AS Spilka Industri

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Spilka Swing
Product Data Sheet

Spilka Swing is designed as a 'holistic' system in which all components are developed and adapted to one another. The window may be opened by traditional catches or multipoint locking espagnolette. Both options allow the window to be locked in a ventilation position.

Spilka Swing system solution offer the complete package for window manufacturers. The core of the system is the improved hinges that we produce in-house which satisfies our own quality requirements regarding materials, technical quality, and corrosion protection.

The Spilka Swing system solution is described in reference item 1.1 in "table A".

Product Information:

Spilka Swing system solution consists of improved hinges with an integrated opening restrictor / safety catch. Spilka can also offer a complete system with end keeps, glazing beads, and an espagnolette solution.

Swing has an opening restrictor / safety catch as standard, limiting the opening of the window. The safety catch also has a wider, 'ventilation' position that also prevents the window from blowing open or closed.

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

Application:

Windows with the Spilka Swing system solution are opened by means of a handle on the side part of the sash which operates an espagnolette system. This system solution does incorporate an opening restrictor / safety catch as a standard. This will limit the initial opening of the window.

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 1.3 give references to the profile design and interface instructions for Spilka Swing.

Surface treatment:

The Swing system is produced in stainless steel, aluminum and plastic and will not need any further corrosion protection/surface treatment.

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 Swing.

Item	Description	Document no:
1.1	Swing hinge system solution	4-32-90 Swing hinge system solution
1.2	Swing size and capacity overview	Swing size and capacity overview
1.3	Profile design and interface instruction	Construction manual Spilka Swing
		Monteringsanvisning Spilka Swing
1.4	Products and Accessories for Swing	PDS-Spilka Product and Accessories Swing

Table A

Products and Accessories:

Spilka can offer a variety of products and accessories together with the hinge system, item 1.4 in “table A” give references to the available products and accessories for door and windows.

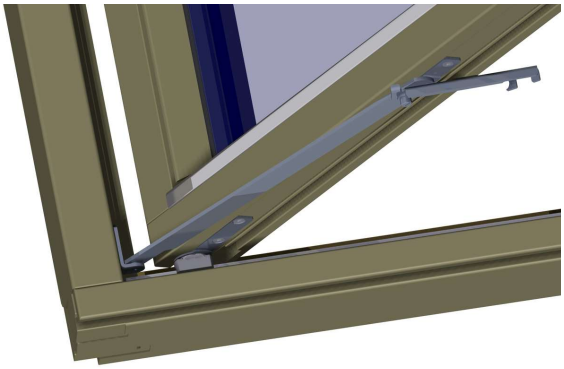
Operation and Functionality:

OPERATION

Certain hardware components require manual operation:

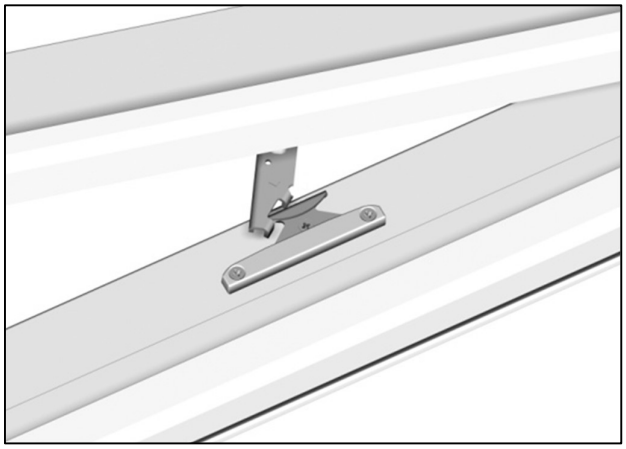
Side Swing solution

Fitted to the left- or right-hand frame and sash profile.



Opening restrictor/ safety catch, blowback restrictor and washing position

Fitted to the lower part of the sash and frame is the opening restrictor / safety catch mounted
This device limits initial opening of the window.
Under the sash the hinge has an automatically safety catch. This is operated by slightly closing the sash after it has opened out against the restrictor and then lifting the restrictor catch up to release the sash for further opening.
The safety catch then stops in a more open position, where it locks the sash and prevent it from blowing back and forth. This device is operated the same way as explained above, both for the further opening and for closing.
In addition, the safety catch functions as a washing position lock when the frame is completely turned around.



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

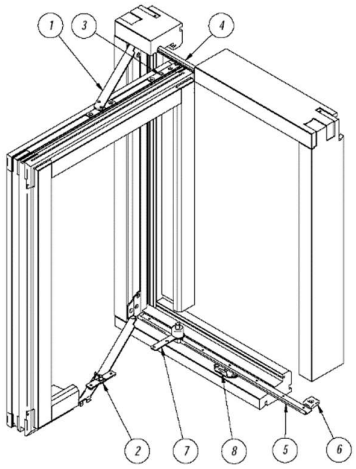
Grade (class) 3: High resistance

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

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 Spilka Swing window hardware, including hinges, components, and profiles. Instructions are provided for the replacement or repair of damaged items or those needing replacement through wear and tear.



Material and Environment

Hinges are produced from high quality stainless steel of which 50% is from recycled iron, the hinges may themselves be continuously recycled. Under normal conditions stainless steel does not require additional protection against corrosion. The window hardware requires regular cleaning and lubrication. Plastic materials used are POM and PP.

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

Opening the sash until the hinges are fully extended tests the window/hardware. A vertical load of 40 kg is then applied to the sash. Our hardware is designed to accept these loadings to provide a considerable safety margin in operation and longevity in service.

NOTE! Damage may be caused to the safety restrictor if exceptional force is applied before it is lifted to allow the sash to reverse. Damage caused in this way would not be covered by our guarantee.

Wear and tear

Windows are tested by opening and closing over 20 000 cycles with their maximum sash weight, this should correspond with the daily opening of a window over its lifetime.

NOTE! Damage may be caused if relevant maintenance is not carried out, or by opening the safety restrictor with excessive force. Damage caused in this way will not be covered by our guarantee.

Corrosion

The fittings satisfy Class 3 of the NS-EN 1670 standard. 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”.

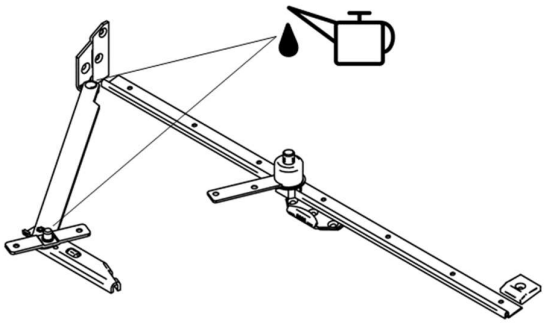
NOTE! Hardware life expectancy before corrosion will depend on climate conditions and material contacts, which can cause corrosive reactions. Maintenance, including painting or staining is very important in aggressive situations and conditions.

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 and aluminium parts.

Lubrication of bearing units (7)

At the lower sash corner there is a hinge with a bearing cover and ball bearings. Generally, these components require no lubrication. Removal of paint and dust from the surfaces of the aluminum rails and wheels will ensure free movement.

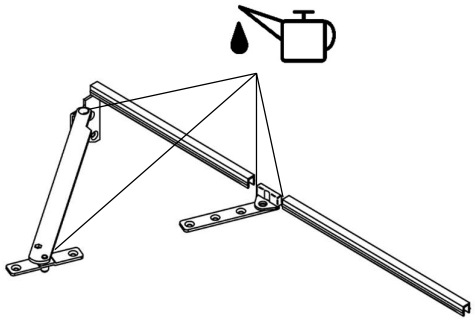


Lubrication of lower hinges (2)

Open the sash completely and place a few of drops of oil where the hinge arm is attached to the frame. In addition, lubrication is required between every movable part at the underside of the frame to ensure functionality of the security catch. Turn the security arm back and forth and then slide the sash from side to side to ensure free movement.

Lubrication of headslide and u-channel (3)

Completely open the sash and place a few drops of oil by the head slide as far as possible within the u-channel. Also lubricate between movable parts. Then turn the sash completely back and forth to ensure smooth operation. It is important to avoid introducing paint or stain into the u-channel during re-painting.



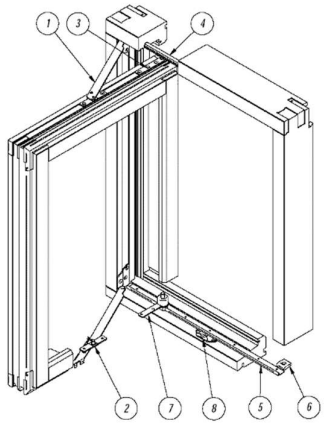
Lubrication of upper fittings (1)

Completely open the sash and place a few drops of oil where the hinge arm is attached to sash and frame. Then turn the sash from side to side to ensure smooth movement.

Surface treatment of the hinge

For hinges made of stainless materials no extra finish is required to improve corrosion resistance. If a painted finish is desired, it is important to be aware that regular stain and paint bonds weakly to stainless steel. Use paint/varnish which is especially suited for stainless steel from a specialist retailer. It is important to clean and degrease with white spirit before starting painting. The lubricating grease at the rivet point should not be removed and paint should not be introduced between movable parts or at the rails' sliding surfaces. Frequent lubrication of surfaces and movable parts is advised in dusty environments.

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.

Upper (1) and lower (2) fittings

Open the window wide enough to remove the screws and lock the sash both at top and bottom to prevent sideways movement. The fittings can be replaced, but for safety reasons it is recommended that only one hinge should be replaced at a time. Fittings are attached to the sash through screws in sash and frame.

Sash bottom rail with bearing unit (7)

Completely open the window and secure the sash so the weight will not be on the hinges when unscrewed. Upper and lower fittings are released by removing the screws. Slide the sash across to the side at the underside, so that the headslide (at the top) and the bearing unit at the bottom are released from the rails. Remove the sash and the screws of the bearing unit. Replace the old bearing unit with the new and remount the sash.

Head slide (3)

This replacement also requires removal of the sash. Completely open the window and secure the sash. Upper and lower fittings are released by removing the screws. Slide the sash across to the side at the bottom, so that the head slide (at the top) and the bearing unit at the bottom are released from the rails. Remove the sash and the screws of the head slide, replace the old head slide with the new and remount the sash.

NOTE! It is vital to replace/mount the relevant pins and screws before the sash is closed to ensure the function of the opening restrictor / safety catch.

Profile Materials:

Material types:

Windows with Spilka Side Swing hinges can be produced with the same timber profiles used for our Classic, Opus and Side-hung 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.
Side Swing windows can also be produced in PVCu, fibre glass and aluminium - dependent on the relevant profile construction.

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.