

# New ModulTherm 2.0 Features



Keyword	Technical features	Advantages for the customer
Reduced cycle time	Cycle time is reduced from 25 to 15 min. Quench module operates faster, better pumping capacity, bigger compressor, process optimization.	40% productivity increase. More treatment chambers can be operated per plant (reduced investment)
Extended Database	A detailed database is set up, configurable as needed. Comprehensive search functions.	Data can be used for statistics
Reduced Noise Emission	New pumps, Hena/Busch instead of Uno Noise level measurement at company Getrag have shown values of < 75 db(A)	Noise protection regulations in the automobile industry are met without any additional noise protection measures. No investment in noise protection measures. Improved working conditions.
Higher Reliability	Through the evaluation of production experience and optimization, i. e. elimination of weak points of the individual plant components (valves, sensors).	Higher availability / reliability. Avoidance of unscheduled plant downtime, prolonged maintenance intervals.
Process-Monitoring (Pro-Mo)	Important process data are monitored in relation to the load. The exceedance of threshold values are identified and documented.	Higher quality standard. Prevention of bad loads, no risk of transmission failures (recalls).
Higher Automation Level	Automatic start and shut down of the plant (weekends, service, scheduled downtime), start-up and shut down process is freely configurable.	Reduced staff, reduced energy
Priorization of Charges	User-defined prioritization of loads in the load buffer by operator. The production step heat treatment is adapted to the entire production chain.	Production flexibility

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Automatic Leaktest	The leakrate in each treatment chamber is tested fully automatically. Process disruptions due to air leaks in the plant are prevented.	Prevents bad part quality
Optimized Recipe Management	Recipe status (development, released, disabled)	Reduction of faulty treatment due to incorrect recipes
Charge Identification	Visual documentation of charge information through cameras. Notification in case of a faulty charge set up.	
Automated Data Backup	Data is saved fully automatically on additional back-up systems at regular intervals	Highest data security possible
Netviewer	Diagnostics and analysis of failures in the plant via internet. Control and error correction is possible via internet.	Rapid analysis of errors in case of failure. Downtime due to errors is kept to a minimum. Highest availability. Reduction of costs resulting from failures (service, production downtimes).
Energy Management	Minimized energy consumption because of better energy management as a result of optimized processes	Reduced connected load. The prevention of electric power peaks during power consumption leads to reduced consumption costs.
Improved Alarm Handling	Alarms are identified thus allowing an easy search, filtering and statistical evaluations	Simplified analysis of the plant's weak points (Pareo analysis). Improved availability, optimized maintenance intervals to prevent unscheduled downtimes of the plant.

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Management of Machine Parameters	There are various levels of machine parameters: (ALD>not changeable, customer parameter >changeable by customer, default parameter>preset by manufacturer, development parameter>for development purposes)	Increased protection against faulty parameter setting. Simplified parameter modification.
Automatic Switchover of Process Pump Set	If required (increased process gas flow, more treatment chambers in operation) additional pump sets are switched on automatically without mechanical or manual switch over	Simplified operation, reduced operating errors
Load Weighing System	Load is weighed prior to process start. Weight is compared to set value of the recipe. Error is indicated in case of deviation set/actual.	Loads with faulty set up are identified. Faulty loads due to false recipes are prevented.
Service Manager	Maintenance intervals can be selected according to various criteria. Example: Number of charges/TC resp. duration heating on/TC.	Optimized /reduced maintenance intervals. Reduction of downtimes
Furnace Timing	Improved depiction of the plant's time response by listing temporal sequences, for example: when does a load enter/leave the plant	Better planning of the total production flow
High Level of Standardization	Sensor system, valves are standardized. Minimized selection of parts (4 instead of 10 types) instrumentation is strongly geared to the standard of the automobile industry	Reduced spares inventory, simplified maintenance