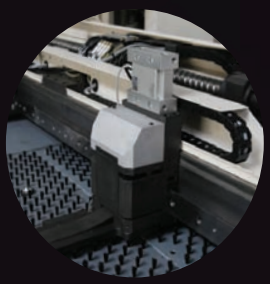
ACCURL®

# SF SERIES

TURRET PUNCH



## ALL ELECTRIC

MAXIMUM PERFORMANCE

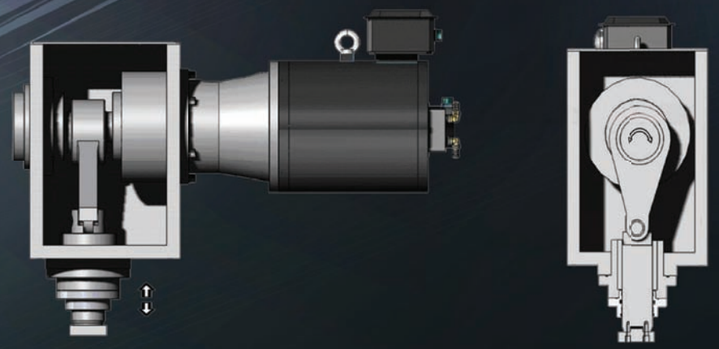
MAXIMUM VALUE

MAXIMUM STYLE

# ACCURL TURRET PUNCH


## SOLID FRAME STRUCTURE

The ACCURL turret punch utilizes an O-frame structure for rigidity and reliability throughout the life cycle of the machine.



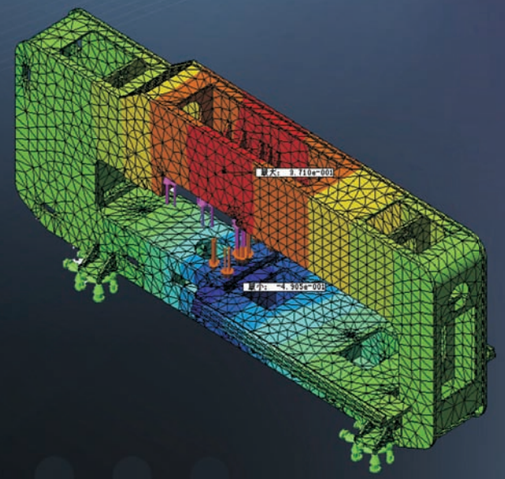
## SERVO DRIVE SYSTEM

The punch servo utilizes a direct drive gearbox that supplies power and speed. This servo allows the user to steplessly adjust the punch stroke and accommodate any pressure curve requirements.


## PROGRAMMABLE RAM

The AC punch servo motor can be programmed for various applications.

I) High speed applications.
II) Low noise applications.
III) Forming applications.



## QUALITY ENGINEERING

All frame configurations are field tested and engineered to last using FEA.



# ACCURL SF SERIES

**The new generation of ACCURL turret punch is a low energy, high efficiency turret punch with low environmental and maintenance costs.**

- The ACCURL can be configured in 22 or 33 ton options.
- The ACCURL was designed with a thick turret to ensure longevity of the machine and its tools and to minimize tool deflection.
- ACCURL performs full punches, hovering, marking and forming operations.
- The SF model can be upgraded with our Ultra Package which can decrease part processing times by up to 40%.

ACCURL

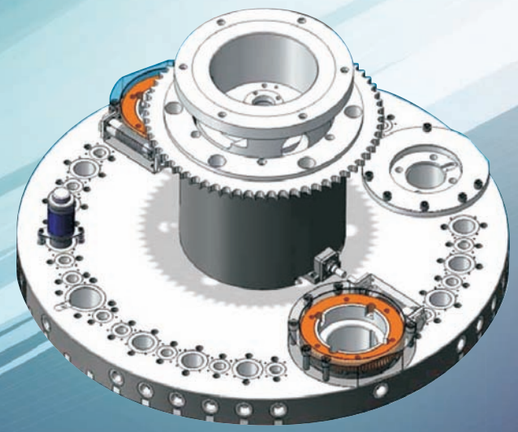
# MAXIMUM SPEED & ACCURACY

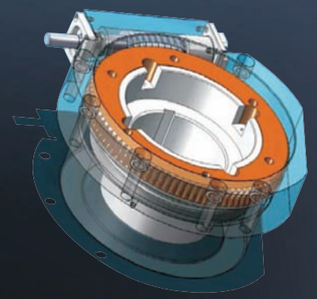

## FULLY ANNEALED FRAME

Following the welding process, the entire frame is put through a furnace to eliminate all latent stresses.


## WORK TABLE STRUCTURE

The table is composed of 5 sections, 3 are stationary and 2 move with the Y-Axis. This allows for excellent sheet support throughout the entire process. The elegant table supports permit full under table access for maintenance and housekeeping.

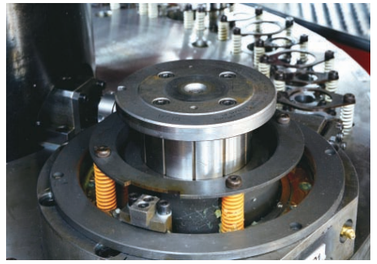




# TURRET STRUCTURE

**The ACCURL has a thick turret to provide improved accuracy and longevity of the tools**

- The turret itself is made of s50C and undergoes rigorous testing.
- The turret comes with 4 main layouts from 32 stations to 52 and up to 4 auto indexing stations.
- Permanently engaged auto index drive system reduces errors and avoids downtime.
- The auto indexable stations have a dual lead worm structure. The worms are custom machined in pairs and are highly accurate. The worm gear's side clearance can be controlled under 0.0008" and can be adjusted for wear.



# STANDARD FEATURES

**The ACCURL comes standard with the following features:**

- Automatic Tool and Linear Components Lubrication System
- Pneumatic Ball Transfer and Brush Table for ease of loading/unloading
- Vacuum Assist System for slug removal
- 32 Stations 2 Auto indexing stations
- One Mirror-Type Safety System to guard entire work envelope
- Man-Sensors on moving tables
- Sheet Jam Protectors to detect warped material
- Sheet-gripper sensors to detect loose material

## AUTOMATIC LUBRICATION

The ACCURL comes standard with two automatic lubrication systems.

**Automatic Tool Lubrication System**

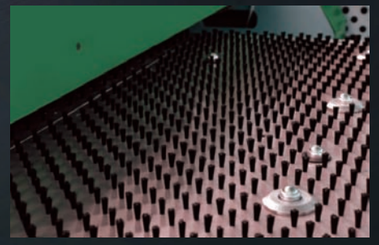
The Automatic Tool Lubrication System ensures that tools stay in peak condition and drastically lengthens tool longevity and product reliability.

**Automatic Linear Components Lubrication System**

All linear axes are kept lubricated by an automated system that distribute discrete amounts of lube on a set schedule.

## VACUUM ASSIST SYSTEM

The optional Vacuum Assist System increases machine reliability by reducing slug pulls and improves material processing.



## MIXED BALL AND BRUSH TABLE

The standard configuration features a mixed ball and brush table that comes with an integrated pneumatic ball transfer table to ease loading and unloading.

## SHEET JAM PROTECTORS

Sheet Jam Protectors automatically detects deformed or buckled sheets and automatically stops the machine when triggered.

## DROP CHUTE & CONVEYOR

The part Drop Chute and Conveyor options allow processing and sorting to be automated and simplified.

## AUTOMATIC CLAMP POSITIONING

Automatic Clamp Positioning reduces setup time and errors, and provides machine runtime flexibility and productivity.



# OPTIONAL FEATURES

**The ACCURL can be equipped with a variety of productivity enhancing features.**

- Auto Clamp Repositioning
- Auto Part-drop Table and Work Chute
- Auto-feed Conveyor and Parts Bin
- ACCURL Ultra package, reduce part processing time by up to 40%.

## TABLE SIZES & FLOOR PLAN

| X-Y Travel | X | Y |
|---|---|---|
| 5 x 4 | 110” (2810mm) | 219” (5550mm) |
| 5 x 8 | 209” (5310mm) | 219” (5550mm) |
| 5 x 10 | 252” (6410mm) | 219” (5550mm) |
| 6.5 x 4 | 110” (2810mm) | 266” (6750mm) |
| 6.5 x 8 | 209” (5310mm) | 266” (6750mm) |
| 6.5 x 10 | 252” (6410mm) | 266” (6750mm) |

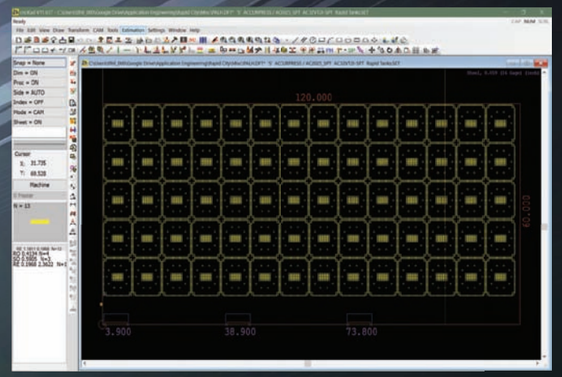
ACCURL

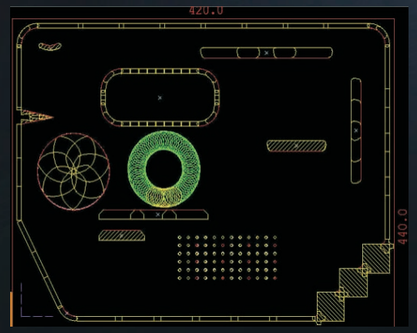
# MAXIMUM CONTROL

## FANUC CNC CONTROLLER

The ACCURL turret punch comes with a FANUC 0i-PD LCD mounted controller. The setup includes an ACCURL Operator panel and FANUC MDI panel.

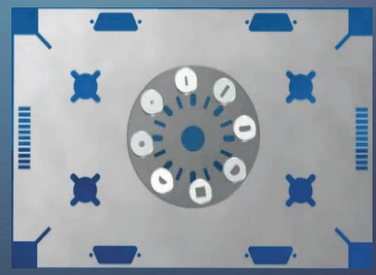
The FANUC controller allows for precise and reliable machine control, as well as providing a way to monitor secondary systems and keep track of maintenance tasks.




## CAD/CAM NESTING SOFTWARE

The G-code for the 0i-PD controller can be generated from nesting software. The operator may nest multiple parts, maximize sheet utilization and streamline their workflow to ensure their turret punch is working in peak condition.



## AUTO INDEXABLE MULTI-TOOLS

With flexible multi-tools in the auto index station, complex parts and configurations can be produced with maximum efficiency.

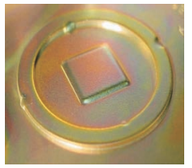


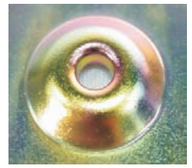
# THICK TURRET TOOLING

**The ACCURL is compatible with thick turret tooling. The wide variety of specialty tools combined with the programmable ram means the ACCURL can deliver for any application.**

- The D-station also is configurable with multi-tools with multiple configurations of both A (0.5") and B (1.25").

- Reduce additional operations by utlilizing ACCURL's support of tapping and other specialty tooling.





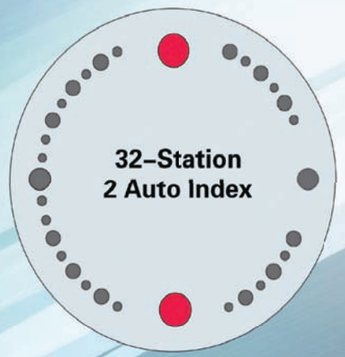
ACCURL

# AUTOMATION

The ACCURL offers simple and elegant solutions to all your automation needs. From Loading/Unloading, to the full punch bending cell, the value of the ACCURL cannot be beat.


Automate production with the ACCURL Load/Unloader.

The ACCURL can be configured to feed one or more press brakes in our fully automated Punch to Robotic Bending cell.







## TURRET CONFIGURATIONS

- **32 Stations 2 Auto index:**
  Our entry level turret offers a full set of tooling with two auto indexing stations.
- **32 Stations 3 Auto Index:**
  With one flex station, the 32 station turret can be upgraded with an additional auto index D station.
- **42 Stations 4 Auto Index:**
  Our most flexible design comes with four auto indexing stations to offer the most advanced material processing capabilites.
- **52 Stations 2 Auto Index:**
  Our premium tooling setup used utilizes two rows of tooling to minimize tool changes and keep your turret in production.

**TURRET CONFIGURATION**

| Turret Configuration | A | B | C | D | D - AI |
|---|---|---|---|---|---|
| 32 Station - 2 Auto Index | 16 | 12 | 2 | 0 | 2 |
| 32 Station - 3 Auto Index | 16 | 12 | 1 | 0 | 3 |
| 42 Station - 4 Auto Index | 20 | 16 | 2 | 0 | 4 |
| 52 Station - 2 Auto Index | 30 | 14 | 4 | 2 | 2 |

# ACCURL SPECIFICATIONS

| | | |
|---|---|---|
| **Maximum Sheet Thickness** | **6mm (0.25")** | |
| **Tonnage** | **20 metric, 22 U.S. or 30 metric, 33 U.S.** | |
| **Y-axis travel** | **1525mm (60.04")** | |
| **X-axis travel** | **2500mm (98.42")** | |
| **Maximum Sheet Size** | **1500x5000mm (5' x 16')** | |
| **Throat Depth** | **1550mm (61.02")** | |
| **Feed Clearance** | **22mm (0.87")** | |
| **Maximum Sheet Weight** | **300kg (661 lbs)** | |
| | | |
| **HIT RATE** | **STANDARD** | **ULTRA** |
| 1mm material, 4mm stroke, **25mm** pitch | **350 HPM** | **500 HPM** |
| 1mm material, 4mm stroke, **1mm** pitch | **700 HPM** | **960 HPM** |
| Marking | **1380 HPM** | **2400 HPM** |
| | | |
| **AXIS SPEED** | **STANDARD** | **ULTRA** |
| **X-axis** | **100m/min (3937 ipm)** | **105m/min (4134 ipm)** |
| **Y-axis** | **60m/min (2362 ipm)** | **80m/min (3150 ipm)** |
| | | |
| **Punching Accuracy** | **+/- 0.1mm (0.004")** | |
| **Turret Index Speed** | **35rpm** | |
| **Compressed Air** | **0.55MPa (80 PSI)** | |
| | | |
| **Machine Mass** | **20T (44000 lbs)** | |
| | | |
| **FLOOR PLAN** | | |
| **Length** | **5550mm (218.5")** | |
| **Width** | **5310mm (209.1")** | |
| **Height** | **2300mm (90.6")** | |


ACCURL CNC MACHINE(ANHUI)CO.,LTD
www.Accurl.com

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