USED UNWIND-SLITTER-REWINDER (USR) FOR SALE

Specifications:

- Power: 575V/3ph, 40kW
- Compressed Air: 6.2Bar (90PSI)
- Air Flow: 70 SCFM
- Approx. Weight: 8000Kg (17600lbs)
- Raw material roll: 800 mm dia by 800mm wide, 6" core.
- Rewind rolls: 600 mm dia, 124 to 650 mm, 6" core.
- Number of slit webs: up to 6.
- Web speed: variable up to 100 M/min (500 fpm)
- Web tension: controlled range of 30 to 150 N/M.
- Automatic full stop unwind splicing.
- Automatic rewind splicing up to six rolls - a "stop-action" type with overlap joint
- Dual Unwind (2 VSD shafts) - slitting tension control via programmable festoon air pressure.
- Rewind tension control via load cell and differential rewind shaft.
- Six automatic rewind web guides with bowed rollers.
- Seven Tidland anvil driven shear slitters, class II, 0.5 deg
- Vacuum trim collection, 6300W, 575V/3ph, 10.5 Amp
- Driven Mt. Hope web spreader rolls (Bowed Rolls).
- All web process rolls 6" dia or larger.
- Allen Bradley Drives, Controller and Operator Interface Terminal (OIT)

Manufactured by: AST (Automated Systems – Tacoma, WA USA)
Date of Original Operation: Sept 2000 **Total Run Time to Date**: 6968 hours (Sept. 13/2017)

Notes:

(1) The machine is installed and operational – Video is available to view on listing.
(2) All manuals, drawings and system description can be provided upon request.
(3) Equipment is well maintained and has maintenance log and spare parts.

Additional Information:

The machine is in excellent condition and very flexible with the capability to slit a wide range of materials and thicknesses.

The system does NOT have a coating or laminating module but one could likely be added due to the modular assembly.

Last Application and Usage History – The machine was originally purchased for slitting Membrane Electrode Assemblies (MEAs) which are bonded composite fuel cell components (100 – 300 um thickness range). The original owner decided to keep the coating, bonding (lamination) and slitting processes separate for several reasons. The various materials and layers (teflon-coated carbon fiber paper, carbon sub-layers, precious metal (Pt) coatings and proton conducting polymer membranes) were expensive and the they wanted flexibility to use them for multiple sub-components and lower the risk of losses with not trying to integrate everything in one shot. The processes were unique and considered to be "prototyping". They only used the machine for intermittently for approx. 14 months before the product design and manufacturing strategy changed. The machine was dismantled, crated and put into storage before the end of 2002. I had a client in July 2009 looking for a slitter system to cut coated polymer film (PP/PE/PTFE, etc) sheets (20 – 150 um thickness range) in order to manufacture special core assemblies used for ERV's (Energy Recovery Ventilators) in the HVAC industry. I advised them to buy this machine and they have been using it intermittently and successfully since its re-installation in 2010. **The system is still installed and working and has only 6968 hours of operation in 17 years**.

The machine was custom engineered as the standard (top 5) OEM slitting companies decided they could not meet the spec and did not want to design something from "scratch". The machine has many special features, but my client is currently and easily using it for something simple (plastic membranes) for which is was not originally designed and as you say, it might be considered "overkill". I suspect the machine will also work effectively for battery and supercapacitor materials (foils, electrodes), fiber cloths and other delicate substrates. The system originally cost well over $650 K USD including design, development and testing. This AST machine is a version of one of AST's "legacy products" for difficult applications. One of original owner's suppliers (AvCarb - carbon fiber paper ?) recommended AST during the scale-up work:

http://ast-inc.com/carbon-fiber/

When I spoke to the manufacturer (AST) before my client bought the system in 2009, they responded with these comments:

"We have all the machine detail drawings here at AST, so we would be able and willing to support your customer with any parts or spare parts for the USR. Hopefully this venture develops into a purchase and the USR goes back into operation. We would welcome the opportunity to work with your customer on a long term relationship, helping any way that we can with parts and our services. For your reference and to better familiarize yourself with AST, please visit our web-site: http://www.ast-inc.com/