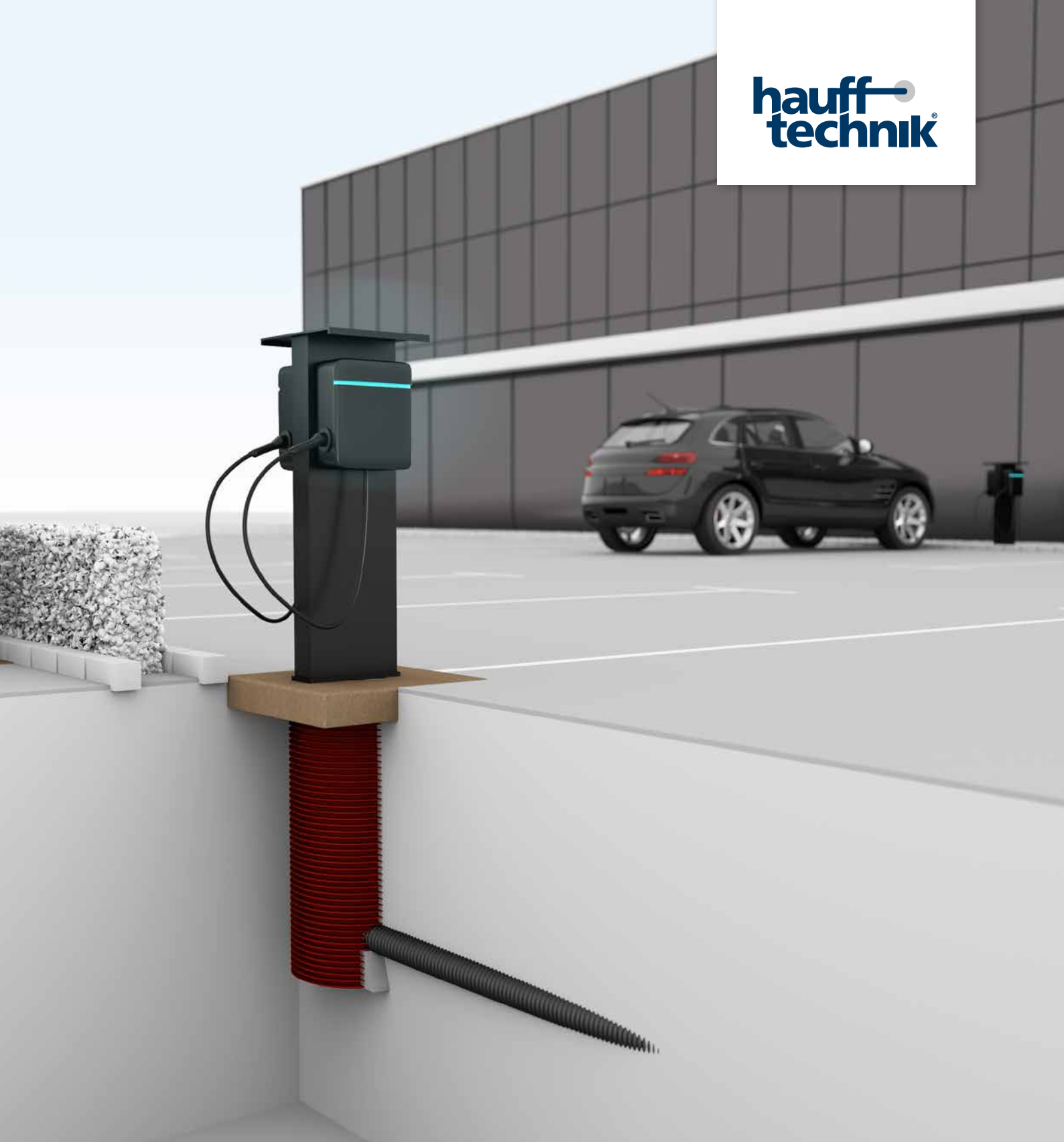




The base for your electromobility

ULF – Universal charging station foundation



Electromobility

Growing significance

The importance of electromobility is growing worldwide, as it defines a sustainable approach within the transportation. The increasing demand for electric vehicles is driven by the increasing environmental awareness, resource conservation, cost savings and new innovations. It not only promotes sustainability through lower emissions and the use of renewable energies, but also improves the quality of life in populated areas.

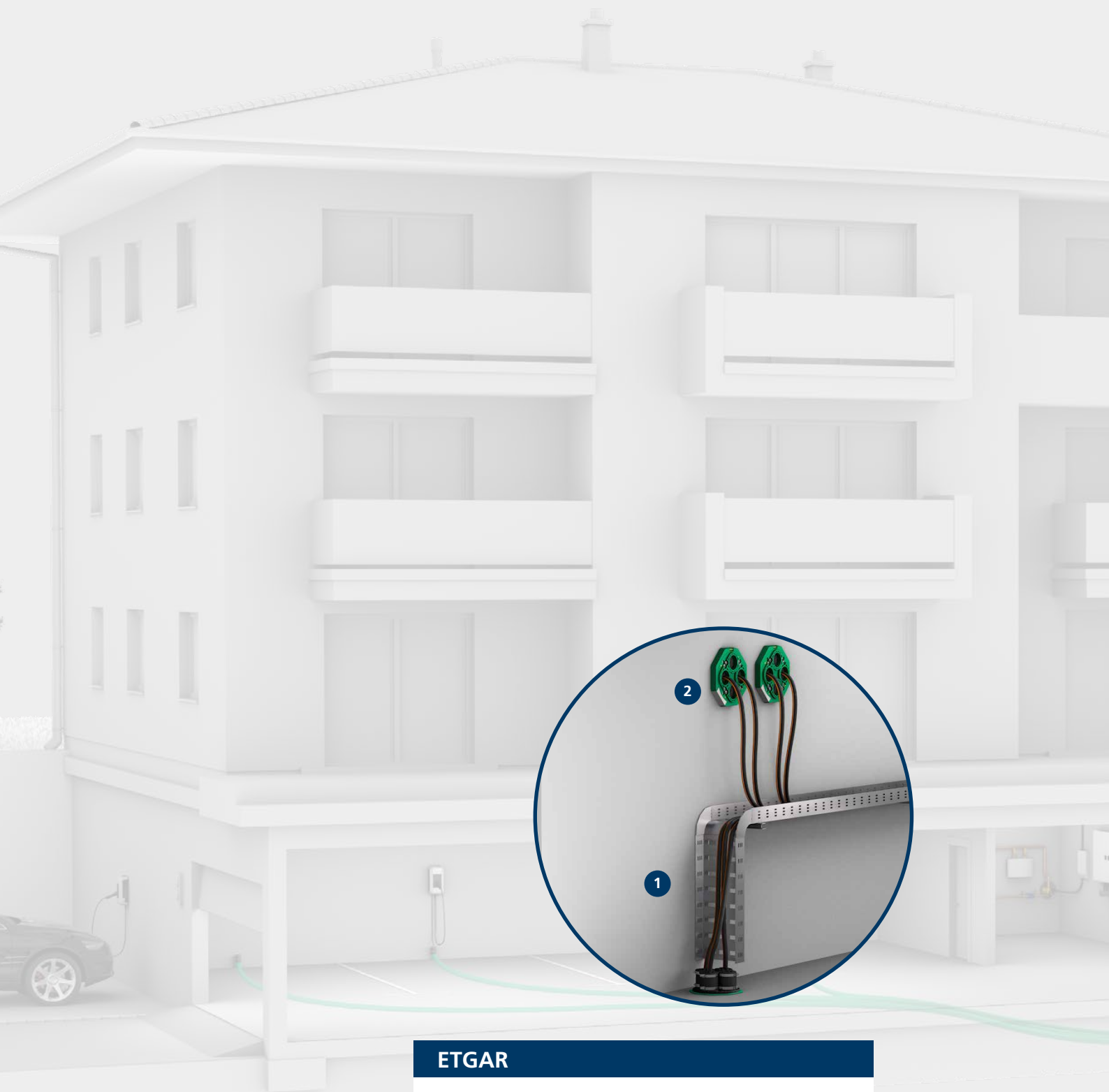
A decisive step for the future of electromobility is the expansion of the charging infrastructure. The availability of charging stations defines an important role in the use of electric vehicles. A nationwide network of fast-charging and standard charging stations enables users to charge their vehicles conveniently. The expansion of the charging infrastructure not only contributes to the achievement of sustainability goals, but also makes your building stand out with advantages for consumers.



Our solutions

We offer various solutions for setting up a charging infrastructure that meets your needs.

While our ULF foundation solution is speeding up expansion in public and semi-public areas, our comprehensive ETGAR system makes it possible to supply outdoor areas with electricity.



Our solutions
for buildings without
basement



Our solutions
for buildings with
basement

ETGAR

Building services outlet



HAB ETGAR BHP



HAW-M ETGAR BHP

1

2



The ETGAR building services outlet routes the electrical cables from the connection room to all the facilities on the property and the associated parking spaces that are subsequently to be supplied with electricity. The building services outlets meets all building sealing requirements – such as gas and water tightness as well as radon protection.

Ready for electromobility!

Benefits of our solution

- complete system for distributing electric power supply to the properties entire grounds from the building connection room
- retrofitting the empty conduit system is possible at any time without digging
- can be individually expanded, combined and extended thanks to the modular structure



ULF

Connection point

ULF 3

The universal charging station foundation is suitable for quickly and easily setting up a charging infrastructure at parking spaces. Its low weight makes installation and assembly particularly easy. It can be combined and expanded with the ETGAR system or other empty pipe solutions.



ULF

Preparation connection point

ULF 4

Even while planning the building and its parking spaces, the universal charging station foundation can be installed ready for connection. This means that subsequent civil engineering work can be avoided and the installation of a charging station can be carried out at any time without complications.



Commercial and public spaces

Intelligent charging infrastructure for powering vehicles in the commercial and public spaces:

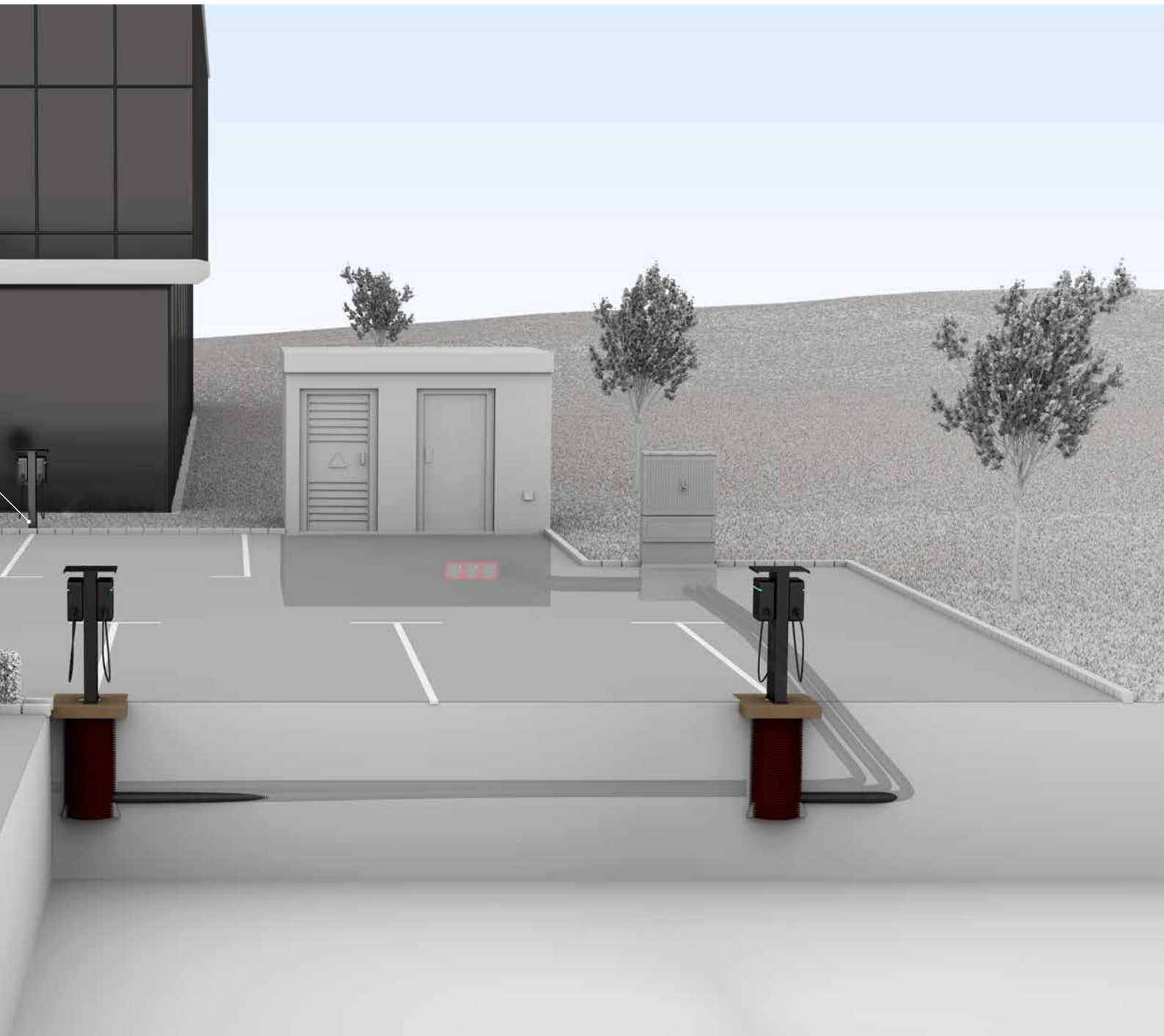
Commercial space

- companies
- hotels
- gastronomy
- housing industry

Public space

- cities
- municipalities
- public institutions





Integrated charging infrastructure

Companies, service providers, hotels and other semi-public facilities will demonstrate a greater need for charging stations in the future.

For the predicted upturn in electromobility, the corresponding charging infrastructure will be expanded.

With the universal charging station foundation (short ULF), Hauff-Technik has created an innovative and universal foundation for charging stations.

ULF offers a foundation solution for various types of charging stations, charging columns and for a variety of installation situations.

Universal charging station foundation

Functional principle

ULF is a universal foundation for charging stations and charging columns. Power and data cables are introduced via a conduit connection.

The charging station or pedestal is attached and connected to the foundation plate.

mounting options

screwing or dowelling possible on site

foundation slab

flexible and safe installation of charging stations

foundation pipe

allows alignment of the foundation and a flexible arrangement of the media lines

empty conduit

connection option for empty conduits

concrete foundation

attachment of the ULF

charging station

power cable

data cable

connection of further ULFs possible

electricity from the house
connection/transformer station

Foundation comparison



Precast foundation



ULF



Foundation concreted on-site

Features

Weight	100 kg – 900 kg	< 40 kg	–
Chemical resistance	depending on the concrete quality	acid and alkali resistance	depending on the concrete quality
Surface	smooth and even	very smooth and even	depending on the processor
Frost and de-icing salt resistance	only with special concrete	resistant through polymer concrete (FX4)	only with special concrete
Height adjustment	–	can be cut to length on site	–
Water absorption	depending on the concrete quality	low	depending on the concrete quality

Installation

Installation complexity	low	low	very high
Formwork work	–	–	laborious/complex
Laying foundation	only possible with crane/excavator	1 person	2 persons
Installation time	fast	fast	time consuming
Transport costs	very high	low	low
Cable routing	integrated	integrated	on site

Installation

Variety of charging station models	type-related	flexibly applicable	type-related
Mounting options	threaded sleeves, tie rods, concrete screws, dowels	threaded sleeves, tie rods, concrete screws, dowels	concrete screws, dowels, tie rods

Universal charging station foundation

for the installation of charging columns and charging pedestals



ULF

Universal foundation solution for the installation of charging columns and charging pedestals. Fastening option on the polymer concrete slab. Connection of power and data cables using a duct connection.

Advantages



- universal foundation system for various charging stations and charging pedestals
- adaptation option for empty conduits
- replacement or exchange of the charging station possible without removing the foundation

Scope of delivery

- 1 piece of ULF with blind plate

Dimensions

- total length: 755 mm
- foundation slab: ULF300: 300 x 300 mm, ULF380: 380 x 380 mm, ULF470: 470 x 470 mm
- Height foundation slab: 80 mm
- Foundation slab opening: ULF300/380: 110 mm, ULF470: 110/150 mm

- foundation pipe (Øi): ULF300: DN200, ULF380: DN250, ULF470: DN300

Properties

- Weight: ULF300: 16 kg, ULF380: 25 kg, ULF470 1x110: 39 kg, ULF470 1x150: 36 kg

Material

- polymer concrete slab: polymer concrete
- foundation pipe: PVC

Type	Size (mm)	Foundation pipe Øi (mm)	Article code	Article number	GTIN
ULF300	300 x 300	200	ULF300 1x110	3030512350	4052487243452
ULF380	380 x 380	250	ULF380 1x110	3030490218	4052487242851
ULF470	470 x 470	300	ULF470 1x150	3030490219	4052487242875
	470 x 470	300	ULF470 1x110	3030540367	4052487245111

The universal charging station base is compatible with charging stations and wallbox steels from different manufacturers.
www.hauff-technik.com

Accessories

Figure	Item	Article code	Packing unit	Article number	GTIN
	Hole saw for the universal charging station foundation	LS 76 SET	1	3030505139	4052487245418
		LS 114 SET	1	3030505140	4052487245425
	Concrete screw for the universal charging station foundation	BTS 6x60 A2K SW13	1	3030515187	4052487245456
		BTS 6x60 A4 SW13	1	3030504407	4052487245449
	ULF Closing cover for permanently closing the opening in the foundation plate of the universal charging station foundation	ULF VD110	1	3030563712	4052487248235
		ULF VD150	1	3030563708	4052487248242
	ETGAR connection sleeve for ETGAR foundation box	ETGAR ANS 4x5-25	1	3030449206	4052487239899



ULF – Universal charging station foundation

www.bit.ly/ulf-en



The universal charging column foundation is compatible with the charging columns and wallbox pedestals of various manufacturers.

Find the solution that suits you on our website!

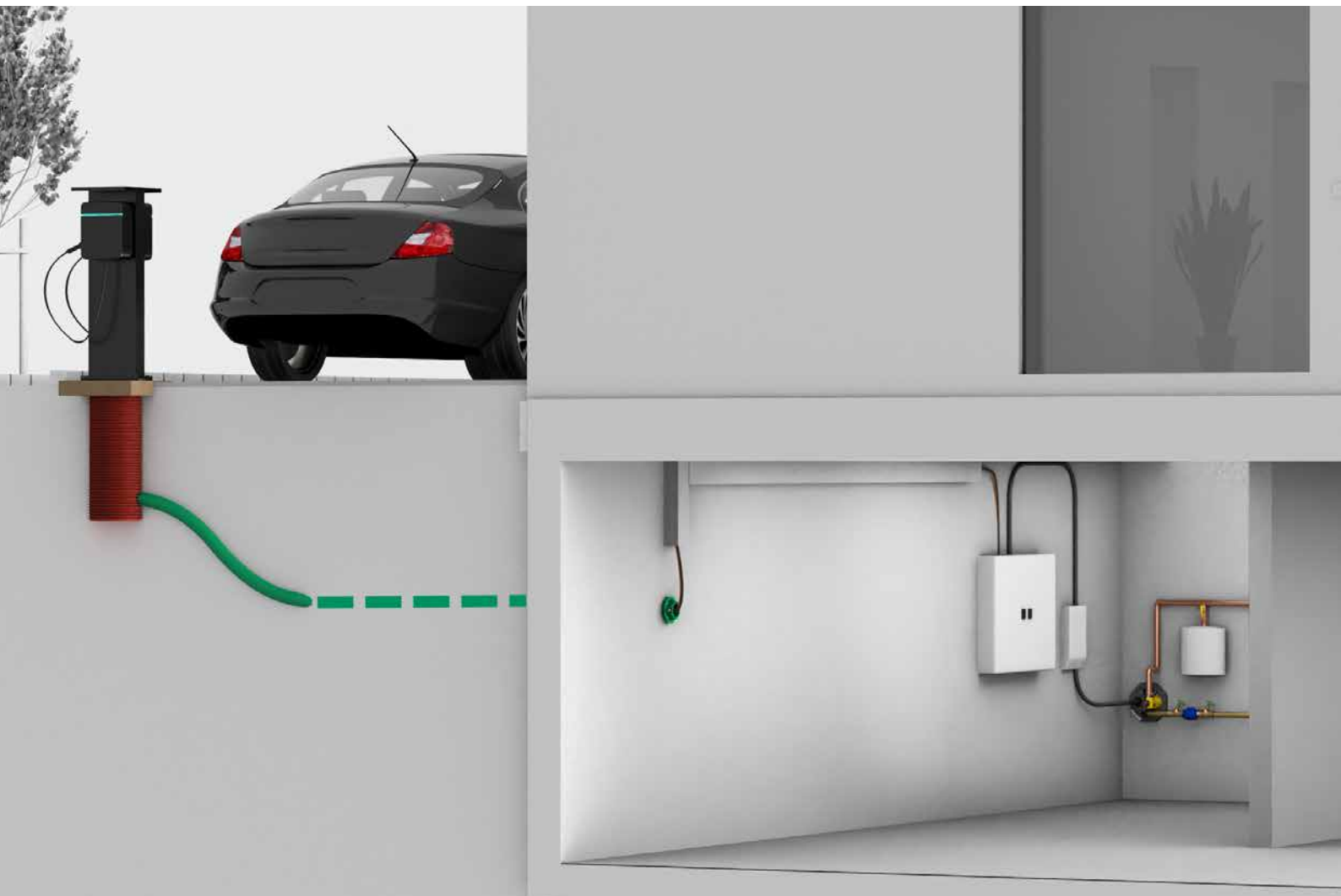


Electromobility in the private sphere

With our solutions you can also create a basis for e-mobility in your private space.

The complete ETGAR system is suitable for distributing electricity easily and reliably across the entire property. The electricity is routed out of the building via the building services outlet to precisely where it is needed using an empty conduit system.

The Universal charging station foundation ULF serves as a ready-to-connect foundation system with which the empty conduits are connected.



Single building services outlet for connecting an electronic device.

Electromobility system overview

Power source

Distribution

Deployment

Power distribution via the house connection



ETGAR building package for single-line building service outlets
for buildings with basement and one corrugated pipe connection



Universal wall sleeve 100
for new construction and one corrugated pipe connection



ETGAR building package for multi-line building service outlets
for buildings with basement and four corrugated pipe connections



ETGAR building developer package for building services outlets
for new construction and four corrugated pipe connections



Building services outlets, ETGAR multiple/single outer sealing element
for stock



ETGAR building package for building services outlets
for buildings without basement and four corrugated pipe connections



ETGAR corrugated pipe
ø 75 mm



ULF



PE corrugated pipe

cable duct as intermediate distributor necessary

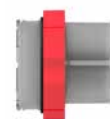


ULF

Power distribution via a transformer station



HSI150
single wall insert



HSI150 system cover



HSI150 DFK
polymer flange for dowelling



Building services outlets for buildings without a basement

Figure	Item	Article code	Packing unit	Article number	GTIN
	ETGAR building package for building services outlets for buildings without a basement	HAB ETGAR BHP	1	3030404422	4052487231626
	House design ETGAR MIS for buildings without a basement	HA ETGAR MIS100S	1	3030576095	4052487247238

Scope of delivery see: www.haufl-technik.com



Building services outlets for buildings with a basement

Figure	Item	Article code	Packing unit	Article number	GTIN
	ETGAR building package for multi-line building service outlets for buildings with a basement	HAW-M ETGAR BHP	1	3030458211	4052487239936
	ETGAR wall sleeve for building services outlet for ETGAR BHP	HAW-M ETGAR FR	1	3030458206	4052487239912
	Multiple house design ETGAR external sealing element for multiple house design ETGAR builder-owner package	HAW-M ETGAR AD	1	3030490272	4052487241939
	ETGAR building package for single-line building service outlets for buildings with a basement	HAW-E ETGAR BHP	1	3030458216	4052487239967
	ETGAR building package for single-line building service outlets with module 8 for buildings with a basement	HAW-E ETGAR BHP SET	1	3030588673	4052487247474
	Universal wall sleeve for any type of wall	UFR100/200	1	3030300244	4052487216098
	ETGAR exterior sealing element for single-line building service outlet for ETGAR building package for single-line building service outlet	HAW-E ETGAR AD	1	3030491405	4052487242028

Scope of delivery see: www.haufl-technik.com

Distribution on the property or to the parking spaces

Figure	Item	Article code	Pack- ing unit	Article number	GTIN
	PE corrugated pipe for ETGAR BHP	HAB ETGAR WR75 GR30000	1	3030401995	4052487231374
			6		4052487231671
	ETGAR extension set for ETGAR BHP	HAB ETGAR VLS	1	3030404455	4052487231657
			6		4052487231640
	Sleeve caps for ETGAR foundation box	ETGAR ANS 4x5-25	1	3030449206	4052487239899
			10		4052487239905
	Extension sleeve for ETGAR building services outlet	ETGAR MA70-84/70-84	1	3030403633	4052487232302
			12		4052487231886
	ETGAR foundation box for ETGAR BHP	ETGAR FB	1	3030454134	4052487239851
			32		4052487239868
	ETGAR foundation box set for ETGAR BHP	ETGAR FB SET¹⁾	1	3030482075	4052487242202
			4		4052487241908
	ETGAR carrier plate for ETGAR foundation box	ETGAR FB TPL	1	3030454138	4052487239875
			32		4052487239882

Scope of delivery see: www.hauff-technik.com.

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