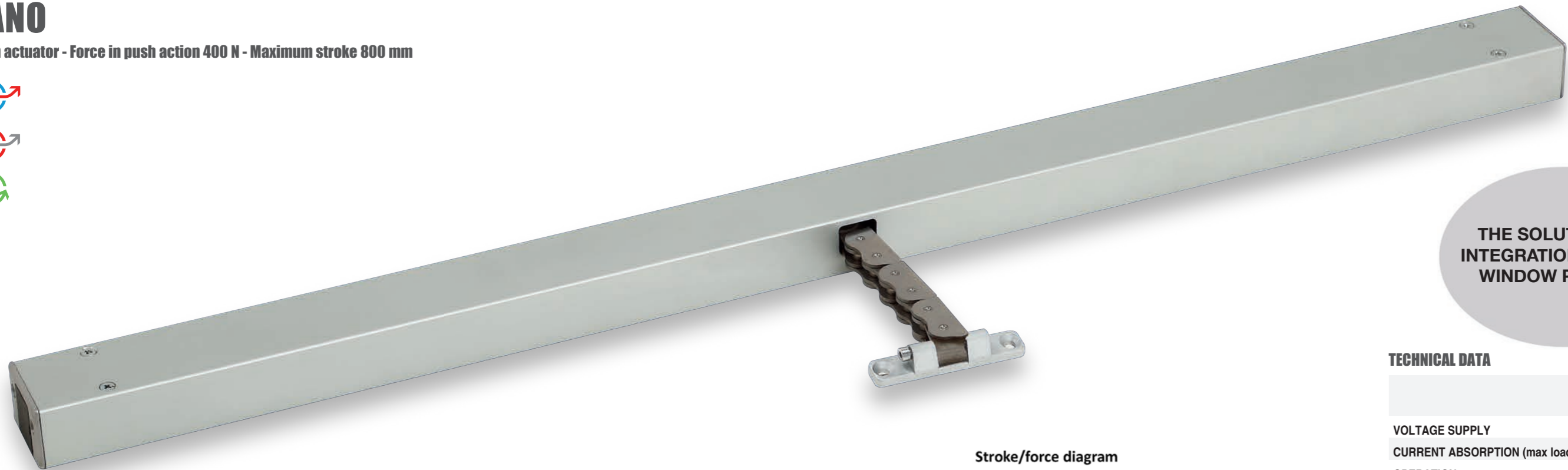


NANO

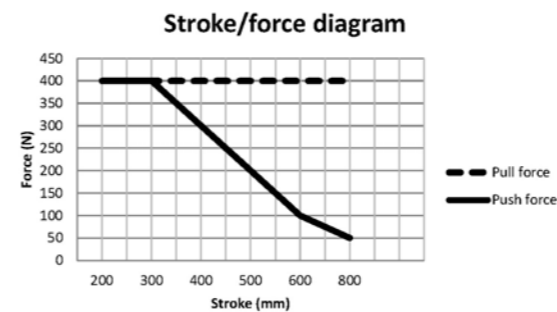
Chain actuator - Force in push action 400 N - Maximum stroke 800 mm



**THE SOLUTION FOR
INTEGRATION INTO THE
WINDOW PROFILES**

TECHNICAL DATA

	DC VERSION
VOLTAGE SUPPLY	24 Vdc ± 15%
CURRENT ABSORPTION (max load)	1.2 A
OPERATION	polarity inversion
MAX FORCE	400 N*
OPENING SPEED	4 - 14 mm/s**
CLOSING SPEED	4 mm/s
LOCKING FORCE	1900 N***
DUTY CYCLE	30%
PARALLEL CONNECTION	Yes
LIMIT STOP	Electronic
SAFETY STOP	Electronic
PROTECTION CLASS	IP40



800 mm stroke only for bottom hinged windows.

MAIN FEATURES

- The highest performance (400 N) in the smallest case (24 x 35 mm)
- Very silent operation
- Chain in double stainless steel links.
- Aluminum extrusion
- Electronic stop in the intermediate positions in case of overload.
- The **SYNCHRO NANO** versions are equipped with an integrated speed synchronization control board for the installation of more than one actuator on the same vent, avoiding any external control panel (max 4 actuators + E-Lock). SYNCHRO NANO versions provide also open/close feedback.
- The **SYNCHRO NANO F-SIGNAL** versions provide free potential opening and closing feedback signal (maintained contact), activated by the current limit.
- **NANO DC** is provided with 1,5 m cable (no synchronization, feedback signal and speed selection).
- Suitable for installation with the additional locking device E-LOCK: NANO DC with E-LOCK Standard, SYNCHRO NANO with E-LOCK BMS (for easier wiring and sequence operation).
- Suitable for drawbridge application (Synchro versions).

OTHER VERSIONS UPON REQUEST:

- **NANO** versions with **IP42** protection class, for a higher resistance against atmospheric agents.

- Versions for USA and Canada.

INSTALLATION REMARKS

- In case of vents with four-bar hinges, please contact our Technical Dept.
- If installed on PVC windows, the profile has to be reinforced.
- In case of Building Management System control, avoid repetitive commands in the same direction.

For further information contact our Tech. Dept.

Suitable for installation on **Smoke and Heat Exhaust Ventilators (SHEV)** in conformity to European Standard **EN 12101-2** (pending test).

The BMSline version is fully programmable (stroke, speed, force, ...); different scenarios are selectable with a connection to a computer through dedicated software. See BMSline section.

*Must be considered as a temporary load only, both in push and in pull.

**Silent operation: opening speed depending on stroke (minimum speed to complete the opening within 60 s).

***Installation with side bracket kit.

Synchro versions can provide Silent Ventilation (slower speed) activated by UCS C-SV Smoke Ventilation Control Panels.

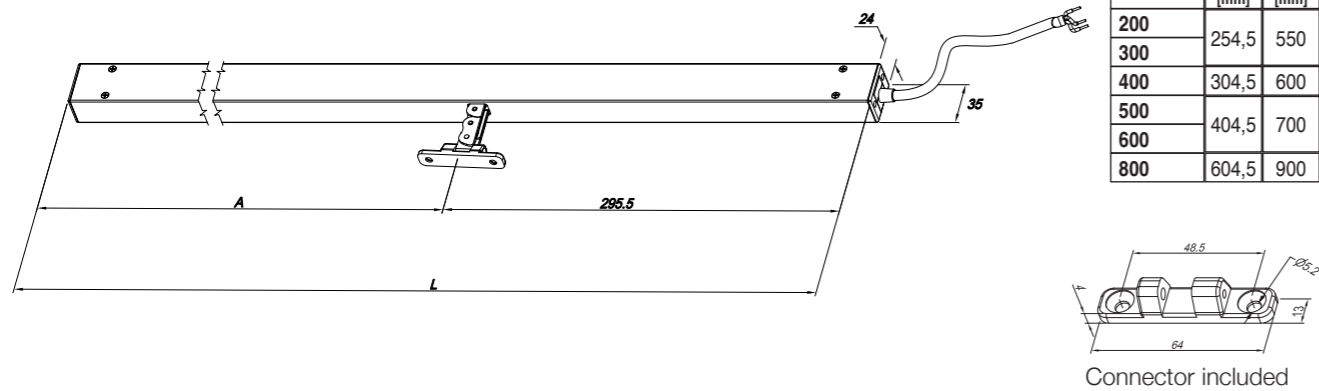
Part No. for DC VERSIONS

MODEL	SYNCHRO	FEEDBACK	CABLE	COLOUR	PART No. (Stroke)		
					200 mm	300 mm	400 mm
NANO DC	-	-	1,5 m 2 wires	SILVER ANODIZED	41944Z	41947C	41950F
				BLACK RAL 9005	41945A	41948D	41951G
				WHITE RAL 9010	41946B	41949E	41952H
				SILVER ANODIZED	41953I	41956L	41959O
				BLACK RAL 9005	41954J	41957M	41960P
				WHITE RAL 9010	41955K	41958N	41961Q
SYNCHRO NANO DC	Yes	open/close	not provided, order separately	SILVER ANODIZED	41962R	41965U	41968X
				BLACK RAL 9005	41963S	41966V	41969Y
				WHITE RAL 9010	41964T	41967W	41970Z
				SILVER ANODIZED	41971A	41974D	41977G
				BLACK RAL 9005	41972B	41975E	41978H
				WHITE RAL 9010	41973C	41976F	41979I
SYNCHRO NANO DC F-SIGNAL	Yes	free potential open/close	not provided, order separately	SILVER ANODIZED	41980J	41983M	41986P
				BLACK RAL 9005	41981K	41984N	41987Q
				WHITE RAL 9010	41982L	41985O	41988R
				SILVER ANODIZED	41989S	41992V	41995Y
				BLACK RAL 9005	41990T	41993W	41996Z
				WHITE RAL 9010	41991U	41994X	41997A

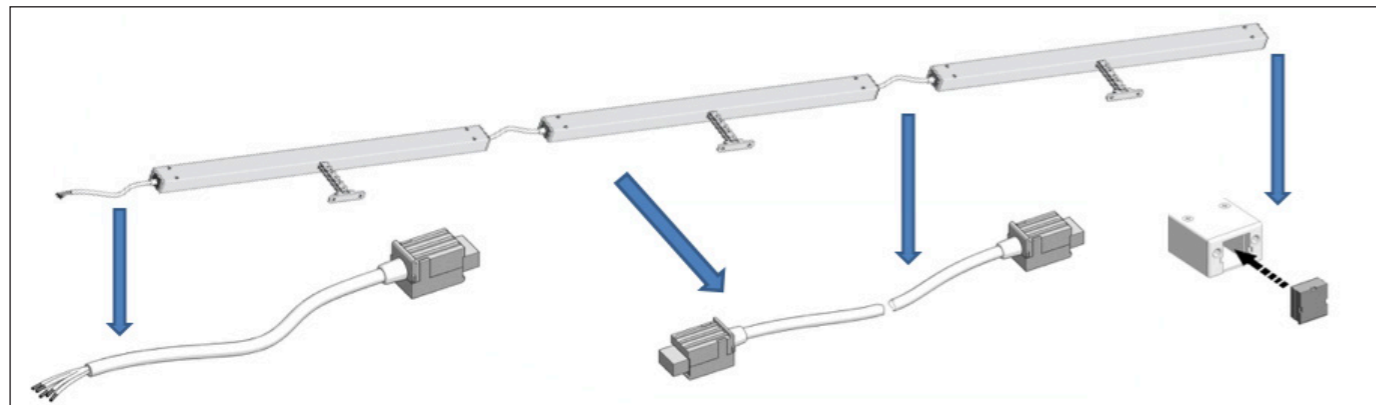
NOTE: brackets, not included - to be ordered separately



Actuators dimensions



Accessories - Electrical connectors and cables



42016T Electrical Connector with 1,5 m cable (white) for SYNCHRO NANO DC

42018V Cable with 2 connectors (1m, white) for installations of 2 x SYNCHRO NANO DC actuators.

42017U Electrical Connector with 1,5 m cable (black) for SYNCHRO NANO DC

42019W Cable with 2 connectors (1m, black) for installations of 2 x SYNCHRO NANO DC actuators.

⚠ The instructions for a safe installation are included in the section "SECURITY WARNINGS"

SPECIFICATION PROSPECTS

Electric chain actuator Ultraflex Control Systems named Synchro Nano DC with chain in double stainless-steel links. High performance (400 N) in very small case (24 x 35 mm). Voltage supply: 24 Vdc. Electronic stop in the intermediate positions in case of overload. Integrated speed synchronization, suitable for mounting up to 4 actuators on the same vent. When "free potential open/close feedback" is required, indicate suffix "F-SIGNAL".

Installation examples

Outward



Top hinged windows



Top hinged windows, two Synchro actuators



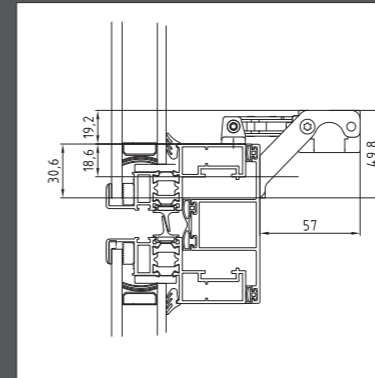
Side hinged windows



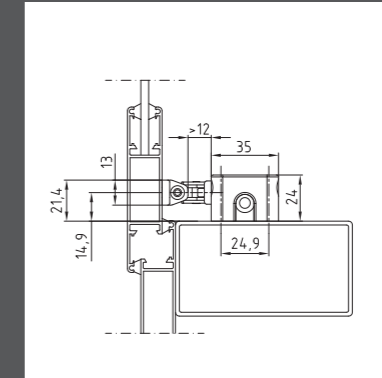
Roof windows



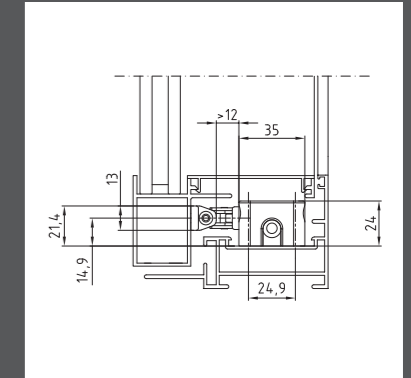
Parallel windows



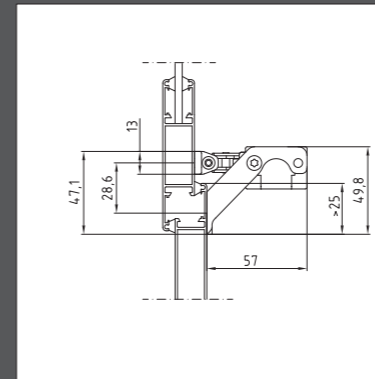
Concealed vent with front bracket with connector part no. 48143L



On windowsill with side brackets



Integrated into window profiles with side brackets



With front brackets

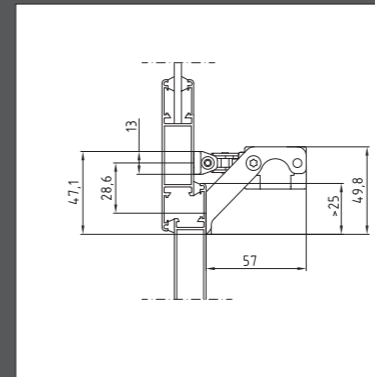
Inward



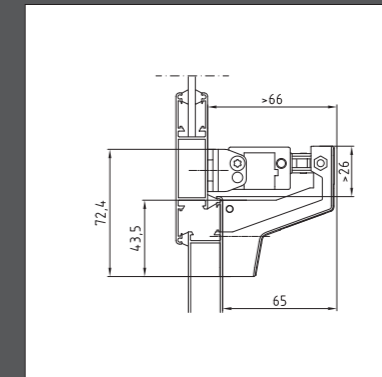
Bottom hinged windows



Side hinged windows

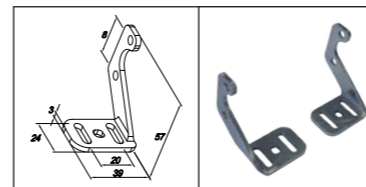


On the vent with front brackets

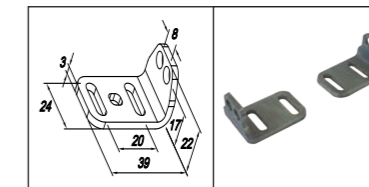


On the frame with back brackets and aluminum "Z" bracket

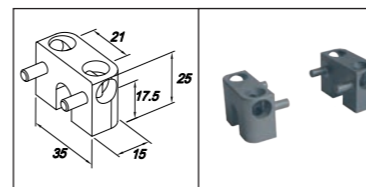
Accessories - Brackets



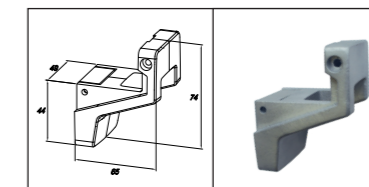
Front bracket kit:
GREY part no. 41935Q
BLACK part no. 41936R
WHITE part no. 41937S



Back bracket kit:
GREY part no. 41932N
BLACK part no. 41933O
WHITE part no. 41934P



Side bracket kit:
GREY part no. 41938T
BLACK part no. 41939U
WHITE part no. 41940V



Aluminum bracket for bottom hinged windows:
GREY part no. 41941W
BLACK part no. 41942X
WHITE part no. 41943Y

SPECIAL VERSION:

NANO FLEX - UP TO 90 DEGREE OPENING

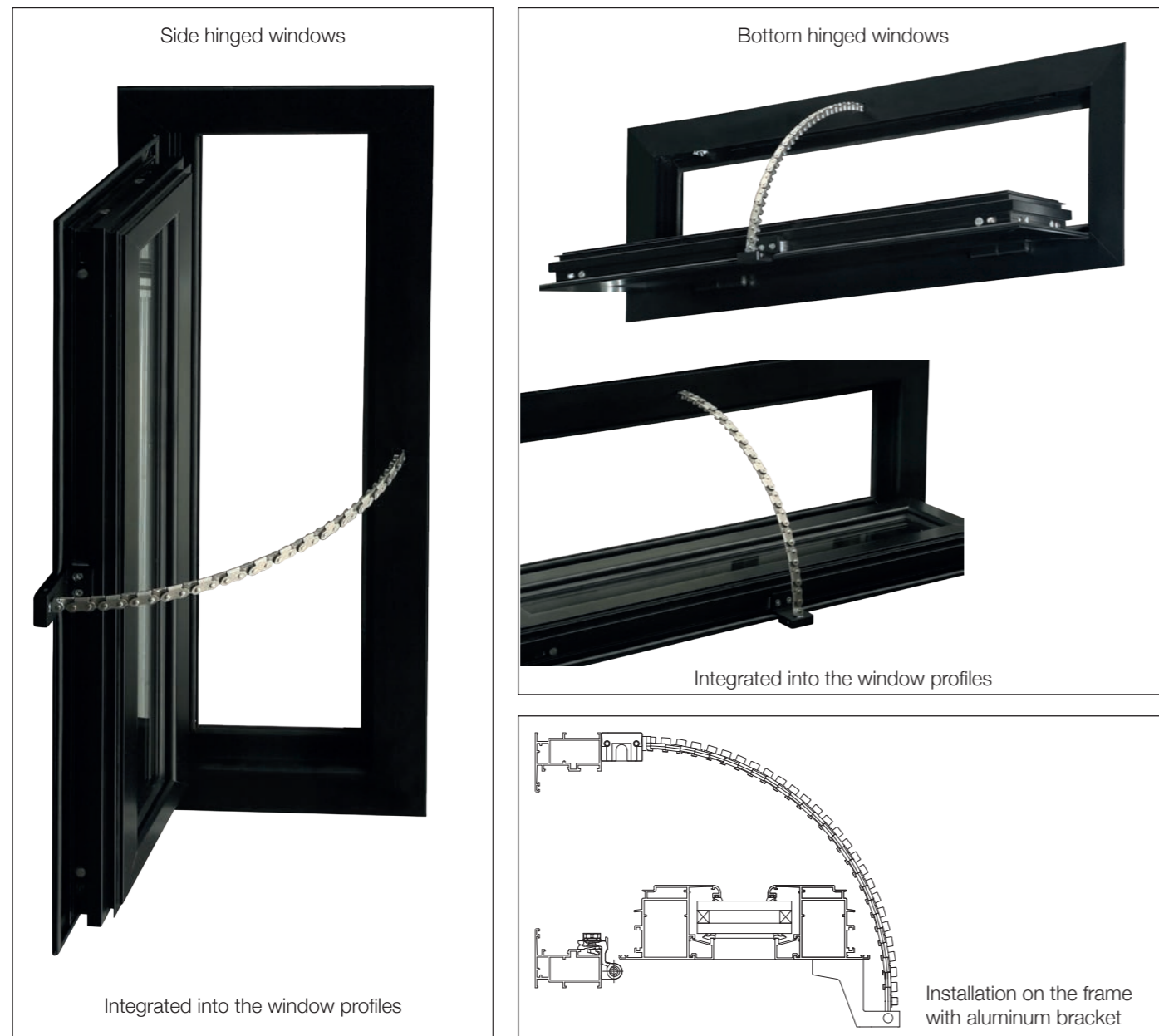
The need to increase the opening angle of many currently manufactured vents is becoming very important for improving the flow of fresh air for natural ventilation and smoke and heat extraction for life safety.

High narrow opening windows are becoming very popular and are implemented into the façade panel, as well as small bottom hinged windows, opening inward, with maximized opening angle.

NANO FLEX chain actuator has been equipped with a flexible chain allowing a wide opening angle according to the window size, up to 90 degrees.

MAIN FEATURES

- Flexible chain in stainless steel, available up to 400mm.
- Suitable for bottom and side hung windows, inwards opening, with pivoting hinges.
- Minimum distance from the hinges 170mm.
- Suitable for being concealed into aluminium profile with minimal chain connector.
- Suitable for installation with the additional locking device E-LOCK.
- NANO FLEX is available in three different version: DC, Synchro DC and BMSline.
- Brackets can be customised according to the aluminum profile system.



NANO SPECIAL APPLICATION:

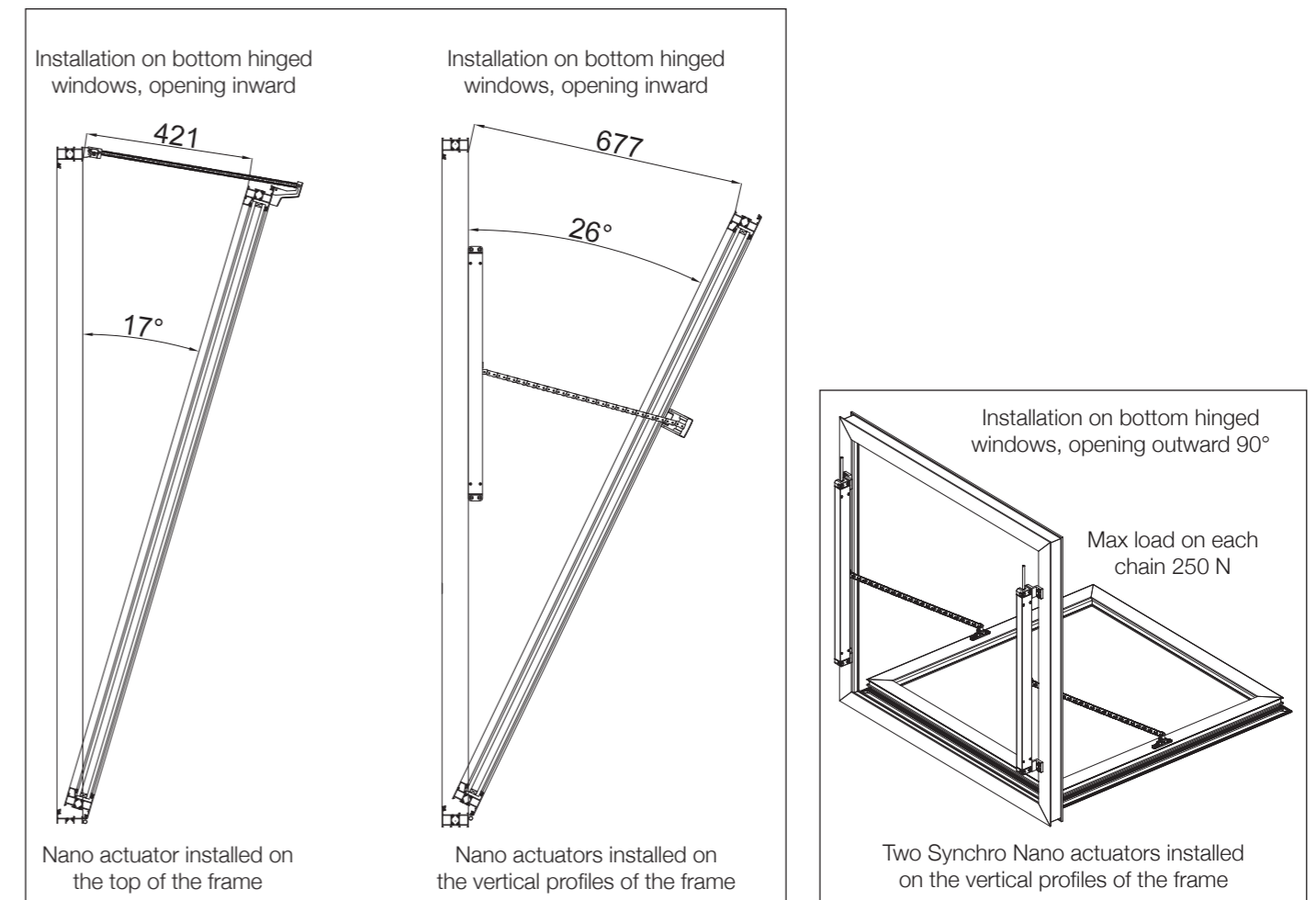
NANO DRAW BRIDGE

Especially for smoke ventilation, wide opening angle represents a big advantage in order to reduce the number of openable windows, according to the required geometrical free area.

NANO SYNCHRO has been designed for installation in draw bridge configuration, increasing the opening angle up to 90°, taking in consideration the window size and weight.

NANO SYNCHRO can be installed in draw bridge configuration on bottom hung windows opening inwards or outwards.

INSTALLATION EXAMPLES



Contact our Technical Department for the installation limits (size and weight of window) and brackets for actuator installation (depending on type of profile)

Contact our Technical Department for the installation limits (size and weight of window) and brackets for actuator installation (depending on type of profile)