

**ANSI B151.15 AUDIT LIST**  
**FOR EXISTING MACHINES MANUFACTURED PRIOR TO AUGUST 1,2000**

**NOTICE TO CUSTOMER:**

During the process of reviewing your machines, all items that are determined to be non-compliant with ANSI B151.15 will be indicated in the NOTES section at the end of this document. If, during the process of this review, personnel detect an item that is not specifically covered in this checklist, and that item is in need of repair or replacement, it will be indicated in the NOTES section of this document.

# ANSI B151.15 AUDIT LIST

for existing machines manufactured prior to August 1, 2000

**Location:** \_\_\_\_\_  
**Machine Number:** \_\_\_\_\_  
**Manufacturer:** \_\_\_\_\_  
**Machine Serial Number:** \_\_\_\_\_  
**Date of Manufacture:** \_\_\_\_\_  
**Inspection Date:** \_\_\_\_\_

**Service Representative:** \_\_\_\_\_ / \_\_\_\_\_  
 Print Name Signature  
**Customer Rep.:** \_\_\_\_\_ / \_\_\_\_\_

ANSI B151.15 Section/Paragraph	Pass	Fail	Other	Mode of Operation			
				SETUP	MAN	S-A	AUTO

## 6.2 Mold Area Guarding

### 6.2.1 Operator's gate(s)

a) Does the operator's gate provide a satisfactory barrier?	YES	NO	<input type="checkbox"/>				
b) Are the interlocks in 6.2.2 and 6.2.3 operational?	See 6.2.2, and 6.2.3						
c) Is opening movement of the movable platen prevented with the operator's gate open?	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) If opening movement is possible, is access to any pinching or shearing points prevented?	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 6.2.1.1 Power-operated gate

a) When closing does the gate have an effective pressure-sensitive switch?	YES	NO	<input type="checkbox"/>				
b) Upon opening does the gate have an effective pressure sensitive switch?	YES	NO	<input type="checkbox"/>				
c) Does actuation of the pressure-sensitive switch stop or reverse the gate?	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Does failure of either pressure-sensitive switch duplicate actuation of the switch?	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Does failure of the wiring and/or PLC input duplicate action of the switch?	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Does the power assist mechanism maintain the effectiveness of the operator's gate?	YES	NO	<input type="checkbox"/>				
g) Does some action other than closure of the power-operated gate directly initiate an H IMM cycle?	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) When the power-operated gate is closed, what initiates the H IMM cycle? _____							
i) If a robot is used does it provide the signal to initiate the H IMM cycle?	YES	NO	<input type="checkbox"/>				
l) Does closure of the operator's gate require direct and continuous action by the operator?	YES	NO	N/A				

### 6.2.2 Electrical interlock

a) Does opening the operator's gate prevent platen movement?	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does opening the operator's gate prevent screw forward?	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does opening the operator's gate prevent tooling movement?	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Are each of the above interlocks hardwired?	YES	NO	<input type="checkbox"/>				
e) Do the hardwired interlocks include removal of power from each of the above PLC outputs?	YES	NO	<input type="checkbox"/>				
f) Are the hardwired interlocks located or protected to prevent inadvertent actuation?	YES	NO	<input type="checkbox"/>				
g) If the EBMM is powered by other sources other than hydraulic, is an independent interlock provided?	YES	NO	<input type="checkbox"/>				

h) Is a monitoring device provided to verify the operation of the safety interlock(s) and if improper operation is detected, is the cycle inhibited and an alarm activated? YES NO

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	YES	NO	<input type="text"/>				
	YES	NO	<input type="text"/>				
	YES	NO					
<b>6.2.3 Hydraulic or pneumatic interlock</b>							
a) If the operator's gate is opened, does the hydraulic or pneumatic interlock prevent platen closure?	YES	NO	<input type="text"/>				
b) Is the hydraulic or pneumatic interlock independent of all other interlocks?	YES	NO	<input type="text"/>				
c) Circle how the hydraulic interlock is actuated? <b>MECHANICALLY / ELECTRICALLY</b>	YES	NO	N/A				
d) Is a monitoring device provided?	YES	NO	N/A				
e) If improper operation of the monitored device is detected, is the EBMM cycle inhibited?	YES	NO	N/A				
f) If improper operation of the monitored device is detected, is an alarm activated?	YES	NO	N/A				
<b>6.2.5 Rear guard (NOTE: May be replaced by a rear operator's gate that must be in compliance with all of the appropriate sections).</b>							
a) Does the mold area opposite the operator of the EBMM have a rear guard?	YES	NO	<input type="text"/>				
b) Does the rear guard have two safety interlocking systems?	YES	NO	<input type="text"/>				
c) Does the interlock prevent all hazardous movements?	YES	NO	<input type="text"/>				
d) Do the two safety interlocking systems separately interrupt the control circuit and the power circuit when the guard is opened or removed and monitored?	YES	NO	<input type="text"/>				
<b>6.2.6 Top guard</b>							
a) If it is possible to reach over guards is a top guard provided?	YES	NO	N/A				
c) If the top guard is movable, are two safety interlocking systems provided?	YES	NO	N/A				
d) If the top guard is movable, does the interlocks prevent all motion of the EBMM when the guard is open or removed?	YES	NO	N/A				
<b>6.2.9 Parts discharge opening</b>							
a) Is the parts discharge opening guarded to prevent access to mold area hazards?	YES	NO					
b) When access to the parts discharge area is possible through or around the chute or conveyor, is additional guarding provided?	YES	NO					
c) If unguarded is a conveyor used as a guard?	YES	NO	N/A				
d) If unguarded is a chute used as a guard?	YES	NO	N/A				
e) When modifications are required for conveyors or other part removal devices, is additional guarding at the modification required?	YES	NO	N/A				
<b>6.2.8 Additional Safety for Large EBMMs</b>							
a) Is presencing sensing devices, mechanical latch or double acknowledgement system installed?	YES	NO	N/A				
b) Where it is possible to stand between the operator's gate and the adjacent tie bar, is there an emergency stop device provided in a location readily accessible from this area?	YES	NO	N/A				
c) Is blow air monitored so that the opening of the molds shall only be possible when the blow air pressure is reduced?	YES	NO	N/A				
	YES	NO	N/A				

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**6.3 General guarding (other than mold area guarding)**

**6.3.1 Guards**

- |  |     |    |     |
|--|-----|----|-----|
| a) Are movable guards interlocked? ( Front ) ( Rear ) ( Other )                                | YES | NO | N/A |
| b) Is hazardous motion stopped when the movable guard is opened? ( Front ) ( Rear ) ( Other )  | YES | NO | N/A |
| c) Is hazardous motion stopped when the movable guard is removed? ( Front ) ( Rear ) ( Other ) | YES | NO | N/A |

**6.3.2 Feed openings**

- |   |     |    |                          |
|---|-----|----|--------------------------|
| a) Is the feed opening guarded against inadvertent insertion of hands?  | YES | NO | <input type="checkbox"/> |
| b) What type of guarding is used? <b>HOPPER / OTHER</b> (specify) _____ |     |    |                          |
| c) Is the appropriate warning sign located close to the feed opening?   | YES | NO |                          |

**6.3.3 Electrical systems**

- |  |     |    |                          |
|--|-----|----|--------------------------|
| a) Does the machine comply with ANSI/NFPA 79 with regards to personnel safety?<br>(See ANSI/NFPA 79 Clause 6 - Safeguarding of personnel)<br><b>**CUSTOMER RESPONSIBILITY / NOT CONFIRMED BY OEM**</b> | YES | NO | <input type="checkbox"/> |
| b) Does the electrical enclosure(s) have an operational disconnect?  | YES | NO | <input type="checkbox"/> |
| c) Is the machine grounded?  | YES | NO | <input type="checkbox"/> |

**6.3.4 Extrusion barrel covers**

- |  |     |    |                          |
|--|-----|----|--------------------------|
| a) Does the barrel cover or barrier prevent inadvertent contact with high voltage and/or high barrel temperatures when the injection unit is in the normal operating position? | YES | NO | <input type="checkbox"/> |
|--|-----|----|--------------------------|

**6.3.5 Window**

- |  |     |    |                          |
|--|-----|----|--------------------------|
| a) Are windows used in a gate or guard to provide visibility conform to ANSI Z97.1-1994? | YES | NO | <input type="checkbox"/> |
|--|-----|----|--------------------------|

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**6.4 Safety Signs**

- a) Are safety signs present and legible? YES NO
- b) Do all new safety signs meet with ANSI Z 535 in color,form YES NO

**6.5 Setting Movements**

- a) Is an operating mode (set-up) mode provide which can be locked in the set-up mode with a removable key? YES NO
- b) Is the selector hard wired and monitored to ensure proper operations? YES NO
- c) Is the key for the mode selector only issued to person (s) trained in set up operations? YES NO
- d) Are hazardous movements/motion required for setting only possible by means of a hold to run control device? YES NO
- e) When a hold to run control device is fitted on a portable control unit, is it capable of being taken into the point of operation? YES NO
- f) Is an emergency stopping device fitted to the portable control unit? YES NO
- g) Does the emergency stopping device stop all hazardous movements/motion associated with setting operations? YES NO
- h) When the hold to run control device is not a portable unit, is it permanently fixed in such a position that the set-up person has a clear view of the point of operations? YES NO
- i) Is the hold to run control device only operable when the mode selector device is in the setting mode? YES NO
- j) Are the setting speeds designed not to exceed 1 inch per second (25 mm/second)? YES NO
- k) Is pneumatic drive, which creates a hazard, used for setting movements? YES NO
- l)) Are valves that could override set-up speed restrictions through activation by hand or tool made inaccessible (eg. guarding)? YES NO


**SAFETY NOTES ON FAILED ITEMS:**

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_
- 8) \_\_\_\_\_
- 9) \_\_\_\_\_
- 10) \_\_\_\_\_
- 11) \_\_\_\_\_

12)

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