ASM
perfect in sensors.

WS
Position Sensors

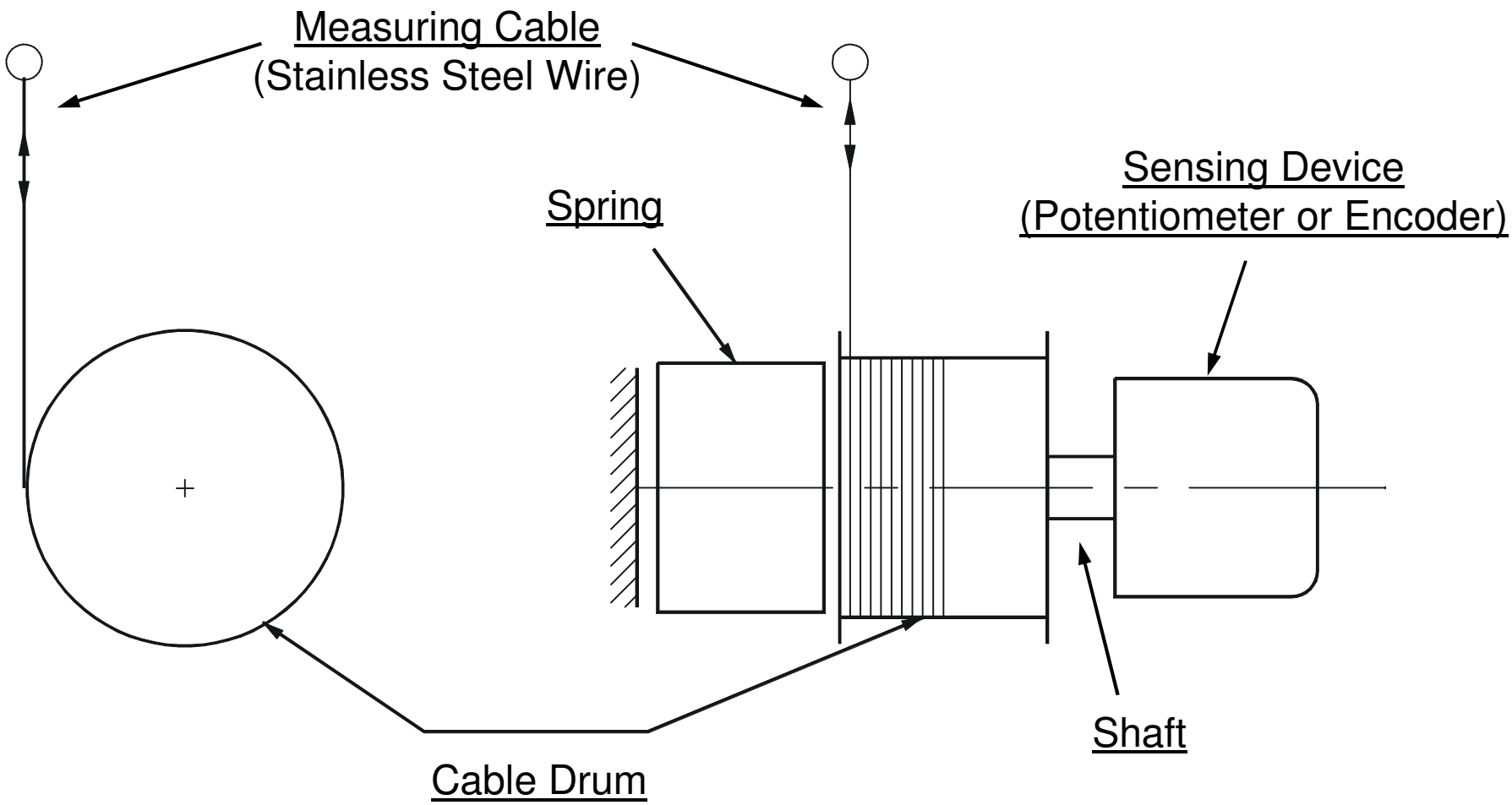
„Measure By Wire“

Mérés (és vezérlés) „huzalozással”

Pozícionáló szenzorok

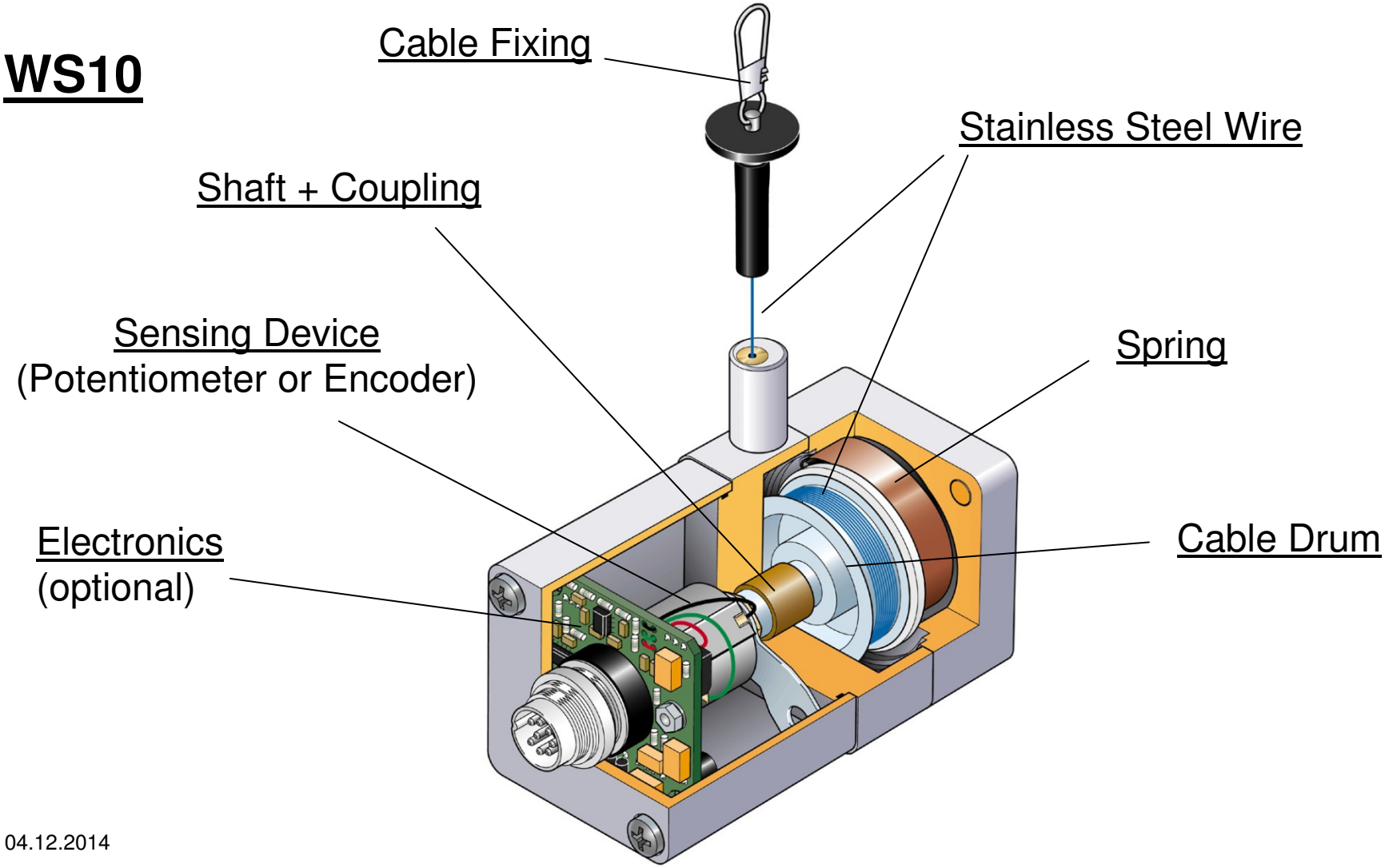
Összerendezte: Borbás Lajos

WS Position Sensors
Measure By Wire - The Principle



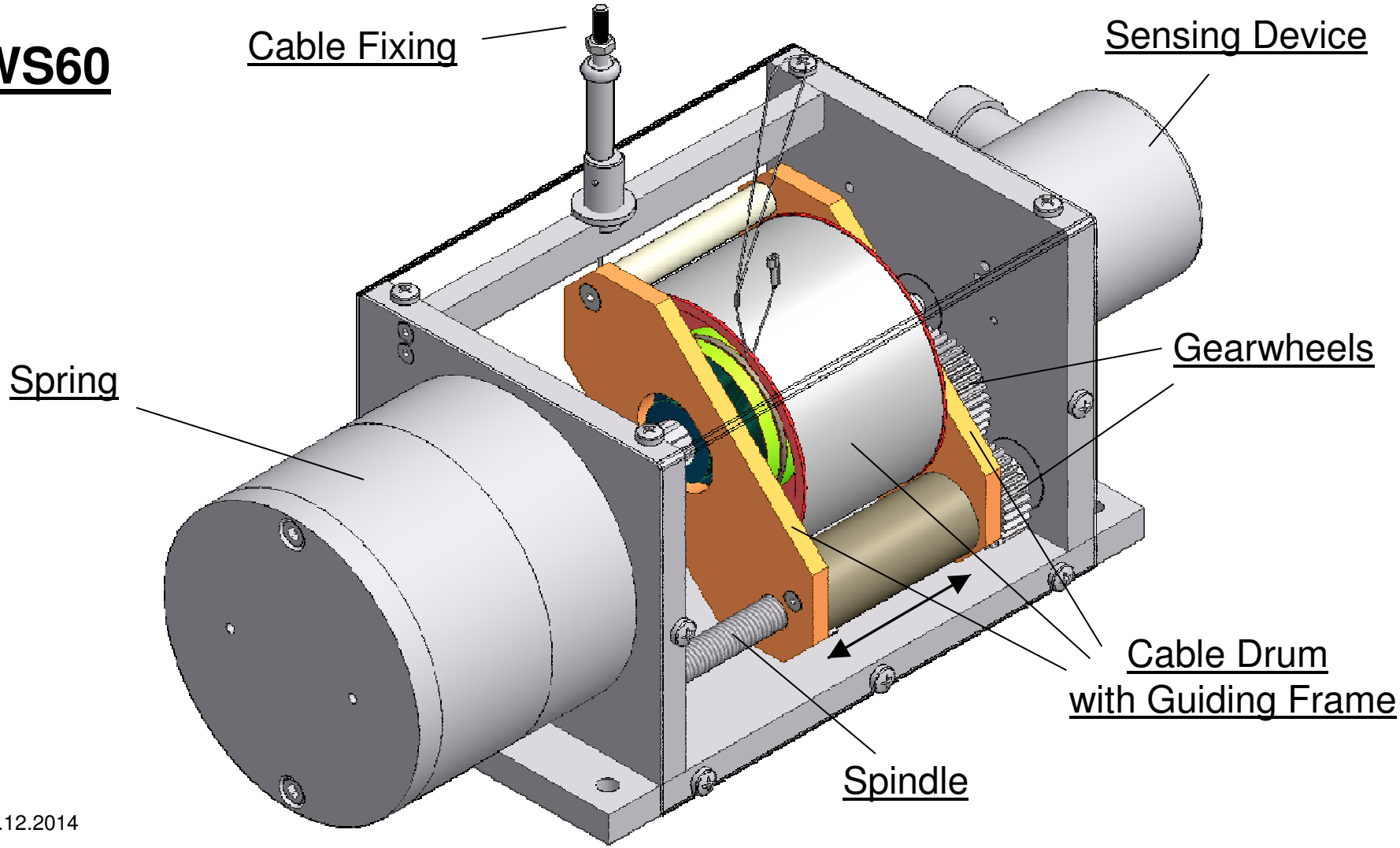
WS Position Sensors
Measure By Wire - The Principle

WS10



WS Position Sensors
Measure By Wire - The Principle

WS60



WS Position Sensors
Measure By Wire - Advantages

- **Very compact sensor shape even for long measurement ranges**

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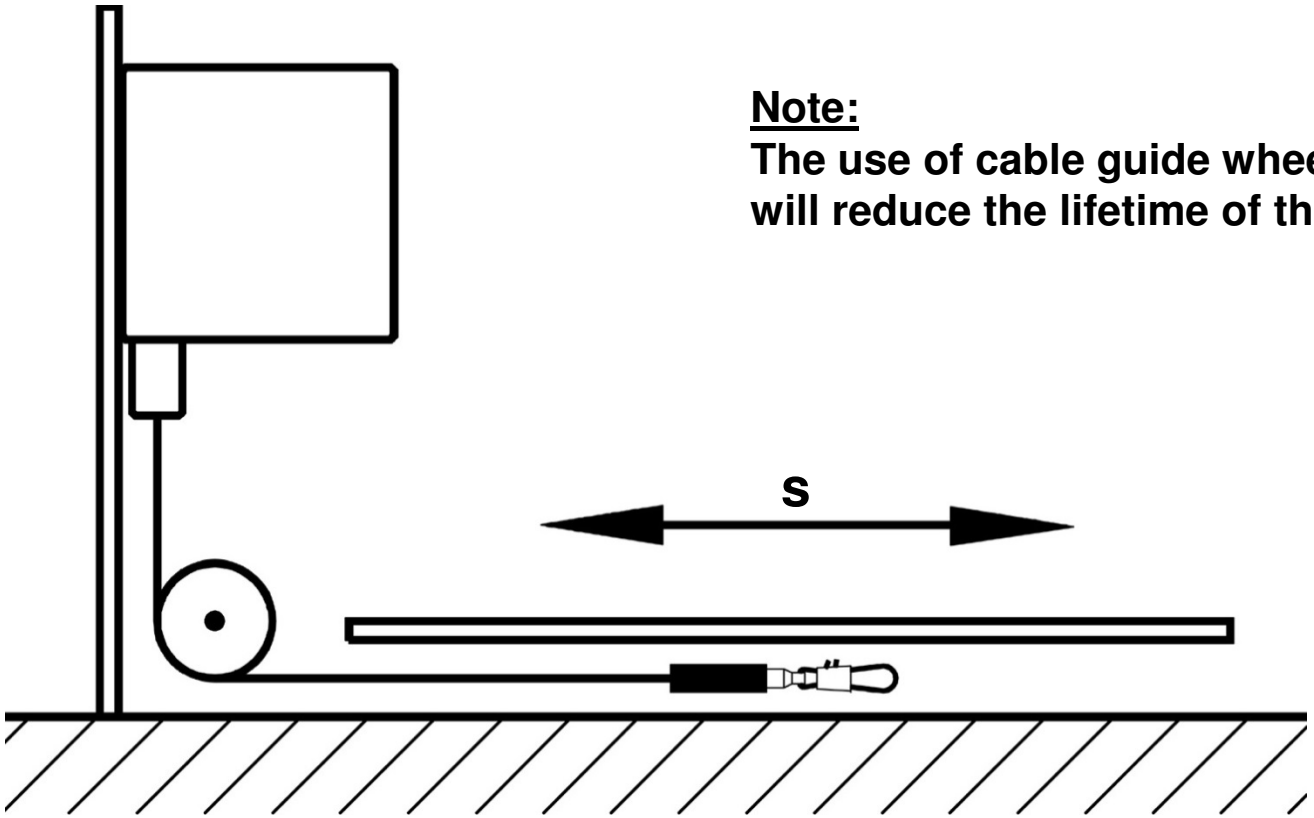
-cable guide wheel SR1 or SR2 to divert the cable

WS Position Sensors
Measure By Wire - Advantages

Measurement at restricted access areas by using the cable guide wheel SR1/2 to divert the cable



Note:
The use of cable guide wheels will reduce the lifetime of the cable!

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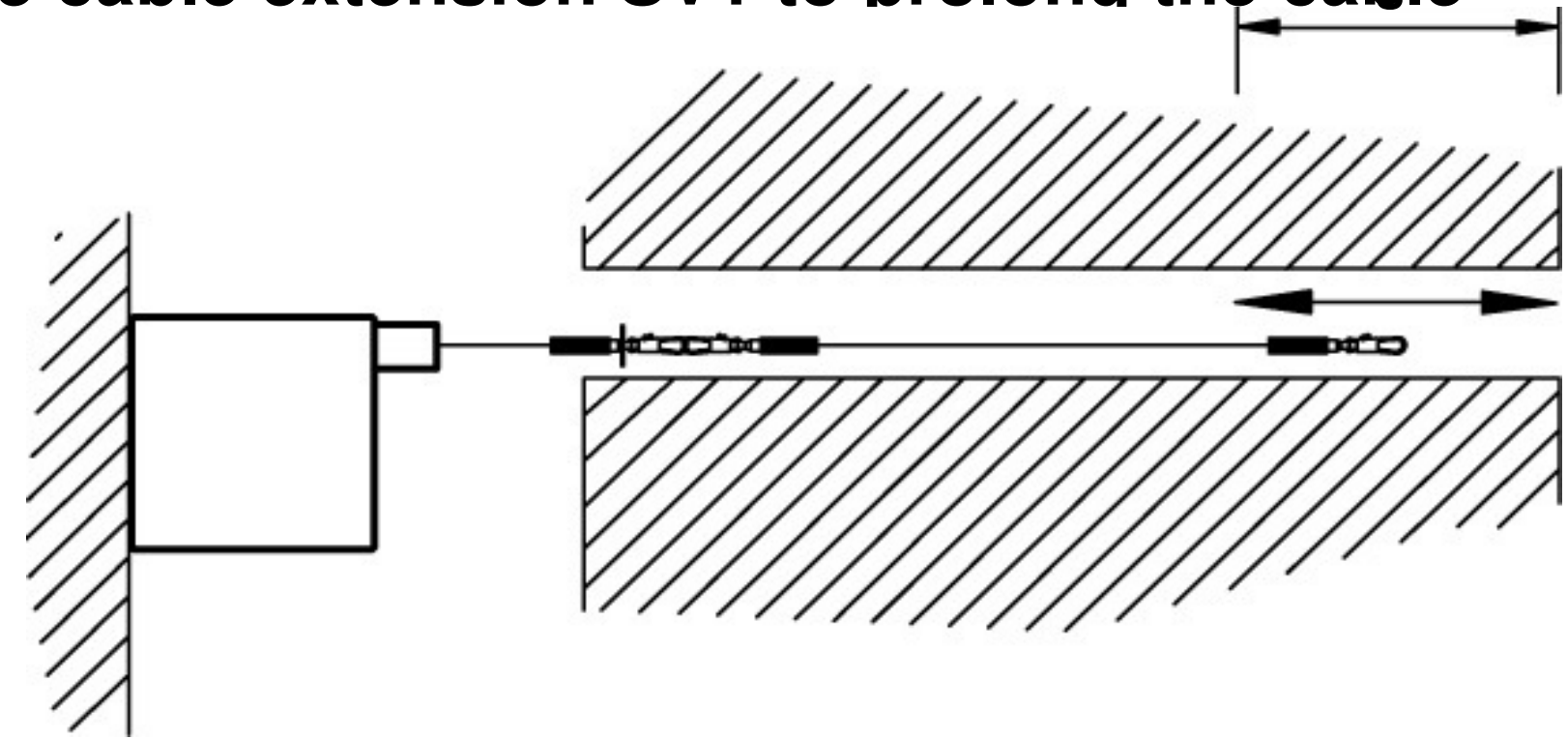
➢ **Measurement even at restricted access areas possible**

-cable guide wheel SR1 or SR2 to divert the cable
-cable extension SV1 to prolong the cable

WS Position Sensors
Measure By Wire - Advantages

Measurement at restricted access areas by using the cable extension SV1 to prolong the cable



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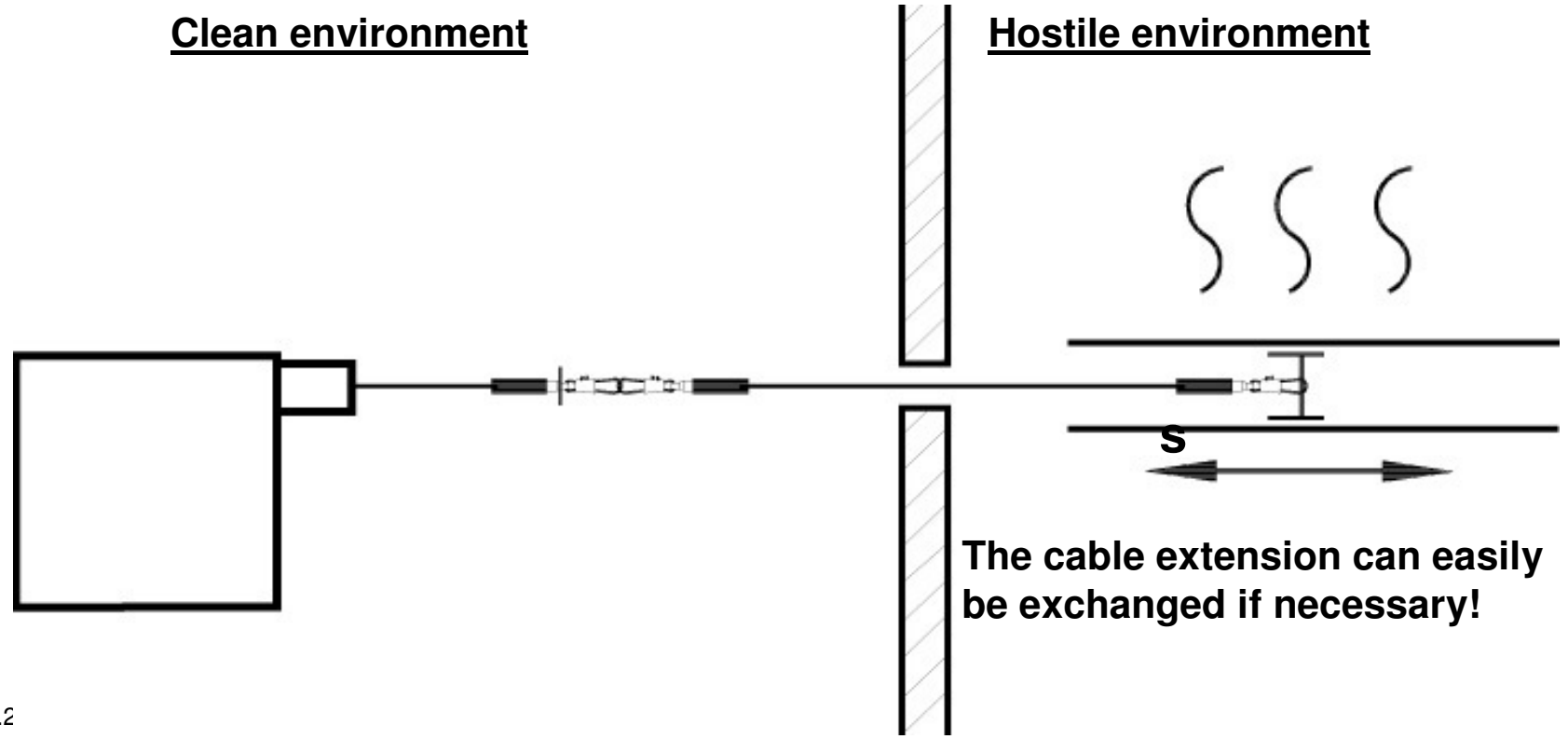
WS Position Sensors
Measure By Wire - Advantages

Measurement at areas with hostile environment (dirt, liquids, chemicals, temperature, etc.) by using the cable extension SV1



The cable extension can easily be exchanged if necessary!

WS Position Sensors
Measure By Wire - Advantages

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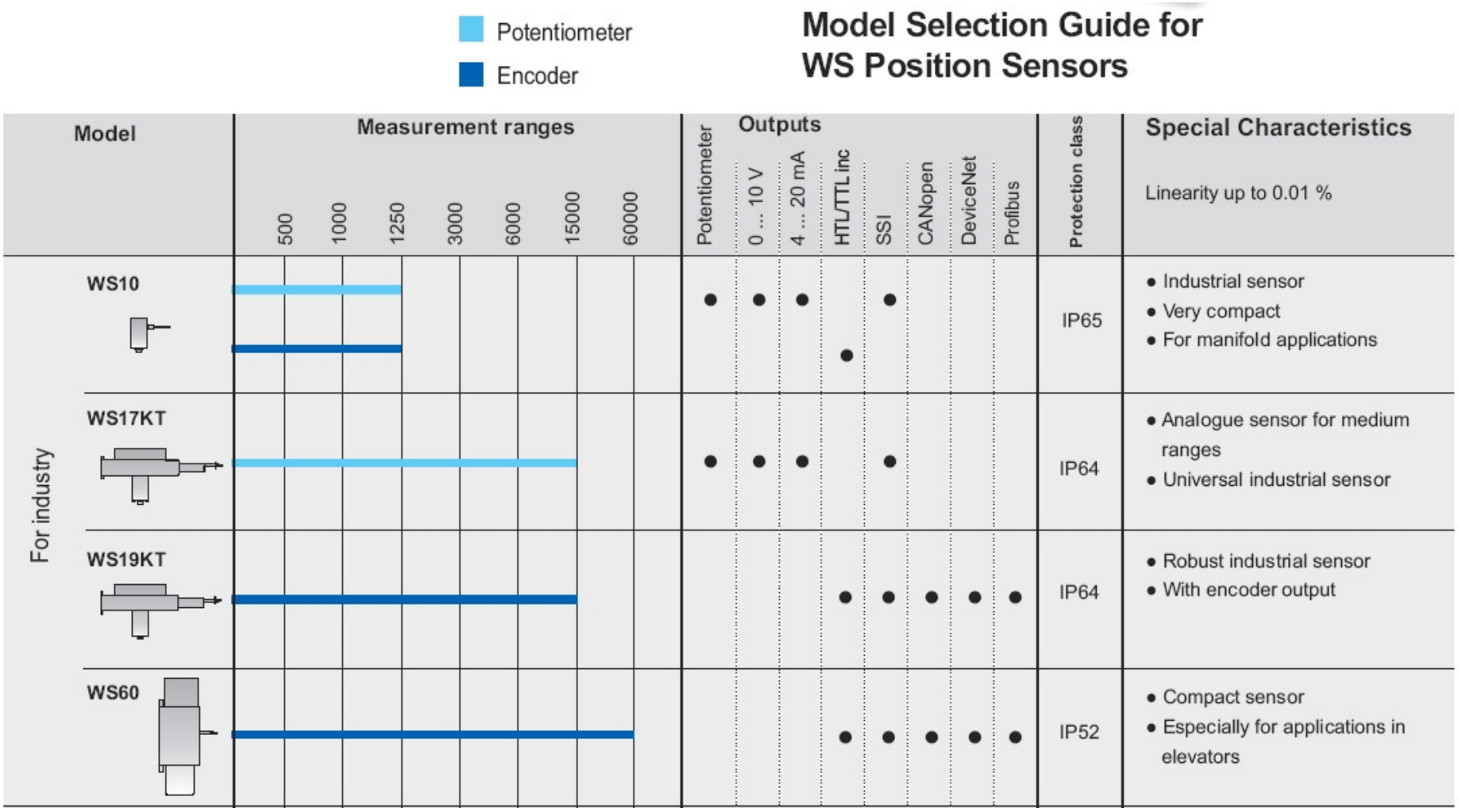
➢ **etc.**

WS Position Sensors
Product Range – Overview



WS Position Sensors
Product Range – Standard Sensors for Industry

WS10

- Measurement range up to 1250mm
- Linearity for analog output: 0,1%
- Linearity for digital output: 0,05%
- Protection class IP65
- Analog outputs:
  - Potentiometer
  - Voltage
  - Current
- Digital outputs:
  - incremental TTL, HTL
  - absolute SSI (ADSI)

Model Selection Guide for WS Position Sensors

Potentiometer
Encoder

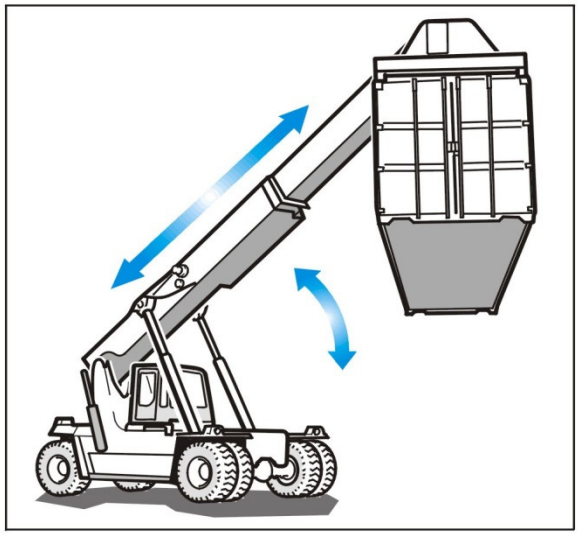
	Model	Measurement ranges (500 / 1000 / 1250 / 3000 / 6000 / 15000 / 60000)	Outputs: Potentiometer	0 ... 10 V	4 ... 20 mA	HTL/TTL inc	SSI	CANopen	DeviceNet	Profibus	Protection class	Special Characteristics (Linearity up to 0.01 %)
Heavy Duty	WS12	Potentiometer: 500–3000; Encoder: 500–3000	●	●	●	●	●				IP67	• Very robust • For applications in hostile environments
Heavy Duty	WS10EX	Potentiometer: 500–1250; Encoder: 500–1250	●	●	●						IP65	• Dust explosion-proof • Very compact
Heavy Duty	WS12EX	Potentiometer: 500–3000; Encoder: 500–3000	●	●	●						IP67	• Dust explosion-proof • Very robust • For applications in hostile environments
Offshore	WS100	Potentiometer: 500–6000; Encoder: 500–6000	●	●	●	●	●	●	●	●	IP68	• Compression-proof sealing • Made of stainless steel • For offshore-applications
Low Cost	WS31C/42C	Potentiometer: 500–1000; Encoder: 500–1000	●	●	●	●					IP50	• Miniature sensor • For OEM applications and instrumentation
Low Cost	WS10SG	Potentiometer: 500–1250; Encoder: 500–1250	●	●	●	●					IP64	• In plastic housing • Flexible mounting

WS Position Sensors
Product Range – Heavy Duty

WS12

- Measurement range up to 3000mm
- Protection class IP67
- Analog outputs:
  - Potentiometer
  - Voltage
  - Current
- Digital outputs:
  - incremental TTL, HTL
  - absolute SSI (ADSI)

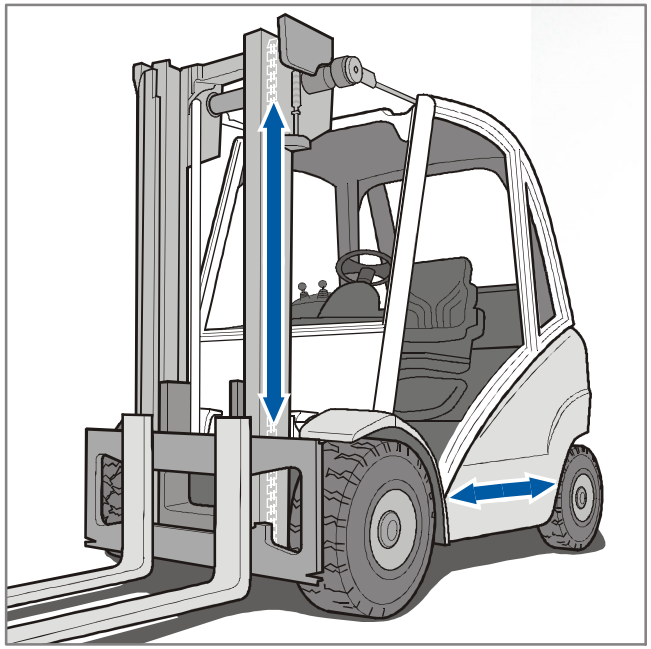
Application



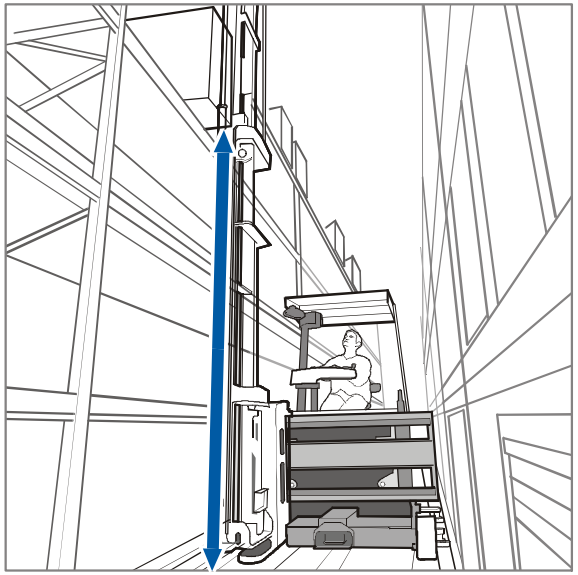
Crane boom

Application

Fork lifter

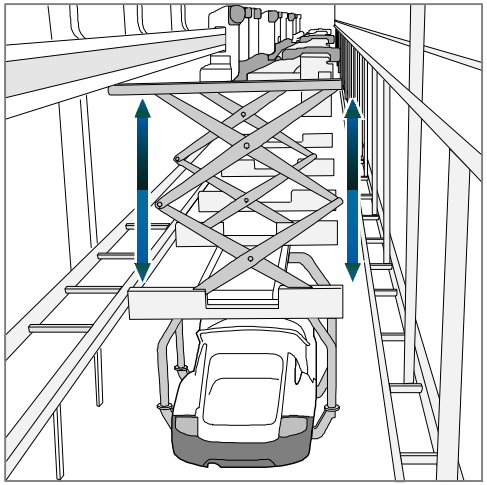


Application



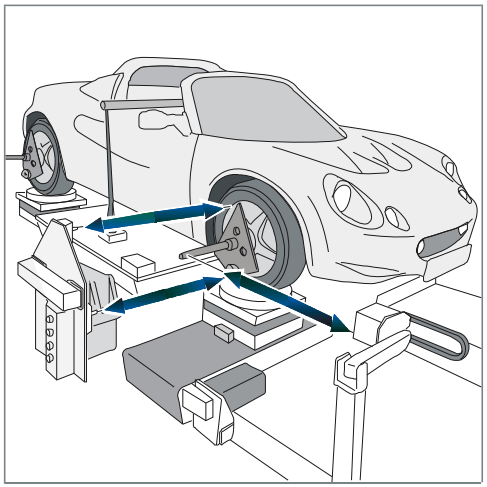
Warehouse lifts

Application



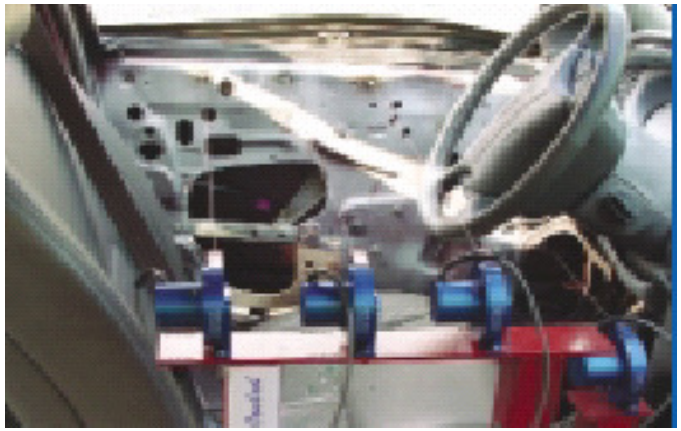
Car assembly line

Application

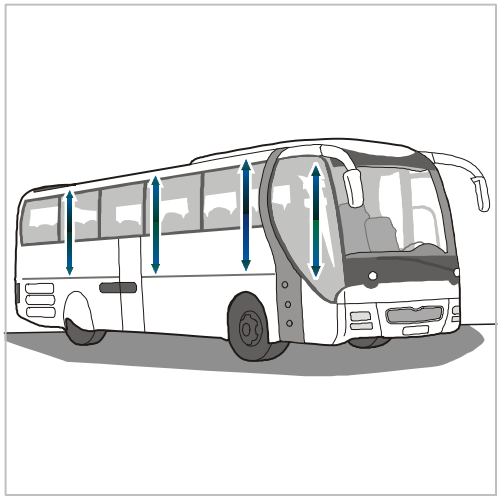


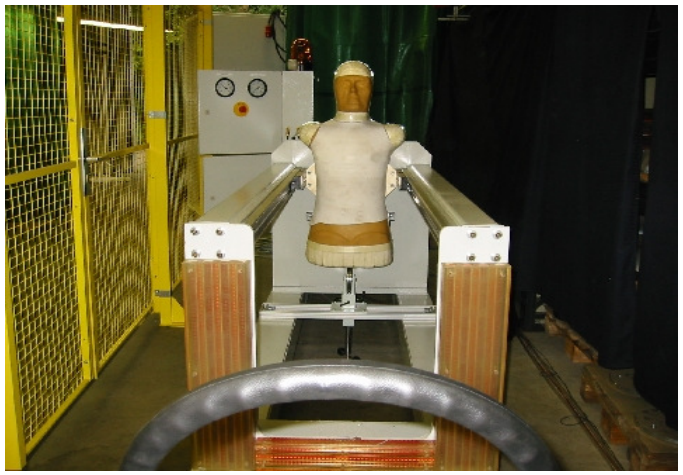
Car test rigg

Application



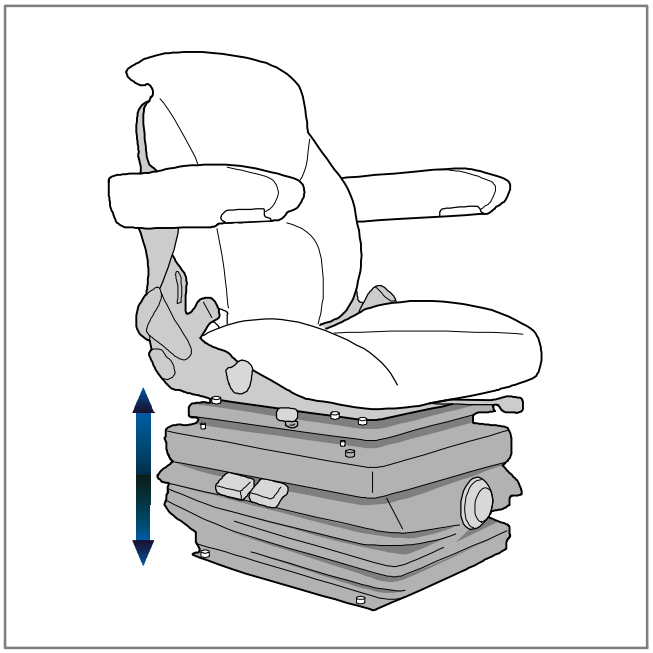
Crash tests



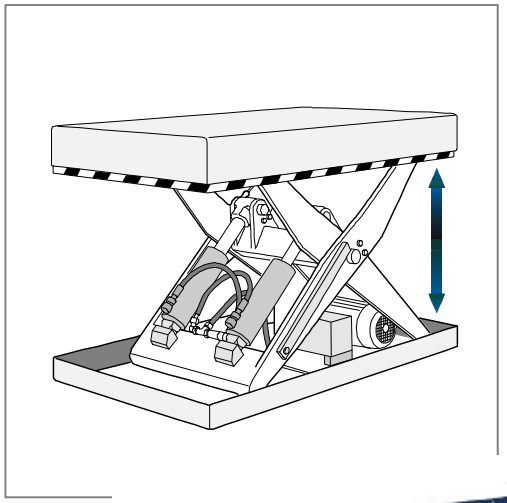


Application

Truck seat



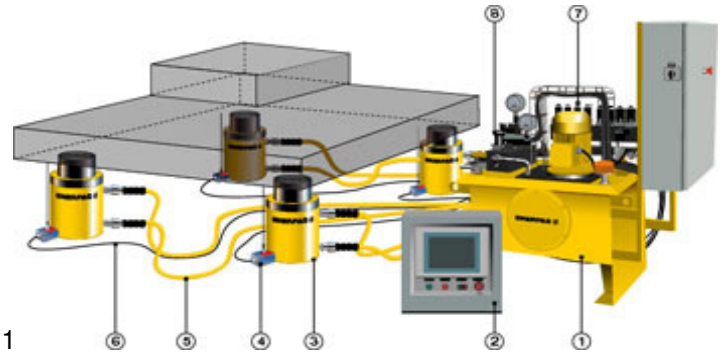
Application



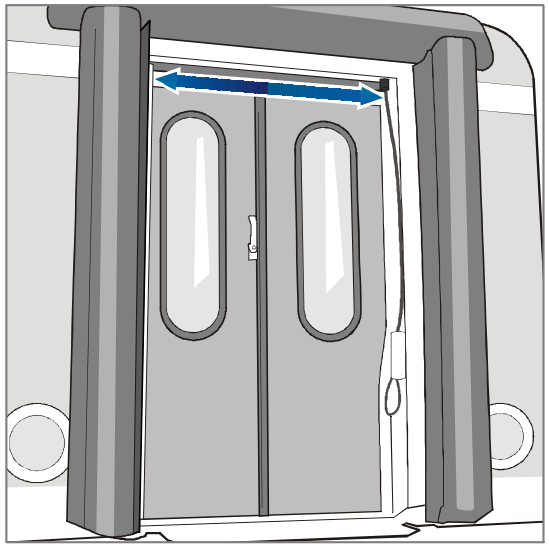
shear lift

Application

Bridge lifting



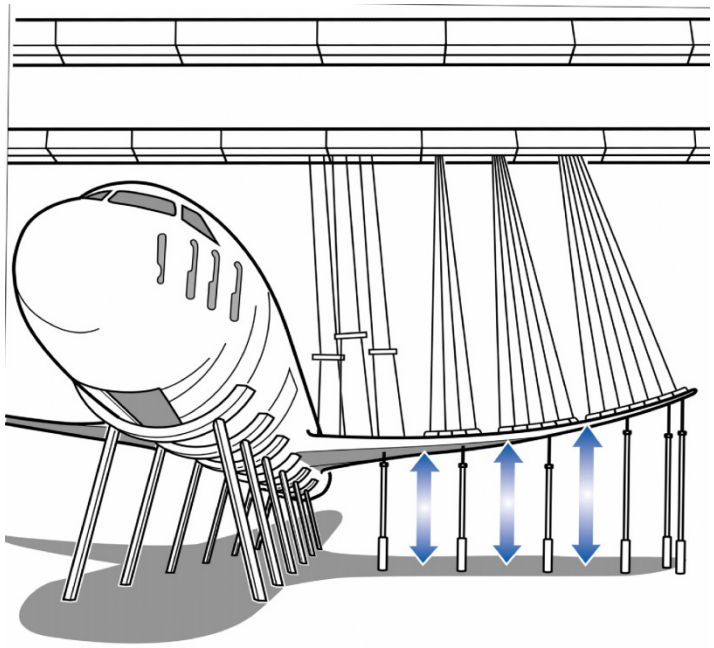
Application

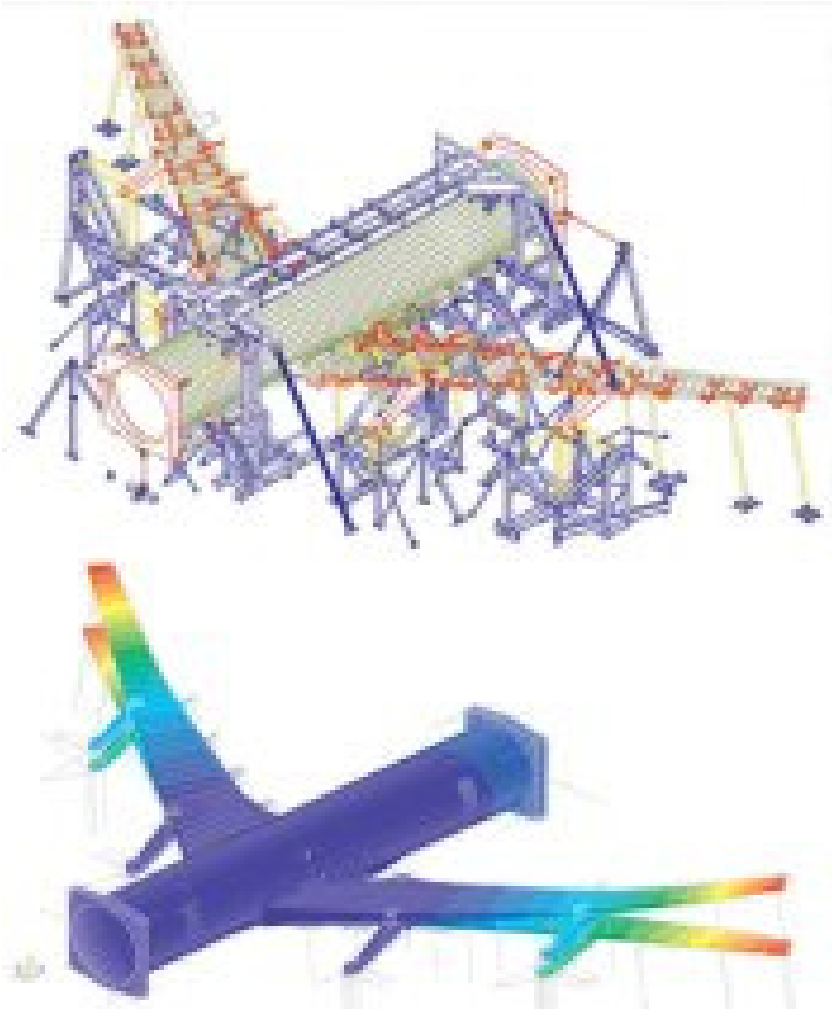


Train door system

Application

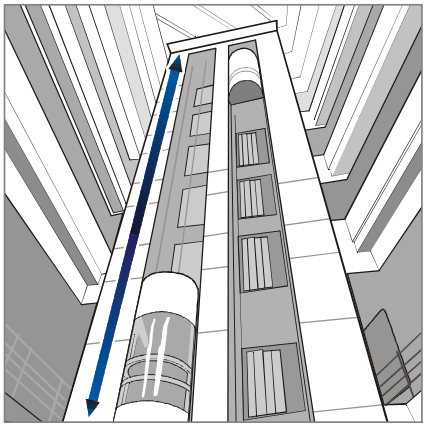
Aircraft testing





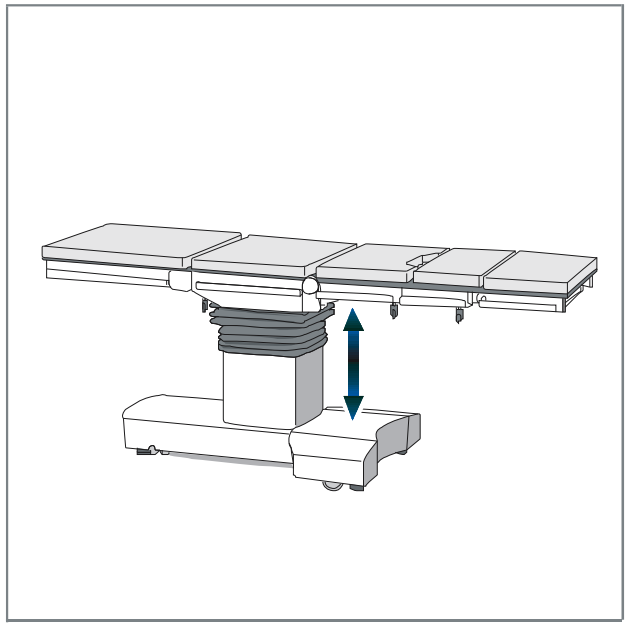
Application

Elevators



Application

Medical patient bed



Application

Glas house roof control

Application

Theater stage and scenery movement control