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# Shanks for pneumatic tools and dimensions of chuck bushings

## ADDENDUM 1

*Queues d'outils pneumatiques et dimensions d'interchangeabilité des douilles porte-outil*  
*Additif 1*

Addendum 1 to ISO 1180-1983 was developed by Technical Committee ISO/TC 29, *Small tools*.

Add the following reference in clause 2:

ISO 296, *Machine tools — Self-holding tapers for tool shanks*.

Add the following clauses 12, 13 and 14:

UDC 621.9.02 : 621.542

Ref. No. ISO 1180-1983/Add. 1-1985 (E)

Descriptors : pneumatic equipment, tools, shanks, chuck bushings, dimensions.

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12 Shanks for weld flux scalers

12.1 Chisels

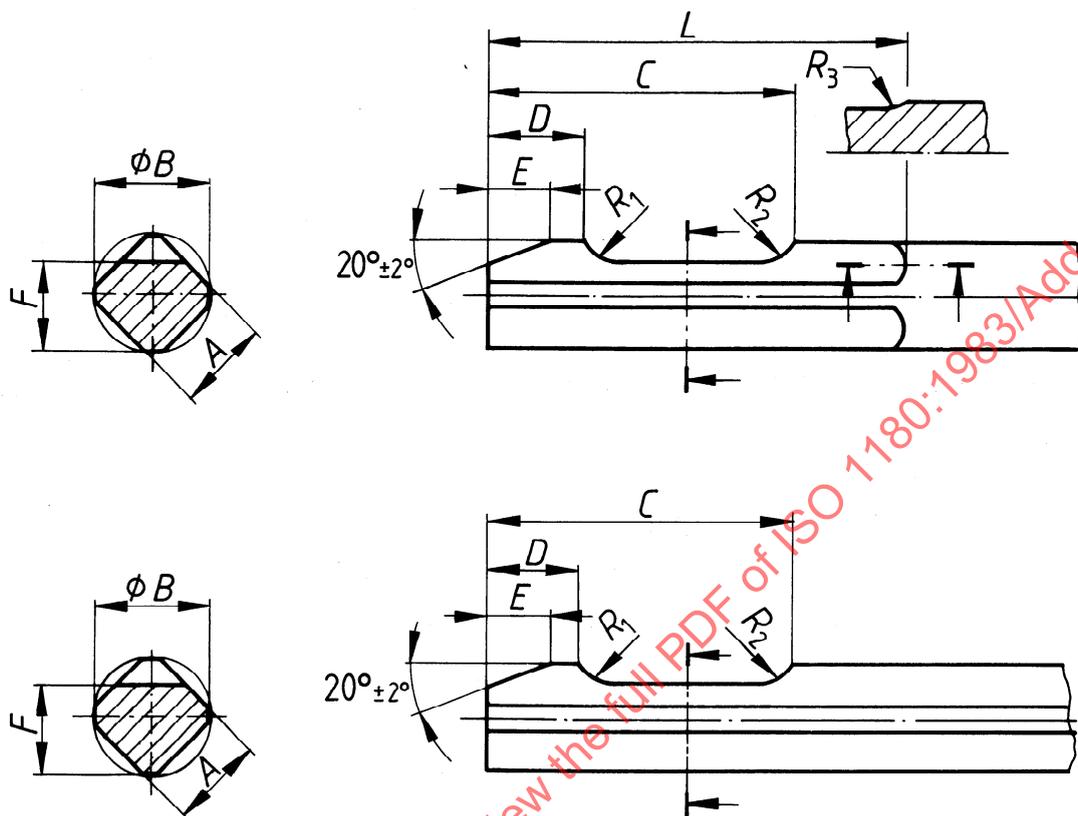


Figure 10 – Chisels

Table 15

Dimensions and tolerances in millimetres

Nominal size	A	B	L	C	D	E	F	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>
	+0,2 0	0 -0,2	±0,5	±0,5	±0,2	0 -0,5	0 -0,1	max.	max.	±0,5
12	12,7	15	60	42	14	8	12	5,5	4	6

12.2 Nozzle holes

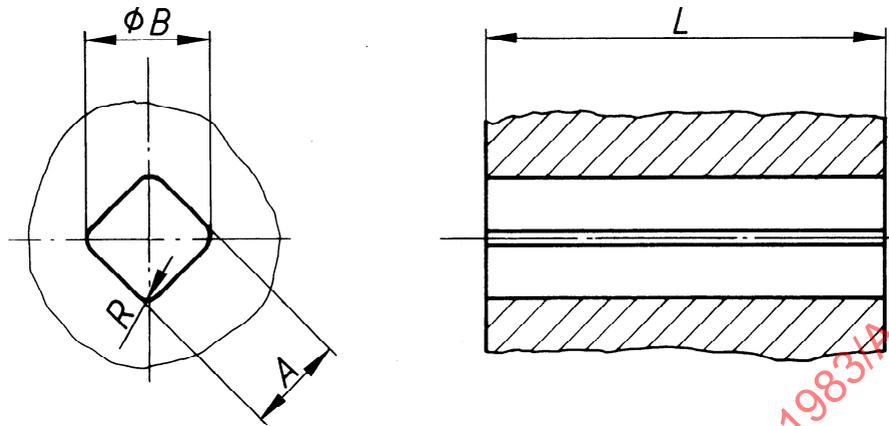


Figure 11 — Nozzle hole

Table 16

Dimensions and tolerances in millimetres

Nominal size	<i>A</i>	<i>B</i>	<i>L</i>	<i>R</i>
	H12	H13	$\pm 0,5$	$+0,5$ 0
12	13	16	54	2

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13 Piston rods and butts for rammer tools

13.1 Piston rods — Self-holding tapers

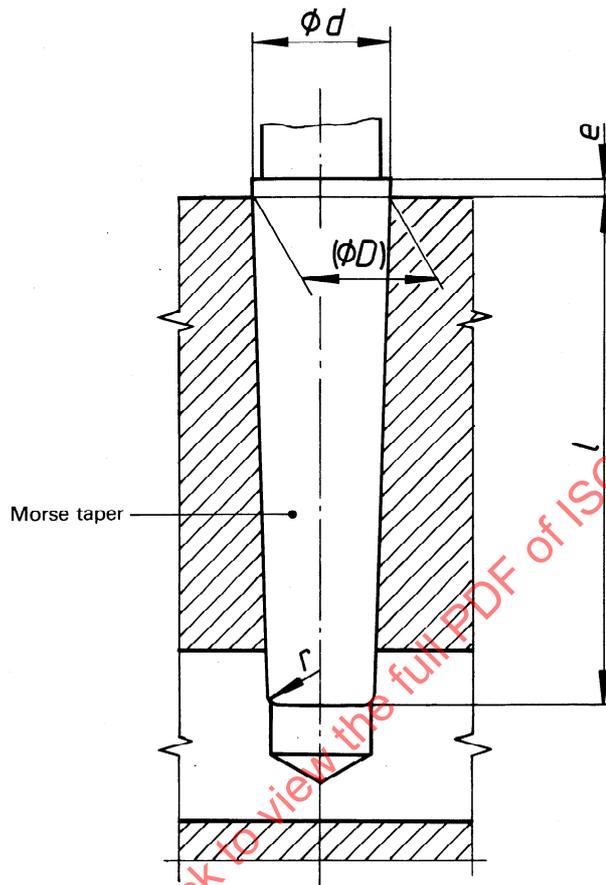


Figure 12 — Piston rods — Self-holding taper

Table 17

Dimensions in millimetres

Morse taper <sup>1)</sup> No.	$d^{1)}$	$l$	$e^{1)}$	$r$
1	12,2	56	3,5	1
2	18	67	5	1,6
3	24,1	85	5	2,5

1) The Morse taper and the values for  $d$  and  $e$  are in accordance with ISO 296.

## 13.2 Rammer butts — Connecting holes

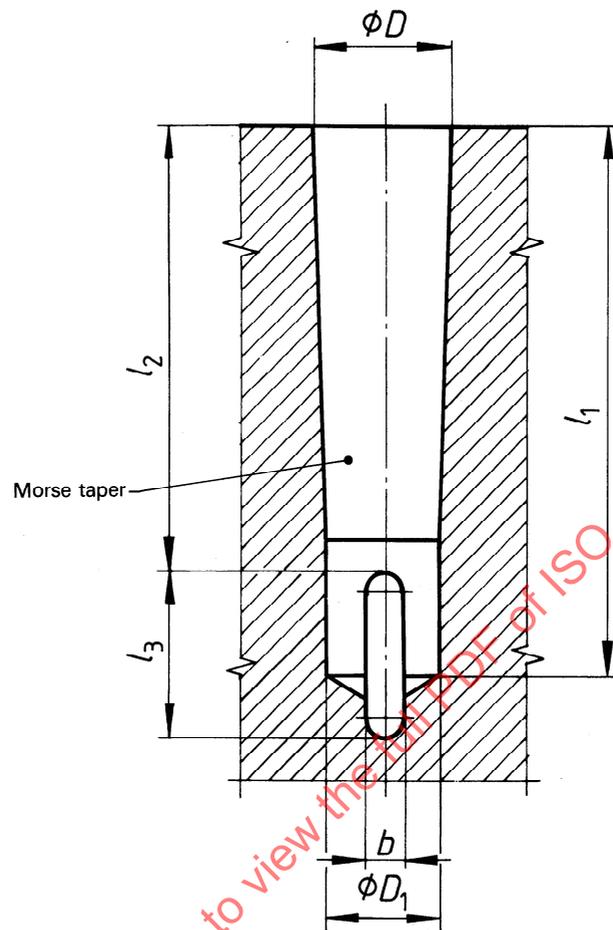


Figure 13 — Rammer butts — Connecting hole

Table 18

Dimensions in millimetres

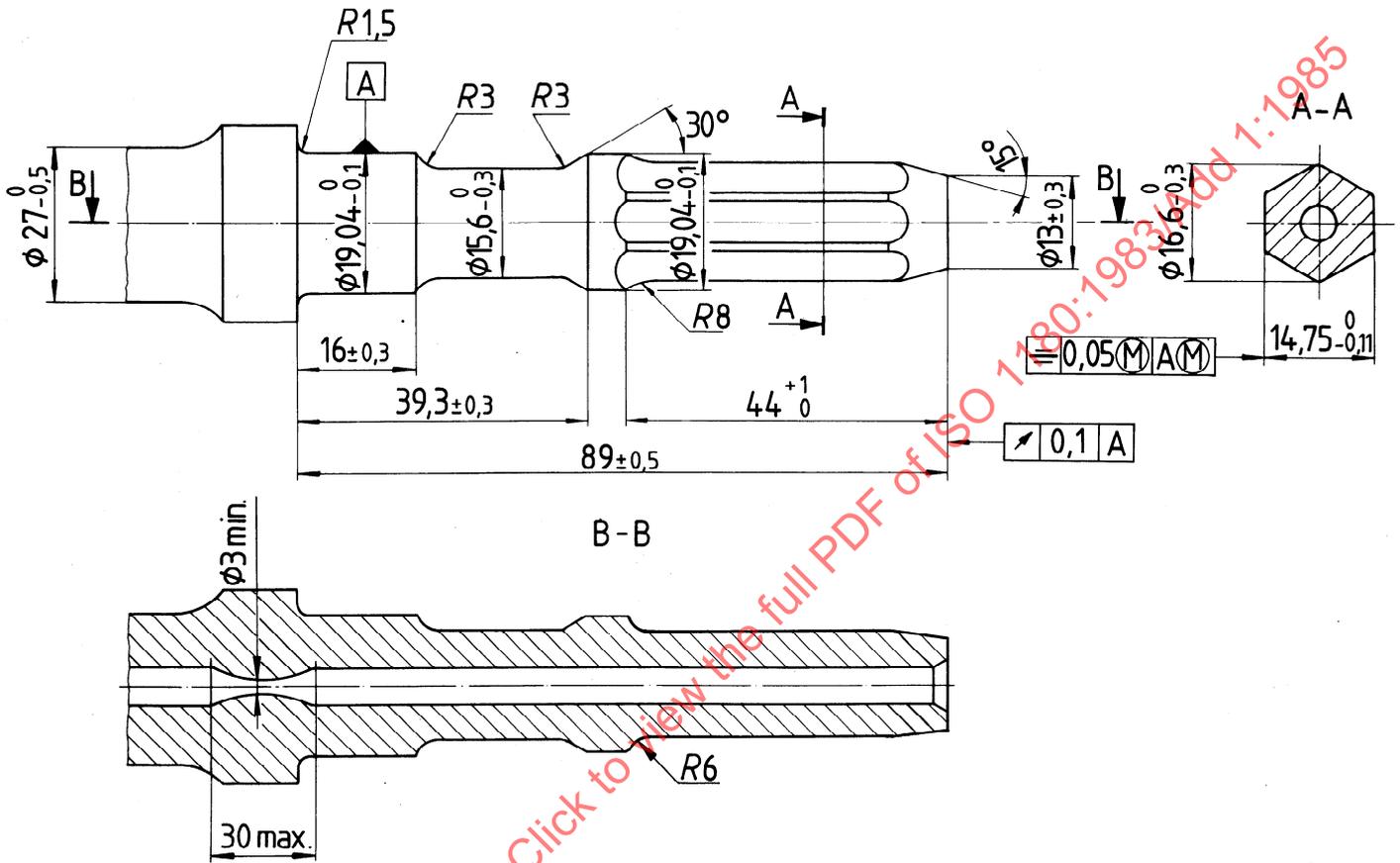
Morse taper <sup>1)</sup> No.	$D^{1)}$	$D_1^{1)}$	$l_1$	$l_2$	$l_3$	$b$
1	12,065	9,7	63	48	18	6
2	17,780	14,9	71	56	22	6
3	23,825	20,2	90	71	28	6

1) The Morse taper and the values for  $D$  and  $D_1$  are in accordance with ISO 296.

14 Shanks for plug hole drills

14.1 Type A — Hexagonal section

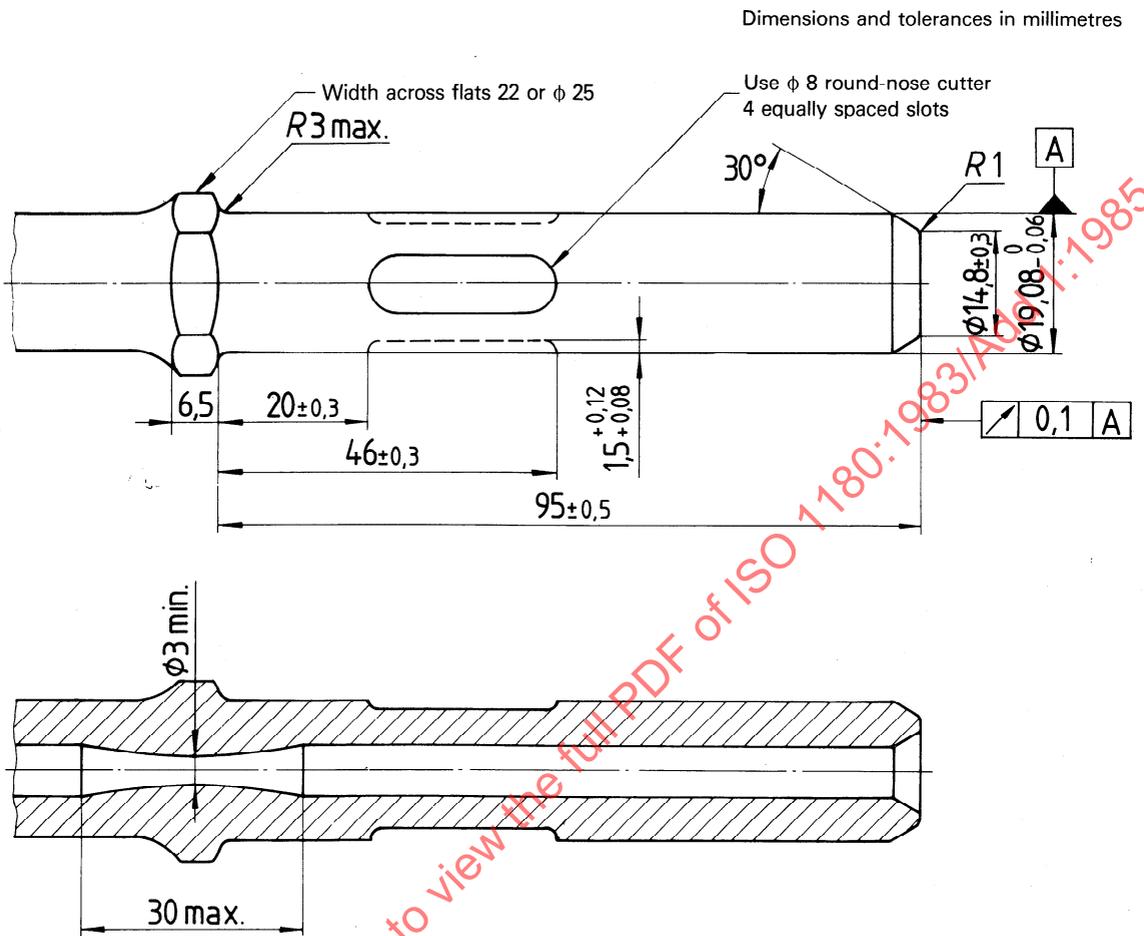
Dimensions and tolerances in millimetres



The flushing hole shown in the figure is optional and does not affect the interchangeability. Care shall be taken to ensure that when forging the collar, the hole does not form a restriction; a minimum hole diameter of 3 mm and a maximum length of 30 mm shall be respected.

Figure 14 — Plug hole drills, type A — Hexagonal section

14.2 Type B — Round section



The flushing hole shown in the figure is optional and does not affect the interchangeability. Care shall be taken to ensure that when forging the collar, the hole does not form a restriction; a minimum hole diameter of 3 mm and a maximum length of 30 mm shall be respected.

Figure 15 — Plug hole drills, type B — Round section

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Add in the annex "Dimensions and tolerances in inches corresponding to dimensions and tolerances in millimetres for the relevant type and size of shank" the following clauses A.7, A.8 and A.9:

**A.7 Shanks for weld flux scalers** (see clause 12)

**A.7.1 Chisels**

**Table 19**

Nominal size	A	B	L	C	D	E	F	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>
	+0.008 0	0 -0.008	±0.02	±0.02	±0.008	0 -0.02	0 -0.004	max.	max.	±0.02
1/2	0.500	0.590	2.362	1.653	0.551	0.315	0.472	0.216	0.157	0.236

**A.7.2 Nozzle holes**

**Table 20**

Nominal size	A	B	L	R
	H12	H13	±0.02	+0.02 0
1/2	0.512	0.630	2.126	0.079

**A.8 Piston rods and butts for rammer tools** (see clause 13)

**A.8.1 Piston rods — Self-holding tapers**

**Table 21**

Morse taper <sup>1)</sup> No.	d <sup>1)</sup>	l	e <sup>1)</sup>	r
1	0.481	2.204	1/8	0.039
2	0.709	2.638	3/16	0.063
3	0.947	3.346	3/16	0.098

1) The Morse taper and the values for *d* and *e* are in accordance with ISO 296.

**A.8.2 Rammer butts — Connecting holes**

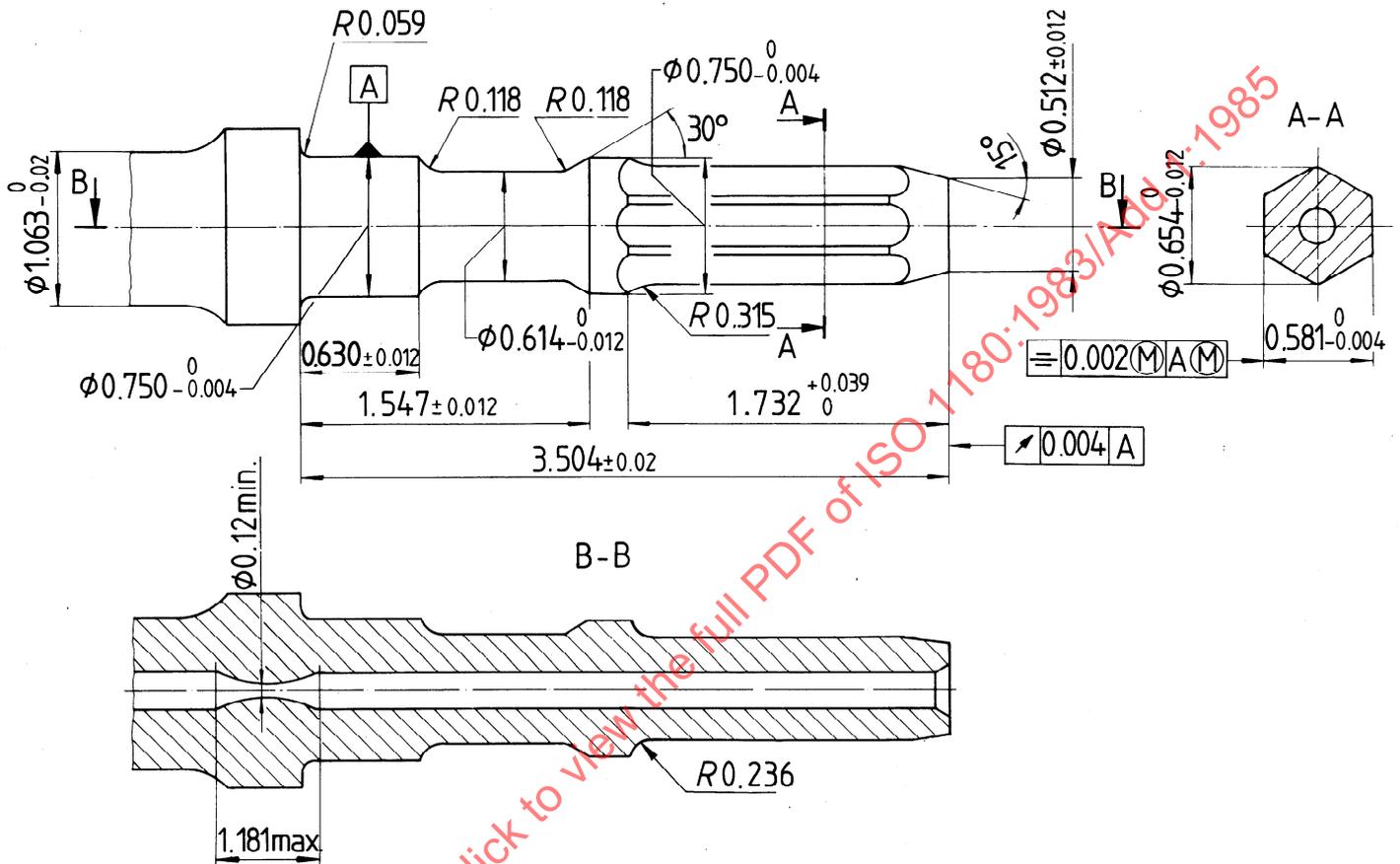
**Table 22**

Morse taper <sup>1)</sup> No.	D <sup>1)</sup>	D <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	b
1	0.475	0.378	2.480	1.890	0.709	0.236
2	0.700	0.588	2.795	2.204	0.866	0.236
3	0.938	0.797	3.543	2.795	1.102	0.236

1) The Morse taper and the values for *D* and *D*<sub>1</sub> are in accordance with ISO 296.

**A.9 Shanks for plug hole drills** (see clause 14)

**A.9.1 Type A – Hexagonal section**



The flushing hole shown in the figure is optional and does not affect the interchangeability. Care shall be taken to ensure that when forging the collar, the hole does not form a restriction; a minimum hole diameter of 0.12 in and a maximum length of 1.181 in shall be respected.

Figure 16 – Plug hole drills – Hexagonal section