





WINDOW INSTALLATION PRODUCTS







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# WINDOW INSTALLATION

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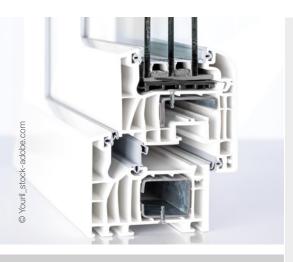
# **Wooden windows**

FEX-H	16
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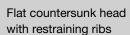
# WINDOW AND DOOR INSTALLATION

# Frame anchor

SPAX-RA, flat counters	sunk head 20	
SPAX-RA, cylindrical h	ead 22	







# FEX-A THE WINDOW FRAME-DRILLING SCREW

for plastic profiles with steel reinforcement

# For fastening:

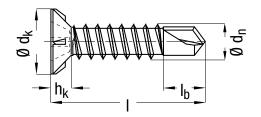
- Fittings on single-walled plastic profiles with steel reinforcement fitted flush with the reinforcement chamber (up to 2.0 mm)
- Steel reinforcement (up to 2.0 mm) on plastic profiles

## **Screw characteristics:**

- Flat countersunk head with restraining ribs
- Cross recess H
- Coarse thread with serrations
- Drill point
- Hardened
- Anti-friction coating

Drill point and typical SPAX serrations















# FEX-A, flat countersunk head

Cross recess H, coarse thread Restraining ribs, drill point Hardened, anti-friction coating

	Dimensi	ons [mm]			PU	SPAX number	EAN code
Thread diameter d <sub>n</sub>	Total lengt <b>I</b>	Drill point length <b>l</b> b	Head height <b>hk</b>	Blade size <b>H</b>	SPAX Box [Piece]		
	13	4,5	2,3	2	1.000	1401470390135	4003530155840
	16	4,5	2,3	2	1.000	1401470390165	4003530122712
3,9	19	4,5	2,3	2	1.000	1401470390195	4003530122729
Ø d <sub>k</sub> = 7,5 mm	25	4,5	2,3	2	1.000	1401470390255	4003530122743
,	32	4,5	2,3	2	1.000	1401470390325	4003530122750
	38	4,5	2,3	2	1.000	1401470390385	4003530122767

Surface changed to WIROX.

Custom lengths (on request – minimum order quantity)

Machine-controlled – for automatic screwing (on request – minimum order quantity)

# Head

The special flat countersunk head with bevelled head flanks and restraining ribs under the head guarantees that the screw head can be easily countersunk into the fitting, so it is flush.

#### Point

Drill point for optimal performance in manual and automatic drilling.







# FEX-KS THE FITTING SCREW

for plastic profiles without steel reinforcement

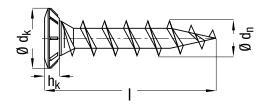
# For fastening:

- Fittings on plastic profiles without steel reinforcement

# Screw characteristics:

- Flat countersunk head with restraining ribs
- Cross recess H
- Bevelled head flanks
- Special thread
- Self-drilling point
- Hardened
- Anti-friction coating















# FEX-A, flat countersunk head

Cross recess H, special thread Restraining ribs, self-drilling point Hardened, anti-friction coating

	Dimensio	ons [mm]		PU	SPAX nummer	EAN code
Thread diameter	Total length	Drill point length	Blade size	SPAX Box [Piece]		
dn	I	hk	н	[1 1000]		
				I	I	
	16	2,4	2	1.000	1411010400165	4003530248214
	20	2,4	2	1.000	1411010400205	4003530248221
	22	2,4	2	1.000	1411010400225	4003530248238
4,0	25	2,4	2	1.000	1411010400255	4003530248245
Ø d <sub>k</sub> =	30	2,4	2	1.000	1411010400305	4003530248269
7,0 mm	35	2,4	2	1.000	1411010400355	4003530248276
	40	2,4	2	1.000	1411010400405	4003530248283
	45	2,4	2	500	1411010400455	4003530248290
	55	2,4	2	500	1411010400555	4003530248306

# Repair screw for plastic profiles

5,0	25	2,4	2	1.000	1411010500255	4003530248399
Ø d <sub>K</sub> = 7,0 mm	40	2,4	2	500	1411010500405	4003530248375

Custom lengths (on request – minimum order quantity)

Machine-controlled - for automatic screwing (on request - minimum order quantity)

#### Head

The special flat countersunk head with bevelled head flanks and restraining ribs under the head guarantees that the screw head can be easily countersunk into the fitting, so it is flush.

The restraining ribs also bring about an increase in overtorque, which provides greater protection against over-tightening, especially with thin-walled plastic profiles.

### Thread

Deep special thread extends to the base of the head with large pitch.

#### Point

The long, sharp, self-drilling point delivers favourable collar formation with greater thread engagement.

## • Corrosion protection

Equivalent to protection on familiar window fittings on the market.



Flat countersunk head with restraining ribs



# FEX THE COMBI SCREW

for plastic windows with steel reinforcement

# For fastening:

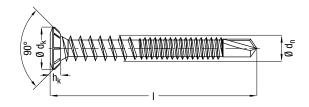
- Fittings and corner hinges on plastic profiles with steel reinforcement (up to 2.0 mm)
- Machine-controlled for automatic screwing

#### Screw characteristics:

- Flat countersunk head
- Cross recess H
- Restraining ribs
- Combination thread
- Drill point
- Hardened
- Anti-friction coating

Drill point and typical SPAX serrations















# FEX combi screw, flat countersunk head

Cross recess H, combination thread Restraining ribs, drill point Hardened, anti-friction coating

	Dimensio	ns [mm]		PU	SPAX nummer	EAN code
Thread diameter <b>dn</b>	Total length	Head height <b>hk</b>	Blade size <b>H</b>	SPAX Box [Piece]		
	1		· I			
42	35	2,4	2	2.000	35704012501471K1	4003530170317
<b>4,2</b> Ø d <sub>k</sub> = 7,0 mm						

Surface changed to WIROX.

**FEX combi screw** for plastic windows with steel reinforcement. The fine thread with a drill point is designed for use in metal, the coarse thread for use in plastic.

The combi screw is used exclusively in the lower and upper corner hinges which connect the entire window sash to the frame.

#### Head

The flat countersunk head with bevelled head flanks and restraining ribs under the head guarantees that the screw head can be easily countersunk into the fitting, so it is flush.

The restraining ribs bring about an increase in overtorque, which provides greater protection against over-tightening, especially with thin-walled plastic profiles.

#### Combination thread

Fine thread for metal, coarse thread for plastic.

### • Typical SPAX serrations

For fast, secure fastening.

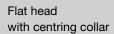
### Point

Drill point for optimal performance in manual and automatic drilling.

#### • Corrosion protection

Equivalent to protection on familiar window fittings on the market.







# FEX THE COUPLING SCREW

# For joining:

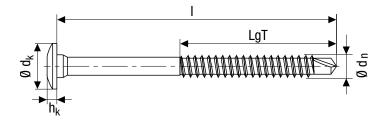
- Two steel-reinforced plastic profiles e.g.: coupling window frames

# **Screw characteristics:**

- Flat head with centring collar
- T-STAR plus
- Special thread
- Drill point
- Hardened
- Anti-friction coating

Drill point













FEX coupling screw Flat head

T-STAR *plus*, special thread Drill point Hardened, anti-friction coating

	Dime	nsions [mn	n]		PU	SPAX nummer	EAN code
Thread diameter dn	Total length	Partial thread length <b>LgT</b>	Head height <b>hk</b>	Blade size <b>T</b>	SPAX Box [Piece]		
5.5	75	40	2,8	25	200	1051900550755	4003530188503
<b>5,5</b> Ø d <sub>k</sub> = 12,0 mm	90	40	2,8	25	200	1051900550905	4003530189401

Surface changed to WIROX.

Used to join plastic profiles, **the FEX coupling screw** with a drill point provides a simple, efficient option for attaching PVC frame profiles. Once the frames are positioned together, aligned and fastened, a 6 mm drill hole is made through the entire reinforcement in the first frame profile.

Thanks to the 40 mm partial thread, the subsequent fastening of the frames with the FEX coupling screw guarantees permanent, seamless fastening.

#### Head

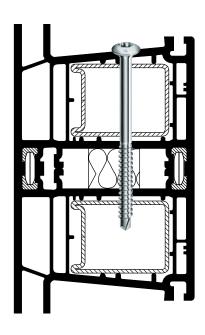
Flat head with centring collar.

#### Thread

Special thread with long, thread-free shank for connecting two profiles.

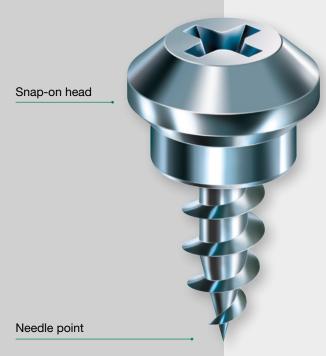
#### Point

Drill point for steel reinforcement up to 4 mm.





# FEX-RS THE ROLLER SHUTTER SCREW



# For fastening:

- Roller shutter guides, weatherboards, cover and wall connecting profiles

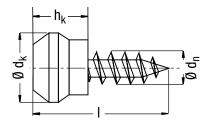
# **Screw characteristics:**

- Snap-on head
- Cross recess H
- Special thread
- Needle point
- Hardened
- Anti-friction coating



Belted long strip version on request.















FEX-RS, snap-on head

Cross recess H, special thread Needle point Hardened, anti-friction coating

			Dime	VE	SPAX nummer	EAN code			
Thread diameter	Total length	Collar   Ø	Head height	Blade size	Product name	Profile system	SPAX Box		
d <sub>n</sub>	I	d <sub>k</sub>	hk	н			[Piece]		
	12	9,5	4,9	2	RS-1	VEKA, Brügmann	400	35705003001011	4003530111815
	10	10,4	5,9	2	RS-2	Rehau, KBE, Golde, Inoutic, Helmitin	400	30120000443011	4003530111754
5,0	10	12,0	5,2	2	RS-3	Trocal, Stöckel, Menke	400	30120000444011	4003530111761
	11	11,0	7,5	2	RS-4	Kömmerling	400	30120000442011	4003530111747
	12	11,0	5,8	2	RS-5	Gealan	400	35705005202011K1	4003530154508
	10	9,5	4,0	2	RS-6	Inoutic	400	35705006401011	4003530164361

Machine-controlled - for automatic screwing (on request - minimum order quantity)

**FEX-RS – the roller shutter screw** is screwed into the frame profile with its self-drilling design. The sharp, wide-supporting thread (5 mm) combined with an optimum snap-on head geometry offers an excellent hold against axial tensile forces from attached clamping profiles, such as roller shutter guides, weatherboards, and cover and wall connecting profiles.

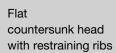
## Thread

Wide 40° thread up to the head.

#### Point

Needle point. No pre-drilling in the plastic profile necessary.







# FEX THE FITTING SCREW for wooden and plastic profiles

# For fastening:

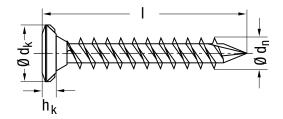
- Fittings on plastic profiles without steel reinforcement
- Fittings on wooden profiles

# Screw characteristics:

- Flat countersunk head with restraining ribs
- Cross recess H
- Double-lead thread
- CUT point
- Hardened
- Anti-friction coating

CUT point and typical SPAX serrations















FEX, flat countersunk head

Cross recess type H, double-lead thread Restraining ribs, *CUT point* Hardened, anti-friction coating

	Dimensio	ons [mm]		PU	SPAX nummer	EAN code
Thread diameter	Total length	Head height	Blade size	SPAX Box [Piece]		
dn	I	hk	н	[1 1000]		
	25	2,4	2	3.000	0521470400252	4003530155451
<b>4,0</b> Ø d <sub>k</sub> =	28	2,4	2	2.000	0521470400282	4003530155468
Ø d <sub>k</sub> = 7,0 mm	33	2,4	2	2.000	0521470400332	4003530155475
•	38	2,4	2	2.000	0521470400382	4003530155529

Surface changed to WIROX.

Custom lengths (on request – minimum order quantity)

Machine-controlled – for automatic screwing (on request – minimum order quantity)

**FEX – this fitting screw** with a *CUT point* effectively reduces splitting in wooden profiles.

#### Head

The flat countersunk head with bevelled head flanks and restraining ribs under the head fits precisely into fittings. The restraining ribs bring about an increase in overtorque, which is an advantage, especially with thin-walled plastic profiles.

#### Thread

A double-lead thread that runs up to the CUT point.

# • SPAX typical serrations

For fast, secure fastening.

# • Corrosion protection

Equivalent to protection on familiar window fittings on the market.





Special flat countersunk head, rounded, with reduced head diameter and restraining ribs

# FEX-H THE FITTING SCREW for wooden profiles

# For fastening:

- Fittings on wooden profiles

## **Screw characteristics:**

- Special flat countersunk head, rounded, with reduced head diameter
- Cross recess Z and T-STAR plus
- Restraining ribs
- Partial thread
- 4CUT point
- Hardened
- Anti-friction coating



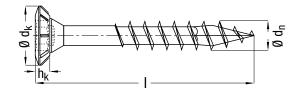
# WITH T-STAR plus SYSTEM

T-STAR *plus* BIT in combination with T-STAR *plus* drive for better force transmission and guiding

4CUT

and serrations













# FEX-H, special countersunk head

T-STAR plus, partial thread restraining ribs, 4CUT Hardened, anti-friction coating

	Dimensio	ons [mm]		PU	SPAX nummer	EAN code
Thread diameter	Total length	Head height	Blade size	SPAX Box [Piece]		
d <sub>n</sub>	I	hk	Т			
4.0	30	2,4	15	1.000	35704012301011	4003530243769
<b>4,0</b> Ø d <sub>k</sub> =	35	2,4	15	1.000	35704012302011	4003530243806
7,3 mm	40	2,4	15	1.000	35704012303011	4003530243783

**Custom lengths** (on request – minimum order quantity)

Machine-controlled - for automatic screwing (on request - minimum order quantity)



# FEX-H, special countersunk head

Cross recess Z, partial thread Restraining ribs, 4CUT Hardened, anti-friction coating

	Dimensio	ns [mm]		PU	SPAX nummer	EAN code
Thread diameter	Total length	Head height	Blade size	SPAX Box [Piece]		
dn	I	hk	Z	[]		
	I					
4.0	30	2,4	2	1.000	35704012401011	4003530159961
<b>4,0</b> Ø d <sub>k</sub> =	35	2,4	2	1.000	35704012402011	4003530243738
7,3 mm	40	2,4	2	1.000	35704012403011	4003530243745

Custom lengths (on request – minimum order quantity)

Machine-controlled - for automatic screwing (on request - minimum order quantity)

FEX-H - this fitting screw is optimally suited for use on wooden window frames.

4CUT and the restraining ribs protect wood and metal, ensuring an unblemished result.

#### Head

This rounded head effectively reduces protrusion, even if the screw is inserted at an angle, and thus improves aesthetic appearance. Self-braking,

restraining ribs beneath the head allow a large overtorque.

#### Serrations

For fast, secure fastening.

#### Point

4CUT pushes through the fibres of the wood and reduces the screwing-in torque and splitting.







# **SPAX GLASS STRIP SCREW**

# For fastening wood glazing beads

To wood construction elements and wood materials

# **Screw characteristics:**

- Flat countersunk head
- Cross recess Z with milling ribs and T-STAR plus
  - Partial thread
  - CUT point
  - Anti-friction coating

## Glass strip screw

Thanks to the *CUT point*, the glass strip screw prevents glazing beads from splitting.

The ultra-slim countersunk head ensures that the screw is countersunk neatly with a flush fit.

#### Head

The optimised head geometry ensures that the blade sits securely and the screw is easily countersunk with a flush fit.

# • Typical SPAX serrations

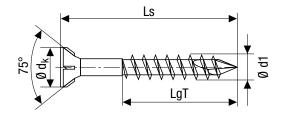
For fast, secure fastening.

#### Point

The CUT point is effective in reducing splitting.













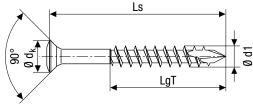
SPAX glass strip screw, flat countersunk head

Cross recess Z Milling ribs, CUT point Anti-friction coating

	Dimensions [mm]				U	SPAX nummer	EAN code
Thread diameter	Total length	Partial thread length	Blade size	SPAX Box [Piece]	Outer box [PU]		
d1	Ls	LgT	Z				

<b>3,5</b> Ø d <sub>k</sub> =						Stainless ste	eel A2 1.4567 A2
6,1 mm	40	23	2	200	2.000	35703503401002	4003530168420

<b>3,5</b> Ø d <sub>k</sub> =						YELLOX)°	CHROM(VI) A2L
6,1 mm	40	23	2	200	2.000	35703503301022	4003530168413



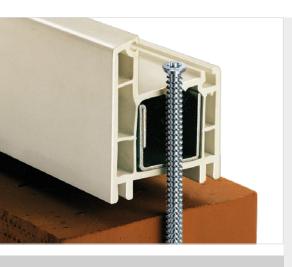
Stainless steel A2 1.4567

A2 1.4567



SPAX glass strip screw, flat countersunk head T-STAR plus, partial thread CUT point Anti-friction coating

	Dimensions [mm]				U	SPAX nummer	EAN code
Thread diameter <b>d1</b>	Total length <b>Ls</b>	Partial thread length <b>LgT</b>	Blade size <b>T</b>	SPAX Box [Piece]	Outer box [PU]		
<b>4,0</b> Ø d <sub>k</sub> = 6,0 mm	40	24	15	100	1.000	0467000400403	4003530184314





### Flat countersunk head



# SPAX-RA – FRAME ANCHOR, FLAT COUNTERSUNK HEAD

# Plug-free screwing for:

- Plastic and aluminium window and door frames in masonry
- Frame fastening with window header

## Screw characteristics:

- Flat countersunk head
- T-STAR plus
- Hardened
- Anti-friction coating

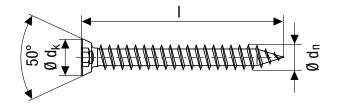


# WITH T-STAR plus SYSTEM

T-STAR *plus* BIT in combination with T-STAR *plus* drive for better force transmission and guiding

Typical SPAX serrations















SPAX-RA – frame anchor, flat countersunk head

T-STAR *plus*Hardened, anti-friction coating

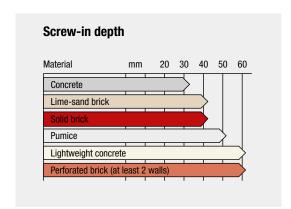
Dim	Dimensions [mm]		Designation	PU	SPAX nummer	EAN code
Thread diameter	Total length	Blade size		SPAX Box [Piece]		
dn	I T		[1 1000]			
	40	30	SPAX-RA 40	100	1021010750405	4003530181665
	60	30	SPAX-RA 60	100	1021010750605	4003530181672
	80	30	SPAX-RA 80	100	1021010750805	4003530181689
7,5	100	30	SPAX-RA 100	100	1021010751005	4003530181696
Ø d <sub>k</sub> = 11 mm	120	30	SPAX-RA 120	100	1021010751205	4003530181719
	150	30	SPAX-RA 150	100	1021010751505	4003530181733
	180	30	SPAX-RA 180	100	1021010751805	4003530181740
	210	30	SPAX-RA 210	100	1021010752105	4003530181757

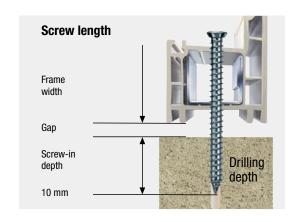
#### Important note on installation:

Pre-drill with a diameter of 6 mm

Required screw length = frame width + distance + screw-in depth

Drilling depth = screw-in depth + 10 mm





#### **SPAX** accessories:

Plastic cover caps for SPAX-RA, flat countersunk head, 500 unit pack





Colour SPAX number EAN code White 50000080000001 4003530043246

Black 50000080000101 4003530043253





Cylindrical head

Typical SPAX serrations



# SPAX-RA – FRAME ANCHOR, CYLINDRICAL HEAD

# Plug-free screwing for:

- Wooden window and door frames in masonry

## **Screw characteristics:**

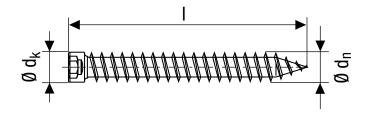
- Cylindrical head
- T-STAR plus
- Hardened
- Anti-friction coating



# WITH T-STAR plus SYSTEM

T-STAR *plus* BIT in combination with T-STAR *plus* drive for better force transmission and guiding













SPAX-RA – frame anchor, cylindrical head

T-STAR *plus*Hardened, anti-friction coating

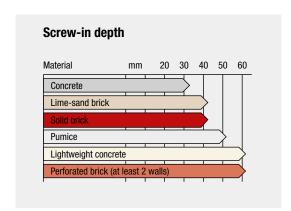
Din	Dimensions [mm]		Designation	PU	SPAX nummer	EAN code	
Thread diameter	Total length	Blade size		SPAX Box [Piece]			
d <sub>n</sub>	d <sub>n</sub> I		Т				
	60	30	SPAX-RA 60	100	1031010750605	4003530181764	
	80	30	SPAX-RA 80	100	1031010750805	4003530181771	
	100	30	SPAX-RA 100	100	1031010751005	4003530181788	
7,5	120	30	SPAX-RA 120	100	1031010751205	4003530181801	
Ø d <sub>k</sub> = 8,0 mm	130	30	SPAX-RA 130	100	1031010751305	4003530181818	
	150	30	SPAX-RA 150	100	1031010751505	4003530181825	
	180	30	SPAX-RA 180	100	1031010751805	4003530181832	
	210	30	SPAX-RA 210	100	1031010752105	4003530181849	

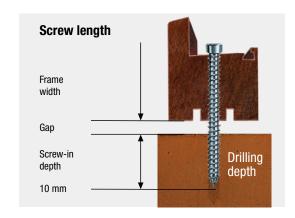
#### Important note on installation:

Pre-drill with a diameter of 6 mm

Required screw length = frame width + distance + screw-in depth

Drilling depth = screw-in depth + 10 mm





# SPAX IS NOT ONLY INTERNATIONAL BY NAME; IT IS ALSO INTERNATIONAL BY NATURE!

We manufacture our products at our Ennepetal site and export SPAX to more than 40 countries on all continents.



We print on paper from responsible sources for you and our environment using a climate-neutral process.

Subject to change.

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