Process of ordering and collecting:

1 Online order specifying:

- the place of pick-up
- preferred date and time of pick-up (possibility of same day delivery)
- at this point there is an exchange of e-commerce data with the central system regarding the estimated size of the order vs the availability of space at the selected pickup point

2 Confirmation of order placement via email / sms

3 Notification about arrival of the order at Arctan with the receipt code (QR, PIN)

4 To collect groceries or a parcel the user enters the received PIN or scans the QR code

5 Products from the cooling zone are delivered via a robot to the receiving drawer

6 If the order contains frozen products - the user is informed about the need for independent collection from the freezing module

7 The device automatically opens and highlights the drawer in which the order is located

8 The customer closes the box and finishes collecting the order

About Retail Robotics

We unleash retail using automation and robotics

Retail Robotics (formerly Aqmet) has over 30 years of experience in mechanical manufacturing, including 11 years of experience in automation R&D. We produced and implemented over 10.000 commercial automated machines, we have 3 patents granted and over a dozen pending. We have the biggest experience on the market that we've gained introducing our solutions in 22 countries for InPost (No.1 Courier in Poland), not only producing them, but also co-creating and co-managing the networks.

Retail Robotics stands for:

- innovation approach
- business model driven design
- technological and engineering development
- great production capacity – over 6000 units a year

Retail Robotics

www.rrobotics.co

We unleash retail and elevate profits of retailers.

Retail Robotics

Arctan

Introducing Arctan will unleash the growth of e-grocery.

E-grocery is growing rapidly, overtaking bigger share of sales every year. Customers are pressurizing on "same day delivery". Cities are not ready for such a huge growth of traffic and get clogged with courier cars dedicated for home deliveries. *"In New York, 1.5M packages are delivered daily from online stores! The number of delivery trucks needed to handle such a large number of orders resulted in a 23% decrease in average speed on access roads and in many neighborhoods"*. NY Times, 2019

E-grocery's full growth potential is also restrained by the **high costs of traditional delivery. Consumers are not willing to cover them**.

A few years ago, in some countries, the parcel delivery sector was revolutionized by e-grocery pickup solutions, that reduced the cost of "the last mile" - either automated or with human operations. Retail Robotics played an important part in this revolution. However, there is a shortage of space for classic machines in large urban cities that is blocking this new segment of delivery in Paris, London or New York. Moreover, the "human operations" pickup solutions did not result in sufficient cost savings.

Now we are **fostering the growth of e-grocery with robotized solutions - Arctans - which make use of vertical and sometimes also non-retail space in shops**. The concept makes it possible to be present in thousands of supermarkets or convenience stores, as well as dedicated small spaces in city centers.

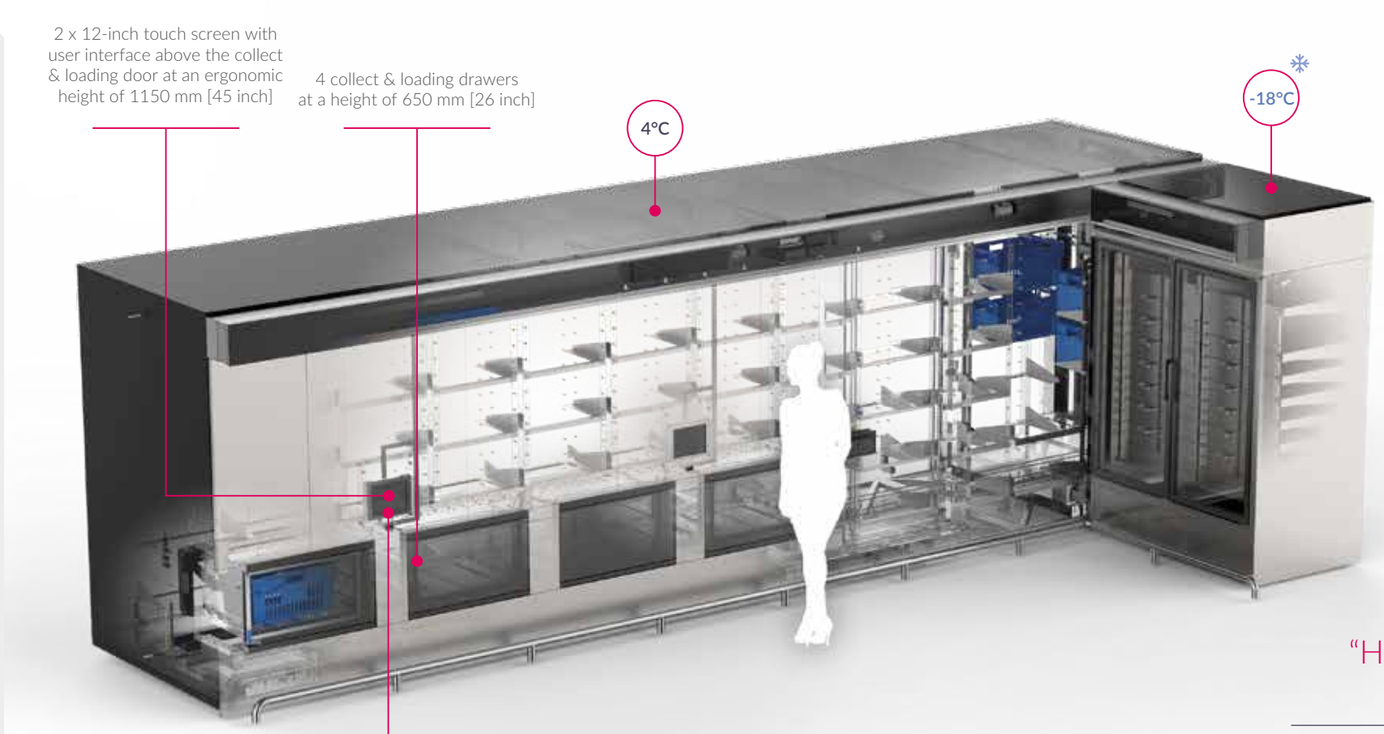
Apart from boosting availability - it will **increase comfort of customers** and add new possibilities for growth of the stores themselves, eg. redirecting ecommerce customers' flow to them.

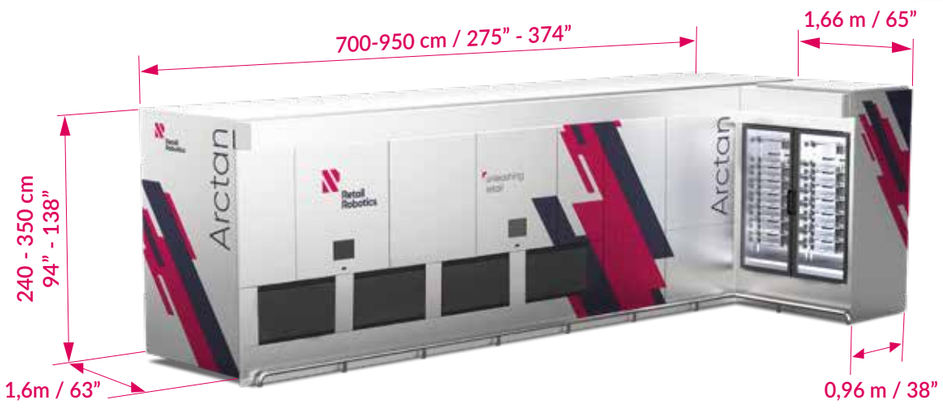
Arctan - main benefits and technical features

The collect / loading door in the client mode opens as a drawer, while in the courier mode as a door. All door pairs are used for loading and unloading baskets.

A revolutionary solution for e-grocery - automation of pick-up process in a robotised machine.

1. **The most efficient click&collect solution for e-grocery optimising space and delivery process**. Arctan lets us create **"convenience 3in1"** concept - combining advantages of 3 fast growing segments of retail - convenience, e-commerce and e-grocery.
2. **Decreasing by 70% cost of the last mile** delivery for retailers (comparing to home delivery).
3. **Practical fulfillment of same day delivery process** which becomes a "must have" in e-commerce. UPS report "Pulse of the Online Shopper™ U.S. Study 2016" shows that city dwellers expect that even if they order in the afternoon, delivery will take place the same day. This is a requirement very difficult to meet in a courier model. **51%** of people say that the same day delivery option is something that can convince them to buy in a given e-store.
4. Potential to process **even 200 orders a day engaging only 1 courier!** ("hub effect" shown beneath).
5. **Efficiency of up to 8 - 10 couriers a day!**





Tangible features

200 slots and only 14m² [150 ft²]- the most effective space usage on the market.

3x smaller footprint vs classic e-grocery machines. 1 Arctan is an equivalent of 14 classic e-grocery cooled locker solutions

2 climate zones (+ 4; -18°C) Presence of two temperature zones inside the device lets to store the full food offer of most retail networks.

Flexible freezing storage can even fit an american "thanksgiving" turkey! A separate freezer cabinet with approx. 28 compartments.

Very fast process - 20 seconds to collect an order.

Arctan operates on the basis of a Cartesian robot moving around in the H-system on the drive belt. Two engines located in two corners of the system move the robot arm in the vertical or horizontal axis, guiding him to the right slot with the package. After selecting a suitable slot robot with specially designed grippers grabs the shopping basket and moves it to the dispensing window. The robot gripper has been adapted to 60x40x30 cm [23,6x25,7x11,8 inch] boxes.

Convenient & ergonomic design:

2 independent carrier/client interfaces. Each interface can operate in 2 modes: Customer or Courier. All interfaces can be operated simultaneously by Courier and Customer.

4 collect & loading drawers to optimize efficiency.

Robotic Solution Efficiency vs traditional e-grocery pickup machines

	14 traditional e-grocery pickup machines	1 Arctan
no of boxes:	200	200
space required:	40 m² [430 ft²] lack of space for lockers - indoor or outdoor	14 m² [150 ft²] very space efficient
length	35 m [115 ft]	10 m [33 ft]
how many big orders (2-3 boxes on average) fit into one machine	only 5-6 orders fit into one machine. Low efficiency.	80 orders at once. Even 200 orders a day. High efficiency.
Additional features		quick multi client access quick multi courier access

"Hub effect" - 12x more effective last mile delivery of Arctan

How to deliver 300 orders?

Arctan Network	Traditional home delivery
1 courier 1 car 2-3 Arctans	12 couriers 12 cars
1 courier delivers **300 - 500 orders** daily Making ca. 30-40 km [18-24 miles]	1 courier delivers **18-35** traditional city deliveries Making ca. 160km [100 miles] each
Less CO^2 emissions Solution preferred by the cities (less traffic) "Same day delivery" easier to induce	**120x more CO^2** emissions **Possible ban on couriers in cities** - in certain hours or total. "Same day delivery" much harder to induce