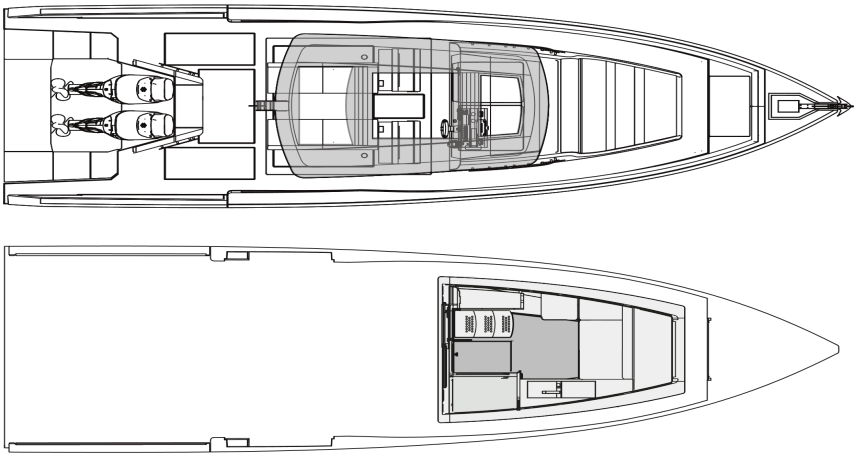STD layout