Your Expert in Fiber Processing

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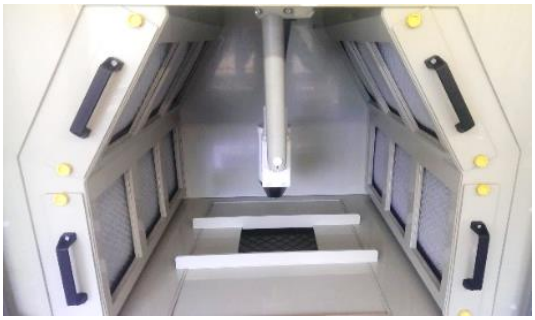
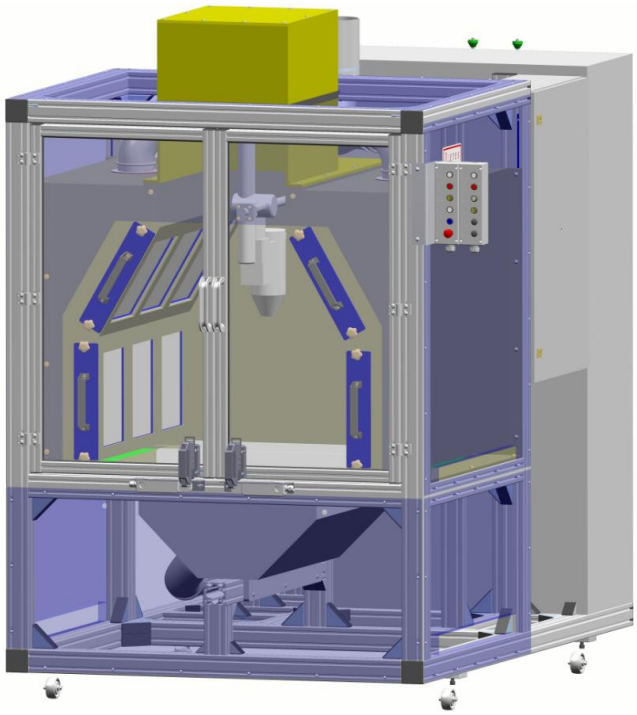
spinning head

spinning chamber





General Description

- compact design, high and constant throughput due to centrifugal spinning and a spin pump
- fiber diameters down to 80-500 nm
- use of proven components
- accurate control of web weight by electrostatic forces and controlled air flow
- stable operation due to constant polymer-solvent ratio
- top-down spinning principle, transport with low substrate tension possible, perfect arrangement for fragile substrates
- easy coating of heavy webs due to separate process of fiber creation and web formation
- variable electrostatic field, variable positioning of centrifuge, variable air flow and variable working width
- design allows to re-feed the substrate
- automatic cleaning run at shut down
- easy access for service

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Technical Data

Depth x width x height of complete module:	2.510 x 1.510 x 2.370 mm
Revolution speed Center Bell:	10.000 – 50.000 rpm
Spinning voltage:	10 – 95 kV
Max. throughput per Center Bell:	22,5 l/h (375 ml/min)
Spinning distance:	200 – 500 mm (adjustable)
Working width per Center Bell:	approx. 300 mm
Compressed air supply:	6 – 8 bar
Compressed air consumption:	36 Nm^3/h
Polymer viscosity:	10 – 2.000 mPas

Available Options

Several spin heads can be installed for broader working width

Extension for continuous operation
consisting of unwinding and winding device

Parts in contact with product with improved corrosion resistance
for use of formic acid as solvent, stainless steel type 1.4435

Intrinsic safe execution of the spinning chamber (explosion protection)
for handling of solution system with inflammable or explosive solvents

Linear drive for the spinning head
pneumatically driven moveable spinning head for a more equal nanofiber distribution

Transport device for substrate and nanofibers
consisting of sieve-belt as support to avoid tension on the substrate or nanofiber web

Integrated exhaust and filter system
to exhaust and filter the solvent-soaked air from the spin chamber

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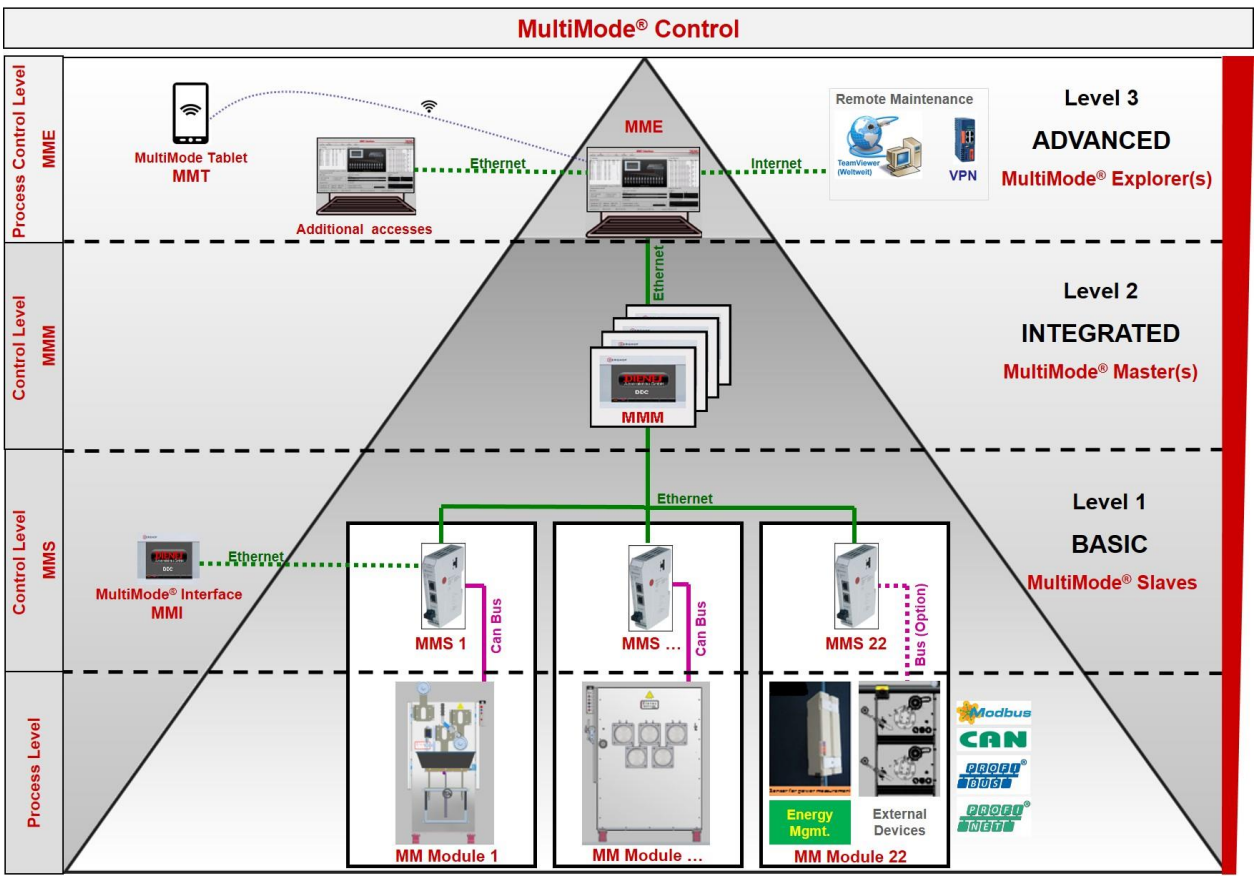
Customized process control systems

All DIENES MultiMode® modules have an independent local control. In connection with a DIENES visualization unit all process-relevant data is graphically available for the user. Changes in the process can be made effectively by entering data via touchscreen. Through the combination of several DIENES MultiMode® modules and the integration of a MultiMode® Master (MMM), all local controls are displayed in a central control panel.

The graphic representation on a large 15" touch display enables a convenient overview of all connected MultiMode® modules and an easy setting of all relevant parameters.

For the analysis of complex relationships to carry out process analysis the MMM is getting extended by a DIENES MultiMode® Explorer (MME). From system expansions to process development - customized process control systems for your application.



Synchronous data acquisition

DIENES MultiMode® installations allow a high degree of flexibility in process development. The consistent implementation of the modular design is continued in the control environment.

Each MultiMode® module communicates via a standardized interface to the central controller, the so-called MultiMode® Master (MMM). Changes in the module assembly are automatically detected and entered by the system. For optimal processes the control data is synchronized on request by the MMM, so you can put your focus entirely on your development process. Start comfortable with your basic configuration. If you need extensions you can integrate these at any time. All data is automatically saved and synchronized by MMM.

Process development is flexibility. DIENES MultiMode® is ready for your applications. You are able to backtrack the journey of your yarn.