

## GATE DIMPLE GEOMETRY GUIDELINES

Below are general guidelines for the gate recess (“dimple”) design for direct gate hot tip applications. Actual dimple design is the responsibility of the customer. Please contact an INCOE Applications Engineer for assistance in gate selection and design. Objectives for optimized design:

### Dimple Depth

- ST / HT Gates  $\geq 50\%$  of gate diameter  
Vestige height approx.  $1/2$  of gate diameter for most materials
- CT Gates  $\geq 100\%$  of gate diameter  
Vestige height approx. 1:1 with gate diameter
- Filled materials (glass fiber, etc.) can influence vestige height

### Wall Thickness

- Maintain nominal wall thickness under gate and throughout dimple
- Increase locally if wall thickness  $<$  gate diameter
- Ideal wall thickness under gate  $\geq$  gate diameter
- Flat area at base of dimple for proper gate land formation and height

### Steel Condition

- Maximize steel thickness around gate area
- Minimum 0.079” [2.0mm] recommended
- 0.118” [3.0mm] or more for abrasive resins

