EXPOSÉ

Wet spinning frame

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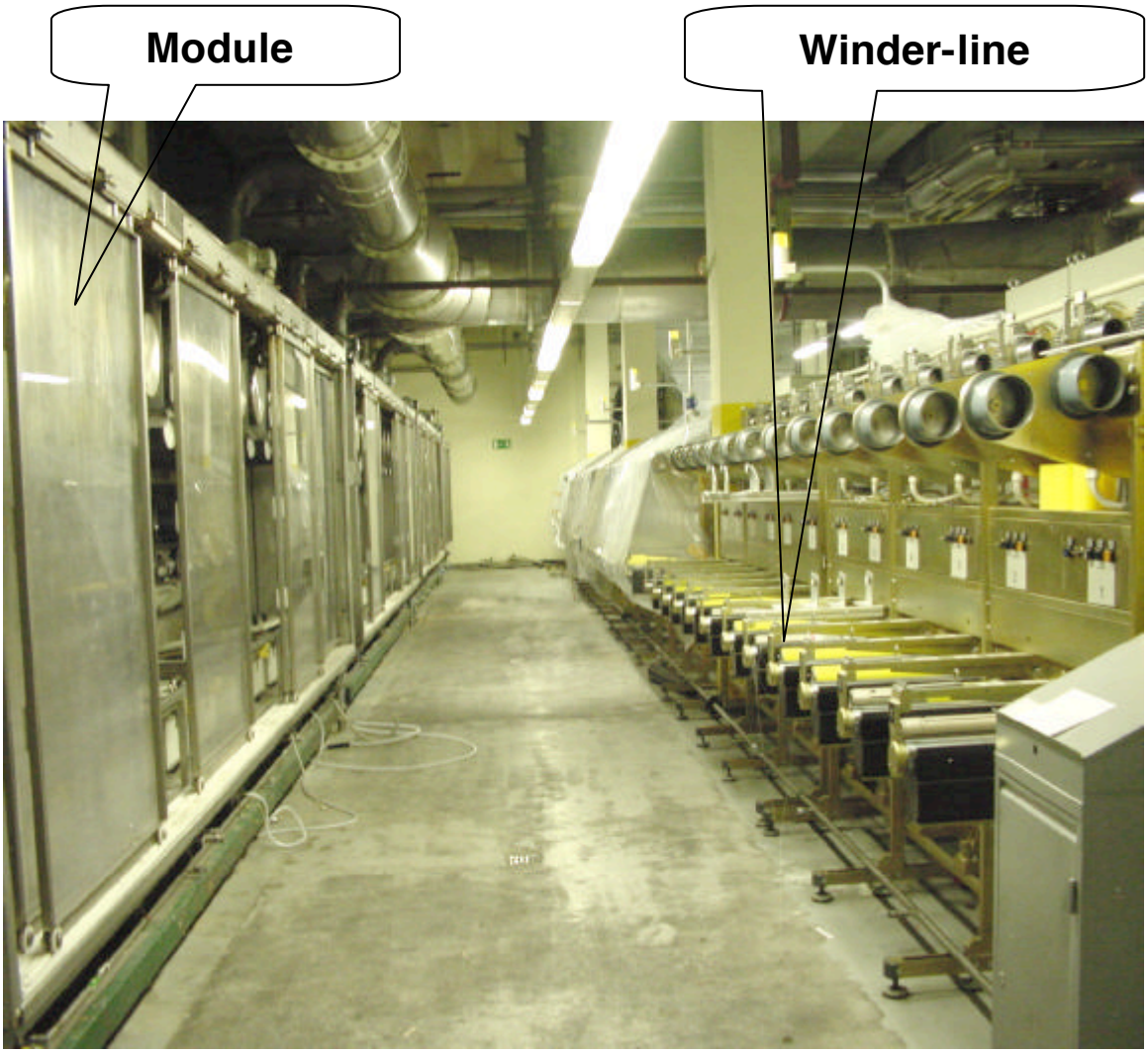
Wet spinning frame



Operating data

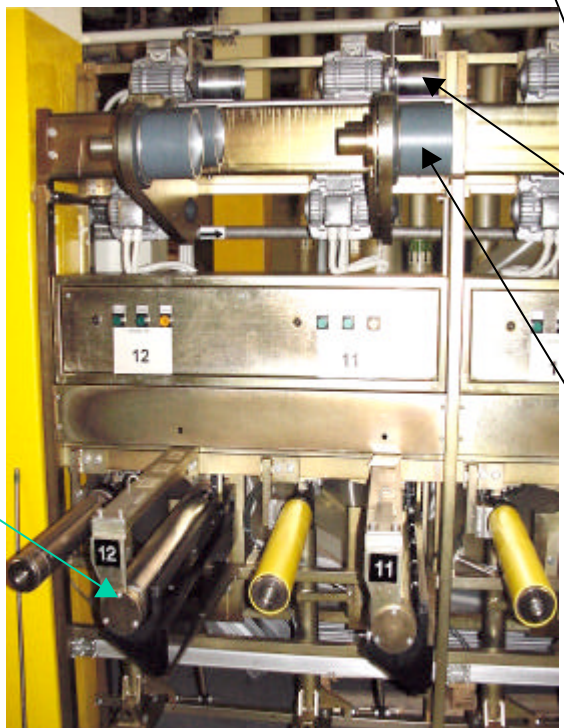
• Nameplate capacity 680 dtex	900 jato
• Denier	160 ... 1200 dtex
• Quantity yarns	4
• Weight of bobbin	1 ... 3 kg

Wet spinning frame

Dorlastan
Bayer Elastan

Winder - line

Deflecting galette 1+2



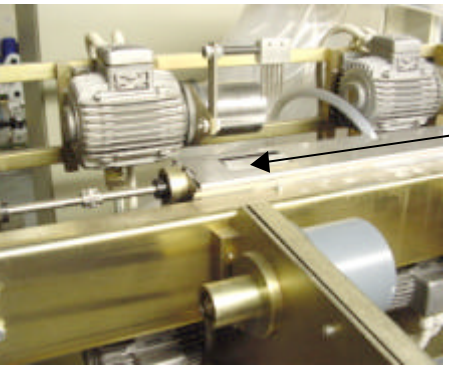
Oiling device

Winder

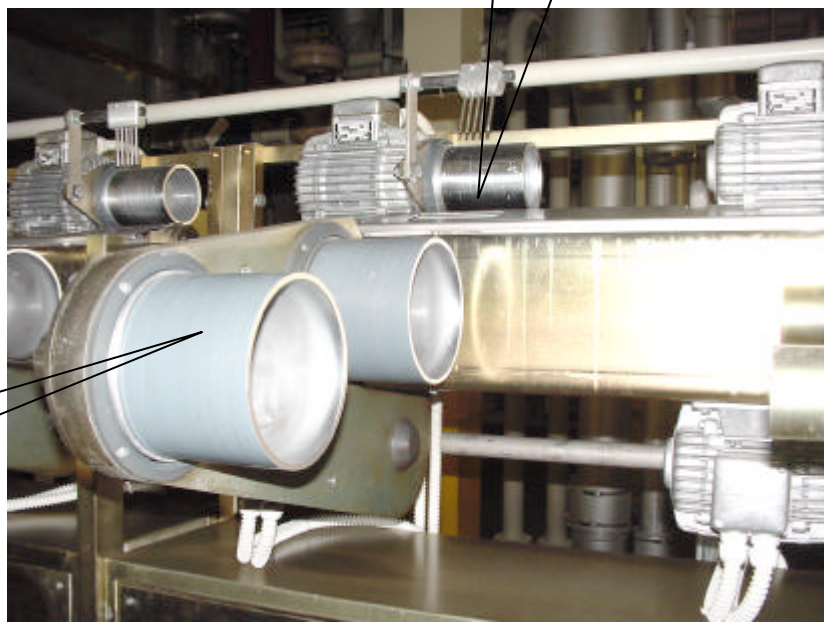
Deflecting-galette

Wet spinning frame

Winder - line



Oiling device



Deflecting galette 1+2

Winder

Moving roll with traverse guide

Bobbin holder

Wet spinning frame

Dorlastan
Bayer Elastan

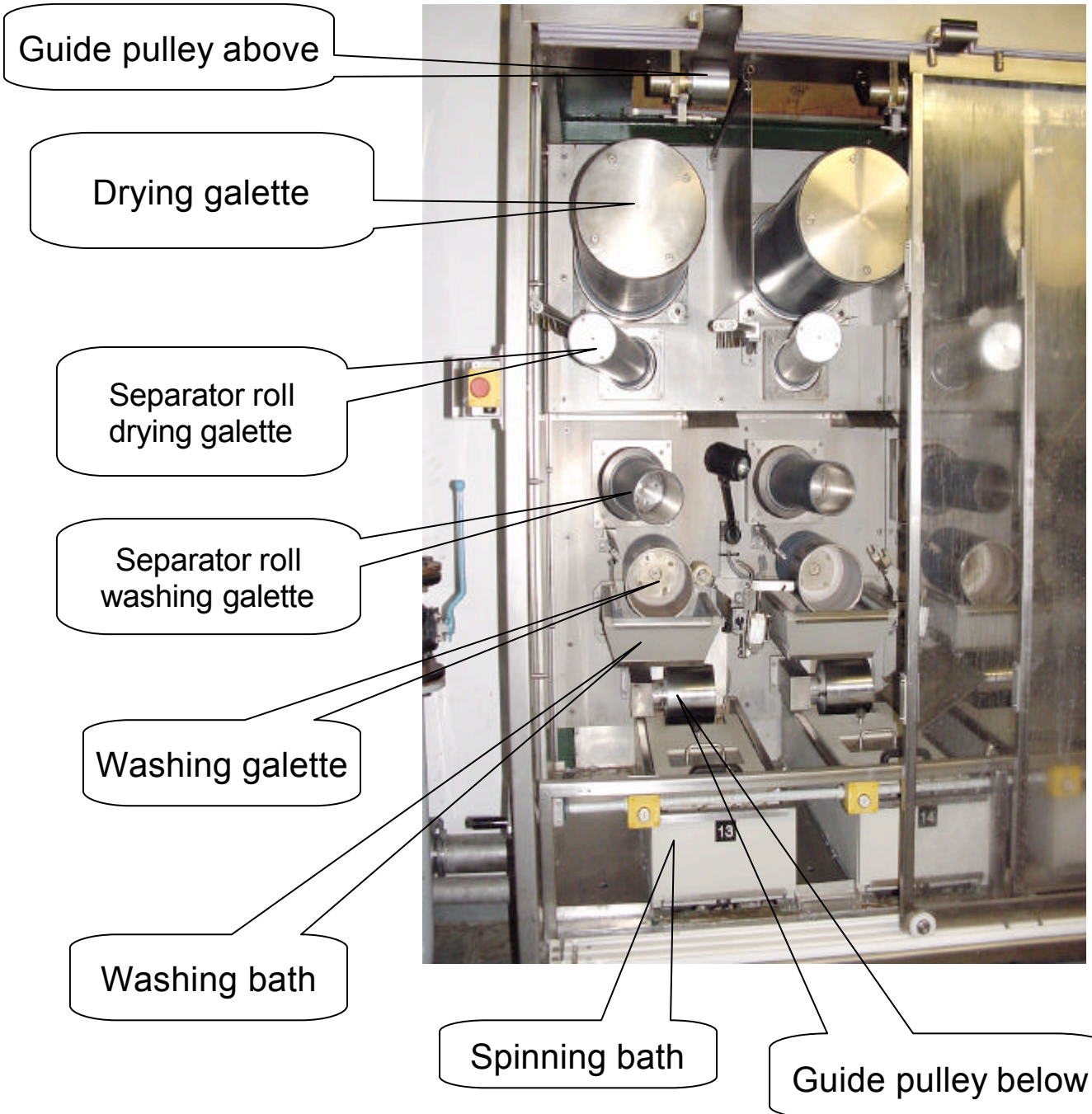
Module

Machine facts

• Machine overall lenght	ca. 23 m
• Machine dimension / module	3230 x 2600 x 3164 mm
• Quantity module	7
• Quantity positions / module	6
• Quantity positions total	42
• Gauge	500 mm
• Production speed	80 ... 300 m/min
• Process automatisation	PC S7 , Fa.Siemens

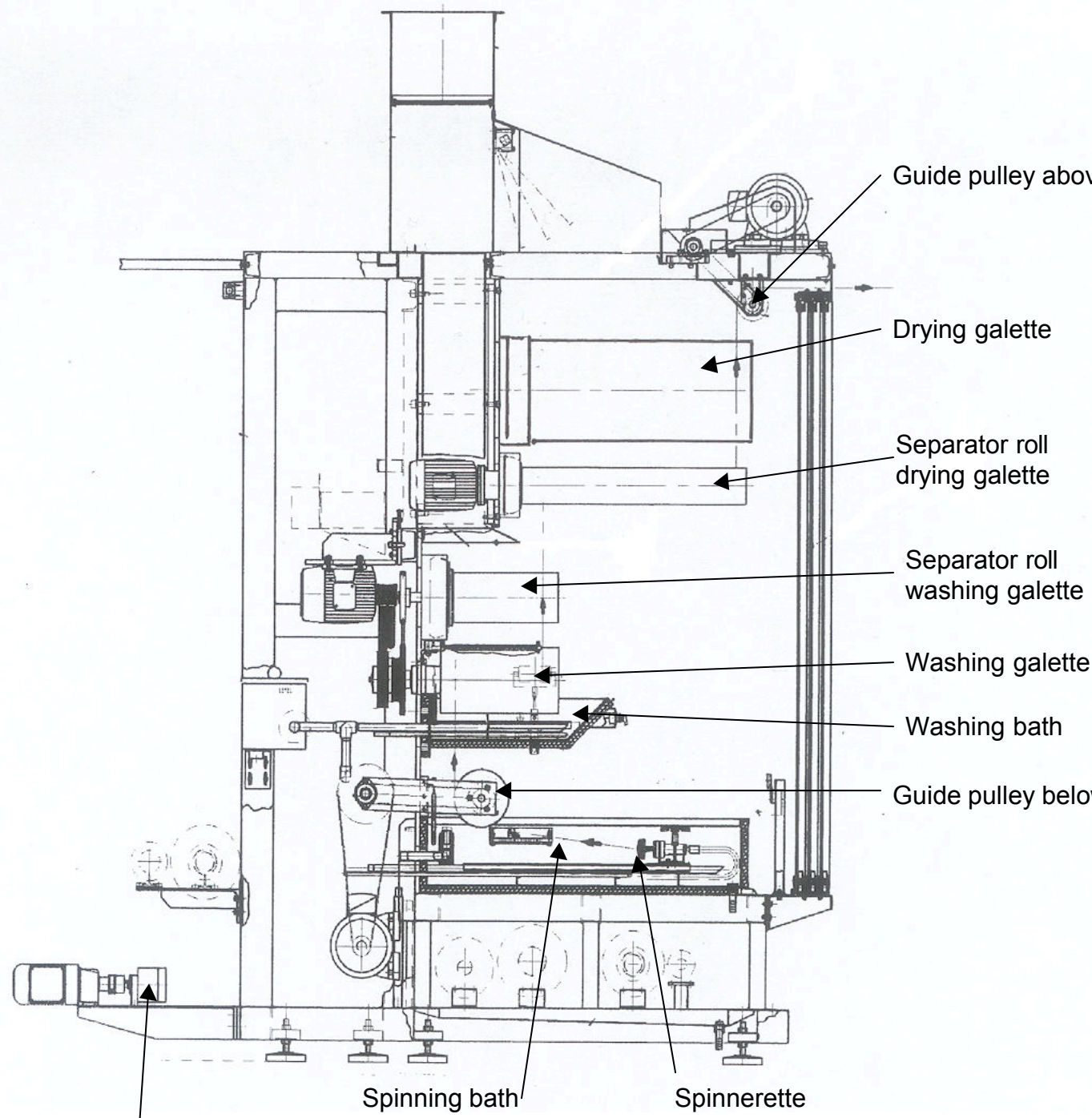
Wet spinning frame

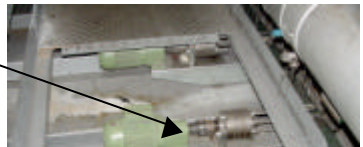
Module



Wet spinning frame

Module side view





Wet spinning frame

Ratings

Module

• **Guide pulley above**	
• Dimension	D=99mm x lg=80mm
• Surface	matt hard chromed
• Speed range	200 ... 1200 min^{-1}
• **Drying galette**	
• Dimension	D=300mm x lg=700mm
• Heating system	3 zones infrared-short wave
• Heating capacity zone 1	4,5 kW
• Heating capacity zone 2	7,5 kW
• Heating capacity zone 3	3,0 kW
• Heating capacity total	15,0 kW
• Speed	80 ... 300 m/min
• Speed range	85 ... 320 min^{-1}
• Working temperature	180 ... 270 °C
• Weight	66 kg
• **Separator roll drying galette**	
• Dimension	D=112,5mm x lg=700mm
• Surface	ceramic
• Speed range	200 ... 1000 min^{-1}
• Adjustment device variabel	0° ... 10° horizontal 0° ... 8° vertikal
• **Spinning pump**	
• Pump capacity per position	4 x 2,4 cm^3/U
• Speed range	7 ... 50 min^{-1}

Wet spinning frame

Bayer Elastan

Ratings

Module

• **Separator roll washing galette**	
• Dimension	D=150mm x lg=370mm
• Surface	ceramic
• Adjustment device variabel	0° ... 10° horizontal 0° ... 8° vertikal
• **Washing galette**	
• Dimension	D=200mm x lg=375mm
• Speed range	300 ... 1800 min^{-1}
• Surface	ceramic
• **Washing bath**	
• Dimension	450 x 250 x 150 mm
• Quantity heat exchanger	1
• Temperature measurement	Pt-100
• **Guide pulley below**	
• Dimension	D=175mm x lg=150mm
• Surface	matt hard chromed
• Speed range	200 ... 1200 min^{-1}
• **Spinning bath**	
• Dimension	1000 x 300 x 200
• Quantity heat exchanger	1
• Temperature measurement	Pt-100

Wet spinning frame

Ratings

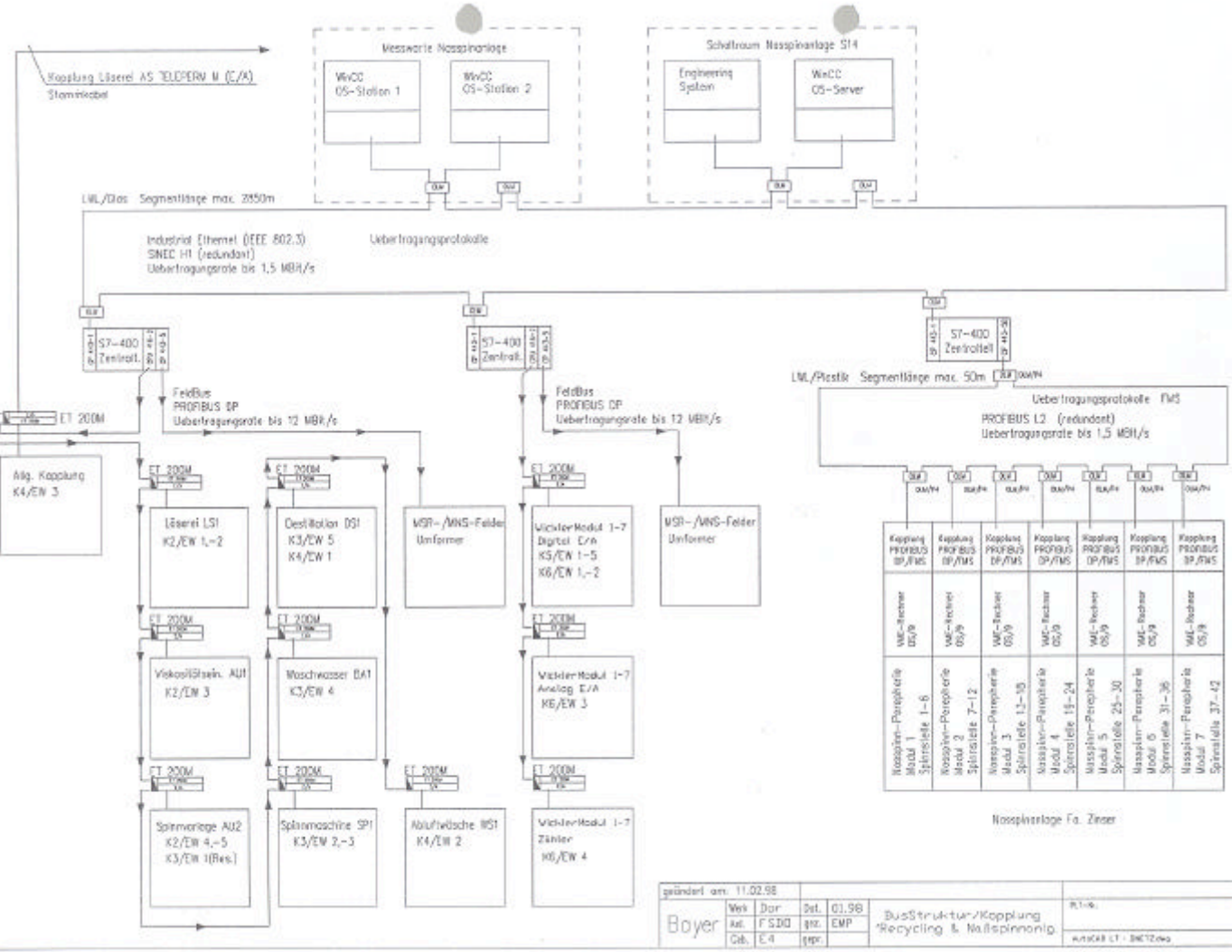
Winder - line

• **Winder**	
• Connection	over profibus
• Dimension of bobbin	di = 73mm da = 78mm lenght = 115,5mm
• Quantity bobbins	4
• Diameter of bobbin max.	340 mm
• Winding speed	40 ... 400 m/min
• Denier	160 ... 1200 dtex
• Weight of bobbin max.	3 kg
• Traversing lift	95 mm
• Moving roll speed range	374 ... 1500 min^{-1}
• Moving roll diameter	85 mm
• Bobbin holder diameter	73,3 mm
• Bobbin holder lenght	508 mm

• **Oiling device**	
• Diameter of roll	85 mm
• Speed range	2,25 ... 45 min^{-1}

Wet spinning frame

Conception process control



Wet spinning frame

Electrotechnical facts

Module	Motor	Inverter	Communitation	Remark
Drying galette	Fa. Kaiser P_N = 0,5 kW I_N = 2,4 A U_N = 400 V	Typ: VCB 400 - 034 Fa. Vectra P = 15 kW U = 400 V	Profibus RS 485	
Separator roll drying galette	Fa. Kaiser P_N = 0,15 kW I_N = 0,88 A U_N = 400 V	Typ: VCB 400 - 034 Fa. Vectra P = 15 kW U = 400 V	Profibus RS 485	
Separator roll washing galette and washing galette	Fa. Kaiser P_N = 0,5 kW I_N = 4,2 A U_N = 400 V	Typ: VCB 400 - 010 Fa. Vectra P = 4 kW U = 400 V	Profibus RS 485	1 drive per module over toothed belt
Guide pulley above / below	Fa. Kaiser P_N = 0,5 kW I_N = 2,7 A U_N = 400 V	Typ: VCB 400 - 010 Fa. Vectra P = 4 kW U = 400 V	Profibus RS 485	
Spinning pump	Fa. Bauer P_N = 0,14 kW I_N = 0,95 A U_N = 400 V	Typ: VCB 400 - 010 Fa. Vectra P = 4 kW U = 400 V	Profibus RS 485	
Winder				
Oiling device	Fa.Bauer P_N = 0,06 kW I_N = 0,52 A U_N = 230 V	Typ: EVF 8211-E Fa. Lenze P = 0,75 kW U = 3 x 380 ... 460 V	Profibus RS 485	
Deflecting galette1+ 2	Fa.Kaiser P_N = 0,15 kW I_N = 0,65 A U_N = 400 V	Typ: EVF 8214-E Fa. Lenze P = 3 kW U = 3 x 380 ... 460 V	Profibus RS 485	
Moving roll	Fa.Kaiser P_N = 0,31 kW I_N = 1,1 A U_N = 400 V	Typ: EVF 8215-E Fa. Lenze P = 4 kW U = 3 x 380 ... 460 V	Profibus RS 485	
traverse guide	Fa.Animatics P_N = 0,11 kW I_N = 0,5 A		RS 232 / RS 485	Servo-motor with integrated