



Abesca

Concrete Safety Barriers



Road Safety. Our Way.

Abesca

 **betonform**[®]

 **CANCELOTTI**

 **CREZZA** ^{30th}
concrete solutions[®]

 **edilfor**
PREFABBRICATI

 **ITINERA**

 prefabbricati
musilli

Who we are

A.B.E.S.C.A.

Associazione, Barriere, Elementi, Sicurezza, Cemento, Armato

is an international entity known for having introduced the use of New Jersey profile, reinforced concrete road safety barriers and other innovative profiles.

Abesca was founded in 2002 by Italian manufacturers leaders on concrete prefabrication, and in the last twenty years is driving the passive safety standards for road users through the use of highly technological and reliable products in terms of safety, maintenance and costs.

Having consolidated its leadership in Italy in the field of road safety, **Abesca** has developed over the years new partnerships with prefabrication companies abroad, with the aim of spreading the concrete road safety barriers and raising the safety standards for roads all around the world. Up to date **Abesca** road safety barriers are installed on over 10,000 km of roads around the world.

All the Italian and foreign partners cover the entire concrete barriers production with different profiles and they all operate with strong quality standards and full commitment on environmental sustainability.



Look video



All **Abesca** products (i. e. central reserve, side edge, bridge parapet, for fixed points and tunnels) have been verified by official crash tests carried out by accredited laboratories (**ILAC/MRA**) according to the European standard **EN 1317/1-2** and are fully CE certified according to **EN 1317-5** standard.

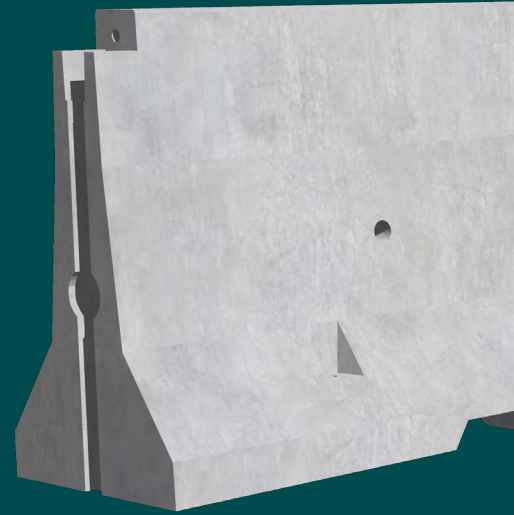
The **main target** of the Association is the continuous improvement of the road safety through investment on research and development of new models and patterns of barriers and the use of innovative materials and technologies at the service of Smart Roads.

Road Safety

barriers

The **safe roadway** is the one that does not present pitfalls and in addition allows you to make mistakes because, if you go too far in inattention or incorrect behavior, “something” helps you.

They are the two concepts of ACTIVE and PASSIVE safety.



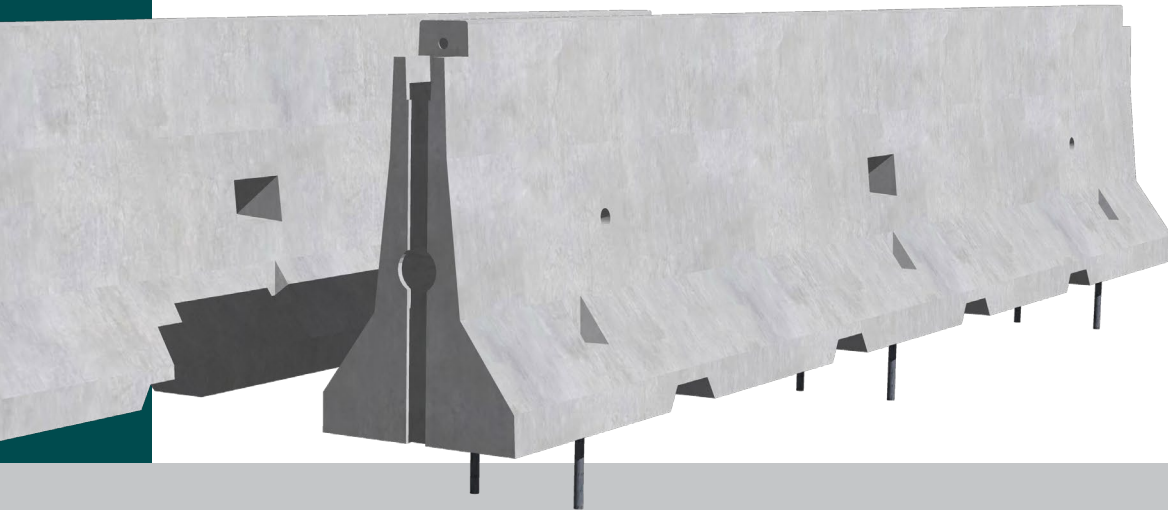
The difference between active and passive safety systems is basically based on the timing of intervention. Active safety travels on the prevention of an accident, the passive one has the role of limiting the consequences to an accident that has already occurred. This second area includes reinforced concrete road safety barriers.

The passive road safety devices, whatever their function (central reserve, side edge or bridge parapet), can be designed and manufactured with different materials and different operating techniques. They are distinguished in this context in barriers with beams and posts (in steel, also called guardrail) which reduce the energy of the impact with the deformation of the steel and wall barriers (prefabricated reinforced concrete simply supported or anchored to the support) which control the collision of a vehicle with the re-directive form and the displacement of the element.

In Italy, over the years, there has been a notable use of road safety barriers which in some cases, despite being compliant with Italian and European technical regulations, did not guarantee adequate safety standards.

Not all barriers, even those that comply with regulatory requirements, offer the same potential level of safety, this is because the standards, modified several times, impose little functional requirements in terms of performance standards.

Concrete road safety barriers are today decidedly very reliable and above all safe, if compared to those with steel beams and post.



Concrete safety barrier in case of impact, thanks to its particular profile, generates a re directive effect of the vehicle towards the roadway.

Furthermore, the movement of the barrier makes the impact plastic, favoring a better control of the trajectory of the vehicle by sliding on it, without crossing the current of traffic.

The advantages of concrete barriers are not limited only to the case of impact. Their **shape and their small size** in the upper part also favor better visibility when cornering, compared to the steel barriers which are always high and wide at the top.

Furthermore, the choice of concrete guarantees **greater durability** over time, low maintenance requirements both ordinary and post-accident, with undoubted advantages also in terms of accident risks linked to the presence of repair or maintenance sites.

Finally, a strong plus of concrete barriers concerns their **high environmental sustainability** as they are entirely recyclable with innovative material composition and concrete recipes result in an impressive carbon footprint reduction with the achievement of **Environmental Product Declarations (EPD)** by Abesca barrier manufacturers according to ISO 14025 and EN 15804.

High safety standards, ease of installation and low maintenance costs make concrete road safety barriers the most adopted on the busiest roadways.



Barrier models

ABESCA

H120 FAST



ABESCA H120 W2 FAST

SINGLE LINE BARRIER FOR CENTRAL RESERVE AND SIDE EDGE

Concrete road safety barrier 1.20 m high, H4b containment level.

Placed on asphalt and pinned by 6 anchoring “pins” with reduced insertion (**only 273 mm**), easily removable and inspectable.

FAST connection system allows quick installation, easily removable and replacement in case of impact.



TECHNICAL FEATURES	H120 FAST – H4b – W2
BARRIER	H120 FAST
LENGTH	5,99 m
HEIGHT	120 cm
BASE	66 cm
WEIGHT	4900 kg
ANCHORED BARRIER	✓
ANCHORED TERMINALS	✓
CE CERTIFICATION	✓

CRASH TEST – EN 1317	H120 FAST – H4b – W2
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W2
NORMALIZED DYNAMIC DEFLECTION	0,4 m
NORMALIZED VEHICLE INTRUSION	VI7
TEST LENGHT (EXCLUDING TERMINAL)	72 m

ABESCA

H120 FAST



ABESCA H120 W2 FAST CONCRETE

SINGLE LINE BARRIER ON CURB FOR CENTRALE RESERVE

Concrete road safety barrier 1.20 m high, H4b containment level.

Anchored on concrete curb by 6 anchors (**max. depth insertion 120 mm**).

FAST connection system allows quick installation, easily removable and replacement in case of impact.

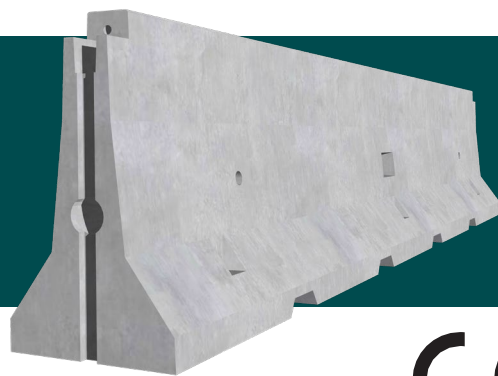


TECHNICAL FEATURES	H120 FAST – H4b - W2 CONCRETE
BARRIER	H120 FAST
LENGTH	5,99 m
HEIGHT	120 cm
BASE	66 cm
WEIGHT	4900 kg
ANCHORED BARRIER	✓
ANCHORED TERMINALS	✓
CE CERTIFICATION	✓

CRASH TEST - EN 1317	H120 FAST – H4b - W2 CONCRETE
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W2
NORMALIZED DYNAMIC DEFLECTION	0,1 m
NORMALIZED VEHICLE INTRUSION	VI7
TEST LENGHT (EXCLUDING TERMINAL)	72 m

ABESCA

H120 FAST



ABESCA H120 W5 FAST

SINGLE LINE BARRIER FOR CENTRAL RESERVE AND SIDE EDGE

Concrete road safety barrier 1.20 m high, H4b containment level.

Free standing on asphalt.

FAST connection system allows quick installation, easily removable and replacement in case of impact.

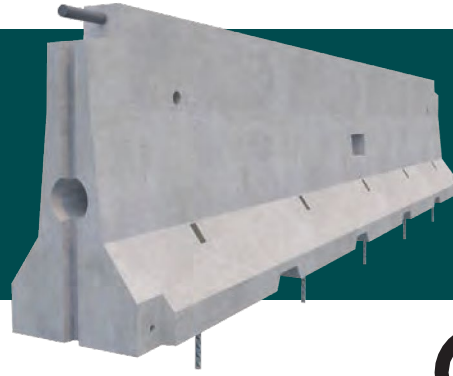


TECHNICAL FEATURES	H120 FAST – H4b – W5
BARRIER	H120 FAST
LENGTH	5,99 m
HEIGHT	120 cm
BASE	66 cm
WEIGHT	4900 kg
ANCHORED BARRIER	✓
ANCHORED TERMINALS	✓
CE CERTIFICATION	✓

CRASH TEST - EN 1317	H120 FAST – H4b – W5
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W5
NORMALIZED DYNAMIC DEFLECTION	1,0 m
NORMALIZED VEHICLE INTRUSION	VI8
TEST LENGHT (EXCLUDING TERMINAL)	72 m

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H120



ABESCA H120S2 - W2 - H4b

SINGLE LINE BARRIER FOR CENTRAL RESERVE AND SIDE EDGE

Road safety barrier 1.20 m high, H4b containment level.

Placed on asphalt and pinned by 10 anchoring "pins".

Minimum working width–W2.

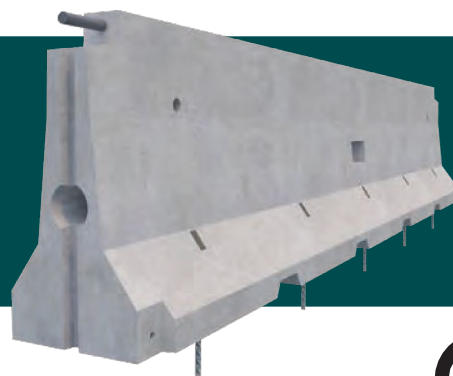


TECHNICAL FEATURES	H120S2 - W2 - H4b
BARRIER	H120S2-W2
LENGTH	5,99 m
HEIGHT	120 cm
BASE	66 cm
WEIGHT	4900 kg
ANCHORED BARRIER	✓
ANCHORED TERMINALS	✓
CE CERTIFICATION	✓

CRASH TEST - EN 1317	H120S2 - W2 - H4b
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W2
NORMALIZED DYNAMIC DEFLECTION	0,3 m
NORMALIZED VEHICLE INTRUSION	V16
TEST LENGHT INCLUDING TERMINAL	78 m

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H120



ABESCA H120SC - W2 - H4b

SINGLE LINE BARRIER ON CURB FOR CENTRAL RESERVE

Road safety barrier 1.20 m high.

H4b containment level.

Anchored on concrete curb by 10 anchors.

Minimum working width–W2.

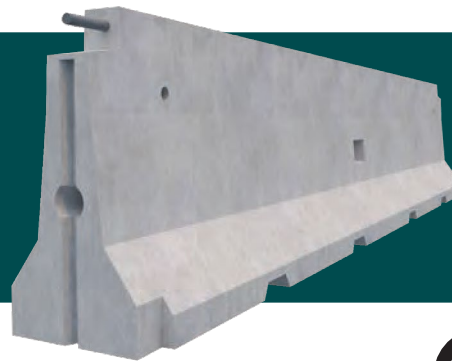


TECHNICAL FEATURES	H120SC - W2 - H4b
BARRIER	H120SC-W2
LENGTH	5,99 m
HEIGHT	120 cm
BASE	66 cm
WEIGHT	4900 kg
ANCHORED BARRIER	✓
ANCHORED TERMINALS	✓
CE CERTIFICATION	✓

CRASH TEST - EN 1317	H120SC - W2 - H4b
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W2
NORMALIZED DYNAMIC DEFLECTION	0,1 m
NORMALIZED VEHICLE INTRUSION	VI6
TEST LENGHT INCLUDING TERMINAL	78 m

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H120



ABESCA H120 - H4b - W5

SINGLE LINE BARRIER FOR CENTRAL
RESERVE AND SIDE EDGE

Road safety barrier 1.20 m high.

H4b containment level.

Free standing on asphalt or concrete support

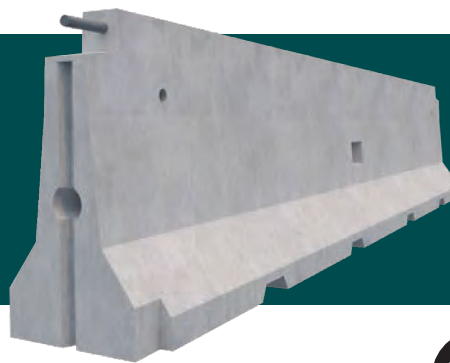


TECHNICAL FEATURES	H120 - H4b - W5
BARRIER	H120 - W5
LENGTH	5,99 m
HEIGHT	120 cm
BASE	66 cm
WEIGHT	4900 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	✓
CE CERTIFICATION	✓

CRASH TEST - EN 1317	H120 - H4b - W5
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W5
NORMALIZED DYNAMIC DEFLECTION	1,1 m
NORMALIZED VEHICLE INTRUSION	VI6
TEST LENGHT INCLUDING TERMINAL	102 m

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H120



ABESCA H120 - H2 - W4

**SINGLE LINE BARRIER FOR CENTRAL
RESERVE AND SIDE EDGE**

Road safety barrier 1.20 m high.H2 containment level.

Free standing on asphalt or concrete support.



TECHNICAL FEATURES	H120 - H2 - W4
BARRIER	H120
LENGTH	5,99 m
HEIGHT	120 cm
BASE	66 cm
WEIGHT	4900 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	X
CE CERTIFICATION	✓

CRASH TEST - EN 1317	H120 - H2 - W4
ASI	B
CONTAINMENT LEVEL	H2
NORMALIZED WORKING WIDTH	W4
NORMALIZED DYNAMIC DEFLECTION	0,6 m
NORMALIZED VEHICLE INTRUSION	VI3
TEST LENGHT INCLUDING TERMINAL	96 m

ABESCA H120



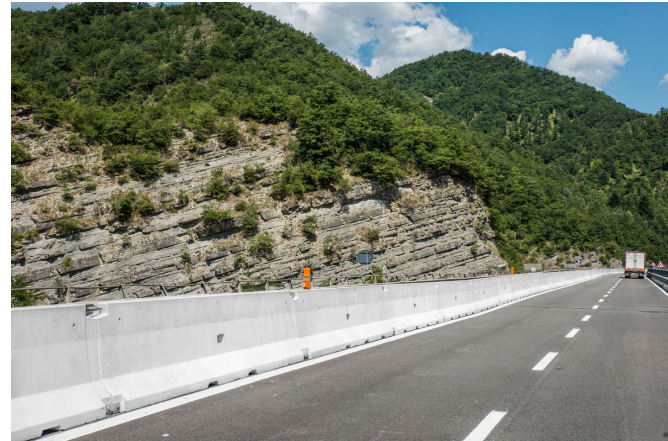
ABESCA H120 - H4b - W7

SINGLE LINE BARRIER FOR CENTRAL RESERVE AND SIDE EDGE

Road safety barrier 1.20 m high.

H4b containment level.

Free standing on asphalt or concrete support.



TECHNICAL FEATURES	H120 - H4b - W7
BARRIER	H120 - W7
LENGTH	5,99 m
HEIGHT	120 cm
BASE	66 cm
WEIGHT	4900 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	X
CE CERTIFICATION	✓

CRASH TEST - EN 1317	H120 - H4b - W7
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W7
NORMALIZED DYNAMIC DEFLECTION	1,9 m
NORMALIZED VEHICLE INTRUSION	VI8
TEST LENGHT INCLUDING TERMINAL	99 m

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ET100



ABESCA ET100 - H4b - W7

SINGLE LINE BARRIER FOR CENTRAL RESERVE AND SIDE EDGE

Road safety barrier 1.0 m high, H4b containment level.

Placed on asphalt or concrete support.

Motorcyclist crash test performed according to CEN/ TS 17342 and UNE 135900: 2018.



TECHNICAL FEATURES	ET100 - H4b - W7
BARRIER	ET100
LENGTH	6,19 m
HEIGHT	100 cm
BASE	62 cm
WEIGHT	3600 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	X
CE CERTIFICAZION	✓

CRASH TEST - EN 1317	ET100 - H4b - W7
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W7
NORMALIZED DYNAMIC DEFLECTION	1,9 m
NORMALIZED VEHICLE INTRUSION	VI8
TEST LENGHT INCLUDING TERMINAL	99 m

ABESCA ET100



ABESCA ET100 - H2 - W5

SINGLE LINE BARRIER FOR CENTRAL RESERVE AND SIDE EDGE

Road safety barrier 1.0 m high, H2 containment level. Placed on asphalt or concrete support.

Motorcyclist crash test performed according to CEN/TS 17342 and UNE 135900: 2018.



TECHNICAL FEATURES	ET100 - H2 - W5
BARRIER	ET100
LENGTH	6,19 m
HEIGHT	100 cm
BASE	62 cm
WEIGHT	3600 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	X
CE CERTIFICATION	✓

CRASH TEST - EN 1317	ET100 - H2 - W5
ASI	B
CONTAINMENT LEVEL	H2
NORMALIZED WORKING WIDTH	W5
NORMALIZED DYNAMIC DEFLECTION	1,0 m
NORMALIZED VEHICLE INTRUSION	VI5
TEST LENGTH INCLUDING TERMINAL	99 m

ABESCA

ET100S



ABESCA ET100S - H4b - W5

SINGLE LINE BARRIER FOR CENTRAL RESERVE AND SIDE EDGE

Road safety barrier 1.0 m high, H4b containment level.

Free standing on asphalt or concrete support.

Motorcyclist crash test performed according to CEN/TS 17342 and UNE 135900: 2018.



TECHNICAL FEATURES	ET100S - H4b - W5
BARRIER	ET100S
LENGTH	6,19 m
HEIGHT	100 cm
BASE	62 cm
WEIGHT	3600 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	X
CE CERTIFICAZION	✓

CRASH TEST - EN 1317	ET100S - H4b - W5
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W5
NORMALIZED DYNAMIC DEFLECTION	1,1 m
NORMALIZED VEHICLE INTRUSION	VI9
TEST LENGHT INCLUDING TERMINAL	93 m

ABESCA ET100R



ABESCA ET100R - ET100LUX REDIRECTIVE BARRIER FOR TUNNEL

Road safety barrier 1.0 m high, H2 containment level. Placed on asphalt or concrete support

The barrier has a redirective profile used for the protection of tunnels, retaining walls and overpass piles.

The barrier is equipped with LED lighting systems.



TECHNICAL FEATURES	ET100R - H2 - W1
BARRIER	ET100R
LENGTH	6,19 m
HEIGHT	100 cm
BASE	43 cm
WEIGHT	3300 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	X
CE CERTIFICATION	✓

CRASH TEST - EN 1317	ET100R - H2 - W1
ASI	C
CONTAINMENT LEVEL	H2
NORMALIZED WORKING WIDTH	W1
NORMALIZED DYNAMIC DEFLECTION	0,1 m
NORMALIZED VEHICLE INTRUSION	V11
TEST LENGTH INCLUDING TERMINAL	78 m

ABESCA

ET105BT



ABESCA ET105BT

SINGLE LINE BARRIER FOR CENTRAL RESERVE

Two lines road safety barrier with interposed ground or concrete partitions, H4b containment level.

Free standing on asphalt or concrete support.



TECHNICAL FEATURES	ET105BT – H4b – W6
BARRIER	ET105
LENGTH	6,19 m
HEIGHT	105 cm
BASE	43,5 cm
WEIGHT	3800 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	X
CE CERTIFICATION	✓

CRASH TEST - EN 1317	ET105BT
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W6
NORMALIZED DYNAMIC DEFLECTION	0,2 m
NORMALIZED VEHICLE INTRUSION	V18
TEST LENGHT INCLUDING TERMINAL	92,8 m

ABESCA NJBP



ABESCA NJBP – H2 – W3

BARRIERA BORDO PONTE

Road safety barrier 1.0 m high

H2 containment level.

The barrier can be used as a bridge parapet protection.

Anchored to concrete curb by M20 chemical anchors.



TECHNICAL FEATURES	NJBP – H4b – W5
BARRIER	NJBP
LENGTH	5,98 m
HEIGHT	100 cm
BASE	50 cm
WEIGHT	4900 kg
ANCHORED BARRIER	✓
ANCHORED TERMINALS	✓
CE CERTIFICATION	✓

CRASH TEST - EN 1317	NJBP – H2 – W3
ASI	B
CONTAINMENT LEVEL	H2
NORMALIZED WORKING WIDTH	W3
NORMALIZED DYNAMIC DEFLECTION	0,4 m
NORMALIZED VEHICLE INTRUSION	VI4
TEST LENGHT INCLUDING TERMINAL	72 m

ABESCA NJBP



ABESCA NJBP - H4b - W5

BRIDGE PARAPET

Road safety barrier 1.0 m high with a steel handrail on top, for a total height from the ground of 1.60 m.

H4b containment level.

The barrier can be used as a bridge parapet protection.

Anchored to concrete curb by M20 chemical anchors.



TECHNICAL FEATURES	NJBP - H4b - W5
BARRIER	NJBP
LENGTH	5,98 m
HEIGHT	100 cm
BASE	50 cm
WEIGHT	4900 kg
ANCHORED BARRIER	✓
ANCHORED TERMINALS	✓
CE CERTIFICATION	✓

CRASH TEST - EN 1317	NJBP - H4b - W5
ASI	B
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W5
NORMALIZED DYNAMIC DEFLECTION	1,1 m
NORMALIZED VEHICLE INTRUSION	VI7
TEST LENGHT INCLUDING TERMINAL	102 m

ABESCA

NJ100



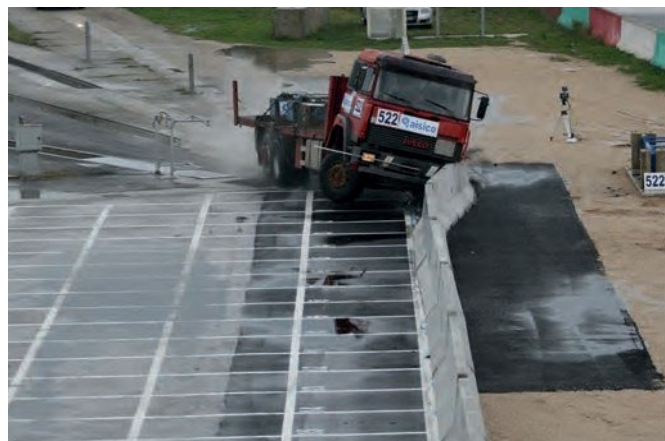
ABESCA NJ100 - H3

SINGLE LINE BARRIER FOR CENTRAL RESERVE AND SIDE EDGE

Road safety barrier New Jersey profile.

H3 containment level.

Free standing on asphalt or concrete support.

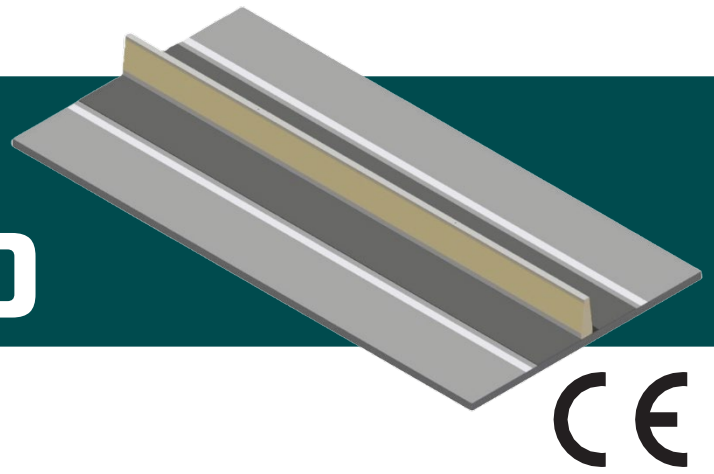


TECHNICAL FEATURES	NJ100 - H3
BARRIER	NJ100
LENGTH	6,19 m
HEIGHT	100 cm
BASE	62 cm
WEIGHT	3600 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	X
CE CERTIFICATION	✓

CRASH TEST - EN 1317	NJ100 - H3
ASI	C
CONTAINMENT LEVEL	H4b
NORMALIZED WORKING WIDTH	W8
NORMALIZED DYNAMIC DEFLECTION	2,9 m
NORMALIZED VEHICLE INTRUSION	VI9
TEST LENGHT INCLUDING TERMINAL	90 m

ABESCA

CONFICO 50



ABESCA CONFICO 50 – H1 W4 A

TEMPORARY ROAD BARRIER

Road barrier height 50 cm, containment level H1.

The perfect solution for road construction sites with limited space.

Minimal influence on traffic flow.

Installation configuration with 12m - 6m - 3m modules.

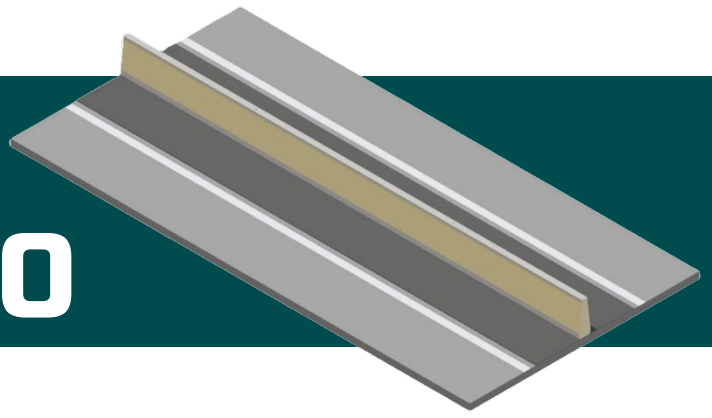
Loading capacity 144 m.



TECHNICAL FEATURES	CONFICO 50
BARRIER	CONFICO 50
LENGTH	12 m
HEIGHT	50 cm
BASE	20 cm
WEIGHT	1860 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	✓
CE CERTIFICATION	✓

CRASH TEST - EN 1317	CONFICO 50
ASI	A
CONTAINMENT LEVEL	H1
NORMALIZED WORKING WIDTH	W4
NORMALIZED DYNAMIC DEFLECTION	1,1 m
NORMALIZED VEHICLE INTRUSION	VI7
TEST LENGTH	93 m

ABESCA CONFICO 50



ABESCA CONFICO 50 – T3 W1 A TEMPORARY ROAD BARRIER

Road barrier height 50 cm, containment level T3.

The perfect solution for road construction sites with limited space.

Minimal influence on traffic flow.

Installation configuration with 12m - 6m - 3m modules.

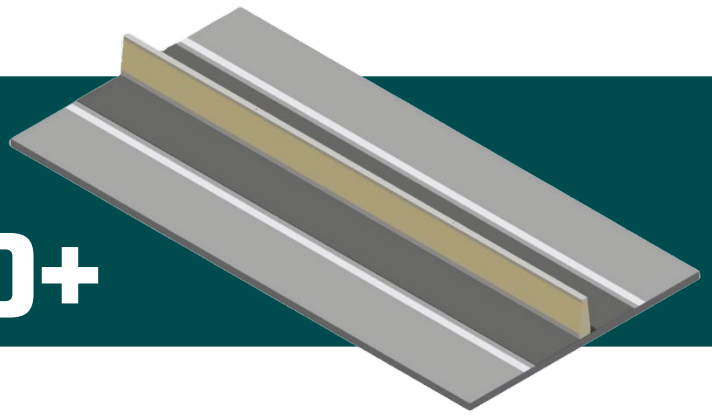
Loading capacity 144 m.



TECHNICAL FEATURES	CONFICO 50
BARRIER	CONFICO 50
LENGTH	12 m
HEIGHT	50 cm
BASE	20 cm
WEIGHT	1860 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	✓
CE CERTIFICATION	X

CRASH TEST - EN 1317	CONFICO 50
ASI	A
CONTAINMENT LEVEL	T3
NORMALIZED WORKING WIDTH	W1
NORMALIZED DYNAMIC DEFLECTION	0,4 m
NORMALIZED VEHICLE INTRUSION	VI4
TEST LENGTH	93 m

ABESCA CONFICO 50+



ABESCA CONFICO 50+ – T3 W2 A

TEMPORARY ROAD BARRIER WITH FENS

Road barrier height 50 cm + fens, containment level T3.

The perfect solution for road construction sites with limited space.

Minimal influence on traffic flow.

Installation configuration with 12m - 6m - 3m modules.

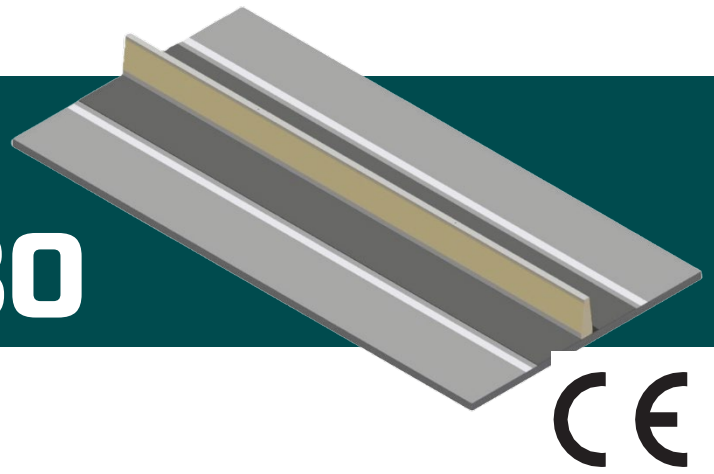
Loading capacity 144 m.



TECHNICAL FEATURES	CONFICO 50+
BARRIER	CONFICO 50+
LENGTH	12 m
HEIGHT	1,15 – 1,65 cm
BASE	20 cm
WEIGHT	1860 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	✓
CE CERTIFICATION	X

CRASH TEST - EN 1317	CONFICO 50+
ASI	A
CONTAINMENT LEVEL	T3
NORMALIZED WORKING WIDTH	W2
NORMALIZED DYNAMIC DEFLECTION	0,5 m
NORMALIZED VEHICLE INTRUSION	VI1
TEST LENGTH	93 m

ABESCA CONFICO 80



ABESCA CONFICO 80 – H1 W4 B

TEMPORARY ROAD BARRIER

Road barrier height 80 cm, containment level H1.

The perfect solution for road construction sites with limited space.

Minimal influence on traffic flow.

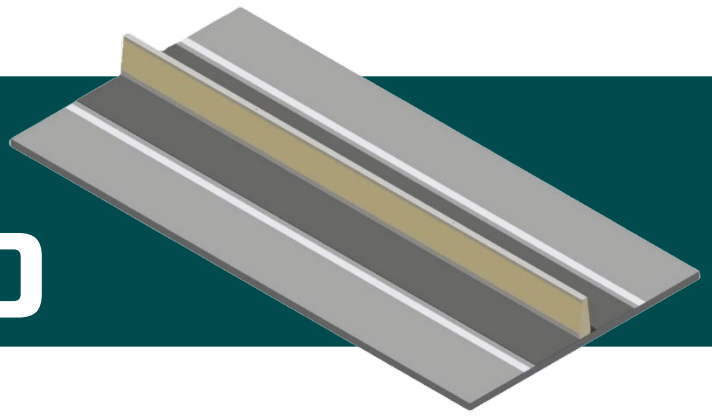
Loading capacity 100 m.



TECHNICAL FEATURES	CONFICO 80
BARRIER	CONFICO 80
LENGTH	12 m
HEIGHT	80 cm
BASE	20 cm
WEIGHT	2940 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	✓
CE CERTIFICATION	✓

CRASH TEST - EN 1317	CONFICO 80
ASI	B
CONTAINMENT LEVEL	H1
NORMALIZED WORKING WIDTH	W4
NORMALIZED DYNAMIC DEFLECTION	1,1 m
NORMALIZED VEHICLE INTRUSION	VI6
TEST LENGTH	84 m

ABESCA CONFICO 80



ABESCA CONFICO 80 – T3 W1 A TEMPORARY ROAD BARRIER

Road barrier height 80 cm, containment level T3.

The perfect solution for road construction sites with limited space.

Minimal influence on traffic flow.

Loading capacity 100 m.



TECHNICAL FEATURES	CONFICO 80
BARRIER	CONFICO 80
LENGTH	12 m
HEIGHT	80 cm
BASE	20 cm
WEIGHT	2940 kg
ANCHORED BARRIER	X
ANCHORED TERMINALS	✓
CE CERTIFICATION	X

CRASH TEST - EN 1317	CONFICO 80
ASI	A
CONTAINMENT LEVEL	T3
NORMALIZED WORKING WIDTH	W1
NORMALIZED DYNAMIC DEFLECTION	0,5 m
NORMALIZED VEHICLE INTRUSION	V13
TEST LENGTH	81 m

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