

INTERNATIONAL  
STANDARD

ISO  
6392-1

First edition  
1996-11-15

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**Earth-moving machinery — Lubrication  
fittings —**

**Part 1:  
Nipple type**

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*Engins de terrassement — Raccords de graissage —*

*Partie 1: Type à embout*

<https://standards.iteh.ai/catalog/standards/sist/e05bef2-0cb4-4239-97ad-1e25a9671e5c/iso-6392-1-1996>



Reference number  
ISO 6392-1:1996(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 6392-1 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 3, *Operation and maintenance*.

This first edition of ISO 6392-1 together with ISO 6392-2 cancels and replaces ISO 6392:1980, which has been technically revised.

ISO 6392 consists of the following parts, under the general title *Earth-moving machinery — Lubrication fittings*:

- *Part 1: Nipple type*
- *Part 2: Grease-gun nozzles*

Annex A of this part of ISO 6392 is for information only.

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# Earth-moving machinery — Lubrication fittings —

## Part 1: Nipple type

### 1 Scope

This part of ISO 6392 specifies nipple-type lubrication fittings, for the types of earth-moving machinery defined in ISO 6165, and the space required to service these fittings.

NOTE — The lubrication fittings are hereinafter referred to as fittings.

### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 6392. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 6392 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2081:1986, *Metallic coatings — Electroplated coatings of zinc on iron or steel*.

ISO 6165:—<sup>1)</sup>, *Earth-moving machinery — Basic types — Vocabulary*.

### 3 Description

Fittings for earth-moving machinery shall be of the types shown in figure 1.

### 4 Material, design and manufacture

#### 4.1 Material

Unless otherwise specified, fittings shall be made from manufacturer's standard steel.

#### 4.2 Hardness

Fittings used where there is a high frequency of greasing and/or direct contact with soil or sand shall have their heads surface hardened. In cases where surface-hardening is required, the minimum hardness shall be 83 HRA or

1) To be published. (Revision of ISO 6165:1987)

55 HR30N and shall have a minimum case depth of 0,10 mm. Where surface-hardened heads are not required, hardness is not specified in general.

#### 4.3 Finish

Bodies of fittings shall be electroplated with zinc and chromate treatment in accordance with ISO 2081. The thickness of the coating shall be at least 5 µm.

#### 4.4 Workmanship

Fittings shall be free from burrs, loose scale, sharp edges, and any other defects that might affect their intended function.

#### 4.5 Check valve

Fittings shall be supplied with check valves which will provide a seal against the ingress of foreign material, but will admit lubricant under pressure and prevent its escape.

### 5 Shape, dimensions and tolerances

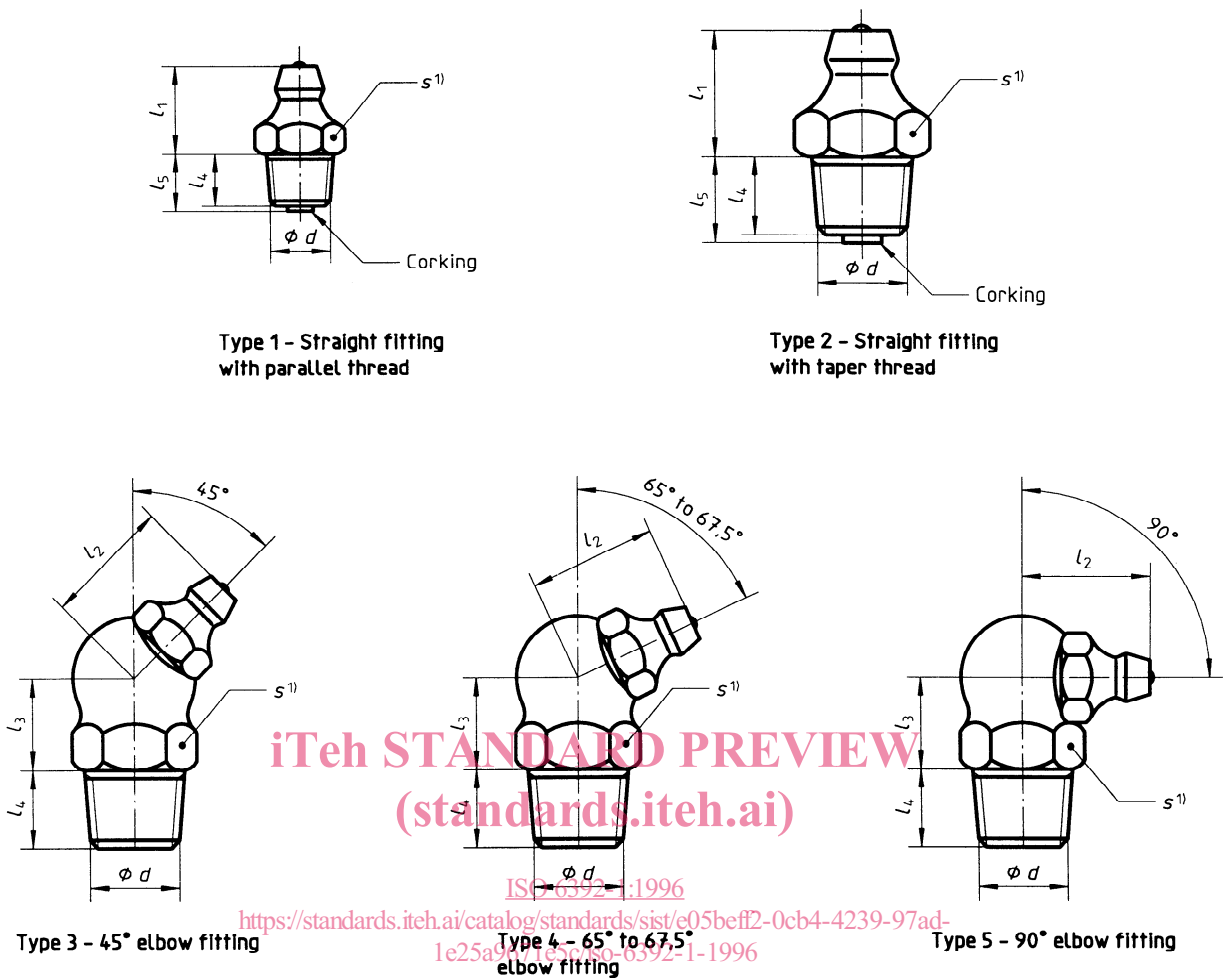
The shape, dimensions and tolerances of fittings shall conform to the requirements given in figures 1 and 2 and table 1. The tabulated dimensions shall apply to the finished processed parts.

### 6 Proof pressure of fittings

Fittings shall accept grease injection at an injection pressure of up to 20 MPa.

### 7 Required ambient space at the mounting position of fittings

The required ambient space is such that a grease gun nozzle, with 18 mm outer diameter, and its extension can be inclined to a minimum angle of 25° in one direction (see figure 3).



1) Across flats.

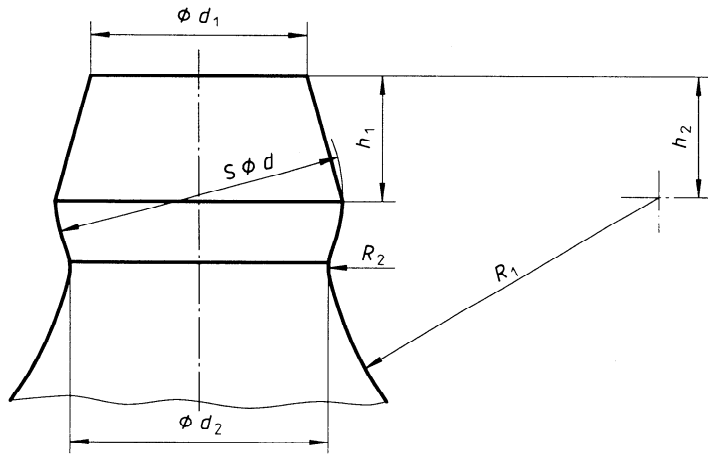
Figure 1 — Types of fitting

Table 1 — Dimensions of fittings

Dimensions in millimetres

Type No.	Type	Thread	$l_1$ $\pm 0,2$	$l_2$ $\pm 0,5$	$l_3$ $\pm 0,5$	$s^{1)}$ $0$ $-0,2$	$l_4$ $\pm 0,2$	$l_5$ max.
1	Straight fitting	ISO 261 M6 × 0,75	8	—	—	7	4	5,4
2	Straight fitting	ISO 7 - R 1/8	11	—	—	10	8	5,4
3	45° elbow fitting	ISO 7 - R 1/8	—	12,5	8,5	10	8	5,4
4	65° to 67,5° elbow fitting	ISO 7 - R 1/8	—	12,5	8,5	10	8	5,4
5	90° elbow fitting	ISO 7 - R 1/8	—	12,5	8,5	10	8	5,4

1) Across flats of hexagon.



Dimensions in millimetres

$d^{1)}$	$6,55 \pm 0,25$
$d_1^{1)}$	$4,6 \pm 0,3$
$d_2$	$5,4 \pm 0,3$
$h_1$	$2,5 \pm 0,3$
$h_2$	$2,3 \pm 0,1$
$R_1$	$6 \pm 0,2$
$R_2$	$0,8 \pm 0,1$
1) $d - d_1 \geq 1 \text{ mm}$	

Figure 2 — Detailed dimensions of fitting head

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Dimensions in millimetres

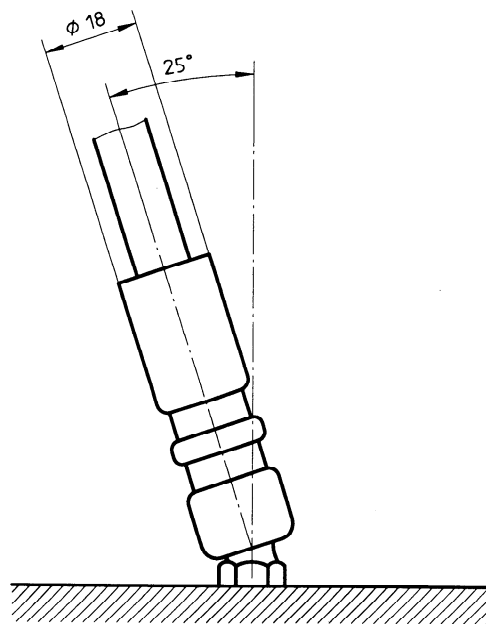


Figure 3 — Clearance space required for uncoupling of nozzle

## Annex A (informative)

### Bibliography

- [1] ISO 7-1:1994, *Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation.*
- [2] ISO 261:1973, *ISO general purpose metric screw threads — General plan.*
- [3] ISO 674:1988, *Metallic materials — Hardness test — Calibration of standardized blocks to be used for Rockwell hardness testing machines (scales A - B - C - D - E - F - G - H - K).*
- [4] ISO 1355:1989, *Metallic materials — Hardness test — Calibration of standardized blocks to be used for Rockwell superficial hardness testing machines (scales 15N, 30N, 45N, 15T, 30T and 45T).*

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Price based on 5 pages

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