

Mobile on-site repair unit: Efficient and fast screw shafts repairs and upgrades



The challenge: Cost savings from on-site repair of screw presses

Screw press operations require sharp screw flight edges so that the dewatering channels in the screen plates are kept clear. As service life progresses, the shaft flights suffer wear, dewatering performance drops continually, and clogging can occur. For screw shafts that are difficult to access or require considerable effort to dismantle

due to local conditions, ANDRITZ can offer an attractive solution: Complete repair and upgrade with the **mobile OSR unit**. Old and large screw presses are modernized by this flexible on-site repair and then upgraded with all-round wear protection so that they can provide consistent high performance again.

The OSR unit can be used for all sludge and pulp screw presses regardless of manufacturer, model, type and size.

Advantages:

- **Maximizing dewatering performance**
- **Longer service life due to all-round wear protection**
- **Minimizing downtime for repairs**
- **Minimizing maintenance costs**
- **No need to provide a spare shaft**
- **Repairs on site – saving transport time and costs**
- **Wear protection can be applied over all pressure zones**



Levelling of the entire unit ▼



Setting up the welding equipment ▼



Adjusting the welding equipment ▼



The ANDRITZ solution: OSR unit for on-site repair of screw presses

Thanks to the ANDRITZ on-site service, there is no need for laborious dismantling and installation of the screw presses, and no spare shaft is needed. Expensive transport costs and complex transport arrangements are saved. Compared to

conventional repairs the downtime is reduced by around 20 per cent. You can extend the service life of your screw flights even further if you apply the ANDRITZ all-round wear protection during shaft repair work. After fitting the all-round screw shaft

wear protection system, you can repair the screw flights yourself by changing the wear shoes.

Properties:

- **Simple, on-site installation**
- **Exact levelling**
- **Fitted with own drive**
- **Suitable for facing and grinding work**
- **Mobile and therefore flexible**



During on-site service a single machining unit is used for welding and grinding. The unit comprises aluminium profiles and a movable tool carriage that runs on rails. It can be set up within a short time and the screw flight repaired rapidly. The technical equipment contains a measuring device

that enables precise levelling of the repair unit and guarantees exact shaft geometries. It is fitted with a separate drive and ensures optimum machining speed at the shaft. The welding unit and the belt grinder can be used over virtually the entire length of the shaft and provide exact and sharp edges on the screw flight as a result.

Facing repair ▾



Conversion to grinder ▾



Grinding the screw flight ▾



ANDRITZ all-round wear protection

ANDRITZ wear shoes

have been optimized for the three press zones of the screw press. A patented carbide alloy for the high-pressure zone reduces wear and is deformation-proof. This leads to less wear and reduced time and effort for maintenance work. The wear shoes in the medium-pressure zone are

coated with a patented special alloy. The low-pressure zone is protected by steel rings with hard edges. The economically optimized concept not only prolongs the service life of your screw press, but also enhances its performance.



ANDRITZ solution for coated shaft body plates in screw presses

ANDRITZ has developed special coated shaft body plates that guarantee high wear resistance and an optimum surface — preventing material from adhering to the screw shaft. You gain constant dewatering performance and extend the screw shaft's service intervals at the same time. The coating is applied to specific body plates that are welded onto the surface of the shaft. This means that the section need only be replaced if it is worn. For this upgrade it is not necessary to remove the shaft from the screw press!



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