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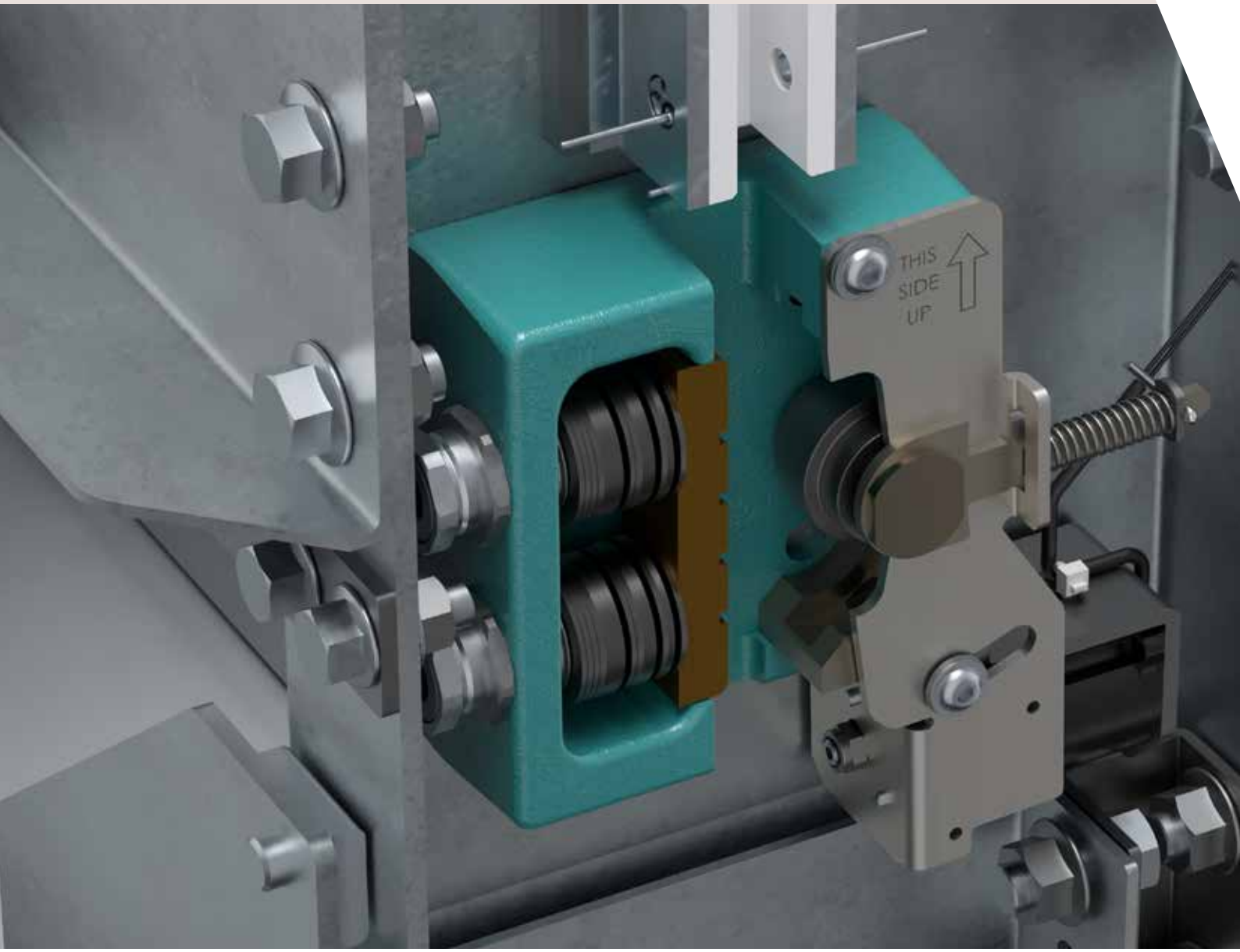
WITTUR

# RANGE OF SAFETY COMPONENTS

## HOLISTIC SOLUTIONS FOR YOUR NEEDS




ADVANCING THE ELEVATOR INDUSTRY®

# Progressive Safety gears & Braking systems

COMMODITY & MODERNIZATION

Unidirectional progressive
SAFETY GEAR

## CSGB-01/02/03

Braking force generated through a combination of disc springs and braking elements (adjustable by the disc spring assembly) activated. Simple and compact design for easy integration in different positions on car slings or counterweight frames. Low force needed to release after engagement.

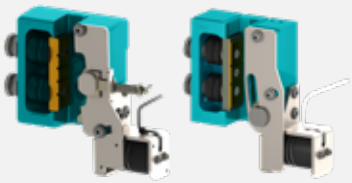
Unidirectional progressive
SAFETY GEAR

## SGB01/02/03/05

Progressive scalable safety gear applicable for a wide range of loads. Superb solution for car but also counterweight installation due to reduced width dimensions. Many modernization packages available. Available with compliance for many global lift norms and directives.

Electromechanical
SAFETY GEAR

## ESG-17BS/ ESG-25BS/ ESG-25U



Wittur ESG is a breakthrough safety system solution for new elevator installations. Advanced self-monitoring routines and automatic setup with shaft dimensions determination ensure a fast and easy installation and a reliable fail-safe system. Safety electronics also combine additional functions: UCM detection, absolute shaft encoder, door zone switch, shaft end switches. A backup battery is supplied in the electronic interface box to ensure operation also in case of power loss.

Bidirectional progressive
SAFETY GEAR

## BSG-25P

The BSG-25P is a bidirectional progressive safety gear used mainly for modernization applications. Certified in Wittur's UCM package but also as single component makes the BSG-25P also compatible with your UCM solution. The unique design allows up- & downwards gripping direction on the guide rail in contrast to other solutions which use the drive brake.

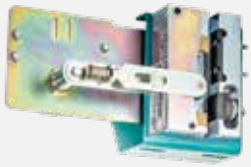
Bidirectional
GUIDE RAIL BRAKE

## EBRA20-UCM

EBRA20 is an ascending-car overspeed protection (ACOP) and can be used also as UCM brake. The guide rail brake is installed on the car sling for modernization of existing elevators. Working as a standalone braking system, it only needs electrical tripping information (overspeed governor switch) to engage in case of overspeed. It does not substitute the safety gear for down direction.

Bidirectional progressive
SAFETY GEAR

## LADP16



LADP is a bidirectional safety gear also available for heavy loads. Upwards braking power is applied through compression of a stack of adjustable disc springs. Downward progressive brake force is generated by deflection of adjustable leaf springs.

HIGH PERFORMANCE

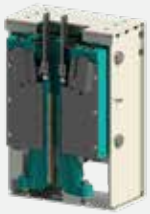
Unidirectional progressive
SAFETY GEAR

## WSGB10

Single-direction progressive safety gear applicable for a wide range of loads. Superb solution for car but also counterweight frame installation due to reduced width dimensions (modernization packages available). Brake pads from the automotive industry prevent visible wear on guide rails. Available for many global major elevator norms and directives.

Unidirectional progressive
SAFETY GEAR

## WSGB13



Single-direction progressive safety gear applicable for mid and high rise applications. Superb solution for car but also counterweight frame installation (modernization packages available). Brake pads from the automotive industry prevent wear on guide rails. Available for many global major elevator norms and directives.

# Comparison chart

Progressive Safety gears & Braking systems

| | COMMODITY & MODERNIZATION | | | | | | | | HIGH PERFORMANCE | |
|---|---|---|---|---|---|---|---|---|---|---|
| | CSGB-01/02/03 | SGB01/02/03/05 | ESG-17BS | ESG-25BS | ESG-25U | BSG-25P | EBRA20-UCM | LADP16 | WSGB10 | WSGB13 |
| | Up to 3,50 m/s | Up to 2,50 m/s | | | | Up to 2,00 m/s | Up to 2,00 m/s | Up to 1,88 m/s | Up to 8,00 m/s | Up to 12,50 m/s |
| **Direction** | Unidirectional | Unidirectional | Bidirectional | Bidirectional | Unidirectional | Bidirectional | Bidirectional | Bidirectional | Unidirectional | Unidirectional |
| **Min. rated speed (m/s)** | 0,15 | 0,15 | 0,15 | 0,15 | 0,15 | 0,15 | 0,15 | 0,15 | 2,00 | 4,00 |
| **Max. rated speed (m/s)** | 3,50 | 2,50 | 2,00 | 2,00 | 2,25 | 2,00 | 2,00 | 1,88 | 8,00 | 12,50 |
| **Max. tripping speed (m/s)** | 4,45 | 3,22 / 3,55 | 2,40 | 2,33 | 2,63 | 2,50 | 2,63 | 2,16 | 10,50 | 14,60 |
| **Min. mass to be gripped (kg)** | 575 | 500 | 530 | 1.000 | 500 | 584 | – | 717 | 1.500 | 2.800 |
| **Max. mass to be gripped (kg)** | 5.500 | 9.200 (SGB03-Duplex 17.692) | 1,680 | 2.500 | 2.500 | 2.550 | – | 4.641 | 5.000 (Duplex 9.500) | 10.000 (Duplex 19.231) |
| **Min. rated load (kg)** | – | – | - | Depends on weight car | - | 225 | 200 | 225 | – | – |
| **Max. rated load (kg)** | – | – | - | Depends on weight car | - | 1.100 | 2.200 | 2.500 | – | – |
| **UCM brake** | – | – | YES / YES | YES / YES | NO / NO | YES | YES | – | – | – |
| **Guide rail blade (mm)** | 9 - 16 | 8 - 32 | from 9 up to 16 | from 9 up to 16 | from 9 up to 16 | 8 - 16 | 7 - 19 | 8 - 16 | 16 - 19 | 15,88 - 16 - 19 - 29 - 32 |
| **Guide rail conditions (*)** | MO I MD I DO I DD | MO I MD I DO I DD | MO I MD I DO I DD | MO I MD | MO I MD | MO I MD I DO I DD | MO I MD I DO I DD | MO I MD I DO I DD | MD | MD |
| **CERTIFICATIONS** | | | | | | | | | | |
| **EN 81-20/50:2014** | X | X | X | X | X | X | X | X | X | X |
| **GOST R 53780-2010** | X | X | - | - | - | X | – | – | X | – |
| **GB 7588** | X | X | - | - | - | X | – | – | X | X |
| **KOREA** | – | X | - | - | - | – | – | – | X | – |
| **ASME A17.1** | X | X | - | - | - | – | – | – | X | X |

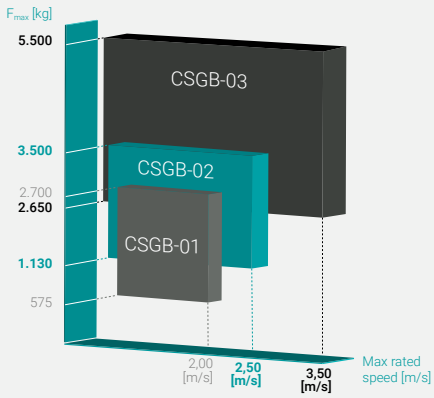
(*) LEGEND: **MO** = Machined: Oiled **MD** = Machined: Dry **DO** = Drawn: Oiled **DD** = Drawn: Dry

# Graphic Speed/Load

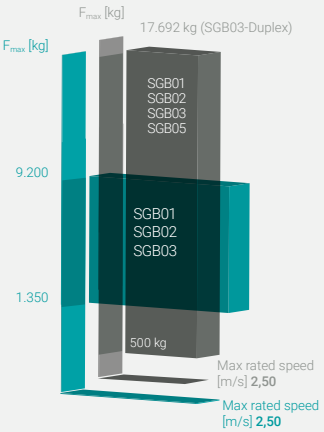
Progressive Safety gears & Braking systems

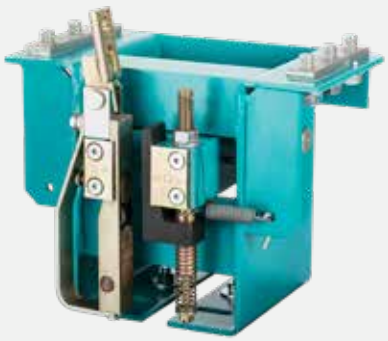
COMMODITY & MODERNIZATION

## CSGB-01/02/03

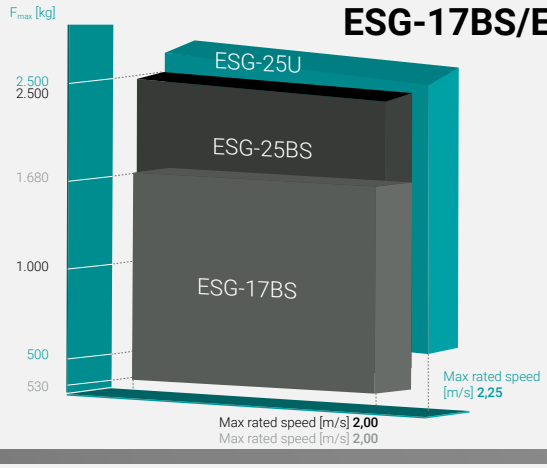


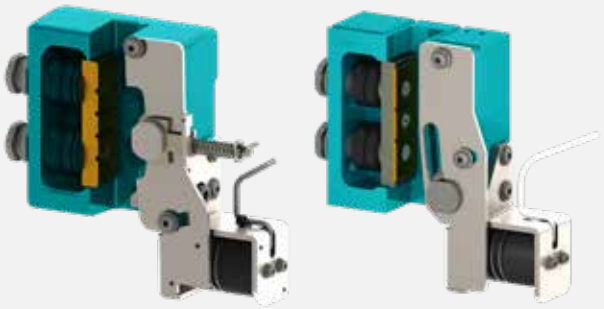

## SGB01/02/03/05



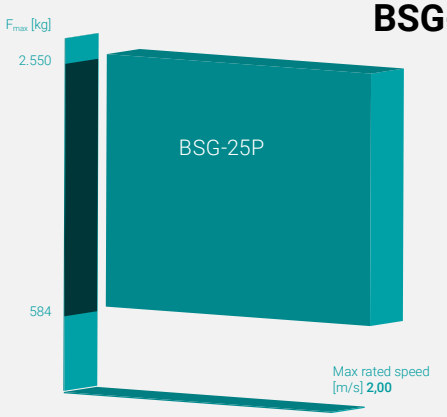



## ESG-17BS/ESG-25BS/ESG-25U



## BSG-25P

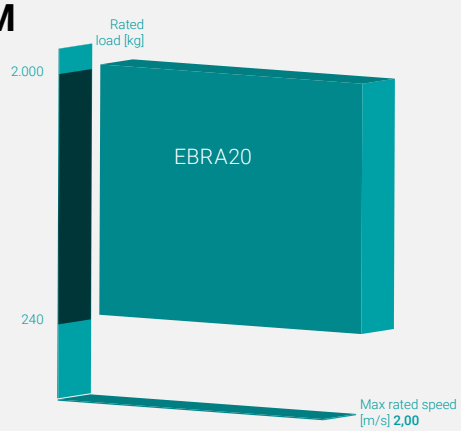



# Graphic Speed/Load

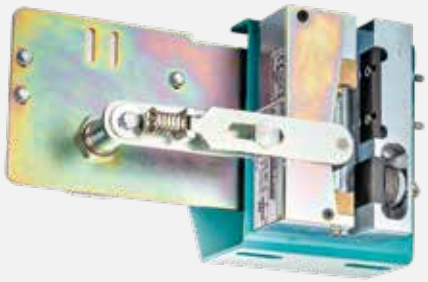
WITTUR

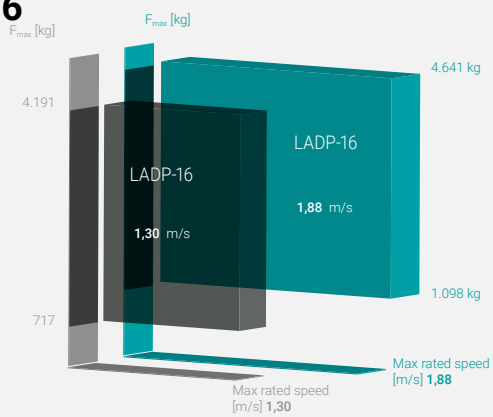
COMMODITY & MODERNIZATION

## EBRA20-UCM



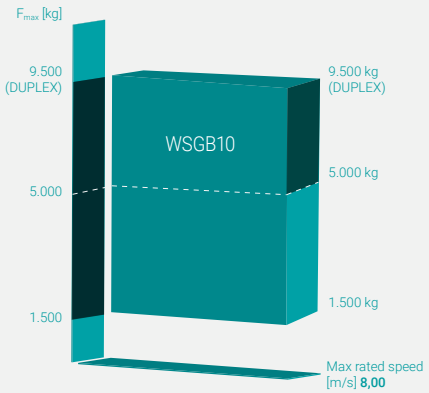

## LADP16



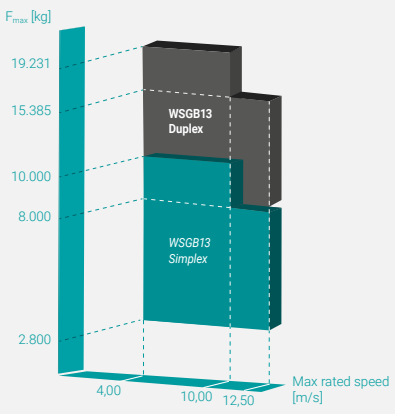



HIGH PERFORMANCE

## WSGB10

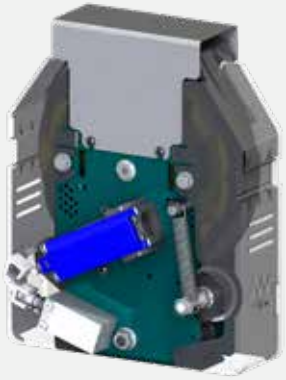



## WSGB13



# Overspeed governors

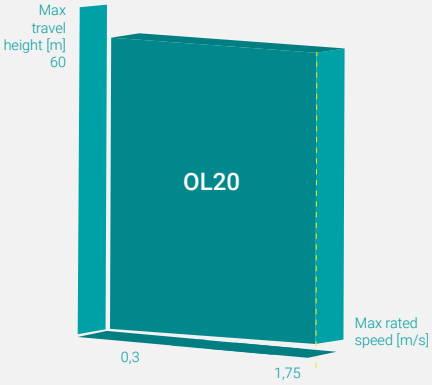
COMMODITY & MODERNIZATION



## OL20

The OL20 detects overspeed by his simple and reliable pivoting latch mechanism.

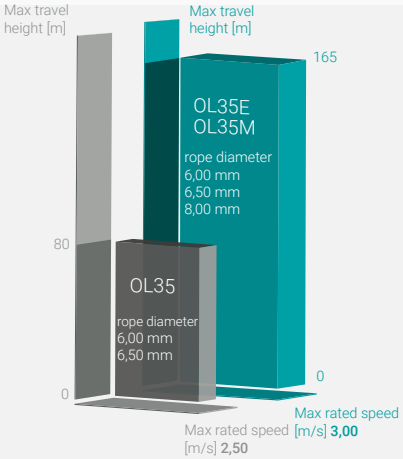
Standardized design for MR & MRL version, for new installations and modernizations.




## OL35/E/M

The OL35 detects overspeed by his flyweight mechanism and engages the safety gear on the entire circumference of brake mechanism.

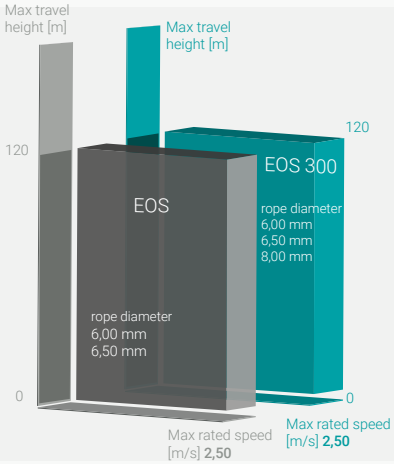
Simple mechanical design and remote control makes them a save and economic choice not only for machine room but also for machine roomless applications.




## EOS & EOS 300

With the EOS you are welcomed to the 21st century of state-of-the art electronic overspeed detection technology. (SIL3)
Thanks to the sophisticated electronics installed, the EOS reacts without any time delay.

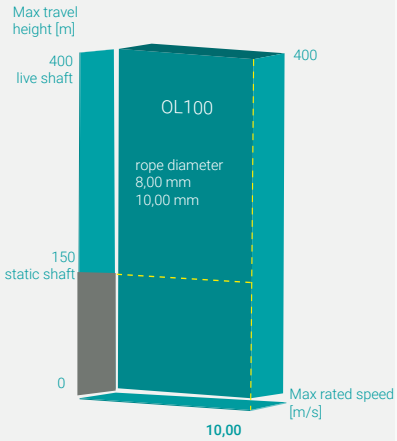
EOS was the very first electronic overspeed governor introduced on the worldwide elevator market to enable a full range of different UCM solutions for every installation.




HIGH PERFORMANCE

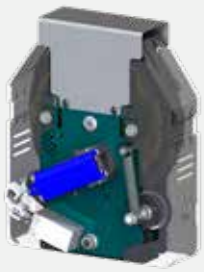
## OL100

The OL100 detects overspeed by his flyweight mechanism and engage the safety gear by a separate lever which activates the rope brake mechanism.



# Comparison chart

## Overspeed governors

| | COMMODITY & MODERNIZATION | | | HIGH PERFORMANCE |
|---|---|---|---|---|
| | **OL20** | **OL35/E/M** | **EOS & EOS 300** | **OL100** |
| |  |  |  |  |
| **Direction** | Unidirectional | Unidirectional | Uni & Bidirectional | Unidirectional |
| **Min. rated speed (m/s)** | 0,30 * | 0,30 | 0,15 | 0,51 |
| **Max. rated speed (m/s)** | 1,75 | 3,00 | 2,50 | 10,00 |
| **Max. travel height (m)** | 60 | 165 | 120 | 150/400 |
| **Min. governor brake force (N)** | ≥300 | 500 / 800 / 1.100 | 500 / 800 | 1.100 / 2.100 / 2.900 |
| **Rope diameter (mm)** | 6 | 6 / 6,5 / 8 | 6 / 6,5 / 8 | 8 / 10 |
| **Pulley diameter (mm)** | 180 | 200 / 203 / 262 | 200 / 300 | 304 |
| **UCM solution** | – | – | YES | – |
| **CERTIFICATIONS** | | | | |
| **EN 81-20/50:2014** | √ | √ | √ | √ |
| **GOST R 53780-2010** | – | √ | – | √ |
| **GB 7588** | – | √ | – | √ |
| **KOREA** | – | √ | – | √ |
| **ASME A17.1** | – | √ | – | √ |

(*) 0,15m/s nominal speed possible (machine directive)

# Overspeed governors

# TENSION DEVICES

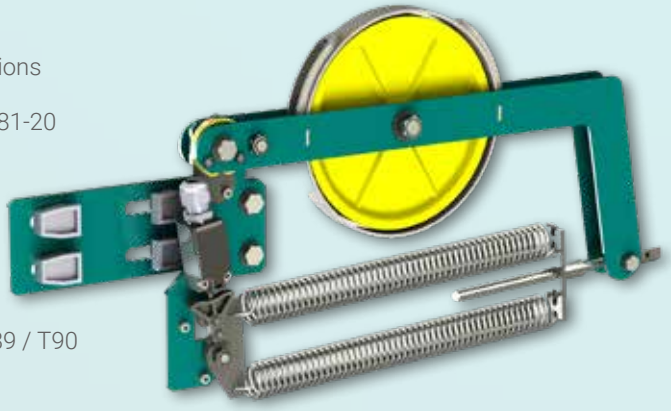
## SWING ARM AND COMPACT TENSION DEVICE

### COMMODITY & MODERNIZATION

- Wide range of Swing Arm tension devices to cover multiple shaft disposition
- Fixation solutions to rail or pit available
- Easy installation
- Tension forces up to 600N
- Included: Cover, Rope protection, Contact

- Narrow design and less weight of device makes the CTW the perfect choice for tight space requirements in pits.
- CTW is suitable for uni- and bidirectional overspeed governors up to 3,5 m/s (Rope Ø 6-8 mm).
- Its main advantage is to be the perfect tension weight for tight situations.
- Available tensions forces are 250 / 600 / 1250N, while a safety switch allows huge rope elongation.
- CTW is suitable for seismic elevators according to EN 81-77, compliant with requirements of EN 81-20:2014 and 100% checked at factory.

- Extremely compact size pulley Ø 180 mm pulley, due to modern dual-spring technology
- Applications for new elevator installations and modernizations
- Spring failure monitoring system certified according to EN81-20
- Nominal speed up to 1,75 m/s
- Rope diameter 6 mm pulley Ø 180 mm
- Suitable with Wittur OL20 Overspeed Governor
- Suitable for most common used guide rails: T70 / T82 / T89 / T90
- Easy and rapid installation
- Maintenance free
- Tension Force of 400N (minimum)
- Compliance with Seismic requirements according to EN81-77



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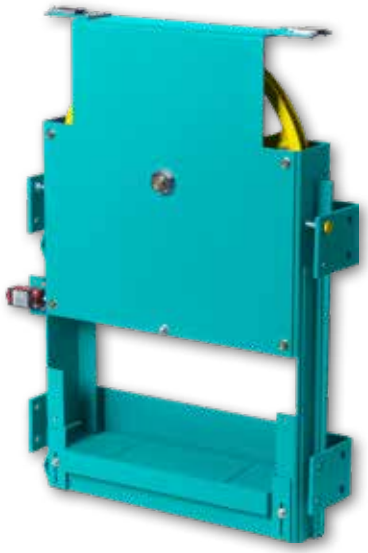
HIGH PERFORMANCE

# VERTICAL TENSION DEVICE

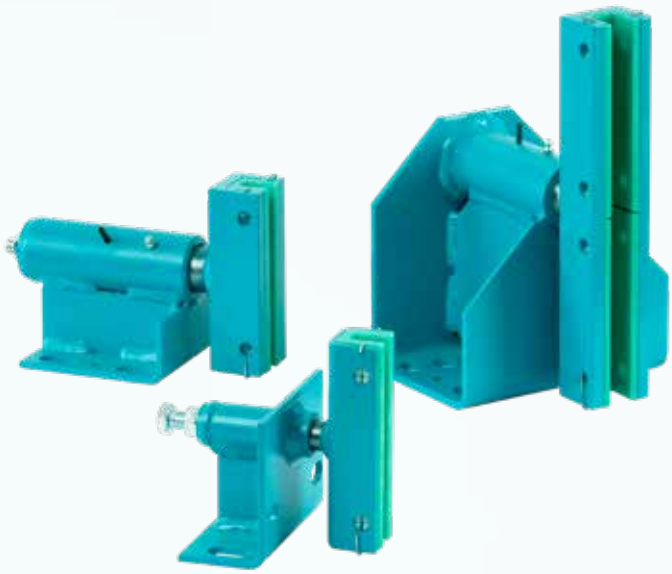
- Wittur offers a complete range of tension weights that are optimally designed to be combined with the Wittur range of overspeed governors.
- They are also available for a wide range of applications and can be combined with overspeed governors of other manufacturers.



# Shaft & Mechanical Material

# GUIDING MEANS

## SLG | SLIDING GUIDE SHOES



- The sliding guide shoes SLG can be used for both car (rated speed up to 2.0 m/s) and counterweight frames (up to 2.5 m/s).
- Depending on the model, they are suitable for guide rails with head thickness from 5 to 32 mm.
- Possibility to choose hardness of sliding inlays according to elevator specification.
- Types with turnable support for sliding inlay ensure optimum ride comfort and reduced wear.

## WRG | ROLLER GUIDE SHOES

- Wittur Roller Guide Shoes can be installed on car slings and counterweight frames when dealing with medium and high speed elevators (up to 10,0 m/s).
- Their main l, they are suitable for T-profile guide rails with blade thickness from 9 to 32 mm. Roller size ranges from 80 to 300 mm guide rails with blade thickness from 9 to 32 mm.
- They are pre-assembled and factory-adjusted for installation; all rollers are separately spring-loaded ensuring maximum ride comfort. They include a specific fixing kit for each installation type.

# UCM PACKAGES

## SOLUTIONS AGAINST UNINTENDED CAR MOVEMENT

- Applicable for elevators according to the Lift Directive LD 2014/33/EU, EN 81-20/50, EN 81-21 and EN 81-80 (SNEL).
- Safety device type tested against Unintended Car Movement.
- Simplified placing on the market by system certificates.
- Accurate position and speed measurement.
- Self-monitoring system with redundant design for faultless operation.
- UCM distance and speed set and sealed by the factory: easy installation, no adjustment required. Electronic interface for autonomous operation of EOS; no modification of lift controller required.

### EOS with BSG-25P



### EOS with EBRA20-UCM

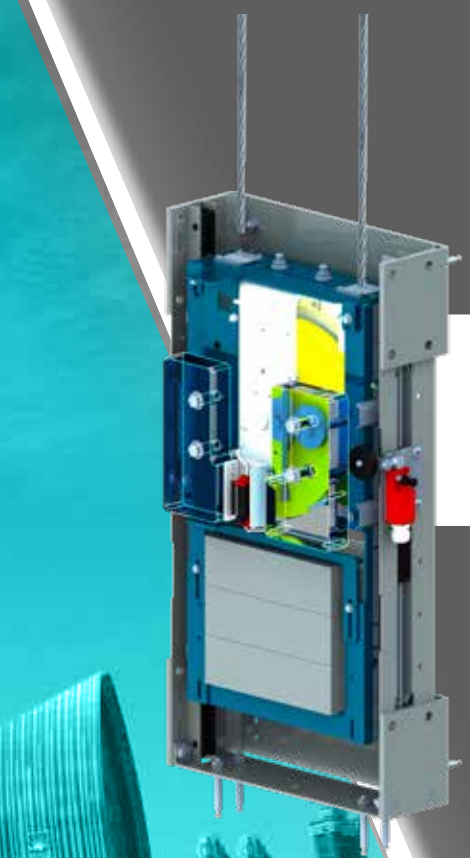



WITTUR
Safety Components WITTUR GROUP

# SPECIAL APPLICATIONS AND CUSTOM SOLUTIONS

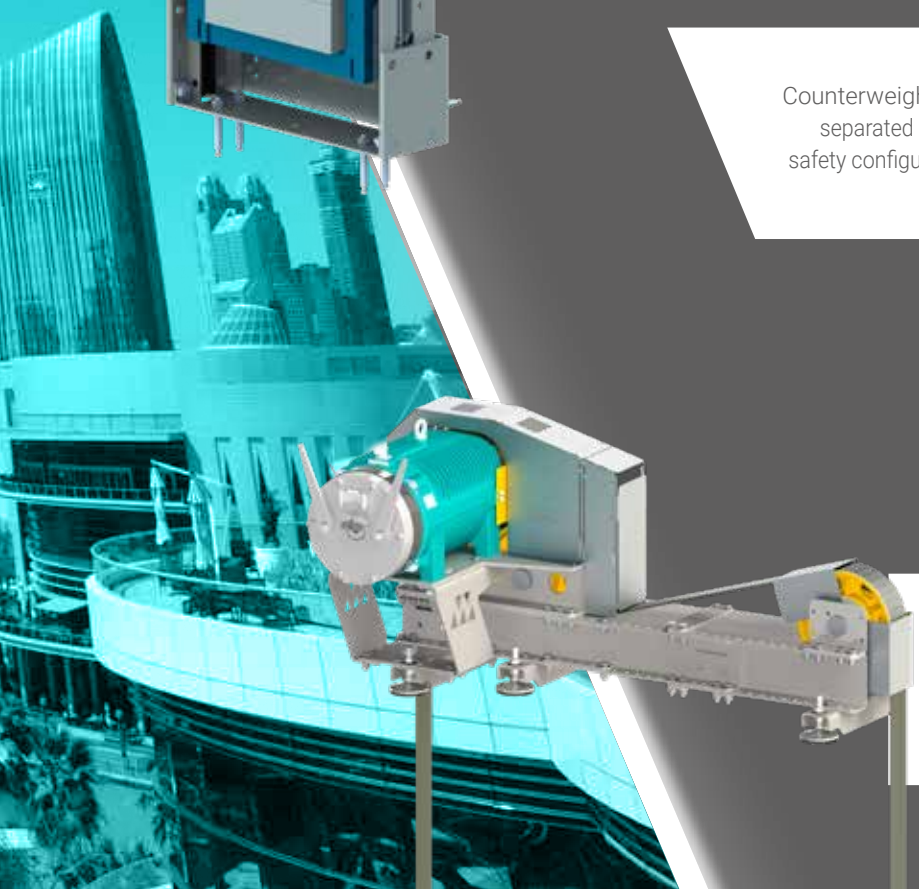
The range of standard Wittur safety gears is complemented by adapted and completely integrated applications.

Wittur application engineering can supply as an example high-speed solutions (based on duplex or triplex arrangement of safety gears including linkages). Engineered solutions are also factory preset, tested and sealed.



◄ **OL35**
pit mounted solution.

Counterweight with separated duplex safety configuration. ►



◄ Customized bedplates solutions for Wittur lift machines

WITTUR

**YOUR GLOBAL PARTNER** FOR COMPONENTS,
MODULES AND SYSTEMS IN THE ELEVATOR INDUSTRY

Safety 68.7.0020034.EN.01 – English - October 2024



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