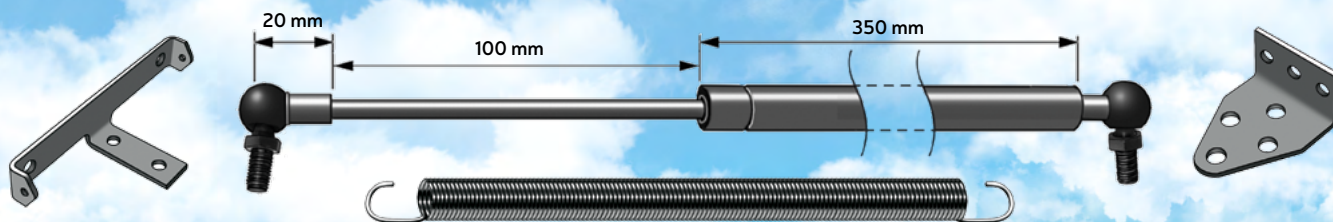


The automatic greenhouse vent opener



«Comfort AERO-100»



FEATURES OF THERMAL ACTUATOR «COMFORT AERO-100»

The product is ideally adapted to the climatic conditions and agricultural methods in the area of distribution. It also takes into account the requirements of cultivated plants traditionally grown in Europe and in Scandinavia.

It works in the set temperature modes in unfavorable atmospheric conditions (wind, precipitation, abrupt changes of temperature and air pressure).

You can easily install it yourself. Such easiness is provided for by the features of the structure and of the reliable universal support (for the right- and left-sided doors, turning and raising vent panes).

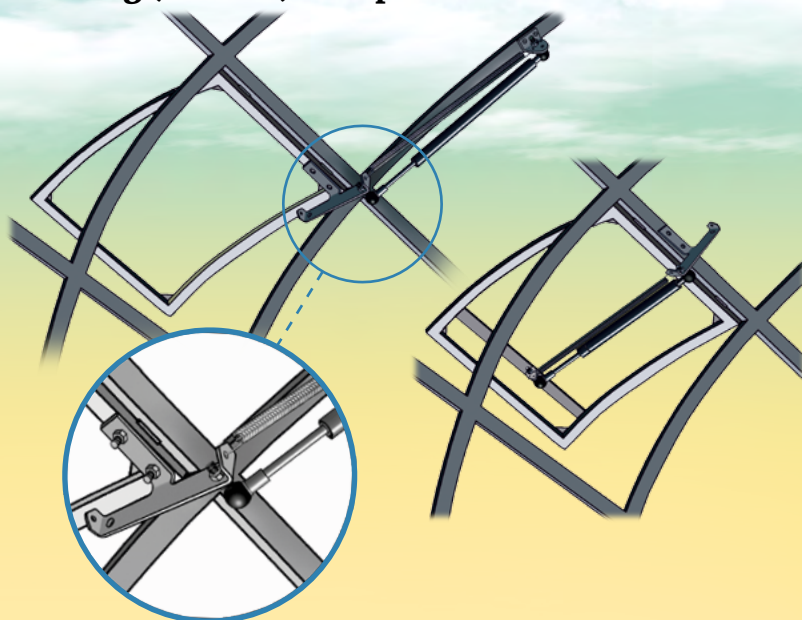
High speed of action at temperature changes is provided for by a sensible substance which fills the cylinder. The black color of the cylinder's body provides for an increased heat transfer from the environment to the cylinder and back again. These features together provide for a swift and smooth motion of the rod.

High reliability is provided for by the thick retractable rod, steel ball pivots, mechanical pullback spring and steel reinforced universal supports.

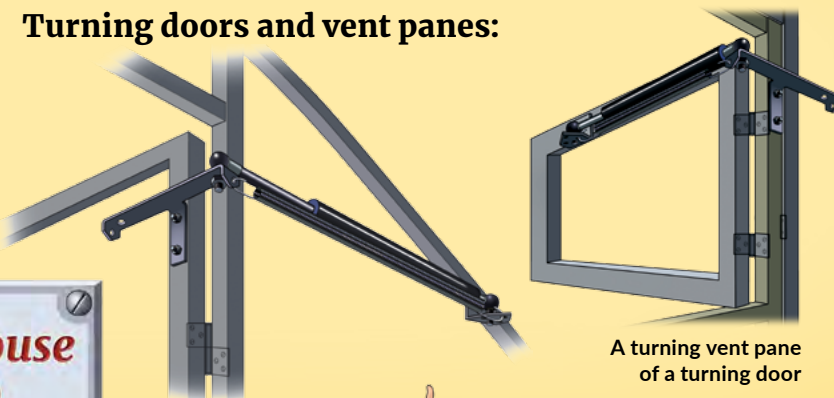
«Comfort AERO-100» supports even storm wind: the vent pane with the area of 0.5 sq. m – up to 30 meters per second; the door with the area of 1.5 sq. m – up to 24 meters per second. The product's useful life is up to 10 years.

VARIANTS OF INSTALLATION TO ALL KINDS OF DOORS, OF RAISING AND TURNING VENT PANES AND TRANSOMS

Raising (vertical) vent panes:



Turning doors and vent panes:

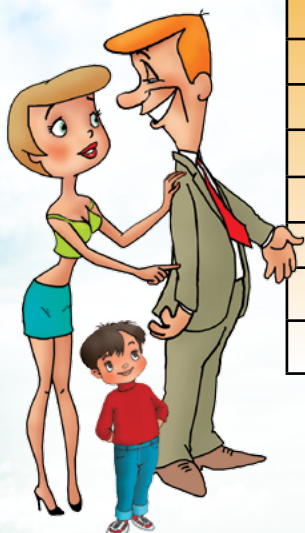


A turning vent pane of a turning door

It allows to open the greenhouse doors forcibly (manually) at low temperatures.



TEMPERATURE MODES FOR COMMON VARIETIES OF CUCUMBERS AND TOMATOES



When planting seedlings	In the soil: 20-22 °C (at night 16-18 °C)
When blooming	In the air: 25-28 °C
When bearing fruit	In the air: 25-30 °C
Growth is arrested	In the soil: 15 °C
Growth is finished	In the soil: 10 °C
Plants die	In the soil: 8 °C
Fruits are not incepted	In the air: 17-19 °C and lower
Incepted fruits die	In the air: 35-40 °C



The necessary parameters are preserved due to airing which has different functions for different agricultural plants: keeping the correct temperature, humidity and gas environment. These parameters are different for tomatoes (marrows, potherbs) and cucumbers (bell peppers, etc.). Tomatoes require a dry climate with a preset temperature (the airing carries away the excessive root humidity and the elevated temperature in all the space of the greenhouse). Cucumbers require a humid environment rich in carbon-dioxide which they themselves generate.

At the same time the excessive warmth in the upper area should be removed. That is why tomatoes are aired “as a whole” by opening the doors and cucumbers “from above” by opening vent panes or transoms for keeping in the layer which is near the fruit (at the height of 1-1.5 meters from the ground) the necessary humidity and the carbon-dioxide concentration.



COMPARISON OF CHARACTERISTICS AND CRITERIAS WHEN CHOOSING GREENHOUSE VENT OPENER

	Greenhouse vent actuator “Comfort-AERO-100”	The other automatic devices considered by you. See for yourself!
Purpose:	Household, farmer’s and industrial greenhouses	
Place of installation:	Any doors, raising and turning vent panes, transoms, etc.	
The possibility to forcefully open the closed door:	It is possible at the temperatures of +5°C and higher.	
Structure’s particular features:	The thick rod 10 cm thick, 3 mm thick universal supports, steel pivot balls. Can be easily installed and taken off.	
Strength (load) of the retractable rod of the automatic opener	120 kg	
Admissible short-term wind load: - at the door, S=1.5 sq. m - at the vent pane, S=0.5 sq. m	- up to 24 meters per second, a storm - up to 30 meters per second, a strong storm	
Duration of the full cycle: - of opening from +20°C to +31°C - of closing from +30°C to +20°C	Up to 40 minutes	
Necessity of taking away for the winter	You need not take it away	
Angle of opening/ the rod’s excursion	90°/100 mm	
Useful life	10 years	