



**USER MANUAL HOUSELINER
EXTRUDER 350, 500, 700, 700 SLIM-E, EXO, 900**

GENERAL INFORMATION

Congratulations on your purchase and welcome to the Houseliner team. We are proud to support your relining work with reliable equipment built for efficiency and ease of use. We wish you many years of safe and efficient relining.

Houseliner Extruders are designed for efficient installation of flexible liners in building drainage systems. Lightweight, durable, and easy to maneuver, they are built to simplify relining work and provide reliable performance. A full range of accessories is available to support different installation needs.

SAFETY IN USE AND HANDLING

Houseliner Extruders are designed with safety and accessibility in mind. Pressure and tightness is tested in each unit before shipping. We always use the best components on ball valves, safety valves and every connection.

It is of importance that the user understands how to work with the equipment and how to work safely. Use only Houseliner original spare parts and accessories, to obtain the high safety level of the original product. It is not allowed to change the safety valve to one with higher opening pressure than 1 bar and thereby be able to exceed the maximum allowable pressure of 1 bar.

Always keep the equipment in good condition and immediately replace damaged parts, find out more about this in "Check before use". Always lock the wheels to avoid the Extruder from moving out of position. This may cause damage to people and furnishings.

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1. SAFETY



Always wear safety glasses, protection gloves, full covered clothing and shoes with toe cap when working with relining.

The working pressure for the compressed air is adjusted with Houseliner precision regulator and may under no circumstances exceed the maximum allowed pressure of 1 bar gauge pressure. At higher pressures the safety valve will open. In case of any defect on the safety valve, it may only be replaced by Houseliner original spare part with the same opening pressure.

Always use the brakes to lock the wheels when the Extruder is parked. It is important that the Extruder is standing still during installation and curing of the liner.

Fold in the handle on the centre axis wheel handle. Always keep one hand on the wheel handle when the compressed air is connected and the shaft lock is released. This is important to avoid injuries and to have control over installation procedure, so that the wheel handle don't starts to spin without control.

If the Extruder has fallen, being dropped or have been exposed to other violent treatment, it should be pressure and leak tested before being put into service again. Houseliner Extruder should only be used for installation of flexible liners and other hoses associated with such work.

The Extruder may not be modified without consultation and written agreement from the Technical Manager at Sacpro AB. Any other use than installing flexible liners is prohibited.

2. PRE USE CHECK LIST

The installer should always make sure that the Extruder is in such condition, that the work can be done safely and without unexpected interruptions.

- Check that the Storz connectors are fully tightened.

- Make sure the inside of the extruder is clean.
- Remove any residues of resin and any foreign objects.
- Check that all the wheels are rolling easily and that the wheel brake works.
- The wheel handle must be undamaged and the centre axle should spin easily.
- Check that the liner guides on the centre axle inside the extruder are easily adjusted and fix them in the desired location for the current liner that is to be used.
- The liner guides must not be squinted or otherwise damaged. Otherwise the liner may tip over when it's wound up and the liner may be damaged.
- Check that the pressure gauge is undamaged and shows the correct pressure. Also check that all pneumatic connections and valves are intact and tight.
- Check the shaft bushings are tight to avoid excessive consumption of compressed air during installation and curing.

3. MONTHLY CHECKS

- Make sure that all the screws in the liner guides are properly tightened.
- Check that the safety valve operates at 1 bar gauge pressure.
- Check that pressure gauge shows the correct value.
- Check that it's possible to release the sight glass on Extruders tequipped with this feature.
- Make sure that you have free movement of the pressure safety pin on Extruders equipped with this feature.
- Make sure that the steering wheel screws are fully tightned.

4. TRANSPORT & FASTENING

Always fasten the Extruder when it's transported in a vehicle, to avoid damage to the vehicle or other equipment. Always lock the wheels when the Extruder is parked to prevent it from moving.

5. CARE AND MAINTENANCE

A clean and well-maintained Extruder is safe and much nicer to work with. Wipe away any drops or stains of resin from both outside and inside immediately.

The Extruder can be washed with hot water and a pressure washer. Lubricate all the moving parts with viscous oil. Wipe off any excess of lubricant. Immediately replace broken parts with Houseliner Original replacement parts.

Always use threading sealant on fittings and connections to avoid leakage in the connections.

6. INVERSION NOZZLE CHANGE

To facilitate the installation of the liner, we have developed various inversion nozzles for different purposes. The inversion nozzle is easy to shift.

Use two Storz hatches, one on the Extruder and one to the connector. Turn the connector $\frac{1}{4}$ turn counter clockwise to remove. Turn the connector $\frac{1}{4}$ turn clockwise for mounting. Lubricate with a little dab of grease on the lugs if it's hard to attach the connector.

Use a couple of drops of cooking oil or soap on the rubber sealings. Wipe off any excess. See accessories list for available inversions nozzles and utilities.

7. INSTALLATION STEPS

For impregnation of the liner and all necessary preparations before installation, see the instructions for Houseliner System.

Ensure that an air compressor with sufficient capacity, up to 300 l / min free air delivery at 6 bar is used for the installation. Make sure that all the valves are closed before the compressed air is

connected. Only one of the valves should be connected to the compressed air. The other is used for the compressed air evacuation. It's possible to connect a hose to outlet valve if you want to evacuate the air somewhere else. Note that the hose end must be completely open.

LUBRICATION

The liner must be lubricated with a suitable lubricant before the installation.

PULL-STRAP

The pull-strap must be wound on the upper side of the centre axle by rotating the knob counter clockwise. Make sure to keep the strap tensed so it's tightly rolled on the centre axle. The strap length must be at least as long as the liner that is to be installed, plus at least one meter.

REELING

The liner is fed into the Extruder through the nose with the inversion removed. Tie the short strap which is attached to the end of the liner, with the end of the strap that is wound on the centre axle. Then roll up the liner tensed on the centre axle by spinning the wheel handle counter clockwise. Make sure the liner moves easily and that it is not twisted.

MOUNT THE INVERSION NOZZLE

When all the liner is rolled up, mount the inversion nozzle.

INSTALLATION

Always keep one hand on the wheel handle when the valve is opened and the filling of compressed air into the Extruder starts. The liner will start to extrude into the pipe as soon as the pressure starts to increase. Normally it is sufficient to use 0.2–0.3 bar gauge pressure when installing a flexible liner.

Through tight bends the pressure can be slightly increased.

Brake the wheel handles rotation constantly by holding a hand on it. This allows the liner to expand against the pipe wall properly. Also through bends, it is important that the liner can stretch properly towards the pipe wall.

CURING

Adjust the pressure after the liner has been installed, depending on the installation. Allow the liner to cure fully, and refer to the resin specifications for the correct curing time.

8. ACCESSORIES

Houseliner offers a wide range of accessories for its Extruders. Our complete assortment supports various installation needs and applications, designed for seamless compatibility.



Thank you for choosing



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