

# IPAC

INTEGRATED  
PANEL ASSEMBLY  
CELL

**COMPOSED** TO COMPETE

- High Performance in Panel Assembly
- Proven Reliability and Efficiency
- Workpiece Flexibility
- Small Industrial Footprint

# IPAC - INTEGRATED PANEL ASSEMBLY CELL

## Area of Application

The Integrated Panel Assembly Cell (IPAC) is a high performance panel riveting system. The proven system is one of the best-selling fastening machine concepts world-wide. It is ideal to fasten small to large sized skin and wing panels.

The IPAC achieves fastest cycle times, while maintaining superb component quality. The highly adaptable system can be configured with a flexible fixture tooling to allow high workpiece flexibility as well as easy production process integration.

The IPAC's compact design and adjustable station layout enables efficient use of precious shop floor space while keeping investment in building infrastructure to a minimum. The workpiece can be loaded vertically as well as horizontally.

With more than 50 installations world-wide the system is well proven in production.

## Technical Data

### Riveter

Capacity: up to 21ea rivets/min	Drill spindle feed: up to 300"/min (7,620 mm/min)
Drill speed: 50 - 18,000 rpm	Material: Aluminum / Titanium / Composite
Countersink repeatability: ± 0.0006" (± 0.015 mm)	Optional 10/32" (7.9 mm)
Fastener diameter: 4/32" - 8/32" (3.2 mm - 6.4 mm)	Upset force: up to 18,000 lbs (8,000 daN)
Clamping force: 110 - 600 lbs (50 - 267 daN)	

### Positioning System

Linear axes X, Y and Z	Positioning accuracy linear axis ± 0.2 mm
Rotary axes A, B, C	Positioning accuracy rotary axis ± 60 arc sec.

## Special Features

- All electric fastening system
- High speed tool changer for drill chuck and upper anvils
- High speed / precise drill spindle
- Sensoric system for: Distance, Normality, Tack-rivet and Edge detection, Countersink Depth, Fastener Head Height, Hole Diameter, Sealant
- Automated fastener feeding system
- Customer specific design of staging equipment for best ergonomics
- Offline Programming System (SOUL OLPS) incl. Virtual Twin Integration, Simulation and Production Optimization Tools
- Integrated state-of-the-art Human Machine Interface (SCORE) incl. 3D workpiece completion reports
- Optional slug fasteners
- Optional collar installation
- Optional automatic lower tool changer

