



EDMS NO.  
1771839

REV.  
1.0

VALIDITY  
VALID

REFERENCE : NOT REQUIRED

## HL-LHC Resources request

**Date:** 2017-03-20

**Title Position/Task:** Mechanical Engineer - vacuum system in high radiation environment

**Project/Activity:** WP12

**Description Project:**

Design of vacuum system in high radiation environment

**Task:**

After having characterised the thermal mechanical behaviour of shape memory alloys, the final geometries of the shape memory alloy connectors have to be designed depending on the vacuum chamber sizes. The long term performance of the assembly has to be assessed in accelerator environment. In addition, an unclamping device, based on a cooling of the connectors, has to be designed.

The implementation of this new UHV connector design has to be addressed for the HL-LHC project (collimators, Q1/TAS areas).

**Profile:** Mechanical – material engineer (PhD)

**Experience:**

Shape memory alloy characterisation and modelisation.

FE simulations

**Specific details:**

**Requester:** TE-VSC

**Starting date:** July 2017