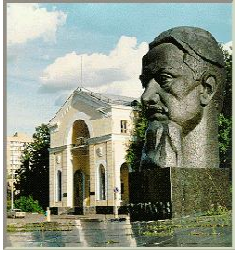
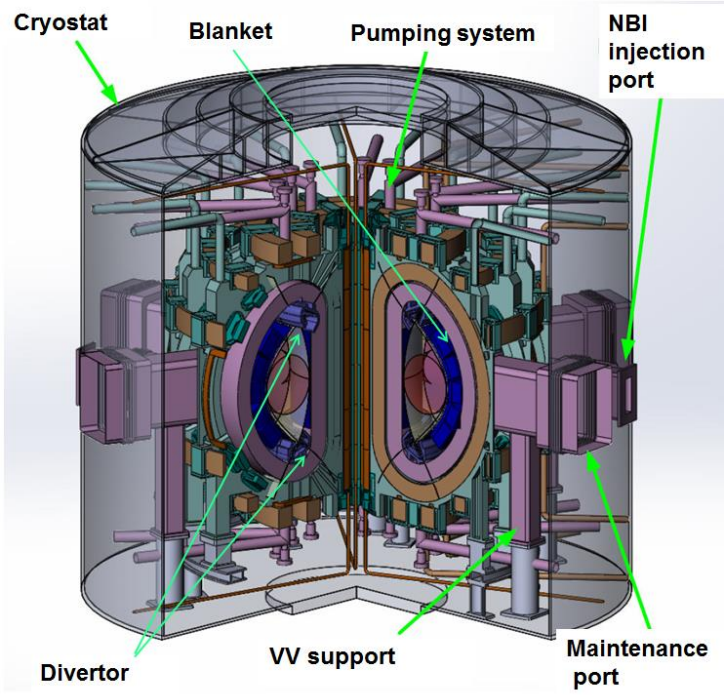


NATIONAL RESEARCH CENTER
KURCHATOV INSTITUTE

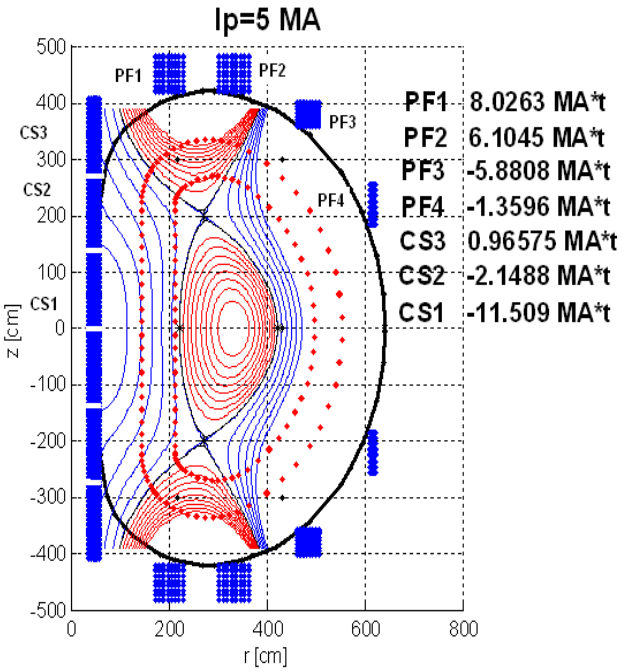
НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ ЦЕНТР
«КУРЧАТОВСКИЙ ИНСТИТУТ»

Status of DEMO-FNS Development

Yu.S. Shpanskiy et al. FNS/1-1



Aspect ratio R/a, m	3.2/1
Toroidal magnetic field	5 T
Electron/ion Temperature, keV	11.5/10.7
Beta normalized β_N	2.1
Plasma current I_{pl},	5 MA
Neutron yield G_N	$1.3 \cdot 10^{19}$/s
Neutral injection power	36 MW
ECR heating power	6 MW
Discharge time	5000 h
Capacity factor	0.3
Life time	30 years
Consumed/ generated power	200 MW



- **Fusion-fission hybrid facility based on superconducting tokamak DEMO-FNS is developed in Russia for integrated commissioning steady-state and nuclear fusion technologies at the power level up to 40 MW for fusion and 400 MW for fission.**

- **Facility is considered in RF as the main source of technological and nuclear science information that complement the ITER research results in the fields of burning plasma physics and control.**

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