

Hydraulic Automatic HIGH SECURITY BOLLARD FAAC JS 48 HA is crash tested in accordance to:

- **PAS 68:** Impact test specifications for vehicle security barrier systems
- **IWA 14-1:** Vehicle Security Barriers - Part 1: Performance requirement, vehicle impact test method and performance rating
- **ASTM F2656:** Standard Test Method for Vehicle Crash Testing of Perimeter Barriers

APPLICATIONS:

Vehicular access control in critical areas, like: military sites, airports, embassies, consulates, banks, marine zones, prisons, industrial sites or wherever is required a high level of perimeter protection.

PRODUCT FEATURES:

FAAC JS 48 HA bollard is made of a reinforced steel support structure and a steel cylinder 1000 mm / 40 inches high off ground, with diameter 275 mm / 11 inches.

The cylinder is protected from accidental collisions and from aggressive agents (i.e. oil spills, fossil fuels and other types of pollutants, etc.) by a replaceable jacket in mDure® polymer.

To prevent corrosion, the support structure and the cylinder are treated with a surface cathodic coating, all the internal fastenings are realized in stainless steel and the bollard’s head is coated with special Rilsan® resin.

All hydraulic valves are treated with a Zinc-Nickel coating with sealer to guarantee high resistance in salt spray testing; white spots appearance > 240 h / red spots appearance > 720 h (rif. ASTM B 117, UNI EN 9227)

FAAC JS 48 HA bollard has to be allocated into the dedicated pit that sits within the reinforced concrete foundation realized according the civil work drawings.

The hydraulic unit (HPU) and the EFO unit -when present- are integrated into the bollard and accessible from above for maintenance and inspection with the bollard still in place. **Ordinary maintenance operations do not require the usage of lifting machineries.**

The cylinder is visible from all directions, thanks to the reflecting strip and the LED lights on the head that flash during the cylinder movement and stays permanently on while the cylinder is in upraised position. Each movement is signalled –and anticipated- by an acoustic buzzer.

PERFORMANCE:

FAAC JS 48 HA bollard is certified as capable to arrest **in single unit configuration** vehicles of mass 7.500 kg / 16.535 pounds, driving at 50 kmh / 30 mph, corresponding to the performance ratings:

PAS 68	PAS 68:2013	V/7500 (N3)/48/90:0.7/...
IWA 14-1	IWA 14–1:2013	V/7200[N3C]/48/90:...
ASTM F2656/F2656M	Test Method	ASTM F2656 C730-...

The detected penetration rate is **P1** (= highest possible rating)

FAAC JS 48 HA bollard is certified as **operational after impact.**

FAAC JS 48 HA bollard speed on normal duty:

Rising time 6.0 sec. / Lowering time 2.0 sec.

FAAC JS 48 HA EFO (Emergency Fast Operation) bollard speed on emergency conditions:

Rising time 1.5 sec. / Lowering time 2.0 sec.

Bollard cannot be lowered until the EFO unit is reset.

The above speed remains constant within the advised duty cycle.



HYDRAULIC UNIT:

The hydraulic unit (HPU) is integrated within the bollard main frame; it comprises a 230VAC electric motor that operates a hydraulic pump.

FAAC JS 48 HA HPU employs an **EU Ecolabel awarded Biodegradable oil**.

Two replaceable filters are integrated in the oil circuit to ease the maintenance operations.

In case of power failure, the upraised cylinder remains in position thanks to a mechanical lock.

To lower the cylinder it's necessary to supply again the bollard or operate the manual release.

The manual release to lower the cylinder can be operated only removing the upper plate and opening a drawer; the latter is protected by a stainless steel lock (key supplied).

The HPU protection index is IP67

AVAILABLE VERSIONS:

A special version supplied with EFO -Emergency Fast Operation- is available. EFO is a distinct hydraulic circuit, consisting of a pressure reserve and all needed hoses and valves. This circuit provides the power to operate the bollard at emergency fast speed.

The cylinder aesthetic finishing can be:

- mDure® polymer protective sleeve; supplied in black colour with FAAC exclusive texture
- mDure® polymer protective sleeve; supplied with AISI 316L stainless steel cover

INSTALLATION COMPLEMENTS:

The bollard has to be placed into the dedicated pit, supplied with the cast iron counter frame.

CONTROL BOARD:

The control board for JS 48 HA bollard is a deported unit and manages each bollard individually.

It's supplied with 230VAC - 50/60Hz and includes several programmable –and customizable- logics to guarantee the desired operational routine.

A 16+1 poles cable (1.5mm² / 0.002 inches² min section) is required to connect the control board to the JS 48 HA bollard.

JS 48 HA bollard has to be supplied with 230VAC by means of another cable with 4 poles (4mm² / 0.006 inches² min section).

The above two cables are not supplied.

ACCESSORIES:

- A Pit heater can be added, to operate JS 48 HA (EFO) bollard at extremely low temperatures.
- A hand pump kit can be installed when needed to lift the cylinder in absence of power supply.



TECHNICAL SPECIFICATIONS:

Model	JS 48 HA	JS 48 HA Stainless steel	JS 48 HA EFO	JS 48 HA EFO Stainless steel
Drive	Hydraulic unit (Biodegradable Oil)			
Cylinder's height from ground	1.000 mm // 40 inches			
Cylinder's diameter incl.sleeve	275 mm // 11 inches			
Cylinder type	High performance steel			
Cylinder treatment	Cataphoresis			
Protective sleeve	mDure®	Aisi 316 + mDure®	mDure®	Aisi 316 + mDure®
Cylinder's head	Aluminium			
Head treatment	Anti-corrosion Rilsan® resin coating			
Ground cover	AISI 316 stainless steel + mDure®			
Reflective strip height	55 mm // 2.2 inches			
Reflective strip colour	White			
Rising time	~6 s			
Emerg. rising time (EFO)	-	-	~1.5 s	~1.5 s
Lowering time	~2 s			
Manual release	YES			
Power supply	207 V~ ... 243 V~ - 50/60 Hz			
Max consumption	3.500 W			
IP index	IP67			
Load class (EN 124)	C250			
Crash resistance	673.000 J			
Operating temperature	-15°C / +55°C			
Operating temperature with heater (accessory)	-40°C / +55°C			
Bollard weight	530 kg	530 kg	560 kg	560 kg
Bollard packaging LxWxH	1.600 mm x 800 mm x 900 mm // 63 inches x 31 inches x 35 inches			

PIT:

Dimensions LxWxH	590 mm x 670 mm x 1.665 mm // 23 inches x 26 inches x 66 inches
Material	Steel EN 10346-DX53+Z140-A: thickness 2mm / 0,08 inches
Counterframe	Ductile casted iron, treated with cataphoresis
Pit weight	200 kg
Pit packaging LxWxH	1.200 mm x 800 mm x 875 mm // 47 inches x 31 inches x 34 inches

FOUNDATION:

Dimensions LxWxH	1.600 mm x 3.100 mm x 1.700 mm // 63 inches x 122 inches x 67 inches*
Concrete Specifications:	Class C25/30 Concrete with 10-30 aggregate according to UNI EN 12620 standard Bollard shall be installed after at least 7 days of concrete setting; using a proper additive, it's possible to reduce to 3 days
Surrounding ground compacting index	≥ 90% of the Proctor optimum curve, according to UNI EN 13286-2:2005 standard

* consider 10mm//0.4 inches above to lay the pavement + 10mm//0.4 inches below for the base of mud slab