

This is a preview of "ISO 11077:2014". [Click here to purchase the full version from the ANSI store.](#)

Second edition
2014-06-01

Aircraft ground equipment — De-icers — Functional requirements

*Matériel au sol pour aéronefs — Dégivreuses — Exigences
fonctionnelles*



Reference number
ISO 11077:2014(E)

© ISO 2014

This is a preview of "ISO 11077:2014". [Click here to purchase the full version from the ANSI store.](#)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 11077:2014". [Click here to purchase the full version from the ANSI store.](#)

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Requirements	2
4.1 General.....	2
4.2 Functions.....	3
4.3 Vehicle.....	4
4.4 Aerial device.....	5
4.5 Fluids system.....	6
4.6 Controls.....	6
4.7 Mobility and stability.....	7
4.8 Personnel protection.....	8
4.9 Emergency.....	8
5 Information for use	9
5.1 Manufacturer's instructions.....	9
5.2 Markings.....	9
6 Options	9
6.1 General.....	9
6.2 Fluid heater.....	9
6.3 Fluid mixing system.....	10
6.4 Spraying boom.....	10
6.5 Fire extinguishing system.....	10
6.6 One person operation.....	10
7 Quality assurance	10
7.1 Manufacturer's quality assurance.....	10
7.2 User's quality assurance.....	11
Annex A (informative) Toxicological aspects of using de-icing/anti-icing equipment	12
Annex B (informative) Environmental aspect of de-icing/anti-icing at airports	16
Bibliography	21

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 9, *Air cargo and ground equipment*.

This second edition cancels and replaces the first edition (ISO 11077:1993), which has been technically revised.

This is a preview of "ISO 11077:2014". [Click here to purchase the full version from the ANSI store.](#)

Introduction

This International Standard specifies the functional and personnel safety requirements to be taken into account by manufacturers for the design of aircraft de-icing and anti-icing vehicles (de-icers).

The requirements of this International Standard were determined based on generally recognized assumptions as to

- a) the normally intended use of aircraft ground support equipment on the ramp of international civil airports in order to handle, service, or maintain civil transport aircraft, or
- b) the environmental (surface, slope, weather, lighting, operating rules, staff qualification, etc.) conditions prevailing on the ramp area of the majority of international civil airports. In addition to customary environment conditions in this context, it is to be assumed that de-icers will be operated on snowy, icy, muddy, or slushed ramp surfaces and under freezing precipitation conditions.

It is assumed that the manufacturers of de-icers define in the relevant documentation the specifically intended conditions of use and environment for their equipment, and the purchasers systematically review their own specific conditions of use and environment in order to determine whether those stated are adequate or negotiate with the manufacturer appropriate modifications to ensure they are.

NOTE Negotiation between manufacturer and purchaser/user is considered essential to establish or verify the adequate conditions of use and design parameters.

The requirements of this International Standard are expressed in the applicable SI units, with approximate inch-pound unit conversion between brackets for convenience in those countries using that system. Where it is deemed necessary to use exact values, the SI unit ones are to be used.