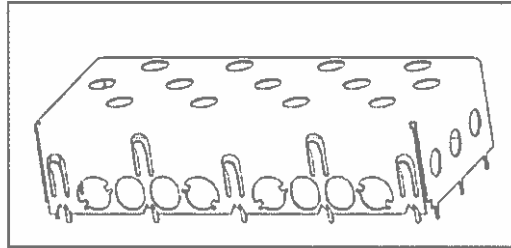


Three Approaches to Tooling for Metal Stampings

Scandic Springs, Inc.
by Hale Foote

EMI Shield
4" long X 2" high X 2.5" wide
material is .031" thick Martinsite

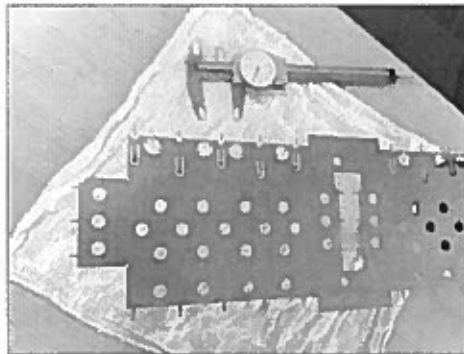


- 1** No Tooling: the blanks are made with waterjet or laser,
and then formed with standard press brake tooling.
Possible exceptions: coined or drawn features, or compound radii
may need dedicated form tooling.

Cost: \$0 tooling, \$10/each for parts in moderate volume

- 2** Soft tool (a/k/a stage tooling, blank & form tooling):
invest in a stamping tool to make the blank,
then form with standard brake press tooling

*flat blank stamped before
forming; the small
fingers might also be
formed in the first die*



Cost: \$8,000 tooling, \$4/each for parts
(this tool cost amortizes in just 1300 pcs)

- 3** Hard tooling: one die makes the part complete,
with no labor or handling
Cost: \$38,000 tooling, \$0.95/each for parts
(this tool cost amortizes in just 4200 pcs)