

## MOL Gas Processing Plant Saves Big With Honeywell Advanced Process Controller



MOL was able to demonstrate a significant return on investment with almost \$200K in yearly savings and a huge profit margin increase using Honeywell's advanced process control solution.

### Preliminaries

The Hajduszoboszló Gas Plant, belonging to the north production area of the Upstream Division of the MOL Oil & Gas Company, has been running since 1965. During this time there have been continuous improvements to the process and in the control system. The rich gas plant capacity is 2 million m<sup>3</sup>/year, but the plant is currently running on 1.6 million m<sup>3</sup>/year capacity. In addition the propane and butane, content of inlet gas also decreased during this time. In response, the plant tries to maintain profitable production through continuous process improvements.

A preliminary benefit study by Honeywell convinced the management of MOL that using advanced process control (APC) can further decrease costs and help maintain profitable production.

### Benefits

With Honeywell's help, MOL was able to demonstrate the intrinsic value and benefits of Honeywell's APC solution in less than eight months. Specific benefits included:

- Rapid installation
- Quick return on investment of \$198K in annual savings
- 7.5 percent reduction in fuel gas consumption
- Reduction of the column reboiler duties
- Significant reduction in electric power consumption of the cooling compressors
- Improved access to process and analyze data for better decision making
- Increased confidence in meeting product quality targets within specified ranges



MOL teams with Honeywell for innovative APC project and realizes significant return on investment.

### Background

A series of successful business transactions transformed MOL from a local Hungarian company into a leading international conglomerate. MOL Group comprises a leading Hungarian chemical company, TVK, the Slovakian oil company, Slovnaft, the Austrian retail and wholesale company, Roth, and a strategic partnership with the Croatian company, INA.

MOL Group is a market leader in each of its core activities in Hungary and Slovakia, including:

- Exploration and production of crude oil and natural gas
- Gas production and distribution
- Refining, transportation, storage and distribution of crude oil products, both retail and wholesale
- Transmission of natural gas
- Production and sale of olefins and polyolefins

## Challenges

As Hungary's leading oil and gas company, MOL planned to increase the efficiency of its Hajduszoboszlo Gas Processing Plant, where final products produced are propane and butane or a combination mixture and gasoline.

A preliminary benefit study by Honeywell APC engineers convinced MOL management that a successful APC implementation could reduce cost significantly.

## Solution

After tendering Honeywell's APC solution, Profit Controller® was chosen as the technology to achieve the economic and operation objectives. Profit Controller provides powerful, easy-to-use APC capabilities through the use of Honeywell's patented Robust Multivariable Controller Technology (RMPCT).

During the project a number of specific challenges arose and were resolved:

- Providing an interface to a Yokogawa CS3000 system in a very short time period
- Providing level measurement in the gas chillers
- Maintaining valves in controllable region for remover column
- Maintaining the specification of propane or propane-butane mixture product and the valves in controllable region for depropanizer column
- Maintaining the specification of butane product and maintaining valves in controllable region for debutanizer column
- Finishing the entire project in a six month timeframe

Profit Controller was applied on both Honeywell and third-party control systems. In addition, as Profit Controller manipulates multiple process variables continuously and automatically, it significantly reduces the workload of control room operators, enabling them to spend more time optimizing the process, rather than being involved in the continual adjustment of the process.

The return on investment was crucial in this project. With this successful APC installation, MOL reduced cost and increased profit. The project resulted in a number of key benefits for the customer. Fuel gas flow was reduced, as well as the electric-power consumption of the cooling compressors. A reduction of the column reboiler duties was also observed.

The professionalism of the Honeywell team and their expertise in both APC solutions and technology integration was key to this implementation. At the termination of this project, the benefits were quantified during a two-week post-audit period and resulted in a 7.5 percent reduction in fuel gas consumption and significant reduction in electric-power of cooling compressor with an annual benefit of \$198K in savings.

## More Information

For more information on Honeywell's APC Suite or any of Honeywell's automation Products, Services, or Solutions, visit our website [www.honeywell.com/ps](http://www.honeywell.com/ps), or contact your Honeywell account manager.

## Automation & Control Solutions

Process Solutions

Honeywell

2500 W. Union Hills Dr.

Phoenix, AZ 85027

Tel: +1-602-313-6665 or 877-466-3993

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