



FAAC J275 2K20 HA BOLLARD PROCUREMENT SPECIFICATION

Certificate
of passed Barrier Testing Programme

CTS
crashtest-service



Certificate No.: TC-11504-3605-19407-EN
Date of certification: 24-SEP-2020

Contracting Client:
FAAC S.p.A.
Via Calari 10
40069 Zola Predosa (BO)
Italy

Type of Product: Moveable Twin Bollard "J275 2K20 HA"
Test Standard: BSI PAS 68:2013
IWA 14-1:2013
Test Standard Classification: PAS 68: N2 - 48 km/h
IWA 14-1: N2A - 48 km/h
Test Date: 08-SEP-2020
Vehicle Restrained: Yes ☒ No ☐
Vehicle Immobilized: Yes ☒ No ☐
Vehicle advanced beyond Barrier: Yes ☐ No ☒
Test Vehicle Kinetic Energy at Impact: 645 kJ
Performance Classification PAS 68: Moveable Twin Bollard W7500(N2)/48/90-1.7/0.0
Performance Rating IWA 14-1: Moveable Twin Bollard W7200(N2A)/48/90-1.9
Only valid in connection with CTS-Test Report No.: 11504-3605-19407-EN
If completely changed this certificate will be replaced by certificate No.: TC-11504-3605-19407-2-EN

Sincerely

Dipl.-Ing. Peter Schimmelpfennig (Managing Partner/Head of Laboratory)



Hydraulic Automatic HIGH SECURITY BOLLARD FAAC J275 2K20 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

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 J275 2K20 HA bollard is made of a reinforced steel support structure and a steel cylinder 800mm // 31.5 inches off ground, diameter 275mm // 10.8 inches available in S355JR EN 10219 steel, with polyester powder painted, or stainless steel AISI 316L with satin finishing.

To prevent corrosion, the support structure and the cylinder –*painted steel version*- are treated with a surface cathaphoretic coating, all the internal fastenings are realized in stainless steel and the bollard's head is coated with special Rilsan® resin.

FAAC J275 2K20 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) is integrated into the cylinder 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 J275 2K20 HA bollard is certified as capable to arrest vehicles of mass 7.500 kg // 16.535 pounds, driving at 50 kmh // 30 mph, corresponding to the performance ratings:

Performance rating:

PAS 68	PAS 68:2013	V/7500 (N2)/48/90:1.7/0.0
IWA 14-1	IWA 14–1:2013	V/7200 [N2A]/48/90:1.9

Bollard speed on normal duty:

Rising Time 8s // Lowering Time 4,5s

The above speed remains constant within the advised duty cycle.

OPERATING TEMPERATURE:

Bollard shall be fully operational within following conditions:

Operating temperature	-15°C + 55°C // 5°F + 131°F
Operating temperature with heater (accessory)	-25°C + 55°C // -13°F + 131°F

HYDRAULIC UNIT (HPU):

The HPU is allocated within the bollard's cylinder; it comprises a 230VAC electric motor that operates a hydraulic pump.

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 under the cylinder's head. **The access to the manual release device is protected by an anti-burglar armoured lock (key supplied).**

The HPU is supplied with a "Gentle Stop" function to slow down the movement in the last 30mm // 1.2



inches of the opening (lowering) movement, to reduce the mechanical stress and the noise generated by the cylinder's descent. The HPU protection index is IP67

AVAILABLE VERSIONS:

The cylinder finishing can be:

- Cataphoresis and polyester powder painted Dark grey metallized
- Stainless steel satin finishing

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 FAAC J275 2K20 HA bollard is a deported unit and manages up to 3 bollards. 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 (1.5 mm² // 0.002 inches min section) is required to connect the control board to FAAC J275 2K20 HA bollard.

ACCESSORIES:

A pressure switch can be added to automatically reverse the upward movement in case an obstacle is hit while closing.

A solenoid valve can be added to automatically lower the bollard in case of power failure.

The accessories indicated above are not recommended for usages in security applications, as they subordinate the perimeter protection to the safe circulation of the vehicles

A Pit heater can be added, to operate also at extreme low temperatures (as below specified).

TECHNICAL SPECIFICATIONS:

Model	J275 2K20 HA	J275 2K20 HA STAINLESS STEEL
Drive	Hydraulic unit	Hydraulic unit
Cylinder height from ground	800mm // 31.5 inches	800mm // 31.5 inches
Cylinder diameter	275mm // 10.8 inches	275mm // 10.8 inches
Cylinder material	S355JR EN 10219 steel	AISI 316L stainless steel
Cylinder treatment	Cataphoresis and polyester powder paint (Dark grey metallized RAL 7021)	Satin finishing
Cylinder's head	Aluminium	Aluminium
Head treatment	Anti-corrosion Rilsan® resin	Anti-corrosion Rilsan® resin
Ground cover material	Aluminium	Aluminium
Ground cover treatment	Anti-corrosion Rilsan® resin	Anti-corrosion Rilsan® resin
Reflective strip height	55 mm // 2.2 inches	55 mm // 2.2 inches
Reflective strip colour	Orange	Orange
Rising time	~8 s	~8 s
Lowering time	~4,5 s	~4,5 s
Emergency automatic lowering	YES (OPTIONAL)	YES (OPTIONAL)
Emergency lowering time	~2	~2
Obstacle detection while rising	YES (OPTIONAL)	YES (OPTIONAL)
Emergency manual lowering	Accessible with supplied key	Accessible with supplied key
Gentle Stop function	YES	YES
Power supply	207 V~ ... 243 V~ - 50/60 Hz	207 V~ ... 243 V~ - 50/60 Hz
Max consumption	575 W	575 W
Protection index	IP67	IP67
Load class(EN 124)	C250	C250
Break-in resistance (2 units configuration)	673.000 J	673.000 J
Operating T°	-15°C + 55°C // 5°F + 131°F	-15°C + 55°C // 5°F + 131°F
Operating T° with heater (accessory)	-25°C + 55°C // -13°F + 131°F	-25°C + 55°C // -13°F + 131°F
Bollard weight	170 kg // 375 pounds	170 kg // 375 pounds
Bollard packaging dimensions LxWxH	1.200 mm x 800 mm x 450 mm // 47 inches x 31 inches x 18 inches	1.200 mm x 800 mm x 450 mm // 47 inches x 31 inches x 18 inches
Cabling (not supplied)	16+1 conductors –min. section 1.5 mm // 0.06 inches	
Max cable length	50 m // 164 feet	

PIT:

Dimensions LxWxH	550 mm x 619 mm x 1.245 mm // 22 inches x 24 inches x 49 inches
Material	Steel EN 10346-DX53+Z140-A: thickness 2 mm // 0,08 inches
Counterframe	Ductile casted iron, treated with cataphoresis
Pit weight	80 kg // 176 pounds
Pit packaging LxWxH	800 mm x 600 mm x 700 mm // 31 inches x 24 inches x 28 inches

FOUNDATION:

Dimensions LxWxH (2 units configuration)	2.400 mm x 3.100 mm x 1.540 mm // 95 inches x 122 inches x 61 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

