

Hydraulic presses, special machines



Presentation: Axial forming presses



Typical powertrain items for involute spline line drawing



Drive shafts

> both side external spline for monoblock and MTS shafts



CV Joints

> one side external spline for forged and turned CV designs

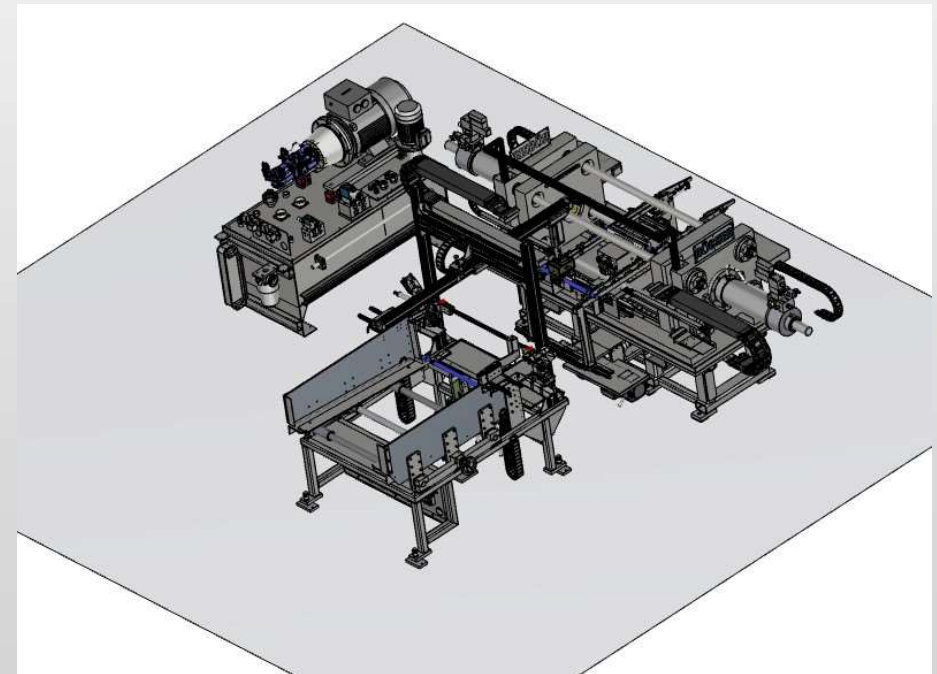
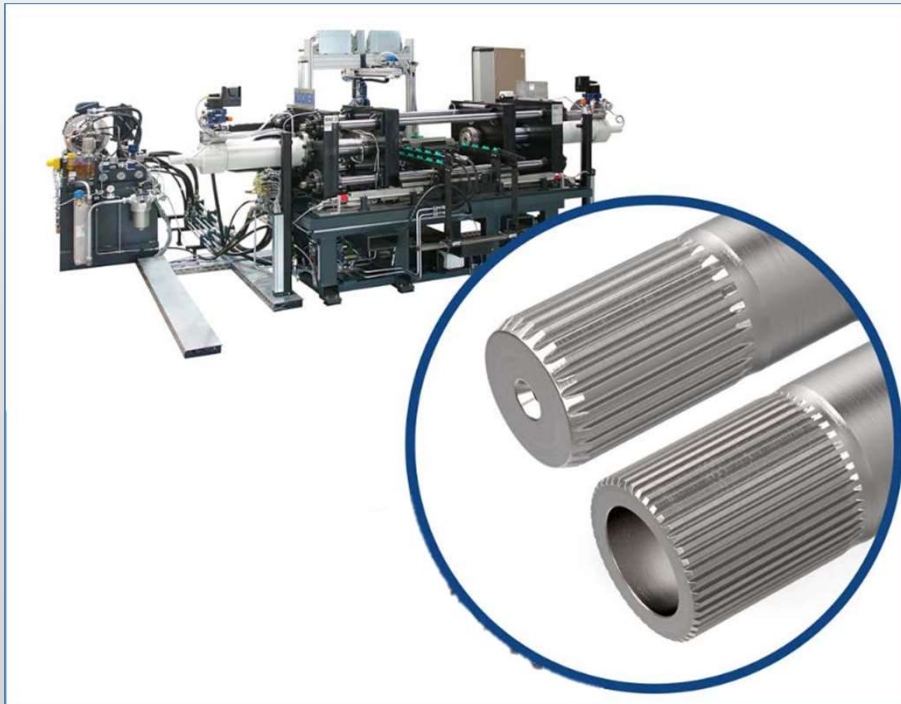


Rotor shafts
Thru axle

> one side internal spline
> one side internal spline and one side external spline

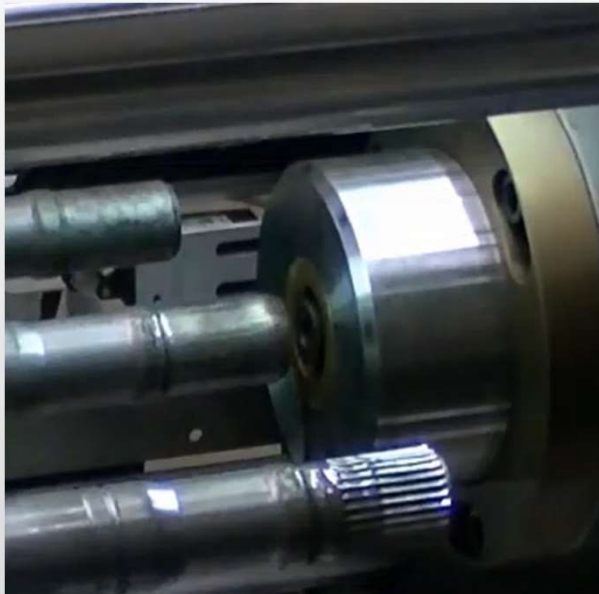
Drive shafts machine type: RWZP 2x40.42

- Tubular or solid shafts
- Both side spline drawing at same time
- Walking beam transport for high performance (cycle time approx. 10 sec)
- Production cell with bunker, oil applikation and spline drawing machine or integration



RWZP spline line forming general description

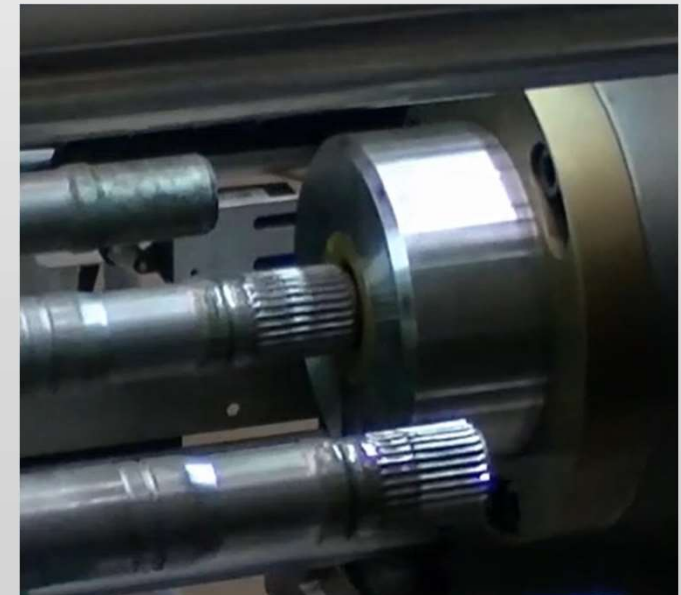
Step 1: Pushing the blank into the die



Step 2: Pulling the spline out of the die



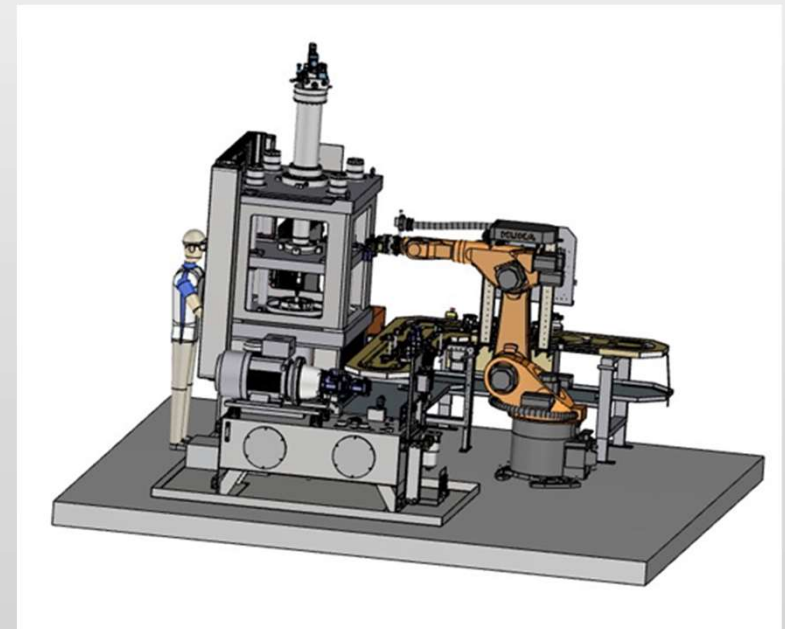
Step 3: spline finished



- Blanc pre machine by radial forging or turning; end machining required,
- Spline drawing approx. 10 sec for 28 mm length (both sides)
- No chips, no burr, high repeatability due to die design
- Special process oil required!

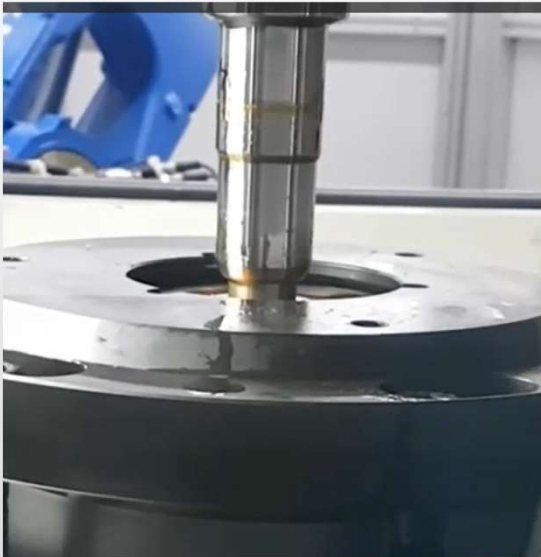
CV joint machine type: RSP 42.65

- Single step external spline drawing operation with integrated process oil supply
- Robot material handling for high flexibility (cycle time approx. 15 sec)
- Production cell with robot material handling to be integrated in customer material handling system

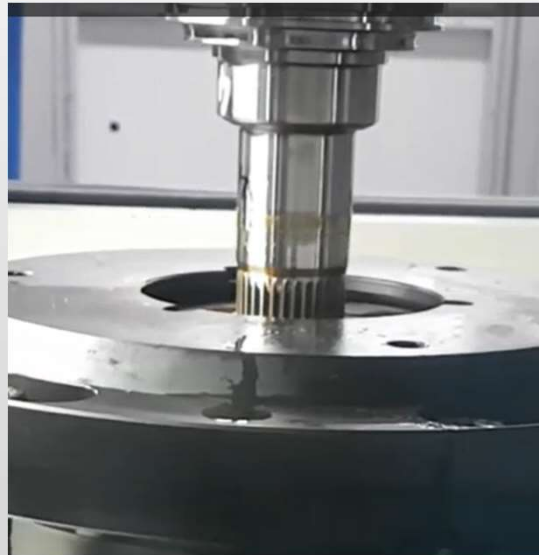


RSP spline line forming general description

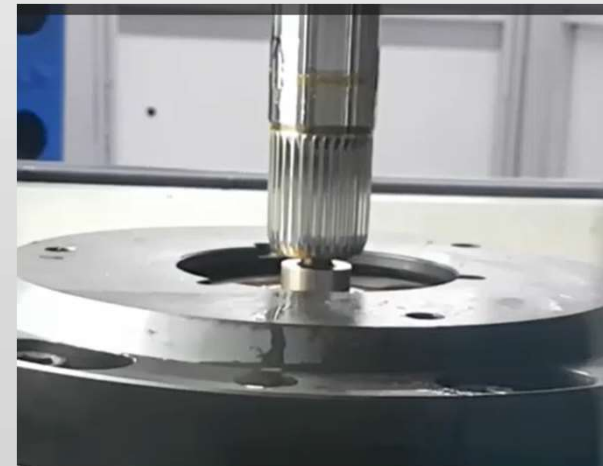
Step 1: Pushing the blank into the die



Step 2: Pulling the spline out of the die



Step 3: spline finished



- Blanc pre machine by radial forging or turning; end machining required,
- Spline drawing approx. 15 sec for 28 mm length including material handling
- No chips, no burr, high repeatability due to die design
- Special process oil required!

Rotor shaft machine type: RSP 100.65 RS

- Single step external and/or internal spline drawing operation
- Robot material handling for high flexibility (cycle time approx. 20 sec)
- Production cell with robot material handling to be integrated in customer material handling system
- Machine also suitable for thru axle operation with internal and external spline

