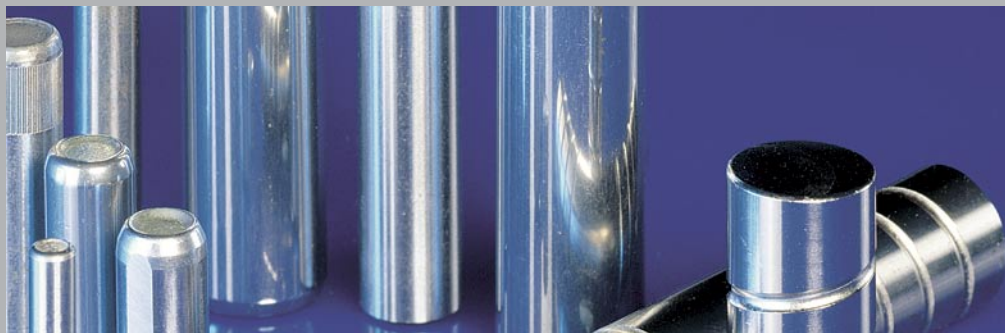


SCANDINAVIAN COMPETENCE IN QUALITY AND TECHNOLOGY



Standard
programme

Dowel pins
and shafts



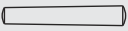
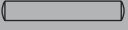



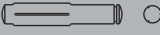




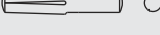



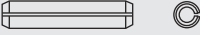


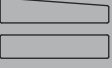
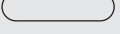
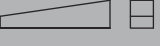
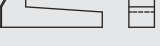



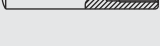
Cold
formed parts
dowel pins
and shafts



Drawing parts
and other parts

We fit in everywhere

STANDARD PROGRAMME

| Norm | Product | Steel | Coating | Stainless steel | Brass, Cu, Al, Ti, Bz |
|----------------------------------|---|-----------------|---------|----------------------------|-----------------------|
| DIN 1 ISO 2339 |  Taper Pins | St | Gal/Zn | 1.4305 | Brass |
| DIN 7 ISO 2338 SMS 2374 |  Cylindrical / Parallel Pins | St | Gal/Zn | 1.4305 1.4571 | |
| DIN 268/271 |  Tangent Keys | St | | 1.4571 | |
| DIN 508 ISO 299 |  T-Nuts | 8, 10 | Gal/Zn | 1.4571 | |
| DIN 1444-A DIN 1444-B |  Clewis Pins | St | | 1.4034 1.4305 | |
| DIN 1469 |  Grooved Pins length parallel groove with annular ring | St | Gal/Zn | 1.4305 | |
| DIN 1470 ISO 1839 |  Grooved Pins Full length parallel, pilot end | St | Gal/Zn | 1.4305 | |
| DIN 1471 ISO 8744 |  Grooved Pins Full length taper groove | St | Gal/Zn | 1.4305 | |
| DIN 1472 ISO 8745 |  Grooved Pins Half length taper groove | St | Gal/Zn | 1.4305 | |
| DIN 1473 ISO 8740 |  Grooved Pins Full length parallel groove | St | Gal/Zn | 1.4305 | |
| DIN 1474 ISO 8741 |  Grooved Pins length reverse taper | St | Gal/Zn | 1.4305 | |
| DIN 1475 ISO 8742 ISO 8743 |  Grooved Pins 1/3 length centre grooved | St | Gal/Zn | 1.4305 | |
| DIN 1476 ISO 8746 |  Grooved Pins with round head | St | Gal/Zn | 1.4303 | |
| DIN 1477 ISO 8747 |  Grooved Pins with flat head | St | Gal/Zn | 1.4303 | |
| DIN 1481 ISO 8752 ISO 8751 |  Slotted / spring / tension pins Coiled pins | St | | 1.4310 | |
| DIN 6325 ISO 8734 SMS 2375 |  Cylindrical / Parallel Pins | 100Cr6 | Gal/Zn | 1.4034 1.4305 1.4571 | |
| DIN 6881 |  Taper Keys | C45K | Gal/Zn | | |
| DIN 6883 ISO 2492 |  Taper Keys | C45K | Gal/Zn | 1.4571 | |
| DIN 6885 ISO 2491 SMS 2306 |  Parallel Keys | C45K 16MnCr5 | Gal/Zn | 1.4057 1.4462 1.4571 | |
| DIN 6886 ISO 2491 |  Taper Keys / Wedges | C45K | Gal/Zn | 1.4571 | |
| DIN 6887 ISO 2492 |  Gib-Head Keys | C45K | Gal/Zn | 1.4571 | |
| DIN 6888 ISO 3912 SMS 11 |  Woodruff Keys | C45K | Gal/Zn | 1.4057 1.4301 1.4571 | Bz Brass |
| DIN 7977 ISO 8737 |  Taper Pins external threaded end | St | | 1.4305 | |
| DIN 7978 ISO 8736 |  Taper Pins with internal thread | St | | 1.4305 | |
| DIN 7979 ISO 8733 ISO 8735 |  Cylindrical Pins with internal thread | 100Cr6 | | 1.4305 | |

DOWELS, PINS AND SHAFTS

CUSTOMER SPECIFIED PARTS PRODUCED BY TURNING OR COLD FORMING

RANGE OF PERFORMANCE

- Diameter: 0.5 – 40 mm
- Length: 2 – 200 mm
- Tolerance field for diameter: up to 0.003 mm
- Depth of roughness: up to Ra 0.1

MATERIALS

Standard materials:

- Case hardened steel
- Heat-treated steel
- Rolled steel
- Machining steel
- Stainless steel
- Mild steel

Non-ferrous metals such as Al, brass, alloys etc.
Other materials available upon request.

HEAT / SURFACE TREATMENT

- Quench and temper
- Case harden
- Carbonitriding
- Nitrocarburization
- Vacuum hardening
- Galvanic coating

Appropriate corrosion protection

ADVANTAGES OF COLD FORMED PARTS

- Non-cutting manufacturing
- Free choice of material
- Parts are free from burs and better
- Perfect for assembly
- Cost advantages
- Environment friendly production

Turned parts



Cold formed parts



MACHINERY

- Ring-turning machines
- Bar turning machines
- CNC-turning machines
- Longitudinal turning machines
- Transfer machines
- Centreless cylindrical grinding machines
- Plunge grinders
- Barrelling machines
- Cold forming machines
- Plunge-grinding machines

SPECIAL DESIGN

Additional technical modifications are possible:

- Flatted surfaces for air release
- Spiral grooves for greasing
- Knurling
- Transverse or axial holes
- Different diameters produced by plunge grinding
- Drilling
- Pin prick
- Grinding

SUPPLEMENTARY MEASUREMENTS

If required we perform following check procedures:

- 100 % Check of diameter down to 3 µm
- 100 % Check of hardness below 4HRC
- 100 % Crack detected raw-material
- 100 % Check of length < 0,1 mm

ADDITIONAL SERVICES

- Complete EDI support (Electronic Data Interchange) for automotive companies
- IMDS (Int. Material Data System)
- CAD support – standard parts for download in different CAD formats. Visit our website! www.marcuskomponenter.se

QUALITY MANAGEMENT SYSTEMS

- ISO / TS 16949
- ISO 14001 (will be introduced in 2008)

CONTACTS

www.marcuskomponenter.se

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Visit: Snickarvägen 5, SE-153 35 Järna, Sweden

Phone: +46 8 554 811 50

Fax: +46 8 554 811 59

e-mail: info@marcuskomponenter.se

CERTIFIC

Management system as per

ISO/TS 16949:2002

(2nd edition, 2002-03-01)

Evidence of conformity with the above standard has been established for the following procedures for

Marcus Komponenter AB

Snickarvägen 5

153 22 Järna

Sweden

Scope

Manufacturing of fasteners; d

IATF Registration No. 0049333

Certificate Registration No. 44 111 061581

J. Brandt

TÜV CERT Certification body
at TÜV NORD CERT GmbH

This certification was conducted in accordance with the requirements of the standard, subject to regular surveillance audits.

TÜV NORD CERT GmbH

Langemarckstrasse



02-IAO-QMC-01021

