

Flughafen Wien Aktiengesellschaft

Deicing procedures for winter season
2021/2022



De-/Anti-Icing procedures winter season 2021/2022

Flughafen Wien Aktiengesellschaft

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1) Introduction

In the civil airport permit (ZFBB) of Vienna International Airport dated from 04/07/2013 the following mentioned points are cited in item 3.3.7 „Aircraft De-Icing“ which are as follows.

3.3.7.1

Provided that no other arrangement are met, the deicing of aircraft is carried out by licensed providers of ground handling services.

3.3.7.2

The rules and procedures for deicing of aircrafts are published separately by the licensed providers of ground handling services for aircraft deicing and have a binding validity.

In the present procedure manual „De-/Anti-Icing procedures winter season 2020/2021“ valid for Vienna International Airport during the winter season 2020/2021 the standards, rules and procedures for the proper realisation of aircraft de-icing are set accordingly.

For any queries on the subject of aircraft deicing Mr. Wolfgang Hasil can be contacted via email: w.hasil@viennaairport.com

In any legal case the German version of this document is binding.

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2) Deicing infrastructure

- De-Icing positions

De-Icing pad „De-Icing South“

- Positions F43- F59 with variable aircraft disposition
 - 5 ICAO C class positions or
 - 2 ICAO C class and 2 ICAO E class positions or
 - 3 ICAO E class and 1 ICAO D class positions or
 - 2 ICAO F class positions

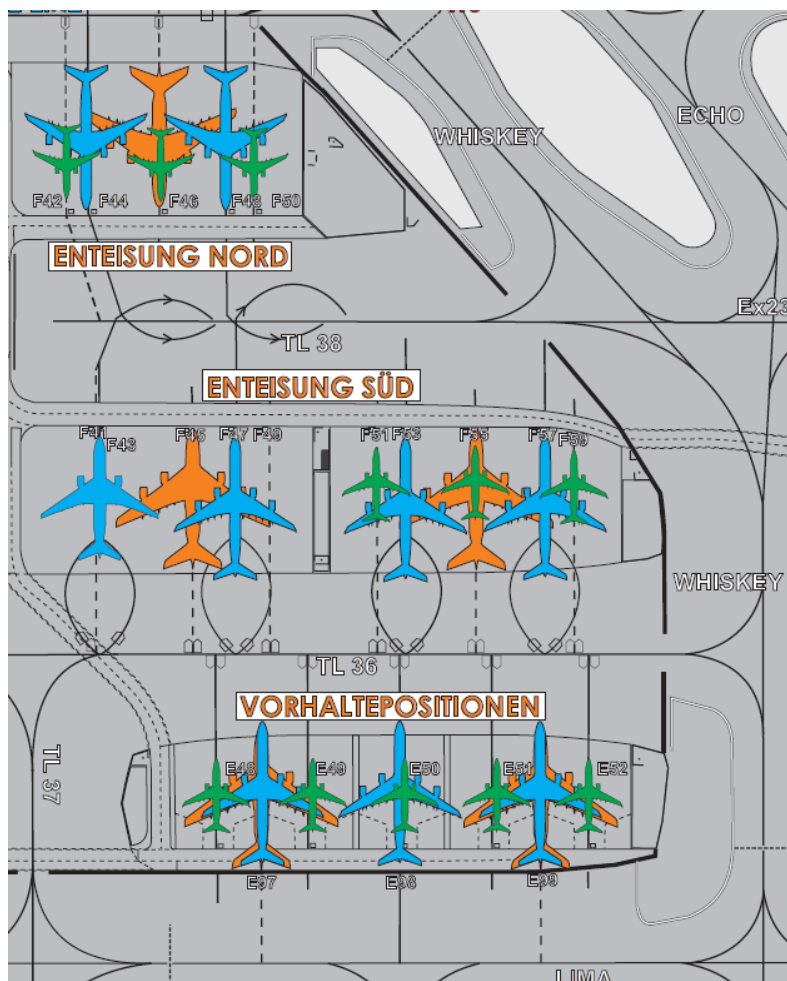
De-Icing pad „De-Icing North“

- Positions F42 – F50 with variable aircraft disposition
 - 3 ICAO C class positions or
 - 2 ICAO E class positions or
 - 1 ICAO F class position

De-icing Standby area/holding positions

- Positions E48- E99 with variable aircraft disposition
 - 5 ICAO C class positions or
 - 3 ICAO E class positionen

Picture 1



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3) De-icing standards and services

Performance of aircraft de-/anti-Icing for all outgoing flights by Vienna International Airport is based on SAE international Aerospace Standards AS6285D, AS6286B and AS6332A.

The following services provided are in line with the points in IATA Airport „Handling Manual AHM subsection 3.17 (3.17.2-3.17.8)“

- 1) Performance of a “pre-flight inspection” - taking into account the “Clean Aircraft Concept” prior to the de-/anti-Icing process and informing flight crew about results
- 2) Provision of deicing trucks (for deicing and anti-Icing)
- 3) Provision of deicing and anti-Icing fluids
- 4) Removal of frost, ice and snow of aircraft surfaces and parts using deicing fluids
- 5) Applying a layer of protection against refreezing (“Anti-icing”)
- 6) Supervision of de-/anti-Icing procedure
- 7) Performing a final check after de-/anti-Icing and informing flight crew about results

The service listed in the IATA manual in item 3.17.1 – removal of contamination without de-icing fluid – is not provided by VIE.

4) Coordination Procedures

- Coordination of deicing trucks

Requests for de-/ant-Icing on remote deicing positions must always be forwarded to the respective handling agent (Ramp Agent). For the timely provision of deicing trucks the request shall be made at least 30 minutes before the published schedule.

- Coordination of de-icing positions

Report necessity for deicing to ATC, ATC will release aircrafts to deicing positions (for details please refer to NOTAM which will be issued in October).

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5) De-/Anti-icing procedure

5.1) „Preflight inspection“ or „Contamination check“

Can be requested via the ramp agent. The aircraft is checked on the parking position prior to departure according to the “Clean Aircraft Concept” and the results are forwarded to the cockpit crew.

5.2) Fan blade de-icing

Fan blades will be deiced (normally using Hot Air) on the parking position prior to departure under the supervision of authorized airline staff.

5.3) Running engines

Generally engines do not have to be shut down on remote deicing positions.

Exceptions: Tactile checks

Always on request of ground staff due to safety reasons (e.g. danger of overturning deicing trucks)

5.4) De-Icing procedures

One step procedure

This procedure is mainly used or recommended for the deicing of aircraft i.e. to remove frozen contamination from aircraft surfaces.

This procedure is usually recommended during weather condition “frost” and normally a type 1 fluid is used.

Two step procedure

During the first step frozen contamination is removed from aircraft surfaces using type 1 deicing fluid.

During the second step the aircraft surfaces are being protected against re-freezing using Type 4 anti-icing fluid. The protection lasts for a certain period of time (holdover time).

This procedure is recommended during any freezing precipitation.

5.5) Responsibilities regarding fluid concentration on remote de-icing positions

Deicing

Vienna International Airport (Iceman) is responsible for the correct selection of Type 1 fluid mixture (step-less).

The correct fluid mixture is based on

- indication of OAT on remote deicing position
- temperature provided by “Austrocontrol” (ATC)
- the current fuel temperature in wing tanks (wing temperature).

Anti-icing

The cockpit crew is responsible for the correct selection of type 4 fluid mixture.

The current wing temperature and /or fuel temperature in wing tanks shall be provided by the Cockpit Crew.

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5.6) Deicing operation on central de-icing position

Based on the outside air temperature (OAT) or the fuel temperature in wing tanks, the condition of the aircraft on the remote deicing position and the current weather condition the deicing ground staff (call sign "Iceman") will give a de-icing recommendation to the cockpit crew. The cockpit crew will accept the recommendation or give other instructions in this respect. According to the mutually agreed procedure the aircraft will be de-/anti-iced under supervision of deicing ground staff.

5.7) Final Check

After the de-/anti-icing a final visual check will be performed by trained and qualified deicing ground staff and the results will be forwarded to the cockpit crew.

5.8) Anti-Icing Code

By transmission of the Anti-Icing Code the cockpit crew gets the information that all de-/anti-iced parts of the aircraft are free of frozen contamination and that treated surfaces are protected against refreezing. Furthermore the Anti-icing Code is used to determine the period of protection against refreezing (holdover time) by the cockpit crew. By confirming the Anti-Icing Code, the cockpit crew assumes responsibility for the subsequent condition of the aircraft.

5.9) All Clear Sign

With the "All clear Sign" (Thumbs up) the cockpit crew receives information from the ground crew that the de-/anti-icing operation is completed and that all equipment is clear before moving the aircraft.

6) Deicing Trucks

- Type Vestergaard Elephant BETA

- 4 units
- Proportional mixing system
- Type 1 step-less de-icing fluid mixture from 15/85 to 69/31 (Type 1/ Water in Vol %)
- Type 4 fixed de-icing fluid mixture of 100/0 (Type 4/ Water in Vol %)
- Eye Height: 11,5m
- nozzle height: 19m

- Type Safeaero 220

- 10 units
- Proportional mixing system
- Type 1 step-less de-icing fluid mixture from 4/96 to 69/31 (Type 1/ Water in Vol %)
- Type 4 de-icing fluid mixtures of 50/50, 75/25 and 100/0 (Type 4 / Water in Vol %)
- Eye Height: 14,5m
- nozzle height: 20m

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7) De-/Anti-Icing fluids

- Type 1 Clariant Safewing MP I LFD (80) and Kilfrost DF PLUS

- Certified according to AMS 1424
- Operating criteria: Used for de-/anti-icing
The correct step-less fluid mixture is based on OAT or wing/fuel temperature
The respective fluid mixtures are charged per liter

Note: After having used up the rest of type 1 Clariant Safewing MP 1 LFD (80) type 1 Kilfrost DF plus will be available only. During the transition period Cockpit Crew will be informed verbally (via VHF) on remote deicing pad prior to deicing which type 1 deicing fluid is in use.

- Type 4 Clariant Safewing MP IV Launch & Kilfrost ABC-S PLUS

- Certified according to AMS 1428
- Operating criteria: Only used for anti-icing
The correct fluid mixture is based on OAT or wing/fuel temperature
The respective fluid mixtures are charged per liter

Note: After having used up the rest of type 4 Clariant Safewing MP 4 Launch type 4 Kilfrost ABC-S PLUS plus will be available only. During the transition period Cockpit Crew will be informed verbally (via VHF) on remote deicing pad prior to deicing which type 4 deicing fluid is in use.

8) Communication

8.1) General

Communication between the cockpit crew and the ground staff (call sign "Iceman") on the remote deicing position is carried out via VHF frequency.

The frequencies are listed in the appendix and are transmitted to the cockpit crew if required by means of an information board.

The whole deicing procedure has to be coordinated via VHF frequency between the cockpit crew and the ground personnel.

The coordination must entail

- Fluid type(s)
- Mixing ratios (especially type 4)
- Aircraft parts to be de-/anti-Iced
- Current Outside Air Temperature (OAT) or/and Wing/fuel temperature

8.2) Communication call signs on remote de-icing pad

Call sign Cockpit Crew: registration of aircraft (i.e. "OE-AAA")
Call sign de-icing ground staff: Iceman plus number of car (i.e. "Iceman 4")

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8.3) Communication prior to the de-/anti-icing procedure:

Cockpit

“Iceman 4 from OELxx”

„ Fuel temperature equals OAT“

“Iceman 4 we accept your recommendation“

“Iceman 4, the aircraft is configured ready for de-icing.”

Iceman

“OELxx from Iceman 4”

“OELxx my recommendation is:

OAT xx°C

2-step procedure with Type 1 and

Type 4 100%

For wings and stabilizers, do you agree? And please state your wing/fuel temperature“

“OELxx, is the aircraft ready for deicing?”

“OELxx, we start with the de-icing now and call you when we’re finished.”

8.4) Communication after de-/anti-icing procedure :

Cockpit

“Iceman 4, go ahead.”

“Confirm, wings and stabilizers de-iced.

Anti-Icing Code: Type 4 100% 1300 local time”

“All Clear Sign from the right. Thank you. Good bye.”

Iceman

“OELxx from Iceman 4”

“OELxx we have completed the de-/anti-icing with Type 1 followed by Type 4 for wings and stabilizers. Your Anti-icing code is: Type 4 100% at 1300 local time. Post de-/anti-icing check is performed.”

“OELxx from Iceman4, I’ll give you the “All Clear Sign” from the right side. Good Bye”

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8.5) VHF frequencies on remote de-icing positions

- 121,630 position F43
- 121,680 position F47
- 127,755 positions F51 to F59
- 121,980 positions F42 to F50

