



Mechanical data

Rotation angle: 270° ± 5°
 Operating torque: 0.4 ÷ 1.5 Ncm
 Permissible torque at end stop: 35 Ncm max
 Permissible axial spindle load: 50 N
 (5 sec max)
 Tap: Z2 at 50% of rotation
 Weight, std. spindle: ~ 6 g

Optional features

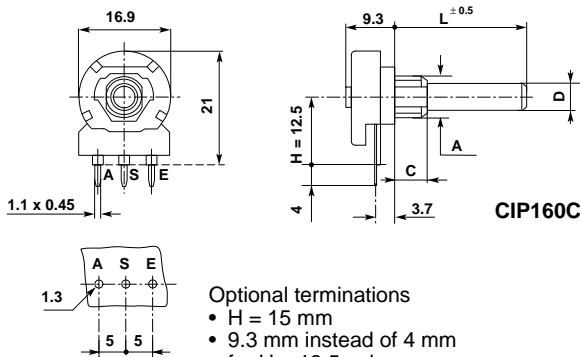
- Central click
- Rotation angle 300° ±5°: types **CIP162C** and **P162C**
- 11 click-stops: types **CIR11P162C** and **R11P162C**

Electrical data

Rated dissipation @ 40°C: 0.25 W linear law
 0.12 W non-linear law
 Limiting element voltage: 350 VDC
 Insulation resistance: ≥ 5 GΩ
 Insulation voltage: 500 VAC
 Rated resistance: E3 Series; optional E6 Series
 • linear law: 100R to 4M7
 • non-linear law: 1K0 to 2M2
 Tolerance on rated resistance:
 • 100R to 1M0: ± 20%
 • over 1M0: ± 30%
 • optional (1K0 to 1M0): ± 10%
 Resistance law: A, B, C, F, T, S, X
 • with tap: A2, B2, C2, S2
 • CIP162C, P162C: B5, B15, B25, B30



viewed on component side



- Optional terminations**
- H = 15 mm
 - 9.3 mm instead of 4 mm for H = 12.5 only

Types

CIP160C	P.c. terminations
P160C	Solder tag terminations

Standard spindle & bush

D = 4 mm; L = 32 mm, plastic, F21 type
 A = M7x0.75; C = 6 mm, C type

Spindle and bushing variations

D mm	Available types				
	Plastic spindle	Metal spindle	Bush	C = mm	A = mm
4	F21, F22, F23, F25	M21, M22, M23, M25	C, CE	6 - 9	M7x0.75
			CEP	4.5 - 8	M7x0.75
6	F31, F32, F33, F34, F35	M31, M32, M33, M34, M35	C, CE	6 - 9	M7x0.75
			CEP	4.5 - 8	M7x0.75
	F1, F2, F3, F4, F5, F6, F10, F11, F12	NOT	KC	8	M10x0.75
			C9	6	M9x0.75

Spindle and bushing details, chassis piercing: see p. 79 to 83.

Normalised spindles: see p. 84.



Mechanical data

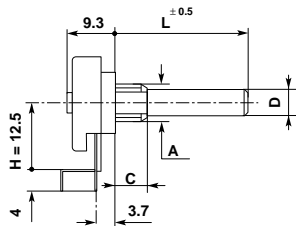
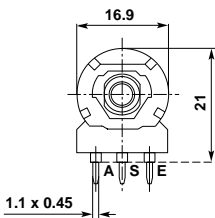
Rotation angle: $270^\circ \pm 5^\circ$
 Operating torque: $0.4 \div 1.5$ Ncm
 Permissible torque at end stop: 35 Ncm max
 Permissible axial spindle load: 50 N
 (5 sec max)
 Tap: Z2 at 50% of rotation
 Weight, std. spindle: ~ 6 g

Optional features

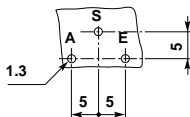
- Central click
- Rotation angle $300^\circ \pm 5^\circ$: type **CIP163C**
- 11 click-stops: type **CIR11P163C**

Electrical data

Rated dissipation @ 40°C: 0.25 W linear law
 0.12 W non-linear law
 Limiting element voltage: 350 VDC
 Insulation resistance: ≥ 5 GΩ
 Insulation voltage: 500 VAC
 Rated resistance: E3 Series; optional E6 Series
 • linear law: 100R to 4M7
 • non-linear law: 1K0 to 2M2
 Tolerance on rated resistance:
 • 100R to 1M0: $\pm 20\%$
 • over 1M0: $\pm 30\%$
 • optional (1K0 to 1M0): $\pm 10\%$
 Resistance law: A, B, C, F, T, S, X
 • with tap: A2, B2, C2, S2



viewed on component side



CIP161 C

Standard spindle & bush

D = 4 mm; L = 32 mm, plastic, F21 type
 A = M7x0.75; C = 6 mm, C type

Spindle and bushing variations

D mm	Available types				
	Plastic spindle	Metal spindle	Bush	C = mm	A = mm
4	F21, F22, F23, F25	M21, M22, M23, M25	C, CE	6 - 9	M7x0.75
			CEP	4.5 - 8	M7x0.75
6	F31, F32, F33, F34, F35	M31, M32, M33, M34, M35	C, CE	6 - 9	M7x0.75
			CEP	4.5 - 8	M7x0.75
	F1, F2, F3, F4, F5, F6, F10, F11, F12	NOT	KC	8	M10x0.75
			C9	6	M9x0.75

Spindle and bushing details, chassis piercing: see p. 79 to 83.

Normalised spindles: see p. 84.



Carbon Rotary Potentiometers - 16 mm size

Singles

Plastic Case

Types
CIP160KC
P160KC

Mechanical data

Rotation angle: $270^\circ \pm 5^\circ$
 Operating torque: $0.4 \div 1.5$ Ncm
 Permissible torque at end stop: 60 Ncm max
 Permissible axial spindle load: 100 N
 (5 sec max)
 Tap: Z2 at 50% of rotation
 Weight, std. spindle: ~ 6 g

Optional features

- Rotation angle $300^\circ \pm 5^\circ$: types **CIP162KC** and **P162KC**
- Central click, for CIP160KC and P160KC types only; case dimension 13.8 mm instead 8.6 mm
- Earth termination for metal case type

Electrical data

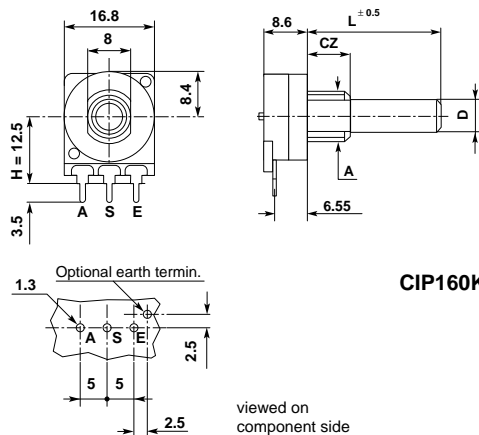
Rated dissipation @ 40°C : 0.25 W linear law
 0.12 W non-linear law
 Limiting element voltage: 350 VDC
 Insulation resistance: ≥ 5 G Ω
 Insulation voltage: 500 VAC
 Rated resistance: E3 Series; optional E6 Series
 • linear law: 100R to 4M7
 • non-linear law: 1K0 to 2M2
 Tolerance on rated resistance:
 • 100R to 1M0: $\pm 20\%$
 • over 1M0: $\pm 30\%$
 • optional (1K0 to 1M0): $\pm 10\%$
 Resistance law: A, B, C, F, T, S, X
 With tap: A2, B2, C2, S2



H = 15 optional

Types

CIP160KC	P.c. terminations
P160KC	Solder tag terminations



CIP160KC

Standard spindle & bush

D = 6 mm, L = 50 mm, plastic, F1 type
 A = M10x0.75, CZ = 8 mm, KC type

Spindle and bushing variations

D mm	Available types				
	Plastic spindle	Metal spindle	Bush	A = mm	CZ = mm
4	F21, F22, F23, F25	M21, M22, M23, M25	KZ	M7 x 0.75	5-8-12
			KC	M10 x 0.75	8
6	F31, F32, F33, F34, F35 F1, F2, F3, F4, F5, F6, F10, F11, F12	M31, M32, M33, M34, M35 M1, M2, M3, M4, M10, M11, M12	KZ	M7 x 0.75	5-8-12
			KC	M10 x 0.75	8

Spindle and bushing details, chassis piercing: see p. 79 to 83. - Normalised spindles: see p. 84.

These potentiometers are also available with metal case and bush (die-cast) as types **CIP160ZC** and **P160ZC**; bush type CZ or ZKC. All spindle variations and optional features are possible.



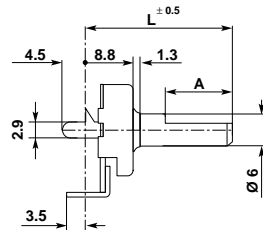
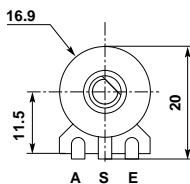
Mechanical data

Rotation angle: $300^\circ \pm 5^\circ$
 Operating torque: $1 \div 3$ Ncm
 Permissible torque at end stop: 35 Ncm max
 Permissible axial spindle load: 50 N
 (5 sec max)
 Weight, std. spindle: ~ 4 g

Electrical data

Rated dissipation @ 40°C: 0.25 W linear law
 0.12 W non-linear law
 Limiting element voltage: 350 VDC
 Insulation resistance: ≥ 5 G Ω
 Insulation voltage: 500 VAC
 Rated resistance: E3 Series optional E6 Series
 • linear law: 100R to 4M7
 • non-linear law: 1K0 to 2M2
 Tolerance on rated resistance:
 • 100R to 1M0: $\pm 20\%$
 • over 1M0: $\pm 30\%$
 • optional (1K0 to 1M0): $\pm 10\%$
 Resistance law: A, B, C, F, S, T, X
 B5, B15, B25, B30

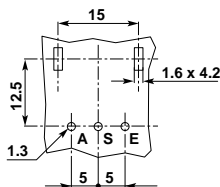
NEW



EP 162

Standard spindle

L = 30 mm, A = 12 mm
 F34 type



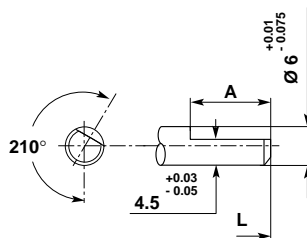
viewed on
component side

Spindle variations

Plastic material

Type	L = mm	A = mm
F33	20	7
F34	25	12
	30	12
	35	12

spindle in full CCW position





Mechanical data

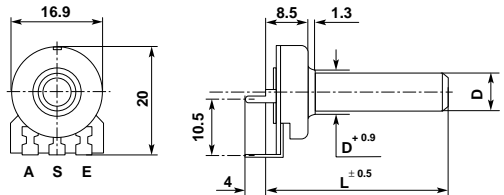
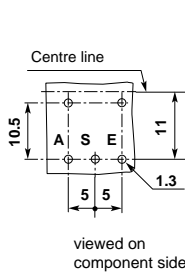
Rotation angle: $270^\circ \pm 5^\circ$
 Operating torque: $0.4 \div 1.5$ Ncm
 Permissible torque at end stop: 35 Ncm max
 Permissible axial spindle load: 50 N
 (5 sec max)
 Weight, std. spindle: ~ 4 g

Optional feature

• Rotation angle $300^\circ \pm 5^\circ$: type **P162 BA**

Electrical data

Rated dissipation @ 40°C: 0.25 W linear law
 0.12 W non-linear law
 Limiting element voltage: 350 VDC
 Insulation resistance: ≥ 5 GΩ
 Insulation voltage: 500 VAC
 Rated resistance: E3 Series; optional E6 Series
 • linear law: 100R to 4M7
 • non-linear law: 1K0 to 2M2
 Tolerance on rated resistance:
 • 100R to 1M0: $\pm 20\%$
 • over 1M0: $\pm 30\%$
 • optional (1K0 to 1M0): $\pm 10\%$
 Resistance law: A, B, C, F, S, T, X



P160 BA

Standard spindle

L = 50 mm, plastic, F1 type
 D = 6 mm

Spindle minimum lengths

- F1 spindle type: L = 19 mm
- F5-F6 spindle types: L = 17 mm
- Others spindle types: L = 8 mm more than their minimum lengths

Spindle and bushing variations

D = mm	Available types	
	Plastic spindle	Metal spindle
6	F1, F2, F3, F4, F5, F6, F10, F11, F12	NOT
4	F21, F22, F 23	NOT

Spindle details: see p. 81 to 83.

Normalised spindles: see p. 84.



Carbon Rotary Potentiometers - 16 mm size

Singles

Die-cast Case

Types
EP160Z
EPP160Z

Mechanical data

Rotation angle: $270^\circ \pm 5^\circ$
 Operating torque: $0.4 \div 1.5$ Ncm
 Permissible torque at end stop: 60 Ncm max
 Permissible axial spindle load: 100 N
 (5 sec max)

Weight, std. spindle: ~ 12 g

Optional features

- Rotation angle $300^\circ \pm 5^\circ$: types **EP162Z** and **EPP162Z**
- Central click, for EP160Z and EPP160Z only

Electrical data

Rated dissipation @ 40°C : 0.25 W linear law
 0.12 W non-linear law

Limiting element voltage: 350 VDC

Insulation resistance: ≥ 5 G Ω

Insulation voltage: 500 VAC

Rated resistance: E3 Series; optional E6 Series

• linear law: 100R to 4M7

• non-linear law: 1K0 to 2M2

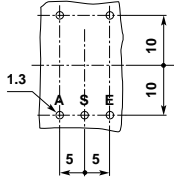
Tolerance on rated resistance:

• 100R to 1M0: $\pm 20\%$

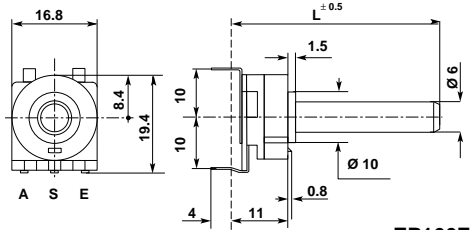
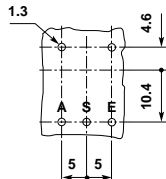
• over 1M0: $\pm 30\%$

• optional (1K0 to 1M0): $\pm 10\%$

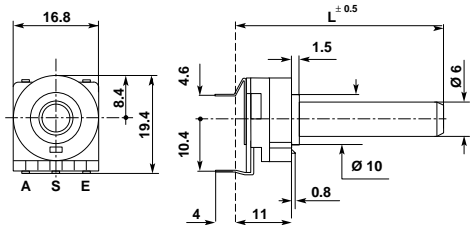
Resistance law: A, B, C, F, S, T, X



Viewed on component side



EP160Z



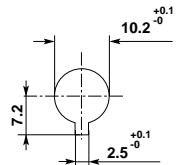
EPP160Z

Standard spindle

L = 51 mm, plastic, F1 type

Spindle variations

Available types	
Plastic spindle	Metal spindle
F1, F2, F3, F4, F5, F6	M1, M2, M3, M4
F10, F11, F12	M10, M11, M12



Spindle details: see p. 81 - 82.

Normalised spindles: see p. 84.

Chassis piercing



Carbon Rotary Potentiometers - 16 mm size

Singles

Plastic Case

Type
P160EK

Mechanical data

Rotation angle: $270^\circ \pm 5^\circ$
 Operating torque: $0.4 \div 1.5$ Ncm
 Permissible torque at end stop: 60 Ncm max
 Permissible axial spindle load: 100 N
 (5 sec max)

Weight, std. spindle: ~ 6 g

Optional features

- Rotation angle $300^\circ \pm 5^\circ$: type **P162EK**
- Central click, for P160EK only

Electrical data

Rated dissipation @ 40°C: 0.25 W linear law
 0.12 W non-linear law

Limiting element voltage: 350 VDC

Insulation resistance: ≥ 5 G Ω

Insulation voltage: 500 VAC

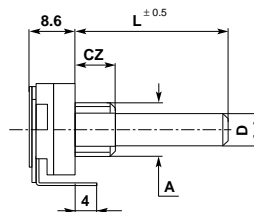
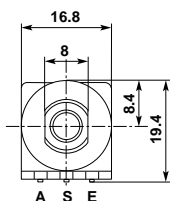
Rated resistance: E3 Series; optional E6 Series

- linear law: 100R to 4M7
- non-linear law: 1K0 to 2M2

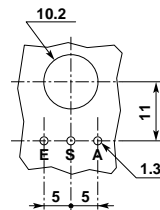
Tolerance on rated resistance:

- 100R to 1M0: $\pm 20\%$
- over 1M0: $\pm 30\%$
- optional (1K0 to 1M0): $\pm 10\%$

Resistance law: A, B, C, F, S, T, X



P160EK



viewed on component side

Standard spindle & bush

L = 50 mm, plastic, F1 type

D = 6 mm

A = M10x0.75, CZ = 8 mm, KC type

Spindle and bushing variations

D = mm	Available types				
	Plastic spindle	Metal spindle	Bush	A = mm	CZ = mm
4	F21, F22, F23, F25	M21, M22, M23, M25	KZ	M7 x 0.75	5-8-12
			KC	M10 x 0.75	8
6	F31, F32, F33, F34, F35	M31, M32, M33, M34, M35	KZ	M7 x 0.75	5-8-12
	F1, F2, F3, F4, F5, F6, F10, F11, F12	M1, M2, M3, M4, M10, M11, M12	KZ	M10 x 0.75	5-8-12
			KC	M10 x 0.75	8

Spindle and bushing details, chassis piercing: see p. 79 to 83.

Normalised spindles: see. 84.

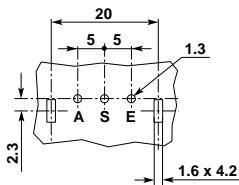
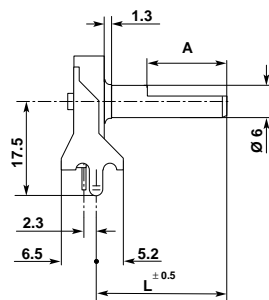
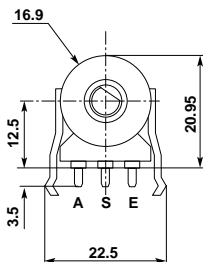


Mechanical data

Rotation angle: $300^\circ \pm 5^\circ$
 Operating torque: $1 \div 3$ Ncm
 Permissible torque at end stop: 35 Ncm max
 Permissible axial spindle load: 50 N
 (5 sec max)
 Weight, std. spindle: ~ 4

Electrical data

Rated dissipation @ 40°C: 0.25 W linear law
 0.12 W non-linear law
 Limiting element voltage: 350 VDC
 Insulation resistance: ≥ 5 G Ω
 Insulation voltage: 500 VAC
 Rated resistance: E3 Series; optional E6 Series
 • linear law: 100R to 4M7
 • non-linear law: 1K0 to 2M2
 Tolerance on rated resistance:
 • 100R to 1M0: $\pm 20\%$
 • over 1M0: $\pm 30\%$
 • optional (1K0 to 1M0): $\pm 10\%$
 Resistance law: A, B, C, F, S, T, X
 B5, B15, B25, B30



SP162

Standard spindle

L = 28.8 mm, plastic, A = 12 mm
 F34 type

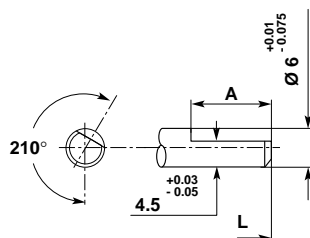
viewed on
component side

Spindle variations

Plastic spindle

Type	L = mm	A = mm
F33	13.8	7
F34	18.8	12
	23.8	12
	28.8	12

spindle in full CCW position





Carbon Rotary Potentiometers - 16 mm size

Singles

Die-cast Case

Type
P160ZCS

Mechanical data

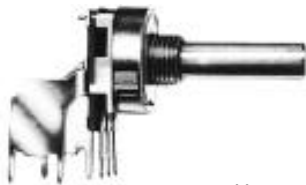
Rotation angle: $270^\circ \pm 5^\circ$
 Operating torque: $0.4 \div 1.5$ Ncm
 Permissible torque at end stop: 60 Ncm max
 Permissible axial spindle load: 100 N
 (5 sec max)
 Tap: Z2 at 50% of rotation
 Weight, std. spindle: ~ 15 g

Optional features

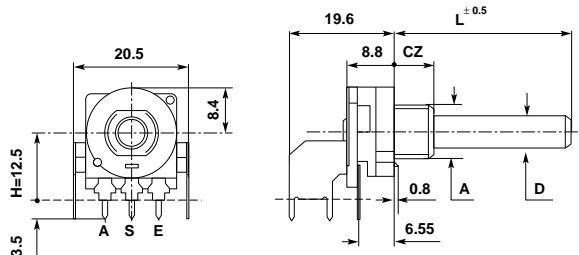
- Rotation angle $300^\circ \pm 5^\circ$: type **P162ZCS**
- Central click, for P160ZCS only

Electrical data

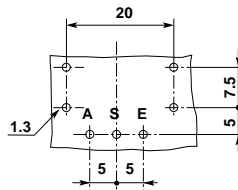
Rated dissipation @ 40°C : 0.25 W linear law
 0.12 W non-linear law
 Limiting element voltage: 350 VDC
 Insulation resistance: ≥ 5 G Ω
 Insulation voltage: 500 VAC
 Rated resistance: E3 Series; optional E6 Series
 • linear law: 100R to 4M7
 • non-linear law: 1K0 to 2M2
 Tolerance on rated resistance:
 • 100R to 1M0: $\pm 20\%$
 • 300 to 1M0: $\pm 30\%$
 • optional (1K0 to 1M0): $\pm 10\%$
 Resistance law: A, B, C, F, S, T, X
 • with tap: A2, B2, C2, S2



H = 15 optional



P160ZCS



viewed on
component side

Standard spindle & bush

L = 50 mm, plastic, F1 type
 D = 6 mm
 A = M10x0.75, CZ = 8 mm, CZ type

Spindle and bushing variations

D = mm	Available types				
	Plastic spindle	Metal spindle	Bush	A = mm	CZ = mm
4	F21, F22, F23, F25	M21, M22, M23, M25	CZ	M7 x 0.75	5-8-12
6	F31, F32, F33, F34, F35	M31, M32, M33, M34, M35	CZ	M7 x 0.75	5-8-12
	F1, F2, F3, F4, F5, F6, F10, F11, F12	M1, M2, M3, M4, M10, M11, M12	CZ	M10 x 0.75	5-8-12
			ZKC	M10 x 0.75	8

Spindle and bushing details, chassis piercing: see p. 79 to 83.

Normalised spindles: see p. 84.



Carbon Rotary Potentiometers - 16 mm size

Singles Die-cast Case

Type
SP160Z

Mechanical data

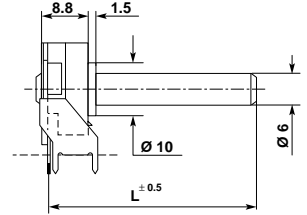
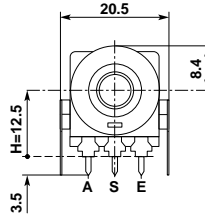
Rotation angle: $270^\circ \pm 5^\circ$
 Operating torque: $0.4 \div 1.5$ Ncm
 Permissible torque at end stop: 60 Ncm max
 Permissible axial spindle load: 100 N
 (5 sec max)
 Tap: Z2 at 50% of rotation
 Weight, std. spindle: ~ 15 g

Optional features

- Rotation angle $300^\circ \pm 5^\circ$: type **SP162Z**
- Central click, for SP160Z only

Electrical data

Rated dissipation @ 40°C: 0.25 W linear law
 0.12 W non-linear law
 Limiting element voltage: 350 VDC
 Insulation resistance: ≥ 5 G Ω
 Insulation voltage: 500 VAC
 Rated resistance: E3 Series; optional E6 Series
 • linear law: 100R to 4M7
 • non-linear law: 1K0 to 2M2
 Tolerance on rated resistance:
 • 100R to 1M0: $\pm 20\%$
 • over 1M0: $\pm 30\%$
 • optional (1K0 to 1M0): $\pm 10\%$
 Resistance law: A, B, C, F, S, T, X
 • with tap: A2, B2, C2, S2

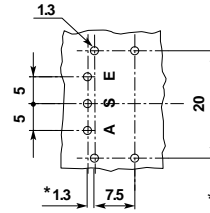


H = 15 optional

SP160Z

Standard spindle

L = 50 mm, plastic, F1 type

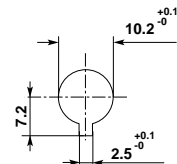


viewed on component side

* 2.54 optional

Spindle variations

Available types	
Plastic spindle	Metal spindle
F1, F2, F3, F4, F5, F6, F10, F11, F12	M1, M2, M3, M4, M10, M11, M12



Chassis piercing

Spindle details: see p. 81 - 82.

Normalised spindles: see p. 84.