

Geniox Core

Simplify your choice



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Enjoy the energy efficient performance of a Geniox with a small footprint and fast delivery time.

Geniox Core is part of the Geniox family which is based on Systemair's well-known air handling unit technology and more than 40 years' experience. Geniox Core is a pre-configured, standard air handling unit with airflows between 750-17,500 m³/h (0.2-4.9 m³/s). It is easy to select, install, commission and maintain.

The flexibility and small footprint of Geniox Core makes it easy to fit the unit in small spaces. You can freely place components, such as heating coils, dampers and sound attenuators, outside the air handling unit.

Geniox Core provides you with the same performance and the quality as a Geniox, and a fast delivery time.

Read and see more about Geniox Core on our website.

geniox



Geniox Core characteristics

Compact and flexible

Geniox Core has a very small footprint. We have made the unit as short as possible and combined it with external dampers, and external heating and cooling coils to make it fit in small spaces. You can place the external components where the space is available – perhaps on a different floor?

Pre-configured

You can select Geniox Core in SystemairCAD where you will find a number of pre-configured solutions to make it quick and easy to select the air handling unit that suits your project best.

Systemair Access control system installed

Geniox Core is always delivered with Systemair Access control system and the user-friendly NaviPad control panel. NaviPad provides you with dynamic flow charts which allow you to easily adjust the settings. You can connect Systemair Access to the BMS through the built-in BACnet, Modbus communication or the cloud service Systemair Connect.

Easy installation

When you receive a Geniox Core, everything has been tested in the factory. It will be delivered in two or three sections which can be joined together quickly and easily. Internally wiring between sections is with quick connections. Connect your chosen dampers and heating or cooling coils with bolts and screw clamps. Start-up and commissioning is easy, the control system is pre-programmed, so you just need to make your adjustments and you are ready to go.

Fast delivery

Because we know that time is of the essence in every project.

Sections

For indoor installation, Geniox Core will always be divided in two sections for rotary heat exchanger, and in three sections for counter flow heat exchanger or with a heat pump.





Fast delivery

with standard components:

Geniox Core for indoor installation with plug fans, rotary heat exchanger (condensation), heating coil for water, dampers, filters of your choice.

Geniox Core functions

7 sizes with airflows:

750-17,500 m³/h (0.2-4.9 m³/s).

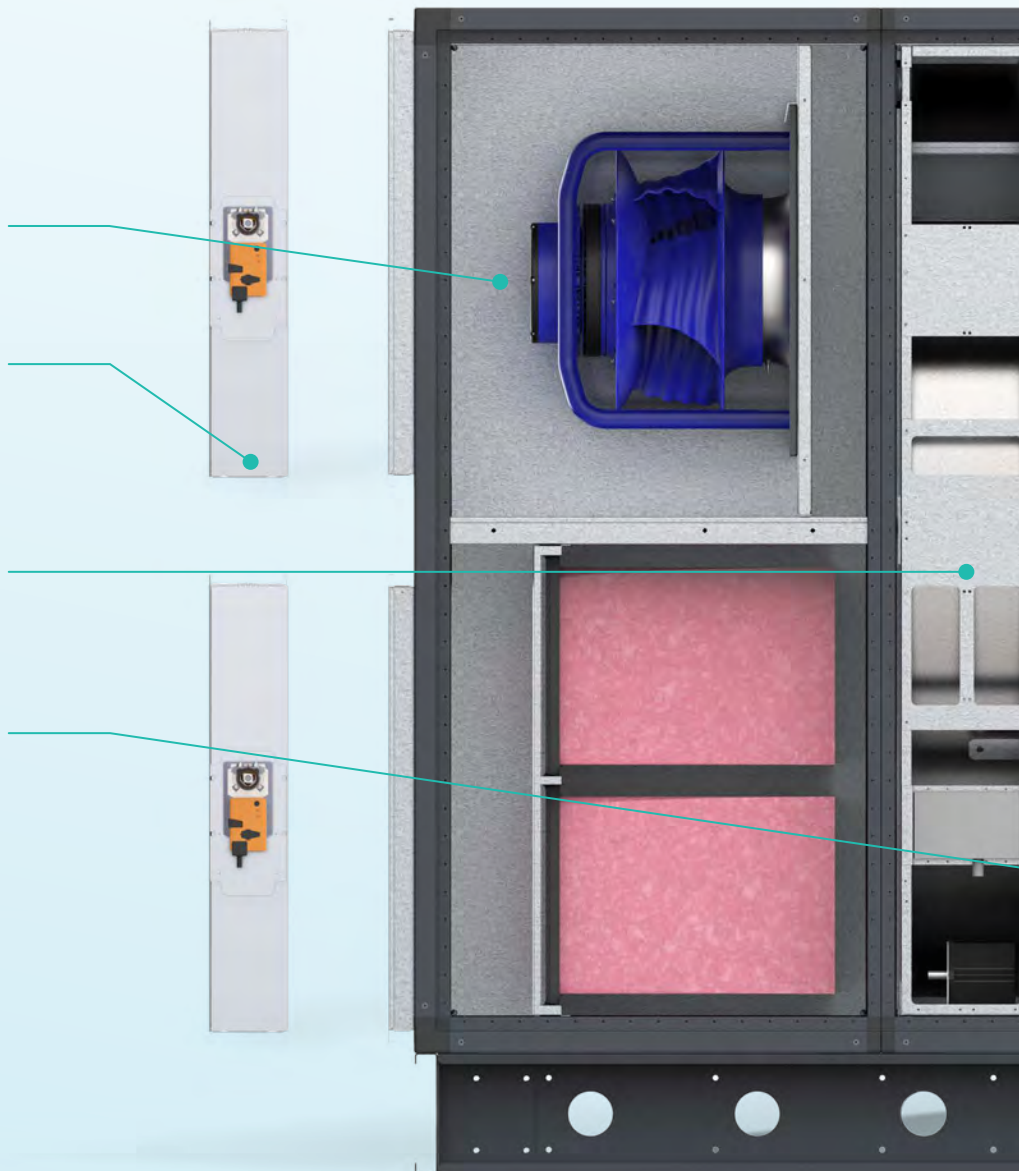
High-performance plug fans with EC motors IE5, made from recyclable composite material, with high efficiency, excellent regulation properties and low sound power level.

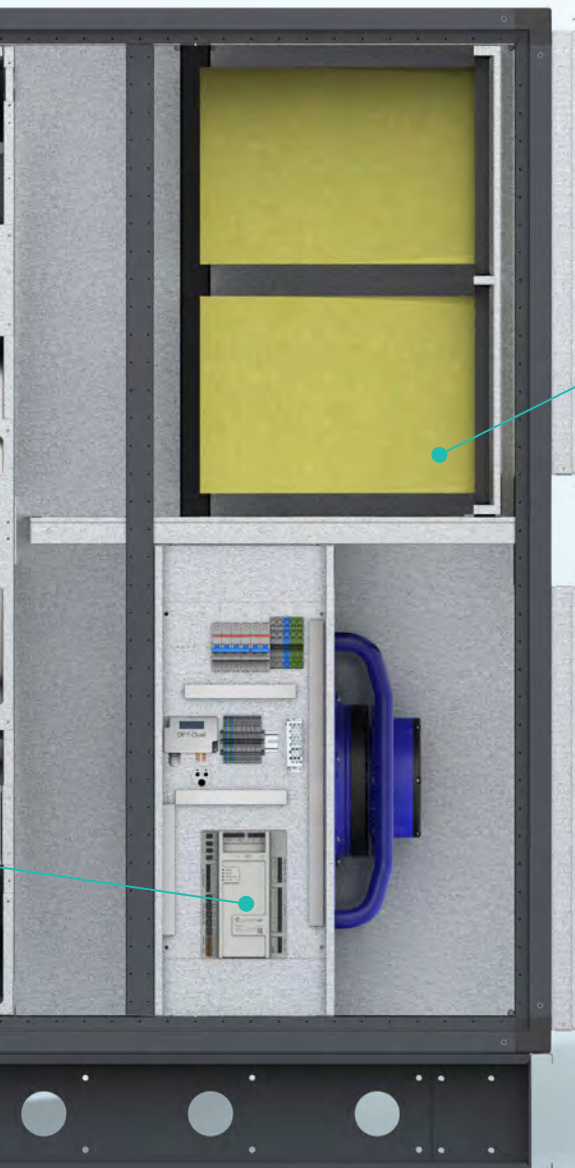
Dampers comply with tightness class 4 C according to EN 1751. The dampers have counter rotation, aerodynamically shaped damper blades made of aluminium, which ensure a low pressure loss when open. Duct mounted for indoor installation and mounted in the air handling unit for outdoor installation.

High-performance heat exchanger with rotor in all types, condensation, hybrid, or sorption, and an efficiency up to 87%. Counter flow heat exchanger with an efficiency up to 90% with normal or sectional defrosting.

Integrated Systemair Access control system with NaviPad control panel. The controller (CU27-C) is integrated in the supply fan section.

Integrated reversible heat pump built into a unit section. The system consists of a reversible heat pump and a rotary heat exchanger that enables both heating and cooling (R410A refrigerant). Capacity control between 5-100%. Temperature output max 25 °C and min 15 °C.





Panel filter is Coarse 65% (G4) or ePM10 60% (M5) as prefilter.

Bag filter with large filter area.

Outdoor air: ePM1 60% (F7).

Extract air: ePM10 60% (M5).

Also available: Coarse 65% (G4), ePM2.5 50% (M6), CITY-FLO ePM1 60% (F7 City-Flo), ePM1 70% (F8) and ePM1 85% (F9).

Coils can be delivered as heating coil for water or electric heating, cooling coil for water or DX cooling, and change-over coil for water. Duct mounted for indoor installation and mounted in the air handling unit for outdoor installation.

Sound attenuators. Duct mounted for indoor installation and mounted in the air handling unit for outdoor installation.

Outdoor installation with the following roof types: bitumen membrane roof, rubber sheeting roof, steel profile roof, flat steel roof or no roof but sealed for placement in a shed.

Aluzinc AZ 185 as standard or pre-painted in the following colours: black (RAL 9005) or light grey (RAL 7024). Corrosion class C4.

Casing properties according to EN 1886 certification

Energy efficient casing with the following model box classifications:

- Deflection class D1
- Air leakage class L1
- Filter bypass leakage F9
- Thermal insulation class T2
- Thermal bridging class TB3.

Eurovent certification

Geniox Core is constructed in accordance with European standards and is certified by Eurovent.

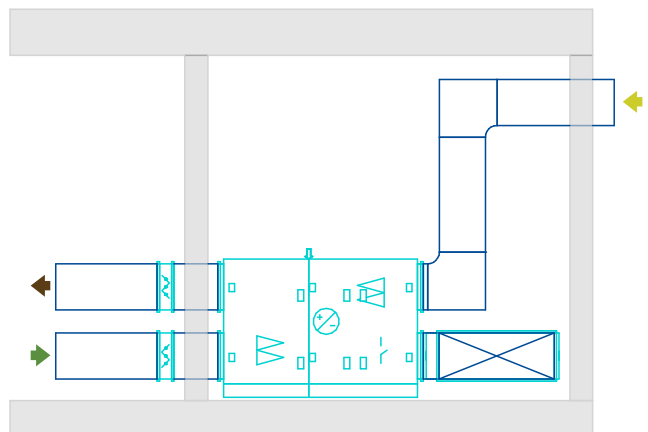
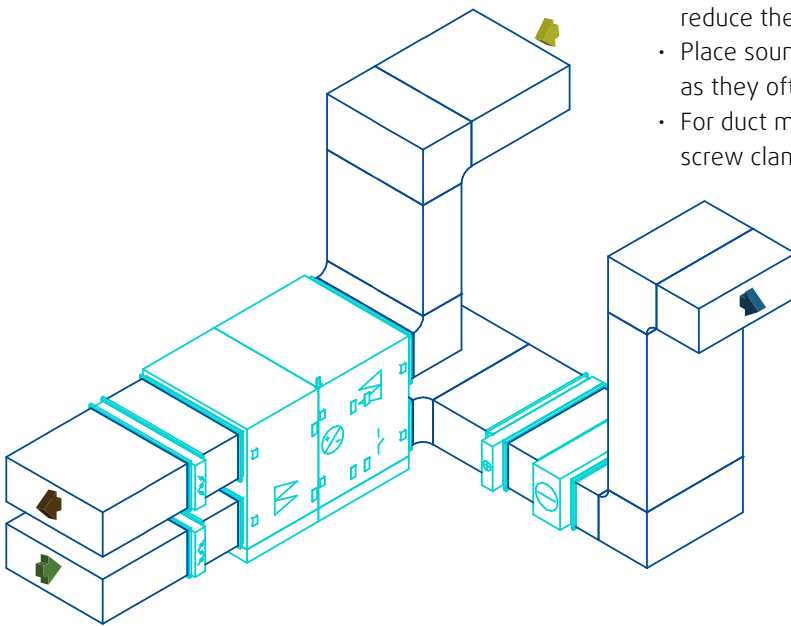


Indoor installation

Geniox Core has a small footprint without compromising energy efficiency. Dampers, heating or cooling coils, and sound attenuators are placed outside the air handling unit, which provides you with a number of flexible solutions.

These flexible solutions make it possible for you to:

- Place the outdoor air damper directly at the outdoor intake, which means you avoid drawing cold air through the building.
- Place the heating or cooling coil where it is most beneficial to the water supply and the possibility for service.
- Choose a cooling coil with higher performance. In that case, you would choose a larger face area and thus reduce the pressure loss.
- Place sound attenuators to best suit the surroundings, as they often have a considerable length.
- For duct mounting we deliver mounting kits with bolts, screw clamps and sealing.

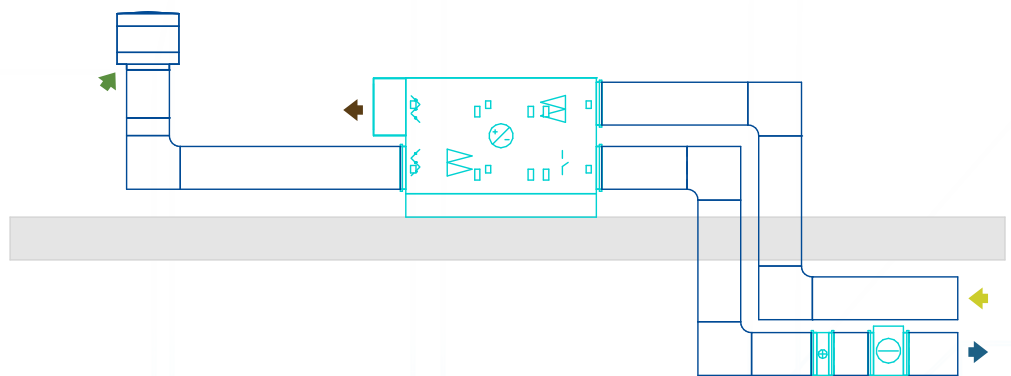
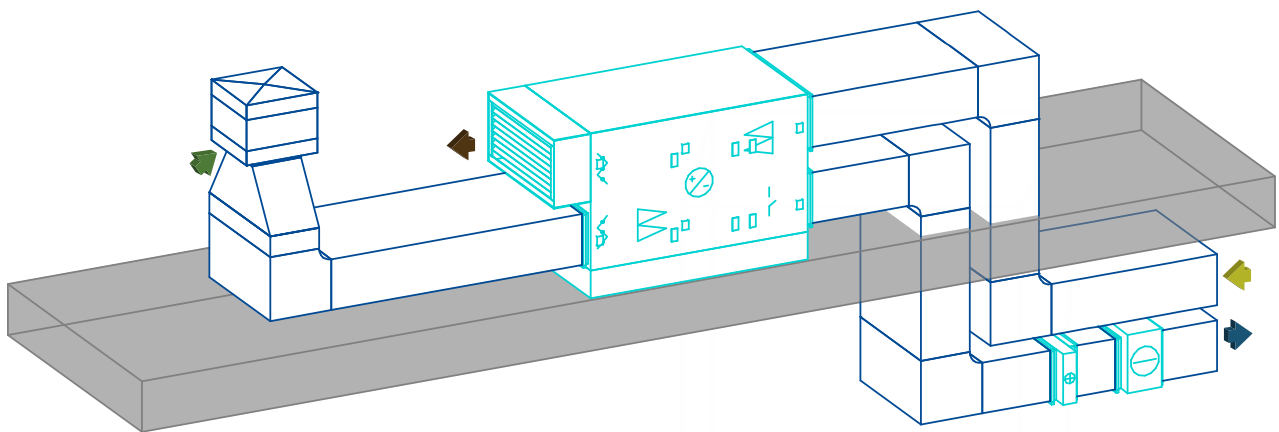


Outdoor installation

You can have all the components mounted inside the air handling unit and have everything in one place on a single base frame. This gives you a clean and simple expression on the roof. Or you can choose to have the heating and cooling coil placed inside the building. The choice is yours.

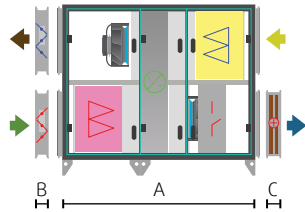
These flexible solutions make it possible for you to:

- Place the heating or cooling coil inside the building, which means you do not need water supply on the roof and thus reduce the risk of frost bursts.
- Service and monitor the coils inside the building.
- Save costs by placing the coil where the water supply is easy to connect to.
- Achieve a clean, simple and short installation on the roof without all the pipes.

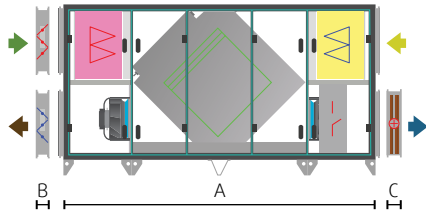


Indoor installation

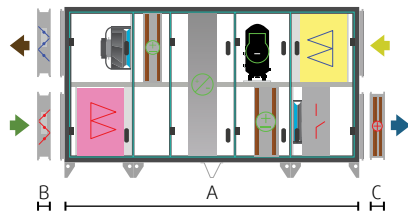
Quick selection of Geniox Core



Rotary heat exchanger							
Size	10	11	12	14	16	18	20
Airflow m ³ /h*	4100	5300	6500	8400	11500	15300	17500
Airflow m ³ /s*	1.1	1.5	1.8	2.3	3.2	4.3	4.9
Width	1082	1182	1282	1482	1682	1882	2082
Height**	1082	1182	1282	1482	1682	1882	2082
Length (A)	1682	1682	1782	1782	2082	2082	2082
Length (B)	140	140	140	140	140	140	140
Length (C)	210	210	210	210	210	210	210



Counter flow heat exchanger							
Size	10	11	12	14	16	18	20
Airflow m ³ /h*	3700	5000	5800	7700	9300	11000	14700
Airflow m ³ /s*	1.0	1.4	1.6	2.1	2.6	3.1	4.1
Width	1082	1182	1282	1482	1682	1882	2082
Height**	1082	1182	1282	1482	1682	1882	2082
Length (A)	2482	2682	2782	2882	3382	3382	3582
Length (B)	140	140	140	140	140	140	140
Length (C)	210	210	210	210	210	210	210



Integrated reversible heat pump							
Size	10	11	12	14	16	18	20
Airflow m ³ /h*	2400	3600	5100	6800	9200	11200	14100
Airflow m ³ /s*	0.7	1.0	1.4	1.9	2.6	3.1	3.9
Width	1082	1182	1282	1482	1682	1882	2082
Height**	1082	1182	1282	1482	1682	1882	2082
Length (A)	2682	2682	2882	3082	3182	3282	3882
Length (B)	140	140	140	140	140	140	140
Length (C)	210	210	210	210	210	210	210

A = Geniox Core

B = Damper

C = Heating coil

Exhaust air  Extract air 
Outdoor air  Supply air 

The dimensions are a guideline only. Accurate values and combinations are calculated in SystemairCAD.

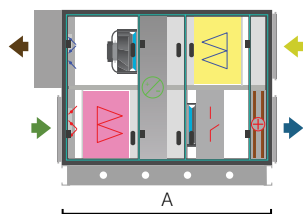
* Calculated with 250 Pa, external pressure.

Complying with Ecodesign 2018.

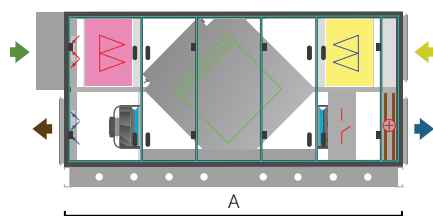
** Height excl. legs/base frame. All indoor units are with 118 mm legs or base frame. Forklift holes are available in base frame.

Outdoor installation

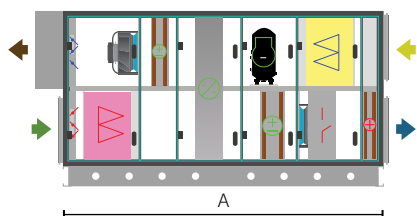
Quick selection of Geniox Core



Rotary heat exchanger							
Size	10	11	12	14	16	18	20
Airflow m ³ /h*	4100	5300	6500	8400	11500	15300	17500
Airflow m ³ /s*	1.1	1.5	1.8	2.3	3.2	4.3	4.9
Width	1082	1182	1282	1482	1682	1882	2082
Height**	1082	1182	1282	1482	1682	1882	2082
Length (A)	1982	1982	2082	2082	2282	2382	2382



Counter flow heat exchanger							
Size	10	11	12	14	16	18	20
Airflow m ³ /h*	3700	5000	5800	7700	9300	11000	14700
Airflow m ³ /s*	1.0	1.4	1.6	2.1	2.6	3.1	4.1
Width	1082	1182	1282	1482	1682	1882	2082
Height**	1082	1182	1282	1482	1682	1882	2082
Length (A)	2782	2982	3082	3182	3682	3682	3882



Integrated reversible heat pump							
Size	10	11	12	14	16	18	20
Airflow m ³ /h*	2400	3600	5100	6800	9200	11200	14100
Airflow m ³ /s*	0.7	1.0	1.4	1.9	2.6	3.1	3.9
Width	1082	1182	1282	1482	1682	1882	2082
Height**	1082	1182	1282	1482	1682	1882	2082
Length (A)	2982	2982	3182	3382	3482	3582	4182

A = Geniox Core

Exhaust air  Extract air 
Outdoor air  Supply air 

The dimensions are a guideline only. Accurate values and combinations are calculated in SystemairCAD.

* Calculated with 250 Pa, external pressure.

Complying with Ecodesign 2018.

** Height excl. base frame. All outdoor units are with 218 mm base frame. Forklift holes are available in base frame.

A man with short brown hair and a light beard, wearing a light blue button-down shirt and a dark belt with a metallic buckle, is looking down at a black tablet he is holding with both hands. He is standing in a modern office with large windows in the background. The office has several desks with computers and office chairs. A semi-transparent teal box is overlaid on the right side of the image, containing text.

Systemair Access benefits

- External control panel for easy access.
- Modbus communication to all internal components.
- Integrated support for BMS/SCADA (ModBus, BACnet).
- External connections for fast installation and commissioning.
- Prepared for Systemair Connect cloud solution.
- Simple, intuitive menu navigation.



Systemair Access; Complete control system

Systemair Access is the complete control system for Geniox. Access has been developed by Systemair for Geniox air handling units. Access can be controlled with the NaviPad control panel.

We have selected the most important functions for NaviPad to make it simple and user-friendly for you. NaviPad has an intuitive user interface, also developed for smartphones. It is easy to gain an overview of the Access controller where you can connect all external components.

- The NaviPad control panel has a 7" touch screen.
- We have developed a logical navigation structure, inspired by smartphones.

- Name and connect up to 9 air handling units to the same control panel.
- BMS communication via ModBus, BACnet as well as cloud access to Systemair Connect.
- Dynamic flow chart: Press the function, change the setting and go!
- Quickly and safely connect external sensors to the controller.
- Editable name on external components for better overview.
- Plug and play – prepared for easy start-up and operation.



Configure Geniox Core with SystemairCAD

SystemairCAD is a user-friendly design program which ensures an optimal dimensioning of the air handling unit's functions. When the unit design is finished, SystemairCAD makes a technical calculation and automatically generates a complete technical documentation in pdf format for the selected unit.

The documentation includes the following highlights:

- Technical data
- Detailed drawing
- Shipping, dimensions and weights
- Control system description like control functions, flow chart and connection diagrams
- Molliere diagram
- Specification text
- ErP 2018
- LCC calculations.

The drawn to scale drawings from SystemairCAD can be exported to other CAD software and for use in BIM and:

- Export of DXF files 2D and 3D
- Export of DMR files to Autodesk Revit
- SystemairCAD project files can be opened directly in AutoCAD via MagiCAD plugin and in Autodesk Revit via Revit plugin.

Design with SystemairCAD

- Detailed drawing.
- Shipping, dimensions and weights.
- Control system description like control functions, flow chart and connection diagrams.
- Molliere diagram.
- LCC calculations.



