

Mac Dressler

Basic Dovetail layout
and Applications

A Basic Dovetail Layout

- ① True Stock - Flatten face(s) - check with rule
- Square & true edges - check with try square
 - Determine length - add $\frac{1}{16}$ for each joint
 - Cut to length - check ends for square
 - Surface prep as necessary
 - Determine best face, top, etc.
 - Mark as necessary (in and out, top & bottom, etc.)



- ② Gauge stock - Set gauge to thickness of opposing board plus $\frac{1}{16}$
- Mark all four sides from end on both boards
 - Lay out tails as desired on one side
 - Score tails and continue score square across end
 - Check scoring and mark waste

- ③ Cut Tails - Saw on waste side of line
- Remove waste, chop on shoulder line

- ④ Lay out Pins - Place tail board on end of pin board
- Score pins with knife or saw
 - Score square from end edge to shoulder
 - Check scoring and mark waste

- ⑤ Cut Pins - Saw on waste side of line to shoulder
- Remove waste

- ⑥ Pare - Pare to score marks as necessary
- Check for square

DOVETAIL APPLICATIONS

#1 Through



- joins two boards end to end at 90° or other angle
- most common in drawer, box and carcass construction

#2 Half-blind or Lapped - variation on through



- most common on drawer and case fronts
- provides one clear face (no exposed joinery)

#3 Housing (Sliding Dovetail)



- joins end to face or edge
- used with or cross grain
- most common for joining shelves and rails to carcass sides
- also used in leg to post joinery
- can be blind on edge

#4 Breadboard End (Sliding Dovetail)



- joins ends and edges with faces flush
- most common as ends on solid wood top and drops (allows for shrinkage/expansion and helps keep top flat)

#5 Dovetailed Counter Batten (Tapered Sliding Dovetail)



- joins series of boards
- most common door, hatches and gates
- allows for shrinkage/expansion across the span, can be tightened
- also used in leg to post joinery

- #6 Dovetailed Halving (Wedged) - joins two ends at right angles to single board



- most common in door and window light framing

- #7 Butterfly Tenon - joins edges



- excellent repair joint for cracks and breaks
- used hidden or as decorative joint

- #8 Dovetailed Halving - joins end to face

(Rt. Angle or other)



- most common face frame construction
- can be blind on face edge

- #9 Dovetailed Halving (Scarf) - joins end to end

(Scarf)



- most common in structure framing
- often reinforced with plates

- #10 Housing



- joins end to face or edge
- most common in structure framing
- can be used with 90° or other angles

Standard angle for dovetails is 80° or 1:6

