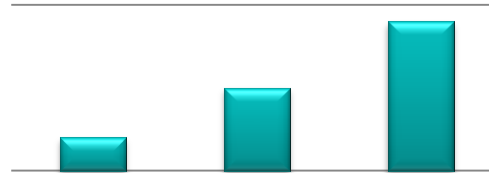
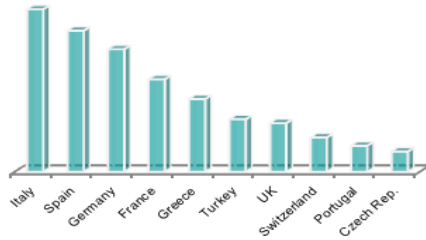




MRM W Line solution for lift with reduced pit and headroom for existing buildings according to EN 81-21

Franco Roccheggiani
Corporate Director Marketing

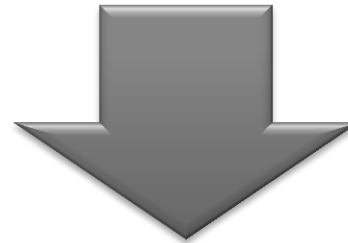
Elevator trends in EU



5.4 million existing elevators. 50% older than 20 years
(source: ELA 2012)

Increasing investments for building renewal in Europe

Trend to reduce well dimensions or put new elevators in small existing wells



EN81-21 Safety rules for construction and installations of lifts in existing buildings

REPLACEMENT OF EXISTING ELEVATOR

INSTALLATION OF NEW ELEVATORS

Wittur Answer: Machine Roomless for Modernization

- MRM W Line
Machine Roomless
for Modernization
- Target market:
existing buildings
 - **New installations**
 - **Replacement**
- **Provide safety to:**
 - Installers
 - Service
technicians
 - Notified Body
 - Final User



MRM W Line Machine Roomless for Modernization

Rated load:

320, 450, 630, 1050 Kg

Rated Speed

$\leq 1,00$ m/s

Drive

Wittur gearless 1:1 2:1

Norms and directives

LD95/16/EC

EN81-1A3

EN81-21

EN81-28

EN81-58

EN81-70

EN81-73

EN12015

EN12016

ISO4190

Entrances

1 or 2 (side or opposite)

Min. headroom

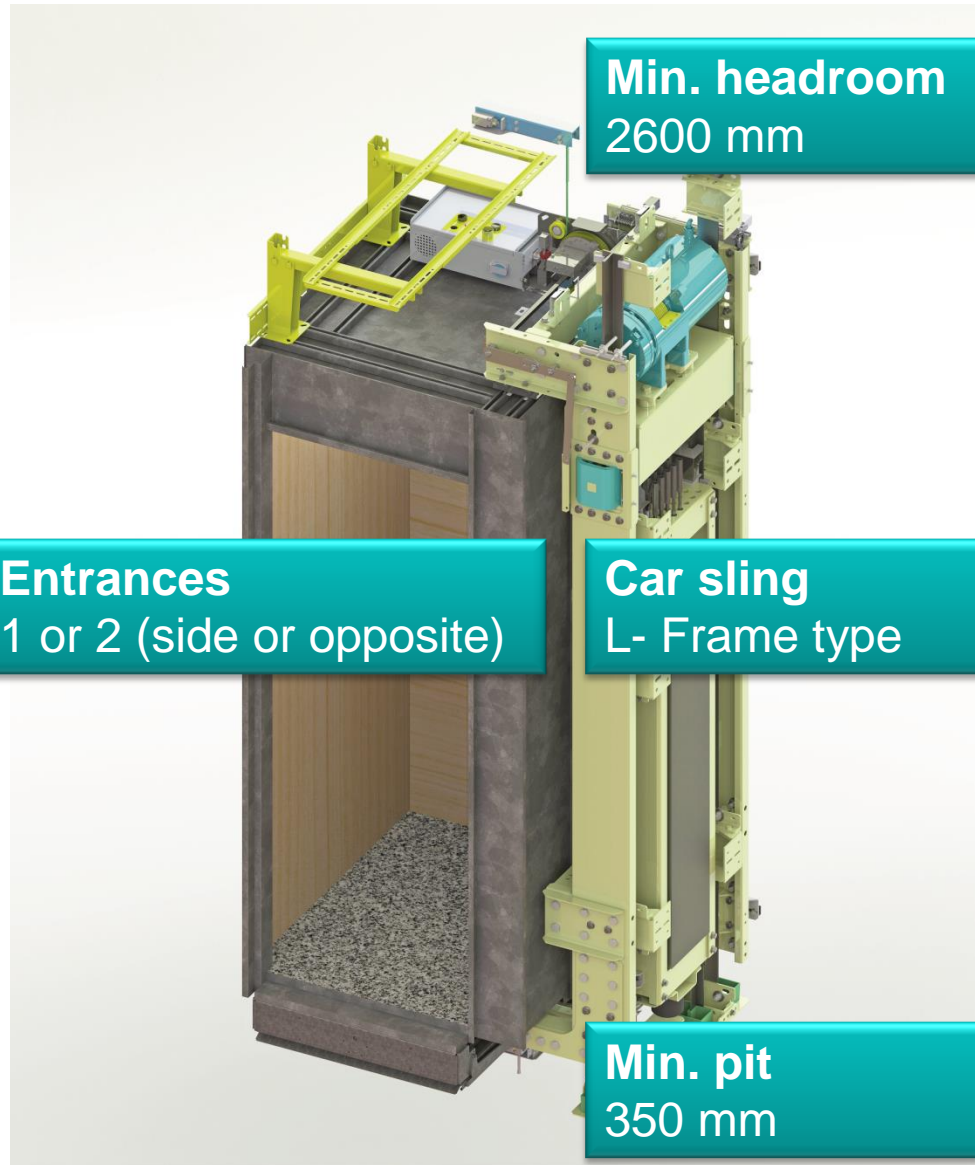
2600 mm

Car sling

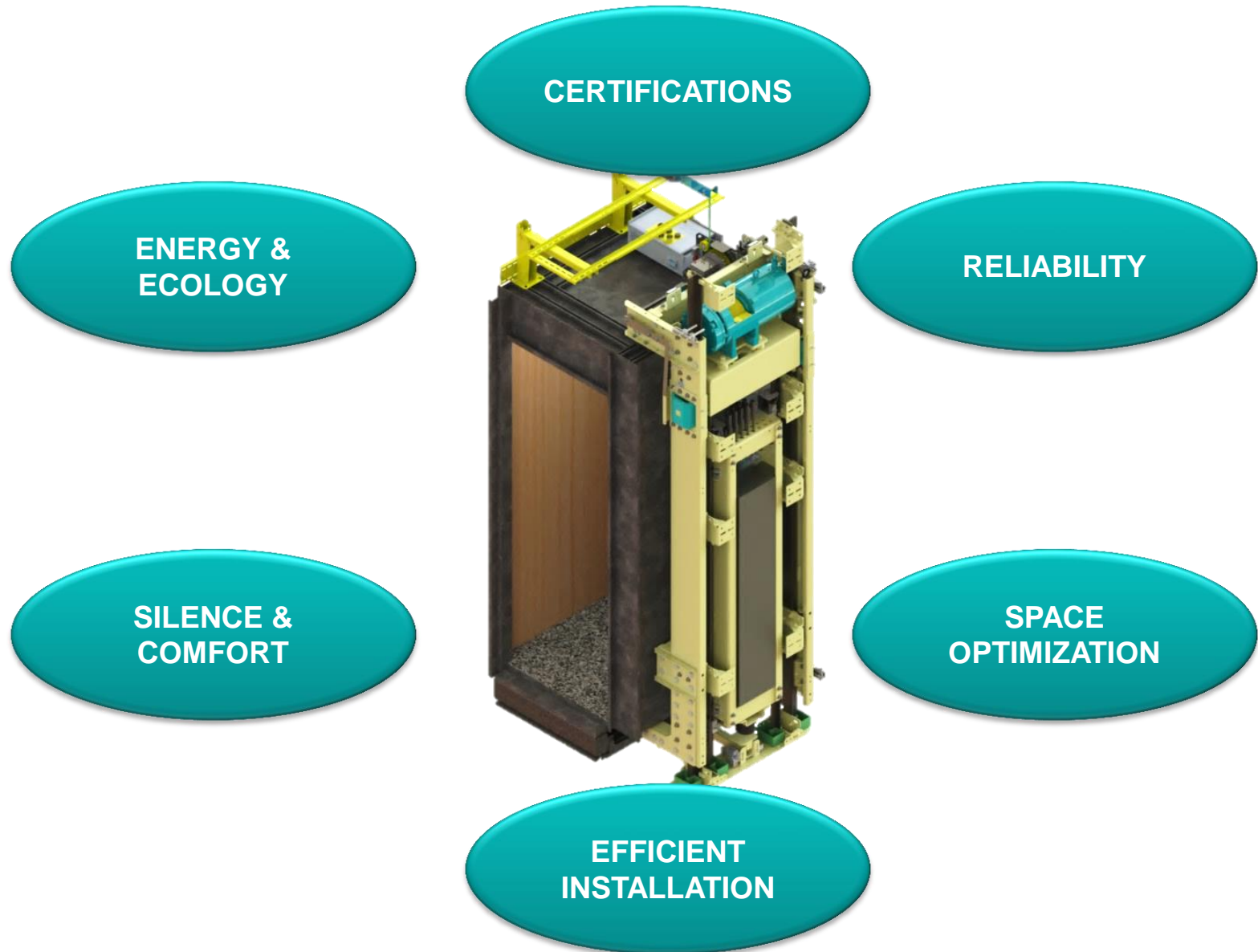
L- Frame type

Min. pit

350 mm



MRM W Line: Engineering with a global view



MRM W Line: Compliance to EN 81-21

LIGHT INFO IN THE HEADROOM

Visible information

LIMIT SAFETY SWITCH

Additional limit switch for maintenance in the headroom

LIMIT SAFETY SWITCH

Additional limit switch for maintenance in the pit

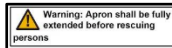
FOLDABLE APRON

LIGHT INFO IN THE PIT

Visible information

MANUAL MOVABLE STOP UNDER COUNTERWEIGHT

- BUFFER IN MOVABLE STOP
- SWITCH ACTIVE POSITION
- SWITCH INACTIVE POSITION

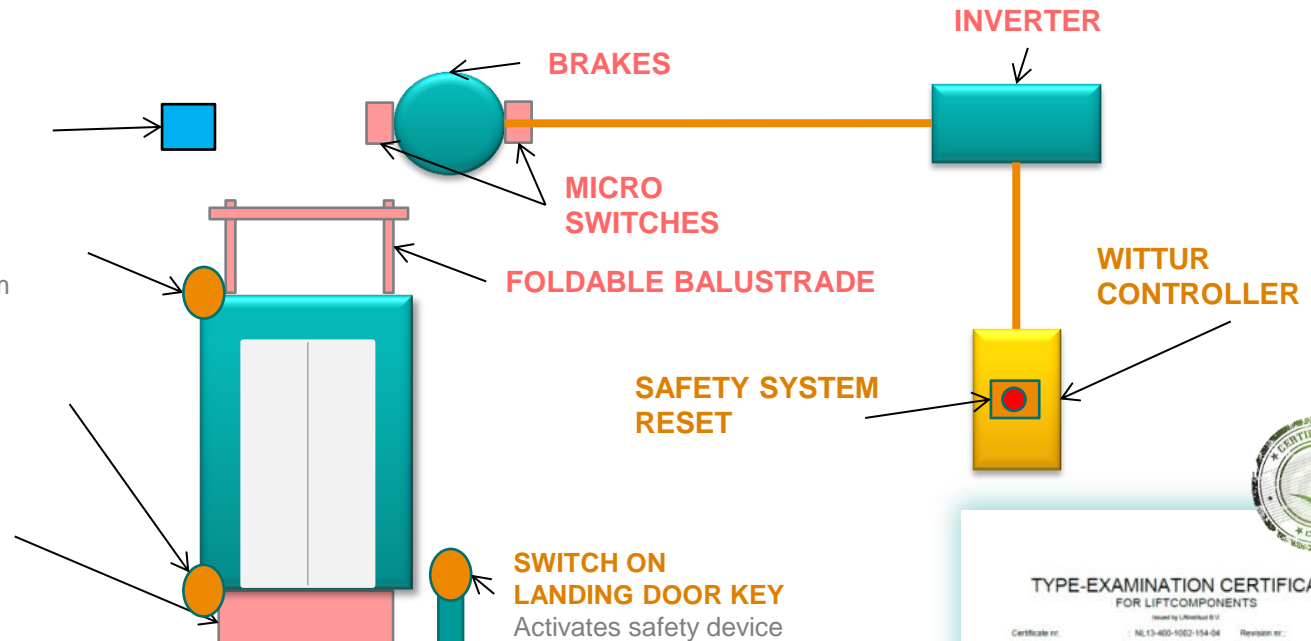


MANUAL MOVABLE STOP UNDER CAR

- BUFFER IN MOVABLE STOP
- SWITCH ACTIVE POSITION
- SWITCH INACTIVE POSITION

WARNINGS AND ADVICES (LABELS)

Visible information



TYPE-EXAMINATION CERTIFICATE FOR LIFTCOMPONENTS

Certificate nr.	NL13-400-1002-154-04	Revision nr.	
Description of the product	Complete solution for reduced headroom and reduced pit		
Trademark, type	Wittur, Complete solution for reduced headroom and reduced pit to be applied on MRM-W line		
Name and address of the manufacturer	Wittur Spain Polígono Maspeca, Calle E 9 50015 Zaragoza Spain Wittur Deutschland Holding GmbH RohrstraÙe 26-30 81529 Weidenhausen Germany		
Name and address of the certificate holder	Lift Directive 95/12/EC		
Certificate issued on the following requirements	Parts of EN81-2/2 1996 + A3 2009		
Certificate based on the following standards	EN81-21 2009 + A1 2011		
Test laboratory	None		
Date and number of the laboratory report	None		
Date of type-examination	June-July 2013		
Amendments with this certificate	Report belonging to the type-examination certificate nr.: NL13-400-1002-154-04		
Additional remarks	Additional conditions are set in chapter 5 of the belonging report.		
Conclusion	The lift component meets the requirements referred to in this certificate taking into account any additional remarks mentioned above.		

Issued in Amsterdam
Date of issue : 04-07-2013

Ing. A.J. van Ommen
Manager Business Unit
Certification

Certification decision by

LIFTINSTITUUT

95480010

MRM W Line uses UCM certified packages



UCM standard package

→ Overspeed governor + Safety gear + electronic interface

LM18CD



BSG25P

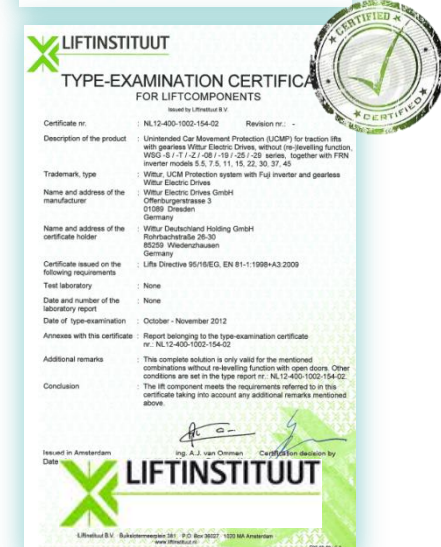


UCM 100



UCM alternative package

→ Gearless drive + Inverter GLD



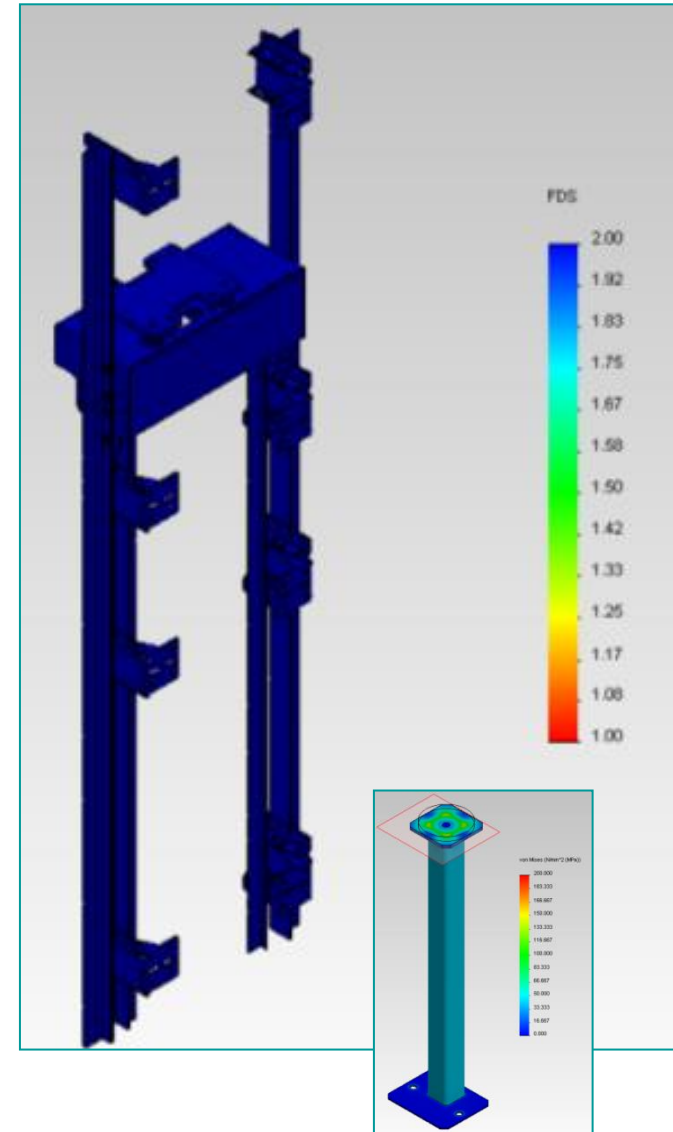
MRM W line: Reliability

Perfect interaction of Wittur components

- Wittur doors: MDS1, HYDRA, FINELINE, ECOBUS
- Wittur Gearless machine WSG-T0 with 160 mm traction sheave
- Wittur Safety Gears

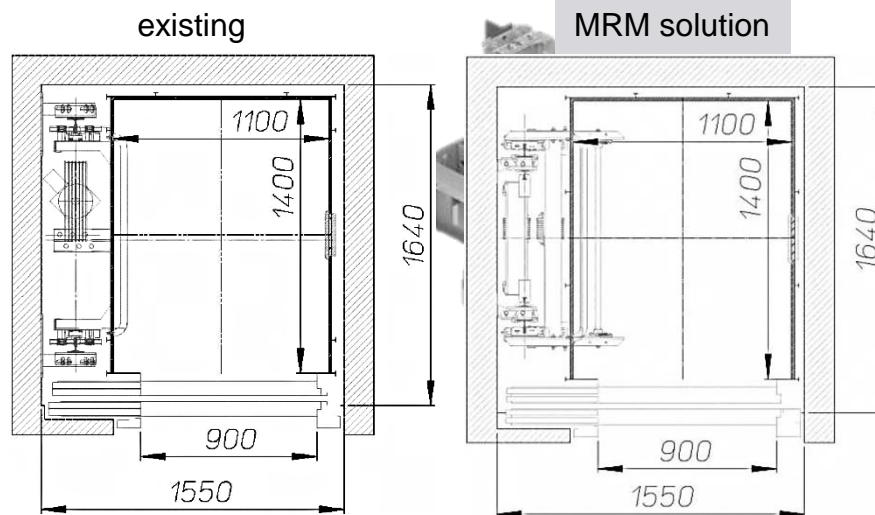
Advanced engineering

- **Finite Elements calculation Method** applied to all critical components to guarantee safe operations even in the worst working conditions
- **Weight optimization** of components in order to facilitate the assembly in the well
- **Durability tests** done to guarantee the lifetime of the elevator with a minimum of 1.000.000 cycles



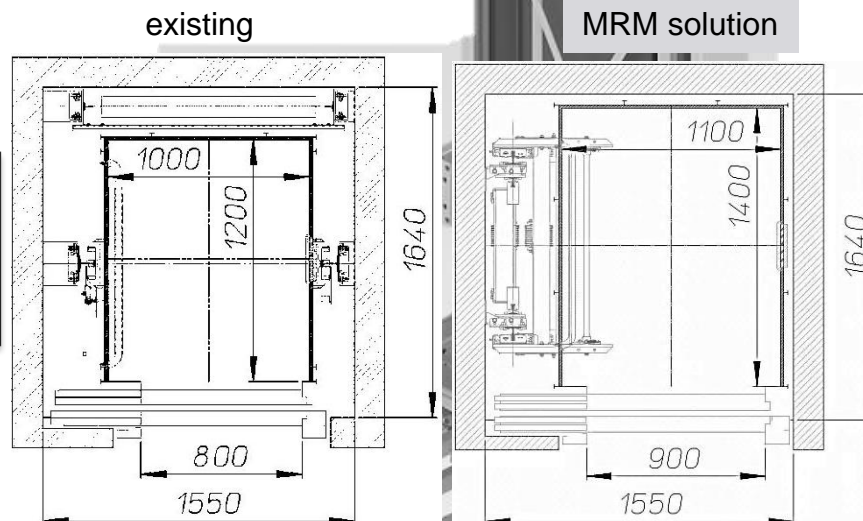
MRM W Line: Space optimization

Hydraulic
Elevator
replacement



	Hydraulic	MRM W Line
Power	11 KW	4,4 KW
Persons	8	8

Machine room
electric elevator
replacement



	MR Electrical	MRM W Line
Power	5,5 KW	4,4 KW
Persons	6	8

Larger car and door dimensions according to EN81-82 for Accessibility

630 kg systems

MRM W line: Safe, quick and easy installation

New logistic concept

- Pre-established number of compact modules, all clearly identified and labeled according to assembly sequence. **OPEN, ASSEMBLE, RECYCLE ... NEXT MODULE !**
- Pre-assembled components
- Visual and installer-friendly documentation in each component



Easy electrical assembly

- Plug and Play concept
- Pre-wired electrical elements
- Pre-programmed frequency inverter

MRM W line: Silence and comfort

- According to the standards VDI 2566-2:2004 and ISO 18738-1:2012
- Low-friction sliding guide shoes
- Special silent blocks made in stainless steel. Efficient absorption of low frequency vibrations (less than 15 Hz)



MRM W Line: Green design



- **Compact and recyclable cardboard packages** with a reduction of 20% volume compared with packages of other manufacturers
- **Energy efficient components** certified according to VDI 4707 Part 2, with stand-by and switch-off mode
- Energy efficient **car lighting** solutions



MRM W Line: An example of

safety **in** *motion*

Thank you for your time and attention!



....I am very pleased to invite you to visit our booth in hall 7 / stand 7136
We'll be there!



Franco.Roccheggiani@wittur.com
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