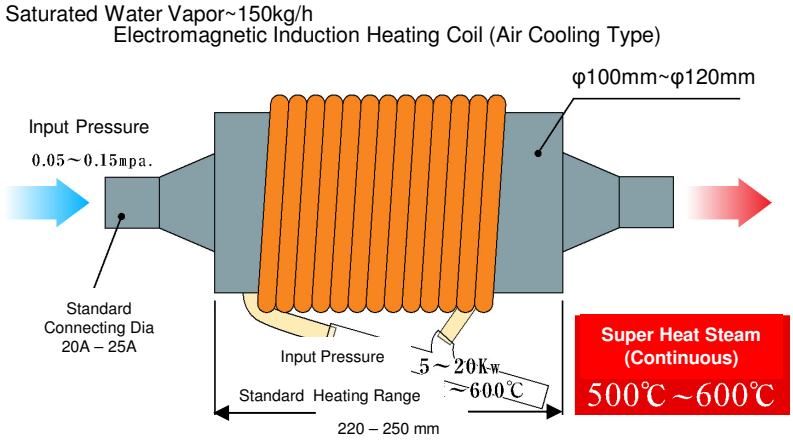
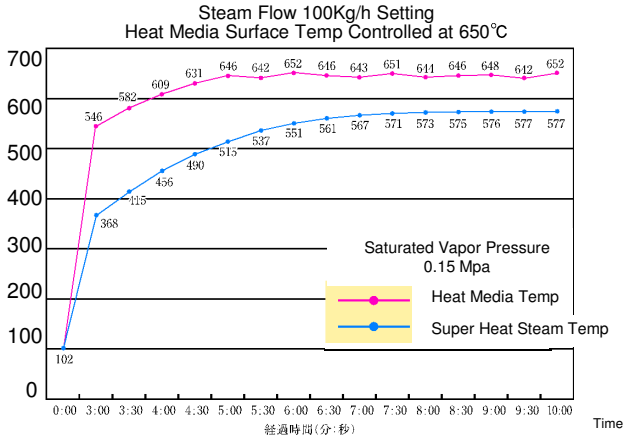
野村技工株式会社
Nomura Engeneering co., ltd.

Mechanism of Super Heat Steam Unit "GENESIS"





The above image shows the Electromagnetic Induction Heating. This technology is already well known as one of the common method of heating. Nomura Engineering offers very stable Heating Control and enormous volume of Super Heat Steam continuously with innovative heating Media configuration. Heat Media=Heat Exchanger is normally considered to have a surface area as much as possible to reach the most efficient heat exchanging. To achieve it, normally very thin plate or tube, foaming metal, or stainless scrubber is used for heat Media configuration though, it causes a flow rate loss in inverse relation to the heat efficiency. Also, durability tend to be less by having these configuration.
Against these logic, Nomura Engineering has totally different approach. Nomura Engineering's unique technology achieved durable and maintenance free configuration, which is patent filed.

The above right chart shows the Operating Data of "GENESIS" for the beginning of 10 minutes. As shown there, "GENESIS" only needs 5 minutes to get 500℃ Super heat Steam and becomes stable at 577℃. With its control system, Super Heat Steam temperature can be controlled +/- 1℃ against setting Temperature.

"GENESIS" Standard Model Specification

as of SEP, 2012

Model	Inverter Output	Connecting Dia.	Steam Flow Rate Steam Temp	Remark
GE-100	20KW	25A	100kg/h → 500℃ (Rated Power)	*pressure 0.15Mps *Rated Power = in condition of Steam Flow Meter/Valve controlled.
GE-75	15KW	25A	75kg/h → 500℃ (Rated Power)	*pressure 0.15Mps *Rated Power = in condition of Steam Flow Meter/Valve controlled.
GE-60	10KW	20A	60kg/h → 500℃ (Rated Power)	*pressure 0.15Mps *Rated Power = in condition of Steam Flow Meter/Valve controlled.
GE-38	7KW	20A	38kg/h → 500℃ (Rated Power)	*pressure 0.15Mps *Rated Power = in condition of Steam Flow Meter/Valve controlled.
GE-30	5KW	15A	30kg/h → 500℃ (Rated Power)	*pressure 0.15Mps *Rated Power = in condition of Steam Flow Meter/Valve controlled.

GENESIS
「Super Heat Steam Unit」
Small, but Enormous Output

** Easy Control. +/- 1℃ range control against setting Temp.
** Achieve target Temp stably within 10 minutes.
** Maintenance Free and Durable Heat Exchanger
** Exchanger Unit can be separated from Control Cabinet/Panel (5m long cable incl.)

-Note-

* Above Data is under the condition of keeping 0.15Mpa Pressure for supplied(primal) Saturated Water Vapor with appropriate drain installation.
* The Boiler to supply(primal) Saturated Water Vapor is not included.
* Any piping work or installation work, and devices which are necessary to feed the supply(primal) saturated water vapor are out of scope.
* Control Cabinet/Panel and Exchanger Unit can be separately installed with additional cable supply.
* Exchanger Unit shall be used in open atmosphere as it needs Air Ventilation.
* To minimize the Heat Loss, Site Layout shall be considered with the shortest Piping Work for Super Heat Steam output.
* Due to the usage of High Frequency Electric Power, Cable is duct insulated. Also, please make sure that any metal is away from the cable and Exchanger Unit.
* Basic Delivery Term is FOB Japan Seaport.
* Performance shall be accepted by customer by execution of Pre-Delivery Inspection/Performance Test at NOMURA Engineering's Work Shop.
(Performance: Saturated Water Vapor 0.15Mpa, 100kg/h → Achieve 500℃ Super Heat Steam at the outlet of the Unit in stable condition.)
* Steam Flow Rate and Steam Pressure (Max 5Kg) can be discussed as per customer's request.
* Control Cabinet design can be changed as per customer's request.
* Production Specification is subject to be changed without notice.