

Plug & Produce

MG2 Machines plug & produce ready according to MTP (Module Type Package) Implementation

Since many years MG2 Machines have the capability to connect to Company-wide networks through standardized modules such as OPC UA Servers, Domain Authentication, Time Server Synchronization, Automatic SQL Server Database Batch Transfer, Automatic Network Database Backup, Centralized Batch Reporting generation.

Now a new module joins the Connectivity Family to make MG2 Machines even more PLUG & PRODUCE. MTP Readiness let our Customers to easily integrate MG2 machines into their IT environment.



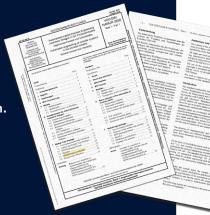
WHY MODULAR PRODUCTION?

Reduced Time-to-Market				Improved Efficiency	Increased Flexibility
Standardiszed Process Module	Modular Process Technology	Modular Plant Design	Standardized Interfaces	Modular Automation	Flexible Adaption
Purification	Feed Feed Purification	Reaction Purification			
Module Engineering	Modular Plant Engineering				
	Process Design	Configure	Plug	Produce	Rearrange

Source: www.namur.net/en/

MTP – MODULE TYPE PACKAGE

- MTP is a vendor independent description of production modules.
- ▶ It is the foundation for modular plant engineering by a «Plug&Produce» approach.
- Concept defined and promoted by NAMUR, an international association of companies active in process industry.



CUSTOMER BENEFITS



Plug & Produce approach for individual equipment



Scalability of modules from research to production



FASTER TIME-TO-MARKET Fast upscaling from lab to production



INCREASED FLEXIBILITY Reduced maintenance and storage costs

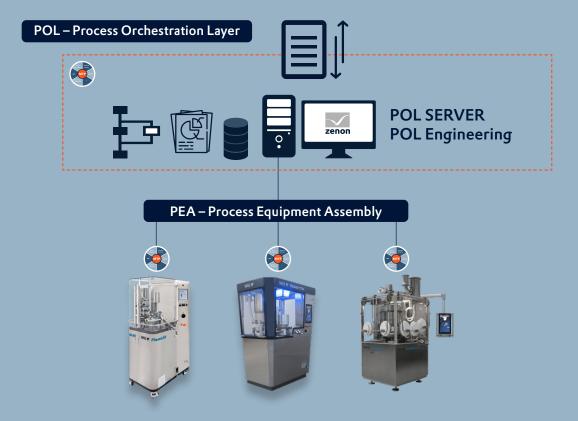


No programming skills required



LOWER PRODUCTION COSTS Smaller batch sizes and decreased investment risk

PLUG & PRODUCE INTEGRATION OF MTP READY MACHINES



SIMPLIFY THE PRODUCTION PROCESS WITH MODULARIZATION

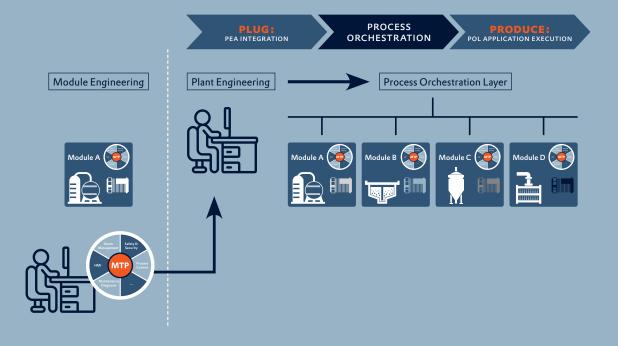
Digitalization and modularization provide solutions to meet these new challenges. Modular production breaks down the overall activity into small parts and streamlines the process. In contrast to the old, monolithic view of production systems, a modular approach divides the production process into individual services and standardizes these. Logically interconnected, the individual modules can be reconfigured in virtually unlimited combinations (as in a Plug & Produce model). The result is a high-performance solution for agile production that not only provides benefits for the pharmaceutical and process industries, but will also revolutionize production across a range of industries.

MODULE TYPE PACKAGE – A PARADIGM SHIFT IN PRODUCTION

The basic requirement for end-to-end modularization in production is a standardized definition of the information from the individual modules. Standardized definitions are based on the cross-industry and cross-manufacturer "MTP" (Module Type Package) standards. The machine interface is defined in a file called MTP Manifest. MTP manifest can be created in zenon MTP studio following the MTP information model.

The functions of the machine can be managed via services. All information is provided in a standardized format and can thus be integrated in a higher-level process orchestration layer (MTP POL). zenon software platform act as POL. All machine integration steps are executed in zenon POL. As result the data integration of a new module is generated fully automatically in just a few steps.

THE ENGINEERING STEPS



MTP MANIFEST DESCRIBES MACHINE IT INTERFACE

MTP Manifest describes:

- Services
 - Batch interface: receiving parameters of the batch to be produced
 - Batch Load: receiving batch information from POL (e.g. BatchID, ProductName, RecipeName, ...)
 - Batch result: sending to POL production data at the end of the batch (e.g. Pieces produced, Pieces rejected, SPC info, ...)
- Real-time values
- Alarms / GMP exceptions
- Graphical representation of the machine on the POL level
- The definition of the services that the machine can offer is freely configurable within the MTP file/MTP Editor.

GET IN TOUCH





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> Get more information about MTP