

KNEE WALL SYSTEM

INSTALLATION INSTRUCTIONS



FLUSH MOUNTED PANELS

DESIGNED FOR 7-1/2" RISE AND 10" RUN (37°)

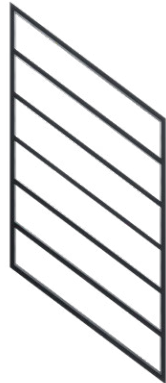
POWDER COATED STEEL - SATIN BLACK FINISH - FOR INTERIOR USE ONLY

TOOLS & MATERIALS

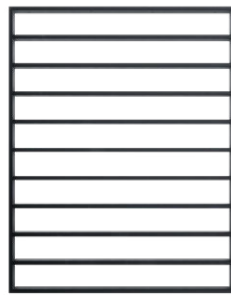
- POWER DRILL
- RIGHT ANGLE DRILL ATTACHMENT(OPTIONAL)
- HACKSAW OR ANGLE GRINDER W/ CUTOFF WHEEL
- MITER SAW
- SQUEEZE CLAMPS
- SQUARE OR PHILLIPS SCREW TIP
- 5/32" HEX HEAD OR ALLEN WRENCH
- 1/8", 3/16", 1/4", 3/8" TWIST BITS
- TWO PART EPOXY W/ APPLICATOR
- TAPE MEASURE
- SAFETY GLASSES

SYSTEM COMPONENTS

RAKE PANELS



BALCONY PANELS



KNEE WALL NEWEL



EL-KWN-30-2

UNIVERSAL NEWEL



EL-UN-47-4

TREAD CAP SCREW



(2-3/4" Length)

EL-TS-212-10 (10 pack)
EL-TS-212-50 (50 pack)

NEWEL SCREW



(2-3/4" Length)

EL-NS-234-10 (10 pack)
EL-NS-234-50 (50 pack)

HANDRAIL SCREW



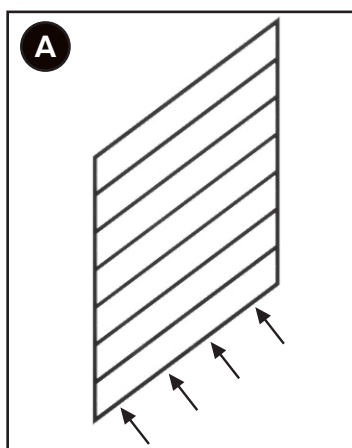
(1-1/4" Length)

EL-HS-114-10 (10 pack)
EL-HS-114-50 (50 pack)

KNEEWALL SYSTEM - FLUSH MOUNTED RAKE PANELS - INSTALLATION INSTRUCTIONS

Determine spacing for each rake section and order the necessary panels and newels to infill each section to meet building codes.

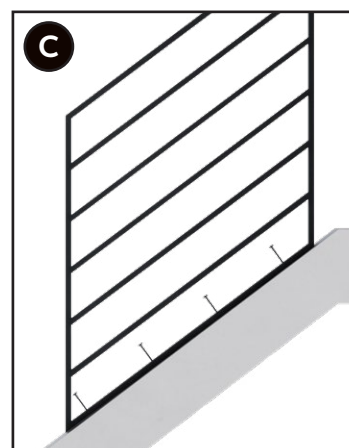
1. Drill 1/4" holes evenly spaced through the bottom of each panel equal to the number of 2 1/2" tread cap screws (bottom) supplied with the panel (A). We recommend the holes be drilled in a serpentine pattern like the predrilled holes in the top of the panel.
2. Position and mount each newel (if used/required) on the kneewall using the supplied 2 3/4" newel screws (B).
3. Position the kneewall panels on the kneewall and secure them to the kneewall using the 2 1/2" newel screws (C).
4. Trim the handrail to length for each run. Use handrail fittings for making turns or changes in elevation (optional).
5. Position the handrail over the panels and mark and drill 1/8" holes in the bottom of the handrail at the predrilled locations in the panel tops. If kneewall newels are being used, also drill holes for them using the top plate as a template (D).
6. Secure the handrail in place by installing the supplied 1 1/4" handrail screws through the panels (and knee wall newel top brackets if used) into the handrail bottom (D).



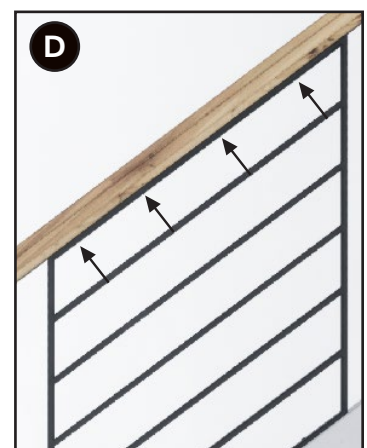
Drill 1/4" holes



Use 2-3/4" newel screws



Use 2-3/4" tread cap screws



Drill 1/8" pilot holes
Use 1-1/4" handrail screws

FLUSH MOUNTED PANELS

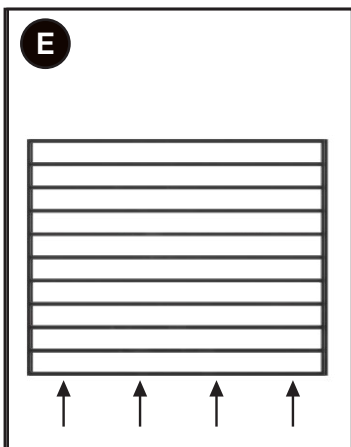
DESIGNED FOR 7-1/2" RISE AND 10" RUN (37°)

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BALCONY SYSTEM - FLUSH MOUNTED PANELS - INSTALLATION INSTRUCTIONS

Determine spacing for each balcony section and order the necessary panels and newels to infill each section to meet building codes.

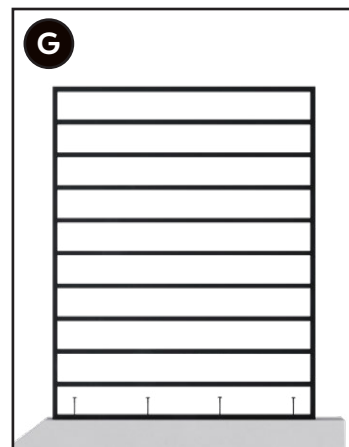
1. Drill 1/4" holes evenly spaced through the bottom of each panel equal to the number of 2 1/2" tread cap screws (bottom) supplied with the panel (E). We recommend the holes be drilled in a serpentine pattern like the predrilled holes in the top of the panel.
2. Position and mount each universal newel (if used/required) on the balcony cap using the supplied 2 3/4" newel screws (F).
3. Position the kneewall panels on the balcony cap and secure them using the 2 1/2" tread cap screws (G).
4. Trim the handrail to length for each run. Use handrail fittings for making turns or changes in elevation (if desired).
5. Position the handrail over the panels and mark and drill 1/8" holes in the bottom of the handrail at the predrilled locations in the panel tops. If universal newels are being used, also drill holes for them using the top plate as a template (H).
6. Secure the handrail in place by installing the supplied 1/4" handrail Screws through the panels (and universal newel top brackets if used) into the handrail bottom (H).



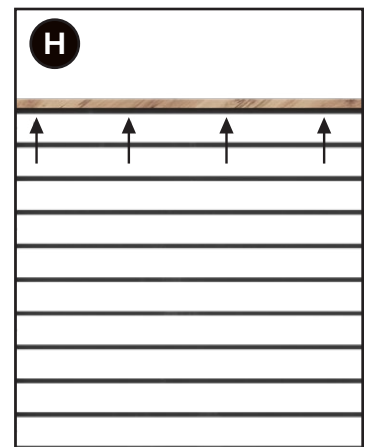
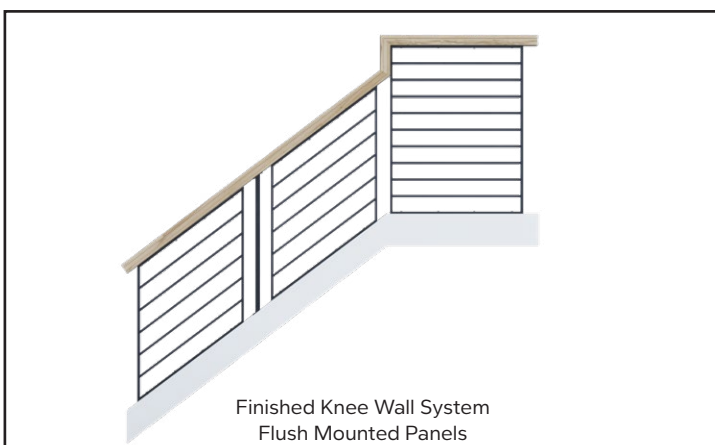
Drill 1/4" holes



Use 2-3/4" newel screws



Use 2-3/4" tread cap screws

Drill 1/8" pilot holes
Use 1-1/4" handrail screws

INSTALLATION VIDEO

HOUSE OF FORGINGS
STAIR &
RAILING