



Products and Services
for the Process and
Manufacturing Industries

OUR SERVICE PORTFOLIO



ENGINEERING IS OUR PASSION

www.fiwagroup.com



About fiwa)group

Finze & Wagner EMSR Ingenieurgesellschaft mbH, founded in 1972, is an engineering company and provider of all-inclusive engineering services with a specific focus on measurement & control technology, process automation, Automation IT, electrical engineering, building services, health-safety-environment and smelting plant, foundries & bulk goods technology.

We have been providing services to the process and manufacturing industries for more than 40 years.

Our range of services extends from comprehensive support for pre-basic activities to detailed design and optimisation of production facilities.

fiwa)group has several locations in Germany, Austria, Romania and China.

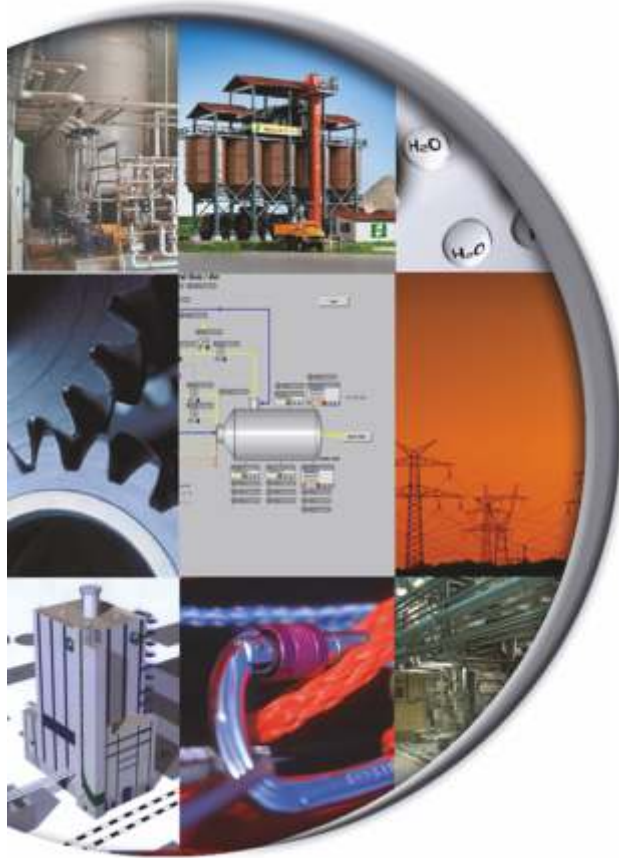
Our 200 employees assist and support our clients worldwide. These include end customers and well-known plant and system engineering firms in various industries, with whom we have maintained a firm customer-supplier relationship for many years.

In addition to engineering services we offer instrumentation, control and automation components through our fully owned subsidiary PRE-VENT GmbH, including our PRE-VENT® series of valves as well as various other products made by us or other parties, which we offer to our clients to complement our service portfolio.

fiwa)group corporate structure



Industries



Chemical

Petrochemical / refinery

Semiconductor industry

Food industry

Automobile industry

Environmental and biotechnology /
pharmaceutical

Energy generation / incinerators

Aluminium and steel industries

Special areas

Certifications

ISO 9001 - Quality
Management System



Bavaria Environmental
Agreement



SCC** - Safety Certificate
for Contractors



DIN 14675
Fire Detection Systems

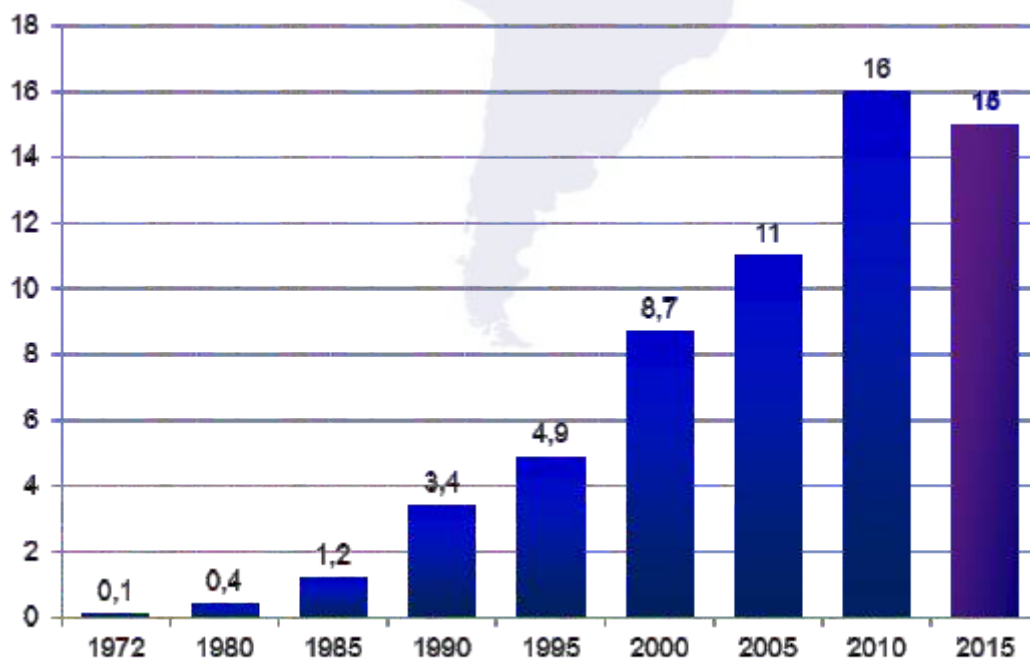


fiwa)group sites

fiwa)group headquarter in Burghausen, Germany



Earnings of fiwa)group since 1972 in millions of euros



Our paths and objectives

Our Objectives

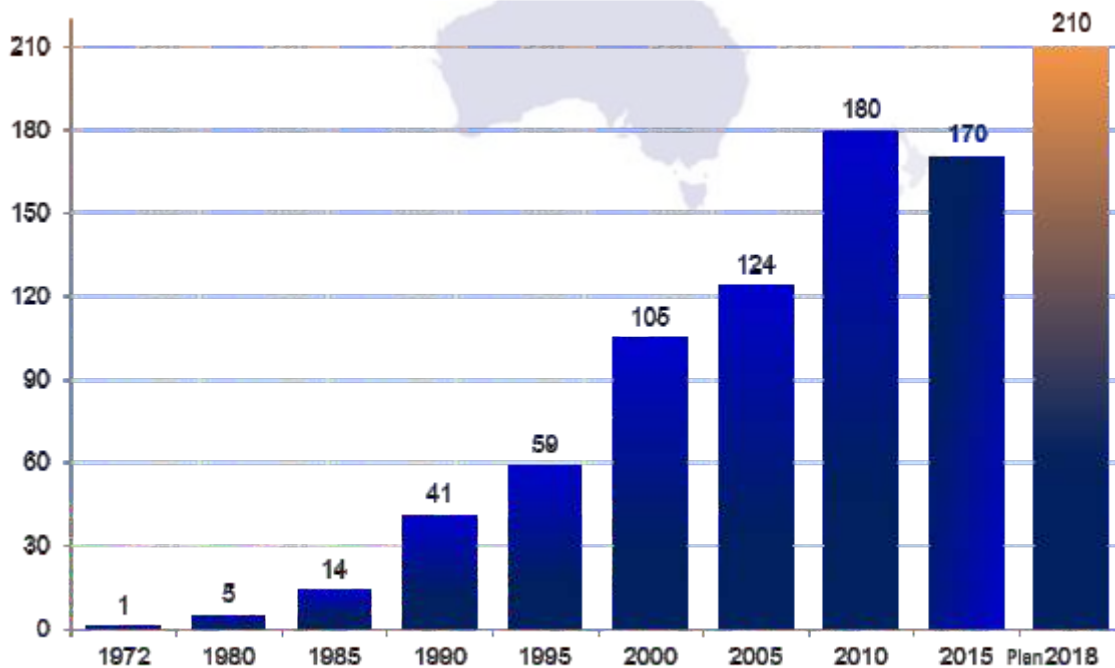
Aim of fiwa)group is further profitable growth and based on its own innovation and competence to be a sustainable partner for its customer.

Our Paths

1. Development of employees
2. Expanding existing industries
3. International support of customers
4. Continuing to promote innovations
5. More benefits from internal synergies
6. Solutions created by expert's know-how



Human resources development of fiwa)group 1972 to 2018



Our Service Portfolio

Feasibility study

Pre-Basic

Basic-Engineering

Detail-

E n d - t o - e n d e n g

ERP
MES
DCS
PLC
Instrumentation
E n d - t o - e n d

Measurement and control technology



Process automation PLC/DCS



Machine and facilities automation



Automation IT fiwa production SW industry 4.0



Building services engineering



Project execution in all project phases

Cost estimation
Pre-Basic-, Basic-,
Detail-Engineering

Dimensioning of sensors
& actuators

Device specification
& other services

Hook-ups & Typicals

Assembly invitation,
machine tender

Requests / tender
evaluation / purchase

Assembly coordination
& surveillance

Commissioning
& start-up

Planning according to
ATEX Directive
2014/34/EU

Documentation

Project ITTs &
remodelling concepts

Layout network
engineering & bus
technology

Generating specification
documents with PLS
DOC & COMOS

Configuration of
controller & control
systems

Process simulation using
WinMOD

System commissioning,
loop check & facility
ramp-up

Profibus measurement

TÜV approvals

Training of operators
& support staff



Process Data
Acquisition

Trend identification/
evaluation

Reporting

Runtime analysis

Visualisation

Hard- & Software-
design (PLC)

Motion Control

Interfaces to DCS

Process analysis &
process optimisation

Vertical & horizontal
integration - from the
production level to ERP,
from goods receiving to
shipping

Production management
system

Detailed production
planning & control

Formula management

Material flow control,
production logistics

Quality management

Operational & machine
data acquisition

Maintenance
management

Inventory management

Simulation, optimisation
of processes

RFID solutions

Batch Tracing

Alarm monitoring

Lighting engineering

PC & network
engineering

Safety lighting

Earthings- & lightning
protection systems

Presentation & media
technology

Video surveillance

Access control & security
centers

Telephone & wireless
systems

Fire detection systems &
preventive fire protection

Conferencing equipment
& public address systems

Building system EIB/KNX

Escape & rescue plans

Geo-information plans

Engineering Plant commissioning & operation Plant optimisation Maintenance

i n e e r i n g - h o r i z o n t a l

Electrical engineering



Switchgear technology (0,4kV to 110 kV)
Transformer stations
Design & planning of electric distribution networks
Main design analysis for load current, short circuits & multiple faults
Remote systems
Control voltage supplies & backup power sources
Signal & alarm system
Meter readings
Power factor correction
Distribution system remodelling
Protection technology
Electrical trace heating

Health - Safety - Environment



Functional safety, including SIL-certification compliant with EN 61508/EN 61511
Risk analysis compliant with: HAZOP, PAAG, LOPA
Safety of machinery EN ISO 13849-1/ EN 62061
Hazard analysis compliant with EN ISO 12100
Preparation of Conformity declaration (CE-mark)
Safety of fuel plants EN 50156/EN 746
Explosions protection according to ATEX Directive 2014/34/EU
Explosions protection document according to BetrSichV §§ 2 & 6
Workstation assessment
Check biohazard and safety cabinets

Smelting plant, foundries & bulk goods technology



Weighing systems engineering
Generating studies
Bulk goods equipment (stirring, grinding) metering systems for filling
Filling, transfer, packaging, identification, marking
Wireless temperature measurement technology
Weighing of high loads in harsh conditions at production furnaces, pans and crucibles
RFID-identification in harsh & hot surroundings (transport ladles & aluminium crucibles)
Gas mixing & dosing systems: melting pool gas injection (GDS)

PRE-VENT® control valves



Continuous regulation of gases, vapours and liquids
Nominal diameters DN15 to DN300
Rated pressures from PN10 to PN420
Variety of options for combining valve bodies with a very wide variety of electrical and pneumatic actuators
Also suitable for use with aggressive or hazardous media



Services Process and manufacturing industries

Our portfolio covers a broad spectrum of services, targeted on specific sectors, clients and application areas:

Consulting

- ▶ Discussions with clients
- ▶ Basic assessments / Pre-Basic

Basic-Engineering

- ▶ Technical requirement specifications
- ▶ Conceptual and operational solutions
- ▶ Functional drawings
- ▶ Calls for bids
- ▶ Measurement sheets and lists

Detail-Engineering and Instrumentation

- ▶ Specification of key items of equipment
- ▶ Generation of installation documentation
- ▶ Specification of cabling system
- ▶ Assembly specification
- ▶ Process control group plans
- ▶ Determination of material requirements
- ▶ Specification of equipment
- ▶ Cost control
- ▶ Requests for quotations
- ▶ Order preparation / advice
- ▶ Bid comparison
- ▶ Progress monitoring

Assembly contract award & support

- ▶ Preparation for installation
- ▶ Specifying and supervising the installation process

Commissioning and project handover

- ▶ Functional testing, loop checking
- ▶ Training operational personnel
- ▶ Handling TÜV inspections
- ▶ Project handover
- ▶ Documentation / revision

Documentation

- ▶ Instrumentation and control drawings using in-house CAE/CAD systems
- ▶ Project documentation (reports, records, manuals etc.) on client-specific software systems
- ▶ Generation of test certificates

Service

- ▶ Maintenance and troubleshooting
- ▶ Optimisation of functional processes and parameters
- ▶ 24hr callout

Systems

Process and manufacturing automation

SPC

- ▶ Siemens S5 / S7 / TIA-Portal
- ▶ AEG Modicon
- ▶ B&R Automation Studio
- ▶ B&R Prosys Euro/Multi/Mini
- ▶ Rockwell ControlLogix

SPC safety-related

- ▶ Siemens F-Series
- ▶ Honeywell FSC
- ▶ HIMA H41/H51 ELOP I/II
- ▶ HIMatrix ELOP II Factory
- ▶ B&R Automation Studio
- ▶ ABB 800xA / AC800M HI

NC systems

- ▶ SINUMERIK 810D, 840D, 840C
- ▶ B&R Automation Studio

Telecontrol

- ▶ SEA (SAT) Ax 1703 (Controlling)
- ▶ SEA (SAT) 250 SCALA (Visualisation)

Plant Simulation

- ▶ Siemens SIMBApro mit WinMOD
- ▶ B&R Automation Studio (MATLAB/Simulink)

PC-based visualisation

- ▶ Siemens COROS
- ▶ Siemens SIMATIC WinCC
- ▶ Siemens SIMATIC WinCC flexible
- ▶ Siemens SIMATIC ProTool
- ▶ Siemens DIMOS
- ▶ Wonderware InTouch
- ▶ Zenon
- ▶ Rockwell PanelView

PLC

- ▶ Siemens Teleperm AS/OS
- ▶ Siemens PCS7
- ▶ IC-Eckardt PLS80/PLS80E
- ▶ ABB Industrial IT System 800xA
- ▶ ABB Contronic P
- ▶ ABB Symphony
- ▶ ABB Freelance
- ▶ ABB Advant System
- ▶ ABB Procontrol P
- ▶ B&R APROL
- ▶ Foxboro I/A-Series-System
- ▶ Emerson DeltaV

Automation IT

Optimised production

Production management system MES

Factory planning / manufacturing simulation

- ▶ Borland Delphi
- ▶ MS VisualStudio.NET (C#, VB.NET, ASP.NET etc.)

Databases

- ▶ Oracle
- ▶ MS SQL
- ▶ MS Access
- ▶ Interbase

Interfaces

- ▶ OLE, DDE, OPC, Batch API, XML, COM, Socket
- ▶ Connection to ERP-Systems (e.g. SAP)
- ▶ Connection to PLC/DCS
- ▶ Connection to distributed peripherals (Profibus etc.)

Engineering Software

CAE

- ▶ AUCOPLAN
- ▶ MS Project, project management
- ▶ Sidoun, Calculation/bidding
- ▶ M PRO, Instrumentation
- ▶ F.I.R.S.T. CONVAL, valve sizing
- ▶ PRODOK
- ▶ COMOS Customizing and Engineering
- ▶ COMOS Sales and Service Partner in Romania

CAD

- ▶ AutoCAD
- ▶ ELCAD
- ▶ DDS (Data Design System) Intelligent Building Services
- ▶ MicroStation SE
- ▶ promis
- ▶ RUPLAN
- ▶ EPLAN
- ▶ Rasterex
- ▶ WSCAD



About PRE-VENT GmbH

PRE-VENT GmbH (formerly EMSR-Tech Vertriebs-, Logistik- und Produktions-GmbH) was founded in 1998 as a fully owned subsidiary of Finze & Wagner EMSR Ingenieurgesellschaft mbH.

PRE-VENT GmbH is a specialised vendor of instrumentation and control components and gas metering systems and a manufacturer of its own PRE-VENT® series of valves since 2002. In combination with our parent company, we are therefore able to offer our customers not only components, but also a full range of project engineering services, including hardware and software engineering, for a very broad spectrum of application areas.



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Certifications

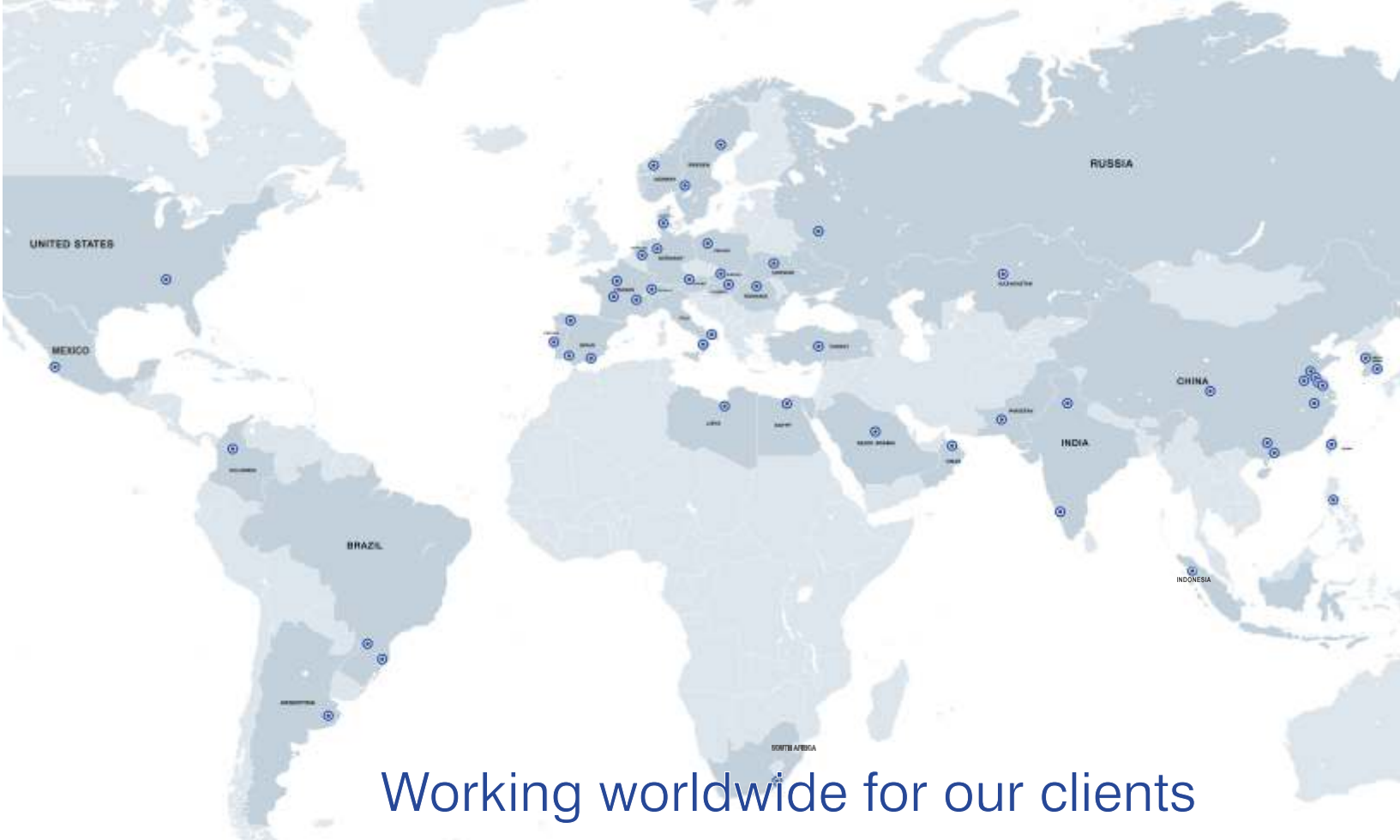
- ▶ DIN EN ISO 9001 Quality Management System
- ▶ Pressure equipment directive 97/23/EC annex III, modul H
- ▶ SIL certification
- ▶ GOST certification
- ▶ RTN-approval

Our services

As a manufacturer and supplier of industrial valves, we offer you the highest level of after sales service as a matter of course.

We work closely with selected service partners to achieve this objective. In this way, we can provide assistance and advice to our customers with on-site commissioning, in addition to maintenance and repair (also of third-party products).





Working worldwide for our clients

- | | | | |
|----------------------------|-------------------------|----------------------|---------------------|
| ABB | Brückner Maschinenbau | Kremsmüller | Schering Pharma |
| Affinage de Lorraine | Clariant | Industrieanlagenbau | ScholzAlu Stockach |
| Alantum Europa | Compa | Linde | SGL Carbon |
| Aleris Recycling | Degussa | LOI Thermprocess | Siemens |
| AlzChem | Drewag | Nestlé | Siltronic |
| AMAG | Dyneon | Nitrochemie | Landkreis Altötting |
| ASK Chemicals | Emerson | Oetinger | Stadt Burghausen |
| Austria Alu-Guss | E.ON | Aluminiumschmelzwerk | TU München |
| Avon Cosmetics | Esterer | OMV | ThyssenKrupp |
| BASF | Fortum Engineering | Otto Chemie | Trimet |
| Bayerische Staatsregierung | Foster Wheeler Italiana | Petrom | Uhde |
| Bayernoil | Franken Guss | Petroplus Raffinerie | Vinnolit |
| Bell Flavors & Fragrances | Gunvor | Philipp Müller H+E | Voestalpine |
| Bernecker & Rainer | Henkel | ProRhen | Wackerbauer |
| BMW | Hochwald Nahrungsmittel | Rheinfeld Alloys | Wacker Chemie |
| BMW Technik | Hydro Aluminium | Roche | Yokogawa |
| Borbet | Jacobs Engineering | RW Silicium | Zeppelin |
| Borealis | Kehlheim Fibres | Salinen Austria | |
| Brauerei Erharting | Klößner Pentaplast | Sandoz | |



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