

Plasma Facing Components Technologies in SST-1

EX/P5, P5

- SST-1 PFC installation completed in in Mid 2015
- Vacuum Vessel Surface area 75m^2 and volume approximately 20m^3 .
- Equipped with Graphite tiles, Cu-Cr-Zr back plates and graphoil
Assembled PFC components can take heat load of $1\text{ MW}/\text{m}^2$
- The total surface area of the installed PFCs exposed to plasma is about 40 m^2 which is nearly 50% of the total surface area of stainless steel vacuum chamber ($\sim 75\text{ m}^2$).
- PFC tiles can be baked up to 250°C for more than 250 hours with Vessel temperature 150°C
- Hot Nitrogen gas is passed through brazed tubes as a working gas to bake PFC components
- Ultimate vacuum achieved with PFC components after baking cycle $4.5 \times 10^{-8}\text{ mbar}$.