

Ascential

Technologies | Test & Measurement Systems

Herec line

Automatic helium
recovery system

Galileo

Herec K is the product family line for Helium reclaiming and storage by Galileo TP Process Equipment.

The recovery of used helium will become even more important in the future because:

- ▲ Helium is a non-renewable resource with an increasing cost
- ▲ Recovering is necessary in order to meet the environmental certification requirements under DIN EN ISO 14001
- ▲ Reclaiming helps save natural resources

The new series of machines have been designed to cover a wider range of applications.



Fully independent

The Herec K line automatically performs Helium reclaiming, concentration measurement and new gas refilling. The system automatically checks the Helium concentration in the storage tank and sounds an alarm if it is under the user programmed threshold. The recovery unit continuously checks the tank pressure - if the pre-set pressure values are no more reachable, the unit automatically performs a refilling operation via an external Helium tank. This operation can also be completed manually under the supervision of the operator. The system has been designed to reduce the loss of Helium and to guarantee the internal recovery of the helium used for the concentration measurement as well.

The Herec K line is designed according to Pressure Equipment Directive (PED) and European standards.

Tracer gases charging machine interface

The new Galileo TP's software guarantees accurate live communication with the helium charging machines. The main features are:

- ▲ Optimization of recovery efficiency
- ▲ Improved performance of our leak detection system
- ▲ Optimization of multiple lines management
- ▲ Remote alarm communication



Low pressure

Herec K 75 C "the entry level solution for recovery"

Herec K 75 C has been designed for small production lines with helium test pressure lower than 8 bar to guarantee a low cost investment. The system is composed of one compression stage (without a high vacuum recovery line) with a maximum working pressure of 10.5 bar and a small storage capacity of helium.



Low pressure

Herec K 75 S "recovery line under vacuum: maximum recovery efficiency for low pressure"

The Herec K 75 S is the the ideal, small footprint solution for medium and small production lines with helium test pressure lower than 13 bar. The system provides a recovery line under vacuum (managed by a double stage vacuum pump) to achieve the maximum recovery rate and faster recovery time, along with a very low helium testing pressure. Herec K 75 S guarantees more flexibility compared to the Herec K 75 C, due to the lower recovery pressure on the inlet stage and the higher outlet pressure (up to 14.5 bar).



High pressure

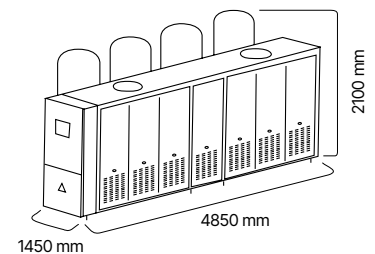
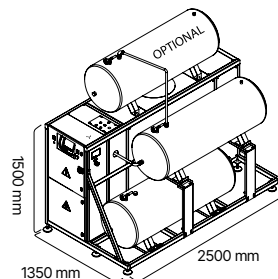
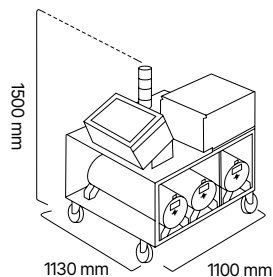
Herec NK HP 100/200/600 "higher performance and maximum flexibility use"

Herec NK HP 100/200/600 has been designed for applications up to 80 bar, and thanks to its storage capacity (additional recovery tanks available), is able to manage multiple production lines as well as very big cooling units. The systems on the high pressure side can work up to 110 bar. The system guarantees a good quality of the recovered helium thanks to filters and moisture separators. To help user managing the leak detection parameters, the new control software provides a high level of diagnostic and special functions, including:



- ▲ Advanced diagnostics for the detection of static leaks and performance of the system
- ▲ Automatic procedure to maintain a stable concentration with a tolerance of +/- 5%
- ▲ Specific tooling to help the programming of the correct parameters on the recovery system and leak detection machines, to guarantee maximum efficiency
- ▲ Record of the last 20 alarms
- ▲ Helium consumption measurement (optional)
- ▲ Dew point measurement (optional);
- ▲ Optimization of multiple stations simultaneously and test units with big volumes (optional)
- ▲ GEDA connection for remote alarm and supervision

	Herec K 75 S/C	Herec NK HP 100/200	Herec NK HP 600
Overall dimensions (only cabinet)	1100×1130×1400 (h) mm		
Weight	260 kg		
Operating temperature range	+0°C to +50°C	+0°C to +50°C	+0°C to +50°C
Operating temperature range	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Capacity of tank (liters)			
Vacuum tank S1	50 (0 for "C" version)		
Intermed tank (S2)	50 (100 for "C" version)		
High pressure tank (S3)	50		
Helium recovery rate	75 NI/min		
Helium efficiency	>95%	>95%	>95%
Helium recovery pressure (inlet pressure)	"S" version: 5-100 kPa abs "C" version: 60-100 kPa abs		
Maximum helium outlet pressure	"S" version: 1550 kPa abs (14.5 bar)		
Voltage supply	460V 60 Hz - 400V 50Hz with 3 phases		
Power consumption	"S" version: 2,5 kW "C" version: 1,8 kW		
Helium supply range	500kPa to 800kPa, equivalent to 5 bar to 8 bar	500kPa to 800kPa, equivalent to 5 bar to 8 bar	500kPa to 800kPa, equivalent to 5 bar to 8 bar
Compressed air supply range	500kPa to 800kPa, equivalent to 5 bar to 8 bar	500kPa to 800kPa, equivalent to 5 bar to 8 bar	500kPa to 800kPa, equivalent to 5 bar to 8 bar
Noise level	< 80 dBA	< 80 dBA	< 80 dBA
Optional			
Light tower	yes	yes	yes
Kit buzzer	yes	yes	yes
Dew point measurement	no	yes	yes
Consumption helium measurement	no	yes	yes



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Impossible? Done.