# International Standard 7824

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

# Shipbuilding and marine structures — Lubrication nipples — Cone and flat types

*Construction navale et structures maritimes — Graisseurs — Types coniques et type plat*

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**Descriptors :** shipbuilding, lubrication systems, grease-nipples, dimensions, designation.

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## 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7824 was prepared by Technical Committee ISO/TC 8, *Shipbuilding and marine structures.*

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

# Shipbuilding and marine structures — Lubrication nipples — Cone and flat types



## 1 Scope and field of application

This International Standard specifies the types of hydraulic lubrication nipples for shipbuilding and marine structures, and lays down their dimensions.

To facilitate the lubrication of machine parts, it is recommended that the number of types and dimensions of nipples be limited in order to avoid the use of too great a number of grease-pumps (grease-guns).

## 2 References

ISO 261, *ISO general purpose metric screw threads — General plan*.

ISO 3799, *Textile machinery and accessories — Hydraulic lubrication fittings for textile machinery*.

## 3 Dimensions

### 3.1 Cone types

Cone lubrication nipples types 1, 2 and 3, the dimensions of which are taken from ISO 3799, are suitable for general use. (See figure 1 and table 1.)

NOTE — Cone type nipples are also commonly known as "hydraulic grease nipples".

Dimensions in millimetres

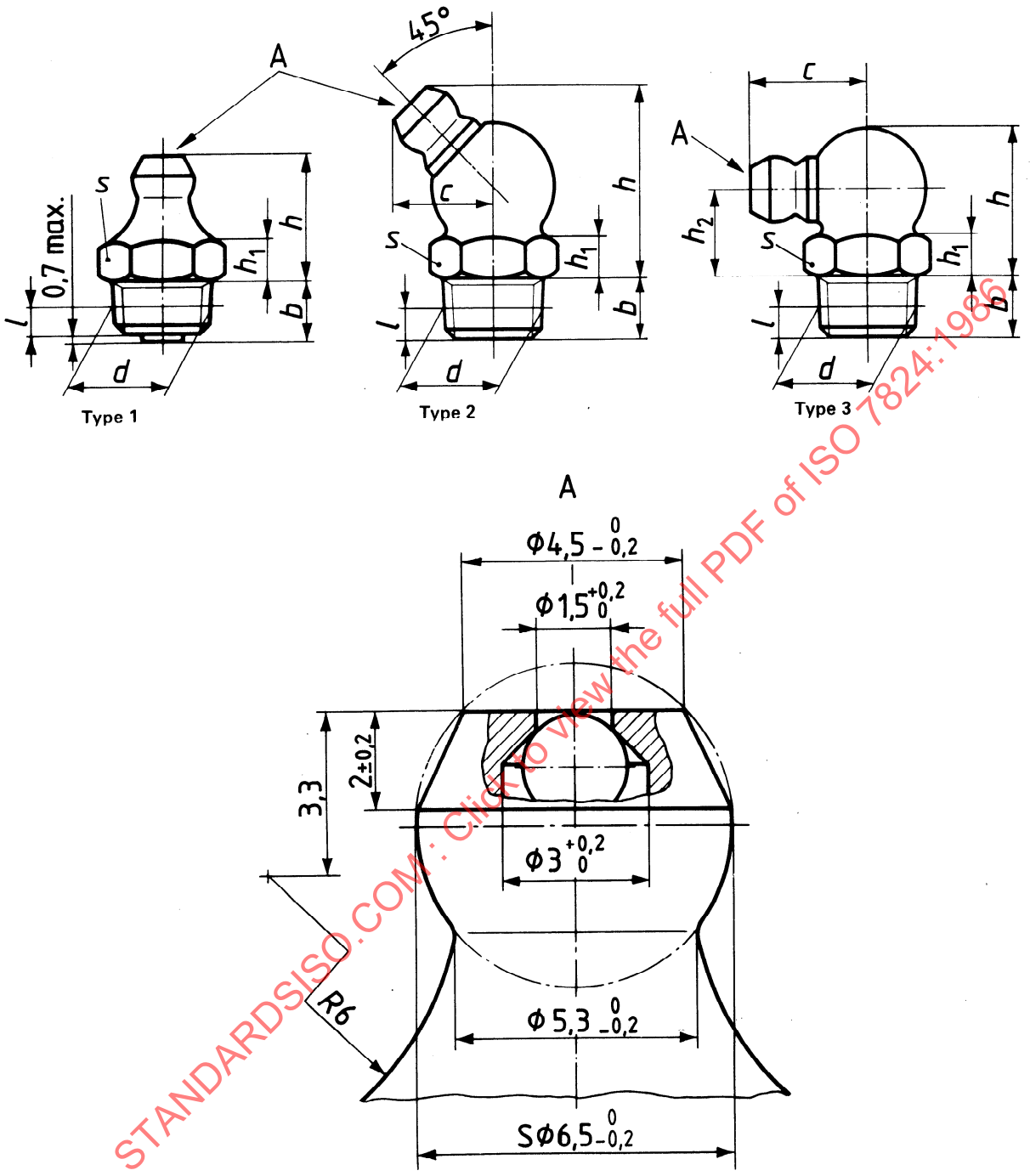




**Figure 1 — Cone type nipples**

**Table 1 — Dimensions for cone type nipples**

Dimensions in millimetres

| Designation | | Width across flats | Length of screw thread | Distance to gauge diameter | Lateral distance | Heights | | |
|---|---|---|---|---|---|---|---|---|
| Type | Screw thread $d$ [1] | $s$ | $b$ | $l\ ^{0}_{-0,5}$ | $c$ | $h$ | $h_1$ | $h_2$ |
| 1 | M 10 × 1 | 11 | 6 | 3 | — | 12 | 3,5 | — |
| 2 | M 10 × 1 | 11 | 6 | 3 | 10 | 19,2 | 4 | — |
| 3 | M 10 × 1 | 11 | 6 | 3 | 12 | 14,5 | 4 | 9 |

1) Taper thread, normally 1 : 16.

### 3.2 Flat type

Flat lubrication nipples type 4 shall be used where bigger spaces are to be filled with lubricant (e.g. in the area of lifting appliances). (See figure 2 and table 2.)

NOTE — Flat type nipples are also commonly known as "buttonhead nipples".

## 4 Material

The nipple and spring shall be of steel. Other materials shall be specially agreed upon with the manufacturer.

Examples of non-ferrous materials are:

— body, ball and spring: phosphor bronze

— body: brass

## 5 Finish

Steel lubrication nipples shall be electrolytically galvanized. Other surface treatments shall be specially agreed upon with the manufacturer.

## 6 Designation

### 6.1 Designation elements

Lubrication nipples conforming to this International Standard shall be designated as follows:

a) term: lubrication nipple;

b) the number of this International Standard i.e. ISO 7824 or ISO 3799 (see notes);



Dimensions in millimetres

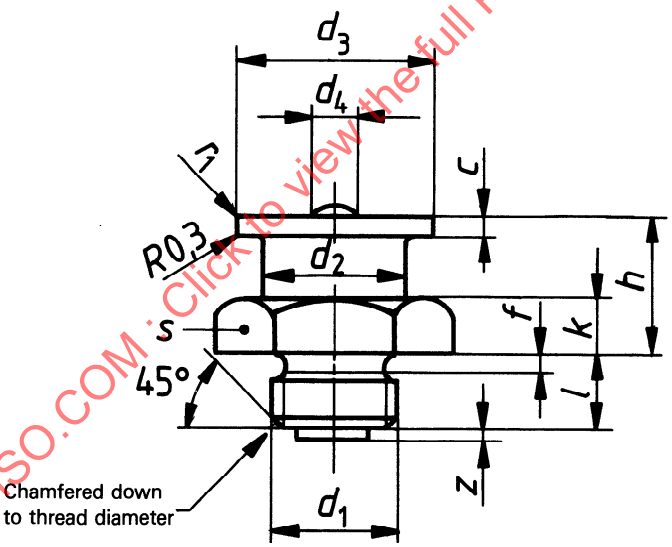


**Figure 2 — Flat type nipple — Type 4**

**Table 2 — Dimensions for flat type nipples**

Dimensions in millimetres

| Designation | | $f$ | $c$ | $d_2$ | $d_3$ | $d_4$ | $h$ | $k$ | $l$ | $r_1$ | Width across flats $s$ | $z$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | Screw thread[1] $d_1$ | | $^{0}_{-0,1}$ | h12 | h12 | > | max. | j16 | −0,5 | | h13 | max. |
| 4 | M10 × 1 | 1,1 | 2 | 12 | 16 | 2,9 | 11 | 4,5 | 5,5 | 1 | 17 | 1 |

1) ISO Metric Screw Thread according to ISO 261.

NOTES

1 Lubricating nipples types 1, 2 and 3 are selected from ISO 3799 which should therefore be referred to in the designation. Moreover, the screw thread M10 × 1 should be stated because different sizes of screw threads appear in ISO 3799.

2 When designating the flat type nipple, the number of this International Standard should be used, i.e. ISO 7824.

c) type of nipple: 1, 2, 3 (cone type) or 4 (flat type);

d) screw thread: M10 × 1 (only in case of types 1 to 3);

e) material;

f) finish (if other than galvanized).

## 6.2 Designation examples

### 6.2.1 Cone type 1

Example of designation for an axial hydraulic nipple of type 1 (with a screw thread of M10 × 1), material steel and electrolytically galvanized finish:

**Lubrication nipple ISO 3799 - 1 - M10 × 1 - steel**

### 6.2.2 Flat type

Example of designation of a flat type nipple (type 4), material steel and electrolytically galvanized finish:

**Lubrication nipple ISO 7824 - 4 - steel**