

Snail bullet trap „Kassler snail“



Advantages:

- High life span
- Low maintenance costs
- Coverture fixation **completely covered**
- Bullets are only deformed (PTP 9x19)
- Splinter protection not forcibly necessary
- Exhaust port for ventilation
- **Automatic** bullet holding possible
- Construction method with decoupled mechanical vibration

Mounting dimensions:

The snail bullet trap „Kassler snail“ needs an installation depth of approx. 4300 mm (plus servicing way) and has a construction height of 2800 mm (plus assembly distance). In the width the bullet trap is made **individually** on measure and the support structure needs on both sides approx. 200 mm. Widths of 6500 mm were already realised.

Material :

The snail bullet trap can be produced according to requirement in different steel qualities and material strengths. Mainly highly wear-resistant special steels, so-called "**wear plates**" are used, as for example **Hardox** 400 or Hardox 500. According to requirement the material strengths of the collision plates and the snail are realised with measures between 5 mm and 15 mm, whereas the snail is rolled and formed up to a strength of 10 mm. Strengths more than 10 mm are realised by polygonal edges.

Functionality of the bullet catch:

The bullet hits on the funnel-shaped collision surfaces which are **lengthwise collision-free** and is deflected in the direction of the rear snail. No bullet decomposition (dependent on ammunition) occurs due to the flat angle of attack (approx. 20 °). The special, shifted arrangement of both half bowls forces the bullet at the stage of entry into the snail into a circular flight path and diminishes the **bullet energy** in the process. The slowed down bullets fall through a lower opening of the snail in push boxes or on a conveyor belt. The complete snail is dust-protected to the end and the dust can be sucked off safely by a suction support along the complete width.

The construction is protected by utility models.



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Construction description:

The bullet trap exists of a **supporting framework** (HEB, HEA and IPE S235JR) which is preferentially put up on the ground decoupled from mechanical vibration of adjoining components. Upper and lower collision plates (thickness and quality according to requirement) are hung up at a sloping angle (approx. 20 °) into this construction and are secured covertly. These form a funnel which is closed on both sides also with collision plates.

These measures escort the bullet safely into the back end of the bullet trap. It forms the essential **snail** that consists of two shifted half bowls (diameter approx. 750 mm) in which the bullet peters out in several rotations and is collected afterwards in a “bullet collector” which is described in the following section. Should bullet fragments still not reach the snail, these are collected in a catch basin which is located at the bottom of the lower collision plate. For the **removal** of the accruing dust a vacuum is generated in the snail by which the accruing dust is pulled into the snail by the funnel. Therefore, the snail is closed in itself and can pull air merely via the funnel.

Bullet collection device:

There are two kinds of bullet collection devices to choose from.

On the one hand, there is the possibility to catch the bullet leftovers in **push boxes** which can be pulled out to the rear with the cleaning routine and emptied afterwards.

On the other hand there is the possibility to carry the bullet leftovers by a automatically timed band conveyor in a collective box which can be changed comfortably by a servicing door arranged beside the bullet trap by means of **lifting cart**. As a result of this the shutdown times can be reduced to a minimum. Besides no injurious dust which jeopardises the **health of** the maintenance staff is whirled up with this kind of the bullet disposal. For the check of the conveyor belt an access possibility should exist behind the bullet catch.

