

Machine and equipment construction

1. Painting automat for suppliers of the automobile industry

[execution 2005](#)

60 digital / analogue **in-/ outputs**

1 programmable controller **Mitsubishi Melsec FX1N**

2 frequency converters
heating regulation

HMI: operator panel **Mitsubishi MAC 200** with recipe handling

- engineering and manufacturing of electrical switchboards
- creation of control software
- commissioning in **Germany**

2. Handling system (MDF-boards)

[execution 2004](#)

3400 digital / analogue **in-/ outputs** (decentralised configuration)

4 programmable controllers **SIMATIC S7/400 + ET200M** system

64 frequency converters, positioning controls

HMI: touch screen industrial PCs (**RSView** Rockwell Automation), visualisation
(**InTouch** Wonderware)

networking via **Ethernet TCP/IP, Profibus DP**

- creation of control software and visualisation
- commissioning in **China**

3. Handling system (gypsum boards)

[execution 2004](#)

430 digital / analogue **in-/ outputs** (decentralised configuration)

1 programmable controller **SIMATIC S7/400 + ET200S** system

16 frequency converters, servo converters, positioning controls
networking via **Ethernet TCP/IP, Profibus DP**

HMI: touch screen operator panel, visualisation (**WINCC** Siemens)

- engineering and manufacturing of electrical switchboards
- creation of visualisation

4. Modification and extension of handling system (wood boards)

[execution 2004](#)

1300 digital / analogue **in-/ outputs** (decentralised configuration)

3 programmable controllers **SIMATIC S7/400 + S7/300 + ET200S** system

9 frequency converters, servo converters, positioning controls
networking via **Ethernet TCP/IP, Profibus DP**

HMI: touch screen operator panels
modular safety system **PNOZmulti**

- engineering and manufacturing of electrical switchboards

Machine and equipment construction

5. Handling system (MDF-boards)

[execution 2004](#)

- 2500** digital / analogue **in-/ outputs** (decentralised configuration)
 2 programmable controllers SIMATIC **S7/400 + ET200M** system
 36 frequency converters, servo converters, positioning controls
 networking via **Ethernet TCP/IP, Profibus DP**
 HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)
 modular safety system **PNOZmulti**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- commissioning in **Poland**

6. Modification and extension of handling system (MDF-boards) [execution 2004 - 2005](#)

- 900** digital / analogue **in-/ outputs** (centralised configuration)
 1 programmable controller SIMATIC **S7/400**
 15 frequency converters
 networking via **Ethernet TCP/IP, Profibus DP**
 HMI: control panels/ operator panel, visualisation (Siemens)

- engineering of electrical switchboards
- creation of control software and visualisation
- delivery of material for modification in china
- modification and mounting in **China**
- commissioning in **China**

7. Modification and extension of handling system (MDF-boards)

[execution 2004](#)

- 1600** digital / analogue **in-/ outputs** (decentralised configuration)
 1 programmable controller SIMATIC **S7/400**
 43 frequency converters
 networking via **Ethernet TCP/IP, Profibus DP**
 HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- delivery of material for modification in **Poland**
- modification, mounting and commissioning in **Poland**

8. Handling system (chip trays)

[execution 2004](#)

- 1500** digital / analogue **in-/ outputs** (decentralised configuration)
 1 programmable controller SIMATIC S7/400 + WAGO I/O system
 27 frequency converters, servo converters, positioning controls
 networking via Ethernet TCP/IP, Profibus DP
 HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)

- manufacturing of electrical switchboards

Machine and equipment construction

9. Handling system (MDF-boards)

[execution 2003 - 2004](#)

- 1050** digital / analogue **in-/ outputs** (decentralised configuration)
 - 1** programmable controller SIMATIC **S7/400** + WAGO I/O system
 - 33** frequency converters, servo converter, positioning controls networking via **Ethernet** TCP/IP, **Profibus DP**
 - HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)
 - modular safety system **PNOZmulti**

- manufacturing of electrical switchboards

10. Handling system (MDF-boards)

[execution 2003](#)

- 900** digital / analogue **in-/ outputs** (centralised configuration)
 - 1** programmable controller Rockwell Automation **ControlLogix**
 - 24** frequency converters, positioning controls
 - HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)
 - networking via **Ethernet** TCP/IP, **Devicenet**, **Controlnet**

- manufacturing of electrical switchboards

11. Handling system (MDF-boards)

[execution 2003](#)

- 3150** digital / analogue **in-/ outputs** (decentralised configuration)
 - 3** programmable controllers SIMATIC **S7/400** structured decentralised
 - 58** frequency converters, positioning controls
 - HMI: touch screen industrial PCs (Rockwell), visualisation (**InTouch** Wonderware)
 - networking via **Ethernet** TCP/IP, **Profibus DP**

- creation of control software and visualisation
- commissioning in **China**

12. Handling system (OSB- boards)

[execution 2003](#)

- 2000** digital / analogue **in-/ outputs** (decentralised configuration)
 - 3** programmable controllers Rockwell Automation **PLC5** structured decentralised
 - 24** frequency converters, positioning controls
 - HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)
 - networking via **Ethernet** TCP/IP, **Devicenet**, **Controlnet**, **Profibus DP**

- engineering and manufacturing of electrical switchboards according to **UL- standards**

Machine and equipment construction

13. Handling system (MDF-boards)

execution 2003

- 400** digital / analogue **in-/ outputs** (decentralised configuration)
 - 2** programmable controllers Rockwell Automation **ControlLogix**
 - 10** frequency converters, positioning controls
- HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)
- networking via **Ethernet** TCP/IP, **Devicenet**, **Controlnet**

- manufacturing of electrical switchboards

14. Handling system (MDF-boards)

execution 2003

- 900** digital / analogue **in-/ outputs** (decentralised configuration)
 - 1** programmable controller SIMATIC **S7/400**
 - 13** frequency converters, positioning controls
- HMI: touch screen industrial PCs (**RSView** Rockwell Automation), visualisation (**WINCC** Siemens)
- networking via **Ethernet** TCP/IP, **Profibus DP**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- connection to an ERPS system
- commissioning in **Turkey**

15. Handling system (MDF-boards)

execution 2001 - 2002

- 3600** digital / analogue **in-/ outputs** (decentralised configuration)
 - 5** programmable controllers Rockwell Automation **PLC5, SLC 500** structured decentralised
 - 63** frequency converters, positioning controls
- HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)
- networking via **Ethernet** TCP/IP, **Devicenet**, **Controlnet**

- engineering and manufacturing of electrical switchboards
- creation of control software
- commissioning in **France**

16. Handling system (MDF-boards)

execution 2002

- 3200** digital / analogue in-/outputs (decentralised configuration)
 - 3** programmable controllers SIMATIC **S7/400**
 - 61** frequency converters, positioning controls
- HMI: touch screen industrial PCs (**RSView** Rockwell Automation), visualisation (**InTouch** Wonderware)
- networking via **Ethernet** TCP/IP, **Profibus DP**

- engineering and manufacturing of electrical switchboards

Machine and equipment construction

17. Handling system (MDF-boards)

[execution 2001 - 2002](#)

- 3400** digital / analogue in-/outputs (decentralised configuration)
 - 4** programmable controllers Rockwell Automation **PLC5, SLC 500** structured decentralised
 - 65** frequency converters, positioning controls
HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)
networking via **Ethernet** TCP/IP, **Devicenet**

- engineering and manufacturing of electrical switchboards

18. Handling system (MDF-boards)

[execution 2001](#)

- 1000** digital / analogue in-/outputs (decentralised configuration)
 - 2** programmable controllers Rockwell Automation **PLC5** structured decentralised
 - 28** frequency converters, servo converters, positioning controls, synchronous control
HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)
networking via **Ethernet** TCP/IP, **Devicenet**, **RIO**

- engineering and manufacturing of electrical switchboards

19. Handling system (MDF-boards)

[execution 2001](#)

- 2000** digital / analogue in-/outputs (decentralised configuration)
 - 3** programmable controllers Rockwell Automation **PLC5** structured decentralised
 - 20** frequency converters, servo converters, positioning controls, synchronous control
HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)
networking via **Ethernet** TCP/IP, **Profibus DP**

- engineering and manufacturing of electrical switchboards

20. Cut-to-size plant for circuit boards

[execution 2001](#)

- 650** digital / analogue in-/outputs (centralised configuration)
 - 1** programmable controller SIMATIC **S7/400**
 - 13** frequency converters, servo converters, positioning controls
HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)
networking via **Ethernet** TCP/IP, **Profibus DP**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- connection to an ERPS system
- commissioning in **Germany**

Machine and equipment construction

21. Cut-to-size plant for circuit boards

[execution 2001](#)

540 digital / analogue in-/outputs (centralised configuration)

1 programmable controller SIMATIC **S7/400**

13 frequency converters, servo converters, positioning controls

HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)

networking via **Ethernet** TCP/IP, **Profibus DP**

- engineering and manufacturing of electrical switchboards
 - creation of control software and PC-visualisation
 - commissioning in **Italy**
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22. Handling system (MDF-boards)

[execution 2001](#)

400 digital / analogue in-/outputs (centralised configuration)

2 programmable controllers SIMATIC **S7/400** structured decentralised

2 frequency converters

HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)

networking via **Ethernet** TCP/IP, **Profibus DP**

- manufacturing of electrical switchboards
 - creation of control software and visualisation
 - creation of logistic software for storage system
 - connection to an ERPS system
 - commissioning in **France**
-

23. Handling system (MDF-boards)

[execution 2001](#)

1000 digital / analogue in-/outputs (decentralised configuration)

2 programmable controllers SIMATIC **S7/400** structured decentralised

26 frequency converters, positioning controls

HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)

networking via **Ethernet** TCP/IP, **Profibus DP**

- manufacturing of electrical switchboards
-

24. Handling system (MDF-boards)

[execution 2000 - 2001](#)

4100 digital / analogue in-/outputs (decentralised configuration)

4 programmable controllers SIMATIC **S7/400** structured decentralised

51 frequency converters, positioning controls

HMI: touch screen industrial PCs, visualisation (**RSView** Rockwell Automation)

networking via **Ethernet** TCP/IP, **Devicenet**, **RIO**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- creation of logistic software for storage system
- commissioning in **Corea**

Machine and equipment construction

25. Handling system (chip trays)

[execution 2000 - 2001](#)

- 3000** digital / analogue in-/outputs (decentralised configuration)
 - 5** programmable controllers SIMATIC **S7/400** structured decentralised
 - 46** frequency converters, positioning controls
- HMI: touch screen industrial PCs (Siemens TP37), visualisation (**USDATA**)
- networking via **Ethernet TCP/IP, Profibus DP, RIO**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- creation of logistic software for storage system
- connection to an ERPS system
- commissioning in **Italy**

26. Handling system (MDF-boards and chip trays)

[execution 1999 - 2002](#)

- 5100** digital / analogue in-/outputs (decentralised configuration)
 - 9** programmable controllers Rockwell Automation **PLC5, SLC 500** structured decentralised
 - 90** frequency converters, positioning controls
- HMI: touch screen industrial PCs (Rockwell Automation), visualisation (**InTouch Wonderware**)
- networking via **Ethernet TCP/IP, Devicenet, DH+, RIO**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- creation of logistic software for storage system
- commissioning in **Venezuela**

27. Handling system (MDF-boards)

[execution 1999 – 2001](#)

- 5100** digital / analogue in-/outputs (decentralised configuration)
 - 7** programmable controllers Rockwell Automation **PLC5, SLC 500** structured decentralised
 - 76** frequency converters, servo converter, positioning controls
- HMI: touch screen industrial PCs (Rockwell), visualisation (**ProconWin GTI**)
- networking via **Ethernet TCP/IP, Devicenet, RIO**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- commissioning in **France**

Machine and equipment construction

28. Handling system (MDF-boards)

[execution 1999](#)

- 3800** digital / analogue in-/outputs (decentralised configuration)
 - 2** programmable controllers SIMATIC **S7/400** structured decentralised
 - 70** frequency converters, positioning controls
- HMI: control panels / operator panel, visualisation (Siemens)
- networking via **Ethernet** TCP/IP, **Profibus DP**

- engineering and manufacturing of electrical switchboards

29. Handling system (MDF-boards)

[execution 1999](#)

- 2800** digital / analogue in-/outputs (decentralised configuration)
 - 5** programmable controllers SIMATIC **S7/400** und **S7/300** structured decentralised
 - 36** frequency converters, positioning controls
- HMI: control panels / operator panel, visualisation (Siemens)
- networking via **Ethernet** TCP/IP, **Profibus DP**

- engineering and manufacturing of electrical switchboards

30. Handling system (MDF-boards)

[execution 1998 – 1999](#)

- 5200** digital / analogue in-/outputs (decentralised configuration)
 - 5** programmable controllers Rockwell Automation **PLC5** structured decentralised
 - 29** frequency converters
- HMI: touch screen operator panel (Rockwell Automation), visualisation (**InTouch** Wonderware)
- networking via **Ethernet** TCP/IP, **RIO**, system bus

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- creation of logistic software for storage system
- commissioning in **Scotland**

31. Handling system (MDF-boards)

[execution 1998](#)

- 750** digital / analogue in-/outputs (decentralised configuration)
 - 1** programmable controller Rockwell Automation **PLC5**
 - 26** frequency converters
- networking via **Ethernet** TCP/IP, **RIO**
- HMI: control panels / operator panel (Rockwell Automation)

- manufacturing of electrical switchboards

Machine and equipment construction

32. Handling system (MDF-boards)

execution 1998 - 1999

- 2800** digital / analogue in-/outputs (decentralised configuration)
5 programmable controllers SIMATIC **S7/400** und **S7/300** structured decentralised
50 frequency converters
HMI: control panels / operator panel (Siemens), visualisation (GTI)
networking via **Ethernet TCP/IP**, **Profibus DP**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- creation of logistic software for storage system
- commissioning in **Poland**

33. Production line for heat insulation plates

execution 1998

- 180** digital / analogue in-/outputs (centralised configuration)
1 programmable controller Rockwell Automation **SLC 500**
2 frequency converters, positioning control
HMI: control panel / operator panel (Rockwell Automation)

- engineering and manufacturing of electrical switchboards
- creation of control software
- commissioning in **Switzerland**

34. Handling system (MDF-boards)

execution 1997- 1998

- 2800** digital / analogue in-/outputs (decentralised configuration)
3 programmable controllers SIMATIC **S5/135U** structured decentralised
43 frequensy converters
HMI: control panels / operator panel, visualisation (Siemens)
networking via **Ethernet TCP/IP**, **Profibus DP**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- commissioning in **Poland**

35. Handling system (MDF-boards)

execution 1997

- 1300** digital / analogue in-/outputs (decentralised configuration)
1 programmable controller SIMATIC **S5/135U**
40 frequency converters
HMI: control panels / operator panel, visualisation (Siemens)
networking via **Ethernet TCP/IP**, **Profibus DP**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- commissioning in **Poland**

Machine and equipment construction

36. Handling system (MDF-boards)

execution 1996- 1998

2800 digital / analogue in-/outputs (decentralised configuration)

4 programmable controllers Rockwell Automation **PLC5, SLC500** structured decentralised

31 frequency converters

HMI: operator panels (Rockwell Automation)
networking via **Ethernet** TCP/IP, **RIO**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- creation of logistic software for storage system
- commissioning in **Brazil**

37. Handling system (MDF-boards)

execution 1997- 1998

2000 digital / analogue in-/outputs (centralised configuration)

4 programmable controllers Rockwell Automation **PLC5, SLC500** structured decentralised

33 frequency converters

HMI: operator panels (Rockwell Automation), visualisation (**ProconWin**, GTI)
networking via **Ethernet** TCP/IP, **DH+**, **RIO**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- creation of logistic software for storage system
- commissioning in **Thailand**

38. Handling system (MDF-boards)

execution 1996- 2004

3000 digital / analogue in-/outputs (centralised configuration)

6 programmable controllers Rockwell Automation **PLC5** structured decentralised

37 frequency converters

HMI: operator panels (Rockwell Automation)
networking via **Ethernet** TCP/IP, **DH+**, **RIO**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- creation of logistic software for storage system
- commissioning in **Indonesia** 2003-2004

Machine and equipment construction

39. Handling system (MDF-boards)

execution 1995- 1996

3000 digital / analogue in-/outputs (centralized configuration)

7 programmable controllers Rockwell Automation **PLC5** structured decentralised

37 frequency converters

HMI: operator panels (Rockwell Automation)

networking via **Ethernet** TCP/IP, **DH+**, **RIO**

- engineering and manufacturing of electrical switchboards
- creation of control software and visualisation
- creation of logistic software for storage system
- commissioning in **Malaysia**

40. Handling system (MDF-boards)

execution 1995

1000 digital / analogue in-/outputs (centralised configuration)

1 programmable controller Rockwell Automation **PLC5**

16 frequency converters

HMI: Operator Panels (Rockwell Automation)

networking via **DH+**, **RIO**

- manufacturing of electrical switchboards
-