TROUBLESHOOTING GUIDE TO BUSHINGS

		Melt drooling from the gate.	Gate 'pip' too high.	Gate freeze off.	Heater failure.	Excessive inj pressure/temp.	Burning.	Distortion around gate.	Surface defects opposite gate.	Poor colour change.	Stringing from the gate.
	SETTING ALTERATIONS										
1	Reduce tool temperature *	✓						✓	✓		✓
2	Increase cooling time *							✓	✓		
3	Use / increase melt decompression	✓	✓								✓
4	Reduce injection hold pressure		✓					✓	✓	✓	
5	Reduce screw-back pressure	✓	✓								✓
6	Reduce Bush temperature *	✓	✓		✓	✓	✓	✓	✓	✓	✓
7	Increase Bush temperature *		✓	✓					✓	✓	
8	Reduce injection speed			✓			✓		✓		✓
9	Increase injection speed			✓		✓			✓	✓	
10	Reduce injection pressure						✓				
11	Increase injection pressure			✓						✓	
12	Reduce hold time pressure		✓					✓			
13	Damp material - dry thoroughly					✓			✓		
14	Insufficient mould venting					✓	✓				
15	Incorrect start-up procedure, Dry & pre-warm heaters				✓						
16	Reduce cooling time *		✓	✓		✓			✓		
17	Increase tool temperature *			✓		✓			✓		
	SYSTEM FAULTS										
1	Heater failed			✓	✓	✓					
2	Thermocouple failure, loose or wires trapped	✓		✓	✓						
3	Temperature controller unsuitable or faulty	✓	✓	✓	✓	✓	✓				✓
4	Too much contact between Bush & mould		✓	✓		✓		✓	✓		
5	Coil heater not fully forward on Bush (If applicable)		✓	✓		✓		✓	✓	✓	
6	Bush tip damaged or worn (if tip is fitted)		✓	✓		✓		✓	✓		✓
7	Excessive gate land length		✓	✓		✓		✓	✓		✓
8	Gate diameter too small		✓	✓		✓					
9	Gate diameter too large	✓	✓					✓	✓		✓
10	Contamination blocking the gate			✓		✓					
11	Melt filter clogged (if fitted)					✓				✓	
12	Machine nozzle orifice too small					✓				✓	
13	Thermocouple connections reversed	✓		✓	✓	✓	✓				

* = In not more than 5 degree increments for 5 minutes minimum.

START UP PROCEDURE (or RESTART) : ALL manifolds must be allowed to reach setpoint temperature for 15 - 20 minutes, dependant on mass, then tips must be allowed to reach setpoint for a further 5 - 10 minutes BEFORE moulding. Single drop bushes MUST reach setpoint for 15 minutes with machine nozzle forward and in contact. Always ensure your machine nozzle bore matches the back of the bush or nozzle locator.

WIRING : Power leads are normally the same colour combination i.e. both black or white with red or black stripes. Thermocouples are always Type J I/C Fecon. Colours can vary e.g. Red (-ve) / White (+ve), Blue (-ve) / Yellow (+ve), White (-ve) / Black (+ve). Always check. +ve is magnetic.

TEMPERATURE CONTROL : Always use 240V Controllers with automatic Soft Start and thermocouple break protection. DO NOT USE VARIACS OR OPEN LOOP CONTROLLERS. (Use of this type of controller will invalidate your warranty.)

COLOUR CHANGING : Fit reduction rings where applicable i.e. On Elite or Precision bushes. Start with natural material, purge out barrel with new colour, increase system temperatures by 20% for 5 minutes, restart until old colour has been swept through, stop moulding and reduce temperature settings to normal and allow to cool for 5 minutes. If required, clean any old colour from tip area and restart.

GATE ALTERATION : Follow Tech Sheets. If in doubt, contact factory before increasing diameter.

CYCLE INTERRUPTIONS : In the event of any stoppages for more than 5 minutes, it is advisable to use melt decompression. Retract machine nozzle and reduce all temperatures by 100C to prevent degradation. To restart use start up procedure above.