STANDARD **102**

Second edition
1990-07-01

Aircraft — Gravity filling orifices

Aéronefs — Orifices de remplissage par gravité

Reference number
ISO 102:1990(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 102 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*

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Aircraft — Gravity filling orifices

1 Scope

This International Standard specifies the diameters of the orifices for the gravity filling of aircraft with fuel, lubricants and other liquids It also specifies the outside diameters of associated replenishment nozzles, and in particular for those nozzles used for the gravity replenishment of aircraft with aviation gasoline (AVGAS) and turbine fuel

2 Dimensions of gravity filling orifices

The internal diameters of the orifices shall be in accordance with the minimum and/or maximum dimensions, as appropriate, given in table 1

Table 1 — Orifice diameters

Dimensions in millimetres

Fluids	Internal diameter	
	min.	max.
Aviation gasoline (AVGAS)	55	60
Turbine fuel	75	-
Non-synthetic lubricants	50	-
Synthetic lubricants	38	-
De-icing fluids	44	-
Drinking water	44	-
Hydraulic fluids	38	-
Coolant	38	-
Engine refrigerants	38	-

NOTE — If a filter is fitted at any of the orifices it should not result in a reduction of the relevant minimum internal diameter

3 External diameter of replenishment nozzles

3.1 Fuel

The external diameters of nozzles used for the gravity replenishment of aircraft with fuel shall be in accordance with the dimensions given in table 2.

Table 2 — External diameters of fuelling nozzles

Dimensions in millimetres

Fuel	External diameter	
	min	max
Aviation gasoline (AVGAS)	-	49
Turbine fuel	67	70

3.2 Other fluids

The external diameters of nozzles used for the gravity replenishment of liquids other than fuel shall be such that the nozzles can be readily inserted into the relevant minimum orifice diameter given in table 1.