

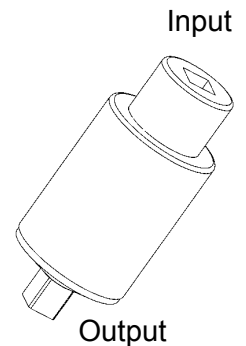
# RDA (Run Down Adapters)

Rev 2.0 (5/4/07)

These durable run down adapters (RDA) are designed to provide consistent and reliable torque readings for use with power driven torque control tools. The RDA's reduce the impact and irregular peaks that cause poor repeatability. Each RDA has an effective torque range and will supply repeatable torque data within that range if used correctly.

## Operation

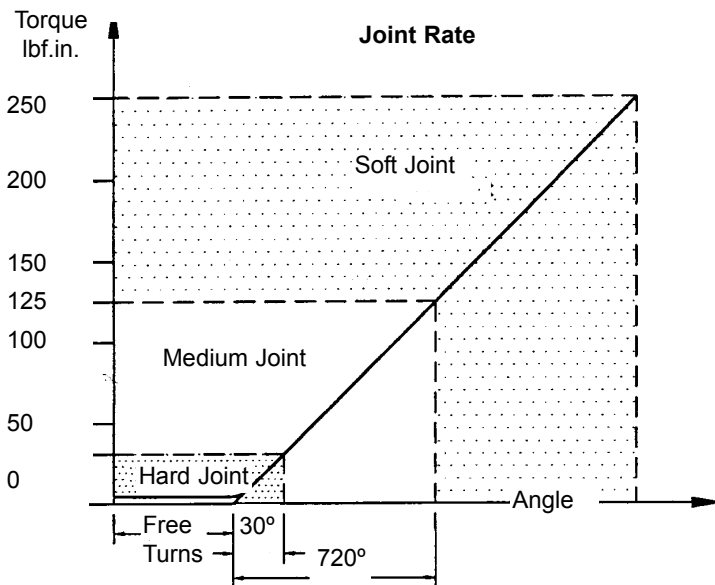
1. The run down adapter is mounted in-line between the tool drive and transducer.
2. The transducer should be properly secured on a solid surface or a test bench.
3. Reverse RDA to relieve any pressure on the internal load washers before each rundown.  
Caution: DO NOT start RDA on power tool with threads disengaged or damage may occur.”
4. The RDA is designed to run in clockwise direction only.
5. Apply torque until RDA is run down completely. Then note or save reading with the analyzer.



## Maintenance

1. Keep the treads of the RDA well lubricated. It is recommended that the RDA be disassembled, cleaned, and the threads re-coated with a molybdenum grease every 6-months. The washers, themselves do not require lubrication.

Illustrates an example of joint characteristic for RDA250i



## Free Turns

This is when the input drive turns freely with little or no torque. All RDA models provide at least 5 full rotations with less than 5% of nominal torque.

## Hard Joint

All Mountz RDA's will simulate a hard joint rate when used below 12% of its maximum torque capacity.

## Soft Joint

A soft joint rate will be achieved when RDA's are used above 50% of its maximum torque capacity.

**Note:** Values may vary from each model. It's recommended for you to evaluate your model whenever joint rate characteristic is critical for your test method.

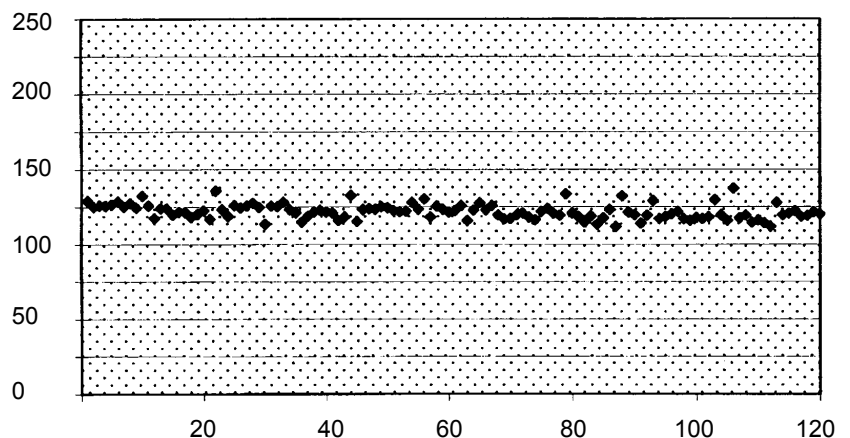
## Torque Test Scatter Graph

The graph on the right shows torque values recorded after each test run.

Mean Torque: 121.72 lbf.in  
Standard Deviation: 11.53 lbf.in

Mountz RDAs are designed to provide minimal scattering when used with a reliable and repeatable power tools, transducers and torque analyzers. The test equipment and method that are used will affect the performance of the run down adapters.

## Torque Test Scatter





# RDA (Run Down Adapters)

## FAQ & Trouble Shooting

1. When do I use an RDA? When calibrating or testing a power and pulse tool.
2. Do I use a RDA when calibrating or testing a hand screwdriver or wrench? No.
3. Does the RDA unit need lubrication? Yes, it is recommended that the RDA be disassembled, cleaned, and the threads re-coated with a molybdenum grease every 6-months. The washers, themselves do not require lubrication.
4. I have an issue of non-repeatability and/or readings being too high or low when testing power or pulse tools using a filter setting on my analyzer? Try using other low-pass filter settings, as this can often be an issue with dynamic tools.
5. We are testing or calibrating a power tool near the maximum or minimum range of the torque analyzer & RDA, and it is causing an issue with non-repeatability and/or readings being too high or low with the tool? An analyzer is often sold with a single RDA that will handle the majority of situations for simulation of a joint. However a transducer with a full-scale capacity of 100 lbf.in may require an RDA other than an RDA-100i. This is often the case when the transducer is being used at the extremes of operation. When using a 100 lbf.in transducer and measuring torque near 10 lbf.in an RDA-10i or RDA25i may be a better choice.
6. I'm testing or calibrating a power tool using a TorqueMate® and I get negative readings while applying clockwise torque on the RDA? In some instances, particularly when using a Torque Mate (TM200) analyzer, a large number of incorrect readings may be observed. If this happens and these readings are showing as negative readings, when applying a clockwise torque, then the issue is one where the analyzer is actually detecting negative spikes when some dynamic tools shut off. This issue may be resolved by programming the analyzer to ignore these negative spikes.\*\*

\*\* Place the TorqueMate® 200 or TorqueMate® Plus in "Track" mode. Press the "Tolerance" and "Scroll Right" keys simultaneously. The software version will be displayed on the display. Press the "Mode" key once and you should see "000". Press "Scroll Up" to increase this value. Try a value of 5 and see if this resolves the issue, if not, increase this value until the negative readings are no longer evident.



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