

## iAFIS Internet Article DeFects Information System

## State of the Art Control System for Glass Container Manufacture

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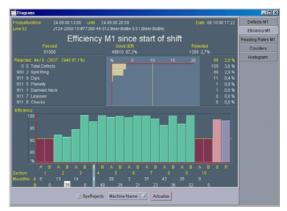
iAFIS (Internet Article DeFects Information System) from EKF Elektronik represents the next generation of high performance control systems for container glass manufacture, collecting data starting with the IS-machine, up to the palettizer.

iAFIS is Internet capable, meaning all human interface and application programming uses data protocols and communication tools of the Internet. A JAVA enabled browser can be used to view all details of the manufacturing process and quality statistics. All data are available from everywhere on the local plant (Intranet), or worldwide accessable by Internet (via Secure Shell / VPN / Terminalserver etc.).

Alphacam
Inspected 4730
Rejects in % 0,4
0 - 6 % Dips in % 12,7
Checks in % 0,2
Rejects 0-10% Dips in % 0,2
Rejects 0-10% Dips in % 3,3
Bore in % 0,4
Dips in % 3,3
Checks in % 0,2
CSBC in % 0,2
Rejects 0-10% Dips in % 0,2

Excerpt from iAFIS Detail Window

iAFIS follows up the idea of client/server architecture, thus splitting the system into a manufacturing process data acquisition and concentration task (server side), and the task of data purifying and presentation (client side).



Sample iAFIS Screen (Efficiency)

Data acquisition is done by proven industrial grade modular computer boards running Windows XP embedded. Data presentation however can be executed on any standard low-cost PC. The communication between client and server is based on the TCP/IP Internet protocol. Physically, the Ethernet Local Area Network must be present where ever iAFIS data have to be displayed.

iAFIS relies on a standard SQL/JDBC database server for data storage and retrieval, (e.g. SAP-DB/MAX-DB, Oracle, DB2, Microsoft SQL Server), connected to the LAN. Hence, the user profits from the standardized access to the SQL database (especially when generating his own queries).

iAFIS is an open system and shares its data pool with other applications, e.g. office suite software like Excel, but also can interoperate with enterprise solutions as SAP R/3 or Baan ERP.

For maximum portability, the iAFIS human interface and application programs are written in pure Java. This code is executable on any system that the Java Virtual is equipped with M a c h i n e, independent of both, the type of c o m p u t e r Java hardware in use (e.g. Intel PC, Sparc), and also the operating system (e.g. Windows, Linux, Solaris). If a Java compliant Internet browser is available on the client system, this machine is instantly ready for iAFIS.

Bound to the local Ethernet backbone, iAFIS information services are available all over the the local plant, wherever they are needed. When the LAN is connected to the Internet additionally, data from remote sites equipped with iAFIS also can be collected and displayed, or local data can be exported to an external viewer. In order to ensure data security, the local Firewall has to be configured adequately. By Internet, iAFIS builds a virtual factory. iAFIS is an open system and can interoperate with enterprise solutions as SAP R/3 or Baan ERP.



## Range of Information Covered by iAFIS

- Production machine
- Mould changeover, tools changeover, breakdown times ...
- ◆ Weight at the hot end
- Ingoing and outgoing end of the lehr
- Squeezer
- ◆ MSC inspection equipment (MCAL, MCF, Multi ...)
- ◆ AGR pressure testers (SPT/RPT), AGR OLT
- ◆ SGCC inspection machines (CO, M1, ALPHACAM ...)
- ◆ Emhart / Powers CIM / TIM and Veritas inspection machines
- ♦ INEX inspection equipment (512x512, SUPERINSPECTOR, SUPERSCAN, MINILAB)
- Mould reject history
- Packaging feed
- ◆ Samples
- Error messages
- ◆ User configurable alarms
- Fault evaluation according to type number
- Results from coldend-laboratory / qualitity control

## iAFIS is manufactured by:

EKF Elektronik GmbH Philipp-Reis-Str. 4 D-59065 HAMM (Germany)



Tel. +49 (0)2381/6890-0 Fax. +49 (0)2381/6890-90

E-Mail info@ekf.de

Internet http://www.ekf.de http://www.iafis.com http://www.iafis.de

