



DIVISION



Concrete

EQUIPMENT &  
REFERENCES

" PASSIONATE PEOPLE BUILD  
THE ROADS OF THE FUTURE "



CERTIFIED  
ISO 45001  
ISO 14001  
ISO 9001

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# 1. SLIPFORM PAVERS

## 1.1 Highway concrete

1.1.1 Wirtgen SP1500

1.1.2 Wirtgen SP850

1.1.3 Drion CCF 600-4

1.1.4 Drion PAVER 3000

## 1.2 Concrete retention device concrete moulded on site

1.2.1 TST Safety Barrier®

## 1.3 Rainwater management

1.3 Slotted gutters

## 1.4 Linear concrete features

1.4.1 Wirtgen SP25i

1.4.2 Wirtgen SP250

1.4.3 Wirtgen SP15i

1.4.4 Powercurber PC150

# 2. CONCRETE WORKED WITH VIBRATING BEAM

# 3. SURFACE FINISHING

3.1 Cross brushing of wet concrete surface

3.2 Exposed aggregate

3.3 Printed finish

3.4 Roughening

# 4. ADVANTAGE RELATED TO CONTINUOUSLY REINFORCED CONCRETE CRC

# 5. CONCRETE MIXER PLANTS

# 6. REFERENCES

4

4

4

5

7

9

11

11

12

12

14

14

16

27

31

32

34

34

35

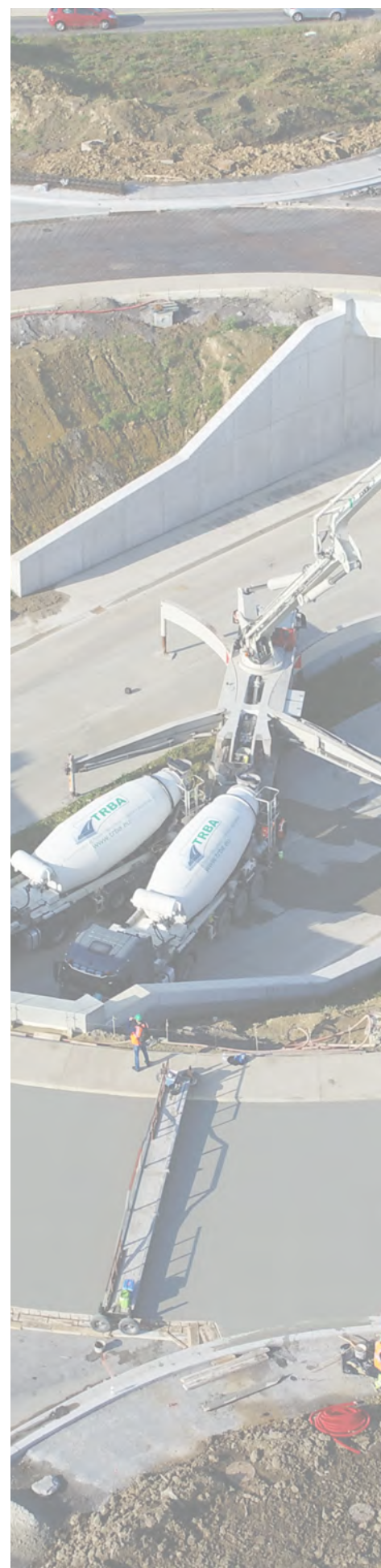
36

36

37

38

41



# 1. SLIPFORM PAVERS

## 1.1 Highway concrete

Concreting with slipform pavers for the creation of motorways, national roads, zoning and private construction sites in reinforced concrete, continuously reinforced concrete, dowelled concrete and non-reinforced concrete.

### 1.1.1 Wirtgen SP1500

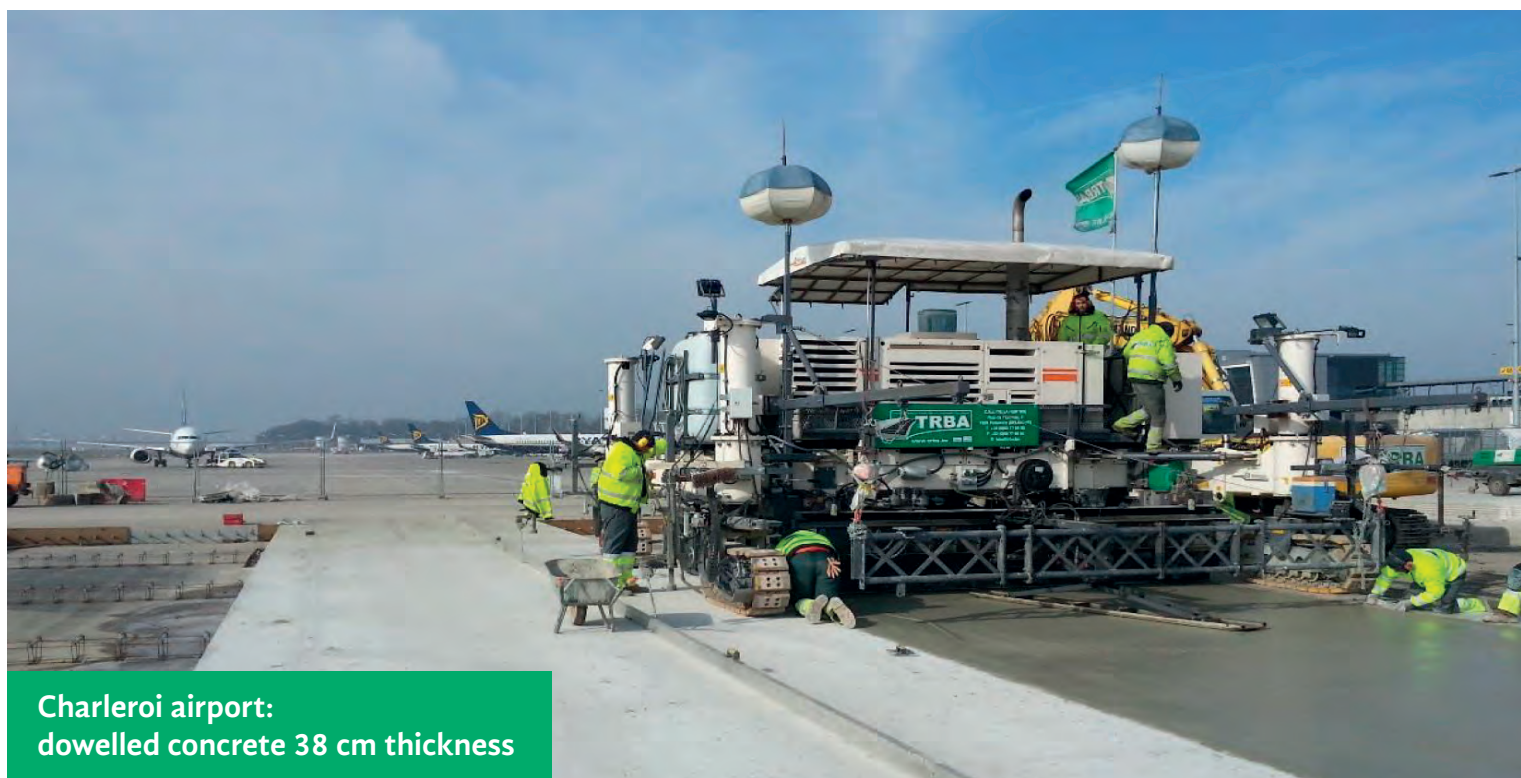
The SP1500 slipform paver is a machine for concreting widths of 5 m to 15.25 m with a modular construction which adapts to the paving width according to the planned site. The model includes a dowel inserter and a system for inserting connecting bars. These two entirely automated machines insert dowels and fixing rods in the wet pre-compacted concrete according to the desired spacing.





## 1.1.2 Wirtgen SP850

The SP850 slipform paver is a machine for concreting widths of 2.50 m to 10 m with a modular construction which adapts to the paving width depending on the planned site, with the possibility of creating top layers.







Charleroi airport: dowelled concrete 38 cm thickness with a sinusoidal shape in the construction joint

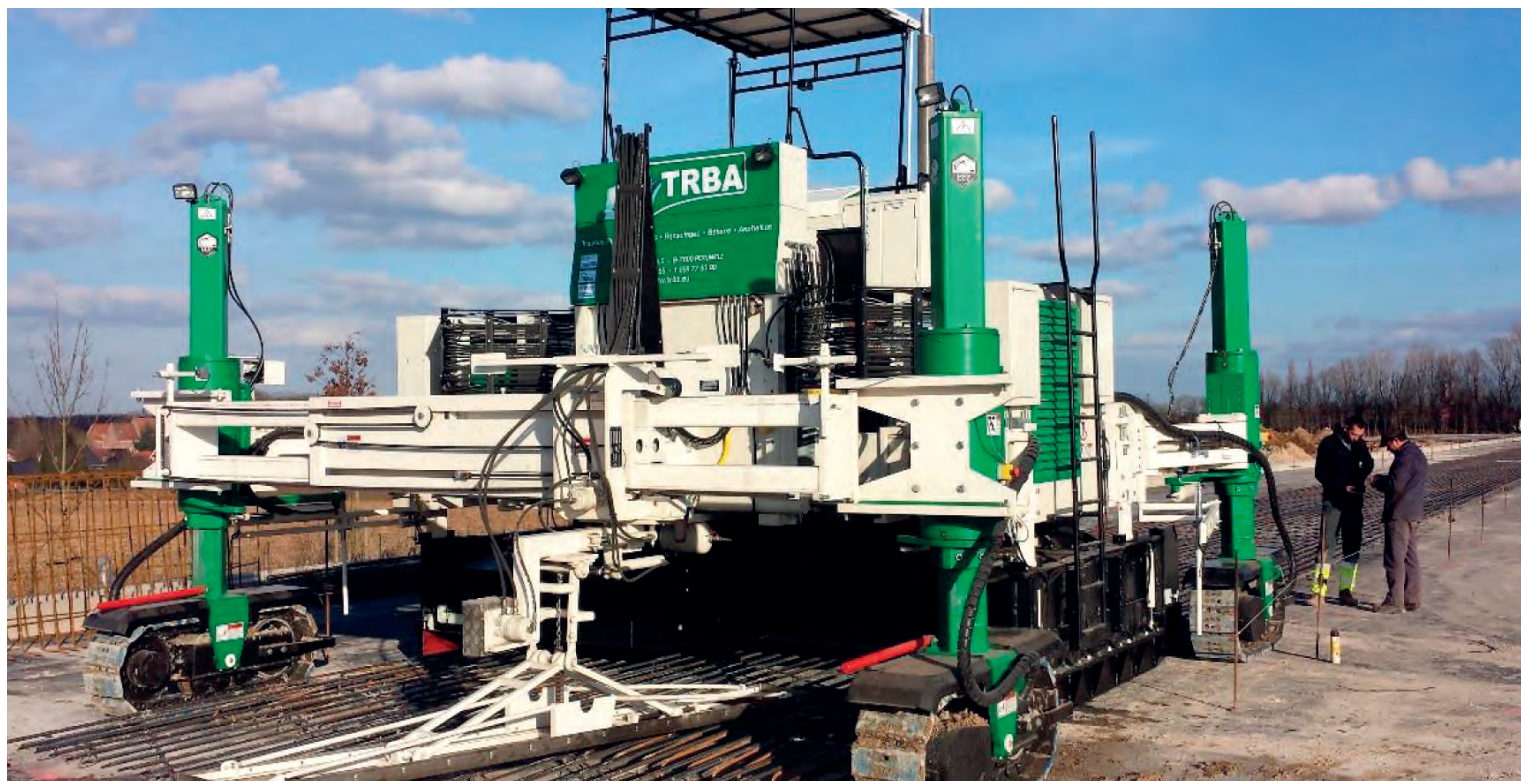


Mouscron Tunnel : continuously reinforced concrete 23 cm thickness



### 1.1.3 Drion CCF 600-4

The slipform paver Drion CCF 600-4 is a machine which allows to concrete widths of 2.8 m to 6.3 m with a frame construction which opens and closes hydraulically during the concreting operation. It offers the possibility of creating top layers.







Dufour Tournai :  
continuously reinforced concrete 25 cm thickness



## 1.1.4 Drion PAVER 3000

The slipform paver Drion PAVER 3000 is a machine which allows to concrete widths of 3 m to 6 m with a frame construction which opens and closes hydraulically during the concreting operation. It offers the possibility of creating top layers.

This machine also allows concreting in the wheelbase of the machine for widths between 2.5m and 4.4 m.



**Colruyt Lessines : double lattice reinforced concrete 25 cm thickness**



**Farciennes Ecopole Bloc 1A : dowelled concrete 23 cm thickness**





Paco Baudour : double lattice reinforced concrete 23 cm thickness



Farciennes Ecopole Bloc 1A: dowelled concrete 23 cm thickness with integrated water channel



Concreting in the wheelbase of the machine





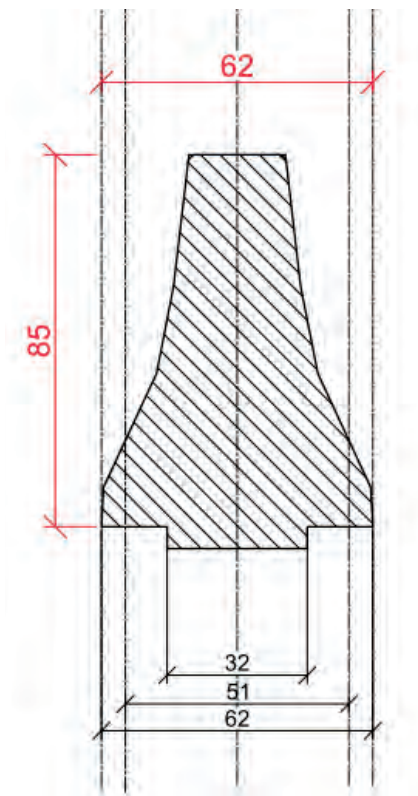
# 1.2 Concrete retention device moulded on site

## 1.2.1 TST Safety Barrier®

TRBA has developed a concrete safety barrier, moulded on site, which meets all technical and regulatory requirements. The mechanism ensures reproducible behaviour and safety which meets crash test requirements. The safety level met is level ASI B (according to EN 1317).

Retention level	H2
Severity of collision	B
Working width	W2

CE certified according to EN 1317-5





## 1.3 Rainwater management

### 1.3 Slotted gutters

We have created a whole series of slotted gutters in various shapes and diameters. The moulding technique for slotted gutters has the great advantage of being able to work on a horizontal profile and thus to collect a high volume of rainwater without needing to lay a network of pipes.

A kerb may also be included directly in the shape of the gutter. Logistical platforms which receive a high volume of lorries undergo regular impacts to the kerb. Including the kerb in the gutter ensures very high resistance to the impacts of HGVs.







We create our own moulds in house in order to offer a broad range of sizes of slotted gutters: 300/400/500/600 diameters.



Gutter with integrated kerb



## 1.4 Linear concrete features

Linear features are created using various machines which can take several configurations according to the concreting operation:

- Profiles in any shape
- Casting on the left of the machine
- Casting on the right of the machine
- Casting underneath the machine up to 3m

Our high performance machines make it possible to concrete rural roads, cycle tracks, kerbs, gutters, concrete retention devices (RCB/DRCB), pipes and channels of various widths.

### 1.4.1 Wirtgen SP25i

The Wirtgen Sp25i is a slipform paver on 4 tracks for offset paving with casting on the left, right or underneath the machine.



Wirtgen SP25i

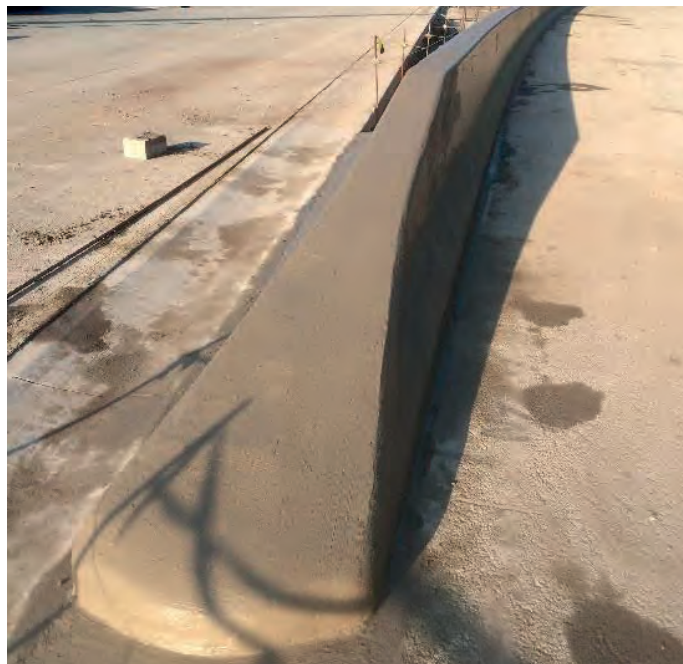








concrete retention device  
concrete retention device



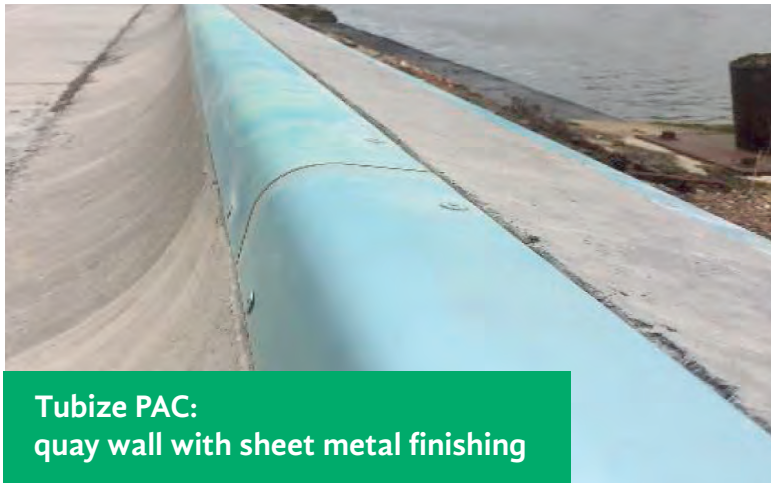
## 1.4.2 Wirtgen SP250

The Wirtgen Sp25i is a slipform paver on 4 tracks for offset paving with casting on the left, right or underneath the machine.



Wirtgen SP250













Lessines Colruyt: trench



Mons A7 slip roads: trench



Mons A7: treatment plant wall





Genappe: farm road





Charleroi: small Jersey barrier



Lesquin airport:  
60 cm wall



A7 Dour: Jersey barrier



Montignies-Sur-Sambre ORES: treatment plant wall





E42 Sambreville:  
single faced treatment plant wall



Mouscron depot: supporting wall  
height 2.10 m / phase 1



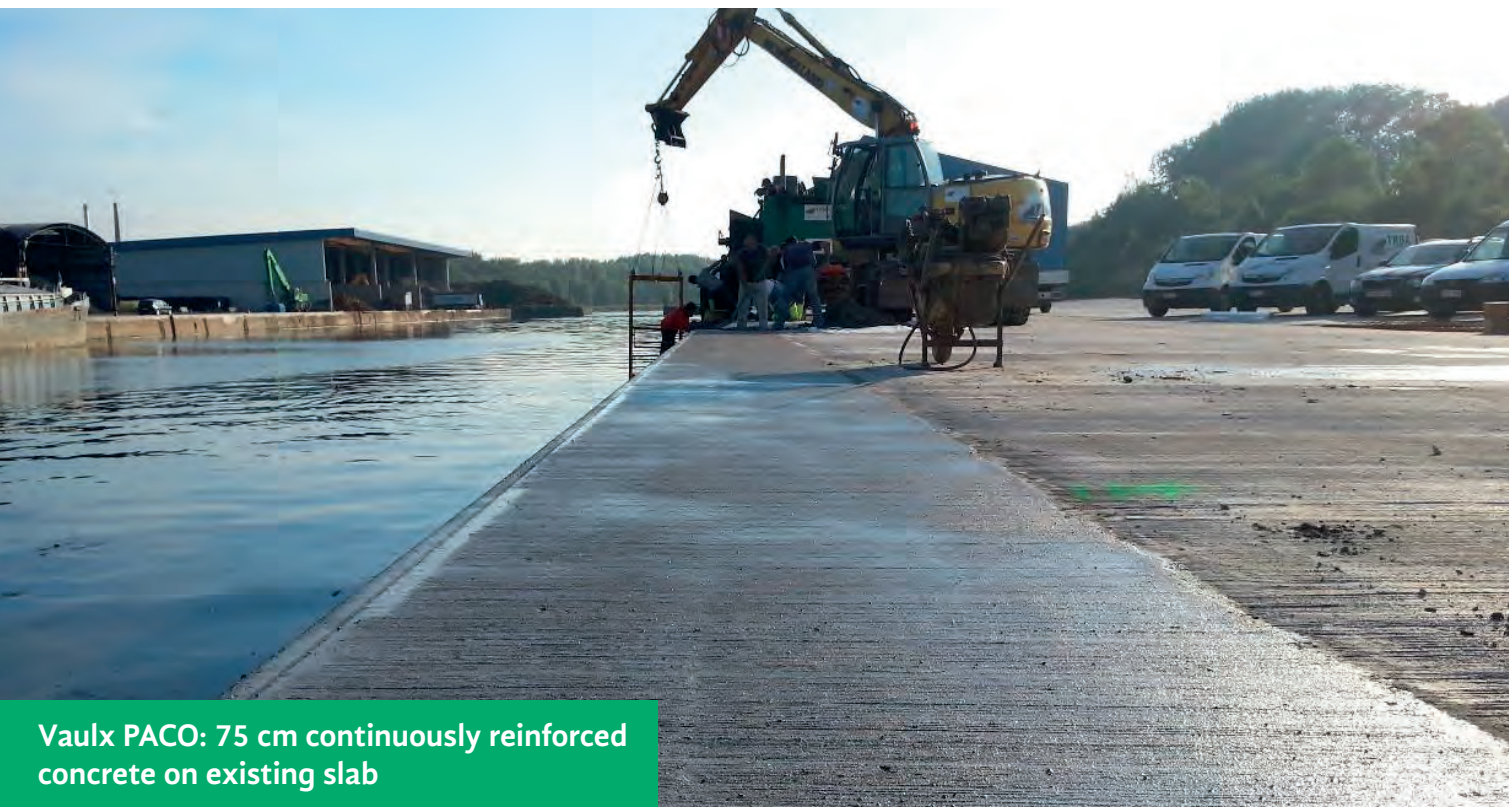
Mouscron depot: supporting wall  
height 2.10 m / phase 1





Mouscron depot: supporting wall height  
2.10 m / phase 3









**Dour Elouges SPW:**  
cycle track in red brushed concrete



**Gosselies:**  
cycle track



**Quiévrain:**  
concrete road 3m offset









Bléharies: inner and outtrail guard rails of a roundabout



### 1.4.3 WIRTGEN SP15i

The wirtgen SP15i is a slipform paver on 3 tracks for offset laying of linear features. The machine is equipped with a 3D guidance system. This technique allows us to provide high-quality work both in respect of the alignment and the evenness of components. It offers the possibility of casting the concrete in very confined spaces, on the left and the right of the machine.











**Dour Elouges: 20 cm kerb with 50 cm water channel**



**Roux: 50 x 40 cm water channel**



**Lessines Colruyt: 10 cm kerb**







## 1.4.4 Powercurber PC150

The Powercurber PC150 is an extruded concrete machine for concreting small linear features directly onto an underlayer or formed carpet.



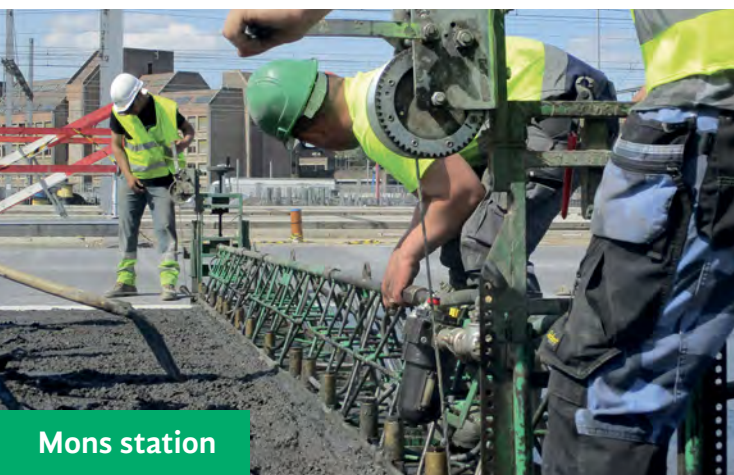


## 2. CONCRETE WORKED WITH A VIBRATING BEAM

The concreting of concrete slabs, roundabout, slip roads for roundabouts and pedestrian slabs with architectural exposed aggregate is achieved with vibrating beams and vibrating needles. The vibrating beams developed by TRBA make it possible to concrete a width of up to 10 m.



N518: Casting of the ring of a roundabout in continuously reinforced concrete



Mons station







Charleroi airport:  
9 m concrete beam



Derichebourg  
Marchienne-au-Pont



Leuze IDETA: vibrating beam with  
variable width (TRBA design)



Ghislenghien Waldico:  
concrete beam



Froyennes Dufour:  
concrete beam



Derichebourg  
Marchienne-au-Pont



# 3. SURFACE FINISHING

We are able to provide various kinds of surface processing according to the future use and the traffic type:

- Cross brushing
- Exposed aggregate
- Imprinted concrete
- Roughening

## 3.1 Cross brushing of wet concrete surface





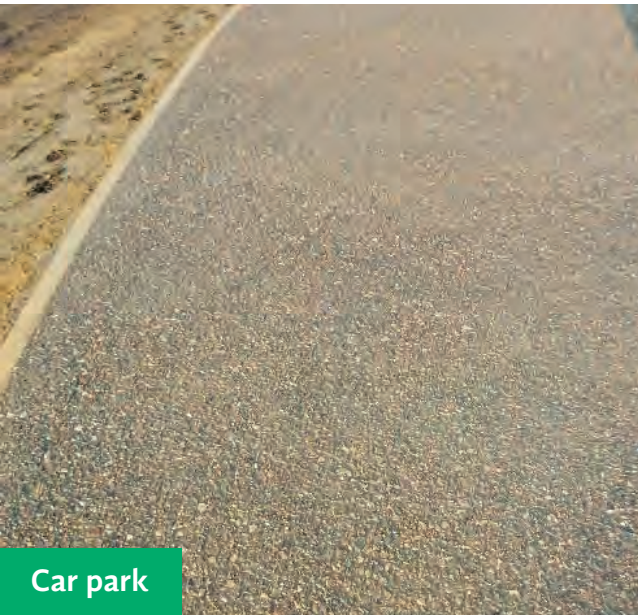
### 3.2 Exposed aggregate



Airport car park



Highway



Car park



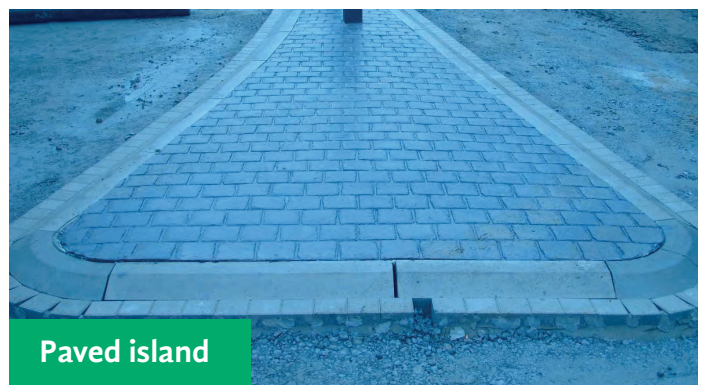
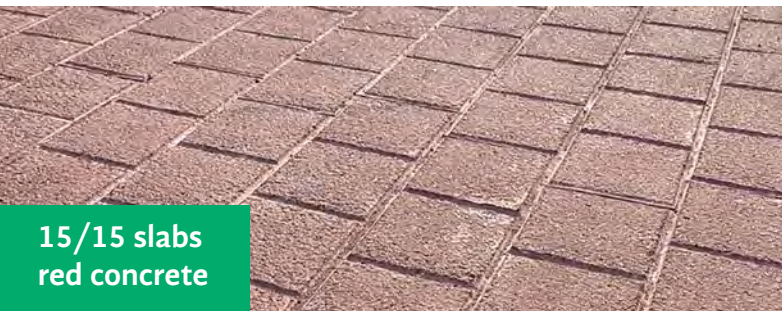
Entry/exit  
Roundabout



highway



### 3.3 Printed finish



### 3.4 Roughening





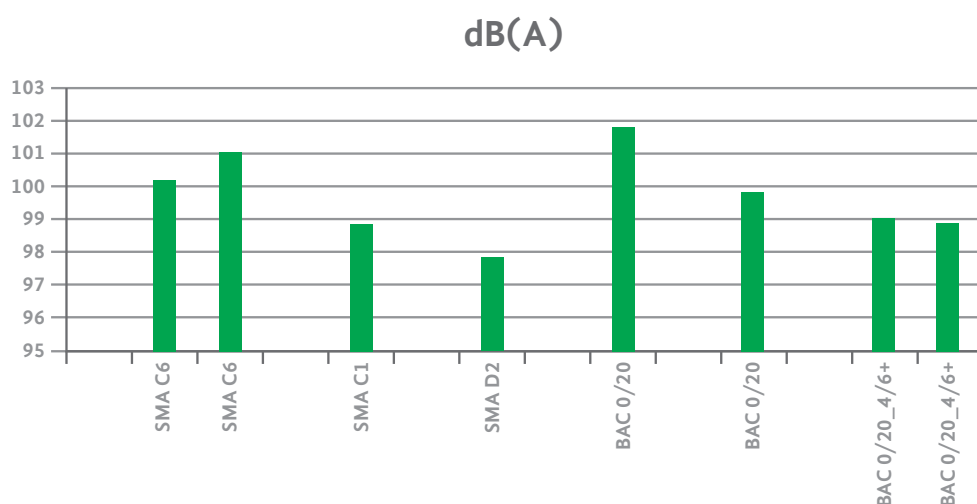
## 4. AVANTAGE RELATED TO CONTINUOUSLY REINFORCED CONCRETE CRC

Using a slipform paver to work with exposed aggregate (the composition of which has been optimised by TRBA technicians) produces CPX (Close Proximity) sound measure results similar to, or even better than, CPX sound measure results for porous asphalt surfaces.

In the table below CPX measurements are shown for various types of surface. The composition of the concrete for the "E17" site was developed in order to obtain the same sound qualities as a porous asphalt surface.

CPX measurements on E17			
VAK	Type of road surface	dB	
E17 Deerlijk - Gand	SMA C6	100.3	
E17 Courtrai - French border	SMA C6	101.0	
E17 Courtrai - French border	SMA C1	98.8	
E17 Courtrai - French border	SMA D2	97.8	
E17 Temse - St Niklass	CRC 0/20	101.8	
E17 De Pinte - Courtrai	CRC 0/20	99.7	
E17 De Pinte - Courtrai	CRC 0/20_4/6+	99.0	CARRIED OUT BY TRBA
E17 De Pinte - Courtrai	CRC 0/20_4/6+	98.8	CARRIED OUT BY TRBA

CRC: Continuously reinforced concrete





# 5. CONCRETE MIXER PLANTS

TRBA group has 6 concrete mixer plants, made up of 4 fixed plants and 2 mobile plants.

Our 6 plants are strategically placed to provide optimal coverage to the zones within our business area.

Obourg :  
180 m<sup>3</sup>/hr





Mouscron:  
160 m<sup>3</sup>/hr



Peruwelz:  
160 m<sup>3</sup>/hr





Douai:  
120 m<sup>3</sup>/hr



2 mobile plants working  
at 120m<sup>3</sup>/hr





## 6. REFERENCES

Couvin bypass phase 3	18,000 m <sup>2</sup>	continuously reinforced concrete
Couvin bypass phase 2	190,000 m <sup>2</sup>	continuously reinforced concrete
A7 Mons	150,000 m <sup>2</sup>	continuously reinforced concrete
Tournai Ouest Zoning	15,000 m <sup>2</sup>	dowelled concrete
N518 Mouscron phase 2	11,500 m <sup>2</sup>	continuously reinforced concrete
A8 Motorway Tournai	300,000 m <sup>2</sup>	continuously reinforced concrete
N518 Mouscron phase 1	35,000 m <sup>2</sup>	continuously reinforced concrete
N5 Philippeville	75,000 m <sup>2</sup>	continuously reinforced concrete
Farciennes Ecopole	17,000 m <sup>2</sup>	continuously reinforced concrete
	25,000 m <sup>2</sup>	dowelled concrete
Colruyt Lessines	40,000 m <sup>2</sup>	concrete fibre and reinforced concrete
N57 Soignies	30,000 m <sup>2</sup>	continuously reinforced concrete
Charleroi airport	70,000 m <sup>2</sup>	dowelled concrete 38 cm thickness
A8 Motorway Tournai	29,000 m <sup>2</sup>	continuously reinforced concrete
N58 Mouscron	10,000 m <sup>2</sup>	continuously reinforced concrete
E17 Motorway	290,000 m <sup>2</sup>	continuously reinforced concretecontinuously reinforced
Luxembourg airport - Findel	60,000 m <sup>2</sup>	double layer dowelled concrete 40 cm





LINEAR FEATURES/  
RN50 - Pecq



Double kerb/Tubize



Couvin bypass/Phase 2



Jersey/RN50 – Pecq





Jersey/RN50 - Pecq



RN58 - Mouscron



Charleroi airport



Luxembourg airport





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