



FUTURA SYSTEMS



CORPRESS VACUUM-DREN

The invisible technology that protects the game.



SYSTEM GROUP



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CORPRESS VACUUM-DREN is an advanced underground system that combines active drainage, vacuum-assisted suction, and smart climate control, engineered to ensure the agronomic performance of natural or hybrid grass fields throughout the year.

Thanks to its reversible operation—suction and injection modes—it rapidly evacuates excess water, regulates subsoil temperature with warm or cold air, and protects grass roots through oxygenation or ozonation, according to the soil and seasonal needs.

At the core of the system is the **CorPress** clamp, which precisely connects the corrugated pipe network to the central manifold and to the suction and climate control systems—without the need for welding. A modular, safe, and efficient design developed by Futura Systems.

This all-in-one system actively responds to extreme weather conditions, preserving playability, preventing cancellations, and extending the lifespan of the field.

WHAT PROBLEMS DOES IT SOLVE?



- Match suspensions due to heavy rainfall
- Player injuries caused by waterlogged fields
- Poor drainage and surface ponding
- Soil compaction and reduced permeability
- Root asphyxiation due to lack of aeration
- Turf diseases and natural grass deterioration
- Inefficient water use during irrigation
- Lack of thermal comfort on the playing surface

MODE OF OPERATION



Drains excess water within minutes—up to six times faster than conventional systems—thanks to its active suction technology.



Maintains year-round playability and safeguards your field's reputation.



Regulates subsoil temperature by injecting warm or cool air, depending on the season.



Protects grass roots through precise oxygenation or disinfection.

CORPRESS VACUUM-DREN

integrates two intelligent, reversible operating modes —**suction and injection**— adapting in real time to field conditions.

SUCTION MODE (Negative Pressure) **Active drainage**

This operating mode is activated in situations of waterlogging, heavy rainfall, or excessive moisture from irrigation. A vacuum unit generates negative pressure, enabling the rapid extraction of water or air trapped underground through the network of slotted pipes connected to the system.

Thanks to this immediate action, the field regains full functionality within minutes, preventing damage caused by water saturation.

Suction mode is essential to ensure playability under critical conditions and to extend the lifespan of natural or hybrid turf without compromising athletic performance.

INJECTION MODE (Positive Pressure) **Subsoil climate control, oxygenation, and biosecurity**

This mode allows enriched air to be injected into the turf's root zone using different configurations, depending on the climatic, agronomic, or sanitary needs of the soil.

The system can operate autonomously or be sensor-controlled, ensuring a precise and efficient response.

This mode turns CORPRESS VACUUM-DREN into more than just a drainage solution: it becomes a tool for underground climate regulation, biosecurity, and agronomic optimization—engineered for high-performance sports fields.

SUCTION MODE (Negative Pressure)



Active drainage

- Delivers active suction of up to -0.8 bar, draining water six times faster than conventional systems and restoring field playability within minutes.
- Prevents root asphyxiation by maintaining oxygen availability in the root zone.
- Reduces soil compaction, preserving the porosity required for healthy plant growth.
- Prevents fungal and bacterial diseases caused by excess moisture.

INJECTION MODE (Positive Pressure)



Warm air (winter)

- Warm air, generated by a boiler or heat pump, increases substrate temperature and melts snow or ice, facilitating efficient drainage.
- It stimulates root metabolism, enabling the turf to keep growing and absorbing nutrients even during low temperatures.

INJECTION MODE (Positive Pressure)



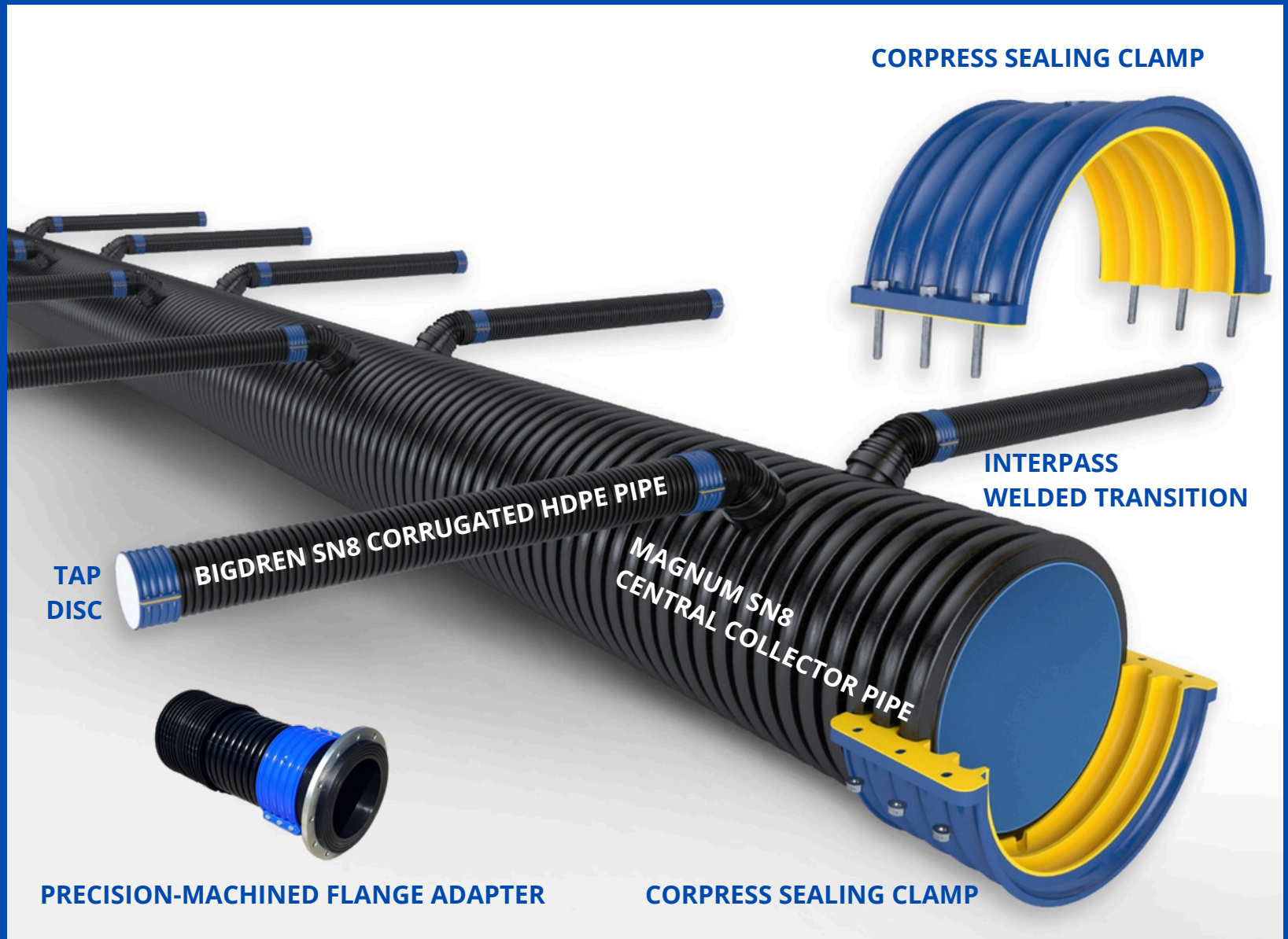
Refrigerated air (summer)

- Cooled by an industrial chiller system that can lower soil temperature by up to 10°C. Ideal for hot climates or during extreme heat waves.
- Protects roots from thermal stress and maintains a stable microclimate for the turf.
- The system can inject air enriched with pure oxygen (O_2) and ozone (O_3) to promote root growth and provide chemical-free disinfection.

TECHNICAL COMPONENTS

- **CENTRAL COLLECTOR:** MAGNUM SN8 corrugated HDPE pipe, Ø630 mm.
- **CORPRESS:** Polypropylene clamp with an injected TPE-SBES gasket, providing a continuous internal seal at every joint in the system. Ensures watertight integrity and pressure resistance under both positive and negative pressure. Prevents leaks and pressure loss, and enables modular assembly and maintenance.
- **INTERPASS:** Transition system welded to the central manifold.
- **DRAINAGE NETWORK:** BIGDREN SN8 corrugated HDPE pipes, 360° slotted, with **TAP DISC** end caps.
- **FLANGE ADAPTER:** Precision-machined for compatibility with suction, climate control, and disinfection systems.
- **Reversible blow/suction unit**
- **Boiler and/or heat pump + industrial chiller**
- **Ozone generator and/or compressed oxygen supply**
- **Integrated sensors** for soil temperature, moisture, and oxygen/ozone concentration.
- **Automated control panel**, programmable by schedule, sensors, or external inputs (e.g. weather station).

TECHNICAL COMPONENTS









PÁGINA
WEB



VÍDEO
CORPORATIVO

CORPRESS VACUUM-DREN

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