**Project Background**

- Trane’s technicians deconstruct centrifugal chillers to clean and make repairs. One of the key components is the oil-sump.
- Oil-sump is used to cool and lubricate the entire chiller.
- Motor assembly is heavy and difficult to remove safely.
- Trane is looking for an easier, more ergonomic method to remove the oil-sump.

**Objectives**

- Assist removal of oil-sump motor assembly.
- Attachable to the housing which supports the oil-sump within the centrifugal chiller.
- Fully translate and have freedom of motion about the device constraints.
- Support a weight up to 160 lb.
- The device must weigh less than 50 lb.

**Design Overview and Operation Procedure**

1. Set guide rails
2. Secure bottom clamp
3. Remove bolts from motor plate
4. Attach faceplate
5. Remove motor assembly
6. Swing out and lock in place

**Conclusion**

- Device weighed less than 30 lb.
- Tested to support approximately 160 lb. without failure.
- Easy to operate and transport by a single individual.

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**Contact**

Dr. T. Baughn - txb131830@utdallas.edu
D. Axe - Axe.David7@gmail.com
B. Russell - bbr8547@gmail.com
H. Telhaouih - telhaouih@yahoo.fr
A. Elkashef - Ahmedelkashef05@gmail.com
M. Sundberg - msundberg20@gmail.com