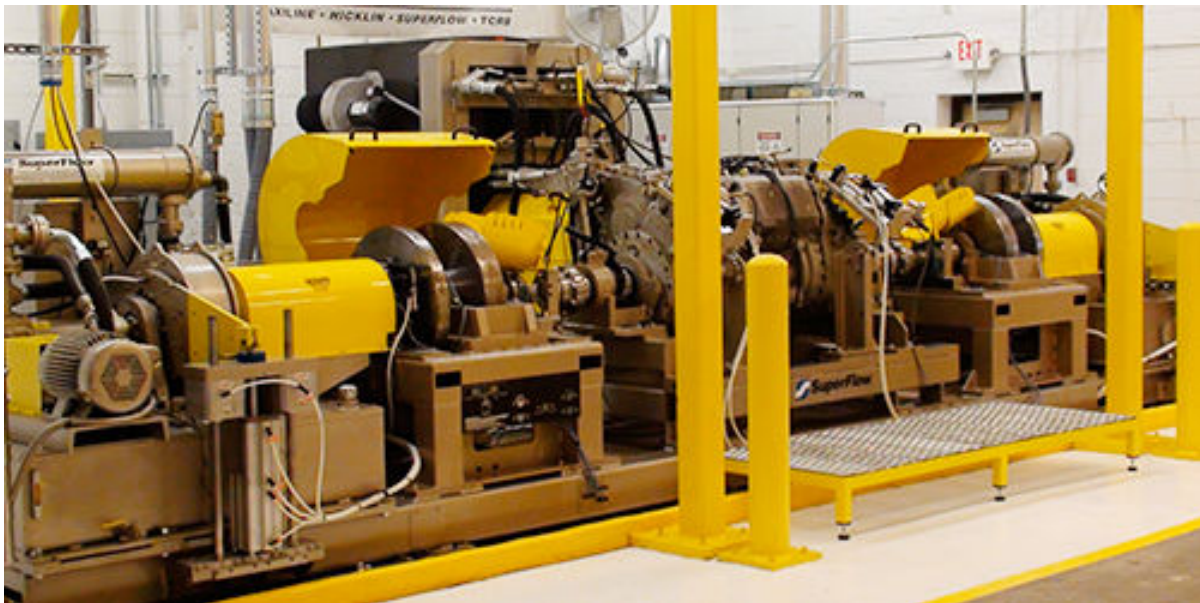


# HICKLIN CROSS DRIVE TRANSMISSION DYNAMOMETERS

*Hicklin Engineering has designed and built custom cross-drive transmission dynamometers for militaries, OEMs, and remanufacturers to test transmissions like the X-1100 and HMPT-500.*



## Overview

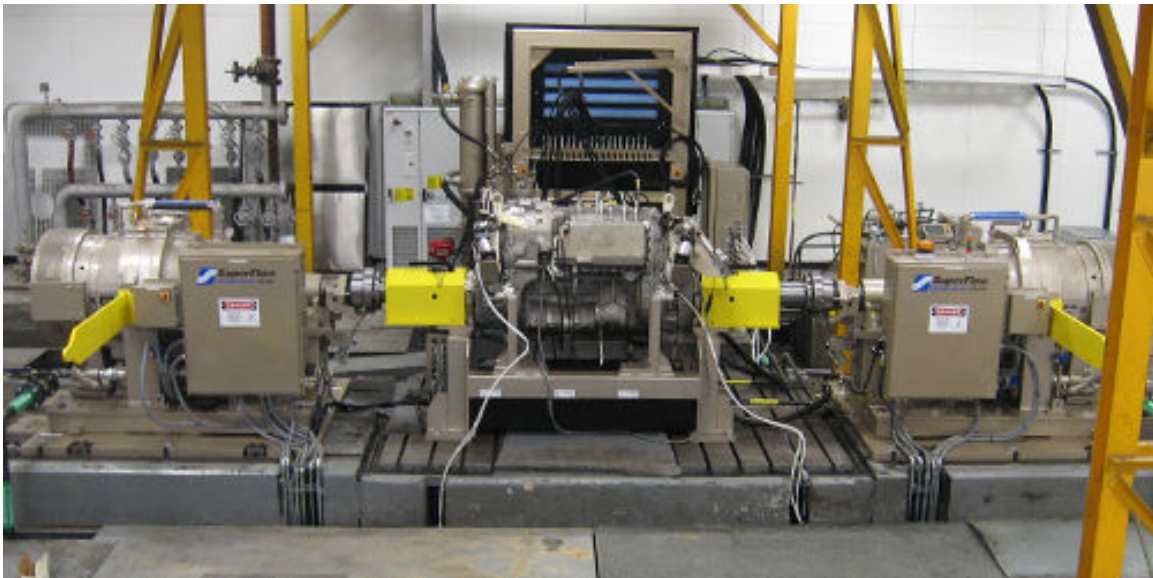
Hicklin® Engineering has engineered and manufactured more than 30 custom cross-drive transmission dynamometers for transmission manufacturers and their customers worldwide. We incorporate various input drive and output load technologies depending upon speed and torque requirements of the test specification. Technologies used for output load absorption include eddy-current (air or water cooled), hydrostatic, hydro viscous and AC motor. Input drive motor options include AC motor and diesel or electrically driven hydrostatic input drives.

Our engineers will evaluate the transmission, the test requirements, the facility opportunities or constraints, the project goals and the budget to create a custom engineered solution to your testing challenges. Previously, we've developed transmission test stands to test the X-1100, HMPT-500, XTG-411, XT-1410, X-200, CD-850, CD-500, Allison HT-700, MT-600, AT-500 and

Allison World Transmissions HD/MD series to name a few. Below are several examples of recent Hicklin cross drive transmission dyno projects, contact us to discuss your project.

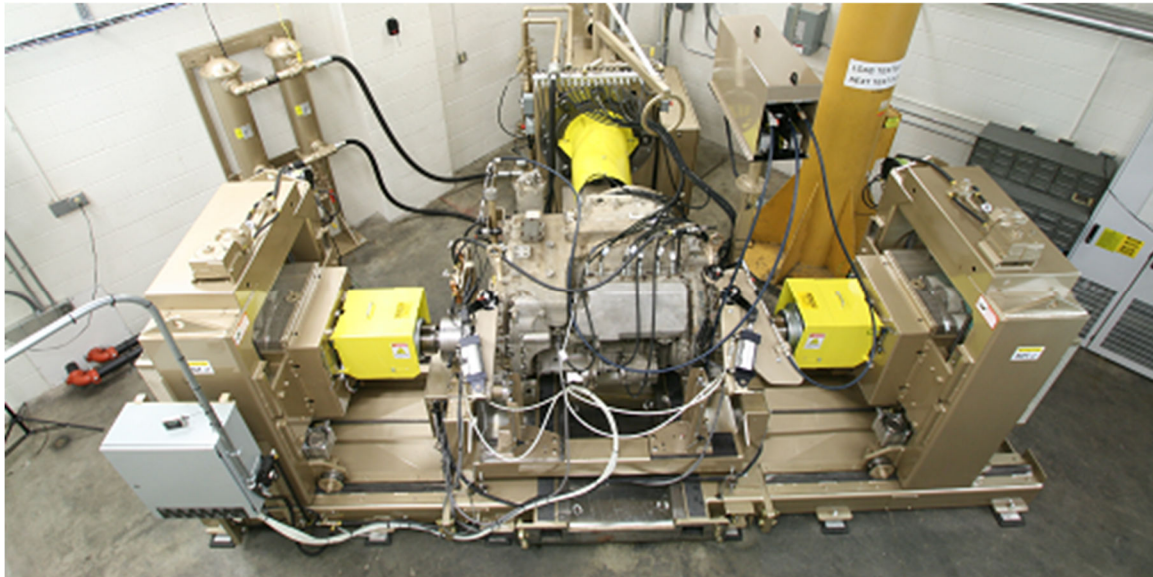
## Hicklin 1850 Cross Drive Transmission Dynamometer

- 1,850 HP, AC direct electric drive input motor
- Water cooled eddy current power absorbers – output load
- Extreme duty and cross drive transmission testing
- Fully automated test sequences
- Safety interlock system to protect the transmissions, operators and the test facility



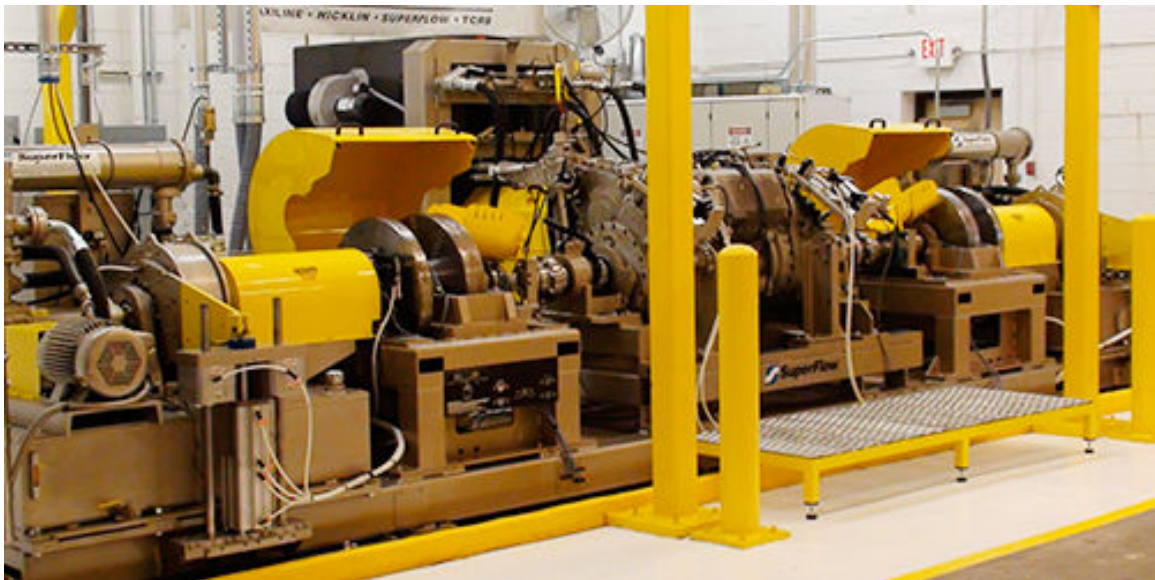
## Hicklin 860 Cross Drive Transmission Dynamometer

- 860 HP, AC direct electric drive input motor
- Air cooled eddy current power absorbers – output load
- Cross drive transmission testing
- Fully automated test sequences
- Safety interlock system to protect the transmissions, operators and the test facility



## Hicklin 800 Cross Drive Transmission Dynamometer

- 800 HP, AC direct electric drive input motor
- Hydro-viscous power absorbers
- Dual inertia flywheels
- Extreme duty and cross drive transmission testing
- Fully automated test sequences
- Safety interlock system to protect the transmissions, operators and the test facility



## Hicklin Cross Drive Transmission Dyno Control Room

The operator room is designed for one-man operation of the entire test environment. Automated sequences programmed from the WinDyn Data Acquisition and Control system handle every aspect of the test including:

- Powering the dynamometer and transmission support equipment
- Filling the transmission with pre-heated and filtered transmission fluid
- Ramping the input RPM and output loads to achieve manufacturer specified test requirements and notifying the operator if a parameter was not met
- Operating the output drive throttles and shifting the transmission
- Exporting serialized test results to a centralized database testing.



### Control room safety features

- Automatic safety limits programmed for specific shut down actions
- Closed circuit camera system so machine operator can see all corners of the test cell and monitor critical dynamometer and transmission components
- Wireless headset system so all test cell personnel can hear and communicate at all times

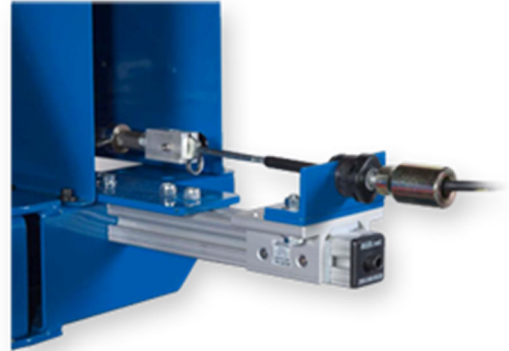
## Product Options

### Auto Shift

The linear shift actuator controls the manual detent position of the transmission. Since it uses a cable, the Auto shift can connect to most every transmission. It can be fitted with torque measurement, up to 50 lb-ft.

### Output Torque

Optional load cell to measure static or dynamic torque.



*Call or email Promand today to discuss your application and dyno test requirements in detail.*

*Email: [sales@promand.com](mailto:sales@promand.com) Call: +614 3011 8253*