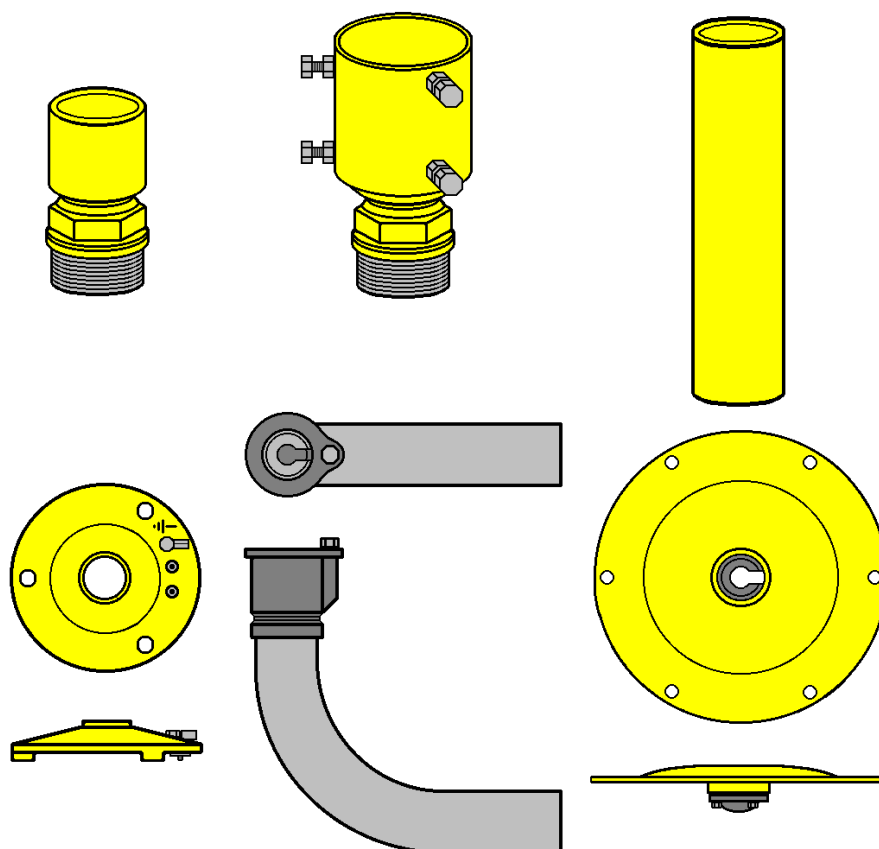


**INSTALLATION DOCUMENTATION For GROUND FIXATION
of ELEVATED LIGHT FITTINGS**

DOC 2401.E



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1 Introduction

1.1 Use restriction notice and warranty

This document lists the operations necessary for installation of the THORN different accessories ground fixations of elevated light fittings.

You will find in this document two main paragraphs:

"General Information and Requirements": This chapter gives general description of the different accessories for ground fixations of elevated light fittings.

"Installation": This chapter describes how to install the accessories for ground fixations of elevated light fittings.

1.1.1 Use of the Document

This Installation documentation is the property of

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This documentation or any parts of this documentation may not be reproduced, stored in a retrieval system or transmitted in any form or by any means (mechanical, photocopying, recording, electronic,...) without THORN's prior consent.

1.1.2 Warranty

THORN Airfield Lighting guarantees that the equipment described in this document, when sold by THORN Airfield Lighting or its licensed representatives, meets the requirements of ICAO and FAA specifications.

Any defect in design, material or workmanship, which may occur during proper and normal use over a period covered by the warranty stipulate in the contract, will be replaced by THORN Airfield Lighting free of charge, ex works.

Operational failure resulting from improper installation, damage due to runway maintenance equipment, snow ploughs, is not considered a result of proper use and is beyond the scope of the warranty.

The above constitutes the limits of THORN Airfield Lighting 's liabilities concerning the equipment covered by this document.

1.2 Safety instructions

WARNING: Prior to the commencement of work all electrical services MUST be isolated from the supply and connected to earth. Full details of the work involved must be given to the Authorise Person responsible for the electrical engineering services at the airport with regard to the duration of the work, etc.. It is recommended that prior to starting any cutting work the nature and location of services such as cable ducts, etc... should be identified. It is a prerequisite of this type of installation that the work should be carried out by trained and experienced personnel.

1.3 Reference documents

This paper refers to following documents:

- THORN Commercial Documentation General Brochure Doc 1001.E,
- THORN EL-FIX Commercial Documentation Doc 1401.E,
- Last Edition of ICAO Annex 14.

2 General information and requirements

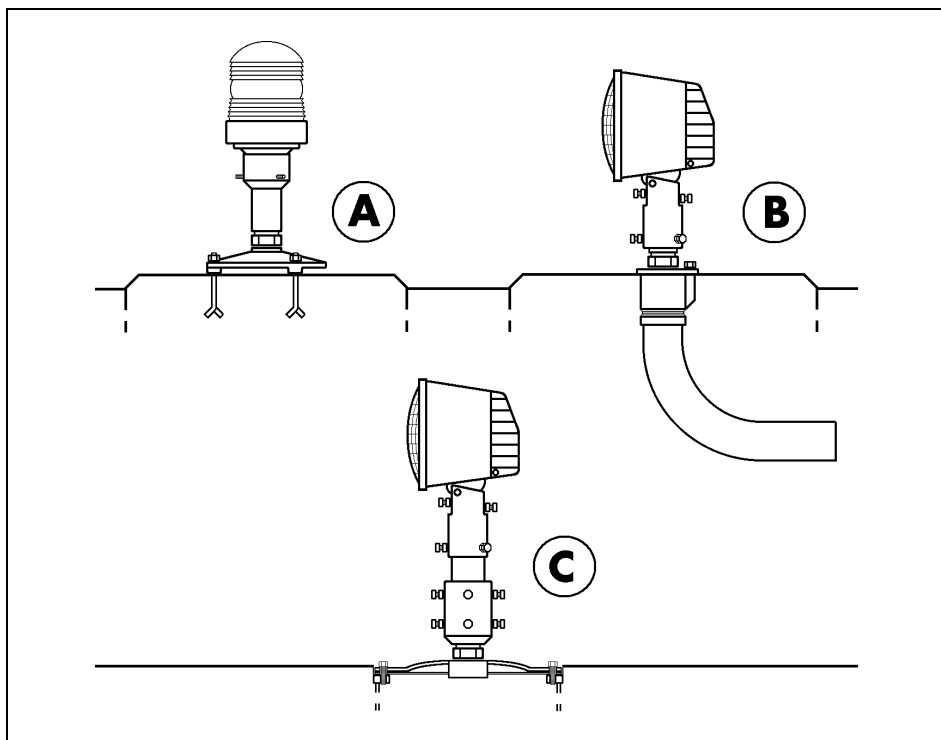
2.1 General information

All the accessories describe in this document allow ground fixing of all the airfield lighting elevated fittings. These accessories can be classed in two main categories :

- 1) Accessories for fixing on ground : **Tripod stand, elbow tube, base plate.**
- 2) Accessories for coupling with ground fixing : **Frangible collar, 60 mm tube and frangible coupling.**

Use of these accessories allow fixing on ground of all the airfield lighting elevated fitting :

- A)** Direct screwing on accessory for ground fixing of runway edge and of taxiway edge fittings.
- B)** Direct mounting on the ground fixing accessory using a frangible collar of unidirectional elevated fitting (only at ground level).
- C)** Mounting on the ground fixing accessory using a 60 mm tube and a frangible coupling of unidirectional elevated fitting (mounting up to 2 m).



In all these cases, the fitting support (fitting leg or coupling accessory) is screwed on the ground fixing accessory. The available thread for the accessories are (Note : one inch = 2,54 mm) :

- 2" NPS = 11,5 threads par inch.
- 2" BSP = 11 threads par inch.

2.2 Delivery

All the equipment describe in this document is delivered ready for installation.

Each equipment is packed (individually or by batch) in a durable cardboard box, labelled with its reference mane and code. On request one set of fitting documents (= commercial brochure, installation manual and spare parts list) is delivered with the equipment.

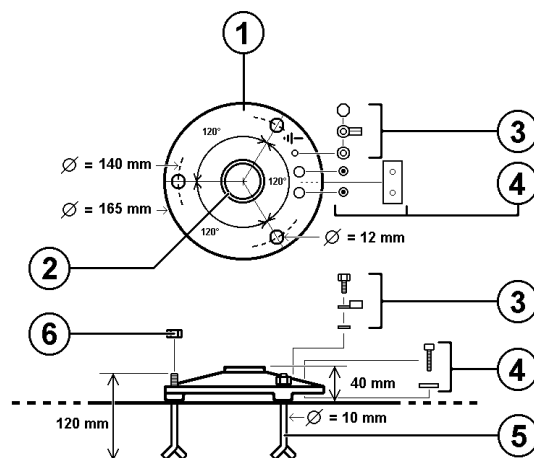
2.3 Design

2.3.1 Tripod stand

- 1) Body of the tripod stand
- 2) 2" NPS or BSP threaded hole
- 3) Earthing crimping terminal +
Fixing screw (x 1) + washer (x 1)
- 4) Cable clamp + Fixing screws (x 2)

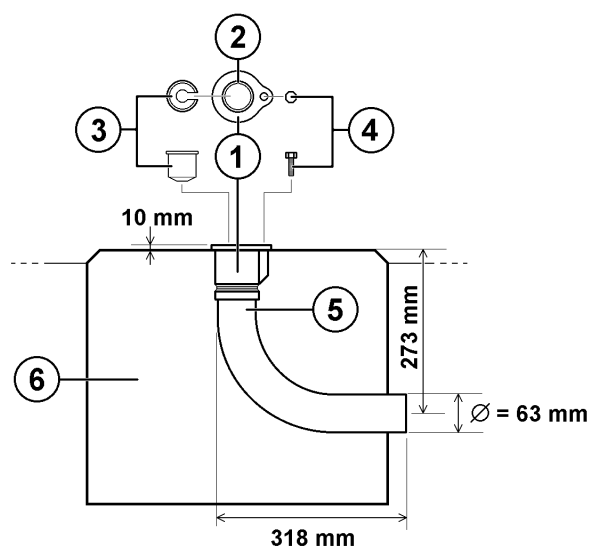
Options :

- 5) Accessories for ground fixation (x 3)
 - M10 sealing rods length = 120 mm
 - M10 spits
- 6) M10 fixing screws (x 3)



2.3.2 Elbow tube

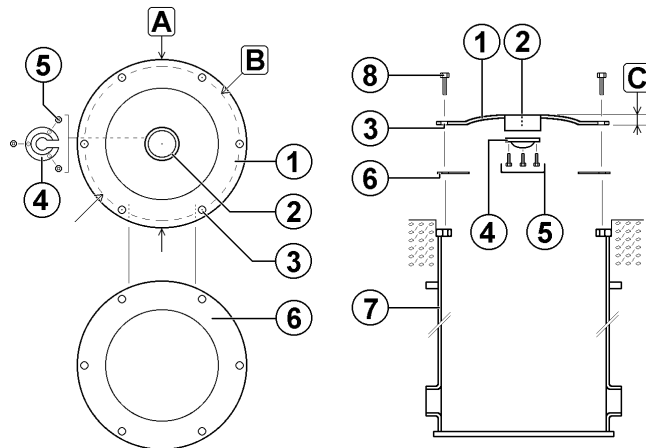
- 1) Support part of the elbow tube
- 2) 2" NPS or BSP threaded hole
- 3) Cable retention device
- 4) Earthing screw
- 5) PVC elbow tube
- 6) Concrete block



2.3.3 Base plate

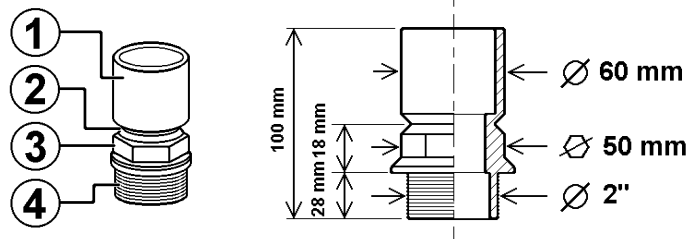
- 1) Base plate (12" or 16")

Diamètre Extérieur "A"	Diamètre Trous "B"	Hauteur "C"
12" (305 mm)	260 mm	16 mm
16" (406 mm)	362 mm	19 mm
- 2) 2 " NPS threaded hole
- 3) Base plate fixing holes
Hole diameter = 11 mm (x 6)
- 4) Cable retention device
- 5) Cable retention device fixing screws (x 3)
- 6) Neoprene gasket
- 7) FAA L-867 deep base (12" or 16")
- 8) Base plate fixing screws (x 6)



2.3.4 Frangible collar

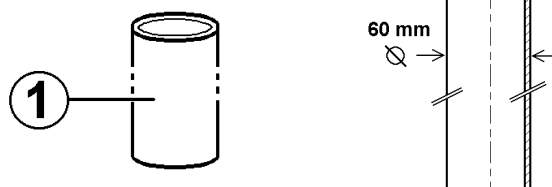
- 1) Part of the frangible collar allowing the fixing of the fitting on its support
- 2) Circular frangible slot.
- 3) Hexagonal part for collar screwing on its support. Use an open end wrench of 50 mm.
- 4) 2 " NPS or 2 " BSP collar thread



2.3.5 Tube de 60 mm de diamètre

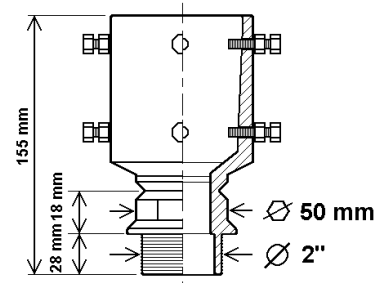
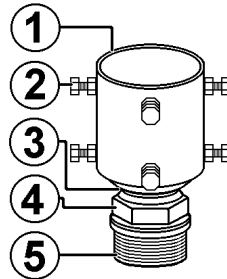
- 1) The 60mm tube is aluminium alloy casting phosphated and painted in aviation yellow by electrostatic process (powdercoating).

Available lengths : 0.5 m,
0.8 m, 1.1 m, 1.4 m, 1.7 m, 2 m.



2.3.6 Frangible coupling

- 1) Part of the frangible coupling allowing the fixing of the tube.
- 2) Screw and locking nuts for tube fixing (x 8).
- 3) Circular frangible slot.
- 4) Hexagonal part for coupling screwing on its support. Use an open end wrench of 50 mm.
- 5) 2 " NPS or 2 " BSP coupling Thread.



3 Installation

3.1 Civil Works to be Performed

All necessary markings must be accurately positioned by the surveying team in order to define the precise location of the fitting.

3.2 Tools required

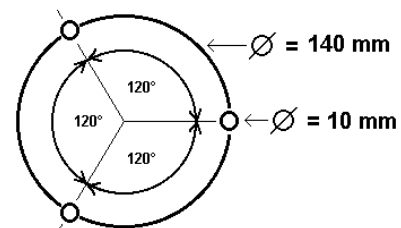
- Open end wrench of 50 mm
- Open end wrench of 10 mm

3.3 Tripod stand

3.3.1 Installation of fixing rods for tripod stand

The first step of the installation consist to fix in the ground the three threaded rods (sealing rods or Spits) dedicated to receive the tripod stand.

The dimensions give here allow installation of rods compatible with the tripod stand.



3.3.2 Mounting of the tripod stand

3.3.3 Cable fixation

COMMENTS

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