



# **UT250E Seal Manufacturing System**



#### **UT250E** at a glance

V Complete machine system for seals up to 250mm OD

√ Pragati 8-station electric tool turret

√ Quick tool clamping system

√ Latest FANUC Oi-TF drive and control system

√ PC with UTECFLEX software

√ Chip cutter & suction unit

√ Material clamping system

∨ Cutting tools & holders

√ Automatic lubrication system

√ Coolant (cutting fluid) system

### **Control & Drive System**

UTEC machines are equipped with the latest technology of FANUC, the world-wide leader of control systems for machine tools. The FANUC 0i-T\* 2-axis control and the iServo-Drive System offer a state-of-the-art, high precision machine control system with high efficiency and reliability.

#### **Tools & Holders**

The quality of cutting tools is of highest importance in the production of lathe-cut seals. A complete set of high-precision cutting tools made of fine-grain carbide is supplied with every UTEC machine. In order to cover the complex, complete range of existing seal profiles, most tools have a special geometrical shape and are custom made for seal production.

#### **Material Clamping System**

In order to efficiently clamp the raw material billets, special clamping jaws are mounted on to the steel body of the high-precision 3-jaw machine chuck. These sets of multi-range clamping jaws are made of high-grade aluminum and are designed to clamp certain diameter ranges of semi-finished billets.



#### **Chip Cutter & Suction Unit**

A well working chip cutter and suction unit play an important role in the manufacturing process of seals and engineered plastic parts, as they contribute to preventing swarf buildup around the tool and thus to a better surface finish of the end product.

The chip cutter is made of high-grade aluminum, using HSS tools to hack up the chips and keep the tools clean for optimal machining performance.



# **UT250E Technical Data**

#### **General Dimensions**

• L x W x H: 1750 x 1350 x 1300/1650mm

• Total weight (without Suction Unit): 1800Kg

#### **Machining Capacity**

• Max. machining diameter: 250mm

Swing over bed: 300mm
Max. travel X-axis: 300mm
Max. travel Z-axis: 235mm
Max. machining length: 155mm
Max. billet length: 155mm

#### **Main Spindle Drive**

• Max. speed: 3000rpm

• Through-hole diameter: 38mm

Power: 3.7kWMax. current: 25A

• Noise level normal/max.: 78/82dB

#### **Coolant System**

Coolant adjustment: 1 nozzle/pos. + 2 flexible tubes

Coolant tank capacity: 100L

## **CNC Type / Software**

• Fanuc Control version: 0i-TF

User Software: UTEC Flex

#### **Machining Accuracy**

Cylindrical accuracy: IT6

• Surface roughness: Ra 0.4-1.6μm

• Roundness: ≤0.003mm

Positional accuracy: X: 0.005mm / Z: 0.008mm
Repeated pos. accuracy: X: 0.002mm / Z: 0.004mm

### **Tool System**

• Electric tool turret (Pragati, India)

• Tool positions: 8

• Tool holders: "FAST Insert"

## **Suction Unit**

Suction unit motor: 4kW

• Max airflow: 8600L/min

Chip container capacity: 100L

Dimensions (L x W x H): 1250 x 650 x 1600mm

Weight: 185Kg





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