



Within the rehabilitation of complete plants, it is often requested to increase the life of existing equipment. Particular attention is usually given to rotating machines which can represent a key part of a plant's operative costs.

A rotating machine's life extension project normally involves the following activities:

- General disassembly
- NDT of all main components
- Identification and replacement of all damaged or worn out parts
- Eventual repair of components that can be reused
- Upgrade to better performing materials
- Restoration or improvement of pump performance
- General overhauling and re-assembly
- Re-commissioning

Thanks to its proven experience, Termomeccanica is able to extend the life of old rotating machines for up to an additional 20 years, provided ordinary maintenance is carried out on a regular basis on the rehabilitated machine.

In the table in the right column is an example of a recent PLEX (Plant Life Extension) project Termomeccanica Pompe successfully took part in in South America.

Embalse project - Argentina - main feed water pump before (left) and after (right) refurbishment at Termomeccanica Pompe's Italian facilities

Embalse Nuclear Power Plant PLEX Project

Plant name & type	Embalse nuclear power plant (CANDU type)
Location	Cordoba Province - Argentina
End User	NASA (Nucleoeléctrica Argentina SA)
Project year	2013-2014
Project	Main feed water pumps refurbishment (upgrade & life extension) aimed at obtaining the renewal of the operational nuclear suitability certificate for an additional 25 years.
Existing pumps history	Pumps originally ordered to TMP in the 1970s
n. of pumps	n. 3 pumps
Head	589 m
Capacity	1853 m ³ /h
Efficiency	85%
Power	3000 Kw
Pump service	High energy pumps key to the proper functioning of nuclear reactor