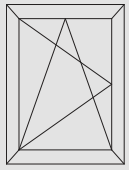
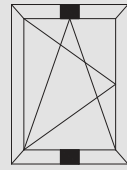
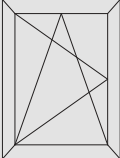
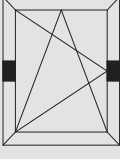
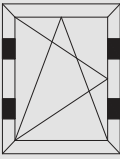


Inward opening
Turn/tilt fittings max. 130 kg – surface mounted

R-540 AL EG
R-540 AL GG

see diagrams:
4100 / 4102 / 4104 / 4106 /
4108 / 4110 / 4112 / 4114

								UV
		Stay 400 mm		Stay 600 mm		Stay 600 mm		
		DIN R	DIN L	DIN R	DIN L	DIN R	DIN L	
		No.	No.	No.	No.	No.	No.	
	DK basic fitting							
	Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
	White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
	RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK additional width stay	/	/	/	/	293955 ²	293955 ²	10 pc(s)
	Central fastener set horizontal	/	/	/	/	293953	293953	10 pc(s)
	Turn restrictor set with brake	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	10 pc(s)
	Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
	DK basic fitting							
	Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
	White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
	RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK additional width stay	/	/	/	/	293955 ²	293955 ²	10 pc(s)
	Central fastener set horizontal	/	/	/	/	293953	293953	10 pc(s)
	Central fastener set vertical	293953	293953	293953	293953	293953	293953	10 pc(s)
	Turn restrictor set with brake	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	DK basic fitting							
	Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
	White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
	RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK additional width stay	/	/	/	/	293955 ²	293955 ²	10 pc(s)
	Central fastener set horizontal	/	/	/	/	293953	293953	10 pc(s)
	Central fastener set vertical	293953	293953	293953	293953	293953	293953	10 pc(s)
	Additional vertical locking	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)
Turn restrictor set with brake	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

² Additional width stay for sash width ≥ 1300 mm.

¹⁰ Reinforcement for sash weight > 90 kg.

¹⁸ Optional turn restrictor set
– Minimum sash width 501 mm, max. opening angle 90° for sash width 405 – 500 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²¹ Alternatively:
– 291500 Damped opening restrictor 90 kg
– Minimum sash width 470 mm for max. opening angle (88°) or
– 291501 Damped opening restrictor 130 kg
– Minimum sash width 610 mm for max. opening angle (88°), for additional horizontal locking
– Minimum sash width 1200 mm for max. opening angle (88°).
– Larger sash widths are required for smaller opening angles.

⁵⁰ Not possible with 90 WB-T.

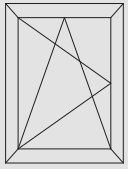
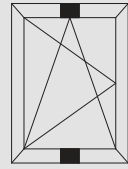
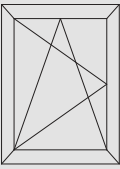
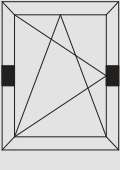
■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865 ⁵⁰	10 pc(s)	Additional geared handle, see product range

Inward opening
Turn/tilt fittings max. 130 kg – surface mounted WK2

R-540 AL EG WK2
R-540 AL GG WK2

see diagrams:
4102 / 4104 / 4106 / 4108 /
4110 / 4112 / 4114

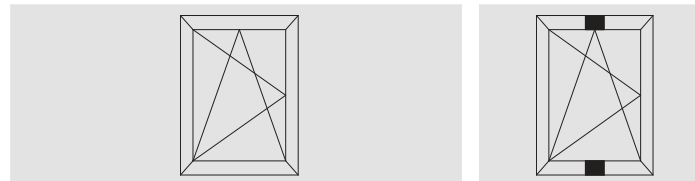
							UV	
	Stay 400 mm		Stay 600 mm		Stay 600 mm			
	DIN R	DIN L	DIN R	DIN L	DIN R	DIN L		
	No.	No.	No.	No.	No.	No.		
	DK basic fitting							
	Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
	White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
	RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK additional width stay	/	/	/	/	293955 ²	293955 ²	10 pc(s)
	Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)
	Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
	SEC locking set	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	10 pc(s)
	Screws for fixation SEC locking set	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	100 pc(s)
	Riveting nut for fixation SEC locking set	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	100 pc(s)
SEC rebate clearance reduction set	293051	293051	293051	293051	293051	293051	10 pc(s)	
SEC corner drive set	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	20 pc(s)	
	DK basic fitting							
	Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
	White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
	RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK additional width stay	/	/	/	/	293955 ²	293955 ²	10 pc(s)
	Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)
	Additional vertical locking	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)
	Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
	SEC locking set	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	10 pc(s)
	Screws for fixation SEC locking set	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	100 pc(s)
Riveting nut for fixation SEC locking set	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	100 pc(s)	
SEC rebate clearance reduction set	293051	293051	293051	293051	293051	293051	10 pc(s)	
SEC corner drive set	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	20 pc(s)	

The table ist continued on the next page!

Inward opening
Turn/tilt fittings max. 130 kg – surface mounted WK2

R-540 AL EG WK2
R-540 AL GG WK2

see diagrams:
4102 / 4104 / 4106 / 4108 /
4110 / 4112 / 4114



	Stay 400 mm		Stay 600 mm		Stay 600 mm		UV
	DIN R	DIN L	DIN R	DIN L	DIN R	DIN L	
	No.	No.	No.	No.	No.	No.	
DK basic fitting							
Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
DK stay							
Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
DK additional width stay	/	/	/	/	293955 ²	293955 ²	10 pc(s)
Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)
Additional vertical locking	4x 293954	4x 293954	4x 293954	4x 293954	4x 293954	4x 293954	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
SEC locking set	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	10 pc(s)
Screws for fixation SEC locking set	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	100 pc(s)
Riveting nut for fixation SEC locking set	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	100 pc(s)
SEC rebate clearance reduction set	293051	293051	293051	293051	293051	293051	10 pc(s)
SEC corner drive set	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	20 pc(s)

² Additional width stay for sash width \geq 1300 mm.

¹⁰ Reinforcement for sash weight > 90 kg.

²⁰ Up to sash width < 804 mm 5x, from sash width \geq 805 mm 7x.

⁴¹ Up to sash width < 804 mm 10x, from sash width \geq 805 mm 14x.

⁵⁰ Not possible with 90 WB-T.

■ Gear

Article	No.	UV	Note
SEC flush encased gear box	293063	10 pc(s)	Additional window handle, lockable according to DIN V ENV 1627 - 1630, see product range
SEC geared-handle protection set	293065 ⁵⁰	10 pc(s)	Additional geared handle, lockable according to DIN V ENV 1627 - 1630, see product range

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

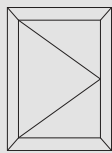
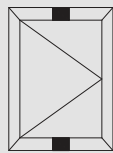
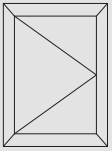
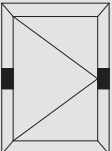
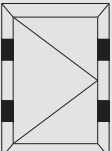
Turn fittings max. 130 kg – surface mounted

R-540 AL DK EG R-540 AL DK GG

see diagrams:

4100 / 4102 / 4104 / 4106 /

4108 / 4110 / 4112 / 4114

								UV
		Turn/tilt fitting, tilt position locked Stay 400 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		
		DIN R	DIN L	DIN R	DIN L	DIN R	DIN L	
		No.	No.	No.	No.	No.	No.	
	D-DK basic fitting							
	Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
	White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
	RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
	D-DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	Gear lock	293868	293868	293868	293868	293867	293867	10 pc(s)
	Central fastener set horizontal	/	/	/	/	293953	293953	10 pc(s)
Turn restrictor set with brake	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	D-DK basic fitting							
	Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
	White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
	RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
	D-DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	Gear lock	293868	293868	293868	293868	293867	293867	10 pc(s)
	Central fastener set horizontal	/	/	/	/	293953	293953	10 pc(s)
Central fastener set vertical	293953	293953	293953	293953	293953	293953	10 pc(s)	
Turn restrictor set with brake	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	D-DK basic fitting							
	Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
	White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
	RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
	D-DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	Gear lock	293868	293868	293868	293868	293867	293867	10 pc(s)
	Central fastener set horizontal	/	/	/	/	293953	293953	10 pc(s)
Central fastener set vertical	293953	293953	293953	293953	293953	293953	10 pc(s)	
Additional vertical locking	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)	
Turn restrictor set with brake	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	293990 ^{18, 21}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

² Additional width stay for sash width ≥ 1300 mm.

¹⁰ Reinforcement for sash weight > 90 kg.

¹⁸ Optional turn restrictor set
– Minimum sash width 501 mm, max. opening angle 90° for sash width 405 – 500 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²¹ Alternatively:
– 291500 Damped opening restrictor 90 kg
– Minimum sash width 470 mm for max. opening angle (88°) or
– 291501 Damped opening restrictor 130 kg
– Minimum sash width 610 mm for max. opening angle (88°), for additional horizontal locking
– Minimum sash width 1265 mm for max. opening angle (88°).
– Larger sash widths are required for smaller opening angles.

⁵⁰

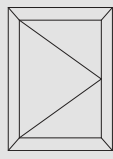
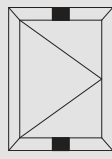
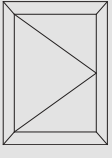
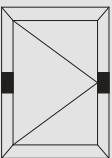
■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865 ⁵⁰	10 pc(s)	Additional geared handle, see product range

Inward opening
Turn fittings max. 130 kg – surface mounted WK2

R-540 AL DK EG WK2
R-540 AL DK GG WK2

see diagrams:
4102 / 4104 / 4106 / 4108 /
4110 / 4112 / 4114

							UV	
	Turn/tilt fitting, tilt position locked Stay 400 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		Turn/tilt fitting, tilt position locked Stay 600 mm			
	DIN R	DIN L	DIN R	DIN L	DIN R	DIN L		
	No.	No.	No.	No.	No.	No.		
	D-DK basic fitting							
	Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
	White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
	RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
	D-DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	Gear lock	293867	293867	293867	293867	293867	293867	10 pc(s)
	Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)
	Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
	SEC locking set	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	10 pc(s)
	Screws for fixation SEC locking set	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	100 pc(s)
	Riveting nut for fixation SEC locking set	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	100 pc(s)
SEC rebate clearance reduction set	293051	293051	293051	293051	293051	293051	10 pc(s)	
SEC corner drive set	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	20 pc(s)	
	D-DK basic fitting							
	Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
	White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
	RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
	D-DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	Gear lock	293867	293867	293867	293867	293867	293867	10 pc(s)
	Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)
	Additional vertical locking	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)
	Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
	SEC locking set	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	10 pc(s)
	Screws for fixation SEC locking set	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	100 pc(s)
Riveting nut for fixation SEC locking set	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	100 pc(s)	
SEC rebate clearance reduction set	293051	293051	293051	293051	293051	293051	10 pc(s)	
SEC corner drive set	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	20 pc(s)	

The table ist continued on the next page!

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

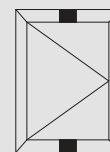
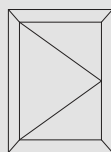
Turn fittings max. 130 kg – surface mounted

R-540 AL DK EG WK2
R-540 AL DK GG WK2

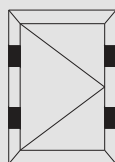
see diagrams:

4102 / 4104 / 4106 / 4108 /

4110 / 4112 / 4114



	Turn/tilt fitting, tilt position locked Stay 400 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		UV
	DIN R	DIN L	DIN R	DIN L	DIN R	DIN L	
	No.	No.	No.	No.	No.	No.	
D-DK basic fitting							
Colour silver, similar to RAL 9006	293150	293180	293150	293180	293150	293180	5 pc(s)
White RAL 9016	293160	293190	293160	293190	293160	293190	5 pc(s)
RAL special	293170	293200	293170	293200	293170	293200	5 pc(s)
D-DK stay							
Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
Gear lock	293867	293867	293867	293867	293867	293867	10 pc(s)
Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)
Additional vertical locking	4x 293954	4x 293954	4x 293954	4x 293954	4x 293954	4x 293954	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
SEC locking set	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	293050 ²⁰	10 pc(s)
Screws for fixation SEC locking set	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	904260 ⁴¹	100 pc(s)
Riveting nut for fixation SEC locking set	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	910100 ⁴¹	100 pc(s)
SEC rebate clearance reduction set	293051	293051	293051	293051	293051	293051	10 pc(s)
SEC corner drive set	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	2x 293062	20 pc(s)



¹⁰ Reinforcement for sash weight > 90 kg.

²⁰ Up to sash width < 804 mm 5x, from sash width ≥ 805 mm 7x.

⁴¹ Up to sash width < 804 mm 10x, from sash width ≥ 805 mm 14x.

⁵⁰ Not possible with 90 WB-T.

■ Gear

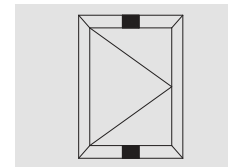
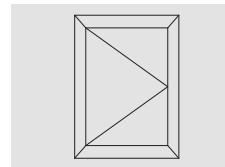
Article	No.	UV	Note
SEC flush encased gear box	293063	10 pc(s)	Additional window handle, lockable according to DIN V ENV 1627 - 1630, see product range
SEC geared-handle protection set	293065 ⁵⁰	10 pc(s)	Additional geared handle, lockable according to DIN V ENV 1627 - 1630, see product range

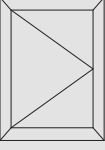
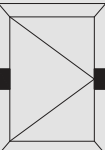
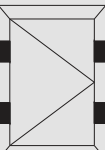
Inward opening
Turn fittings max. 130 kg, hinges adjustable – surface mounted

R-540 AL DB EG
R-540 AL DB GG

see diagrams:

4120 / 4122 / 4124 / 4126 /
4128 / 4130 / 4132 / 4134



	D-lock		D-Central fastener		UV	
	DIN R No.	DIN L No.	DIN R No.	DIN L No.		
	Lock	293250	293250	293251	293251	10 pc(s)
	Corner pivot rest bottom					
	Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	293910	293911	5 pc(s)
	RAL special	293920	293921	293920	293921	5 pc(s)
	Turn hinge top					
	Colour silver, similar to RAL 9006	293903	293903	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	293913	293913	5 pc(s)
	RAL special	293923	293923	293923	293923	5 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
	Turn restrictor set	293990 ^{17, 21}	293990 ^{17, 21}	293990 ^{17, 21}	293990 ^{17, 21}	10 pc(s)
	Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
	Lock	293250	293250	293251	293251	10 pc(s)
	Corner pivot rest bottom					
	Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	293910	293911	5 pc(s)
	RAL special	293920	293921	293920	293921	5 pc(s)
	Turn hinge top					
	Colour silver, similar to RAL 9006	293903	293903	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	293913	293913	5 pc(s)
	RAL special	293923	293923	293923	293923	5 pc(s)
	Central hinge					
	Colour silver, similar to RAL 9006	293904	293904	293904	293904	5 pc(s)
	White RAL 9016	293914	293914	293914	293914	5 pc(s)
	RAL special	293924	293924	293924	293924	5 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
	Additional vertical locking	293954	293954	293954	293954	10 pc(s)
	Turn restrictor set	293990 ^{17, 21}	293990 ^{17, 21}	293990 ^{17, 21}	293990 ^{17, 21}	10 pc(s)
	Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
	Lock	293250	293250	293251	293251	10 pc(s)
	Corner pivot rest bottom					
	Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	293910	293911	5 pc(s)
	RAL special	293920	293921	293920	293921	5 pc(s)
	Turn hinge top					
	Colour silver, similar to RAL 9006	293903	293903	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	293913	293913	5 pc(s)
	RAL special	293923	293923	293923	293923	5 pc(s)
	Central hinge					
	Colour silver, similar to RAL 9006	2x 293904	2x 293904	2x 293904	2x 293904	5 pc(s)
	White RAL 9016	2x 293914	2x 293914	2x 293914	2x 293914	5 pc(s)
	RAL special	2x 293924	2x 293924	2x 293924	2x 293924	5 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
	Additional vertical locking	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)
	Turn restrictor set	293990 ^{17, 21}	293990 ^{17, 21}	293990 ^{17, 21}	293990 ^{17, 21}	10 pc(s)
	Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)

¹⁰ Reinforcement for sash weight > 90 kg.

¹⁷ Optional turn restrictor set
– Minimum sash width 501 mm, max. opening angle 90°
for sash width 405 – 500 mm. Use small turn restrictor set 293991
with brake, max. opening angle 65°.

²¹ Alternatively:
– 291500 Damped opening restrictor 90 kg
– Minimum sash width 470 mm for max. opening angle (88°) or
– 291501 Damped opening restrictor 130 kg
– Minimum sash width 610 mm for max. opening angle (88°), for additional horizontal locking
– Minimum sash width 1265 mm for max. opening angle (88°).
– Larger sash widths are required for smaller opening angles.

⁵⁰ Not possible with 90 WB-T.

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865 ⁵⁰	10 pc(s)	Additional geared handle, see product range

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

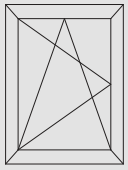
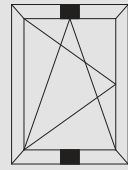
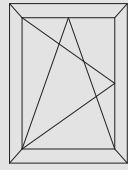
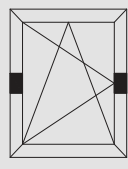
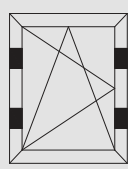
Tilt-before-turn fittings max. 130 kg – surface mounted

R-540 AL EG
R-540 AL GG

see diagrams:

4140 / 4142 / 4144 / 4146 /

4148 / 4150 / 4152 / 4154

								UV
		Stay 390 mm		Stay 600 mm		Stay 600 mm		
		DIN R	DIN L	DIN R	DIN L	DIN R	DIN L	
		No.	No.	No.	No.	No.	No.	
	KVD basic fitting							
	Colour silver, similar to RAL 9006	293550	293580	293550	293580	293550	293580	5 pc(s)
	White RAL 9016	293560	293590	293560	293590	293560	293590	5 pc(s)
	RAL special	293565	293595	293565	293595	293565	293595	5 pc(s)
	KVD additional width stay							
	Colour silver, similar to RAL 9006	293501	293531	293502	293532	293502	293532	10 pc(s)
	White RAL 9016	293511	293541	293512	293542	293512	293542	10 pc(s)
	RAL special	293517	293547	293518	293548	293518	293548	10 pc(s)
	KVD additional width stay	/	/	/	/	293956 ²	293956 ²	10 pc(s)
	Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)
Turn restrictor set with brake	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	KVD basic fitting							
	Colour silver, similar to RAL 9006	293550	293580	293550	293580	293550	293580	5 pc(s)
	White RAL 9016	293560	293590	293560	293590	293560	293590	5 pc(s)
	RAL special	293565	293595	293565	293595	293565	293595	5 pc(s)
	KVD additional width stay							
	Colour silver, similar to RAL 9006	293501	293531	293502	293532	293502	293532	10 pc(s)
	White RAL 9016	293511	293541	293512	293542	293512	293542	10 pc(s)
	RAL special	293517	293547	293518	293548	293518	293548	10 pc(s)
	Central fastener set vertical	293953	293953	293953	293953	293953	293953	10 pc(s)
	KVD additional width stay	/	/	/	/	293956 ²	293956 ²	10 pc(s)
Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)	
Turn restrictor set with brake	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	KVD basic fitting							
	Colour silver, similar to RAL 9006	293550	293580	293550	293580	293550	293580	5 pc(s)
	White RAL 9016	293560	293590	293560	293590	293560	293590	5 pc(s)
	RAL special	293565	293595	293565	293595	293565	293595	5 pc(s)
	KVD additional width stay							
	Colour silver, similar to RAL 9006	293501	293531	293502	293532	293502	293532	10 pc(s)
	White RAL 9016	293511	293541	293512	293542	293512	293542	10 pc(s)
	RAL special	293517	293547	293518	293548	293518	293548	10 pc(s)
	Central fastener set vertical	293953	293953	293953	293953	293953	293953	10 pc(s)
	KVD additional width stay	/	/	/	/	293956 ²	293956 ²	10 pc(s)
Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)	
Additional vertical locking	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)	
Turn restrictor set with brake	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	293990 ^{19, 22}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

² Additional width stay for sash width ≥ 1300 mm.

¹⁰ Reinforcement for sash weight > 90 kg.

¹⁹ Optional turn restrictor set

– Minimum sash width 701 mm, max. opening angle 90° for sash width 560 – 700 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²² Alternatively:

– 291500 Damped opening restrictor 90 kg
– Minimum sash width 575 mm for max. opening angle (88°) or
– 291501 Damped opening restrictor 130 kg
– Minimum sash width 720 mm for max. opening angle (88°), for additional horizontal locking
– Minimum sash width 1200 mm for max. opening angle (88°).
– Larger sash widths are required for smaller opening angles.

⁵⁰ Not possible with 90 WB-T.

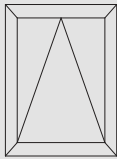
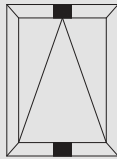
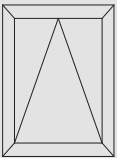
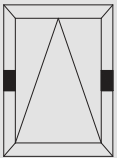
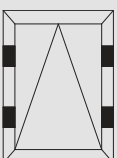
■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865 ⁵⁰	10 pc(s)	Additional geared handle, see product range

Inward opening
Tilt fittings max. 130 kg side handle – surface mounted

R-540 AL EG GS
R-540 AL GG GS

see diagrams:
4140 / 4142 / 4144 / 4146 /
4148 / 4150 / 4152 / 4154

								UV
		Stay 390 mm		Stay 600 mm		Stay 600 mm		
		DIN R	DIN L	DIN R	DIN L	DIN R	DIN L	
		Left handle	Right handle	Left handle	Right handle	Left handle	Right handle	
		No.	No.	No.	No.	No.	No.	
 K-Side handle	K-GS basic fitting							
	Colour silver, similar to RAL 9006	293550	293580	293550	293580	293550	293580	5 pc(s)
	White RAL 9016	293560	293590	293560	293590	293560	293590	5 pc(s)
	RAL special	293565	293595	293565	293595	293565	293595	5 pc(s)
	K-GS stay							
	Colour silver, similar to RAL 9006	293501	293531	293502	293532	293502	293532	10 pc(s)
	White RAL 9016	293511	293541	293512	293542	293512	293542	10 pc(s)
	RAL special	293517	293547	293518	293548	293518	293548	10 pc(s)
	K-GS additional stay	/	/	/	/	293956 ²	293956 ²	10 pc(s)
	Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)
Gear lock	293868	293868	293868	293868	293868	293868	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
 K-Side handle	K-GS basic fitting							
	Colour silver, similar to RAL 9006	293550	293580	293550	293580	293550	293580	5 pc(s)
	White RAL 9016	293560	293590	293560	293590	293560	293590	5 pc(s)
	RAL special	293565	293595	293565	293595	293565	293595	5 pc(s)
	K-GS stay							
	Colour silver, similar to RAL 9006	293501	293531	293502	293532	293502	293532	10 pc(s)
	White RAL 9016	293511	293541	293512	293542	293512	293542	10 pc(s)
	RAL special	293517	293547	293518	293548	293518	293548	10 pc(s)
	Central fastener set vertical	293953	293953	293953	293953	293953	293953	10 pc(s)
	K-GS Additional stay	/	/	/	/	293956 ²	293956 ²	10 pc(s)
Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)	
Gear lock	293868	293868	293868	293868	293868	293868	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
 K-Side handle	K-GS basic fitting							
	Colour silver, similar to RAL 9006	293550	293580	293550	293580	293550	293580	5 pc(s)
	White RAL 9016	293560	293590	293560	293590	293560	293590	5 pc(s)
	RAL special	293565	293595	293565	293595	293565	293595	10 pc(s)
	K-GS stay							
	Colour silver, similar to RAL 9006	293501	293531	293502	293532	293502	293532	10 pc(s)
	White RAL 9016	293511	293541	293512	293542	293512	293542	10 pc(s)
	RAL special	293517	293547	293518	293548	293518	293548	10 pc(s)
	Central fastener set vertical	293953	293953	293953	293953	293953	293953	10 pc(s)
	K-GS Additional stay	/	/	/	/	293956 ²	293956 ²	10 pc(s)
Additional horizontal locking	/	/	/	/	2x 293954	2x 293954	10 pc(s)	
Additional vertical locking	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)	
Gear lock	293868	293868	293868	293868	293868	293868	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

² Additional width stay for sash width ≥ 1300 mm.

¹⁰ Reinforcement for sash weight > 90 kg.

⁵⁰ Not possible with 90 WB-T.

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865 ⁵⁰	10 pc(s)	Additional geared handle, see product range

FRAME+ 90 WI/WB/WB-T

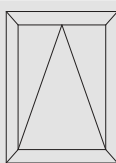
Selection tables AL

Inward opening

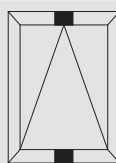
Tilt fittings max. 130 kg top handle – surface mounted

R-540 AL EG GO R-540 AL GG GO

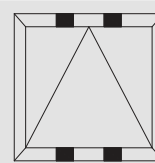
see diagrams:
4160 / 4164



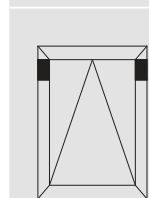
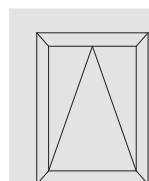
K-Top handle



K-Top handle



K-Top handle



	No.	No.	No.	UV
K lock	293350	293350	293350	10 pc(s)
K hinge				
Colour silver, similar to RAL 9006	2x 293902	3x 293902	4x 293902	5 pc(s)
White RAL 9016	2x 293912	3x 293912	4x 293912	5 pc(s)
RAL special	2x 293922	3x 293922	4x 293922	5 pc(s)
Gear lock	293867	293867	293867	10 pc(s)
Additional horizontal locking	/	293954	2x 293954	10 pc(s)
K lock	293350	293350	293350	10 pc(s)
K hinge				
Colour silver, similar to RAL 9006	2x 293902	3x 293902	4x 293902	5 pc(s)
White RAL 9016	2x 293912	3x 293912	4x 293912	5 pc(s)
RAL special	2x 293922	3x 293922	4x 293922	5 pc(s)
Corner drive with locking	293957	293957	293957	10 pc(s)
Gear lock	293867	293867	293867	10 pc(s)
Additional horizontal locking	/	293954	2x 293954	10 pc(s)

⁵⁰ Not possible with 90 WB-T.

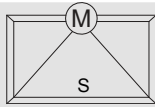
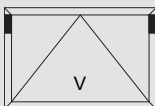
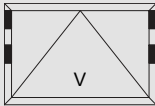
■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865⁵⁰	10 pc(s)	Additional geared handle, see product range

Inward opening
Tilt fittings max. 130 kg only hinges – surface mounted

R-540 AL only hinges

see diagrams:
4161 / 4165 / 4169 /
4171 / 4175

		No.	No.	No.	UV
	K hinge				
	Colour silver, similar to RAL 9006	2x 293902	3x 293902	4x 293902	5 pc(s)
	White RAL 9016	2x 293912	3x 293912	4x 293912	5 pc(s)
	RAL special	2x 293922	3x 293922	4x 293922	5 pc(s)
K-Only hinges	Restrictor stay	35, 36, 37	35, 36, 37	35, 36, 37	
	K hinge				
	Colour silver, similar to RAL 9006	2x 293902	3x 293902	4x 293902	5 pc(s)
	White RAL 9016	2x 293912	3x 293912	4x 293912	5 pc(s)
	RAL special	2x 293922	3x 293922	4x 293922	5 pc(s)
K-Only hinges	Restrictor stay	35, 36, 37	35, 36, 37	35, 36, 37	
	Corner drive with locking	293957	293957	293957	10 pc(s)
	K hinge				
	Colour silver, similar to RAL 9006	2x 293902	3x 293902	/	5 pc(s)
	White RAL 9016	2x 293912	3x 293912	/	5 pc(s)
	RAL special	2x 293922	3x 293922	/	5 pc(s)
K-Only hinges	Restrictor stay	35, 40	35, 40	/	
	Corner drive with locking	293957	293957	/	10 pc(s)
	Additional vertical locking	2x 293954	2x 293954	/	10 pc(s)

S = single motor / Ta = twin motors / Tr = Tridem motors / V = Locking motor

³⁵ The restrictor stay is essential when using a single motor. If using at least two motors, check with the motor manufacturer whether a restrictor stay is required. Use of restrictor stays, see German professional association regulation 232.

³⁶ Alternatively:

- 291600 restrictor and cleaning stay – small – size 1 – opening width approximately 260 mm – PU = 20 pc(s)
- Sash height 430 to 700, opening width in cleaning position 55°, max. sash weight when installing 1 stay, 16 kg, max. sash weight when installing 2 stays, 35 kg
- Sash height 701 to 1000, opening width in cleaning position 35°, max. sash weight when installing 1 stay, 21 kg, max. sash weight when installing 2 stays, 44 kg
- Sash height 1001 to 1300, opening width in cleaning position 25°, max. sash weight when installing 1 stay, 30 kg, max. sash weight when installing 2 stays, 62 kg
- Additional use ranges on request.
- For sash width ≥ 700 mm 2x 291600 additional 291603 Accessories for restrictor and cleaning stay – small – UV = 20 pc(s).

³⁷ Alternatively:

- Restrictor and cleaning stay – large – opening width approximately 210 mm – PU = 20 pc(s) – weight of glass filling when installing 2 stays max. 30 kg/m².
- 2x 291505 restrictor and cleaning stay – large – size 1 – sash height 405 to 499 mm – opening width in cleaning position approximately 60°
- 2x 291506 restrictor and cleaning stay – large – size 2 – sash height 500 to 699 mm – opening width in cleaning position approximately 75°
- 2x 291507 restrictor and cleaning stay – large – size 3 – sash height 700 to 899 mm – opening width in cleaning position approximately 75°
- 2x 291508 restrictor and cleaning stay – large – size 4 – sash height 900 to 1300 mm – opening width in cleaning position approximately 75°
- In case of additional vertical locking minimum sash height 1100 mm.

⁴⁰ Restrictor stay with driving rod that can be passed through to the multiple bolting, on request.

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings max. 130 kg – surface mounted

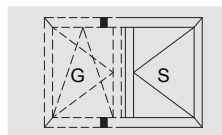
Inactive leaf dummy mullion toggle lever

R-540 AL EG K + active leaf R-540 AL EG K
R-540 AL GG K + active leaf R-540 AL GG K

see diagrams:

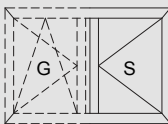
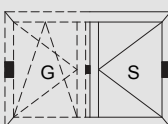
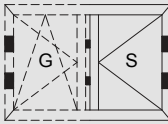
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4189 / 4191 / 4193 / 4195



■ Technical information

– Use 225540 locking bolt in inactive leaf.

	DIN R	DIN L	UV	
	No.	No.		
	Dummy mullion lock, toggle lever	293451	293451	10 pc(s)
	Corner pivot rest bottom			
	Colour silver, similar to RAL 9006	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	5 pc(s)
	RAL special	293920	293921	5 pc(s)
	Turn hinge top			
	Colour silver, similar to RAL 9006	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	5 pc(s)
	RAL special	293923	293923	5 pc(s)
	Turn restrictor set with brake	293990^{23, 27}	293990^{23, 27}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960¹⁰	293960¹⁰	10 pc(s)	
	Dummy mullion lock, toggle lever	293451	293451	10 pc(s)
	Corner pivot rest bottom			
	Colour silver, similar to RAL 9006	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	5 pc(s)
	RAL special	293920	293921	5 pc(s)
	Turn hinge top			
	Colour silver, similar to RAL 9006	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	5 pc(s)
	RAL special	293923	293923	5 pc(s)
	Central hinge			
Colour silver, similar to RAL 9006	293904	293904	5 pc(s)	
White RAL 9016	293914	293914	5 pc(s)	
RAL special	293924	293924	5 pc(s)	
Turn restrictor set with brake	293990^{23, 27}	293990^{23, 27}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960¹⁰	293960¹⁰	10 pc(s)	
	Dummy mullion lock, toggle lever	293451	293451	10 pc(s)
	Corner pivot rest bottom			
	Colour silver, similar to RAL 9006	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	5 pc(s)
	RAL special	293920	293921	5 pc(s)
	Turn hinge top			
	Colour silver, similar to RAL 9006	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	5 pc(s)
	RAL special	293923	293923	5 pc(s)
	Central hinge			
Colour silver, similar to RAL 9006	2x 293904	2x 293904	5 pc(s)	
White RAL 9016	2x 293914	2x 293914	5 pc(s)	
RAL special	2x 293924	2x 293924	5 pc(s)	
Turn restrictor set with brake	293990^{23, 27}	293990^{23, 27}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960¹⁰	293960¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²³ Optional turn restrictor set, max. opening angle 90°.

²⁷ Alternatively:

- 291500 Damped opening restrictor 90 kg, max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 610 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

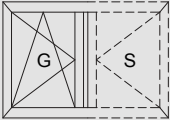
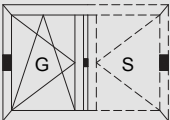
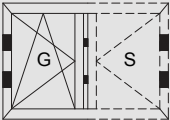
The table ist continued on the next page!

Inward opening
Turn/tilt fittings max. 130 kg – surface mounted
Active leaf dummy mullion toggle lever

R-540 AL EG K
R-540 AL GG K

see diagrams:

4181 / 4183 / 4185 / 4187 /
4189 / 4191 / 4193 / 4195

		Stay 400 mm		Stay 600 mm		UV
		DIN R	DIN L	DIN R	DIN L	
		No.	No.	No.	No.	
 <p>DK lock dummy mullion DK stay Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>DK friction stay bearing Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Additional horizontal locking Turn restrictor set with brake Reinforcement set 90 to 130 kg – adjustable</p>		293461	293461	293461	293461	10 pc(s)
		293101	293131	293102	293132	10 pc(s)
		293111	293141	293112	293142	10 pc(s)
		293117	293147	293118	293148	10 pc(s)
		293906	293906	293906	293906	5 pc(s)
		293917	293917	293917	293917	5 pc(s)
		293926	293926	293926	293926	5 pc(s)
		293900	293901	293900	293901	5 pc(s)
		293910	293911	293910	293911	5 pc(s)
		293920	293921	293920	293921	5 pc(s)
		2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)
		293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)
	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
 <p>DK lock dummy mullion DK stay Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>DK friction stay bearing Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Additional horizontal locking Angle fastener set vertical Additional vertical locking Turn restrictor set with brake Reinforcement set 90 to 130 kg – adjustable</p>		293461	293461	293461	293461	10 pc(s)
		293101	293131	293102	293132	10 pc(s)
		293111	293141	293112	293142	10 pc(s)
		293117	293147	293118	293148	10 pc(s)
		293906	293906	293906	293906	5 pc(s)
		293917	293917	293917	293917	5 pc(s)
		293926	293926	293926	293926	5 pc(s)
		293900	293901	293900	293901	5 pc(s)
		293910	293911	293910	293911	5 pc(s)
		293920	293921	293920	293921	5 pc(s)
		2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)
		293951	293951	293951	293951	10 pc(s)
	293959	293959	293959	293959	10 pc(s)	
	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
 <p>DK lock dummy mullion DK stay Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>DK friction stay bearing Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Additional horizontal locking Angle fastener set vertical Additional vertical locking Additional vertical locking Turn restrictor set with brake Reinforcement set 90 to 130 kg – adjustable</p>		293461	293461	293461	293461	10 pc(s)
		293101	293131	293102	293132	10 pc(s)
		293111	293141	293112	293142	10 pc(s)
		293117	293147	293118	293148	10 pc(s)
		293906	293906	293906	293906	5 pc(s)
		293917	293917	293917	293917	5 pc(s)
		293926	293926	293926	293926	5 pc(s)
		293900	293901	293900	293901	5 pc(s)
		293910	293911	293910	293911	5 pc(s)
		293920	293921	293920	293921	5 pc(s)
		2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)
		293951	293951	293951	293951	10 pc(s)
	293954	293954	293954	293954	10 pc(s)	
	2x 293959	2x 293959	2x 293959	2x 293959	10 pc(s)	
	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²⁵ Optional turn restrictor set

- Minimum sash width 665 mm, max. opening angle 90° for sash width 545 – 664 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁹ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 640 mm for max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 785 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings max. 130 kg, hinges adjustable – surface mounted

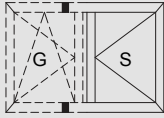
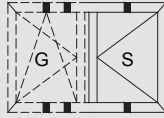
Inactive leaf dummy mullion gear

R-540 AL EG G + active leaf R-540 AL EG G

R-540 AL GG G + active leaf R-540 AL GG G

see diagrams:

4381 / 4383 / 4385 / 4387 / 4389 / 4391 / 4393 / 4395

					UV
	DIN R No.	DIN L No.	DIN R No.	DIN L No.	
Dummy mullion lock gear					
Profile series FF, WB	293455	293455	293455	293455	10 pc(s)
Profile series WI	293456	293456	293456	293456	10 pc(s)
Corner pivot rest bottom					
Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
White RAL 9016	293910	293911	293910	293911	5 pc(s)
RAL special	293920	293921	293920	293921	5 pc(s)
Turn hinge top					
Colour silver, similar to RAL 9006	293903	293903	293903	293903	5 pc(s)
White RAL 9016	293913	293913	293913	293913	5 pc(s)
RAL special	293923	293923	293923	293923	5 pc(s)
Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)
Turn restrictor set with brake	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
Dummy mullion lock gear					
Profile series FF, WB	293455	293455	293455	293455	10 pc(s)
Profile series WI	293456	293456	293456	293456	10 pc(s)
Corner pivot rest bottom					
Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
White RAL 9016	293910	293911	293910	293911	5 pc(s)
RAL special	293920	293921	293920	293921	5 pc(s)
Turn hinge top					
Colour silver, similar to RAL 9006	293903	293903	293903	293903	5 pc(s)
White RAL 9016	293913	293913	293913	293913	5 pc(s)
RAL special	293923	293923	293923	293923	5 pc(s)
Central hinge					
Colour silver, similar to RAL 9006	293904	293904	293904	293904	5 pc(s)
White RAL 9016	293914	293914	293914	293914	5 pc(s)
RAL special	293924	293924	293924	293924	5 pc(s)
Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)
Turn restrictor set with brake	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
Dummy mullion lock gear					
Profile series FF, WB	293455	293455	293455	293455	10 pc(s)
Profile series WI	293456	293456	293456	293456	10 pc(s)
Corner pivot rest bottom					
Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
White RAL 9016	293910	293911	293910	293911	5 pc(s)
RAL special	293920	293921	293920	293921	5 pc(s)
Turn hinge top					
Colour silver, similar to RAL 9006	293903	293903	293903	293903	5 pc(s)
White RAL 9016	293913	293913	293913	293913	5 pc(s)
RAL special	293923	293923	293923	293923	5 pc(s)
Central hinge					
Colour silver, similar to RAL 9006	2x 293904	2x 293904	2x 293904	2x 293904	5 pc(s)
White RAL 9016	2x 293914	2x 293914	2x 293914	2x 293914	5 pc(s)
RAL special	2x 293924	2x 293924	2x 293924	2x 293924	5 pc(s)
Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)
Turn restrictor set with brake	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²⁴ Optional turn restrictor set

- Minimum sash width 625 mm, max. opening angle 90° for sash width 505 – 624 mm.
- Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁸ Alternatively:

- 291500 Damped opening restrictor 90 kg
 - Minimum sash width 600 mm for max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
 - Minimum sash width 745 mm for max. opening angle (88°), for additional horizontal locking
 - Minimum sash width 1130 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

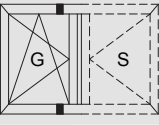
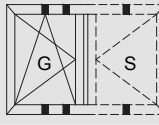
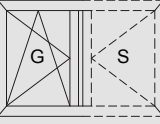
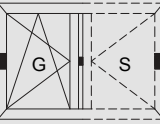
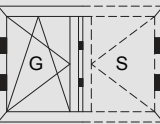
The table is continued on the next page!

Inward opening
Turn/tilt fittings max. 130 kg – surface mounted
Active leaf dummy mullion gear

R-540 AL EG G
R-540 AL GG G

see diagrams:

4381 / 4383 / 4385 / 4387 /
4389 / 4391 / 4393 / 4395

								UV
		Stay 400 mm		Stay 600 mm		Stay 600 mm		
		DIN R	DIN L	DIN R	DIN L	DIN R	DIN L	
		No.	No.	No.	No.	No.	No.	
	DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK friction stay bearing							
	Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
	White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
	RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
	Corner pivot rest bottom							
Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)	
White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)	
RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)	
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)	
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK friction stay bearing							
	Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
	White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
	RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
	Corner pivot rest bottom							
Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)	
White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)	
RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)	
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)	
Angle fastener set vertical	293951	293951	293951	293951	293951	293951	10 pc(s)	
Additional vertical locking	293959	293959	293959	293959	293959	293959	10 pc(s)	
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK friction stay bearing							
	Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
	White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
	RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
	Corner pivot rest bottom							
Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)	
White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)	
RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)	
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)	
Angle fastener set vertical	293951	293951	293951	293951	293951	293951	10 pc(s)	
Additional vertical locking	293954	293954	293954	293954	293954	293954	10 pc(s)	
Additional vertical locking	2x 293959	2x 293959	2x 293959	2x 293959	2x 293959	2x 293959	10 pc(s)	
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²⁵ Optional turn restrictor set

– Minimum sash width 665 mm, max. opening angle 90° for sash width 545 – 664 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁹ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 640 mm for max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 785 mm for max. opening angle (88°), for additional horizontal locking
- Minimum sash width 1200 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings max. 130 kg, hinges adjustable – surface mounted

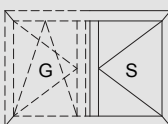
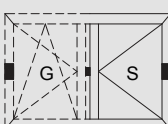
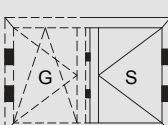
Inactive leaf dummy mullion with handle on active and inactive leaf

R-540 AL EG 2G + active leaf R-540 AL EG 2G

R-540 AL GG 2G + active leaf R-540 AL GG 2G

see diagrams:

4080 / 4082 / 4084 / 4086 / 4088

	DIN R		DIN L		UV
	No.	No.	No.	No.	
 <p>Dummy mullion lock</p> <p>Stop wedge</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Gear lock</p> <p>Additional horizontal locking</p> <p>Turn restrictor set with brake</p> <p>Reinforcement set 90 to 130 kg – adjustable</p>	293957	293957	293957	293957	10 pc(s)
	293052	293052	293052	293052	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
	293867	293867	293867	293867	10 pc(s)
	/	/	2x 293954	2x 293954	10 pc(s)
293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)	
293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
 <p>Dummy mullion lock</p> <p>Stop wedge</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Central hinge Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Gear lock</p> <p>Additional horizontal locking</p> <p>Turn restrictor set with brake</p> <p>Reinforcement set 90 to 130 kg – adjustable</p>	293957	293957	293957	293957	10 pc(s)
	293052	293052	293052	293052	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
	293904	293904	293904	293904	5 pc(s)
	293914	293914	293914	293914	5 pc(s)
293924	293924	293924	293924	5 pc(s)	
293867	293867	293867	293867	10 pc(s)	
/	/	2x 293954	2x 293954	10 pc(s)	
293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)	
293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
 <p>Dummy mullion lock</p> <p>Stop wedge</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Central hinge Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Gear lock</p> <p>Additional horizontal locking</p> <p>Turn restrictor set with brake</p> <p>Reinforcement set 90 to 130 kg – adjustable</p>	293957	293957	293957	293957	10 pc(s)
	293052	293052	293052	293052	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
	2x 293904	2x 293904	2x 293904	2x 293904	5 pc(s)
	2x 293914	2x 293914	2x 293914	2x 293914	5 pc(s)
2x 293924	2x 293924	2x 293924	2x 293924	5 pc(s)	
293867	293867	293867	293867	10 pc(s)	
/	/	2x 293954	2x 293954	10 pc(s)	
293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)	
293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg

²⁴ Optional turn restrictor set

- Minimum sash width 625 mm, max. opening angle 90° for sash width 505 – 624 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁸ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 600 mm for max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 745 mm for max. opening angle (88°), for additional horizontal locking - Minimum sash width 1130 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

The table is continued on the next page!

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

Inward opening
Turn/tilt fittings max. 130 kg – surface mounted
Active leaf dummy mullion with handle on active and inactive leaf

R-540 AL EG 2G
R-540 AL GG 2G

see diagrams:

4080 / 4082 / 4084 / 4086 / 4088

		Stay 400 mm				Stay 600 mm		UV
		DIN R		DIN L		DIN R	DIN L	
		No.	No.	No.	No.	No.	No.	
	DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK friction stay bearing							
	Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
	White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
	RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
	Corner pivot rest bottom							
Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)	
White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)	
RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)	
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)	
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK friction stay bearing							
	Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
	White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
	RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
	Corner pivot rest bottom							
Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)	
White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)	
RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)	
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)	
Angle fastener set vertical	293951	293951	293951	293951	293951	293951	10 pc(s)	
Additional vertical locking	293959	293959	293959	293959	293959	293959	10 pc(s)	
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
	DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	DK friction stay bearing							
	Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
	White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
	RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
	Corner pivot rest bottom							
Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)	
White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)	
RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)	
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)	
Angle fastener set vertical	293951	293951	293951	293951	293951	293951	10 pc(s)	
Additional vertical locking	293954	293954	293954	293954	293954	293954	10 pc(s)	
Additional vertical locking	2x 293959	2x 293959	2x 293959	2x 293959	2x 293959	2x 293959	10 pc(s)	
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg

²⁵ Optional turn restrictor set

- Minimum sash width 665 mm, max. opening angle 90° for sash width 545 – 664 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁹ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 640 mm for max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 785 mm for max. opening angle (88°), for additional horizontal locking
- Minimum sash width 1200 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings max. 130 kg, hinges adjustable – surface mounted

Inactive leaf dummy mullion toggle lever

R-540 AL DK EG K

+ active leaf R-540 AL DK EG K

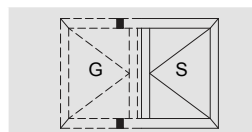
R-540 AL DK GG K

+ active leaf R-540 AL DK GG K

see diagrams:

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4189 / 4191 / 4193 / 4195



■ Technical information

– Use 225540 locking bolt in inactive leaf.

	DIN R	DIN L	UV	
	No.	No.		
	Dummy mullion lock, toggle lever	293451	293451	10 pc(s)
	Corner pivot rest bottom			
	Colour silver, similar to RAL 9006	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	5 pc(s)
	RAL special	293920	293921	5 pc(s)
	Turn hinge top			
	Colour silver, similar to RAL 9006	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	5 pc(s)
	RAL special	293923	293923	5 pc(s)
	Turn restrictor set with brake	293990^{23, 27}	293990^{23, 27}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960¹⁰	293960¹⁰	10 pc(s)	
	Dummy mullion lock, toggle lever	293451	293451	10 pc(s)
	Corner pivot rest bottom			
	Colour silver, similar to RAL 9006	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	5 pc(s)
	RAL special	293920	293921	5 pc(s)
	Turn hinge top			
	Colour silver, similar to RAL 9006	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	5 pc(s)
	RAL special	293923	293923	5 pc(s)
	Central hinge			
Colour silver, similar to RAL 9006	293904	293904	5 pc(s)	
White RAL 9016	293914	293914	5 pc(s)	
RAL special	293924	293924	5 pc(s)	
Turn restrictor set with brake	293990^{23, 27}	293990^{23, 27}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960¹⁰	293960¹⁰	10 pc(s)	
	Dummy mullion lock, toggle lever	293451	293451	10 pc(s)
	Corner pivot rest bottom			
	Colour silver, similar to RAL 9006	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	5 pc(s)
	RAL special	293920	293921	5 pc(s)
	Turn hinge top			
	Colour silver, similar to RAL 9006	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	5 pc(s)
	RAL special	293923	293923	5 pc(s)
	Central hinge			
Colour silver, similar to RAL 9006	2x 293904	2x 293904	5 pc(s)	
White RAL 9016	2x 293914	2x 293914	5 pc(s)	
RAL special	2x 293924	2x 293924	5 pc(s)	
Turn restrictor set with brake	293990^{23, 27}	293990^{23, 27}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960¹⁰	293960¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²³ Optional turn restrictor set, max. opening angle 90°.

²⁷ Alternatively:

- 291500 Damped opening restrictor 90 kg, max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 610 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

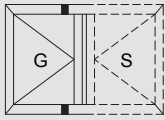
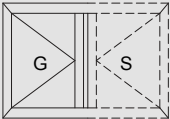
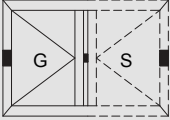
The table ist continued on the next page!

Inward opening
Turn fittings max. 130 kg – surface mounted
Active leaf dummy mullion toggle lever

R-540 AL DK EG K
R-540 AL DK GG K

see diagrams:

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4189 / 4191 / 4193 / 4195

					UV	
	Turn/tilt fitting, tilt position locked Stay 400 mm		Turn/tilt fitting, tilt position locked Stay 600 mm			
	DIN R	DIN L	DIN R	DIN L		
	No.	No.	No.	No.		
	D-DK lock dummy mullion	293461	293461	293461	293461	10 pc(s)
	D-DK stay					
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	10 pc(s)
	D-DK friction stay bearing					
	Colour silver, similar to RAL 9006	293906	293906	293906	293906	5 pc(s)
	White RAL 9016	293917	293917	293917	293917	5 pc(s)
	RAL special	293926	293926	293926	293926	5 pc(s)
	Corner pivot rest bottom					
	Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	293910	293911	5 pc(s)
	RAL special	293920	293921	293920	293921	5 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)	
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	D-DK lock dummy mullion	293461	293461	293461	293461	10 pc(s)
	D-DK stay					
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	10 pc(s)
	D-DK friction stay bearing					
	Colour silver, similar to RAL 9006	293906	293906	293906	293906	5 pc(s)
	White RAL 9016	293917	293917	293917	293917	5 pc(s)
	RAL special	293926	293926	293926	293926	5 pc(s)
	Corner pivot rest bottom					
	Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	293910	293911	5 pc(s)
	RAL special	293920	293921	293920	293921	5 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)	
Angle fastener set vertical	293951	293951	293951	293951	10 pc(s)	
Additional vertical locking	293959	293959	293959	293959	10 pc(s)	
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

The table ist continued on the next page!

FRAME+ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings max. 130 kg – surface mounted

Active leaf dummy mullion toggle lever

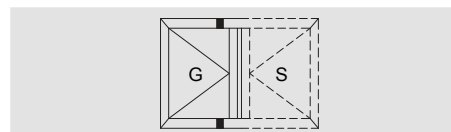
R-540 AL DK EG K

R-540 AL DK GG K

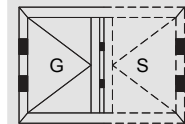
see diagrams:

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4189 / 4191 / 4193 / 4195



	Turn/tilt fitting, tilt position locked Stay 400 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		UV
	DIN R	DIN L	DIN R	DIN L	
	No.	No.	No.	No.	
D-DK lock dummy mullion	293461	293461	293461	293461	10 pc(s)
D-DK stay					
Colour silver, similar to RAL 9006	293101	293131	293102	293132	10 pc(s)
White RAL 9016	293111	293141	293112	293142	10 pc(s)
RAL special	293117	293147	293118	293148	10 pc(s)
D-DK friction stay bearing					
Colour silver, similar to RAL 9006	293906	293906	293906	293906	5 pc(s)
White RAL 9016	293917	293917	293917	293917	5 pc(s)
RAL special	293926	293926	293926	293926	5 pc(s)
Corner pivot rest bottom					
Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
White RAL 9016	293910	293911	293910	293911	5 pc(s)
RAL special	293920	293921	293920	293921	5 pc(s)
Gear lock	293867	293867	293867	293867	10 pc(s)
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)
Angle fastener set vertical	293951	293951	293951	293951	10 pc(s)
Additional vertical locking	293954	293954	293954	293954	10 pc(s)
Additional vertical locking	2x 293959	2x 293959	2x 293959	2x 293959	10 pc(s)
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)



G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²⁵ Optional turn restrictor set

- Minimum sash width 695 mm, max. opening angle 90° for sash width 575 – 694 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁹ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 675 mm for max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 815 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

■ Gear

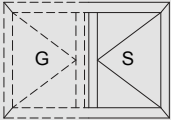
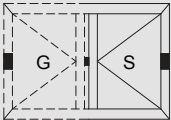
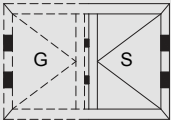
Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

Inward opening
Turn fittings max. 130 kg, hinges adjustable – surface mounted
Inactive leaf dummy mullion gear

R-540 AL DK EG G + active leaf R-540 AL DK EG G
R-540 AL DK GG G + active leaf R-540 AL DK GG G

see diagrams:

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4389 / 4391 / 4393 / 4395

	DIN R		DIN L		UV
	No.	No.	No.	No.	
 <p>Dummy mullion lock gear Profile series FF, WB Profile series W, WI Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special Additional horizontal locking Turn restrictor set with brake Reinforcement set 90 to 130 kg – adjustable</p>					
	293455	293455	293455	293455	10 pc(s)
	293456	293456	293456	293456	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
 <p>Additional horizontal locking Turn restrictor set with brake Reinforcement set 90 to 130 kg – adjustable Dummy mullion lock gear Profile series FF, WB Profile series W, WI Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special Central hinge Colour silver, similar to RAL 9006 White RAL 9016 RAL special Additional horizontal locking Turn restrictor set with brake Reinforcement set 90 to 130 kg – adjustable</p>	/	/	2x 293954	2x 293954	10 pc(s)
	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)
	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
	293455	293455	293455	293455	10 pc(s)
	293456	293456	293456	293456	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
 <p>Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special Central hinge Colour silver, similar to RAL 9006 White RAL 9016 RAL special Additional horizontal locking Turn restrictor set with brake Reinforcement set 90 to 130 kg – adjustable</p>					
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
	2x 293904	2x 293904	2x 293904	2x 293904	5 pc(s)
	2x 293914	2x 293914	2x 293914	2x 293914	5 pc(s)
	2x 293924	2x 293924	2x 293924	2x 293924	5 pc(s)
	/	/	2x 293954	2x 293954	10 pc(s)
	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)
	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²⁴ Optional turn restrictor set

– Minimum sash width 625 mm, max. opening angle 90° for sash width 505 – 624 mm.
Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁸ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 600 mm for max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 745 mm for max. opening angle (88°), for additional horizontal locking
- Minimum sash width 1130 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

The table is continued on the next page!

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings max. 130 kg – surface mounted

Active leaf dummy mullion gear

R-540 AL DK EG G R-540 AL DK GG G

see diagrams:

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4389 / 4391 / 4393 / 4395



	Turn/tilt fitting, tilt position locked Stay 400 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		UV
	DIN R	DIN L	DIN R	DIN L	DIN R	DIN L	
	No.	No.	No.	No.	No.	No.	
D-DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
D-DK stay							
Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
D-DK friction stay bearing							
Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
Corner pivot rest bottom							
Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)
White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)
RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)
Gear lock	293867	293867	293867	293867	293867	293867	10 pc(s)
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
D-DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
D-DK stay							
Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
D-DK friction stay bearing							
Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
Corner pivot rest bottom							
Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)
White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)
RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)
Gear lock	293867	293867	293867	293867	293867	293867	10 pc(s)
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)
Angle fastener set vertical	293951	293951	293951	293951	293951	293951	10 pc(s)
Additional vertical locking	293959	293959	293959	293959	293959	293959	10 pc(s)
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)

G = Active leaf/S = Inactive leaf

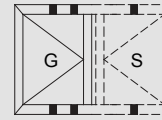
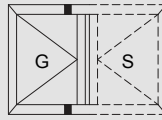
The table is continued on the next page!

Inward opening
Turn fittings max. 130 kg – surface mounted
Active leaf dummy mullion gear

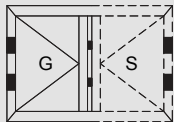
R-540 AL DK EG G
R-540 AL DK GG G

see diagrams:

4381 / 4383 / 4385 / 4387 /
4389 / 4391 / 4393 / 4395



	Turn/tilt fitting, tilt position locked Stay 400 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		UV
	DIN R	DIN L	DIN R	DIN L	DIN R	DIN L	
	No.	No.	No.	No.	No.	No.	
D-DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
D-DK stay							
Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
D-DK friction stay bearing							
Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
Corner pivot rest bottom							
Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)
White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)
RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)
Gear lock	293867	293867	293867	293867	293867	293867	10 pc(s)
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)
Angle fastener set vertical	293951	293951	293951	293951	293951	293951	10 pc(s)
Additional vertical locking	293954	293954	293954	293954	293954	293954	10 pc(s)
Additional vertical locking	2x 293959	2x 293959	2x 293959	2x 293959	2x 293959	2x 293959	10 pc(s)
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)



G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²⁵ Optional turn restrictor set
– Minimum sash width 695 mm, max. opening angle 90°
for sash width 575 – 694 mm. Use small turn restrictor set 293991
with brake, max. opening angle 65°.

²⁹ Alternatively:
– 291500 Damped opening restrictor 90 kg
– Minimum sash width 675 mm for max. opening angle (88°) or
– 291501 Damped opening restrictor 130 kg
– Minimum sash width 815 mm for max. opening angle (88°), for additional horizontal locking
– Minimum sash width 1265 mm for max. opening angle (88°).
– Larger sash widths are required for smaller opening angles.

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

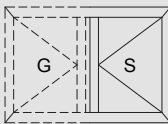
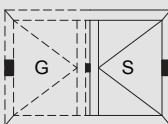
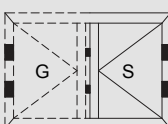
Turn fittings max. 130 kg, hinges adjustable – surface mounted

Inactive leaf dummy mullion with handle on active and inactive leaf

R-540 AL DK EG 2G + active leaf R-540 AL DK EG 2G
R-540 AL DK GG 2G + active leaf R-540 AL DK GG 2G

see diagrams:

4080 / 4082 / 4084 / 4086 / 4088

	DIN R		DIN L		UV
	No.	No.	No.	No.	
 <p>Dummy mullion lock</p> <p>Stop wedge</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Gear lock</p> <p>Additional horizontal locking</p> <p>Turn restrictor set with brake</p> <p>Reinforcement set 90 to 130 kg – adjustable</p>	293957	293957	293957	293957	10 pc(s)
	293052	293052	293052	293052	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
	293867	293867	293867	293867	10 pc(s)
	/	/	2x 293954	2x 293954	10 pc(s)
293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)	
293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
 <p>Dummy mullion lock</p> <p>Stop wedge</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Central hinge Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Gear lock</p> <p>Additional horizontal locking</p> <p>Turn restrictor set with brake</p> <p>Reinforcement set 90 to 130 kg – adjustable</p>	293957	293957	293957	293957	10 pc(s)
	293052	293052	293052	293052	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
	293904	293904	293904	293904	5 pc(s)
	293914	293914	293914	293914	5 pc(s)
293924	293924	293924	293924	5 pc(s)	
293867	293867	293867	293867	10 pc(s)	
/	/	2x 293954	2x 293954	10 pc(s)	
293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)	
293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
 <p>Dummy mullion lock</p> <p>Stop wedge</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Central hinge Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Gear lock</p> <p>Additional horizontal locking</p> <p>Turn restrictor set with brake</p> <p>Reinforcement set 90 to 130 kg – adjustable</p>	293957	293957	293957	293957	10 pc(s)
	293052	293052	293052	293052	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
	2x 293904	2x 293904	2x 293904	2x 293904	5 pc(s)
	2x 293914	2x 293914	2x 293914	2x 293914	5 pc(s)
2x 293924	2x 293924	2x 293924	2x 293924	5 pc(s)	
293867	293867	293867	293867	10 pc(s)	
/	/	2x 293954	2x 293954	10 pc(s)	
293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)	
293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²⁴ Optional turn restrictor set

- Minimum sash width 625 mm, max. opening angle 90° for sash width 505 – 624 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁸ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 600 mm for max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 745 mm for max. opening angle (88°), for additional horizontal locking
- Minimum sash width 1130 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

The table is continued on the next page!

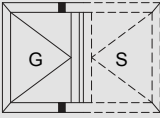
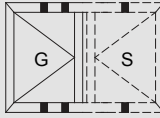
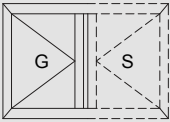
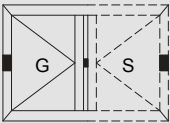
■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

Inward opening
Turn fittings max. 130 kg – surface mounted
Active leaf dummy mullion with handle on active and inactive leaf

R-540 AL DK EG 2G
R-540 AL DK GG 2G

see diagrams:
4080 / 4082 / 4084 /
4086 / 4088

							UV	
	Turn/tilt fitting, tilt position locked Stay 400 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		Turn/tilt fitting, tilt position locked Stay 600 mm			
	DIN R No.	DIN L No.	DIN R No.	DIN L No.	DIN R No.	DIN L No.		
	D-DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
	D-DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	D-DK friction stay bearing							
	Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
	White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
	RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
	Corner pivot rest bottom							
	Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)
	RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)
	Gear lock	293867	293867	293867	293867	293867	293867	10 pc(s)
	Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)
	Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)
	Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)
	D-DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
	D-DK stay							
	Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
	White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
	RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
	D-DK friction stay bearing							
	Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
	White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
	RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
	Corner pivot rest bottom							
	Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)
	RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)
	Gear lock	293867	293867	293867	293867	293867	293867	10 pc(s)
	Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)
	Angle fastener set vertical	293951	293951	293951	293951	293951	293951	10 pc(s)
	Additional vertical locking	293959	293959	293959	293959	293959	293959	10 pc(s)
	Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)
	Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)

G = Active leaf/S = Inactive leaf

The table is continued on the next page!

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

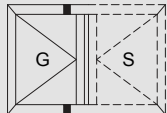
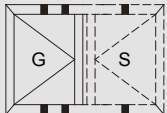
Turn fittings max. 130 kg – surface mounted

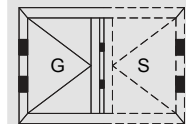
Active leaf dummy mullion with handle on active and inactive leaf

R-540 AL DK EG 2G
R-540 AL DK GG 2G

see diagrams:

4080 / 4082 / 4084 /
4086 / 4088

							UV
	Turn/tilt fitting, tilt position locked Stay 400 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		Turn/tilt fitting, tilt position locked Stay 600 mm		
	DIN R	DIN L	DIN R	DIN L	DIN R	DIN L	
	No.	No.	No.	No.	No.	No.	
D-DK lock dummy mullion	293461	293461	293461	293461	293461	293461	10 pc(s)
D-DK stay							
Colour silver, similar to RAL 9006	293101	293131	293102	293132	293102	293132	10 pc(s)
White RAL 9016	293111	293141	293112	293142	293112	293142	10 pc(s)
RAL special	293117	293147	293118	293148	293118	293148	10 pc(s)
D-DK friction stay bearing							
Colour silver, similar to RAL 9006	293906	293906	293906	293906	293906	293906	5 pc(s)
White RAL 9016	293917	293917	293917	293917	293917	293917	5 pc(s)
RAL special	293926	293926	293926	293926	293926	293926	5 pc(s)
Corner pivot rest bottom							
Colour silver, similar to RAL 9006	293900	293901	293900	293901	293900	293901	5 pc(s)
White RAL 9016	293910	293911	293910	293911	293910	293911	5 pc(s)
RAL special	293920	293921	293920	293921	293920	293921	5 pc(s)
Gear lock	293867	293867	293867	293867	293867	293867	10 pc(s)
Additional horizontal locking	2x 293954	2x 293954	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)
Angle fastener set vertical	293951	293951	293951	293951	293951	293951	10 pc(s)
Additional vertical locking	293954	293954	293954	293954	293954	293954	10 pc(s)
Additional vertical locking	2x 293959	2x 293959	2x 293959	2x 293959	2x 293959	2x 293959	10 pc(s)
Turn restrictor set with brake	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)



G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²⁵ Optional turn restrictor set

– Minimum sash width 695 mm, max. opening angle 90° for sash width 575 – 694 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁹ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 675 mm for max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 815 mm for max. opening angle (88°), for additional horizontal locking
- Minimum sash width 1265 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

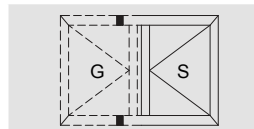
■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

Inward opening
Turn fittings max. 130 kg, hinges adjustable – surface mounted
Inactive leaf dummy mullion toggle lever

R-540 AL DB EG K
+ active leaf R-540 AL DB EG K
R-540 AL DB GG K
+ active leaf R-540 AL DB GG K

see diagrams:
4201 / 4203 / 4205 / 4207 /
4209 / 4211 / 4213 / 4215



■ Technical information

– Use 225540 locking bolt in inactive leaf.

	DIN R	DIN L	UV	
	No.	No.		
	Dummy mullion lock, toggle lever	293451	293451	10 pc(s)
	Corner pivot rest bottom			
	Colour silver, similar to RAL 9006	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	5 pc(s)
	RAL special	293920	293921	5 pc(s)
	Turn hinge top			
	Colour silver, similar to RAL 9006	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	5 pc(s)
	RAL special	293923	293923	5 pc(s)
	Turn restrictor set with brake	293990 ^{23, 27}	293990 ^{23, 27}	10 pc(s)
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	Dummy mullion lock, toggle lever	293451	293451	10 pc(s)
	Corner pivot rest bottom			
	Colour silver, similar to RAL 9006	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	5 pc(s)
	RAL special	293920	293921	5 pc(s)
	Turn hinge top			
	Colour silver, similar to RAL 9006	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	5 pc(s)
	RAL special	293923	293923	5 pc(s)
	Central hinge			
Colour silver, similar to RAL 9006	293904	293904	5 pc(s)	
White RAL 9016	293914	293914	5 pc(s)	
RAL special	293924	293924	5 pc(s)	
Turn restrictor set with brake	293990 ^{23, 27}	293990 ^{23, 27}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	Dummy mullion lock, toggle lever	293451	293451	10 pc(s)
	Corner pivot rest bottom			
	Colour silver, similar to RAL 9006	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	5 pc(s)
	RAL special	293920	293921	5 pc(s)
	Turn hinge top			
	Colour silver, similar to RAL 9006	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	5 pc(s)
	RAL special	293923	293923	5 pc(s)
	Central hinge			
Colour silver, similar to RAL 9006	2x 293904	2x 293904	5 pc(s)	
White RAL 9016	2x 293914	2x 293914	5 pc(s)	
RAL special	2x 293924	2x 293924	5 pc(s)	
Turn restrictor set with brake	293990 ^{23, 27}	293990 ^{23, 27}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²³ Optional turn restrictor set
– Minimum sash width 490 mm, max. opening angle 90°
for sash width 405 – 489 mm. Use small turn restrictor set 293991
with brake, max. opening angle 65°.

²⁷ Alternatively:
– 291500 Damped opening restrictor 90 kg
– Minimum sash width 465 mm for max. opening angle (88°) or
– 291501 Damped opening restrictor 130 kg
– Minimum sash width 610 mm for max. opening angle (88°).
– Larger sash widths are required for smaller opening angles.

The table is continued on the next page!

FRAME+ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings max. 130 kg, hinges adjustable – surface mounted

Active leaf dummy mullion toggle lever

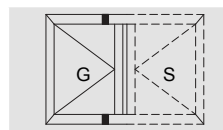
R-540 AL DB EG K

R-540 AL DB GG K

see diagrams:

4201 / 4203 / 4205 / 4207 /

4209 / 4211 / 4213 / 4215



D-Central fastener

DIN R DIN L

No. No.

UV

	Lock			
	Corner pivot rest bottom			
	Colour silver, similar to RAL 9006			
	White RAL 9016	293900	293901	5 pc(s)
	RAL special	293910	293911	5 pc(s)
		293920	293921	5 pc(s)
	Turn hinge top			
	Colour silver, similar to RAL 9006			
	White RAL 9016	293903	293903	5 pc(s)
	RAL special	293913	293913	5 pc(s)
	293923	293923	5 pc(s)	
Gear lock	293867	293867	10 pc(s)	
Additional horizontal locking	2x 293954	2x 293954	10 pc(s)	
Turn restrictor set	293990^{17, 21}	293990^{17, 21}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960¹⁰	293960¹⁰	10 pc(s)	
Lock	293462	293462	10 pc(s)	
Corner pivot rest bottom				
Colour silver, similar to RAL 9006				
White RAL 9016	293900	293901	5 pc(s)	
RAL special	293910	293911	5 pc(s)	
	293920	293921	5 pc(s)	
Turn hinge top				
Colour silver, similar to RAL 9006				
White RAL 9016	293903	293903	5 pc(s)	
RAL special	293913	293913	5 pc(s)	
	293923	293923	5 pc(s)	
Central hinge				
Colour silver, similar to RAL 9006				
White RAL 9016	293904	293904	5 pc(s)	
RAL special	293914	293914	5 pc(s)	
	293924	293924	5 pc(s)	
Gear lock	293867	293867	10 pc(s)	
Additional vertical locking	293959	293959	10 pc(s)	
Additional horizontal locking	2x 293954	2x 293954	10 pc(s)	
Turn restrictor set	293990^{17, 21}	293990^{17, 21}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960¹⁰	293960¹⁰	10 pc(s)	
Lock	293462	293462	10 pc(s)	
Corner pivot rest bottom				
Colour silver, similar to RAL 9006				
White RAL 9016	293900	293901	5 pc(s)	
RAL special	293910	293911	5 pc(s)	
	293920	293921	5 pc(s)	
Turn hinge top				
Colour silver, similar to RAL 9006				
White RAL 9016	293903	293903	5 pc(s)	
RAL special	293913	293913	5 pc(s)	
	293923	293923	5 pc(s)	
Central hinge				
Colour silver, similar to RAL 9006				
White RAL 9016	2x 293904	2x 293904	5 pc(s)	
RAL special	2x 293914	2x 293914	5 pc(s)	
	2x 293924	2x 293924	5 pc(s)	
Gear lock	293867	293867	10 pc(s)	
Additional vertical locking	2x 293959	2x 293959	10 pc(s)	
Additional horizontal locking	2x 293954	2x 293954	10 pc(s)	
Turn restrictor set	293990^{17, 21}	293990^{17, 21}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960¹⁰	293960¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

¹⁷ Optional turn restrictor set
 – Minimum sash width 620 mm, max. Öffnungswinkel 90°
 for sash width 500 – 619 mm. Use small turn restrictor set 293991
 with brake, max. opening angle 65°.

²¹ Alternatively:
 – 291500 Damped opening restrictor 90 kg
 - Minimum sash width 600 mm for max. opening angle (88°) or
 – 291501 Damped opening restrictor 130 kg
 - Minimum sash width 740 mm for max. opening angle (88°).
 – Larger sash widths are required for smaller opening angles.

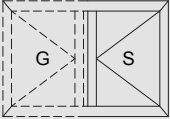
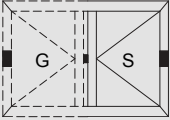
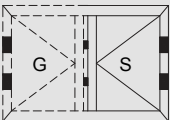
■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

Inward opening
Turn fittings max. 130 kg, hinges adjustable – surface mounted
Inactive leaf dummy mullion gear

R-540 AL DB EG G
+ active leaf R-540 AL DB EG G
R-540 AL DB GG G
+ active leaf R-540 AL DB GG G

see diagrams:
4261 / 4263 / 4265 / 4267 / 4269 / 4271 / 4273 / 4275

		DIN R		DIN L		UV
		No.	No.	No.	No.	
	Dummy mullion lock gear					
	Profile series FF, WB	293455	293455	293455	293455	10 pc(s)
	Profile series W, WI	293456	293465	293456	293456	10 pc(s)
	Corner pivot rest bottom					
	Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	293910	293911	5 pc(s)
	RAL special	293920	293921	293920	293921	5 pc(s)
	Turn hinge top					
	Colour silver, similar to RAL 9006	293903	293903	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	293913	293913	5 pc(s)
RAL special	293923	293923	293923	293923	5 pc(s)	
Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)	
Turn restrictor set with brake	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	Dummy mullion lock gear					
	Profile series FF, WB	293455	293455	293455	293455	10 pc(s)
	Profile series W, WI	293456	293465	293456	293456	10 pc(s)
	Corner pivot rest bottom					
	Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	293910	293911	5 pc(s)
	RAL special	293920	293921	293920	293921	5 pc(s)
	Turn hinge top					
	Colour silver, similar to RAL 9006	293903	293903	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	293913	293913	5 pc(s)
RAL special	293923	293923	293923	293923	5 pc(s)	
Central hinge						
Colour silver, similar to RAL 9006	293904	293904	293904	293904	5 pc(s)	
White RAL 9016	293914	293914	293914	293914	5 pc(s)	
RAL special	293924	293924	293924	293924	5 pc(s)	
Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)	
Turn restrictor set with brake	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
	Dummy mullion lock gear					
	Profile series FF, WB	293455	293455	293455	293455	10 pc(s)
	Profile series W, WI	293456	293465	293456	293456	10 pc(s)
	Corner pivot rest bottom					
	Colour silver, similar to RAL 9006	293900	293901	293900	293901	5 pc(s)
	White RAL 9016	293910	293911	293910	293911	5 pc(s)
	RAL special	293920	293921	293920	293921	5 pc(s)
	Turn hinge top					
	Colour silver, similar to RAL 9006	293903	293903	293903	293903	5 pc(s)
	White RAL 9016	293913	293913	293913	293913	5 pc(s)
RAL special	293923	293923	293923	293923	5 pc(s)	
Central hinge						
Colour silver, similar to RAL 9006	2x 293904	2x 293904	2x 293904	2x 293904	5 pc(s)	
White RAL 9016	2x 293914	2x 293914	2x 293914	2x 293914	5 pc(s)	
RAL special	2x 293924	2x 293924	2x 293924	2x 293924	5 pc(s)	
Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)	
Turn restrictor set with brake	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	293990 ^{24, 28}	10 pc(s)	
Reinforcement set 90 to 130 kg – adjustable	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²⁴ Optional turn restrictor set

– Minimum sash width 625 mm, max. opening angle 90° for sash width 505 – 624 mm.
Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁸ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 600 mm for max. opening angle (88°) or
- 291501 Damped opening restrictor 130 kg
- Minimum sash width 745 mm for max. opening angle (88°), for additional horizontal locking
- Minimum sash width 1130 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

The table is continued on the next page!

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings max. 130 kg, hinges adjustable – surface mounted

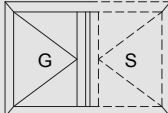
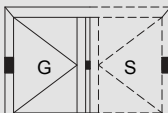
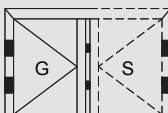
Active leaf dummy mullion gear

R-540 AL DB EG G

R-540 AL DB GG G

see diagrams:

4261 / 4263 / 4265 / 4267 / 4269 / 4271 / 4273 / 4275

	D-Central fastener		D-Central fastener		UV
	DIN R	DIN L	DIN R	DIN L	
	No.	No.	No.	No.	
 <p>Lock</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Gear lock</p> <p>Additional horizontal locking</p> <p>Turn restrictor set with brake</p> <p>Reinforcement set 90 to 130 kg – adjustable</p>	293462	293462	293462	293462	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
	293867	293867	293867	293867	10 pc(s)
	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)
	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)
293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
 <p>Lock</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Central hinge Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Gear lock</p> <p>Additional horizontal locking</p> <p>Additional vertical locking</p> <p>Turn restrictor set with brake</p> <p>Reinforcement set 90 to 130 kg – adjustable</p>	293462	293462	293462	293462	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
	293867	293867	293867	293867	10 pc(s)
	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)
	293959	293959	293959	293959	10 pc(s)
293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	
 <p>Lock</p> <p>Corner pivot rest bottom Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Turn hinge top Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Central hinge Colour silver, similar to RAL 9006 White RAL 9016 RAL special</p> <p>Gear lock</p> <p>Additional horizontal locking</p> <p>Additional vertical locking</p> <p>Turn restrictor set with brake</p> <p>Reinforcement set 90 to 130 kg – adjustable</p>	293462	293462	293462	293462	10 pc(s)
	293900	293901	293900	293901	5 pc(s)
	293910	293911	293910	293911	5 pc(s)
	293920	293921	293920	293921	5 pc(s)
	293903	293903	293903	293903	5 pc(s)
	293913	293913	293913	293913	5 pc(s)
	293923	293923	293923	293923	5 pc(s)
	293867	293867	293867	293867	10 pc(s)
	2x 293954	2x 293954	4x 293954	4x 293954	10 pc(s)
	2x 293959	2x 293959	2x 293959	2x 293959	10 pc(s)
293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	293990 ^{25, 29}	10 pc(s)	
293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	293960 ¹⁰	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁰ Reinforcement for sash weight > 90 kg.

²⁵ Optional turn restrictor set
– Minimum sash width 620 mm, max. opening angle 90°
for sash width 500 – 619 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁹ Alternatively:
– 291500 Damped opening restrictor 90 kg
– Minimum sash width 600 mm for max. opening angle (88°) or
– 291501 Damped opening restrictor 130 kg
– Minimum sash width 740 mm for max. opening angle (88°) for additional horizontal locking
– Minimum sash width 1265 mm for max. opening angle (88°).
– Larger sash widths are required for smaller opening angles.

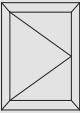
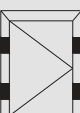
■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

Inward opening
Turn fittings 70 kg, hinges adjustable – surface mounted

R-540 AL DB EG 70
R-540 AL DB GG 70

see diagrams:
3920 / 3924 / 3928 / 3930 / 3934

		D-lock No.	D-Central fastener No.	UV
 Hinges adjustable	Lock	293250	293251	10 pc(s)
	D-Hinge			
	Colour silver, similar to RAL 9006	2x 293932	2x 293932	20 pc(s)
	White RAL 9016	2x 293942	2x 293942	20 pc(s)
	Gear lock	293867	293867	10 pc(s)
	Turn restrictor set	293990^{17, 21}	293990^{17, 21}	10 pc(s)
 Hinges adjustable	Lock	293250	293251	10 pc(s)
	D-Hinge			
	Colour silver, similar to RAL 9006	3x 293932	3x 293932	20 pc(s)
	White RAL 9016	3x 293942	3x 293942	20 pc(s)
	Gear lock	293867	293867	10 pc(s)
	Additional vertical locking	293954	293954	10 pc(s)
	Turn restrictor set	293990^{17, 21}	293990^{17, 21}	10 pc(s)
 Hinges adjustable	Lock	293250	293251	10 pc(s)
	D-Hinge			
	Colour silver, similar to RAL 9006	4x 293932	4x 293932	20 pc(s)
	White RAL 9016	4x 293942	4x 293942	20 pc(s)
	Gear lock	293867	293867	10 pc(s)
	Additional vertical locking	2x 293954	2x 293954	10 pc(s)
	Turn restrictor set	293990^{17, 21}	293990^{17, 21}	10 pc(s)

¹⁷ Optional turn restrictor set
– Minimum sash width 501 mm, max. opening angle 90°
for sash width 370 – 500 mm. Use small turn restrictor set 293991
with brake, max. opening angle 65°.

²¹ Alternatively:
– 291500 Damped opening restrictor 90 kg
– Minimum sash width 470 mm for max. opening angle (88°).
– Larger sash widths are required for smaller opening angles.

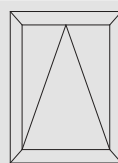
■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

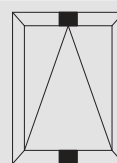
Inward opening
Tilt fittings 70 kg, top handle – surface mounted

R-540 AL EG GO 70
R-540 AL GG GO 70

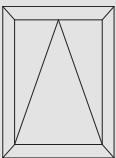
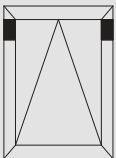
siehe Diagramm:
3940



K-Top handle



K-Top handle

		No.	No.	UV
	K lock	293350	293350	10 pc(s)
	K hinge			
	Colour silver, similar to RAL 9006	2x 293932	3x 293932	20 pc(s)
	White RAL 9016	2x 293942	3x 293942	20 pc(s)
	Gear lock	293867	293867	10 pc(s)
	Additional horizontal locking	/	293954	10 pc(s)
	K lock	293350	293350	10 pc(s)
	K hinge side			
	Colour silver, similar to RAL 9006	2x 293932	3x 293932	20 pc(s)
	White RAL 9016	2x 293942	3x 293942	20 pc(s)
	Corner drive with locking	293957	293957	10 pc(s)
	Gear lock	293867	293867	10 pc(s)
	Additional horizontal locking	/	293954	10 pc(s)

■ **Gear**

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

Inward opening
Tilt fittings 70 kg, hinges adjustable, only hinges – surface mounted

R-540 AL only hinges 70

see diagrams:

3941 / 3945 / 3949 / 3951 / 3955

	K-Only hinges	K-Only hinges	
	No.	No.	UV
	K hinge		
	Colour silver, similar to RAL 9006	2x 293932	3x 293932 20 pc(s)
	White RAL 9016	2x 293942	3x 293942 20 pc(s)
	Restrictor stay	35, 36, 37	35, 36, 37
	K hinge		
	Colour silver, similar to RAL 9006	2x 293932	3x 293932 20 pc(s)
	White RAL 9016	2x 293942	3x 293942 20 pc(s)
	Restrictor stay	35, 36, 37	35, 36, 37
	Corner drive with locking	293957	293957 10 pc(s)
	K hinge		
	Colour silver, similar to RAL 9006	2x 293932	3x 293932 20 pc(s)
	White RAL 9016	2x 293942	3x 293942 20 pc(s)
	Restrictor stay	35, 40	35, 40
	Corner drive with locking	293957	293957 10 pc(s)
	Additional vertical locking	2x 293954	2x 293954 10 pc(s)

S = single motor / Ta = twin motors / V = Locking motor

³⁵ The restrictor stay is essential when using a single motor. If using at least two motors, check with the motor manufacturer whether a restrictor stay is required. Use of restrictor stays, see German professional association regulation 232.

³⁶ Alternatively:

- 291600 restrictor and cleaning stay – small – size 1 – opening width approximately 260 mm – PU = 20 pc(s)
- Sash height 430 to 700, opening width in cleaning position 55°, max. sash weight when installing 1 stay, 16 kg, max. sash weight when installing 2 stays, 35 kg
- Sash height 701 to 1000, opening width in cleaning position 35°, max. sash weight when installing 1 stay, 21 kg, max. sash weight when installing 2 stays, 44 kg
- Sash height 1001 to 1300, opening width in cleaning position 25°, max. sash weight when installing 1 stay, 30 kg, max. sash weight when installing 2 stays, 62 kg
- Additional use ranges on request.
- For sash width ≥ 700 mm 2x 291600 additional 291603 Accessories for restrictor and cleaning stay – small – UV = 20 pc(s).

³⁷ Alternatively:

- Restrictor and cleaning stay – large – opening width approximately 210 mm – PU = 20 pc(s) – weight of glass filling when installing 2 stays max. 30 kg/m².
- 2x 291505 restrictor and cleaning stay – large – size 1 – sash height 405 to 499 mm – opening width in cleaning position approximately 60°
- 2x 291506 restrictor and cleaning stay – large – size 2 – sash height 500 to 699 mm – opening width in cleaning position approximately 75°
- 2x 291507 restrictor and cleaning stay – large – size 3 – sash height 700 to 899 mm – opening width in cleaning position approximately 75°
- 2x 291508 restrictor and cleaning stay – large – size 4 – sash height 900 to 1300 mm – opening width in cleaning position approximately 75°
- In case of additional vertical locking minimum sash height 1100 mm.

⁴⁰ Restrictor stay with driving rod that can be passed through to the multiple bolting, on request.

FRAME+ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings 70 kg, hinges adjustable – surface mounted

Inactive leaf dummy mullion toggle lever

R-540 AL DB EG K 70

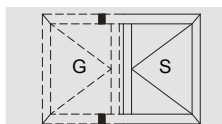
+ active leaf R-540 AL DB EG K 70

R-540 AL DB GG K 70

+ active leaf R-540 AL DB GG K 70

see diagrams:

3881 / 3885 / 3889 / 3891 / 3895



■ Technical information

– Use 225540 locking bolt in inactive leaf.

		No.	UV
	Dummy mullion lock, toggle lever	293451	10 pc(s)
	D-Hinge		
	Colour silver, similar to RAL 9006	2x 293932	20 pc(s)
	White RAL 9016	2x 293942	20 pc(s)
	Turn restrictor set with brake	293990^{23, 27}	10 pc(s)
	Dummy mullion lock, toggle lever	293451	10 pc(s)
	D-Hinge		
	Colour silver, similar to RAL 9006	3x 293932	20 pc(s)
	White RAL 9016	3x 293942	20 pc(s)
	Turn restrictor set with brake	293990^{23, 27}	10 pc(s)
	Dummy mullion lock, toggle lever	293451	10 pc(s)
	D-Hinge		
	Colour silver, similar to RAL 9006	4x 293932	20 pc(s)
	White RAL 9016	4x 293942	20 pc(s)
	Turn restrictor set with brake	293990^{23, 27}	10 pc(s)

G = Active leaf/S = Inactive leaf

²³ Optional turn restrictor set

– Minimum sash width 490 mm, max. opening angle 90°.

²⁷ Alternatively:

– 291500 Damped opening restrictor 90 kg – max. opening angle (88°).

– Larger sash widths are required for smaller opening angles.

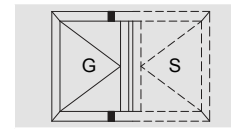
The table ist continued on the next page!

Inward opening
Turn fittings 70 kg, hinges adjustable – surface mounted
Active leaf dummy mullion toggle lever

R-540 AL DB EG K 70
R-540 AL DB GG K 70

see diagrams:

3881 / 3885 / 3889 / 3891 / 3895



		D-Central fastener	
		No.	UV
	Lock	293462	10 pc(s)
	D-Hinge		
	Colour silver, similar to RAL 9006	2x 293932	20 pc(s)
	White RAL 9016	2x 293942	20 pc(s)
	Gear lock	293867	10 pc(s)
	Additional horizontal locking	2x 293954	10 pc(s)
Turn restrictor set	293990^{17, 21}	10 pc(s)	
	Lock	293462	10 pc(s)
	D-Hinge side		
	Colour silver, similar to RAL 9006	3x 293932	20 pc(s)
	White RAL 9016	3x 293942	20 pc(s)
	Gear lock	293867	10 pc(s)
	Additional vertical locking	293959	10 pc(s)
Additional horizontal locking	2x 293954	10 pc(s)	
Turn restrictor set	293990^{17, 21}	10 pc(s)	
	Lock	293462	10 pc(s)
	D-Hinge side		
	Colour silver, similar to RAL 9006	4x 293932	20 pc(s)
	White RAL 9016	4x 293942	20 pc(s)
	Gear lock	293867	10 pc(s)
	Additional vertical locking	2x 293959	10 pc(s)
Additional horizontal locking	2x 293954	10 pc(s)	
Turn restrictor set	293990^{17, 21}	10 pc(s)	

G = Active leaf/S = Inactive leaf

¹⁷ Optional turn restrictor set

- Minimum sash width 620 mm, max. opening angle 90° for sash width 500 – 619 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²¹ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 600 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings 70 kg, hinges adjustable – surface mounted

Inactive leaf dummy mullion gear

R-540 AL DB EG G 70

+ active leaf R-540 AL DB EG G 70

R-540 AL DB GG G 70

+ active leaf R-540 AL DB GG G 70

see diagrams:

3901 / 3905 / 3909 / 3911 / 3915

		No.	No.	UV
	Dummy mullion lock gear			
	Profile series FF, WB	293455	293455	10 pc(s)
	Profile series W, WI	293456	293456	10 pc(s)
	D-Hinge			
	Colour silver, similar to RAL 9006	2x 293932	2x 293932	20 pc(s)
	White RAL 9016	2x 293942	2x 293942	20 pc(s)
	Additional horizontal locking	/	2x 293954	10 pc(s)
	Turn restrictor set with brake	293990^{24, 28}	293990^{24, 28}	10 pc(s)
	Dummy mullion lock gear			
	Profile series FF, WB	293455	293455	10 pc(s)
	Profile series W, WI	293456	293456	10 pc(s)
	D-Hinge			
	Colour silver, similar to RAL 9006	3x 293932	3x 293932	20 pc(s)
	White RAL 9016	3x 293942	3x 293942	20 pc(s)
	Additional horizontal locking	/	2x 293954	10 pc(s)
	Turn restrictor set with brake	293990^{24, 28}	293990^{24, 28}	10 pc(s)
	Dummy mullion lock gear			
	Profile series FF, WB	293455	293455	10 pc(s)
	Profile series W, WI	293456	293456	10 pc(s)
	D-Hinge			
	Colour silver, similar to RAL 9006	4x 293932	4x 293932	20 pc(s)
	White RAL 9016	4x 293942	4x 293942	20 pc(s)
	Additional horizontal locking	/	2x 293954	10 pc(s)
	Turn restrictor set with brake	293990^{24, 28}	293990^{24, 28}	10 pc(s)

G = Active leaf/S = Inactive leaf

²⁴ Optional turn restrictor set

- Minimum sash width 625 mm, max. opening angle 90°
- for sash width 505 – 624 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁸ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 600 mm for max. opening angle (88°) for additional horizontal locking
- Minimum sash width 1130 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

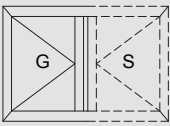
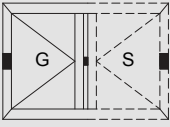
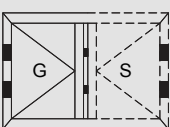
The table ist continued on the next page!

Inward opening
Turn fittings 70 kg, hinges adjustable – surface mounted
Active leaf dummy mullion gear

R-540 AL DB EG G 70
R-540 AL DB GG G 70

see diagrams:

3901 / 3905 / 3909 / 3911 / 3915

		No.	No.	UV
	Lock	293462	293462	10 pc(s)
	D-Hinge side			
	Colour silver, similar to RAL 9006	2x 293932	2x 293932	20 pc(s)
	White RAL 9016	2x 293942	2x 293942	20 pc(s)
	Gear lock	293867	293867	10 pc(s)
	Additional horizontal locking	2x 293954	4x 293954	10 pc(s)
	Turn restrictor set with brake	293990^{25, 29}	293990^{25, 29}	10 pc(s)
	Lock	293462	293462	10 pc(s)
	D-Hinge side			
	Colour silver, similar to RAL 9006	3x 293932	3x 293932	20 pc(s)
	White RAL 9016	3x 293942	3x 293942	20 pc(s)
	Gear lock	293867	293867	10 pc(s)
	Additional horizontal locking	2x 293954	4x 293954	10 pc(s)
	Additional vertical locking	293959	293959	10 pc(s)
	Turn restrictor set with brake	293990^{25, 29}	293990^{25, 29}	10 pc(s)
	Lock	293462	293462	10 pc(s)
	D-Hinge side			
	Colour silver, similar to RAL 9006	4x 293932	4x 293932	20 pc(s)
	White RAL 9016	4x 293942	4x 293942	20 pc(s)
	Gear lock	293867	293867	10 pc(s)
	Additional horizontal locking	2x 293954	4x 293954	10 pc(s)
	Additional vertical locking	2x 293959	2x 293959	10 pc(s)
	Turn restrictor set with brake	293990^{25, 29}	293990^{25, 29}	10 pc(s)

G = Active leaf/S = Inactive leaf

²⁵ Optional turn restrictor set

- Minimum sash width 620 mm, max. opening angle 90° for sash width 500 – 619 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

²⁹ Alternatively:

- 291500 Damped opening restrictor 90 kg
- Minimum sash width 600 mm for max. opening angle (88°).
- Larger sash widths are required for smaller opening angles.

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

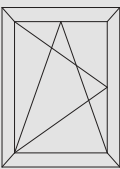
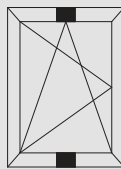
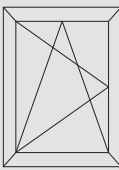
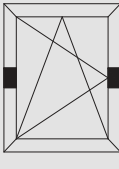
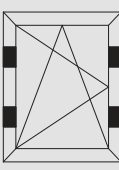
FRAME+ 90 WI/WB/WB-T

Selection tables AL

Inward opening
Turn-tilt-fittings 200 kg – surface mounted
 RAL special

R-540 EG 200

see diagrams:
4222 / 4226 / 4232

					UV	
	DIN R	DIN L	DIN R	DIN L		
	No.	No.	No.	No.		
	DK lock	293650	293650	293650	293650	1 pc(s)
	DK hinge side	293651 ⁶	293652 ⁶	293651 ⁶	293652 ⁶	1 pc(s)
	Screws for hinge fixation	10x 902595	10x 902595	10x 902595	10x 902595	100 pc(s)
	DK additional width stay	293955 ⁸	293955 ⁸	293955 ⁸	293955 ⁸	10 pc(s)
	Sash-lifter set	293653	293654	293653	293654	1 pc(s)
	Turn restrictor set with brake	293990 ¹⁶	293990 ¹⁶	293990 ¹⁶	293990 ¹⁶	10 pc(s)
	Additional horizontal locking	/	/	293655	293655	1 pc(s)
	DK lock	293650	293650	293650	293650	1 pc(s)
	DK hinge side	293651 ⁶	293652 ⁶	293651 ⁶	293652 ⁶	1 pc(s)
	Screws for hinge fixation	10x 902595	10x 902595	10x 902595	10x 902595	100 pc(s)
	DK additional width stay	293955 ⁸	293955 ⁸	293955 ⁸	293955 ⁸	10 pc(s)
	Sash-lifter set	293653	293654	293653	293654	1 pc(s)
	Turn restrictor set with brake	293990 ¹⁶	293990 ¹⁶	293990 ¹⁶	293990 ¹⁶	10 pc(s)
	Additional fastener set horizontal	/	/	293655	293655	1 pc(s)
	Central fastener set vertical	293953	293953	293953	293953	10 pc(s)
	DK lock	293650	293650	293650	293650	1 pc(s)
	DK hinge side	293651 ⁶	293652 ⁶	293651 ⁶	293652 ⁶	1 pc(s)
	Screws for hinge fixation	10x 902595	10x 902595	10x 902595	10x 902595	100 pc(s)
	DK additional width stay	293955 ⁸	293955 ⁸	293955 ⁸	293955 ⁸	10 pc(s)
	Sash-lifter set	293653	293654	293653	293654	1 pc(s)
	Turn restrictor set with brake	293990 ¹⁶	293990 ¹⁶	293990 ¹⁶	293990 ¹⁶	10 pc(s)
	Additional fastener set horizontal	/	/	293655	293655	1 pc(s)
	Central fastener set vertical	293953	293953	293953	293953	10 pc(s)
	Additional vertical locking	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)

G = Active leaf/S = Inactive leaf

⁶ Drilling template for 200 kg no. 228785.

⁸ Additional width stay for sash width \geq 1100 mm.

¹⁶ Optional turn restrictor set

– Minimum sash width 821 mm, max. opening angle 90°
 for sash width 680 – 820 mm. Use small turn restrictor set 293991
 with brake, max. opening angle 65°.

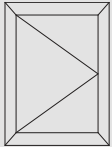
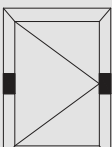
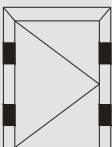
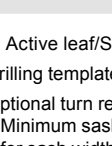
■ Gear

Article	No.	UV	Note
Mortice bolt	293861	1 pc(s)	Additional window handle, see product range

Inward opening
Turn fittings 200 kg – surface mounted
RAL special, hinges height adjustable

R-540 AL DB EG 200
R-540 AL DB GG 200

see diagrams:
4222 / 4226 / 4232

	DIN R		DIN L		UV	
	No.	No.	No.	No.		
 Hinges height adjustable	D-lock	293657	293657	293657	293657	1 pc(s)
	D-Hinge side	293658 ⁶	293659 ⁶	293658 ⁶	293659 ⁶	1 pc(s)
	Screws for hinge fixation	10x 902595	10x 902595	10x 902595	10x 902595	100 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
	Sash-lifter set	293653	293654	293653	293654	1 pc(s)
	Turn restrictor set with brake	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	10 pc(s)
 Hinges height adjustable	Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)
	D-lock	293657	293657	293657	293657	1 pc(s)
	D-Hinge side	293658 ⁶	293659 ⁶	293658 ⁶	293659 ⁶	1 pc(s)
	Screws for hinge fixation	14x 902595	14x 902595	14x 902595	14x 902595	100 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
	Sash-lifter set	293653	293654	293653	293654	1 pc(s)
 Hinges height adjustable	Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)
	D-Central hinge	293660 ⁶	293660 ⁶	293660 ⁶	293660 ⁶	1 pc(s)
	Turn restrictor set with brake	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	10 pc(s)
	Additional vertical locking	293954	293954	293954	293954	10 pc(s)
	D-lock	293657	293657	293657	293657	1 pc(s)
	D-Hinge side	293658 ⁶	293659 ⁶	293658 ⁶	293659 ⁶	1 pc(s)
 Hinges height adjustable	Screws for hinge fixation	18x 902595	18x 902595	18x 902595	18x 902595	100 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
	Sash-lifter set	293653	293654	293653	293654	1 pc(s)
	Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)
	D-Central hinge	2x 293660 ⁶	2x 293660 ⁶	2x 293660 ⁶	2x 293660 ⁶	1 pc(s)
	Turn restrictor set with brake	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	10 pc(s)
Additional vertical locking	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)	

G = Active leaf/S = Inactive leaf

⁶ Drilling template for 200 kg no. 228785.

¹⁵ Optional turn restrictor set
– Minimum sash width 701 mm, max. opening angle 90°
for sash width 600 – 700 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range

FRAME⁺ 90 WI/WB/WB-T

Selection tables AL

Inward opening

Turn fittings 300 kg – surface mounted

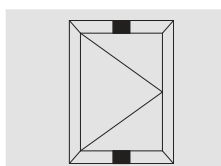
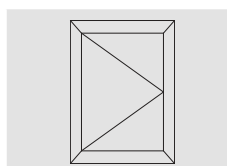
RAL special, hinges height adjustable

R-540 AL DB EG 300

R-540 AL DB GG 300

see diagrams:

4246 / 4252



■ Technical information

– Additional back plate on-site.
(Dimensions see installation guide fittings drawing no. 4900).

		DIN R		DIN L		UV
		No.	No.	No.	No.	
 Hinges height adjustable	D-lock	293657	293657	293657	293657	1 pc(s)
	D-Hinge side	293666 ⁷	293667 ⁷	293666 ⁷	293667 ⁷	1 pc(s)
	Screws for hinge fixation 300 kg basic fitting	293669	293669	293669	293669	1 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
	Sash-lifter set	293653	293654	293653	293654	1 pc(s)
	Turn restrictor set with brake	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	10 pc(s)
	Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)
 Hinges height adjustable	D-lock	293657	293657	293657	293657	1 pc(s)
	D-Hinge side	293666 ⁷	293667 ⁷	293666 ⁷	293667 ⁷	1 pc(s)
	Screws for hinge fixation 300 kg basic fitting	293669	293669	293669	293669	1 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
	Sash-lifter set	293653	293654	293653	293654	1 pc(s)
	Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)
	D-Central hinge	293668	293668	293668	293668	1 pc(s)
 Hinges height adjustable	Screws for hinge fixation 300 kg Central hinge	293670	293670	293670	293670	1 pc(s)
	Turn restrictor set with brake	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	10 pc(s)
	Additional vertical locking	293954	293954	293954	293954	10 pc(s)
	D-lock	293657	293657	293657	293657	1 pc(s)
	D-Hinge side	293666 ⁷	293667 ⁷	293666 ⁷	293667 ⁷	1 pc(s)
	Screws for hinge fixation 300 kg basic fitting	293669	293669	293669	293669	1 pc(s)
	Gear lock	293867	293867	293867	293867	10 pc(s)
Sash-lifter set	293653	293654	293653	293654	1 pc(s)	
 Hinges height adjustable	Additional horizontal locking	/	/	2x 293954	2x 293954	10 pc(s)
	D-Central hinge	2x 293668	2x 293668	2x 293668	2x 293668	1 pc(s)
	Screws for hinge fixation 300 kg Central hinge	2x 293670	2x 293670	2x 293670	2x 293670	1 pc(s)
	Turn restrictor set with brake	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	293990 ¹⁵	10 pc(s)
	Additional vertical locking	2x 293954	2x 293954	2x 293954	2x 293954	10 pc(s)

⁷ Template for DF-Hinge 300 kg no. 228786.

¹⁵ Optional turn restrictor set

– Minimum sash width 701 mm, max. opening angle 90°
for sash width 600 – 700 mm. Use small turn restrictor set 293991 with brake, max. opening angle 65°.

■ Gear

Article	No.	UV	Note
Mortice bolt	293860	10 pc(s)	Additional window handle, see product range
Connector set	293865	10 pc(s)	Additional geared handle, see product range