



## Trimmable Surface Drive System TPS-TR820

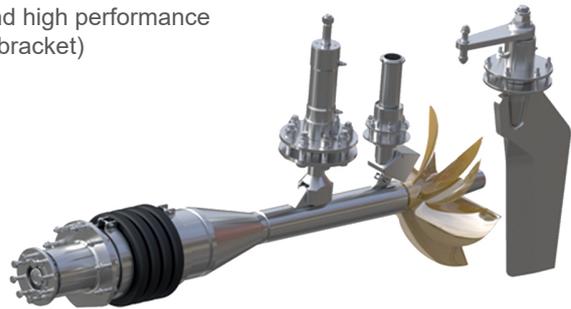


### DESCRIPTION

MIO is an Iranian company that offers a wide range of surface drive systems. It has developed a new model that has a drive shaft which can be trimmed up and down. This is known as Trimmable Surface Drive System. This capability allows the propeller to be trimmed for maximum performance whilst a spade rudder installed immediately behind the propeller is used for steering. The vertical adjustment for trimming the shaft is done by a hydraulic piston attached to the shaft support. The propeller shaft is vertically adjustable up to a maximum of  $10^{\circ}$  in the vertical plane, this ability allows selection of the optimum thrust angle and boat trim for varying load and sea conditions. The initial model of the trimmable surface drive system is capable of absorbing up to 800 hp that makes it suitable for boats up to about 15 metres in length. All surface drives utilize long life components and corrosion resistant materials to provide long service intervals and virtually eliminate time for repairs.

#### Advantages:

- Built entirely of AISI 316 stainless steel
- Built in suction duct for quick planning
- Drive shaft trim angle ( $2^{\circ}$ - $10^{\circ}$ ) for maximum efficiency and high performance
- Compact Design (combination of trim cylinder and shaft bracket)
- Simple design, easy installation and servicing



## Adjustable Surface Drive System TPS-ST900

### DESCRIPTION

MIO is the first marine surface drive manufacturer in Iran with more than 20 years of experience in manufacturing surface drive systems suitable for a wide range of naval vessels. Over this period of time, our products have become the center of extensive research and development, resulting in a product of high reliability, simple design, low maintenance cost and high performance. Reduction of submerged parts in adjustable thrust system including shaft, holder, propeller and rudder has led to drag force reduction vpt. 50%. MIO Adjustable surface drives are simple, systems are reliable and extremely efficient because they are designed completely based on the body formation. MIO provides required drawings and technical guidelines to carry out modifications of the vessel's heel in compliance with the thrust system. All thrust systems are made based on the highest marine standard, thus they are adaptable to many bodies and marine standards and they cover a wide range of adaptability for many vessels and cover a wide range of power.

#### Advantages:

- Built entirely of AISI 316 stainless steel (except drive shafts)
- Minimum weight
- Built in suction duct for quick planning
- al shaft angle ( $2^{\circ}$ - $6^{\circ}$ ) for maximum efficiency and high performance
- Self-aligning , height adjustable propeller shaft bracket for quick installation
- Simple design for easy installation and servicing
- Maximum reliability thanks to the mechanism simplicity
- Directional stability guaranteed by fixed shaft and
- Appropriate position of rudder which is located behind the propeller

