

PTSA SHORT COURSE

[PTSA 04.006.01]

Heidenhain Q Parameter Programming

Course description and information

The Q parameter programming course is an advanced training course whereby you can program entire families of parts in a single NC program, by programming variable Q parameters instead of fixed numerical values.

Objectives

The course participants can write cyclic machining processes, program milling operations of plane curves with mathematical functions and combine Q parameters and HEIDENHAIN cycles. Practical applications for the functions FN 15; 16; 17;18; etc will be shown.

Course duration 1 Day at a regional PtSA Centre of Excellence	Cost *R 2 525 (excl VAT) per attendee Subject to minimum group size
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**All required learning material and access to the relevant software during the course is included in the price.*

Registration

Participants should register through the relevant PtSA (Production Technologies Association of South Africa) Regional Centre of Excellence offering the course. See www.ptsa.co.za for contact information.

Course content

- Fundamentals
- Basic functions
- Formulas
- Q parameter status
- Using formulas
- Program jumps
- Using jumps
- Hexagon exercise
- Truncated cone exercise
- System data
- Tool offset
- String formulas
- Using string formulas
- Protocols
- Help, tips and tricks

Outcomes/Understanding/Theory

- Q parameter programming
- BASIC ARITHM programming
- FORMULA programming
- Q parameter controls
- Bore line programming
- JUMP functions & programming
- Hexagon programming exercise
- Truncated cone programming
- System data programming
- Tool offsets & calculations
- Programming using STRING FORMULA
- Protocol understanding & programming
- Conditioning jumps & calculations

Assessment

Written exam with a minimum pass mark of 60%.

Training manual

NC Programming - Q parameter programming – WS TNC QP1.