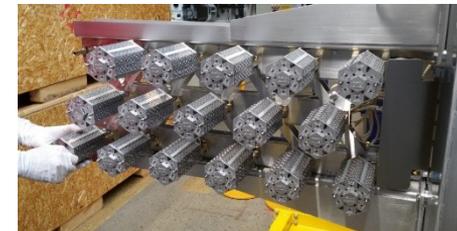
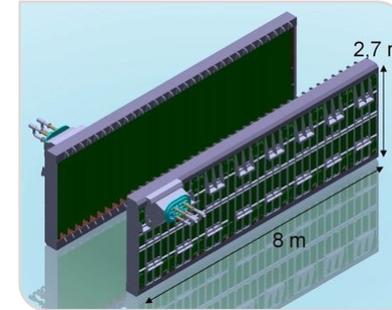


KIT contributions to ET beampipe vacuum

- KIT vacuum group has **20 years of expertise** in developing **large-scale cryo-vacuum systems**
- **Simulation** of complex systems in nuclear fusion with **self-developed** and **validated in-house codes**
- **Outgassing** measurements with OMA facility (9 years in operation), material selection and development of outgassing reduction strategies and treatments
- **Development of tailor-made pumps** (cryo, NEG) in combination with commercial systems
- **Experimental validation** of developed systems
- Coverage of **all aspects in the development path**
 - quick implementation of solutions
 - adaptation to changing requirements
 - probably important for early stage of ET



Ongoing activities related to beampipe vacuum

- **Outgassing investigations**, measurements with OMA, material selection and development of reduction strategies
- **Gas background simulations** for beampipe
 - Next: Modelling of entire beampipe arms with distributed pumping systems
- Development of **cryotrap** and **shielding concept** for cryogenic mirrors

