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# How to Use a Slip Roll Former

A slip roll bends sheet into cylinders and other single-curvature shapes.

## Parts and what to set

| Part | What it does | How you set it |
|---|---|---|
| Two front (feed) rolls | Grip the sheet and carry it to the rear roll; driven by gears from the handle | Lower front roll raised or lowered to the sheet thickness with the adjusting screws, before the sheet goes in |
| Rear roll | Gives the sheet its curvature | Raise or lower by trial and error; no gauge gives a diameter |
| Upper roll release | Lets you slide the finished cylinder off the end without distortion | Release one end of the top roll |
| Grooves | Allow forming of parts with wired edges | Check clearance so a folded edge is not flattened |

## Typical mistakes

| Mistake | What happens | Fix |
|---|---|---|
| Trying to get the whole radius in one pass | Wrong curve, or damage | Use progressive settings and several passes |
| Dirty or damaged rolls | Marks on aluminum | Clean and inspect the rolls first |
| Folded edge pinched | Fold flattened | Leave enough clearance between the rolls |
| Hands near the rolls | Injury | Fingers and loose clothing clear |
| Forming a starting edge on a flat-edged part | Unwanted bend at the edge | Skip the starting edge if the edge is to stay flat |

## Key points

- **Not approved data.** Curved structural parts follow the drawing or SRM for radius, material condition and springback.
- **Capacity.** The Handbook gives no thickness or width limits for slip rolls; use the maker's rating.

**SOURCES** · FAA-H-8083-31B, AMT Handbook: Airframe, Chapter 4

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Educational reference only, not approved data. Always consult the applicable SRM, AMM, or AC 43.13-1B and your certifying authority.