E-FIT™

SERVICE & MAINTENANCE PROGRAMS

KEEP YOUR Extol Equipment IN SHAPE FOR OPTIMAL PERFORMANCE WITH E-FIT SERVICE & MAINTENANCE PROGRAMS

- Check-Ups
- Process Optimization Support
- Hands-on Technical Training
- Equipment Upgrades

EXTOL INC

Improving plastic products

Troubleshooting & UPGRADES

EXTEND THE LIFE & MAXIMIZE THE USE/APPLICATION OF YOUR EXISTING EXTOL EQUIPMENT

Do you have an older machine that still works but needs a tune-up or a deep cleaning? Extol's service engineers will evaluate your equipment, identify any wear items, and fix any problems quickly. Your machine is a significant investment, and we want to help you maintain it for years of optimal operation.

Maybe you need a new feature added to a machine— more programs/recipes, safety add-ons, data collection options, remote temperature sensors, SPC data collection, etc. We will gladly work with you to come up with a solution that meets your new requirements. Call today for more information and/or a quote.

BEFORE

AFTER

Contact Extol for an *Extreme Makeover* — we will make your equipment like new again.

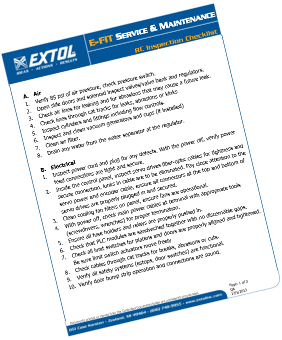
CHECK-UPS

REDUCE OR ELIMINATE DOWN TIME, MAXIMIZE PERFORMANCE, & PRO-ACTIVELY FIX ISSUES

Our factory-trained team of service engineers will travel to your facility and provide comprehensive check-ups on your Extol machine(s).

CHECK-UPS INCLUDE:

- Pneumatic, electrical, & mechanical evaluation
- Quality checks
- Machine calibration
- Recommended spare parts
- A service history on the machine
- Optional training/process review


EXTOL IDEAS · ACTIONS · RESULTS

E-FIT SERVICE & MAINTENANCE

RC Inspection Checklist

A. Air
1. Verify 85 psi of air pressure, check pressure switch.
2. Open side doors and solenoid inspect valves/valve bank and regulators.
3. Check air lines for leaking and for abrasions that may cause a future leak.
4. Check lines through cat tracks for leaks, abrasions or kinks
5. Inspect cylinders and fittings including flow controls.
6. Inspect and clean vacuum generators and cups (if installed)
7. Clean air filter.
8. Drain any water from the water separator at the regulator.

B. Electrical
1. Inspect power cord and plug for any defects. With the power off, verify power feed connections are tight and secure.
2. Inside the control panel, inspect servo drives fiber-optic cables for tightness and secure connection, kinks in cable are to be eliminated. Pay close attention to the servo power and encoder cable, ensure all connectors at the top and bottom of servo drives are properly plugged in and secured.
3. Clean cooling fan filters on panel, ensure fans are operational.
4. With power off, check main power cables at terminal with appropriate tools (screwdrivers, wrenches) for proper termination.
5. Ensure all fuse holders and relays are properly pushed in.
6. Check that PLC modules are sandwiched together with no discernable gaps.
7. Check all limit switches for platens and doors are properly aligned and tightened. Be sure limit switch actuators move freely
8. Check cables through cat tracks for breaks, abrasions or cuts.
9. Verify all safety systems (estops, door switches) are functional.
10. Verify door bump strip operation and connections are sound.

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12/5/2013

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EXTOL IDEAS · ACTIONS · RESULTS

E-FIT SERVICE & MAINTENANCE

VORTEX Inspection Checklist

A. Air
1. Verify 85 psi of air pressure.
2. Remove the rear cover from the column as well as the left side panel.
3. Check air lines for leaking and for abrasions that may cause a future leak.
4. Closely inspect shaft seal on z-axis cylinder.
5. Clean air filter.
6. Drain any water from the water separator at the regulator.

B. Electrical
1. Inspect power cord and plug for any defects.
2. Inside the control panel, inspect any moving cables for wear and abrasion. Pay close attention to the servo power and encoder cable. Also, closely inspect the communication cable that runs through the back of the mast assembly.
3. Inspect the safety trigger switch. Make sure it is adjusted correctly and wheel/axel assembly shows no wear.

C. Mechanical
1. Inside the column, inspect the cam follower and locator post. Adjust cam follower mount eccentric if required.
2. Apply grease to the column ways and lead screw.
3. Dry cycle the machine. Verify smooth and fluid movement of head assembly. Listen to the spindle and gearbox if so equipped.
4. Closely inspect the spindle bearing assembly for leaking seals.
5. Inspect THK bearings. Verify smooth movement throughout the entire stroke.
6. Verify the stop bolt is adjusted properly. When the carriage bottoms out, adjust the bolt to the weldment and add ¼ turn. Tighten the jam nut.
7. Verify Flatness of the plate to the spindle.

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Detailed check-up checklists on our machines are available for customer's to review.

Call 800.324.6205 to learn how *E-FIT*™ can improve your overall performance.

Process OPTIMIZATION

REDUCE CYCLE TIMES BY OPTIMIZING THE PROCESS

Extol service engineers will come out and take a pulse on the process performance of your Extol equipment. Parameter adjustments are skillfully made and communicated to your team in order to optimize the process for your application.

Hot-plate welder adjustments:

- Temperature
- Melt time
- Velocity, seal, and melt forces

InfraStake® & InfraWeld® adjustments:

- Heat time
- Power levels
- Cooling air flow
- Punch/Cool time

Spin welder adjustments:

- Force
- Velocity
- Distance
- RPM

Hands-on TECHNICAL TRAINING

With periodic employee turnover, ongoing training of machine operators and maintenance staff is vital. Extol's ***E-FIT™*** team will provide customized training to keep your equipment up and running properly.

TYPICAL TRAINING INCLUDES:

- Hands-on machine operation
- Machine safety procedures
- Process set-up & adjustments
- Troubleshooting guidelines
- Preventive maintenance recommendations

An additional copy of the owner's manual is available upon request.

Hands-on technical training will keep your Extol equipment running at peak performance.

E-FIT™
800.324.6205

EXTOL WILL HELP YOU ACHIEVE BETTER PLASTICS-JOINING RESULTS & LOWER YOUR TOTAL COSTS

To learn more about ***E-FIT***™ programs and how they can benefit you, contact us at **800.324.6205.**

To order replacement or spare parts, please call Customer Care at **616.748.5049** or email us at **spareparts@extolinc.com.**

24/7 SERVICE. Extol offers 24/7 emergency phone support. A service technician will respond to your call within two hours of being notified.

ONSITE SERVICE. Extol supports both national and international customers.

EXTOL INC

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