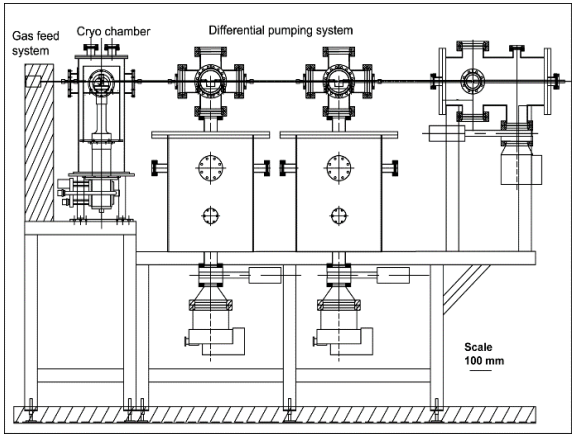
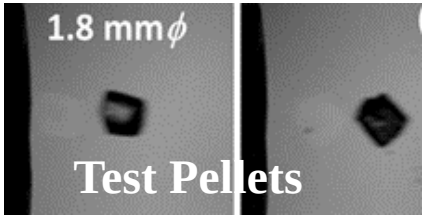
Poster: FIP/P7-46: India's Pellet fueling Program

Summary

- Fueling of plasma is an important issue in Fusion devices, it will be great challenge to achieve a centrally peaked density plasma in future fusion machines
- Pellet injection is an efficient technique for fueling, and addressing other important issues like confinement improvement, disruption mitigation, ELM mitigation in plasma.
- India has undertaken various technology development programme for its domestic fusion programme
- A pipe gun type single pellet injector(SPINS-IND) is developed to initiate pellet injection related research in India
- Pellet size: 1.6 mm L × 1.8 mm dia, V_p = 700 – 1000 m/s
- Pellet injection cycle: 1 pellet / 5 minutes, Reliability of pellet formation and injection > 95 %.
- Capability for fully automatic control synchronization with plasma discharge





- Under injector technology development program, repetitive injector development, curved guide tube development for HFS pellet injection is under progress.