AS Spilka Industri

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Spilka Top-hung

Product Data Sheet

Spilka Top-hung is a practical solution consisting of two components, one for the frame and one for the sash. The frame component is made of plastic that for the sash is made of corrosion protected steel.

Top-hung sashes can be used in combination with sashes with other opening functions in the same window profile.

The Spilka Top-hung system solution is described in reference item 1.1 in “table A”.

Product Information:

Top-hung hinges from Spilka are a practical solution consisting of two components – one frame component and one sash component.
Sashes with this opening function can be used in combination with sashes that have other opening functions in the same window profile.
With the Spilka Top-hung hinge, the whole sash may easily be removed to gain a larger opening.
Maximum sash weight for windows produced with Spilka Top-hung hinge is 40kg.

The “table A”, item 1.1 describes weight capacity and maximum window sizes (heights and widths).

Application:

Windows with the Spilka Top-hung system solution are opened by means of a handle on the lower part of the sash which operates an espagnolette system.

Maintenance and correct use are important to maintain functionality and useful life for both hinges and windows. An overview of the maintenance is shown in chapter “Maintenance” on page 7.

Profile description and interface information:

The “table A”, item 1.2 give references to the profile design and interface instructions for Spilka Top-hung

Surface treatment:

The top-hung consist of two parts, one for the frame and one part for the sash. The frame component is plastic, and the sash part is made of chrome steel. The sash component has been surface treated with electrolytic zinc and given a passivation coating of Chrome (Cr) in trivalent form and thereafter a sealer. Chromium in trivalent form is more environmentally friendly than in a hexavalent form. The passivation coating bonds with the top layer of the zinc and along with the sealer the hinge becomes more corrosion resistant. An overview of the corrosion protection is shown in chapter “Corrosion resistance” on page 5.

Maintenance (FDV)

Hinges are used in windows in the facades of the buildings and to maintain functionality and desired service life, correct use and maintenance are required. We have prepared an overview with recommendations for what is needed in terms of continuous maintenance, but we emphasize that local conditions such as weather, proximity to the sea/water etc. are decisive for how often such maintenance must be repeated. An overview of the FDV is shown in chapter “Repair and Maintenance” on page 6-8.

Interface documentation:

The “table A” give references to relevant technical documentation for the Spilka Top-hung.

Item	Description	Document no:
1.1	Top-hung variants and capacity overview	Top-hung variants and capacity overview
1.2	Profile design and interface instruction	Construction manual Spilka Top-hung
		Monteringsanvisning Spilka Top-hung
1.3	Products and Accessories for Top-hung	PDS-Spilka Product and Accessories Top-hung

Table A

Products and Accessories:

Spilka can offer a variety of products and accessories together with the hinge system, item 1.3 in “table A” give references to the available products and accessories for door and windows.

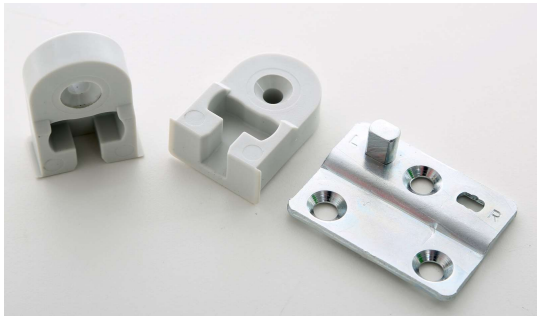
Operation and Functionality:

OPERATION

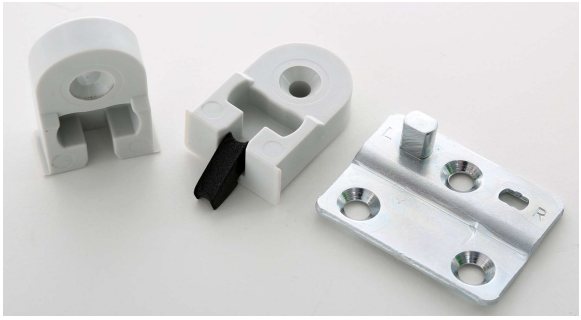
Certain hardware components require manual operation:

Top-hung hinges

Fitted to the top part of frame and sash profile.



Frame and sash part of Top-hung.



Top-hung with rubber locking device.

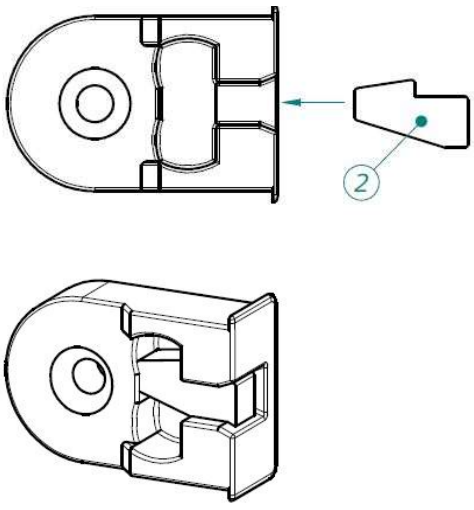
If required, the sash can be removed by being opened to 90 degrees and then lifted up and pushed out.

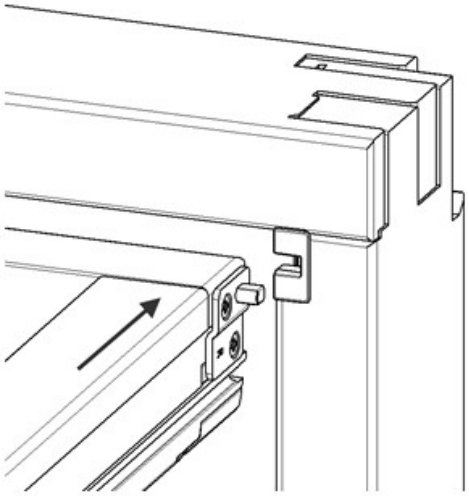
To ensure that this does not happen accidentally, we offer a rubber locking device that prevents this. The locking device is pressed in place from the outside after the sash has been mounted in the frame.

To remove the sash the locking device must be removed by using a small flat screwdriver or an awl.

NB! Remember to press the locking device back in place after reassembly.

The locking devices for top hung hinges are made of black natural rubber.





Spilka Hardware – Corrosion Resistance:

Spilka is a supplier of hinges for windows. The Norwegian window manufacturers have their window certificated in a control organization called NDVK (Norwegian Door and Window Control).

These manufacturers are only allowed to use “approved” hinges. This means that the hinges must satisfy standard NS-EN 1670 grade 3.

Standard NS-EN 1670: Corrosion resistance specifies the requirements for the corrosion resistance of hardware for windows:

4 Classification

Grade (class) 3: High resistance

The requirement of corrosion for NDVK is grade (class) 3.

5.4 Electrodeposited zinc on iron or steel

If coated with electroplated zinc on iron or steel, the requirements of the appropriate classification code of ISO 2081 plus a chromate conversion coating meeting the requirements of the class of ISO 4520 specified to match that classification, shall be as follows:

- Grade (class) 3:

ISO 2081 classification code Fe/Zn 12 + ISO 4520 class 2C or 2D.

Passivated with bright chromate Cr (III).

Sealer.

This treatment satisfies EN 1670.

Spilka Industri is certificated according to our Quality System that complies with NS-EN ISO 9001- 2015

Spilka Classic Hardware – Repair and Maintenance:

These are guidelines for the repair and maintenance of top-hung window hardware. Instructions are provided for the replacement or repair of damaged items or those needing replacement through wear and tear.

Material and Environment

Sash part of hinges are produced from standard grade steel of which 50% is from recycled materials and the hinges may themselves be continuously recycled. They are surface treated with zinc, chromate and then given a coat of clear lacquer. None of our hardware requires special handling or considerations due to their treatment or production.

Quality Assurance and Guarantees

Spilka hardware is produced under a quality control system in accordance with requirements for the NDVK (Norwegian Door- and window control) and AS Spilka Industri has a license from their control body. Below are details of relevant requirements and qualities.

Strength

The strength of the top-hung is tested on a closed window with the load added to the top corner of the sash. Our hardware is designed to accept these loadings to provide a considerable safety margin in operation and longevity in service.

Wear and tear

Windows are tested by opening and closing with their maximum sash weight, that should correspond with the daily opening of a window over its lifetime.

Corrosion

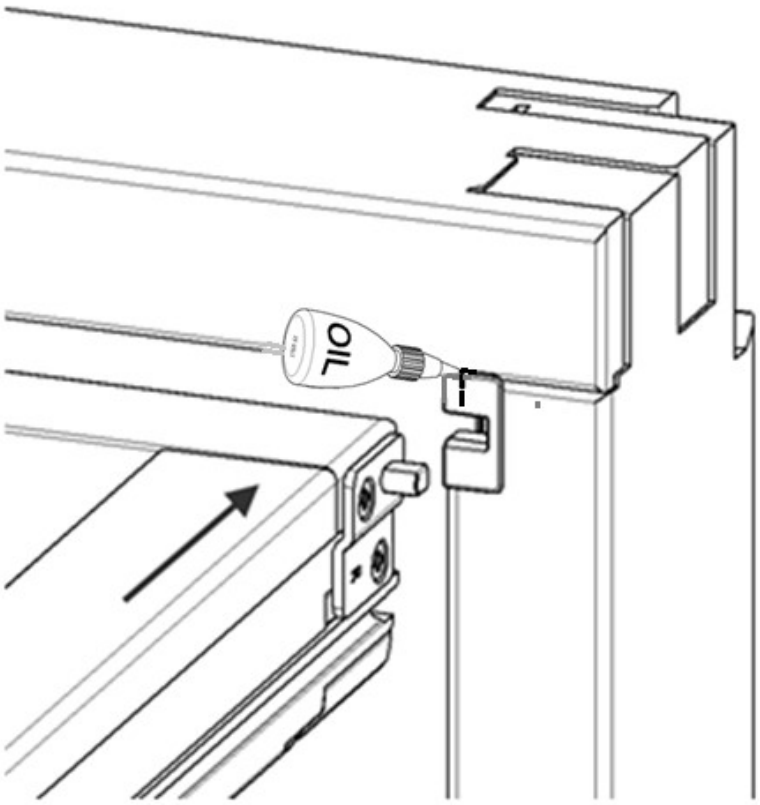
The requirement for surface treatment is a minimum of 12 µm thickness of zinc and passivated with chrome. According to the NDVK this gives a performance level as follows: "Fittings in Class 3 are suitable for use in wet or polluted environments and also salt, acid or alkaline conditions. This includes special humid conditions inside buildings and most external conditions".

NOTE! Hardware life expectancy before corrosion will depend on climate conditions and material contacts, which can cause corrosive reactions. Maintenance, including painting or staining is very important in aggressive situations and conditions.

Maintenance:

Hardware is used in window construction and thereby as a part of a building's facade. It is important that all items receive relevant initial treatment and that correct maintenance is carried out to ensure continuing operation. Maintenance requirements may vary dependent on local conditions and should be increased as appropriate. Note! Lubrication to be intended for use with plastic parts.

A few drops of light oil/grease should be applied in between the sash and frame part of the hinge (hinge bolt area) as shown on enclosed figure. The window should be opened and closed during lubrication of hinges to ensure the oil spreads.



Repairs and Replacements:

Damaged components should usually be replaced. Fitting instructions may be found on our website and these details may be used to order replacement items by their descriptions and part numbers.

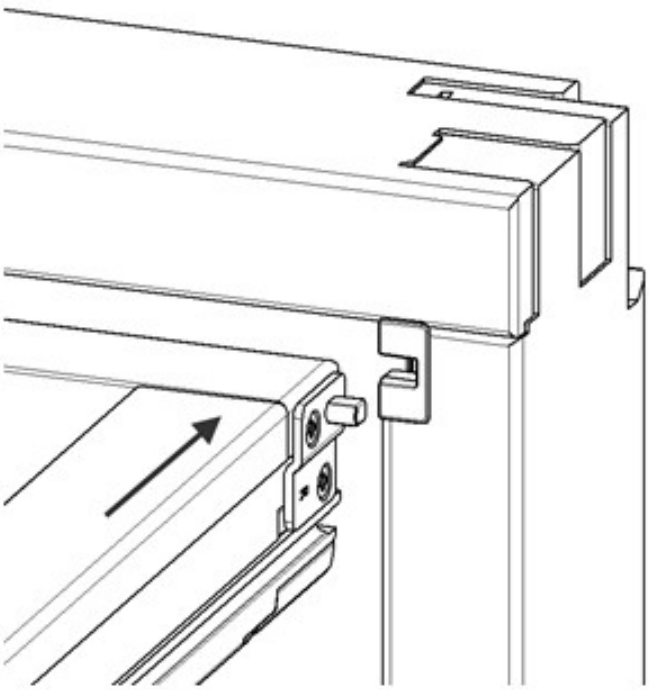
Hinges

Personnel with relevant skills should generally carry this out, as it may be difficult and potentially dangerous dependent on the situation and health and safety requirements.

Remove the sash by opening the sash 90 degrees and then lifted the sash up and push it out.

The hinge is fixed to the frame and sash by screws, this can now be removed, and the replacement hinge may then be fitted.

NOTE! It is vital to replace/mount the relevant pins and screws before the sash is closed to ensure the sash does not fall out.



Profile Materials:

Material types:

Windows with Spilka Top-hung hinges can be produced with the same timber profiles used for our Classic, Opus and Swing hardware options.

Our R&D Department will give a quick clarification as to whether our hinge variants can be used directly in your current window profile.
Top-hung windows can also be produced in PVCu, fibre glass and aluminium - dependent on the relevant profile construction.

Spilka Top-hung hinges are stocked in white (RAL 9010), grey (RAL 7035) and black (RAL 9011). They have flat end caps in a durable plastic material. We also provide decorative knobs in the same quality plastic. Use of knobs require that the flat end caps are removed manually.

Wood:

Windows made of wood continue to be the predominant choice in Scandinavia. Softwood (pine) is the most common wood where a large part should be heart wood for a more solid profile. Laminated profiles ensure a more stable construction, and it is common to use spruce for the outer lamina (layers) – which is more durable as it has a closed cell structure.
An increasing number of wooden windows are now delivered with aluminium cladding, and Spilka can assist with the design and delivery of such aluminium profiles.

PVC (vinyl):

Window frame and connecting profiles of extruded PVCu, also known as vinyl or plastic, can be used in the production of windows with Spilka's system solutions.

Aluminium:

Aluminium is a well-known material which has many applications and is a light metal with great strength in relation to its weight. Aluminium is a good choice due to its durability, minimal complications linked to corrosion and its flexible profile design possibilities.