GRITEC

METAL COMPONENTS FOR TECHNICAL BUILDINGS

WE KEEP THE WORLD RUNNING

CONTENTS

CONCRETE MEETS METAL

COMPANY

GRITEC is specialist for development, production and distribution of technical buildings in form of factory-finished room cells made of reinforced concrete for many areas of public and industrial infrastructure. Standardised as well as customised doors and ventilation elements are manufactured in our own metal production facility. An all-round service from planning to the tested, ready-to-connect station as well as refurbishment of existing stations round off GRITEC's range of services.

GRITEC

GRITEC STATIONS **GRITEC** ELEMENTS **GRITEC** SERVICES

GRITEC ELEMENTS

GRITEC is the leading manufacturer of technical buildings for supply technology. Quality and safety are of particular importance in this area - right down to the smallest detail. That is why we not only manufacture the building modules ourselves, but have also been producing the matching components ourselves since 1966. Our ventilators, doors, and locking systems are manufactured in accordance with the relevant German, European, and international standards, regulations, and legal requirements.

RELIABLE SERVICE

At GRITEC, you'll receive comprehensive service – from consultation and planning through to completion – including on-site measurement and installation upon request.

STANDARD CONFORMITY

- Arc-fault tested as part of a system with GRITEC substations in accordance with DIN EN 62271-202 / VDE 0671-202
- Degree of protection IP 23 DH tested to DIN EN 60529 / VDE 0470-1, (Poke and insect proof); Optional: IP 25 D, 34 D, 43 D
- Protection against external forces while maintaining function and degree of protection (impact test with 20J to IEC 62262)
- Earthing connection
- optional burglar resistance according to DIN EN 1627

TÜV SÜD · ift ROSENHEIM · PIV · CE · KEMBRUCH · Fraunhofer IOF

COMPONENTS MADE OF ALUMINIUM

ESPECIALLY IN OUTDOOR AREAS AN OPTIMAL SOLUTION.

Due to its many positive properties, aluminium has already proven its worth in the construction of vehicles and aircrafts and in many other areas of application.

Among other things, because the material belongs to the “light metals” and can combine a low weight with a high degree of stability. This advantage pays off especially during transport and assembly.

ADVANTAGES

+ Ideal for use in the renovation, refurbishment and new construction segment in technical and industrial buildings as well as public facilities
+ weather-resistant, low-maintenance
+ fully recyclable

SURFACE

+ silver anodised E6/EV1
+ anodised C 32, C 33 or C 34 or available painted or powder-coated in all RAL colours

WE MANUFACTURE THE APPROPRIATE COMPONENTS OURSELVES.

We manufacture all doors and ventilation elements in-house and to measure.

PORTFOLIO

DOORS,
LOCKING SYSTEMS,
VENTILATION GRILLES

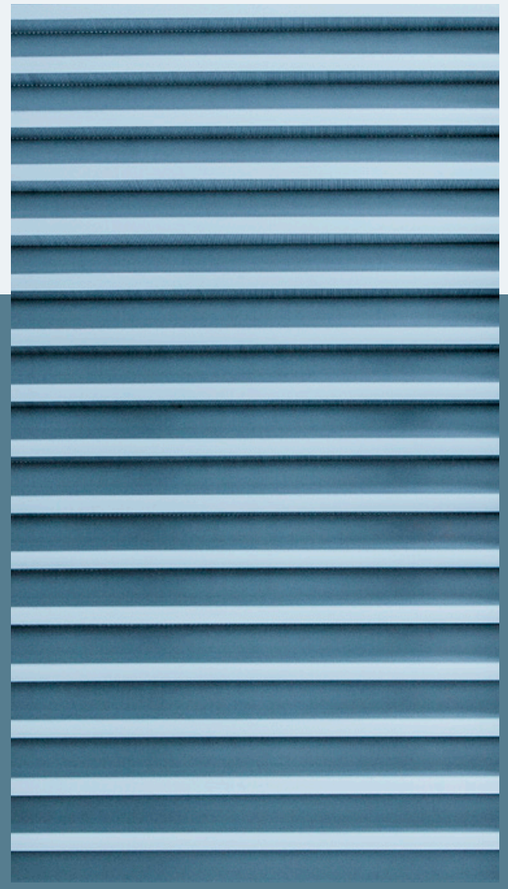
GRITEC components are designed to work together seamlessly.

This is the only way to ensure maximum safety for people and equipment.

PERFECTLY MATCHED TO EACH OTHER

DOORS

LOCKING SYSTEMS



VENTILATION GRILLES

DOORS

ACCESS PROTECTION WITH LONG-TERM GUARANTEE.

Wind and weather can hardly harm the practically corrosion-free aluminium door elements made by GRITEC. The TAM type doors offer a highly stable frame that can be anchored absolutely force-fit to the building structure.

As standard, all doors are equipped with a door stop, copper earthing strap, lock and integrated rain drip strip. In addition they meet the safety criteria according to DIN EN 61936-1 (VDE 0101-1).

GRITEC door elements are also available in special designs to meet a wide range of structural requirements.

The significant feature of the GRITEC aluminium doors of the TAM type is the concealed hinge. It invisibly connects the door leaf to the door frame made of solid aluminium profiles and thus provides a high level of resistance to forced entry.

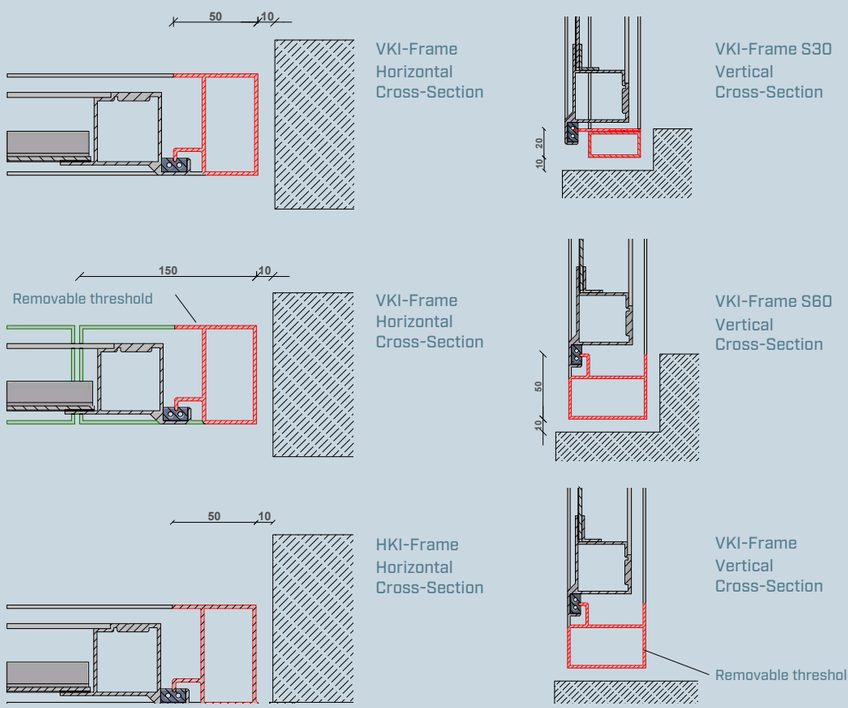
ADVANTAGES

- Installation of ventilation elements, type LLE, and pressure relief type EE / EV 06 in various sizes
- Pressure relief dampers with function (opening or closing in case of overpressure)
- Sliding shutter for ventilation dosage
- Continuous seal in the door leaf for special tightness
- Door check (opening angle 95°)
- Concealed door hinges

OPTIONS

- Single and double leaf
- Reduced or removable threshold for accessibility
- Sound insulation (R'W up to 35 dB)
- Protective rosette for security doors
- Bolt contact
- Magnetic switch
- Ventilation element/panel above the door leaf, or side parts, can be removed on request
- Ventilation unit as exhaust air element
- Burglar-resistant RC2/RC3
- Use of different locking systems
- Circumferential angle frame for renovation solution

FRAME SYSTEMS
FOR A WIDE VARIETY OF INSTALLATION SITUATIONS



A PLUS IN SAFETY
WITH A GRITEC DOOR

With a GRITEC door made of aluminium, you are opting for a secure solution that effectively protects your building against forced entry and reliably withstands greater compressive stresses, such as those that can occur in the event of technical incidents (e.g. arcing in the event of internal faults). Our TAM aluminium door provides effective protection against external forces, unauthorised access, burglary and sabotage in resistance class RC2 or RC3 in accordance with DIN EN 1627-2011 while retaining its function and degree of protection IP 23 D (piercing resistance, impact test in accordance with IEC 62262).

	RC2	RC3
Perpetrator profile	Occasional perpetrator: Simple tool such as screwdriver, pliers, wedge	Occasional or experienced perpetrator: The perpetrator uses additional leverage tools.
Duration of resistance	3 minutes	5 minutes

		RC2	RC3
Product features	single-leaf, double-walled	optional ventilation above and/or below	without ventilation
		GRITEC mortise lock with emergency exit function	Mechanical or electronic multi-point lock with emergency exit function
	Maximum 1 profile cylinder with protective fitting	Class ES1 according to DIN 18257:2003	Class ES2 according to DIN 18257:2003
Dimensions	Width in the light:	1004 mm - 1363 mm	980 mm - 1355 mm
	Height in clearance:	1916 mm - 2617 mm	1674 mm - 2313 mm
	Fan height	170 mm - 770 mm	-
Constructional requirements	Wall thickness	≥ 10 cm reinforced concrete (C15/20) ≥ 11.5 cm masonry (compressive strength > 12, mortar group II)"	≥ 12 cm reinforced concrete (C15/20) ≥ 11.5 cm masonry (compressive strength > 12, mortar group II)"
Additive construction elements		Pressure relief dampers with function (opening or closing in case of overpressure) Sliding shutter for ventilation dosing dust filter/dust filter exchange frame	Ventilation louvres integrated in door leaf not possible in design; Required ventilation openings must be shown separately as ventilation element LL RC3 (wall installation)

PREFERRED DIMENSIONS
TAM 3 ALUMINIUM DOOR

Preferred dimensions	Clear opening dimensions [mm]"	Structural dimensions [mm]"	Wide-opening sash / fixed sash [mm]"	max. ventila-tion LU	max. ventilation LO	Effective ventilation cross-sections Supply air [m²] "	Effective ventilation cross-sections Exhaust air [m²] "
110 / 210	1100 / 2100	1220 / 2220	1100 / -	77	77	0,35	0,35
110 / 225	1100 / 2250	1220 / 2370	1100 / -	77	92	0,35	0,42
110 / 232,5	1100 / 2325	1220 / 2445	1100 / -	77	99,5	0,35	0,46
125 / 210	1250 / 2100	1370 / 2220	1250 / -	77	77	0,40	0,40
125 / 225	1250 / 2250	1370 / 2370	1250 / -	77	92	0,40	0,49
125 / 232,5	1250 / 2325	1370 / 2445	1250 / -	77	99,5	0,40	0,53
172 / 210	1720 / 2100	1840 / 2220	1100 / 620	77	77	0,51	0,51
172 / 225	1720 / 2250	1840 / 2370	1100 / 620	77	92	0,51	0,63
172 / 232,5	1720 / 2325	1840 / 2445	1100 / 620	77	99,5	0,51	0,68
223 / 210	2230 / 2100	2350 / 2220	1100 / 1100	77	77	0,70	0,70
223 / 225	2230 / 2250	2350 / 2370	1100 / 1100	77	92	0,70	0,85
223 / 232,5	2230 / 2325	2350 / 2445	1100 / 1100	77	99,5	0,70	0,93

CUSTOM MANUFACTURING IN OUR OWN PRODUCTION FACILITY

LOCKING SYSTEMS

CLOSING THINGS IN VARIATION

SECURITY LOCKS FOR
WALK-IN STATIONS

An effective security door also includes a locking system that meets the high requirements.

It signals at first glance whether the door is properly locked and ensures that the door can basically only be opened with the key once it has fallen into the lock. In addition, there is a panic function which ensures that no one can lock themselves in by mistake. If desired, the lock can be equipped with two independent door cylinders. For double-walled doors, mortise locks are available in three versions with different functionality.

ACCESSORIES FOR GRITEC DOORS

OVERVIEW OF LOCKING SYSTEMS
EXCLUSIVELY DEVELOPED BY GRITEC

GRITEC MORTISE LOCK

+ Panic function according to DIN VDE 0101
+ Round latch and round bolt
+ Rod connection up and down
+ optionally one or two profile cylinders
+ available with KABA perforation on request
+ Key can only be removed with pre-locked latch
+ Lock can be used right/left by repositioning the latch

GRITEC SUBSTATION LOCK

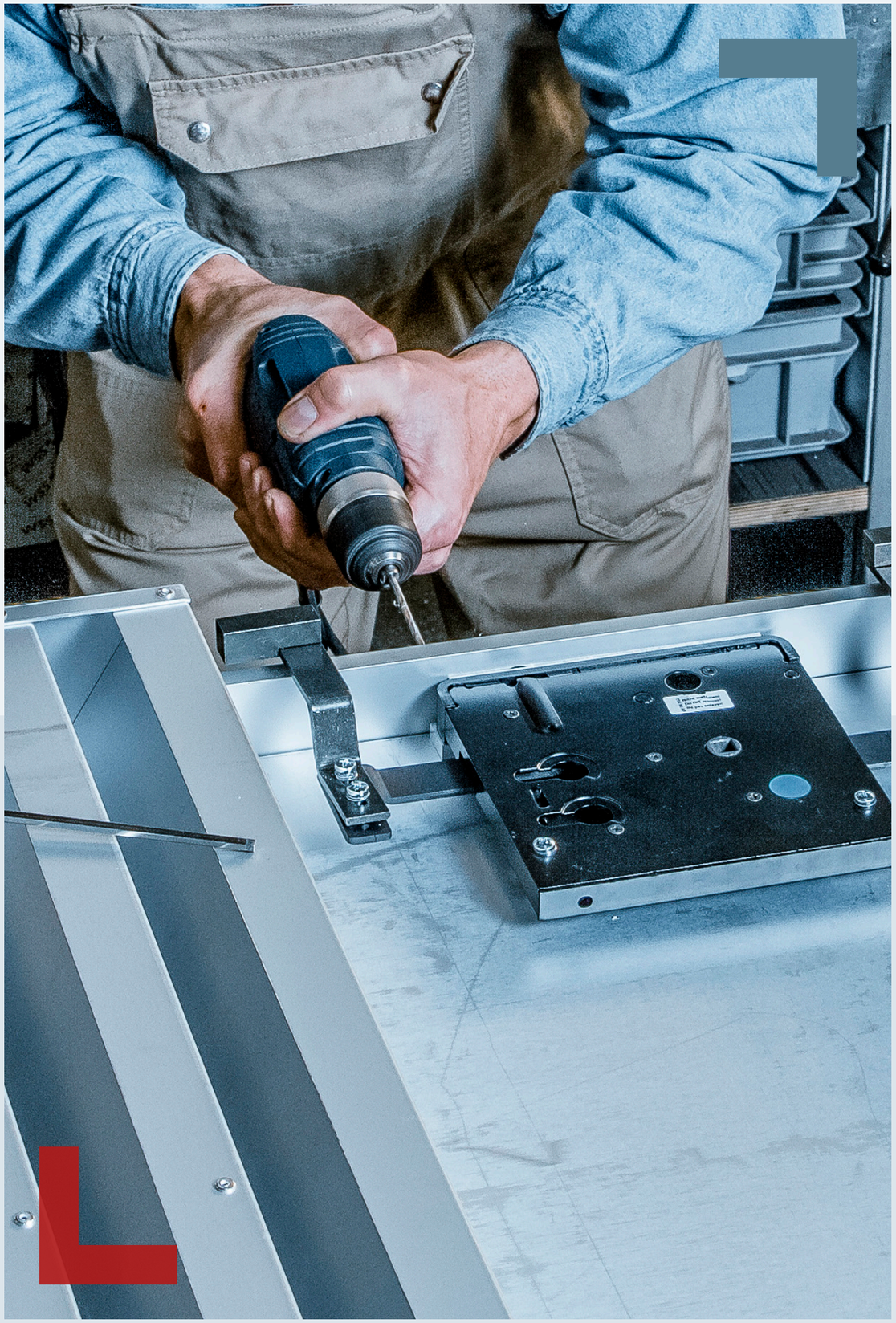
+ Round bar
+ Rod connection up and down
+ optionally one or two profile cylinders
+ available with KABA perforation on request
+ Key can only be removed when locked
+ Lock can be used right/left
+ Rod stroke 15 mm

GRITEC BOX LOCK

+ Panic function according to DIN VDE 0101
+ Round latch
+ Baqui rod connection up and down
+ optionally one or two profile cylinders
+ available with KABA perforation on request
+ Key can only be removed when latch is pre-locked
+ Lock variants right and left
+ Rod stroke 15 mm

GRITEC SWIVEL LOCK

+ to be locked with half cylinder of 40 mm or 45 mm length, length to be specified
+ Connection for round rods ø 10 mm upwards and downwards
+ Rod stroke 31.4 mm



VENTILATION SYSTEMS

VENTILATION GRILLE BRAND GRITEC

Ensuring ventilation, but effectively denying access to snow, rain, insects and unauthorised intruders – GRITEC ventilation grilles solve this demanding task in a particularly intelligent way. For example, by means of aluminium louvres, highly effective perforated plates or a range of special solutions for very specific requirements. Poke-proof ventilation prevents condensation and ensures the dissipation of transformer heat loss. The individual elements can be flexibly adapted to the structural conditions and are suitable for installation in both doors and walls.

+ Aluminium ventilators in 50 or 100 mm depth versions
+ Ventilation domes for all-round continuous ventilation
+ Ventilation domes: for ventilation above the roof, for sophisticated ventilation systems or optional, if there is no space in the building itself for the installation of a ventilation in the wall.

ADVANTAGES

+ High free ventilation cross-sections
+ Favourable flow resistance coefficients
+ Construction depth 100 mm : **ζ** = 17,1
+ Construction depth 50 mm : **ζ** = 26,2

OPTIONS

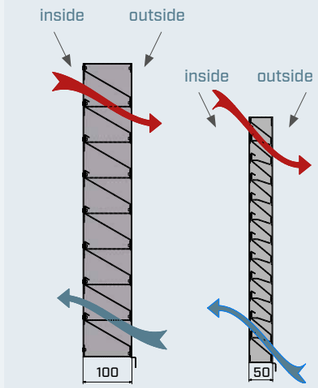
+ Sliding plate for manual regulation of the air flow
+ Fan units (can be integrated) for forced ventilation
+ Design RC2, RC3 possible
+ Pressure relief type EE / EV 06 of different sizes (only construction depth 100 mm)
+ Suitable for door and wall installation

SUITABLE FOR INSTALLATION IN DOORS AND WALLS.

Ventilation grille GRITEC LL 100 / 62

OPTIONS FOR BUILDING DEPTHS
IN COMPARISON 100 / 50

Type	Ventilator Dimensions [mm]	Overall Dimensions [mm]	Number of Blades	Effective Ventilation Cross-Section [m²]
Depth 100				
LL 100 / 32	1003 x 320	1023 / 340	3	0,11
LL 100 / 47	1003 x 470	1023 / 490	5	0,19
LL 100 / 62	1003 x 620	1023 / 640	7	0,27
LL 100 / 77	1003 x 770	1023 / 790	9	0,35
LL 100 / 99,5	1003 x 995	1023/ 1015	12	0,46
Depth 50				
LL 100 / 31,2	1003 x 312	1023 / 332	6	0,10
LL 100 / 47,8	1003 x 478	1023 / 498	10	0,15
LL 100 / 60,3	1003 x 602,5	1023 / 623	13	0,20
LL 100 / 76,9	1003 x 768,5	1023 / 789	17	0,27
LL 100 / 97,6	1003 x 976	1023 / 996	22	0,35

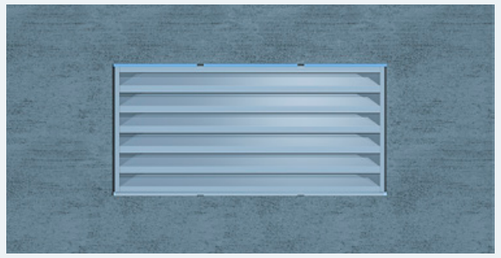


LLE aluminium ventilation cross-section
Depth 100 mm Depth 50 mm

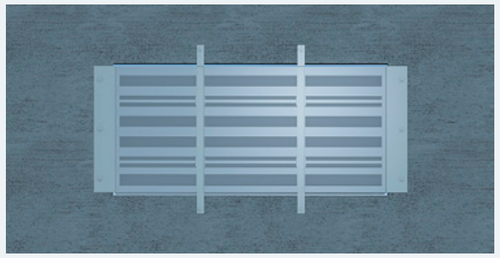
INSTALLATION SCENARIOS FOR DOORS AND VENTILATION GRILLES

VENTILATION SYSTEMS
BURGLAR-RESISTANT RC3

The LLE RC3 aluminium ventilation system for buildings provides optimal ventilation and the best protection. Thanks to its aluminium construction, the system is easy to install. It is therefore particularly well-suited for retrofitting in buildings.



LLE RC3 Exterior view



LLE RC3 Interior view

DIMENSIONS

+ Width: 400 mm - 1103 mm
+ Height: 250 mm - 1177 mm
+ free ventilation cross-sections
+ Fo = ca. 0,028 m² - 0,6 m²

STRUCTURAL REQUIREMENTS

+ Wall thickness:
  ≥ 12 cm reinforced concrete (C15/20)
  ≥ 11.5 cm masonry
+ Compressive strength > 12, mortar group II

ADD-ON COMPONENTS

+ Function-controlled dampers (open/close under positive pressure)
+ Slide valve for airflow control
+ Dust filter/dust filter replacement frame

PRESSURE RELIEF SYSTEMS

GRITEC offers a range of special pressure relief systems for the safe handling of increased pressure loads, as can occur in the event of technical incidents. Different variants and functionalities allow the best possible adaptation to the respective building.

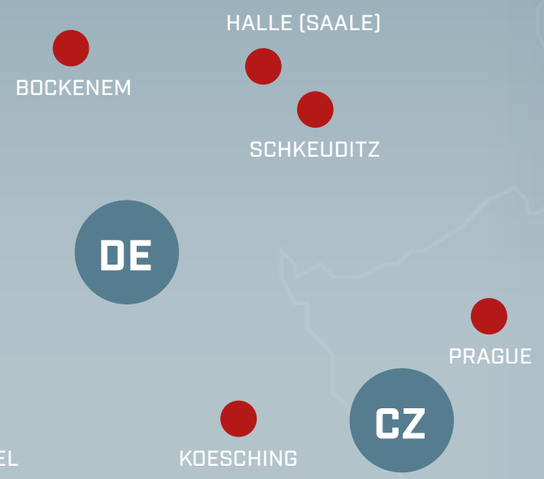
VERSIONS

+ Pressure relief elements (opening in case of overpressure) as an additive to the ventilation blind LLE
+ Shut-off dampers (closing in case of overpressure) as an additive to the ventilation blind LLE

OPTIONS

Special version for pressure relief elements: Actuator for controlling the air circulation (manually or by means of motor actuator controlled by thermostat or hygrostat), whereby the pressure relief function can be guaranteed in any operating position

GRITEC GROUP



OVER 60 YEARS OF EXPERIENCE

GRITEC was founded in 1963 in Waghaeusel in northern Baden. Due to the constant growth, five further plants were built in Germany as well as in Prague (Czech Republic).

These locations form the GRITEC Group which, with around 1,300 employees, manufactures over 8,000 individual room cells annually on state-of-the-art production facilities.

WAGHAEUSEL

KOESCHING

HALLE (SAALE)

SCHKEUDITZ

BOCKENEM

PRAGUE

WE KEEP THE
WORLD RUNNING

GRITEC

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