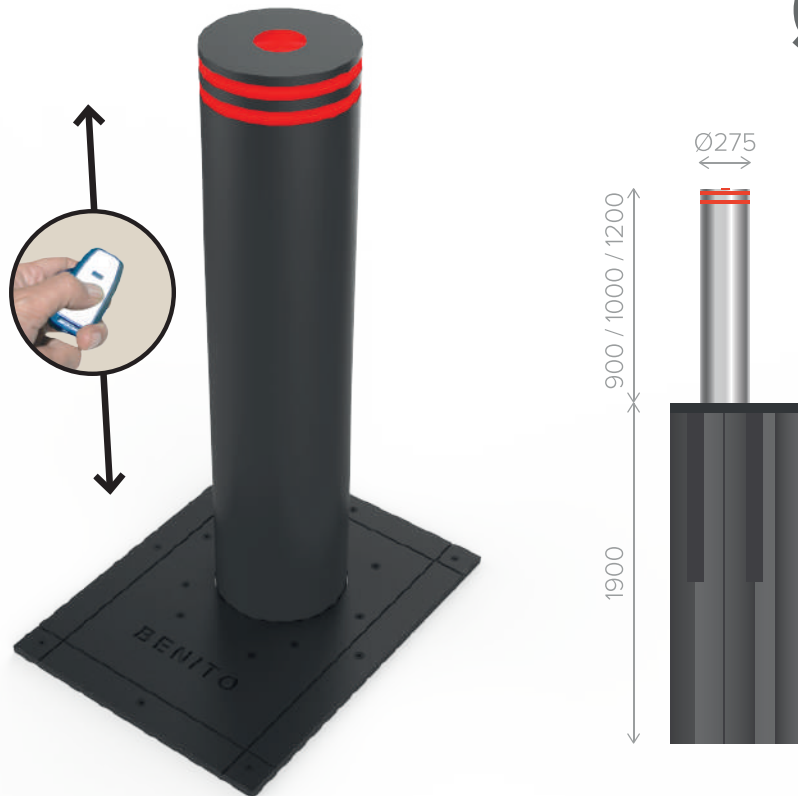


Bollards
DEFENDER
Ø275mm

HM5009/HM5010/HM5012



The high-security rising bollard DEFENDER is our first bollard to be impact tested under ASTM 2656-23 (M50 rating), successfully withstanding a 6.800kg vehicle at 80 km/h (50mph)

The DEFENDER achieved fantastic results, with the bollards remaining operational even after being hit by such a large vehicle.

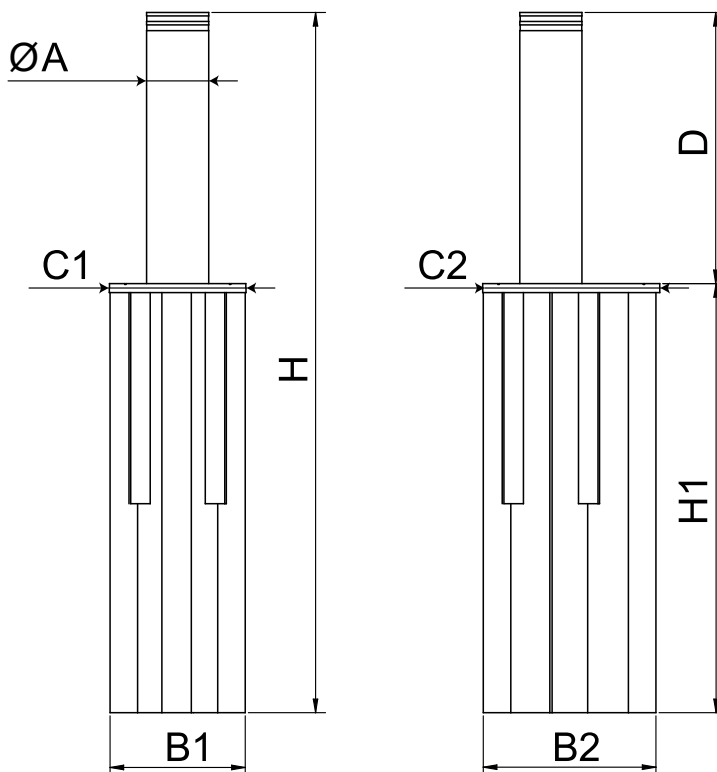
The DEFENDER is hydraulically operated and capable of a high number of operations per hour. Able to be integrated with additional and existing security measures.


Designed to be installed on public roads and security-critical applications (government buildings, airports, tourist areas, high-traffic flow sites) offers unbeatable protection to any site worldwide.

The DEFENDER range is engineered to offer the highest site protection with an aesthetic sleeve 275mm diameter and 25mm thickness and different heights available: 900mm, 1000mm and 1200mm above ground level.

The bollard comes supplied as standard in galvanized steel and epoxy paint in matt black and includes RGBW LED crown as traffic light function: green when down position, red flashing light when rising and red when up.

[Technical specifications](#) | [CAD](#) | [Catálogo](#) | [Assembly Instructions](#) | [BIM](#) | [HD image](#)



Ref.	ØA	B1	B2	C1	C2	D	H	H1	
HM5009	275	599	765	604	784	900	2600	1700	25
HM5010	275	599	765	604	784	1000	2700	1700	25
HM5012	275	599	765	604	784	1200	3100	1900	25

	DEFENDER HM5009	DEFENDER HM5010	DEFENDER HM5012
Height from ground level	900 mm	1000 mm	1200 mm
Bollard diameter	275 mm	275 mm	275 mm
Cylinder wall thickness	25 mm	25 mm	25 mm
Caisson dimensions	784 x 604 x 1700 mm	784 x 604 x 1700 mm	784 x 604 x 1900 mm
Bollard material	Steel	Steel	Steel
Finish	Primer and epoxy paint	Primer and epoxy paint	Primer and epoxy paint
Voltage	230V 50Hz o 380V	230V 50Hz o 380V	230V 50Hz o 380V
Motor power	1000w / 3000rpm	1000w / 3000rpm	1000w / 3000rpm
Lifting system	Hydraulic / built-in	Hydraulic / built-in	Hydraulic / built-in
Temperature range	-20°C +80°C	-20°C +80°C	-20°C +80°C
IP degree of protection	IP 67	IP 67	IP 67
Working frequency	2.100 cycles/day	2.100 cycles/day	2.100 cycles/day
Rise time	6 seconds	6 seconds	6 seconds
Lowering time	6 seconds	6 seconds	6 seconds
Control panel	Programable PLC	Programable PLC	Programable PLC
Luminous crown	LED RGB double ring	LED RGB double ring	LED RGB double ring
Traffic light function	Yes	Yes	Yes
Anti-terrorism certificate	ASTM 2656-23 M50 (K12)	ASTM 2656-23 M50 (K12)	ASTM 2656-23 M50 (K12)
Reflective band	Optional	Optional	Optional

Foundation

