

# **D-EMS 2000**

# Environmental and Process Data Management System



**2001/80/EC  
European  
Directives  
2000/76/EC  
EN 14181**

**NEW: EN 15267 certified**

**1., 2., 13., 17., 27., 30., 31.**

**BImSchV**

**TA Luft**

**DIN EN 14181**

**DIN EN 15267, VDI 4201**

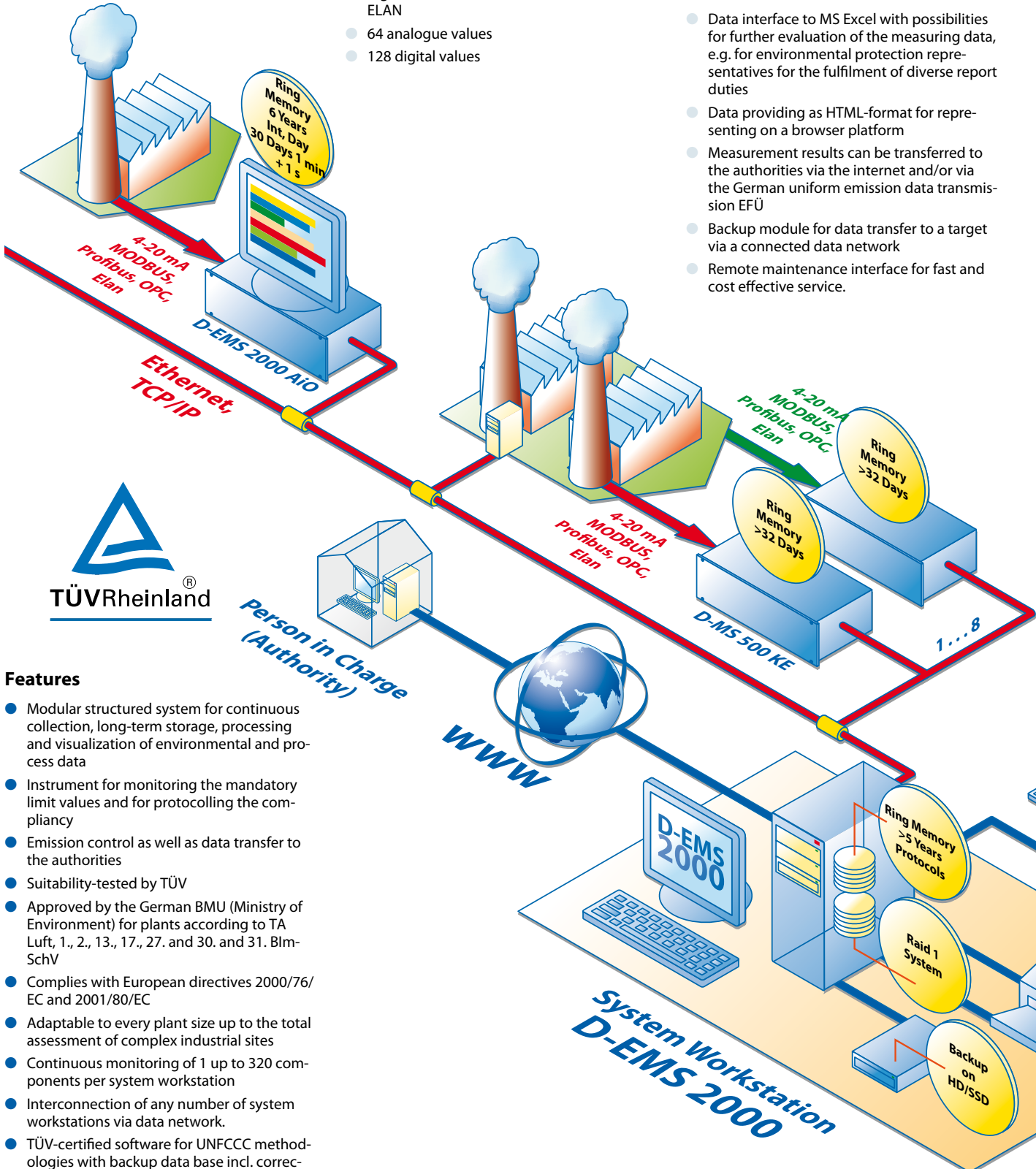
**Greenhouse Gas Trading  
UNFCCC approved  
methodologies**



**UNFCCC**

## Environmental and process data management system

Modular system for continuous acquisition, long-term storage, calculation and visualisation of environmental and process data.



### Features

- Modular structured system for continuous collection, long-term storage, processing and visualization of environmental and process data
- Instrument for monitoring the mandatory limit values and for protocolling the compliancy
- Emission control as well as data transfer to the authorities
- Suitability-tested by TÜV
- Approved by the German BMU (Ministry of Environment) for plants according to TA Luft, 1., 2., 13., 17., 27. and 30. and 31. BIm-SchV
- Complies with European directives 2000/76/EC and 2001/80/EC
- Adaptable to every plant size up to the total assessment of complex industrial sites
- Continuous monitoring of 1 up to 320 components per system workstation
- Interconnection of any number of system workstations via data network.
- TÜV-certified software for UNFCCC methodologies with backup data base incl. correction function

### Measurement Data Recording

Interface modules with internal buffer capabilities for the measurement data collection of up to 96 days for all raw values before processing in the windows based system workstation

- hardwired analogue/digital in- and outputs (0-20 mA)
- 48 analogue values (dry contact)
- 90 digital values
- digital interfaces Modbus, Profibus, OPC, ELAN
- 64 analogue values
- 128 digital values

### Data Sources

- Emission data
- Immission data
- Meteorological data
- Water and waste water data
- Process data
- D-EMS data

### Data Export

- Data interface to MS Excel with possibilities for further evaluation of the measuring data, e.g. for environmental protection representatives for the fulfilment of diverse report duties
- Data providing as HTML-format for representing on a browser platform
- Measurement results can be transferred to the authorities via the internet and/or via the German uniform emission data transmission EFÜ
- Backup module for data transfer to a target via a connected data network
- Remote maintenance interface for fast and cost effective service.

## Data Security

The system makes it possible to substitute chart recorders and printers by paperless data filing due to the integrated data security, which is ensured throughout the system on several levels:

- Intermediate storage of the raw input values in intervals of 1 second in the D-MS 500 KE Data Communication Unit
- Doubled data storage on two separate hard disks in a RAID1-setup
- Storage of raw analogue values in 1-second averages
- Data backup on external HD/SSD or server.

## Internet/Intranet Interface

- Data transfer to an internet server to present the emission data in HTML standard mask via MS Internet Explorer
- Password protected control of daily emission values in logs and line diagrams.

## Visualization

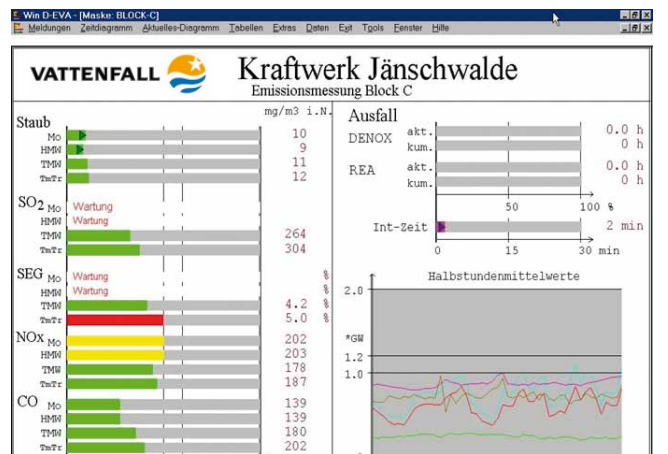
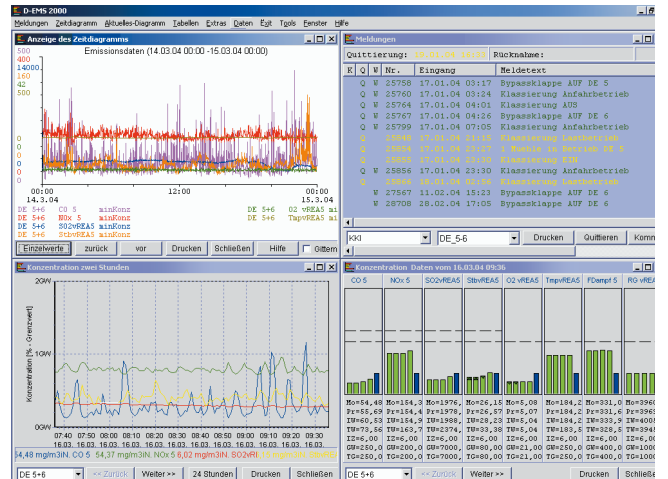
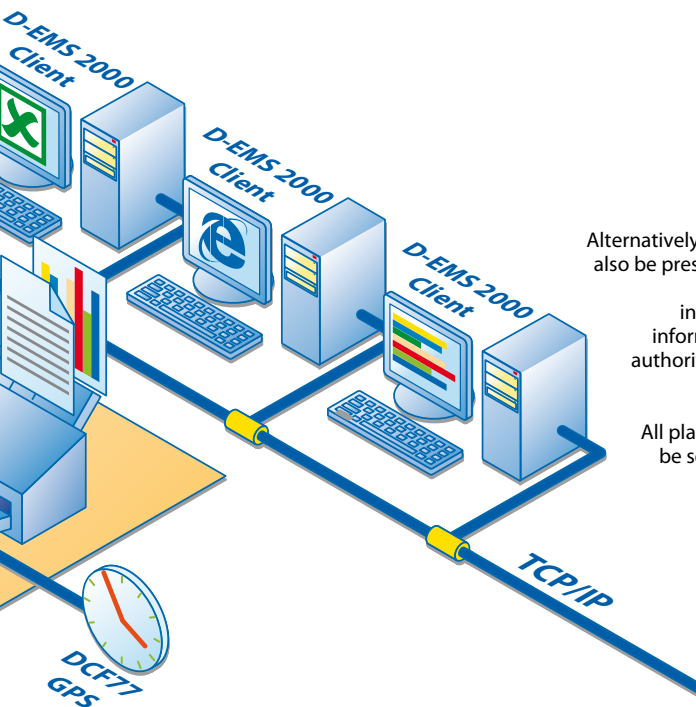
- Measuring data logging in accordance with the official requirements, various logs, daily, monthly and yearly records
- Representation of current, prognostic as well as historical measuring data as bar graph or line chart
- Pollutant balancing, family of characteristics and correlation representations possible
- Automatic reporting and information system incl. comment function.

Alternatively: representation of current data, historical data over a short or long period or event messages, arbitrarily combinable.

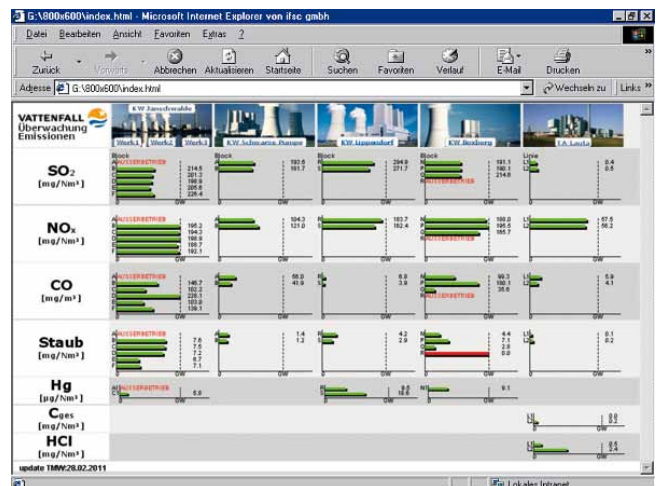
In addition to the standard representations system-specific masks for the information of the operating staff can be created.

Daily, monthly, yearly and statistical protocols are possible in addition to the official classifications.

Alternatively the data can also be presented on the internet/intranet for the information of the authorities in charge or operation executives. All plant details can be selected using hyperlinks.



Power station DURAG							Daily log concentration of the pollutants							Power station DURAG							Monthly log concentration of the pollutants							Power station DURAG							Annual log concentration of the pollutants						
Boiler A							of 01.05.02 0:00 a.m. to 12:00 p.m.							Boiler A							of 01.01. to 31.01.2002							Boiler A							of 01.01. to 31.12.2002						
Time	SO2	Dust	NOx	O2	Temperature	Steam	SO2	Dust	NOx	O2	Temperature	Steam	Day	SO2	Dust	NOx	O2	Temperature	Steam	Monthly	SO2	Dust	NOx	O2	Temperature	Steam	Monthly	SO2	Dust	NOx	O2	Temperature	Steam								
00:30	1974	8,1	270	4,5	161	280	1974	8,1	270	4,5	161	280	01.01.	1320	14	216	4,5	161	280	01.01.	374	7	134	4,5	160	280	01.01.	374	7	134	4,5	160	280								
01:00	1944	8,1	270	4,5	161	280	1944	8,1	270	4,5	161	280	02.01.	1772	14	275	4,5	161	280	02.01.	385	0	128	4,5	161	280	02.01.	132	0	132	4,5	161	280								
01:30	1934	8,1	266	4,5	161	280	1934	8,1	266	4,5	161	280	03.01.	1812	14	272	4,5	161	280	03.01.	353	6	131	4,5	163	279	03.01.	140	14	140	4,5	161	280								
02:00	1953	8,1	266	4,6	161	280	1953	8,1	266	4,6	161	280	04.01.	1830	14	270	4,6	161	280	04.01.	353	6	131	4,6	163	279	04.01.	140	14	140	4,6	161	281								
02:30													05.01.							05.01.	353	6	131	4,5	162	280	05.01.	140	14	140	4,5	161	281								
03:00													06.01.							06.01.	366	9	131	4,6	161	281	06.01.	140	14	140	4,6	159	281								
03:30													07.01.							07.01.	380	18	129	4,8	159	281	07.01.	140	14	140	4,8	161	281								
04:00													08.01.							08.01.	476	19	126	4,6	161	281	08.01.	140	14	140	4,6	161	281								
04:30													09.01.							09.01.	370	18	126	4,6	161	281	09.01.	140	14	140	4,6	161	281								





**Module D-EFÜ.www**  
Providing of emission data for the authorities via Internet



**Module D-RWS**  
Raw data storage with 1 or 2 seconds resolution



**Module Water Management**  
Evaluation and/ or control software for fulfilling water law requirements



**Module D-PM.MS**  
Direct access from MS Excel to the D-EMS database



**Module D-QAL**  
Automatic generation of Cusum card documentation according to EN14181



**Module US EPA**  
Evaluation software according to US EPA 40CFR60 and 40CFR75



**Module D-EVA-Win**  
Visualization software for workstations in data networks



**Module D-RED**  
External redundant storage of measuring values and protocols



**Module D-CDM**  
Calculation and statistics according to UNFCCC methodologies



**Module AMS Control**  
Free configurable step control for automatically analyser's calibration, back purging etc.

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