



MANUAL FOR INSTALLATION OF SADDAR® DRIVE-IN ANCHORS

Appendix 1 to the **Complaint and Return Policy**

2023

MANUFACTURER:

PHU SADDAR

ul. Arabska 4/2, 03-977 Warsaw, Poland

www.saddar.eu, commercial information: renata.zukowska@saddar.eu

PRODUCT USE:

The product is designed for the installation of wooden fence posts in the ground, for the installation of openwork fences, gazebos, pergolas, wooden shelters and patios on the ground.

MATERIAL

SADDAR® Eco Anchors are made of SADDAR® thermoplastic polymer compound based on poly(ethylene terephthalate), recycled PET (C₁₀H₈O₄)_n, modified with chemical components and filled with short cut glass fibre.

Recycled product – acceptable discoloration of the product, holes of different size in the walls of the shoe, which is hidden in the ground after installation.

The use of PET regranulate in the product makes it possible to manage PET industrial waste and reduce CO₂ emissions. The product and its waste are recyclable. The product meets EU requirements for a circular economy.

RELATED DOCUMENTS

Declaration of Conformity – strength, SADDAR® Eco Anchor product sheet, SADDAR® Eco Anchor performance and durability test certificate, IPBM-UVTTest-2020/1 UV aging test certificate.

DEDICATED MOUNTING ELEMENTS

- a. square wooden pole: 4.6x4.6, 5x5, 7.5x7.5, 7x7, 9x9, 10x10,
- b. square steel pipe: 6x6,
- c. rectangular steel pipe: 6x4, 6x8.

Read this manual before proceeding with the installation. The manufacturer and distributor will not be liable for any damage or injury resulting from incorrect installation of SADDAR® Eco Anchors. Any warranty claims will be considered on condition of providing a video recording documenting that the installation has been performed in accordance with this manual.

1. Tools recommended for proper placement of the SADDAR® Eco drive-in anchor in the ground:

- a 3 kg hammer or an impact hammer with a maximum impact energy of 30 J,
- wooden impactor, made of hardwood with the dimensions indicated in Table 1 and length of C=300 mm. It is necessary to ensure perpendicular position of the impactor's surface,
- electric screwdriver/drill,
- measuring tape/line,
- level,
- wood screws and/or bolts, washers, nuts suitable for installation of PSK SADDAR® Eco spike. A list of dedicated wood screws and/or bolts, washers and nuts is included in Table 1.

2. Installation of the PSK SADDAR® Eco Anchor

- the PSK SADDAR® Eco Anchor should be installed in the spring and summer season or autumn, when the ambient temperature in consecutive 72 hours preceding the installation does not drop below 5°C,
- if the installation of the PSK SADDAR® Eco Anchor is planned in a transitional period in late autumn or early spring, when the daily average ambient temperature is below 10°C, the product should be seasoned at 20°C for a minimum of 12 hours.

Note: The manufacturer recommends checking the location of underground services and installations before proceeding with the installation of the PSK SADDAR® Eco Anchor in the ground. The manufacturer will not be liable for any damage to any installations as a result of the installation of the PSK SADDAR® Eco Anchor.

The manufacturer does not allow installation of the PSK SADDAR® Eco Anchor in frozen ground,

Note: Make sure that the selected length of the PSK SADDAR® Eco Anchor is recommended by the Manufacturer for its installation in the planned soil.

The manufacturer assumes no liability for damage to products resulting from failure to use the correct type of the PSK SADDAR® Eco Anchor for a given type of soil.

- Before proceeding with the installation, set the location of installation of the PSK SADDAR® Eco Anchor,

Note: If the soil contains stones or gravel, pre-drill the soil with an auger or remove the top layer of the soil to a depth of at least 80 mm.

The manufacturer assumes no liability for damage to products resulting from the installation of the PSK SADDAR® Eco Anchor in soil with stones and gravel.

- prepare the installation kit by inserting the impactor into the shoe of the PSK SADDAR® Eco Anchor (Fig. 1).

Note: Check whether the entire end face of the impactor is in contact with the bottom of the shoe of the PSK SADDAR® Eco Anchor. If the elements are not in contact, the shape of the end face of the impactor should be

corrected,

- screw the impactor to the PSK SADDAR® Eco Anchor with at least two wood screws (see Table 1 for a list of dedicated wood screws), in two perpendicular planes (Fig. 2),
- In the planned location of the anchor, moisten the soil with water and then using a metal rod with a diameter of at least 12 mm and a length of approximately 1 m, make a lead hole to the depth of the spike's length to be driven into the ground to check for any obstacles and fill this hole with water to soften the soil,
- place the PSK SADDAR® Eco Anchor vertically and position it with a level in two perpendicular planes seeking to install the PSK SADDAR® Eco Anchor perpendicular to the plane of the ground (Fig. 3).

Note: The manufacturer does not assume any responsibility for the reduction in strength and/or failure to achieve the declared load capacity of the PSK SADDAR® Eco Anchor resulting from improper installation of the PSK in the ground,

- drive the PSK SADDAR® Eco Anchor into the ground with a hammer by cyclically striking it against the centre of the impactor from a height of one metre or by using an impact hammer (Fig. 4).

Note: When using an impact hammer, it is necessary to use a holder (Fig. xx). The manufacturer assumes no liability for damage to the product resulting from: eccentric loading of the PSK SADDAR® Eco Anchor during its installation, use of an impact hammer with higher operating parameters, improper use of an impact hammer.

- drive the PSK SADDAR® Eco Anchor into the ground to a depth d , i.e. until the shoe comes into contact with the ground (Fig. 5),
- unscrew the mounting screws securing the impactor to the PSK SADDAR® Eco Anchor (Fig. 6),

3. Installation of a wooden pole in the PSK SADDAR® Eco Anchor

- prepare the wooden pole planned to be installed in the PSK SADDAR® Eco Anchor using Table 1. The height of the pole to be installed in the PSK SADDAR® Eco Anchor cannot exceed 1,800 mm (Fig. 7),
- on the supporting pole, mark the position of the holes in the PSK SADDAR® Eco Anchor,
- drill holes for screws or mounting bolts. The proper connection of the pole with the PSK SADDAR® Eco Anchor requires at least four wood screws or mounting bolts, screwed in pairs, in two mutually perpendicular sides of the spike shoe (Fig. 8).

Note: A list of dedicated wood screws and/or bolts, washers and nuts is included in Table 1,

- slide the supporting pole into the shoe of the PSK SADDAR® Eco Anchor.

Note: The cross-section of the supporting pole should enable the pole to slide easily to the shoe of the PSK SADDAR® Eco Anchor. If it is not possible to slide the supporting pole into the shoe of the PSK SADDAR®

Eco Anchor easily, do not place the pole in the spike shoe. Do not attempt to push or drive the pole in. Adjust the shape of the face end and repeat the attempt to slide the pole into the shoe of the PSK SADDAR® Eco Anchor,

- fix the supporting pole to the PSK SADDAR® Eco Anchor with the dedicated screws (Fig. xx) with a maximum torque of 12 Nm,
- when mounting bolts are used to install the supporting pole, drill holes in the pole (Fig. 9). Insert the bolts into the holes and screw the PSK SADDAR® Eco Anchor to the pole with a maximum torque of 10 Nm (Fig. 10),
- screw the pole to the PSK SADDAR® Eco Anchor with at least two wood screws (see Table 1 for a list of dedicated wood screws), in two perpendicular planes (Fig. 11),

4.installation of a fence span using the PSK SADDAR® Eco Anchor

- determine whether it is possible to install a fence span using the PSK SADDAR® Eco Anchor, taking into account that the active area of the fence span cannot be greater than indicated in Table 2. If you need to install a fence span with an active area greater than indicated, you need to independently estimate the number of the required PSK SADDAR® Eco Anchors (Fig. 12),

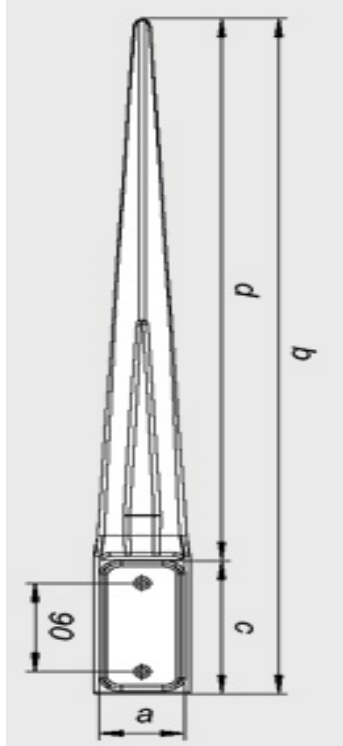
Note: The manufacturer assumes no liability for damage to products resulting from failure to apply the correct size of the active area of a fence span with a given type of the PSK SADDAR® Eco Anchor.

The manufacturer recommends that the fence be constructed using the PSK SADDAR® Eco Anchor spaced out in accordance with the information included in Table 2.

Note: The manufacturer assumes no liability for damage to products resulting from the application of a greater distance between PSK SADDAR® Eco Anchors than recommended.

- perform the steps described in the section “Installation of the PSK SADDAR® Eco Anchor”
- perform the steps described in the section “Installation of a wooden pole in the PSK SADDAR® Eco Anchor”

diagram of the PSK SADDAR® Eco Anchor



wooden impactor

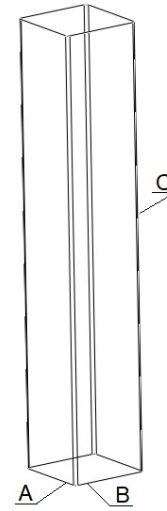


Fig. 1 Diagram of the PSK SADDAR® Eco Anchor and the wood impactor

Table 1. Technical specification of SADDAR® ECO ANCHORS

symbol	Technical parameters				external dimensions of impactor A x B x C [mm]	external dimensions of supporting posts A x B [mm]	recommended fasteners
	dimensions of the SADDAR® Eco Anchor [mm]						
	a	b	c	d			to be completed
PSK 46/550	46	550	100	450	42 x 42	45 x 45	to be completed
PSK 51/550	51	550	100	450	45 x 45	50 x 50	to be completed
PSK 71/600	71	600	150	450	65 x 65	70 x 70	to be completed
PSK 76/600	76	600	150	450	70 x 70	75 x 75	to be completed
PSK 75/750	76	750	150	600	70 x 70	75 x 75	to be completed
PSK 90/750	90	750	150	600	85 x 85	90 x 90	to be completed
PSK 71/750	71	750	150	600	65 x 65	70 x 70	to be completed
PSK 75/750	76	750	150	600	70 x 70	75 x 75	to be completed
PSK 101/750	101	750	150	600	95 x 95	100 x 100	to be completed
PSK 71/900	71	900	150	750	65 x 65	70 x 70	to be completed
PSK 76/900	76	900	150	750	70 x 70	75 x 75	to be completed
PSK 90/900	90	900	150	750	85 x 85	100 x 100	to be completed
PSK 101/900	101	900	150	750	95 x 95	100 x 100	to be completed

Selection of the length of the PSK SADDAR® Eco Anchor for different soil types:

- for light soil (sand, boggy soil, etc.) it is recommended to use longer eco anchors. Recommended depth of installation 600-750 mm,
- for heavy soil it is recommended to use anchors with a depth of installation 450-600 mm.

Table 2. Fence spans installed using SADDAR® ECO ANCHORS

symbol	Technical parameters				external dimensions of supporting posts	spacing of ECO SPIKES up to	span height up to	active area of the fence span
	dimensions of the SADDAR® Eco Anchor [mm]							
	a	b	c	d	A x B [mm]	D [mm]	H [mm]	P [m ²]
PSK 46/550	46	550	100	450	45 x 45	1000	1800	0.70
PSK 51/550	51	550	100	450	50 x 50	1000	1800	0.70
PSK 71/600	71	600	150	450	70 x 70	1200	1800	1.10
PSK 76/600	76	600	150	450	75 x 75	1500	1800	1.30
PSK 75/750	76	750	150	600	75 x 75	1500	1800	1.30
PSK 90/750	90	750	150	600	90 x 90	2000	1800	1.60
PSK 71/750	71	750	150	600	70 x 70	1200	1800	1.10
PSK 75/750	76	750	150	600	75 x 75	1500	1800	1.30
PSK 101/750	101	750	150	600	100 x 100	2000	1800	1.60
PSK 71/900	71	900	150	750	70 x 70	1200	1800	1.10
PSK 76/900	76	900	150	750	75 x 75	1500	1800	1.30
PSK 90/900	90	900	150	750	100 x 100	2000	1800	1.60
PSK 101/900	101	900	150	750	100 x 100	2000	1800	1.60