OVERVIEW OF SPINDLE DRIVES

Type	Form	Model		Stroke	Force		Speed		Stroke in	Cut-off current	Use			Loca-tion		Functions		
		Type of cut-off	Rated voltage	Range	Pushing force	Pulling force	OPEN	CLOSE	60 s	Max.	Natural ventilation	SHEV	NSHEV	Facade	Roof	Run monitoring	Synchronised run	Sequence control
			[VDC]	[mm]	[N]	[N]	[mm/s]	[mm/s]	[mm]	[A]								
PLA	PLA6	S3	24	100–1000	600	600	6,0	6,0	350	0,8	●	●	●	■	●	●		●
		S12		100–1000	600	600	6,0	6,0	350	0,8	●	●	●	■	●	●	●	●
	PLA8	S3	24	100–1000	800	800	10,0	10,0	600	1,4	●	●	●	■	●	●		●
		S12		100–1000	800	800	10,0	10,0	600	1,4	●	●	●	■	●	●	●	●
	PLA10	S12	24	100–1000	1000	1000	12,6	12,6	750	2,5	●	●	●	■	●	●	●	●
	PLA101	S3	24	100–1000	1000	1000	4,6	4,6	250	1,0	●	●	●	■	●	●		●
		S12		100–1000	1000	1000	4,6	4,6	250	1,0	●	●	●	■	●	●	●	●
	PLA16	S12		100–1000	1600	1600	7,0	7,0	400	2,5	●	●	●	■	●	●	●	●
	PLA116	S3	24	100–750	1600	1600	4,0	4,0	240	1,2	●	●	●	■	●	●		●
		S12		100–750	1600	1600	4,0	4,0	240	1,2	●	●	●	■	●	●	●	●
PLS	PLS15	S12	24	300–1000	1500	1500	16,0	16,0	950	4,0	●	●	●	■	●	●	●	●
	PLS30	S12	24	300–1000	3000	2000	7,8	7,8	450	5,0	●	●	●	■	●	●	●	●
	PLS50	S12	24	200–750	5000	5000	4,0	4,0	240	4,2	●	●	●	■	●	●	●	●
SP	SP8	S2	24	100–750	800	800	7,0	7,0	400	1,0	●	●		■	●	○		○
		S2	230	300–750	800	800	7,0	7,0	400	0,2	●			■	●			

LEGEND

● suitable ■ not recommended

S2 internal load dependend cut-off switch

S3 internal load dependend cut-off switch, post cycle resistant, programmable for motion monitoring (up to 300 mm stroke) and sequence control

S12 internal intelligent cut-off switch for synchronised run and programmable functions

○ only with external modules (cut-off switch system, synchronisation module, sequence control module)

PLA SPINDLE DRIVES

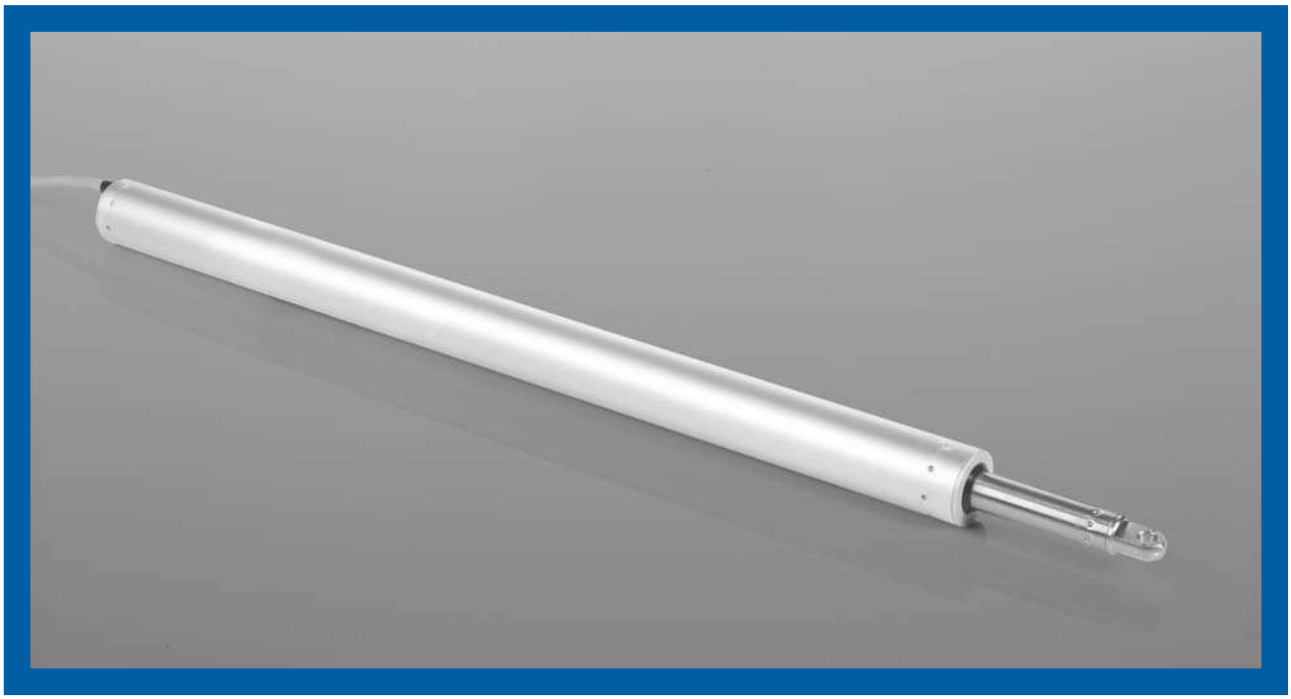
- Model: 24V DC, S3 und S12
- Pulling force: 600–1600 N (type depending)
- Stroke length: 100–1000 mm
- Speed: 4,0–12,5 mm/s (type depending)
- Housing (DxL): D=36 mm, length depends on stroke
- Opening mechanism: stainless steel spindle tube
- Versions: SOLO, Tandem, Synchro
- Protection rating: IP65

PLS SPINDLE DRIVES

- Model: 24V DC, S12
- Pulling force: 1500–5000 N
- Stroke length: 300–1200 mm
- Speed: 4,0–17,0 mm/s (type depending)
- Housing (DxL): D=50/(60) mm, length depends on stroke
- Opening mechanism: stainless steel spindle tube
- Versions: SOLO, Tandem, Synchro
- Protection rating: IP54

SP SPINDLE DRIVES

- Model: 24V DC, S2/230V AC, S2
- Pulling force: 800 N
- Stroke length: 100–750 mm (230V AC: 300–750)
- Speed: 8,5 mm/s
- Housing (DxL): 43x76 mm, length depends on stroke
- Opening mechanism: aluminium spindle tube
- Versions: SOLO, Z with feedback contact
- Protection rating: IP54/IP65

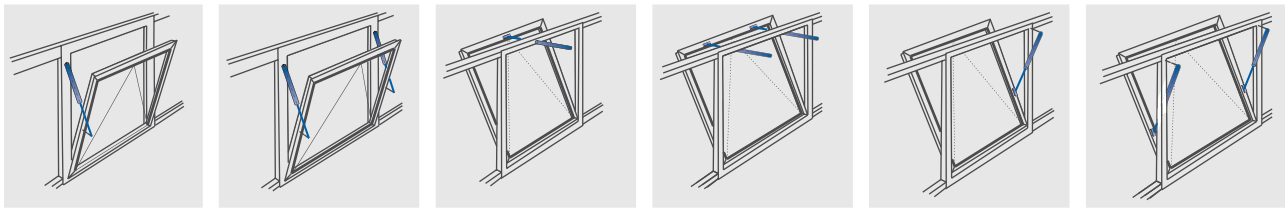


SPECIAL FEATURES PLA

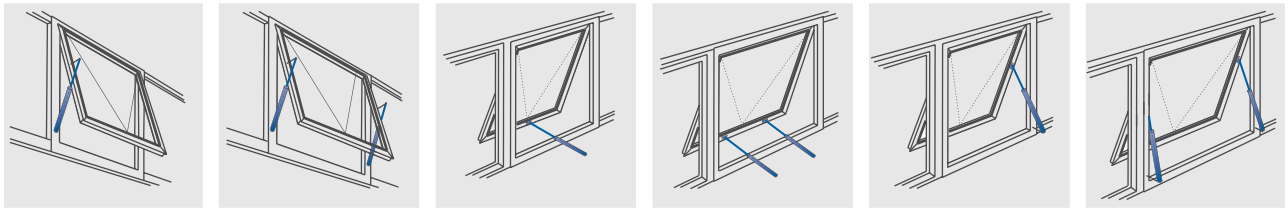
- For natural ventilation, smoke and heat exhausting and ferralux® NSHEV (EN12101-2)
- Robust corrosion-resistant design in a slim aluminium housing (D = 36 mm)
- Easy installation due to adjustable clamp ring and rear suspension
- Stainless steel spindle and spindle tube, ball beared with end position dampening
- Programmable parameters of intelligent S12 electronic cut-off switch
  - Synchronised multi-operation and sequence control without add. devices
  - Electronic soft-start, soft-close and soft-stop at end of stroke control
  - Stroke, force, speed
  - Rebate control

FACADE

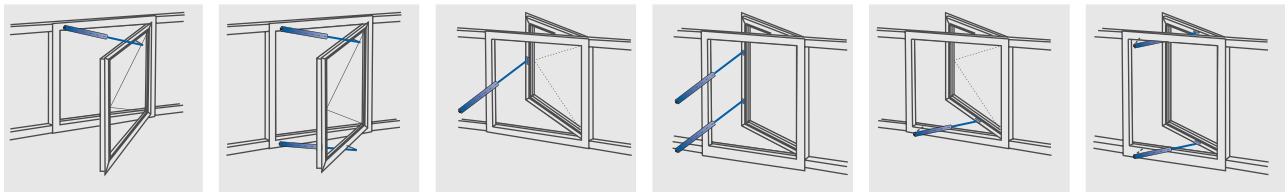
Bottom-hung



Top-hung

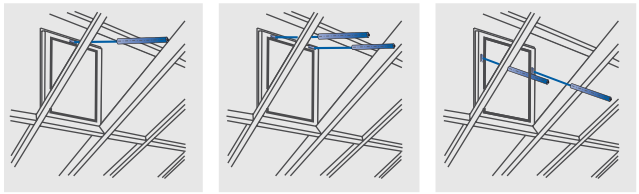


Side-hung

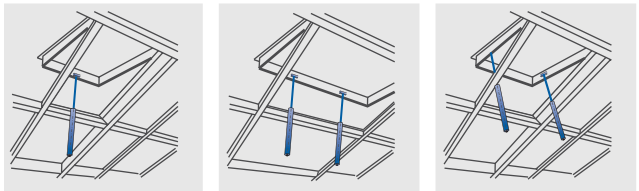


ROOF

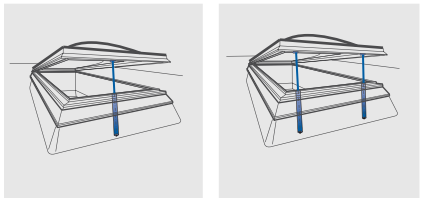
Bottom-hung



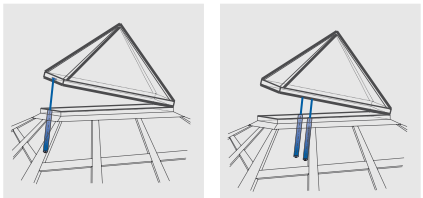
Top-hung



Sky light



Glass pyramid



OVERVIEW OF SPINDLE DRIVES

Type	Form	Model		Stroke	Force		Speed		Stroke in	Cut-off current	Use			Loca-tion		Functions		
		Type of cut-off	Rated voltage	Range	Pushing force	Pulling force	OPEN	CLOSE	60 s	Max.	Natural ventilation	SHEV	NSHEV	Facade	Roof	Run monitoring	Synchronised run	Sequence control
			[VDC]	[mm]	[N]	[N]	[mm/s]	[mm/s]	[mm]	[A]								
PLA	PLA6	S3	24	100–1000	600	600	6,0	6,0	350	0,8	●	●	●	■	●	●		●
		S12		100–1000	600	600	6,0	6,0	350	0,8	●	●	●	■	●	●	●	●
	PLA8	S3	24	100–1000	800	800	10,0	10,0	600	1,4	●	●	●	■	●	●		●
		S12		100–1000	800	800	10,0	10,0	600	1,4	●	●	●	■	●	●	●	●
	PLA10	S12	24	100–1000	1000	1000	12,6	12,6	750	2,5	●	●	●	■	●	●	●	●
	PLA101	S3	24	100–1000	1000	1000	4,6	4,6	250	1,0	●	●	●	■	●	●		●
		S12		100–1000	1000	1000	4,6	4,6	250	1,0	●	●	●	■	●	●	●	●
	PLA16	S12		100–1000	1600	1600	7,0	7,0	400	2,5	●	●	●	■	●	●	●	●
	PLA116	S3	24	100–750	1600	1600	4,0	4,0	240	1,2	●	●	●	■	●	●		●
		S12		100–750	1600	1600	4,0	4,0	240	1,2	●	●	●	■	●	●	●	●
PLS	PLS15	S12	24	300–1000	1500	1500	16,0	16,0	950	4,0	●	●	●	■	●	●	●	●
	PLS30	S12	24	300–1000	3000	2000	7,8	7,8	450	5,0	●	●	●	■	●	●	●	●
	PLS50	S12	24	200–750	5000	5000	4,0	4,0	240	4,2	●	●	●	■	●	●	●	●
SP	SP8	S2	24	100–750	800	800	7,0	7,0	400	1,0	●	●		■	●	○		○
		S2	230	300–750	800	800	7,0	7,0	400	0,2	●			■	●			

LEGEND

● suitable ■ not recommended

S2 internal load dependend cut-off switch

S3 internal load dependend cut-off switch, post cycle resistant, programmable for motion monitoring (up to 300 mm stroke) and sequence control

S12 internal intelligent cut-off switch for synchronised run and programmable functions

○ only with external modules (cut-off switch system, synchronisation module, sequence control module)

PLA SPINDLE DRIVES

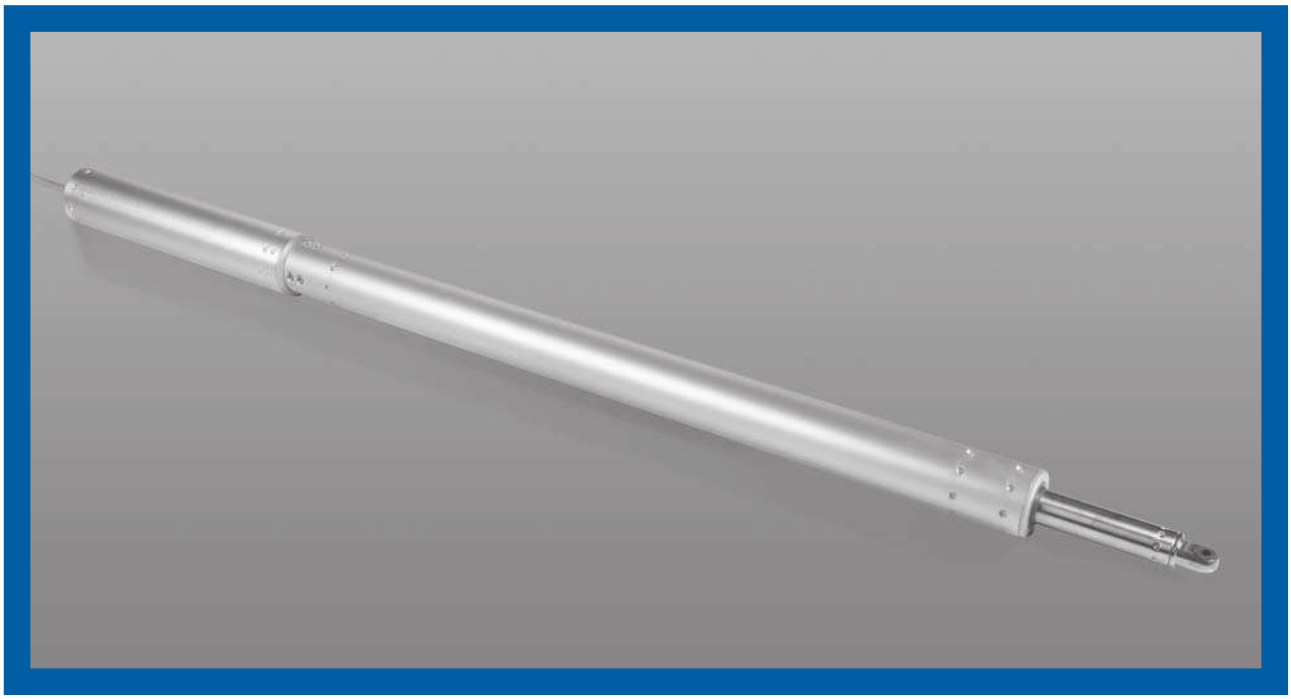
- Model: 24V DC, S3 und S12
- Pulling force: 600–1600 N (type depending)
- Stroke length: 100–1000 mm
- Speed: 4,0–12,5 mm/s (type depending)
- Housing (DxL): D=36 mm, length depends on stroke
- Opening mechanism: stainless steel spindle tube
- Versions: SOLO, Tandem, Synchro
- Protection rating: IP65

PLS SPINDLE DRIVES

- Model: 24V DC, S12
- Pulling force: 1500–5000 N
- Stroke length: 300–1200 mm
- Speed: 4,0–17,0 mm/s (type depending)
- Housing (DxL): D=50/(60) mm, length depends on stroke
- Opening mechanism: stainless steel spindle tube
- Versions: SOLO, Tandem, Synchro
- Protection rating: IP54

SP SPINDLE DRIVES

- Model: 24V DC, S2/230V AC, S2
- Pulling force: 800 N
- Stroke length: 100–750 mm (230V AC: 300–750)
- Speed: 8,5 mm/s
- Housing (DxL): 43x76 mm, length depends on stroke
- Opening mechanism: aluminium spindle tube
- Versions: SOLO, Z with feedback contact
- Protection rating: IP54/IP65

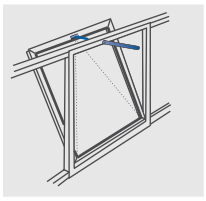
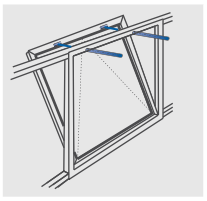


SPECIAL FEATURES PLS

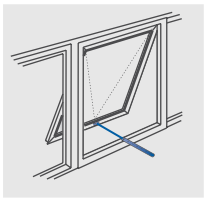
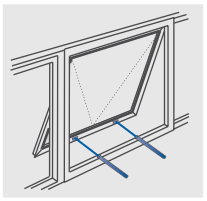
- For natural ventilation, smoke and heat exhausting and ferralux® NSHEV (EN12101-2)
- Powerful heavy duty drives for loads up to 5000 N
- Robust corrosion-resistant design in aluminium housing (D = 50 mm)
- Easy installation due to adjustable clamp ring (Rear suspension on request)
- Stainless steel spindle, ball beared with end position dampening and gentle soft-start and soft-stop mode
- Programmable parameters of intelligent S12 electronic cut-off switch
  - Synchronised multi-operation and sequence control without add. devices
  - Electronic soft-start, soft-close and soft-stop at end of stroke control
  - Stroke, force, speed
  - Rebate control

FACADE

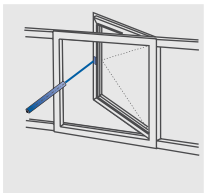
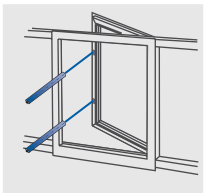
Bottom-hung

Top-hung

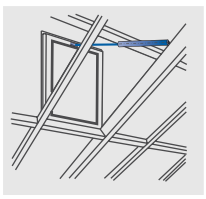
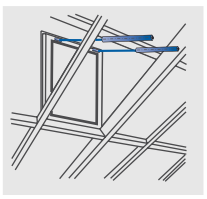
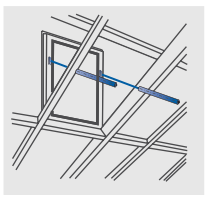



Side-hung

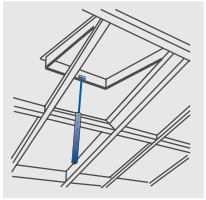
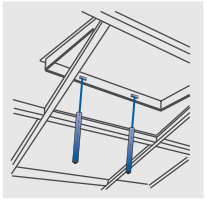
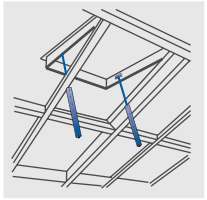



ROOF

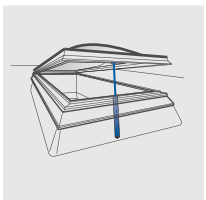
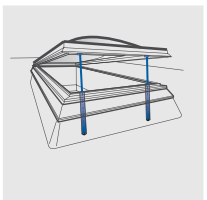
Bottom-hung

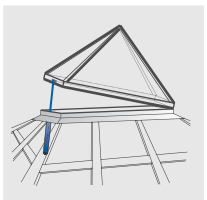
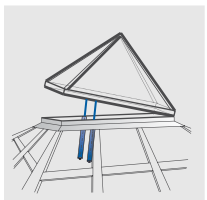
Top-hung

Skylight

Glass pyramid

OVERVIEW OF SPINDLE DRIVES

Type	Form	Model		Stroke	Force		Speed		Stroke in	Cut-off current	Use			Loca-tion		Functions		
		Type of cut-off	Rated voltage	Range	Pushing force	Pulling force	OPEN	CLOSE	60 s	Max.	Natural ventilation	SHEV	NSHEV	Facade	Roof	Run monitoring	Synchronised run	Sequence control
			[VDC]	[mm]	[N]	[N]	[mm/s]	[mm/s]	[mm]	[A]								
PLA	PLA6	S3	24	100–1000	600	600	6,0	6,0	350	0,8	●	●	●	■	●	●		●
		S12		100–1000	600	600	6,0	6,0	350	0,8	●	●	●	■	●	●	●	●
	PLA8	S3	24	100–1000	800	800	10,0	10,0	600	1,4	●	●	●	■	●	●		●
		S12		100–1000	800	800	10,0	10,0	600	1,4	●	●	●	■	●	●	●	●
	PLA10	S12	24	100–1000	1000	1000	12,6	12,6	750	2,5	●	●	●	■	●	●	●	●
	PLA101	S3	24	100–1000	1000	1000	4,6	4,6	250	1,0	●	●	●	■	●	●		●
		S12		100–1000	1000	1000	4,6	4,6	250	1,0	●	●	●	■	●	●	●	●
	PLA16	S12		100–1000	1600	1600	7,0	7,0	400	2,5	●	●	●	■	●	●	●	●
	PLA116	S3	24	100–750	1600	1600	4,0	4,0	240	1,2	●	●	●	■	●	●		●
		S12		100–750	1600	1600	4,0	4,0	240	1,2	●	●	●	■	●	●	●	●
PLS	PLS15	S12	24	300–1000	1500	1500	16,0	16,0	950	4,0	●	●	●	■	●	●	●	●
	PLS30	S12	24	300–1000	3000	2000	7,8	7,8	450	5,0	●	●	●	■	●	●	●	●
	PLS50	S12	24	200–750	5000	5000	4,0	4,0	240	4,2	●	●	●	■	●	●	●	●
SP	SP8	S2	24	100–750	800	800	7,0	7,0	400	1,0	●	●		■	●	○		○
		S2	230	300–750	800	800	7,0	7,0	400	0,2	●			■	●			

LEGEND

● suitable ■ not recommended

S2 internal load dependend cut-off switch

S3 internal load dependend cut-off switch, post cycle resistant, programmable for motion monitoring (up to 300 mm stroke) and sequence control

S12 internal intelligent cut-off switch for synchronised run and programmable functions

○ only with external modules (cut-off switch system, synchronisation module, sequence control module)

PLA SPINDLE DRIVES

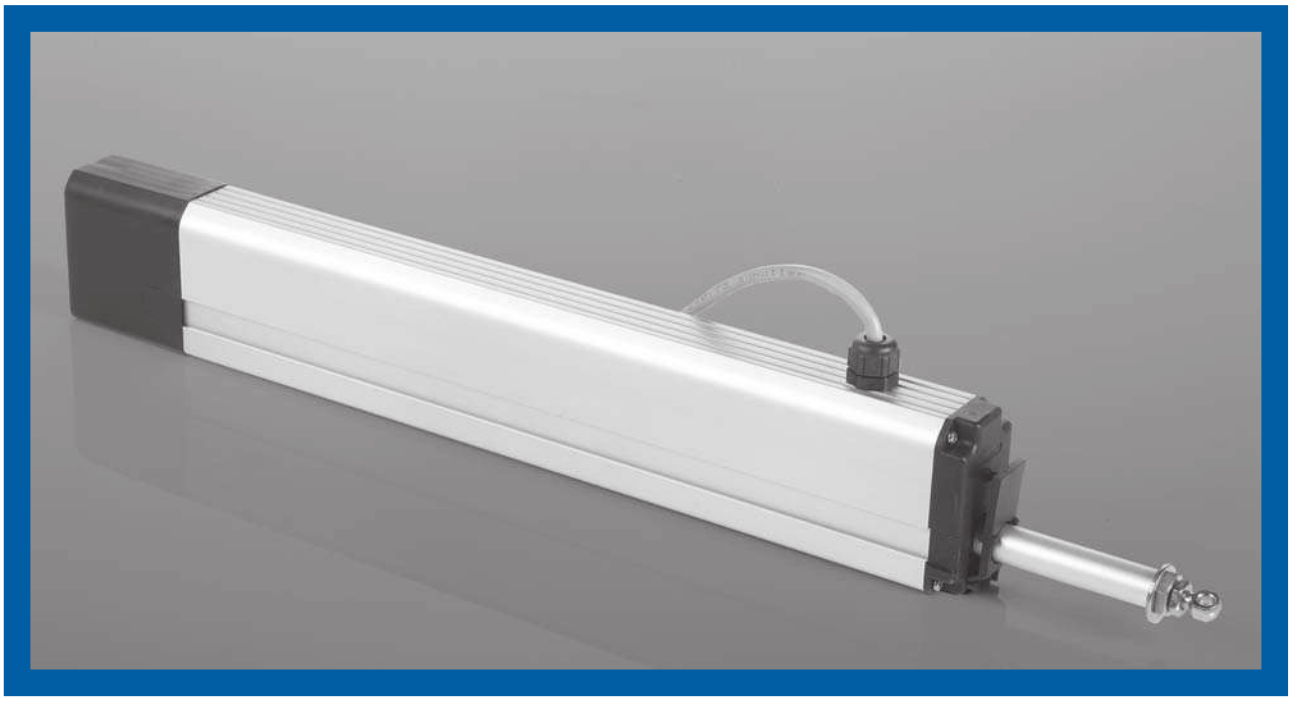
- Model: 24V DC, S3 und S12
- Pulling force: 600–1600 N (type depending)
- Stroke length: 100–1000 mm
- Speed: 4,0–12,5 mm/s (type depending)
- Housing (DxL): D=36 mm, length depends on stroke
- Opening mechanism: stainless steel spindle tube
- Versions: SOLO, Tandem, Synchro
- Protection rating: IP65

PLS SPINDLE DRIVES

- Model: 24V DC, S12
- Pulling force: 1500–5000 N
- Stroke length: 300–1200 mm
- Speed: 4,0–17,0 mm/s (type depending)
- Housing (DxL): D=50/(60) mm, length depends on stroke
- Opening mechanism: stainless steel spindle tube
- Versions: SOLO, Tandem, Synchro
- Protection rating: IP54

SP SPINDLE DRIVES

- Model: 24V DC, S2/230V AC, S2
- Pulling force: 800 N
- Stroke length: 100–750 mm (230V AC: 300–750)
- Speed: 8,5 mm/s
- Housing (DxL): 43x76 mm, length depends on stroke
- Opening mechanism: aluminium spindle tube
- Versions: SOLO, Z with feedback contact
- Protection rating: IP54/IP65

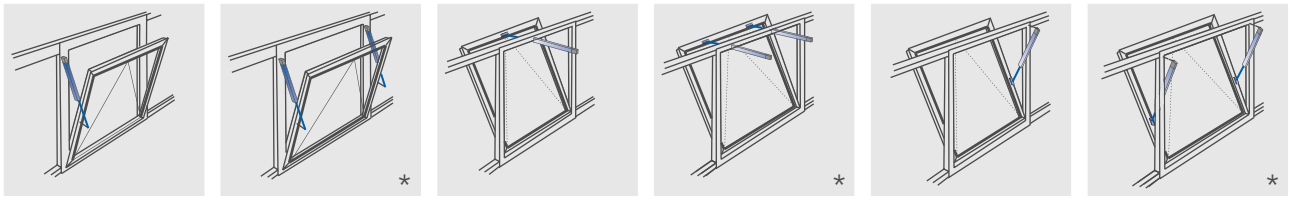


SPECIAL FEATURES SP

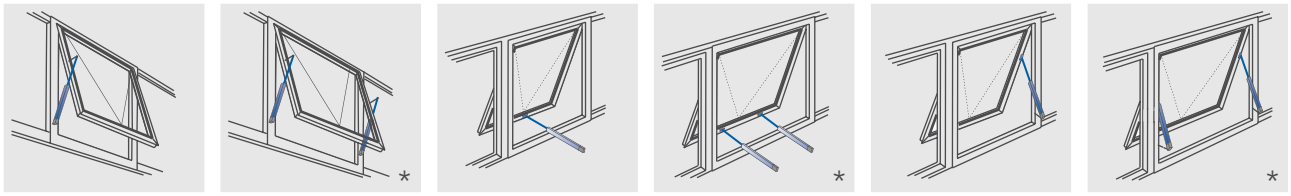
- For natural ventilation, smoke and heat exhausting systems
- Robust corrosion-resistant design
- Aluminium housing anodized finish with plastic end caps
- Easy installation due to lateral dovetail guidence
- Phosphated steel spindle, aluminium spindle tube anodised finisch, damped end positions
- Available in 24 V DC and 230 V AC

FACADE

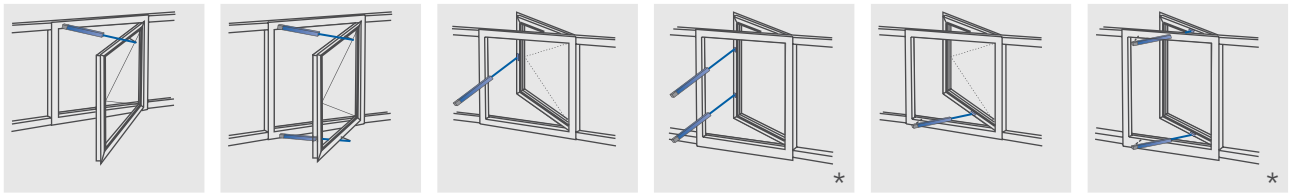
Bottom-hung



Top-hung

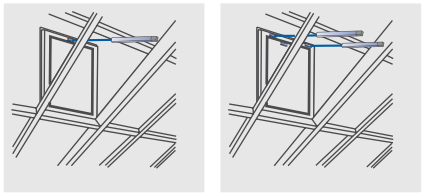


Side-hung

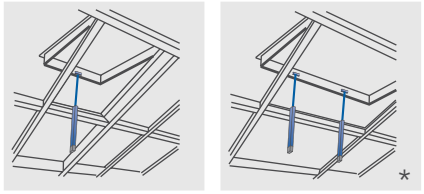


ROOF

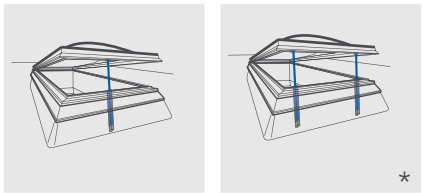
Bottom-hung



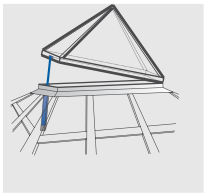
Top-hung



Skylight



Glass pyramid



* Monitored motion run up to s = 300 mm with USKM (Controll modul Part.-No.: 512140)