

Schüco Sliding System TropTec™ AS 39 SC.NI

General System Information





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Schüco TropTec™ AS 39 SC.NI

The Schüco TropTec[™] AS 39 SC.NI two or three track aluminium sliding system is an ideal choice thanks to a narrow face width for large-scale vents, even with high wind loads.

This edition supersedes the previous documentation for Schüco TropTec[™] AS 39 SC.NI, issued October 2014.

Technical properties



Thanks to the high stability of aluminium, Schüco TropTec[™] AS 39 SC.NI sliding systems can be designed with narrow profiles and particularly large areas of glass, providing maximum transparency and light penetration.

The Schüco TropTec[™] AS 39 SC.NI sliding system is a high-quality system with a high degree of flexibility to meet customers' requirements in functionality but also design. The excellent performance to investment ratio, the large possible vent dimensions and the last but not least robust fitting range for a long term and reliable performance makes the system a great choice.

A construction designed for the minimal tool usage and the simplest possible production guarantees excellent fabrication quality. In doing so, Schüco gives the fabricator extensive documentation with easy-to-understand step-by-step assembly instructions.

eatures and benefits

Schüco TropTec™ AS 39 SC.NI

- Attractive, non-insulated aluminium sliding system
- Narrow face width of 74 mm for more glass and less frame
- Plain fabrication procedures
- Maximum leaf size 2000 mm x 3000 mm (W x H)
- Maximum leaf weights up to 120 kg
- Water tightness up to 300 Pa in accordance with EN 1027 / EN 12208
- Wind load rsistance up to 2200 Pa in accordance with EN 12210
- Air permeability up to class 4 in accordance with EN 12207
- Sound insulations up to 33 dB in accordance with EN ISO 717-1

Options of Schüco TropTec™ AS 39 SC.NI

- Choice of double track or triple track outer frames or large element sizes
- Top or bottom lights for variable sliding types
- Optional window sill profile for optimum protection of the building structure
- Optional wrap-around gaskets
- Internal aluminium framed Schüco fly screen avoids annoying mosquitos and flies
- Special structural expansion for a fast installation on site, also for a large element width
- Retaining catch with or without reset
- Single glazing options 4, 6, 8, 10, 12 or 14 mm
- Double glazing options 24, 26 or 28 mm

Clear benefits for Schüco partners

- Proven quality (Tested system)
- German engineering at local market prices
- Complete range of products from a single source
- Modular system
- Minimal use of tools
- Software support
- Step-by-step documentation
- Expert advice from the Schüco back office
- Theoretical and practical training for the shop floor personnel in our state of the art training centre

Test certificates for the sliding system Schüco TropTec[™] AS 39 SC.NI

Tests and standards *		Schüco TropTec™ AS 39 SC.NI	Schüco TropTec™ AS 39 SC.NI		
Type of Test unit		Standards	Class		
		Air permeability in accordance with EN 12207	4	++++ 1)	
2A		Watertightness in accordance with EN 1027 / EN 12208	7A	300 Pa	
		Wind load resistance in accordance with EN 12210	C3/B3	1200 Pa	
2A/1		Air permeability in accordance with EN 12207	4	++++ 1)	
		Watertightness in accordance with EN 1027 / EN 12208	7A	300 Pa	
		Wind load resistance in accordance with EN 12210	C3/B3	1200 Pa	
2A + Top-/Bottom light		Air permeability in accordance with EN 12207	3	++++ 1)	
		Watertightness in accordance with EN 1027 / EN 12208	5A	200 Pa	
		Wind load resistance in accordance with EN 12210	C3/B3	1200 Pa	
		Air permeability in accordance with EN 12207	3	++++ 1)	
2A/1 + Top-/Bottom light		Watertightness in accordance with EN 1027 / EN 12208	5A	200 Pa	
		Wind load resistance in accordance with EN 12210	C3/B3	1200 Pa	
		Air permeability in accordance with EN 12207	on request		
2B		Watertightness in accordance with EN 1027 / EN 12208	on request		
		Wind load resistance in accordance with EN 12210	C1	400 Pa	
		Air permeability in accordance with EN 12207	4	++++ 1)	
2D		Watertightness in accordance with EN 1027 / EN 12208	7A	300 Pa	
		Wind load resistance in accordance with EN 12210	C1	400 Pa	
2D/1	<u></u>	Air permeability in accordance with EN 12207	3	++++ 1)	
		Watertightness in accordance with EN 1027 / EN 12208	7A	300 Pa	
		Wind load resistance in accordance with EN 12210	C1	400 Pa	
		Air permeability in accordance with EN 12207	on request		
3E - 3E/1 - 3F		Watertightness in accordance with EN 1027 / EN 12208	on request		
		Wind load resistance in accordance with EN 12210	on request		
AII		Long term functionality in accordance with EN 12400	3	20000	
Schüco TropTec™ AS 39 SC.NI		Sound insulation with DGU 28 mm in accordance with EN 717-1		33 dB	

* All performance tests with window sill and interior sill

Test certificates for the sliding system Schüco TropTec[™] AS 39 SC.NI with reinforcement (⁺)

		Schüco TropTec™ AS 39 SC.NI with reinforcement (*)	Schüco TropTec™ AS 39 SC.NI with reinforcement (*)		
Type of Test unit			Standards	Class	
2A	1 1 1		Air permeability in accordance with EN 12207	4	++++ 1)
			Watertightness in accordance with EN 1027 / EN 12208	7A	300 Pa
	السطاطار		Wind load resistance in accordance with EN 12210	C5/B5	2000 Pa
2A/1	أتصاصر		Air permeability in accordance with EN 12207	4	++++ 1)
			Watertightness in accordance with EN 1027 / EN 12208	7A	300 Pa
	للصلصل		Wind load resistance in accordance with EN 12210	C5/B5	2000 Pa
28			Air permeability in accordance with EN 12207	on request	
			Watertightness in accordance with EN 1027 / EN 12208	on request	
			Wind load resistance in accordance with EN 12210	on request	
2D			Air permeability in accordance with EN 12207	4	++++ 1)
			Watertightness in accordance with EN 1027 / EN 12208	6A	250 Pa
			Wind load resistance in accordance with EN 12210	C4/B5/BE2200	2200 Pa
2D/1			Air permeability in accordance with EN 12207	3	++++ 1)
			Watertightness in accordance with EN 1027 / EN 12208	6A	250 Pa
			Wind load resistance in accordance with EN 12210	C4/B5/BE2200	2200 Pa
3E - 3E/1 - 3F			Air permeability in accordance with EN 12207	on request	
			Watertightness in accordance with EN 1027 / EN 12208	on request	
			Wind load resistance in accordance with EN 12210	on request	
All			Long term functionality in accordance with EN 12400	3	20000

* All performance tests with window sill and interior sill

¹⁾ Air permeability in accordance with EN 12207				
Class 1	+	low performance		
Class 2	++			
Class 3	+++			
Class 4	++++	max performance 🔻		

Fulfillment of anti-corrosion class 3 (96 h) according to DIN EN 1670.

System components

System illustration



Design features

Unit options



Types: 2A and 2A/1 with Top- / Bottom light







2A/1 2A

Section details

Schüco TropTec™ AS 39 SC.NI



10.2015 / GSI / Schüco TropTec $^{\rm TM}$ AS 39 SC.NI / AS 39 SC.NI with reinforcement (*)





















Structural expansion profile





Scale 1:2











10.2015 / GSI / Schüco TropTec $^{\rm TM}$ AS 39 SC.NI / AS 39 SC.NI with reinforcement (*)











Scale 1:2

Schüco TropTec[™] AS 39 SC.NI with reinforcement (*)





























Scale 1:2.5









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10.2015 / GSI / Schüco TropTec $^{\rm TM}$ AS 39 SC.NI / AS 39 SC.NI with reinforcement (+)

Fly screen

Fly screen for Schüco TropTec[™] AS 39 SC.NI







Flyscreen for Schüco TropTec[™] AS 39 SC.NI

- Attractive aluminium fly screen system
- Installed on the room side
- Narrow face width
- For sliding doors with a height up to 3 m
- Special designed for Sliding system Schüco TropTec[™] AS 39 SC.NI and Schüco TropTec[™] AS 39 SC.NI with reinforcement (+)
- Customized frames for sliding windows and sliding doors
- Easy operation (height-independent)

Options of Schüco Fly screen

- Choice of two aluminium fly screen frame profiles
- Option of a aluminium transom

Clear benefits for Schüco Partners

- Complete range of products from a single source
- Low quantity of items
- Easy fabrication with a low fabrication complexity
- Minimal use of tools
- Step-by-step documentation
- Software support
- Expert advice from the Schüco back office



Fly screen for Schüco TropTec[™] AS 39 SC.NI







Structural values

Statics diagrams for determining the installable vent sizes in accordance with DIN EN 12210

These statics diagrams are intended for preliminary structural calculations and profile selection.

(This is not a substitute for a final structural calculation.)

Vent sizes below the line are structurally adequate.

Differing deflection limits set by the double glazing manufacturer must be observed.

Deflection limits L/200 (class B)





Profile combination 147 280/147 280





 I_{xtotal} = 12.88 cm⁴

Profile combination 147 280/147 300



Deflection limits L/200 (class B)

Profile combination 147 280/147 320









Profile combination 147 320/147 320



A maximum load of 1500 N per vent should not be exceeded at element without reinforcement.

Statics diagrams for determining the installable vent sizes in accordance with DIN EN 12210

Deflection limits L/200 (class B)

Profile combination 147 240/147 340





 I_{xtotal} = 20.46 cm⁴

Profile combination 147 550/147 340







Deflection limits L/200 (class B)

Profile combination 147 570/147 340



 p_{max} = 400 Pa w_{max} x h_{max} = 2,00 m x 2,60 m







Statics diagrams for determining the installable vent sizes in accordance with DIN EN 12210

Schüco TropTec[™] AS 39 SC.NI with reinforcement (⁺)

Deflection limits L/200 (class B)

Profile combination 147 280/147 320



A maximum load of 1500 N per vent should not be exceeded at element without reinforcement.


Schüco TropTec[™] AS 39 SC.NI with reinforcement (*)

Deflection limits L/200 (class B)

Profile combination 147 570/147 570





h > w $w_1 = w_2$



A maximum load of 1500 N per vent should not be exceeded at element without reinforcement.



For over 60 years, Schüco has developed and sold window, door and façade systems to meet the highest technological and environmental requirements in more than 80 countries. Building projects are planned, fabricated and installed by a vast network of 12,000 partner companies all over the world. The product range also comprises powerful machines and software for calculation and fabrication as well as customer-oriented service and extensive consultancy services for construction partners. In addition to fabricators, these also include architects, developers, investors and private clients.

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The Company

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Company Profile

Employees worldwide



Germany ca. **3.350**

International ca.1.450



Head Office Bielefeld Founded: 1951 in East-Westphalia

Expertise

Window systems, door systems and façade systems



MORE THAN **80** COUNTRIES



12.000 PARTNERS

Schüco Technology Center: A wide range of options





Developing. Testing. Shaping the future.

The Schüco Technology Center is an accredited, independent manufacturing laboratory and one of the world's leading test centres for windows, doors, façades and new technologies. In an area covering 7800 m² and with the largest indoor façade test rig in Europe, Schüco and its partners can, from the beginning of every product development, accompany new systems, individual components or special solutions in terms of their fabrication and testing, constantly improve them and validate their developmental requirements and quality. On this basis, Schüco products reliably comply with all the necessary standards

www.schueco.de/technologiezentrum

www.schueco.de/technology-center

Accurate tests ensure success

Schüco has a tradition of carrying out its own component and material tests, which guarantee the highest levels of quality. Testing began in 1967, and in 1968 Schüco purchased the first universal test machine. Today, comprehensive testing is carried out on all systems and components from Schüco in many different testing areas. Over 40 employees carry out several hundred complete tests per year, starting with small components through to complete façade units.



Component and material testing

Static and dynamic pressure, bending and tensile tests, as well as tests on the mechanical performance of system components.



Environmental simulation tests

Climatic testing of the building envelope and its components, as well as ageing of materials and products due to heat, cold, humidity, UV light and corrosion.





System and unit testing of the airborne sound insulation of windows, doors or façades on original components in four rooms which are independent of one another as well as acoustic emission tests and room acoustics in the laboratory and on site.



Samples workshop

Covering an area of more than 2000 m², production of all types of prototype and test units in complete accordance with the requirements of the technical development departments of Schüco.

Schüco has a test laboratory accredited by the national accreditation body for the Federal Republic of Germany (DAkkS). You can identify the accreditation by the symbol shown on our test reports.





Electronics testing (EMC and IP protection ratings)

Testing the interference immunity and interference emissions of electronic components or non-Schüco products in line with standards, as well as their protection against solid foreign bodies and water.



Ballistics tests

Preliminary testing in line with standards for all bullet-resistant units which can be fabricated from Schüco window, door and façade systems.



Weathertightness tests

Testing and fault analysis for windows, doors and façade units up to 21 m in width and 13 m in height on the largest indoor test rig in Europe, including a propeller test in accordance with international standards.



Durability and security

Durability and operation tests for windows and doors, blinds, opening devices, cavity-fitted gearboxes, electric drives and much more, as well as security tests, such as burglar resistance.

Services

Every building project is subject to diverse requirements: investors want design reliability and cost certainty, architects and developers require considerable freedom of design and partners need components that enable simple fabrication and installation. Schüco works closely together with everyone involved in the construction process and offers individual support at every stage, such as fabrication drawings, specifications for tender, machines, tools, software, training, technical documentation as well as comprehensive marketing services.







Internet services - optimum support in every phase of construction

My Desktop

www.schueco.de/my-workplace

is your personal user interface. Here you can find extensive information to help you work efficiently and a news area which is updated regularly. Under "My wish lists" you can save frequently used systems and access them again quickly without having to search again. An overview of all services:

Technical documentation

Specifications for tender, CAD data, order and fabrication information, architect information, etc.

Software

Schüco U-Cal, Schüco NSHEVS project planning, SchüCal, SchüCad and more.

Other services

Training, reference projects, configurators and apps, video conference technology, brochures, Metal Machine service, marketing service.

Contact

Contact details for your Schüco contact person can be found on your personal desktop. This ensures personal advice in every stage of construction.



Schüco reference project App - information and inspiration on the move

The new Schüco reference project App for tablets and smartphones provides comprehensive information about living and working environments and supports architects and partners in their day-to-day business with lots of practical functions.

The personalised desktop is an ideal tool for planning and presenting to clients. It allows you to easily and conveniently sort, save and add notes to reference projects, including detailed project and product information as well as pictures. In this way, information on Schüco projects can be called up at any time, anywhere.

On the individual user interface, you will find your Schüco specialist advisor to facilitate quick and easy contact with the company.

Many other functions, such as a pinpoint radius search using Google Maps, automatic push notifications regarding projects near you and 360-degree views complete the range of services on offer.

Information on international reference projects with photos and construction details can be found in the app and the reference library on the Internet under www.schueco.de/references-app



Marketing services - a solution to suit everyone

Schüco supports its partners in their relevant marketing and sales activities, with professional advice, target group-orientated measures and individual solutions for every budget. This effective process also includes access for Schüco partners to all advertising media via an online platform.

Targeted marketing

Schüco supports its partners in their advertising activities with:

- Professional advice
- Target group-orientated advertising measures
- Individual solutions

Whether for a new company image, brochure or measures to support sales: the Schüco Marketing Service finds ideal solutions for all of its partners.

Benefits:

Partners do not require experience in advertising. Various templates can be used to create personalised advertising materials with the simple integration of the company logo. The Marketing Service creates individual advertising measures.

Showroom

Greet, advise and impress customers in a tailor-made showroom. Schüco supports the planning and design of exhibition spaces.



Partners can find the comprehensive service in the Showroom Online Shop: presentation stand planning aid for window and door systems, attractive accessories from posters to information desk solutions for external advertising.

Merchandising

Attract the customer's attention with practical Schüco promotional gifts. Partners can find the perfect promotional gift from the wide range in the online merchandising shop:

- The right gift for every occasion and every target group
- From cost-effective to exclusive
- From office items to clothing, travel accessories to sports items
- The range is constantly being extended with new ideas

Print

Emphasise selling points with brochures and data sheets from Schüco. The Schüco Printed Media Online Shop offers:

- Simple, direct ordering, with company imprint if required
- Free PDF download of all product brochures

The shop range is user-friendly and designed to allow the required media to be found in no time at all.



Schüco training - professional and practical

The current range of courses offered by Schuco allows partners to specifically increase their economic success by improving the qualifications of their employees. A large number of specialised and practical courses serve this purpose. with training centres in the subsidiaries Schüco gurantees a national presence in germany. Continuous professional development is embedded effectively in the everyday work of the company in modern, well-equipped training rooms and work-shops. The training courses and workshops are divided into three areas: product training, specialist training and Schüco software training. The themes covered include content on aluminium, steel, PVC-U and fire protection systems, Schüco software solutions and special issues in the areas of construction law, sales, management and leadership. The training department and Schüco area managers can advise on choosing suitable courses and they are happy to answer any questions. Tailored solutions for personalised training are also possible - this can be held at the partner company premises.

Sustainability

Schüco supports investors, architects, building consultants and partners through all project phases – from the first idea to the dismantling of a façade. This includes advice on certification, designs using sustainable systems, environmental product declarations and recycling of the building envelope.

360° sustainability – from the idea to recycling

In the construction sector, sustainability means designing, constructing and operating a property in such a way that it is ecologically, economically and socioculturally future-proof. To this end it requires high-quality, innovative products and solutions that conserve resources. As a driving force behind innovation, here Schüco offers concepts and product solutions with the best possible support for investors, architects, building consultants and metal fabricators in all phases of a project. In practice, that means from the initial idea through to dismantling a façade - support including advice and designs with sustainable systems, environmental product declarations and recycling of the building envelope. Schuco calls this holistic approach, which is guided by the building lifecycle, "360° sustainability".

Comparision of materials: potential for recycling aluminium, PVC-U and timber The use of sustainable products and the use of materials with outstanding recycling properties which allow for dismantling at a later time and recyclability are important requirements for "360° sustainability". Buildings are the raw material sources of the future. In an independent study carried out by Drees & Sommer in cooperation with PE International, windows and facades made from different materials aluminium, PVC-U, timber, timber/aluminium were compared on the basis of sustainability criteria. The result verified by international experts is that, in terms of ecology, aluminium and PVC-U are as valuable as timber and, overall, yield equivalent results. The excellent recycling potential of aluminium and PVC-U as well as the characteristics of aluminium, i.e. durability, low running costs for the operation of the building and the range of design options combined with a low weight and high stability, are particularly positive.



Focus on certified sustainability for buildings

Building certifications from the market leaders BREEAM, DGNB and LEED are being demanded more and more frequently by investors and building consultants - especially for commercial buildings. An important basis for this are suitable product systems with the requisite documentation and proof of the holistic design and evaluation of the buildings. The Schuco systems, which have been verified for this purpose, are ideally suited for the best possible ratings in building certification. Here Schüco supports architects, investors and fabricators with detailed documentation for design and product selection. As a special service, specially developed software tools are also available to make it easier for the user to produce the documentation, which is very complex in part. The SchüCal construction software generates environmental product declarations, U value calculations and Declarations of Performance, amongst others, at the touch of a button.

Future-orientated through sustainability

Sustainability is an integral part of the Schüco company policy, which is designed to deliver long-term success. To this end, Schüco develops high-quality and energy-efficient products and services that conserve resources, set standards and enable Schüco partners to create reliable and long-lasting values. Innovative environmental philosophies are embraced and integrated in products. At this very moment, suitable products are in development. A good basis for fulfilling current requirements and paving the way for future challenges.

www.schueco.com/sustainability

360° cycle of sustainability for Schüco and its partners



Fundamental principles of sustainable product development

Sustainability							
Saving energy	Conserving resources	Protecting climate and environment	Durability	Resistance	Capacity for repair	End of Life	Recycling

Schüco Showroom: Innovative. Informative. Interactive.



Schüco offers a new level of brand experience: positioned with an emphasis on design, the large showroom in Bielefeld presents innovative and tried-and-test system technology.

Covering an area of 800 m², the showroom exhibits developments for the efficient planning, fabrication and installation of everything to do with windows, doors and façades made from aluminium. In the interactively designed world of experience, visitors have the opportunity to view and touch extraordinary products, such as the life-size 3D parametric façade all year round. Inviting interactive screens encourage cooperation and collaborative planning.

Visit the showroom in Bielefeld and find out about the unique product diversity of the company. Schüco is looking forward to your visit.

www.schueco.de/showroom-bielefeld-en



Schüco International KG

www.schueco.com

Schüco – System solutions for windows, doors and façades

Together with its worldwide network of partners, architects, specifiers and investors, Schüco creates sustainable building envelopes that focus on people and their needs in harmony with nature and technology. Windows, doors and façade solutions from Schüco meet the highest requirements in terms of design, comfort and security, whilst simultaneously reducing CO2 emissions through energy efficiency, thereby conserving natural resources. The company and its Metal and PVC-U divisions deliver tailored products for newbuilds and renovations, designed to meet individual user needs in all climate zones. Everyone involved is supported with a comprehensive range of services at every stage of the construction process. With 4,800 employees and 12,000 partner companies, Schüco is active in more than 80 countries and achieved a turnover of 1.425 billion euros in 2014.

schűco