



## welding robot refurbishment

### Get any Panasonic Welding Robot Evaluated for Refurb for \$799 each.

Maybe you're getting ready to redeploy your welding robot? Maybe you just bought one at auction? Or maybe you just need the peace of mind to know you can depend on your older robot. Send your Panasonic welding robot and controller to our refurbishment facility and only pay \$799 for evaluation. Decide to refurbish it and we will apply any unused evaluation fee toward the refurbishment.

### Thought Ala Carte was only for Lunch?

Our robot refurbishment caters to your budget. After evaluation, you will receive a custom quote. This quote is broken out into the following categories:

**Required** - Parts and Procedures that are necessary for the robot to function. Most likely these would be heavily worn parts or missing parts.

**Suggested** - These parts may be slightly worn. We will give you the choice of whether to replace them or not.

**Preventive** - Parts that currently function properly, but have a history of failure. Replacement is your decision.

### Still on the Fence?

Most Panasonic robot refurb average \$5000 to \$16000. It all depends on what parts are needed to bring your machine back to life. In the end it's all up to you to decide what you can afford to replace.

**During our 16-hour continuous test, we will evaluate the following (not a complete list):**

#### Manipulator

- Motor brake torque
- Repeatability & Drive Backlash
- Drive Vibration
- Breaks in Harnesses
- Overrun & brake release switches
- Encoder boards checked
- Welding Torch
- Wire Feeder

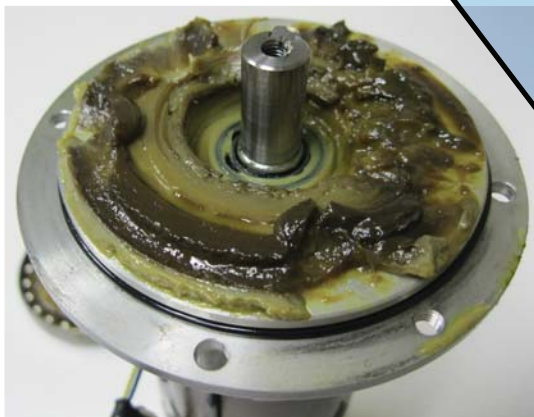
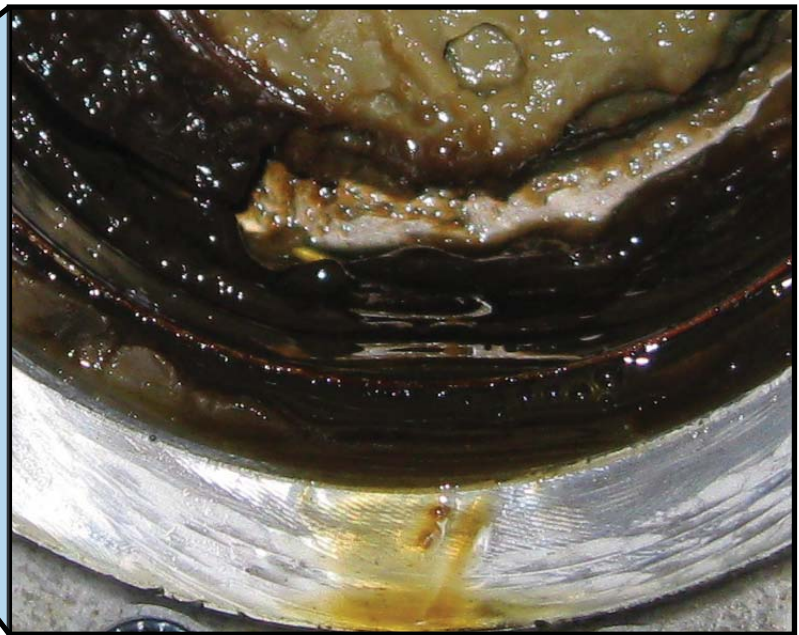
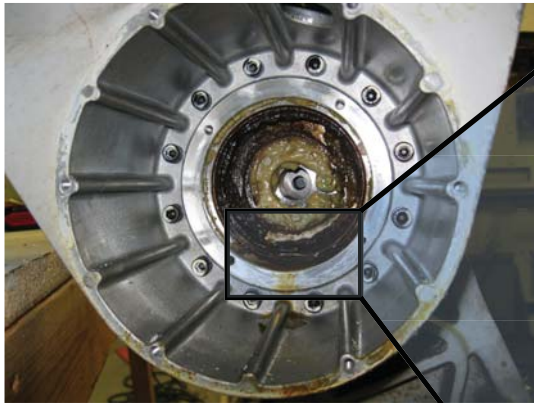
#### Robot Controller

- Error and Alarm History
- Sequencer I/O test
- Critical voltages measured
- Internal harness inspected
- Teach Pendant Cable
- Teach Pendant LCD
- Teach Pendant Buttons
- E-Stop buttons

Contact us for more information:  
**INS Robotics Welding Support**  
1-888-2WeldAll (1888-293-5325)

## Why Refurb - You Grease During PM, Isn't That Enough?

For the long term, the answer is NO. Harmonic Drive Grease can break down and separate over time. On top of this foreign contaminants such as dirt and chemicals will shorten the life of the drive. When a drive starts to wear, it loses its repeatability and will eventually fail. Replacing harmonic drives can be difficult and expensive in the field. For most machines, the factory suggests a full tear-down after 6000 hours of use. We completely disassemble the drive, clean and regrease to proper specifications. The pictures below are from an actual robot in production after 3000 hours of service.

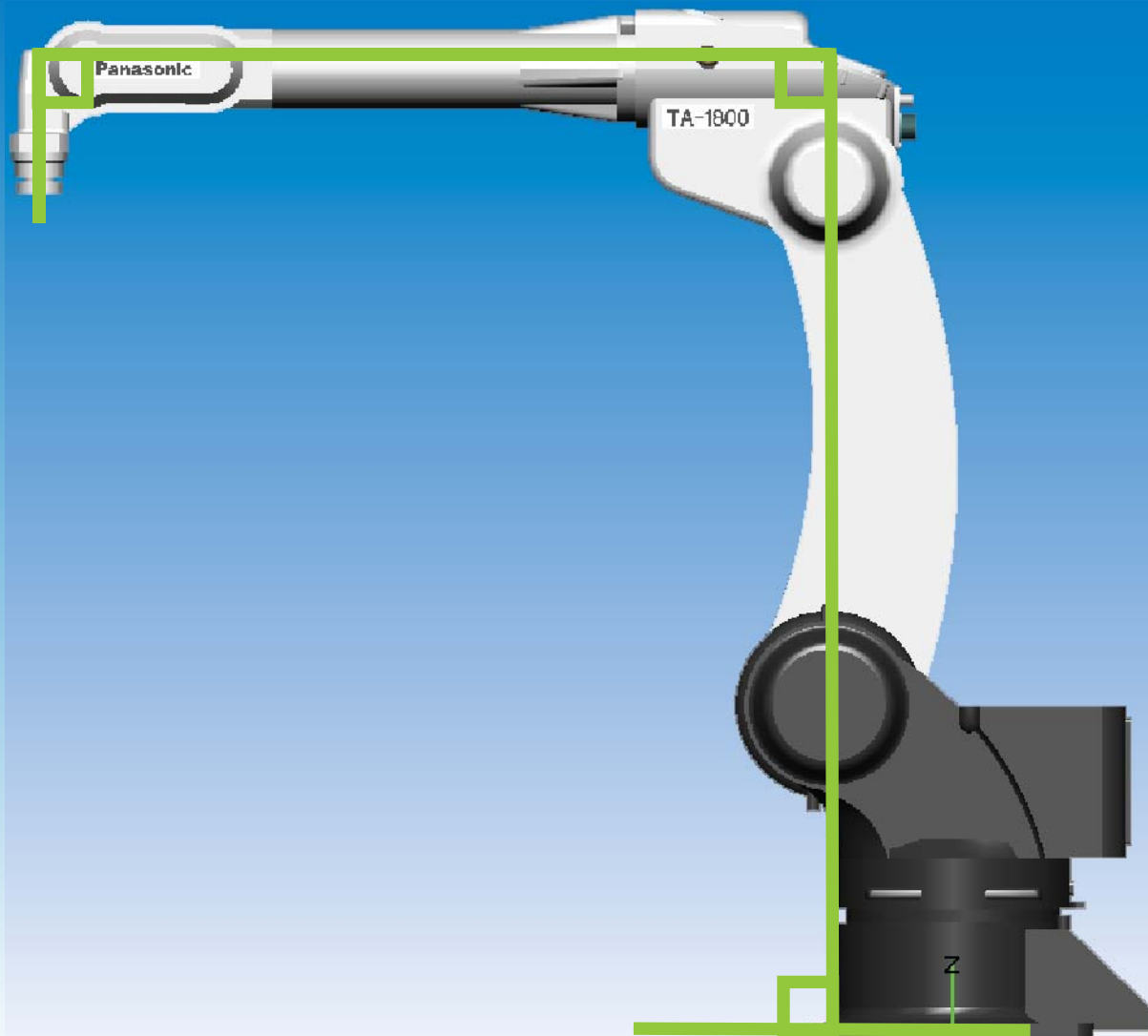


Before

After



Same Axis & Robot As Above, Cleaned, Greased and Reassembled



## Remastering

Your robot has probably been beaten, bumped, and scratched. Remastering is the process of making the virtual robot zero position match the real world zero position. Most likely all those hard crashes have slightly scewed your robots zero position. At the end of the refurb process we will remaster your robot. This results in better repeatability, path accuracy and just less “chasing your tail”.

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