

# T.I.G. ■ FOR PLASTICS

Reference Weidmann AG – plastics technology



## Weidmann AG:

The Swiss company Weidmann AG is a leading producer of industrial systems in the medical, automotive, sanitary, tunnel construction, and mining industries. The company is part of the Wicor Group, presently employing 789 people in Switzerland, Germany, Brazil, and the USA.

Weidmann AG is a certified system supplier in accordance with ISO 9000/9001 and ISO/TS 16949, offering services such as development and construction, tool manufacturing, and the production of finished products. The company owns 155 injection moulding machines, some of which have been equipped for two- or three-component injection moulding, true to the core competence of this company. The machines have been supplied by Krauss Maffei, Arburg, Netstal, and Engel, ranging from 25 to 1100 tons of clamping force.

## Outline of the project:

In close co-operation, Weidmann AG and TIG have put into practice the consequent acquisition of operation and production data, mapping production jobs from the superset ERP-System (SAP) right down to the machine. TIG has integrated the injection moulding machines into a network by means of „intelligent“ terminals, supervising the schedules of individual production jobs online while checking the status of every machine. The central control centre serves to visualise the current state of production at any time, enabling the identification and correction of machine breakdowns and delays in production. The system enables the preparation of fault analyses and the elimination of recurring defects.

The preventive elimination of non-conformities is an important means for the lasting improvement of productivity and the minimisation of material cost. Impending deviations from confirmed delivery dates may be tackled right away. A sophisticated, electronic fine-planning tool enables production jobs to be scheduled with utmost precision. A mere glance at the display will reveal the current work load of all the machines online. The TIG software downloads the production and master data from the superset production planning system, on the one hand, uploading production progress and actual data, on the other.

## Various plants – Replication of data

Weidmann AG owns production plants in six locations in Switzerland, Germany, Brazil, and the USA. There is a privately owned data line to link these locations. We have installed the **T.I.G. ■ MANUFACTURING MANAGER** in all six plants. The head office distributes incoming orders to six production sites, loading them right into the TIG control centre of the respective plant by means of state-of-the-art technology such as Citrix Metaframe and VMWare. Data replication constantly updates the operation and production data in all six sites.

The head office pools the data of all its plants, automatically grouping and evaluating them in terms of moulds, orders, or shifts without major data base activities! In other words, Weidmann AG is now in a position to access their data concerning productivity, capacities, and schedules from anywhere within the concern at the push of a button.



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## Figures

We installed the **T.I.G. ■ MANUFACTURING MANAGER** in August 2000; Mr. Robert Göldi, production manager of Weidmann AG, summarises his experience as follows:

### Growth in productivity

From August 2000 to March 2001 the **T.I.G. ■ MANUFACTURING MANAGER** contributed to a growth in productivity from 73 % to 83 %, corresponding to an increase of 10%! Over the same period, machine downtime was cut by approx. 1000 hours in 16 machines in Rüti/CH and 17 machines in Ennenda/CH!

#### Financial result

This growth in productivity has brought about financial economies of approx. SFr 100,000.00, converting to approx. EURO 65,000.00 over a period of 8 months. Thanks to this improvement Weidmann AG kept the production of two high-volume articles to themselves.

### Improvement of product quality

... and higher sensitivity of workforce. The **T.I.G. ■ MANUFACTURING MANAGER**, continuously checking scrap rates, contributed to a cutback in rejects by 2%, adding up to a monthly SFr. 40,000.00, i.e. approx. EURO 26,000.00.

### Supervision of cycle time

The uninterrupted supervision of cycle times has been our means to improve the cycle times of a number of articles by 2 to 8 seconds, slashing setup times and making production more cost effective.

### Reduction of setup times

Imposing the above measures and fine-planning all orders by means of the **T.I.G. ■ PLANNING ASSISTANT** resulted in approx. 100 hours less setup time per week, corresponding to approx. SFr. 20,000.00, i.e. EURO 13,000.00 each week!

### Greater transparency

The **T.I.G. ■ MANUFACTURING MANAGER** has sensitised our workforce in terms of the above-mentioned issues – improving the quality and cost consciousness of every individual, while contributing to the safety of everybody's job.

Each month our staff has a meeting to discuss important parameters contained in the **T.I.G. ■ REPORTING ASSISTANT** (productivity, scrap rate, order planning). These meetings have further improved responsibility within a short period of time!

The **T.I.G. ■ MANUFACTURING MANAGER** creates transparency, supporting quick, correct, and important decisions (e.g. machine purchases etc.)!

### Summary: Return on investment

The below table projects financial economies to a period of 12 months:

Savings on account of increased productivity:	EURO 97,500.00
Savings on account of improved reject rate:	EURO 312,000.00
Savings on account of shorter setup times (considering 42 production weeks):	EURO 546,000.00
Overall economies within 12 months:	EURO 955,500.00