

Sumitomo Drive Technologies

TORQUE ARM OPTIONS

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PRODUCT MANAGER II

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WHITE PAPER

Sumitomo Torque Arm Options by Sam Hancock

These hollow shaft gearboxes are fitted directly to and supported by the machine's driven shaft. The SMSR's use Keyed, Taper-Grip® Bushing, Easy-Grip™, or Shrink Disc connections to transmit the torque to the driven shaft.

Unless secured, during operation, a shaft mounted reducer will tend to rotate about the driven shaft in the direction opposite to that of the driven shaft's rotation. A Torque Arm (TA) is used to prevent the rotation of the gearbox.

A Torque Arm is designed to prevent reverse rotation. It withstands the forces exerted during operation and also designed to accommodate the run-out of the driven shaft by permitting a small amount of movement or float.

"Float" is designed into torque arms assemblies by using loose clearance fits, rubber bushings, Belleville washers or disc springs to accommodate the shaft run-out.

A rigidly mounted torque arm attached to a SMSR can result in leaking seals followed by bearing failures, or a fatigue failure of the driven shaft, and possibly damage at the anchor point.

For this reason, it is very important to follow the manufacturers installation procedures for each type.

The Turnbuckle Type is popular due to its low cost, adjustable length, and variety of positions for attachment. Installed such that it is in tension under operation for single direction shaft rotation and add a second one at ninety degrees when the unit runs in both directions.

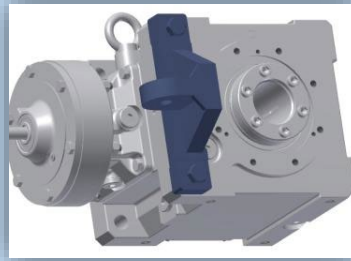
The other TA types can run bi-directionally with a single TA assembly. Available space and attachment points of the machine design and of course cost will determine the right torque arm for the application.

Please visit www.SumitomoDrive.com for more details including Drawings, CAD Models, and Installation Instructions for our TA Options for many Sumitomo SMSR Product Lines. Our



Turnbuckle (Clevis) Type
Most Popular, Versatile, Easy to Install, Field Adjustable, & Low Cost

Mounted so the direction of rotation puts the torque arm in tension. Install two at 90 degrees for Bi-directional operation.

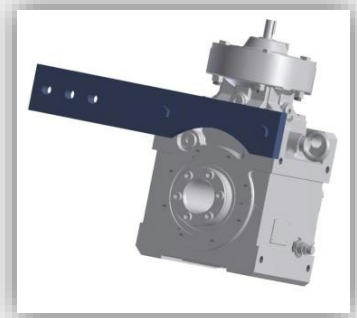


'T' Type
Robust, Compact, and Designed for Bi-directional operation.



Banjo Type

Narrow & sturdy. Attached by bolting to the threaded hole pattern in the gearbox casing, multiple positioning options possible.

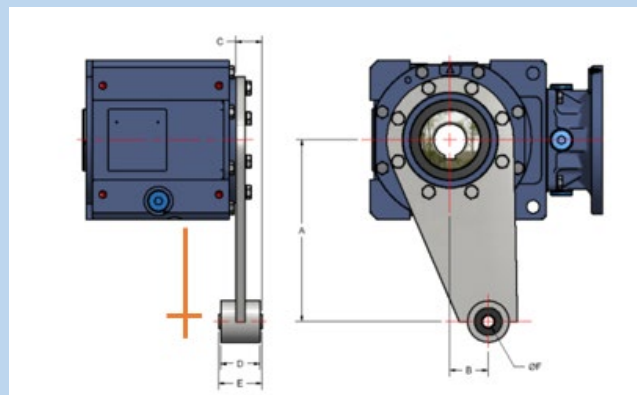


Transverse Type:

Simple, Durable, Bi-directional rotation and Very Low cost

Crossovers (Euro-Style, Tear Drop)

Critical dimensions are matched to specific competitor models. Minimal modifications required when switching reducer brands.



Regional Salesforce stands by ready to assist you.

