



STR-600 Impact Dryer



1. STR-600 Main Features

The STR-600 is designed for moisture damage drying of targeted areas. The device can be used for drying various stone-based materials, such as concrete, brick and masonry.

A single unit is best used for drying areas damaged by broken water pipe, such as bathrooms or kitchens. It is designed for drying areas sized from 1 to 10 m².

Using multiple units simultaneously to cover larger damaged areas will effectively shorten the drying time. This capability is especially appreciated where shortest possible damage repair time is essential (i.e. hospitals, schools, power plants).

The STR-600 can also be used in combination with common air dehumidifiers. In certain cases, these device types complete each other. The STR-600's should be placed on areas with the worst moisture damages and the dehumidifier would handle the overall room space.

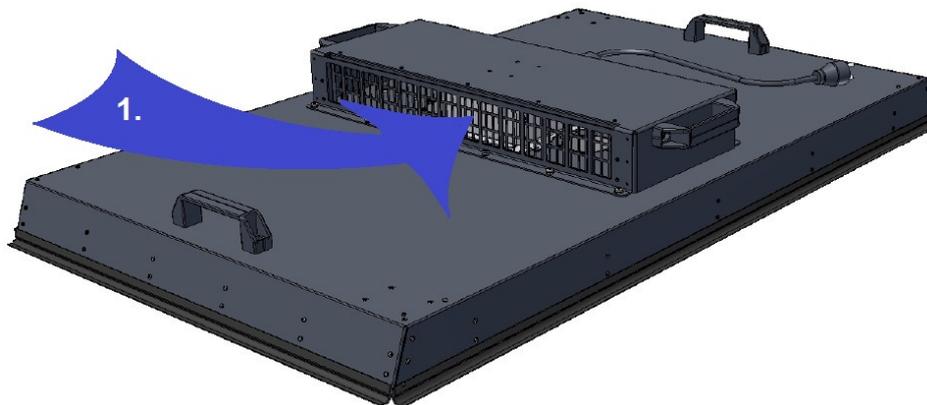


2. Principle of Operation

Air circulated surface drying was invented in Finland in 1990's. Since then this method and equipment have evolved far. The STR-600 brings the capabilities to a new level using most effective heating and air circulation system.

The STR-600 is first placed on the damaged area after the surface materials are removed and the base concrete is visible. An air outlet hose is then connected onto the \varnothing 50 mm humid air outlet of the unit. In most cases, it is recommended to duct the humid air outside via the air outlet hose. If an air dehumidifier is used in the same space with the STR-600, ducting the air out may not be necessary. The unit's power cable is then connected to a power outlet and the device is switched "On".

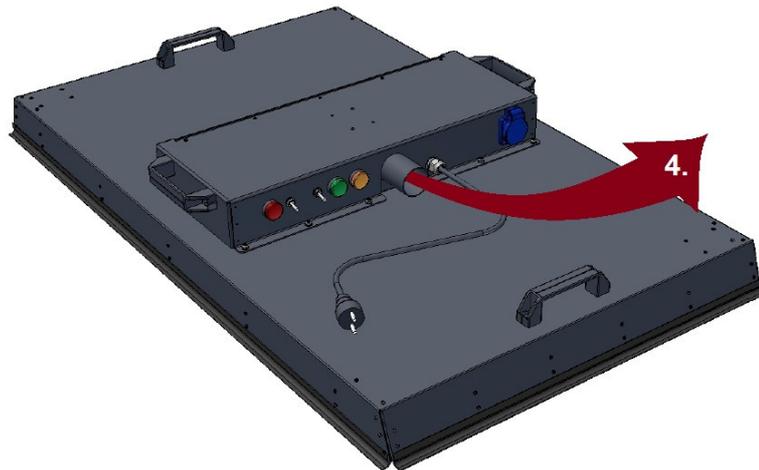
Now, the air fan and heating elements start working. Ambient air (1.) is drawn in through the air intake filter (see below).



Inside the unit, air flows past the heating elements. Air temperature increases and relative humidity goes down. This dramatically increases the capability to reduce moisture on the concrete surface. Simultaneously, the heating elements radiate heat downwards to the damaged surface, causing vaporization. **Heated air is directed through** the air distribution channels (2.) on each side of the bottom plate. The air blower (3.) in the middle of the bottom plate sucks the heated air effectively towards itself. On its way from each four sides to the middle, warm air sweeps the damp structure and the vaporized moisture is absorbed into the air. The continuous air circulating-drying effect starts to dry out the structure immediately and very effectively.



The humid air (4.) is then guided to the air outlet. A \varnothing 50 to 55 mm air hose can be connected onto the outlet if needed.



3. Additional Features

The STR-600 is equipped with an automatic timer governing the drying/heating cycles. Alternating heating and cooling sequences causes the moisture in the base material to “rise” towards the upmost surface. It also prevents the material temperature from rising too high. The pre-set timing is 10 hours heating / 4 hours cooling. During cooling cycle, the fan runs continuously, while the heating elements are switched off. An indicator light is illuminated when the heating is on.

A separate switch for bypassing the timer is included in the system. The bypass switch is used when drying very thick structures, i.e. a thick brick wall, and the aim is to raise the inside temperature of the structure as high as possible to get water to vaporize from the outer side of the structure as well. When the timer is bypassed, a red signal light is illuminated. The timer bypass switch should not be used for common floor drying etc. as



the structure's temperature may rise too much, which would slow down the drying process.

4. Main Advantages

- FAST DRYING. Drying time is only a fraction of time compared to standard air dryers. A concrete slab with an average thickness of 8 to 10 cm can be dried in 5 to 10 days, compared to several weeks using common methods.
- ENERGY SAVINGS. To dry out a 5,0 m² room with standard air dryers may take several weeks and consume power up to 4 kW per hour. Using 4 pcs of STR-600 units, the same area can be dried in 10 days with an average energy consumption of 2,4 kW per hour. A common moisture problem around bathroom floor drain is handled by a single STR-600 5 to 10 days with only 0,6 kW per hour energy consumption. The energy varies depending on the moisture content and thickness of the base material, but the time savings against conventional methods remain huge.
- LOW NOISE. The noise level of STR-600 is very low. Living in the apartment surrounding damage area will not be disturbed.
- SAFETY. The method is based on effective air circulation above **and** heating directly onto the damaged surface. No hazardous radiation or damage to piping or cables inside the structure.
- EASY TO HANDLE. The STR-600 is very lightweight and easy to carry and handle. To save space during storage and transport, the unit can be used, transported and stored in an upright position.
- VERSATILITY: The STR-600 can be used for drying floor structures as well as vertical walls and ceilings. For wall or ceiling use, connector brackets for telescope rods or other support structures are provided.
- CONNECTIVITY. Maximum Amp Draw of the STR-600 is 3,0A. It can be connected into any standard, grounded 230 Volt socket. A built-in grounded socket enables chained connection of multiple units with no need for extra extension cords. From a 16-Amp fused socket, 5 dryers can be powered simultaneously.

“STR-600 is the fastest and safest drying system for local moisture damages in concrete structures”



Technical data

Size (LxWxH)	1180 x 700 x 170 x mm
Frame gasket width	40 mm
Weight	12 kg
Voltage	230 V, max. 3,0 A / 50 Hz
Rated power	0,6 kWh / approx. 10-11 kW per day
Automatic timing (heating / cooling)	Yes
Automatic timing bypass	Yes
Extra power socket	Yes *
Wet air connection	Ø 50 mm
Air volume: without hose / with hose (4m)	50 m3h / 30 m3h
Filter	535 x 78 mm
Noise level (3)	approx. 44 dB **

* Max. 5 devices from a 16-Amp fused socket simultaneously.

** Noise level varies with installation.

SALES

Strong-Finland Oy
Tiilitie 4
01720 Vantaa
Finland
into@strong.fi
www.strong.fi

Sales contact:
Mr. Tommi Arpomaa
Tel. +358 (0)50 350 2980
tommi.arpomaa@strong.fi