

---

## SINUMERIK 840D sl Optimization for SINAMICS S120 (NC-84SLOPT)

---

### Short Description

---

This course deals with the optimization of the drive system SINAMICS S120 in conjunction with the cnc SINUMERIK 840D sl.

### Objectives

---

This course deals with the optimization of the drive system SINAMICS S120 in conjunction with the cnc SINUMERIK 840D sl. On completion of the course, you will be able to adapt the drives optimally to the machine tool. You will become familiar with the interaction of SINUMERIK and SINAMICS and will thus be able to make optimal use of the system's dynamics. This will enable you to increase the productivity of your machine.

### Target Group

---

Commissioning engineers  
Engineering personnel  
Service personnel  
Maintenance personnel

### Content

---

Procedures for the optimization of feed drives in conjunction with SINUMERIK 840D sl  
Control-loop structures of feed drives  
Functionality of position, speed and current control loop  
Usage of current control filters depending on the mechanical system  
Optimization using step response and frequency response analysis  
Usage of the diagnostic tool Trace for the recording of internal signals  
Optimization of the positioning behaviour using feed forward control and jerk limitation  
Adjustment of two interpolating axes with the help of the on-board circularity test  
Introduction into the Automatic Servo Tuning  
Practical optimization exercises on training devices

### Prerequisites

---

Basic knowledge according to the course NC-84SL-SIP, NC-84SL-SK or NC-ONE-SIP, NC-ONE-SK.

### Note

---

This course is also suitable for users of SINUMERIK ONE.

### Type

---

Face-to-face training

### Duration

---

5 days

### Language

---

en