Argo Ts PRO then continuously operates with all its functions updating the server once the network's backs online again.
- SELF-DIAGNOSIS: at pre-settable time frame Argo TS PRO executes a self-diagnosis with automatic warnings in case

of malfunctioning.

- **ENERGY SAVING**: Argo TS *PRO* goes on stand-by mode during a pre-settable period of inactivity.
- **INVENTORY**: always updated and available in real time.
- **EFFICIENCY**: to optimize withdrawal/returning/refilling operation timing of the same product Argo TS *PRO* subsequentely unlocks the specifics sliding doors indicating them through lighted push button.
- EFFECTIVE OPENING CONTROL: once Argo TS PRO unblocks a specific sliding door to allow a withdrawal/ returning/refilling activity, the user has a pre-set time lapse to conclude the operation: if the user doesn't open the door during this time, Argo TS PRO deletes the transaction.
- EMERGENCY OPENING: if necessary it is possible to open the Argo TS PRO frontal door using the given "not duplicable" security key. The event will be recorded and reported on the operative report.
- STOCK'S MONITORING: at scheduled time frame Argo TS
 PRO sends to presetted e-mail addresses a report that shows the withdrawn products and the items need to be refilled. For each product It is possible to program a minimum quantity to have in stored in: if this limit is reached Argo TS PRO will automatically generate warning e-mails addressed to the responsibles of the refilling activity.
- INTERACTION WITH THE COMPANY'S OPERATIVE SYSTEM: Argo TS *PRO* can interact with the most common operative systems used, to manage the automatic recording of the used materials subdivided per cost centers/ operative units etc.



Example of expandability: 1 master + 3 slaves



Access control



Access Control points for opening/closing electrical devices such as electric locks, parking bars, turnstiles, sliding doors, electric gates.

The database is in common with the automated distribution units Argo DA $\mathcal{PRO}-XL$, Argo DR $\mathcal{PRO}-XL$, Argo TM \mathcal{PRO} and can be integrated with fixed time frames or users' groups.

Present/absent people list is updated in real time with the possibility of managing meeting points in the event of emergency evacuation.



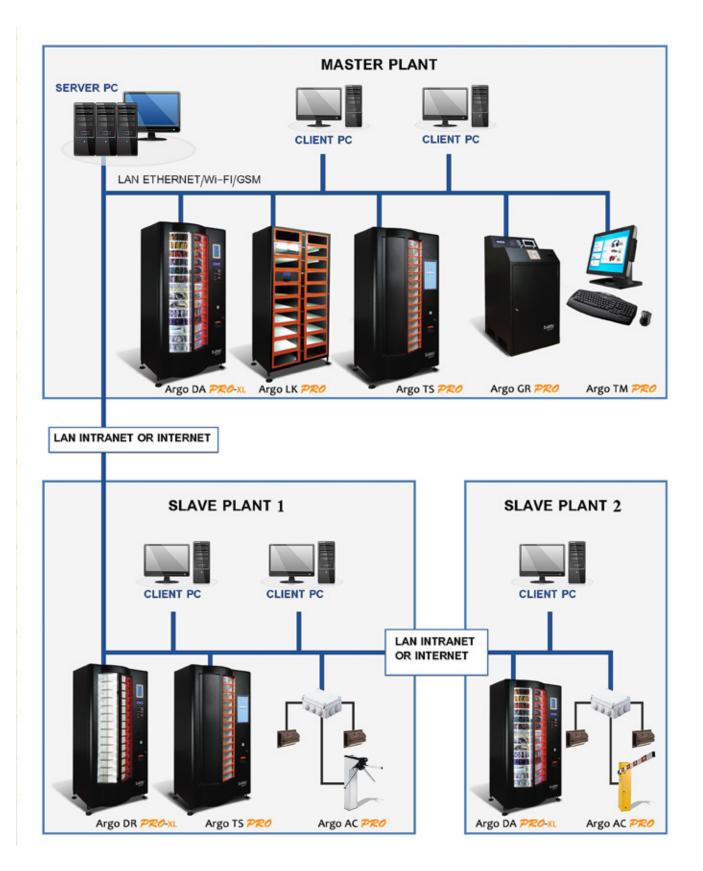






System Synoptic

Multiplant example







Watch the VIDEO Argo DA PRO-XL



Fast & User-friendly! A closer look at how it works! 1 withdrawal in a minimum of **7** seconds

https://youtu.be/zwMlqz2oEdc





Watch the VIDEO Argo GR PRO

Automated collection and recovery unit of waste materials

https://youtu.be/mCtRpmurez0



Assistance and Technical Support

Our Technical Department offers a full hardware and software service by assistance request on the web platform: www.supportlanzi.com

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Welcome!		
Please click the button below to create your first ticket.		
Create your first ticket		

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Video Tutorials

Video tutorials for training of the personnel in charge of Automated Distributor Argo DA \mathcal{PRO} -XL refilling operations and loading plan modifies.



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