

Steam Generators

Holding pressure & safely transferring nuclear heat
For Large and Small Modular Reactors

Framatome designs, qualifies & manufactures several sizes of Steam Generator

Challenge

The Steam Generator is a High Integrity and Nuclear Safety related Component which meets the requirements of applicable construction codes, such as ASME & RCC-M, and regulations as well (ESPN, YVL...). Conformity is demonstrated at each step of the manufacturing process, as per ISO 19443 requirements

Solution

Framatome has continuously designed and manufactured several Steam Generators for Pressurized Water Reactors, successfully supporting its customers in ensuring either **Lifetime Extension** or **Power Uprate** of the operator's Nuclear Power Plant.

Framatome Steam Generators are manufactured with 19.05mm 690TT Inconel tubes (except model F-47 with 22.22mm tubes) and all operate in primary conditions of 155 bar & up to 330°C.

Framatome successfully **manufactured OTSG designed** steam generators.



© Framatome

Technical information

SG	F-33	F-47*	F-55	F-60	F-67	F-74	F-79	F-86
Tube arrangement AE = with Axial Economizer	Square	Square	Square	Triangle	Triangle (AE)	Square	Triangle (AE)	Triangle
Power per loop (MWth)	650	887-928	928	1,022	1,100	954	1,154	1,517
Achieved Power Uprate	+15%	Not done	Not done	+10%	+18%	+8%	+10%	+11%
Operating Outlet Pressure (bar)	56	56	62	62	66	69	77 (AE)	61
Outlet steam flow rate (kg/s)	353	504	505	564	572	580	650	760
Exchange surface (m2)	3,346	4,707	5,574	6,035	6,729	7,442	7,997	8,599
Dry Weight (tons)	212	330	321	325	334	485	519	456
Height (m)	18	21	20,9	20,7	20,5	22,4	24,7	19
Upper & Lower shell Φ (m)	3.8 - 3	4.5 – 3.5	4,5 - 3,4	4,5 - 3,5	4,5 - 3,5	5,1 - 3,9	5,2 - 3,8	6 - 4,2

Customer benefits

- Safety & Quality conformity up to 60 years lifetime
- Internationally trusted supplier in nuclear industry
- Complete process managed at the plant: engineering, procurement, manufacturing, and transportation
- Power Uprate option: **Framatome's Axial Economizer**

Your performance
is our everyday **commitment**

Key figures

45 years of experience in manufacturing of heavy components for the nuclear industry
> 330 Steam Generators Manufactured and Delivered by Saint-Marcel Plant since 1975

Contact : g-fra-pcm-sales@framatome.com
www.framatome.com

It is prohibited to reproduce the present publication in its entirety or partially in whatever form without prior written consent. Legal action may be taken against any infringer and/or any person breaching the aforementioned prohibitions. Subject to change without notice, errors excepted. Illustrations may differ from the original. The statements and information contained in this publication are for advertising purposes only and do not constitute an offer of contract. They shall neither be construed as a guarantee of quality or durability, nor as warranties of merchantability or fitness for a particular purpose. All statements, even those pertaining to future events, are based on information available to us at the date of publication. Only the terms of individual contracts shall be authoritative for type, scope and characteristics of our products and services.