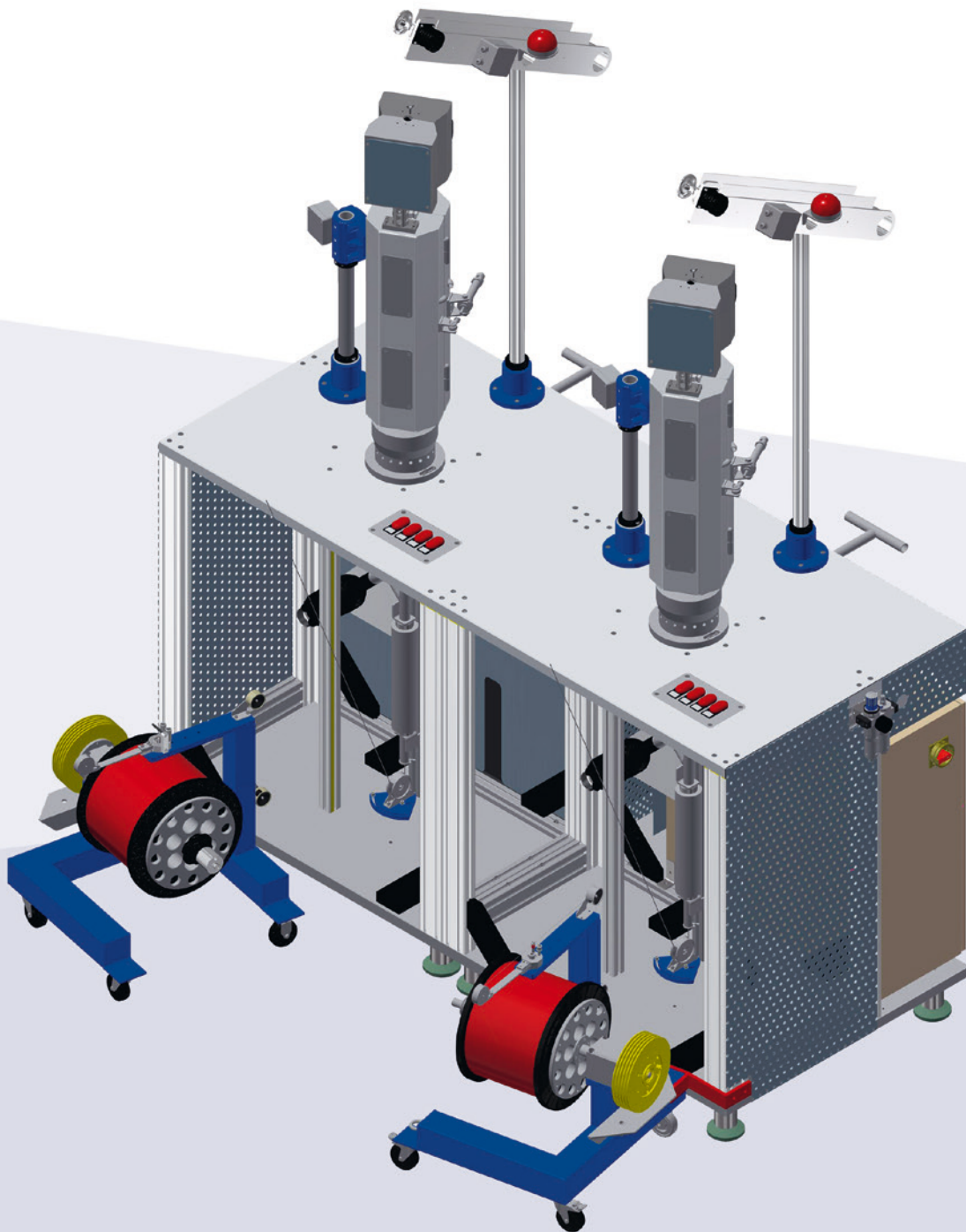


High performance spiral machine for round Monofilament



**M&A
DIETERLE**
MASCHINEN- & APPARATEBAU GMBH



Machine programme

The service range of our specialty machines covers all production steps including spiral production, joining, filling, heat setting, cutting and sleeve welding. The linking of individual machines into a self-contained production chain results in smart and effective production.

Our specialty machines are divided into the following production areas:

Machine type	Production Areas
Spiral machines	Production of individual spirals (left/right) from various monofilaments with various cross sections
Joining tables	Joining and connecting individual spirals (up to 64 at the same time) for the production of spiral sleeves
Filling tables	Filling fixed and unfixed spiral sleeves with cored wire (up to 32 at the same time) with various cross sections
Calender	Heat setting
Cutting and welding machines	Marking, cutting edges, welding edges. Can be used for both felts and sleeves
Coiling system for nonwoven products	Production of non-woven products as standalone machine unit or expansion of existing calender unit

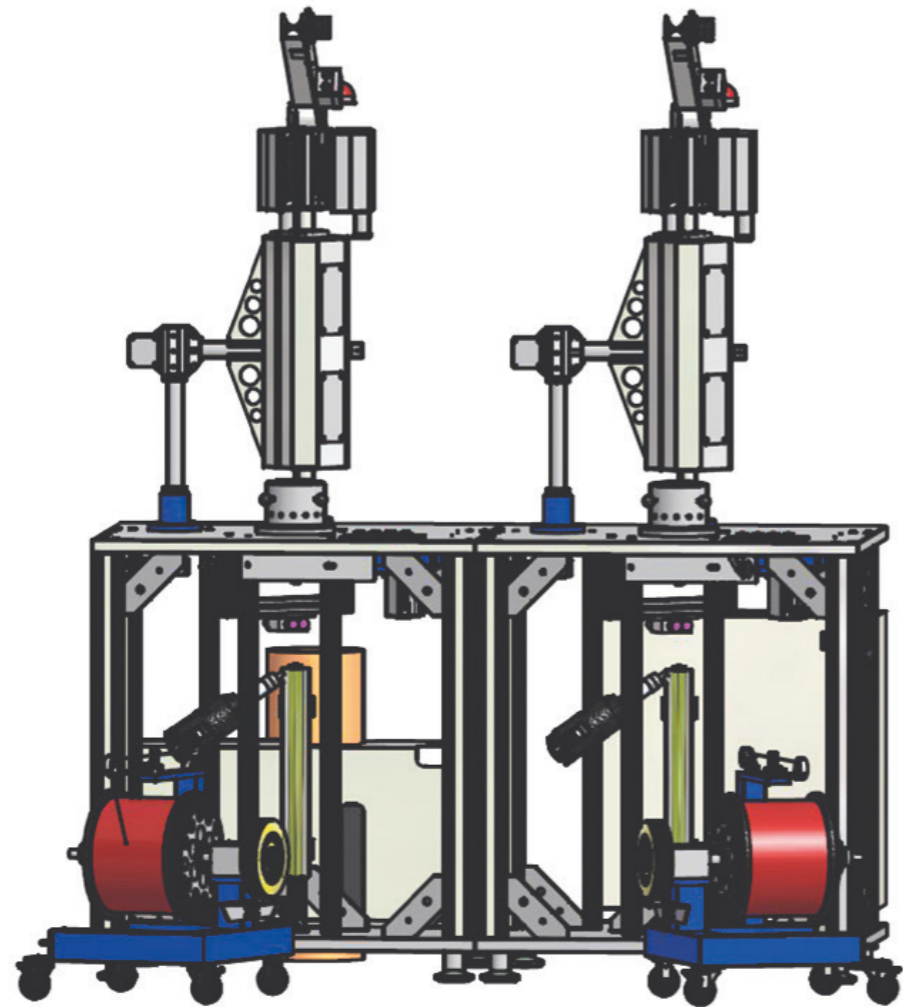
Our high performance spiral machines can manufacture every type of spiral from round filament. Left and right spirals can be produced simultaneously.

Potential materials and profile dimensions

PET = polyethylene terephthalate	Ø 0.4 mm - Ø 2.0 mm
PTFE = polytetrafluoroethylene	Ø 0.4 mm - Ø 1.2 mm
PPS = polyphenylene sulfide	Ø 0.6 mm - Ø 0.9 mm
PEEK = polyether ether ketone	Ø 0.4 mm - Ø 1.0 mm
PA = polyamide	Ø 0.6 mm - Ø 1.2 mm

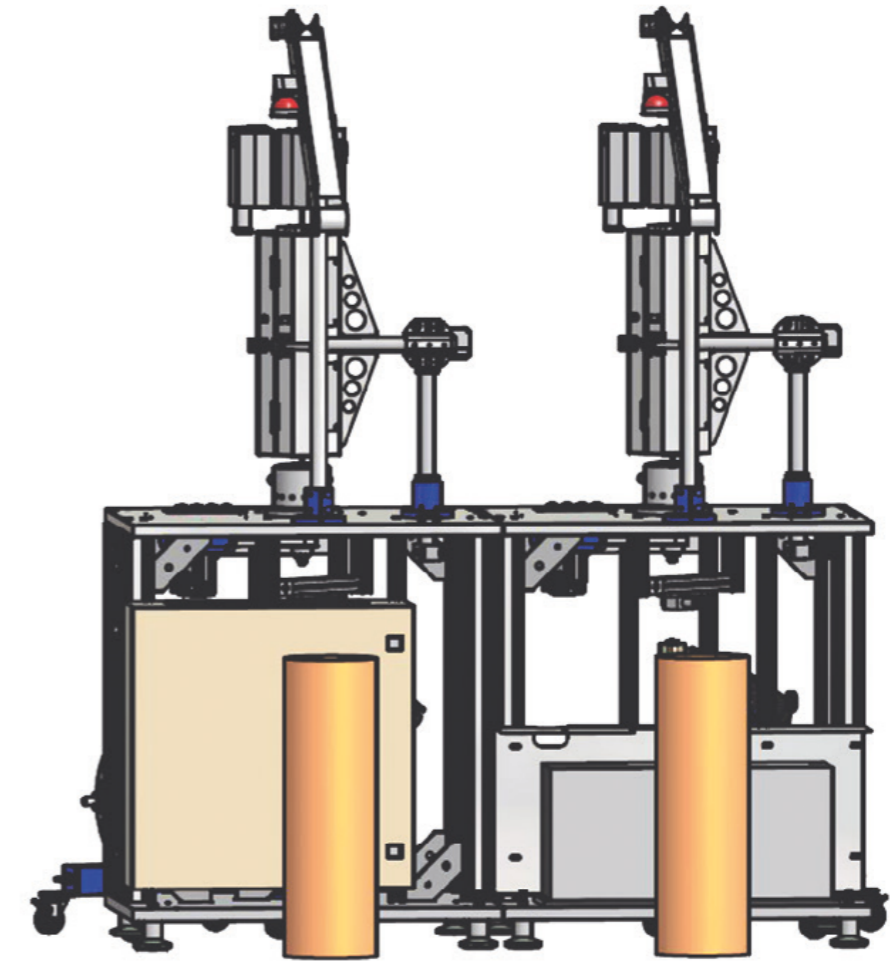
You will achieve top quality production with our specialty machines!

EFFICIENTLY, PRECISELY AND RELIABLY



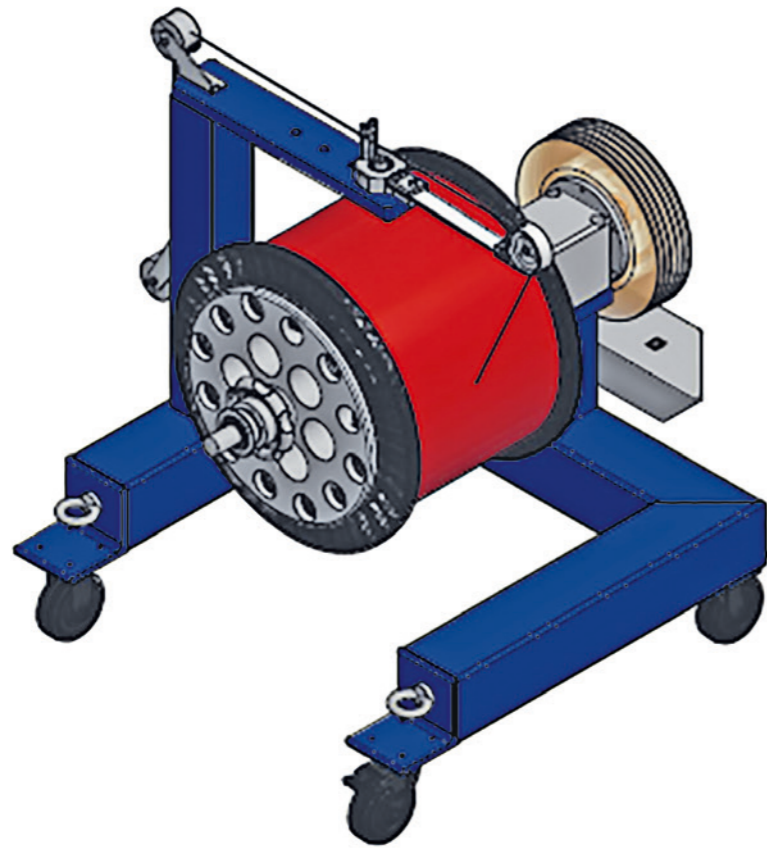
Design

- » Clear and functional design
- » Easy operation with digital controlling technology
- » Working areas are completely accessible
- » Easy conversion to various spiral sizes and monofilament
- » Minimal noise



Design

- » Vibration-resistant machine frame in lightweight construction
- » Excellent access to all maintenance and work areas
- » Safety standards according to CE norms



Coil intake

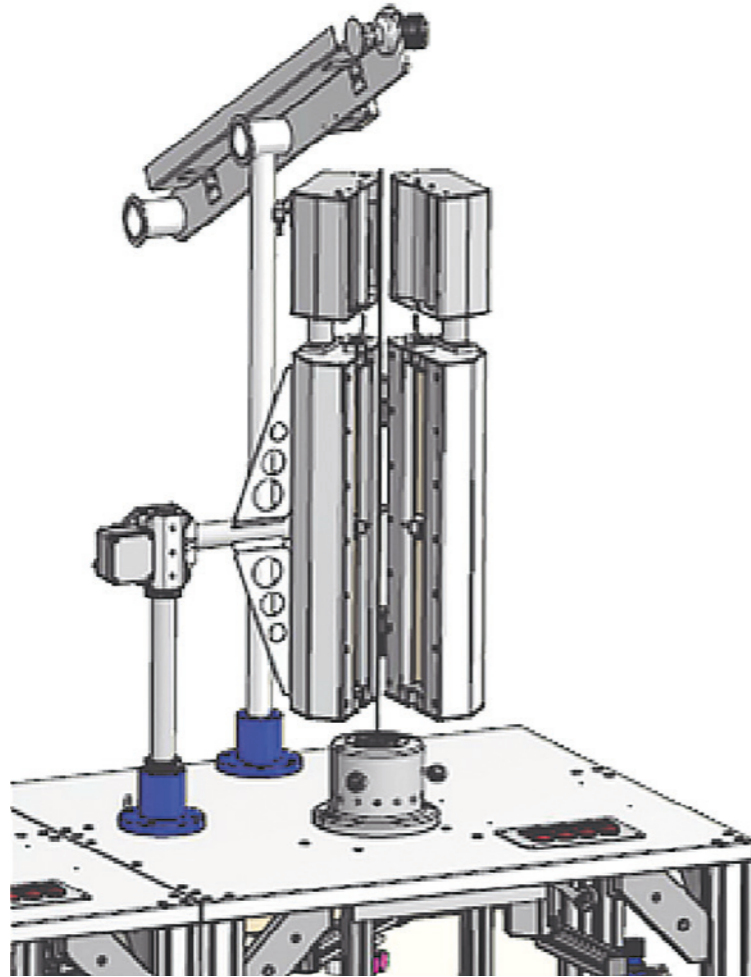
- » Exact centring for coil intake
- » Short set-up and changeover times when replacing coil
- » Constant monitoring of thread tension during unwinding
- » User-friendly instruction manual



Spiral preheating

Preheating the monofilament significantly improves and increases monofilament processing, as well as the quality of the spirals and their production speed.

- » Minimal heat loss to the environment with insulated heating unit
- » All heating and cooling phases are monitored and controlled by
- » the machine controls



Spiral heating and cooling with swivelling device

Spiral heating / spiral cooling

- » A higher heater construction allows for faster rotational speeds, resulting in shorter production times
- » Cooling unit for compressing spirals and if necessary producing spirals from thick monofilament
- » All movements (opening, closing and turning) are performed and monitored automatically
- » Minimal heat loss to the environment with insulated heating unit
- » Effective energy use



Touch Panel

Machine controls

- » The entire process is controlled using a central touch panel
- » All parameters can be viewed on the display (available in multiple languages)
- » Plant operators can operate and monitor several machines at once

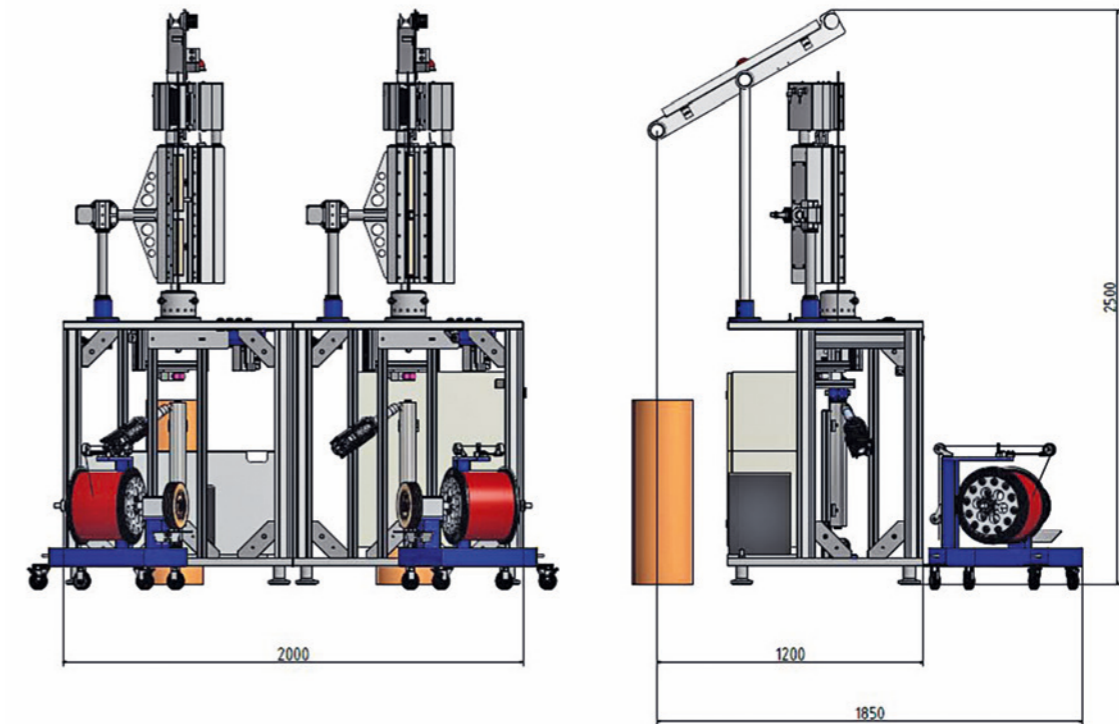


Touch Panel Screens

Machine controls

- » All relevant parameters can be detected and displayed
- » Clear arrangement of control elements and functions
- » Display of actual/target values
- » Production parameters for left and right spirals can be set independently of one another

Dimensions



Operation and maintenance

- » Simple operation and easy access to all areas
- » Short training period for operators
- » Short set-up and changeover times for coil body
- » Minimal maintenance and service required

Figures

These figures are based on monofilament from Bedea

Monofilaments (mm)	Spirals (mm)	Revolutions r.p.m.	Production time spools / 10kg	Production quantity	
				spirals / spindle (kg/h)	spirals / machine (kg/h)
PET Ø 0,60	5,40 x 3,20	7.500	4,01 h	2,50	5,00
PET Ø 0,70	6,80 x 3,80	5.000	3,53 h	2,83	5,66
PET Ø 0,90	9,80 x 4,40	3.500	2,33 h	4,30	8,60
PET Ø 1,20	14,80 x 8,00	1.500	1,87 h	4,75	9,50
PPS Ø 0,60	5,40 x 3,20	4.000	7,87 h	1,27	2,54
PPS Ø 0,70	6,80 x 3,60	4.000	4,76 h	2,10	4,20

Specifications:

Electrical connection	380 V-500V AC +/- 10% (16 A), machine outlet voltage: 230V AC
Drives	Servo motors
Control System	Industry PC controls
Air	6 bar
Weight	Approx. 1,200 kg
Heating	Infrared emitter: max. 420°C Temperature adjusted at thermostat
Workable Coil Sizes	Coil K 335 with up to 10 kg
Productible Spiral Sizes	From 4.5 x 2.5 mm to 16.6 x 10.5 mm
Workable Monofilament	Ø 0.5 mm to 2.0mm (for round profiles)
Max. operating speed	7,500 r.p.m.
Dimensions	Width: 2,300 mm Depth: 1,200 mm Height: 2,250 mm



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- » **Advice**
- » **Partnership**
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