

Subsoil drainage system for infrastructure projects –  
inspection chambers and drainage pipes to DIN 4262-1



Coming up to DIN 4262-1,  
SIROWELL subsoil drainage  
pipes meet the requirements  
of contracting authorities

#### SIROWELL:

Subsoil drainage system consisting  
of chambers and drainage pipes.  
Tunnel-shaped flat invert corrugated  
PVC-U pipes to DIN 4262-1 C1.

Locally perforated pipes: DN 100 to DN 200  
Multi-purpose pipes: DN 250

#### Application:

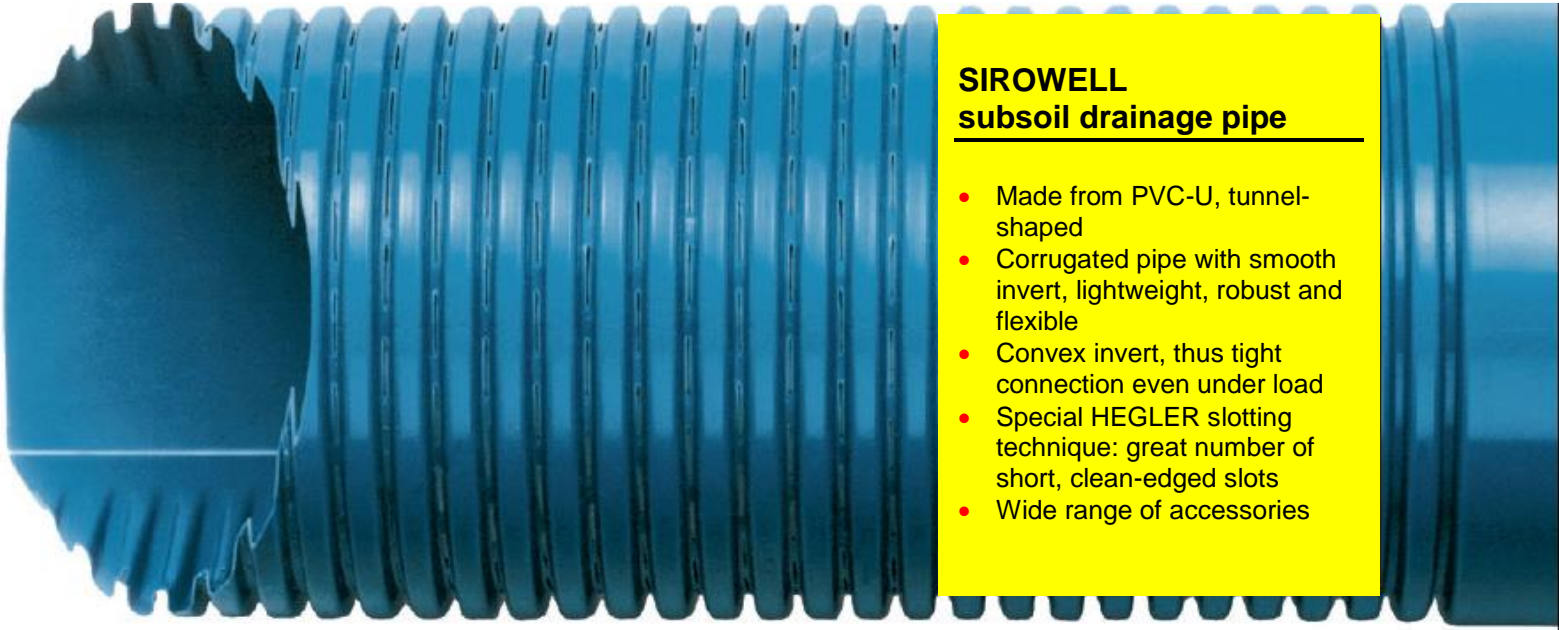
- Use in infrastructure projects
- Drainage of sports fields
- Drainage of buildings and structures

## HEGLER



Corrugated and Twin  
Wall Pipes of Plastics

# SIROWELL - the subsoil drainage pipe for



## SIROWELL subsoil drainage pipe

- Made from PVC-U, tunnel-shaped
- Corrugated pipe with smooth invert, lightweight, robust and flexible
- Convex invert, thus tight connection even under load
- Special HEGLER slotting technique: great number of short, clean-edged slots
- Wide range of accessories

### SIROWELL PVC-U subsoil drainage pipes

SIROWELL subsoil drainage pipes are made from PVC-U, a long-established raw material that has proved its versatility for decades. The high modulus of elasticity of PVC-U is rendering the pipes a reliable mechanical strength and load-bearing capacity. PVC-U is resistant to chemicals and biochemical effects so that SIROWELL can withstand all natural substances occurring in the soil.

### Tunnel-shaped corrugated pipe with smooth invert

SIROWELL is a tunnel-shaped corrugated pipe with smooth box-shaped bottom. The application-specific profile of the pipe arch renders adequate stability with low material consumption.

The box-shaped bottom is extremely beneficial in terms of hydraulics: Even if the pipe is only partially filled, water can flow off well so that deposits are avoided.

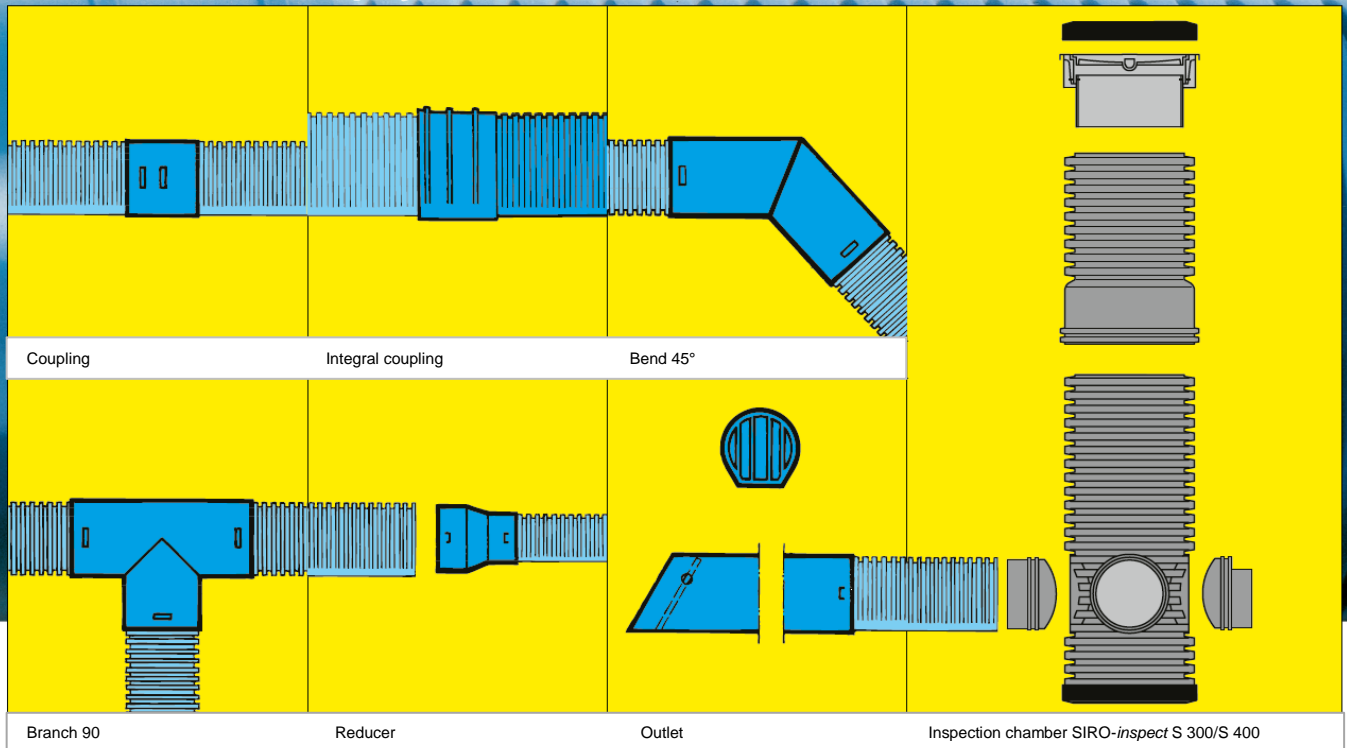
The invert of the tunnel-shaped HEGLER corrugated pipe is of slightly convex shape. This prevents the pipe bottom from bulging in the coupling under load, thus ensuring reliable pipe joints.

SIROWELL's wall thickness is adapted to the static requirements varying over the cross-section of the pipe. So the "edges" at the bottom that are subject to higher static loads have a thicker wall to ensure a uniform deformation behavior all around the pipe circumference. The corrugation renders SIROWELL pipes very flexible. They can be laid in bends and are able to follow soil movements.

### Unique slotting technique

The water inlets are a characteristic feature of all types of HEGLER subsoil drainage pipes. Compared to other pipes, HEGLER drainage pipes stand out for to the great number of short, clean-edged water inlets. They are located in the corrugation valleys to keep the resistance to water inflow as low as possible, which contributes to the water absorption capacity and stability of the pipe. There is no widening of slots even under varying loads. The water inlet area exceeds 50 cm<sup>2</sup>/m.

# standard applications



## Accessories

SIROWELL pipes are connected in a push-fit way by separate sleeves (100 and 160 mm pipes) or inline formed couplings (200 and 250 mm pipes). Narrow manufacturing tolerances in shape and dimensions of the couplings result in sand-tight joints with no need for a seal.

Thanks to the extensive range of accessories, SIROWELL pipes are most versatile in use. They are just as well suited for systems consisting of laterals and mains as usual in sports fields drainage as they are for subsoil drains and foundation drainage of buildings.

## Inspection and flushing chambers SIRO-inspect S 300/S 400

HEGLER offers special inspection and flushing chambers of nominal sizes DN 300 and DN 400 to cover the SIROWELL size range from DN 100 through DN 250. By modern inspection systems, these chambers, which are 300 mm or 400 mm in inside diameter, can be serviced and flushed in an optimal and cost-effective way.

The full-length even-level flow channel and easy handling on installation and operation allow the system to be competently used in traffic route construction.

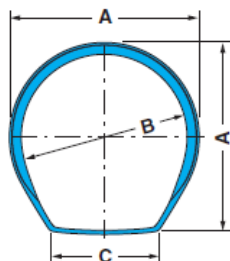
For adapting the chamber depths to the gradients, chamber raising pieces are available that can be cut to height on the construction site. Chamber covers of cast iron are offered in classes A, B and D.

## Quality control

The constant quality of SIROWELL subsoil drains is guaranteed by internal quality control.

Coming up to DIN 4262-1 Type C1, SIROWELL subsoil drains are meeting the requirements of contracting authorities. Tenders can be invited in accordance with the Standard Service Catalogue for Road and Bridge Construction, Section 110.

Corresponding texts as GAEB file can be taken from the download area at [www.hegler.de](http://www.hegler.de).



### Important

- SIROWELL pipes should be stored on the original stillages with care being taken that an even support is used.
- PVC is deteriorated by intensive and permanent UV radiation. Therefore, SIROWELL pipes should not be stored in the open air for more than 6 months.
- The pipes should not be tipped or dumped during transportation. When lifting pipes or pipe bundles, care should be taken that they are supported either in the middle or on both ends.
- In order to ensure long-term operation of the drainage system, pipes should be embedded in filter material composed in accordance with the Terzaghi filter regulations. For embedding, DIN EN 1610 should be observed.
- Filter material, gravel and broken stones must not be dumped directly onto the pipes from great heights.
- Compacting equipment should not be applied directly on top of the pipes. In the vicinity of pipes, light compacting equipment should be used.
- Pipes may be cleaned by high-pressure flushing devices at a maximum flushing pressure of 80 bar.
- Low temperatures ( $T < 5\text{ °C}$ ) do impair the impact resistance of PVC pipes. So transportation and installation should be carried out with the necessary care at such temperatures.

### • Technical data

Nominal size	DN	100	160	200	250	
Measures	A	mm	110	160	215	260
	B	mm	99.5	146	191.5	237.5
	C	mm	64	93	123	153
Discharge area	cm <sup>2</sup> /m	88	194	340	524	
Water inlet area	cm <sup>2</sup> /m	≥ 50				
Slot width	to DIN 4262-1 (1.2 ± 0.4 mm)					
Standard length (20 °C)	effective length	m	6.00	6.00	6.00	6.00
	length incl. socket	m	6.07	6.10	6.20	6.20
Socket length	mm	135	180	410	430	
Socket outside diameter	mm	116	166	225	280	
Minimum bending radius	m	5.25	10.25	14.25	15.75	
Standard perforation	LP			MP		

### Packing data

Nominal size	DN	100	160	200	250	
Stillage contents	lengths	140	65	35	18	
	m	840	390	210	108	
Stillage dimensions	length	m	6.10	6.15	6.25	6.25
	width	m	1.24	1.18	1.20	1.10
	height	m	1.43	1.49	1.40	1.27

Each pipe length is supplied with a separate or inline formed coupling.

### System accessories

Nominal size	DN	100	160	200	250
Coupling		○	○	○	○
Adaptor spigot solid wall pipe*		○	○	○	-
Adaptor socket solid wall pipe*		○	○	○	○
Reducer		○-----○ ○-----○ ○-----○ ○-----○			
Branch 90°		○	○	○	○
Bend 45°		○	○	○	○
Bend 90°		○	○	○	○
Outlet		○	○	○	○
End cap		○	○	○	○
Adaptor concrete manholes		○	○	○	○

\* Sewer pipe to DIN EN 1401

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