



S-line geared cable winches

Until a few years ago, geared cable winches were only affordable for professional users due to their low production volume and heavy construction. This has changed since the introduction of Pfanzen's S-line cable winch. Today, Pfanzen offers geared winches with an attractive price-performance ratio especially for semi-professional operations and forest farmers. The technology is the same as for the larger models; however, only the dimensions are adapted to the size of the tractors which are mostly smaller.

Types

Geared cable winch S150

An inexpensive start into the geared cable winch technology is the model S150 with its 5.0 t tractive force. With a rear blade width of 1,500 mm and a lower overall height, this three-point cable winch is adapted to smaller tractors.

Geared cable winch S160

The S160 model is suitable for larger tractors and the user who needs more pulling force. The powerful middle class of the S-line winch range.

Geared cable winch S172

The S172 gear cable winch is the optimal tool for big tasks in the farmer's forest. In this series, the cable winch already has a blade width of 1,800 mm.

Technical specs ► Page 20



Convincing technical details:

- Extremely light cable payout of only 30 N when the cable is pulled out due to the arrangement of the rope drum in the direction of travel
- Lowest tractive force drop of only 21 % (with standard equipment)
- Exact control of braking and clutch operations through multi-disc plate packs
- Pfanzelt precision control PPS for adjusting the cable winch to the forwarding situation in three steps
- Standard radio control with motor speed adjustment function
- Tailor-made accessories: Cable distribution with cable infeed brake, hydromechanical cable payout, PTB automated trailing drum brake, various shield widths, and much more.

Independently tested.

The forestry training centre Ort/Gmunden has tested the S-line S160 cable winch in practice.



"Until now, geared cable winches have been heavy and expensive. But the German forestry machine manufacturer Pfanzelt is convinced of this technology and exclusively produces cable winches with gears. The goal of the Allgäu-located company is to develop a lighter geared cable winch affordable for forest farmers."

Evaluation of the LANDWIRT magazine (excerpt)

- + low tractive effort loss
- + winding device
- + hydromechanical rope ejection
- + hitch geometry
- + rear shield
- + PPS controller...

The complete test report and a video of the test application can be found on the Internet at www.pfanzelt.com.

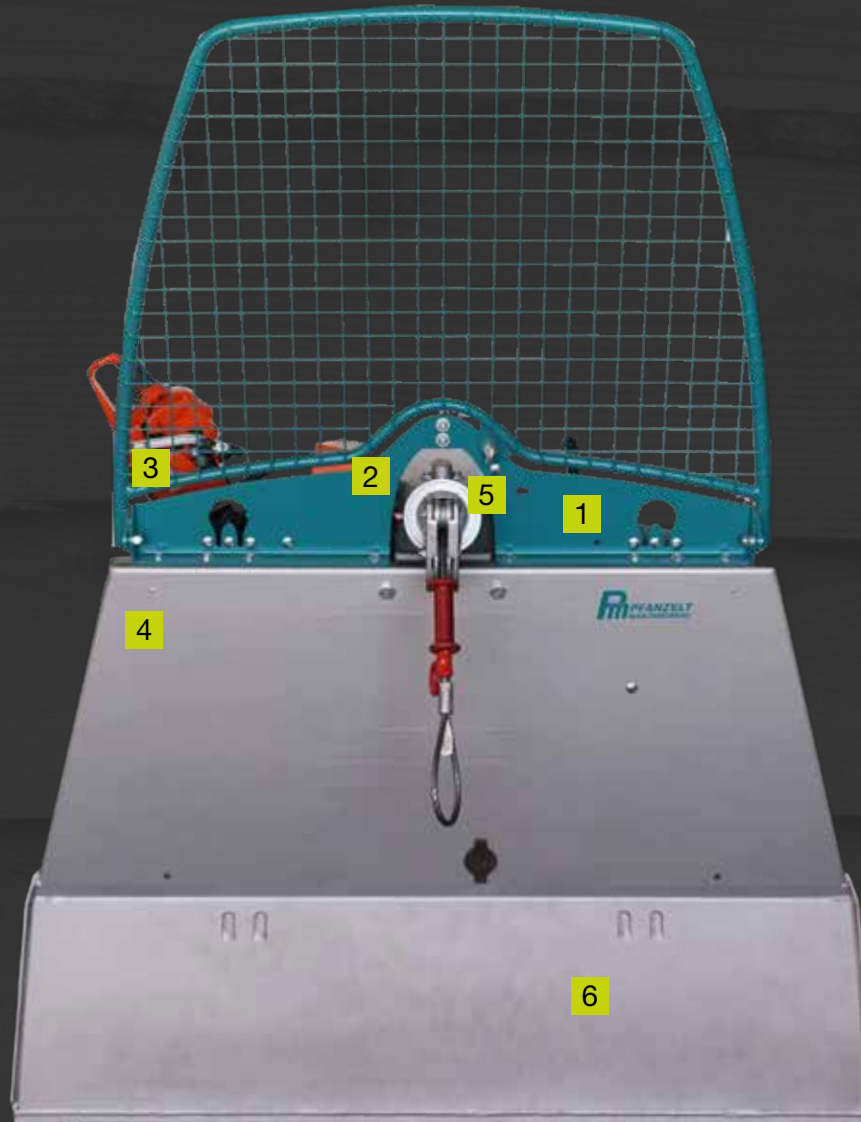


S-line cable winches live in action.

youtube.com/pfanzeltTV

S-line geared cable winches

Technical details at a glance



1

The adjustable and sturdy safety grille provides safety for the operator and protects the tractor from damage.

2

All Pfanzelt cable winches are equipped as standard with a **Forest radio system**. ▶ Page 17

3

Two **holders for fuel canister and chainsaw** are useful and keep order on the tractor. ▶ Page 19

4

Two **storage compartments** mounted on the side of the winch plate ensure order and are easy to reach.

5

The **cable infeed reel with ball bearings** guarantees cross pulls up to 90°. The low position saves a deflection roller.

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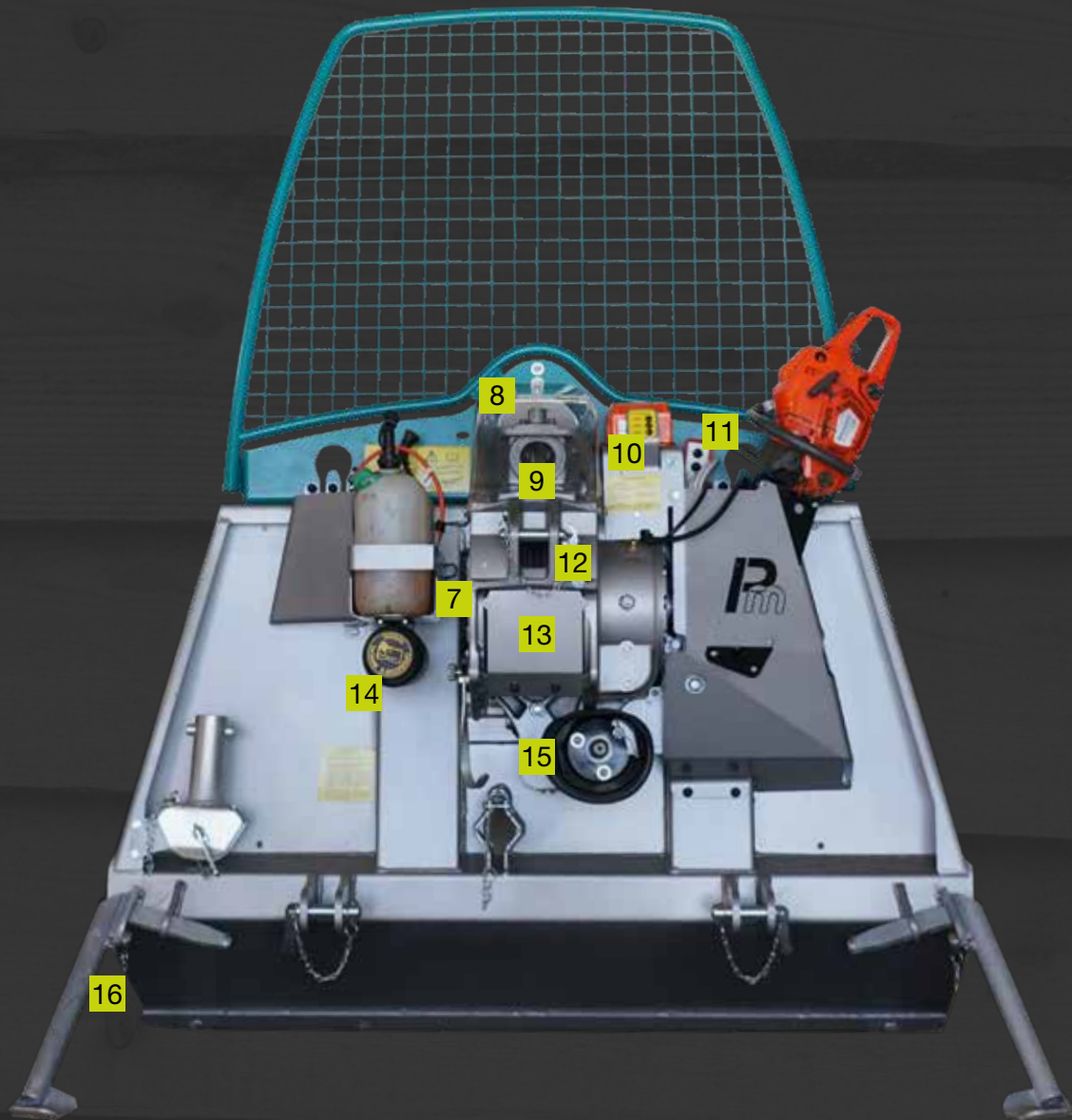
Made of fine grain steels, the **sturdy shield** is torsionally stiff and provides support when pulling sideways.

7

The optionally available **load lowering valve** allows the brake to be released in a controlled manner. ▶ Page 19

8

An optionally available **cable payout** facilitates the cable pullout and reduces cable wear. ▶ Page 18



9

The optional **cable distribution with cable inlet brake** ensures an optimised distribution of the cable and low wear.

10

The standard **PPS controller** allows easy adjustment of the overlap. ▶ Page 19

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A standard **manual control** can be used in the event of problems with the **radio control**. ▶ Page 17

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The automated **trailing drum brake PTB** automatically brakes the cable when the drum is opened. ▶ Page 17

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The wide rope drum **minimises the loss of traction to a maximum of 21%**. ▶ Page 17

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The hydraulic pressure can be checked quickly and easily on the standard pressure gauge.

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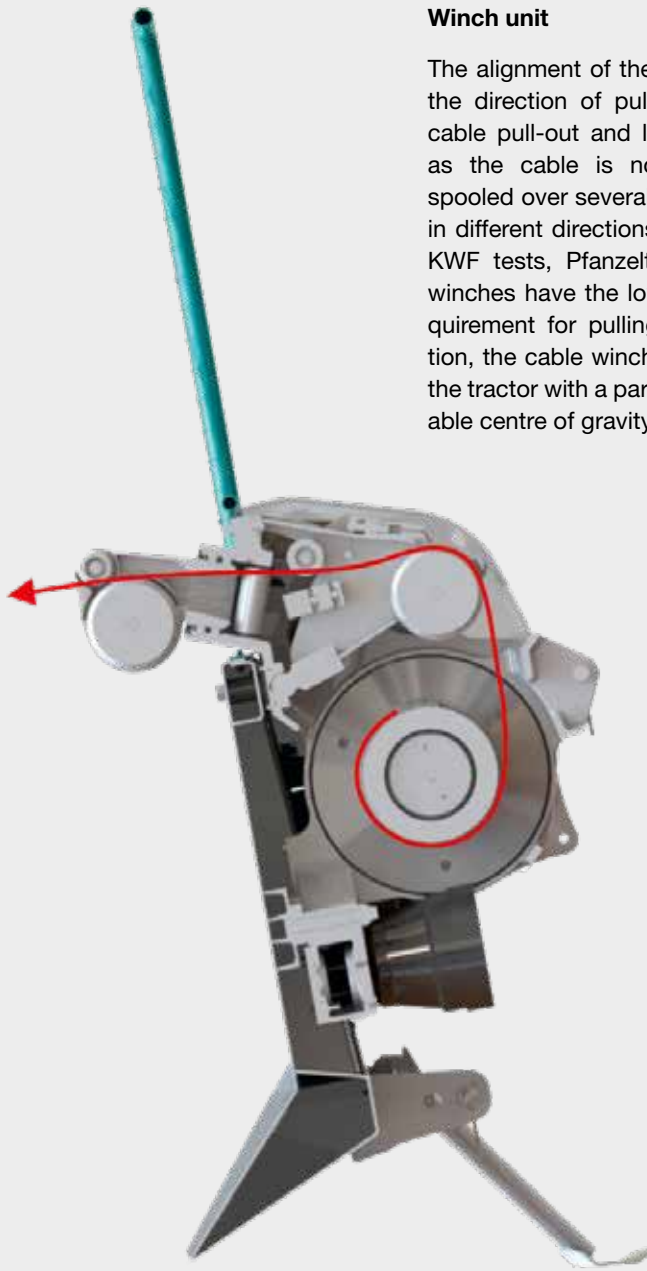
A reversing gear is optionally available for use at the front and rear of the tractor.

16

Lateral **stand legs** facilitate mounting and dismounting of the winch and secure the operator.

S-line geared cable winches

Technical details that will convince you



Winch unit

The alignment of the cable drum in the direction of pull enables easy cable pull-out and low cable wear as the cable is not wound and spooled over several cable sheaves in different directions. According to KWF tests, Pfanzelt geared cable winches have the lowest power requirement for pulling out. In addition, the cable winch is attached to the tractor with a particularly favourable centre of gravity.

Shield

Pfanzelt S-line geared cable winches have a particularly stable shield made of high-strength fine-grained steel, which is manufactured as a torsion box with high rigidity. Due to the wedge shape, lateral tensile forces can also be absorbed safely, stably, and durably. Side-operated parking supports ensure convenient attachment and detachment of the winch to the tractor and prevent accidents.

Transmission

The cable winch is driven via the tractor's power take-off shaft at a speed of 540, 750, or 1.000 rpm. From the cardan shaft, the driving force is transmitted via a spur gear to the precision worm gear in an oil bath. This ensures a very smooth operation and ensures long-term operational reliability.

Multi-disc sinter plate packs are used for the exact control of the braking and coupling process and for safe overlapping. The complete system is protected on the inside.





Lowest loss of tractive force

The use of a cable drum with a large drum core diameter guarantees a very low loss of tensile force from the lower to the upper cable layer. According to independent testing by KWF, the S-line cable winch has a maximum tractive force drop of 21% with a standard cable length. The low cable entry height allows easy and comfortable working without a deflection pulley.



Technology explained in detail.
www.pfanzelt.com

PPS controller

With the Pfanzelt precision control PPS which is unique on the market, the winch can be adapted to the respective forwarding situation. By preselection, the operator can quickly and easily adjust the overlap of clutch and brake. This offers maximum ease of use and maximum safety at work. The stage is preselected via the radio control.

Standard radio control

The S-line cable winches are equipped with a radio control system for safe, comfortable, and gentle working. The operator is thus not in the danger zone and can detect obstacles.

The safety update

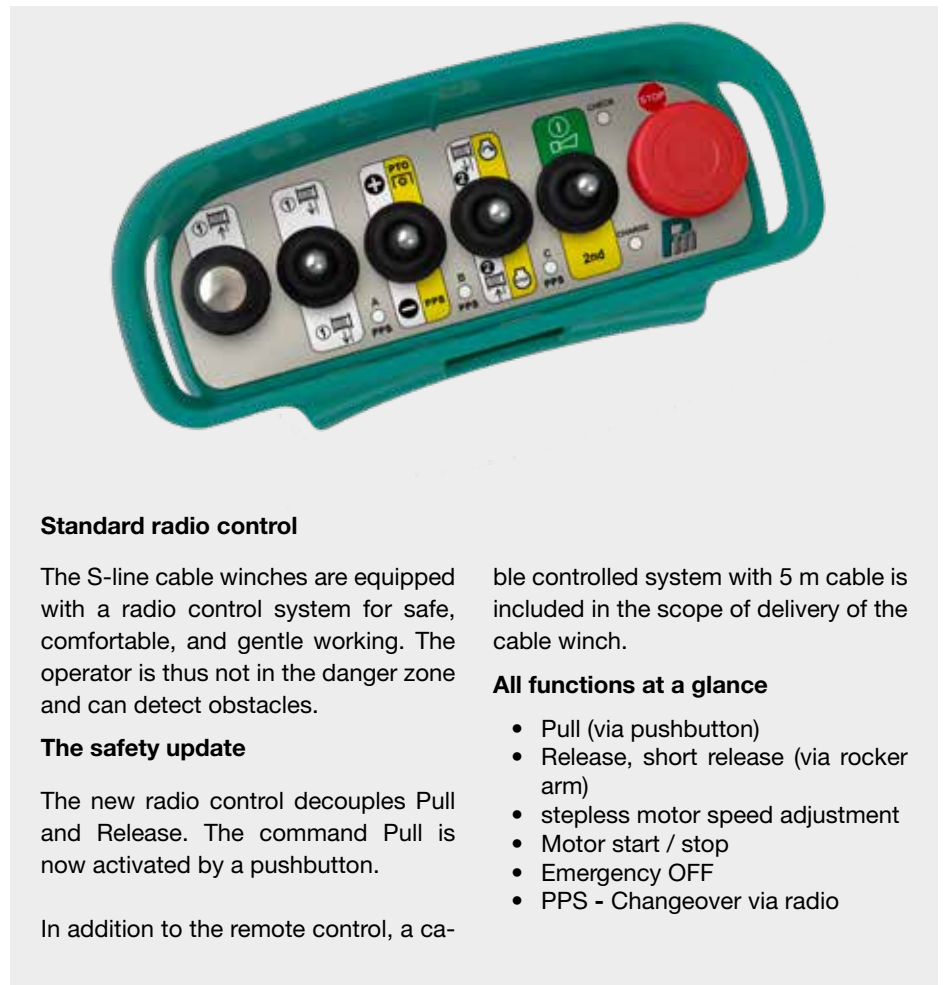
The new radio control decouples Pull and Release. The command Pull is now activated by a pushbutton.

In addition to the remote control, a ca-

ble controlled system with 5 m cable is included in the scope of delivery of the cable winch.

All functions at a glance

- Pull (via pushbutton)
- Release, short release (via rocker arm)
- stepless motor speed adjustment
- Motor start / stop
- Emergency OFF
- PPS - Changeover via radio



PTB - Automatic drum overrun brake (option)

When a tensioned cable is released, disorder on the drum is often the consequence. In such cases, the new automated trailing drum brake automatically brakes the drum and ensures proper cable winding. This guarantees easy, unproblematic pull-out of the cable.



Technology explained in detail.
www.pfanzelt.com



Cable infeed brake (option)

Always a tight rope when pulling in, even if the log starts to slip or the rope is pulled up loosely - this is possible with the Pfanzelt cable infeed brake. A cylinder presses the cable onto the brake block with a brake roller when it is pulled in. The cylinder force is dimensioned in such a way that the cable is only pressed onto the block when it is not subject to load. The brake opens completely when you pull it out.

Rope payout (option)

The Pfanzelt rope payout was developed to facilitate use. The decoiling device installed in the swivel arm of the cable distribution is mechanically driven and hydraulically switched. The cable is firmly pressed against the cable pulley over a large radius by several flexibly suspended pressure rollers. Due to the large contact surface, functionality is ensured despite contamination or cable damage.



Technology explained in detail.
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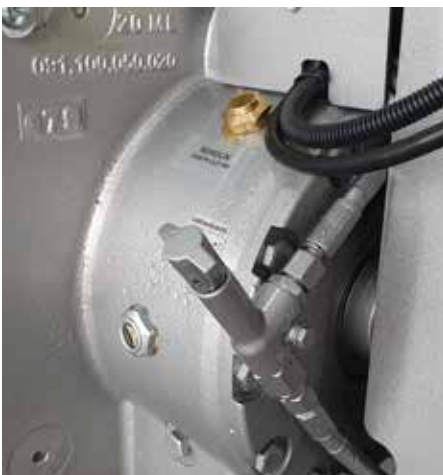
Storage space

Specially adapted holders for chain-saw and fuel canister and two additional storage compartments, depending on the model, provide sufficient storage space for forestry work.



Active operator protection

The TUTUM anti-crushing device prevents hand crushing and injuries caused by cable damage. This protective mechanism is standard only with Pfanzelt products.



Load lowering valve

Pfanzelt S-line geared cable winches can be equipped with a load lowering valve. This enables a cable under tension to be released and lowered in a controlled manner. This is indispensable with felling for safety reasons. To avoid malfunctions, the winch operates with a separate oil circuit with filter unit, which is fed by a piston pump and controls all hydraulic functions.



Front attachment

Instead of the standard spur gear, this option is available as a spur gear with a second PTO stub for reversing the direction of rotation so that the winch can be attached at the front.



Pressure roller (option)

The spring-loaded pressure roller is recommended for long cable lengths. It helps to distribute the cable optimally across the entire cable drum width. If you choose the option cable distribution incl. infeed brake, it is supplied as standard equipment.