



SECTION 34 75 13  
OPERABLE ROADWAY EQUIPMENT  
ALTERNATIVE SECTIONS 11 12 33 Parking Gates; 32 39 13 Manufactured Metal  
Bollards; 34 71 13 Vehicle Barriers

Fast Gate Openers - (Part of the DF Supply, Inc. Family)

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FAAC Group designs manufactures and distributes the most secure, innovative and functional solutions worldwide for every pedestrian and vehicular need: automatic access - parking - access control. FAAC Group satisfies the service and reliability needs of residential, commercial and industrial clients. FAAC Group makes the city move, creating automation that simplifies the lives of those who live there.

Today, after fifty years of business and thanks to steady growth in all areas of automation and access control, FAAC has turned into a large multinational industrial group with more than 1,400 people employed in five continents, 16 manufacturing plants, 30 sales companies in 24 countries and a network of over 80 countries served by official distributors.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Hydraulic Automatic Retractable Bollards:
  - 1. Access Control – Commercial, industrial and urban restricted areas application  
Hydraulic Automatic retractable bollards (Model J275 HA V2)

1.2 RELATED REQUIREMENTS

- A. Section 02 22 19 – Traffic Assessment
- B. Section 25 00 00 – Integrated Automation
- C. Section 32 31 00 – Fences and Gates
- D. Section 34 71 13 - Paving and Accessories
- E. Section 03 30 00 - Cast-In-Place Concrete
- F. Section 26 05 19 – Low Voltage Electrical Power Conductors and Cables

### 1.3 REFERENCES

- A. Submit under provisions of Section 01 42 00 – References
- B. Abbreviations and Acronyms
  - 1. HA: Type of Technology used (Hydraulic Automatic)

### 1.4 REGULATORY REQUIREMENTS

**\*\* NOTE \*\* Delete the standard which are not applicable to your area**

- A. Submit under provisions of Section 01 41 00 – Regulatory Requirements
- B. Manufacturer's declaration of compliance with 2006/42/EC – European Machinery Directive
- C. Manufacturer's declaration of compliance with 2014/35/EU - European Low Voltage Directive: EN12453
- D. Manufacturer's declaration of compliance with 2014/30/EU - European Electromagnetic Compatibility Directive: EN61000-6-3, EN61000-6-2

### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01 33 00 – Submittal Procedures
- B. Product Data: Provide for each product equipment list, system description and manufacturer's data sheets, including:
  - 1. Product information, manufacturer's names and identification of product.
  - 2. Component connections and details.
  - 3. Storage and handling requirements and recommendations.
- C. Shop Drawings: Submit shop drawings showing layout, product components, including anchorage, excavation details and accessories:
  - 1. Drawings, including wiring diagrams.
  - 2. Risers, layouts, hardware location and accessories predispositions.
  - 3. Special wiring diagrams for optional configurations.
- D. Manufacturer's Instructions:
  - 1. Preparation instructions and recommendations.
  - 2. Operation and installation instructions and manuals.
- E. Manufacturer's Certificates: Certify products meets or exceed specified compliances
- F. Maintenance Data: provide manufacturer's maintenance instructions that include:
  - 1. Lists of periodic checking and maintenance programs
  - 2. Spare parts lists
  - 3. Equipment inter-connection diagrams

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Submit under provisions of Section 01 66 00 – Product Storage and Handling Requirements
- B. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and industry standards.
- C. Store products indoors in manufacturer's original containers and packaging, with labels clearly identifying product name and manufacturer. Protect from damage.

## 1.7 QUALITY ASSURANCE

- A. Submit under provisions of Section 01 43 00 – Quality Assurance
- B. Manufacturer Qualifications:
  - 1. ISO 9001 Certified Manufacturer
  - 2. Manufacturer with minimum of 50 year experience
- C. Installer Qualifications: Installation performed by installer specifically trained in bollards operation systems of the type found within this section.
- D. Furnish bollards, all components and accessories by one manufacturer.

## 1.8 SITE CONDITIONS

- A. Submit under provisions of Section 01 71 00 – Examination and Preparation
- B. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- C. Verify installation required dimensions before installing.
- D. Ensure that excavating surface is appropriate for installation:
  - 1. The characteristic of the ground must guarantee sufficient solidity of the foundation plinth.
  - 2. No tubes or electrical cables should be present in the digging area.

## 1.9 WARRANTY

**\*\* NOTE \*\* *Apply special warranty provided by local subsidiaries***

- A. Submit under provisions of Section 01 78 00 – Closeout Submittals
- B. Manufacturer's Standard Limited Warranty:
  - 1. Warranty Period: 2 years of free repair or replacement from date of installation
  - 2. Special warranty extensions may apply

## PART 2 PRODUCTS

## 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: FAAC SpA, which is located at: Via Calari, 10 - 40069 Zola Predosa, Bologna – Italy / Tel: (+39)-051-61724 / Fax: (+39)-051-758518 / Email: [info@faacgroup.com](mailto:info@faacgroup.com) / Web: [www.faacgroup.com](http://www.faacgroup.com)
- B. Substitutions: Not permitted
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 25 00 - Substitution Procedures.

## 2.2 MODEL J275 H600 HA V2 – PAINTED VERSION.

- A. Overall Description: Hydraulic Automatic retractable bollard. The product is designed for commercial, industrial and urban restricted areas traffic regulation.
- B. Drive
  - 1. Hydraulic unit
  - 2. Power supply: 230 VAC, 50/60 Hz
  - 3. Max Power consumption: 575 W
  - 4. Protection Class: IP67 (hydraulic unit)
- C. Cylinder
  - 1. Height from ground: 600 mm / 23.6 inches
  - 2. Diameter: 275 mm / 10.8 inches
  - 3. Material: Steel S235JR EN 10219 (7 mm / 0.3 inches thick)
  - 4. Finishing: Anti- corrosive Cataphoresis and polyester powder painted, Dark grey metallized - RAL 7021
  - 5. Head: aluminium, Grey - RAL 9006
- D. Reflective strip
  - 1. Height: 55 mm / 2.2 inches
  - 2. Colour: Yellow
- E. Supply cable (not supplied)
  - 1. Numbers: 16+1 conductors
  - 2. Minimum section: 1,5 mm / 0.06 inches
  - 3. Maximum cable length: 50 m / 164 feet
- F. Suggested Usage: commercial, industrial and urban restricted areas traffic regulation
- G. Performances
  - 1. Operating Time
    - a. Rising: 5 s
    - b. Lowering: 3,5 s
  - 2. Resistance Force
    - a. Impact: 38000 J
    - b. Break-in: 128000 J
  - 3. Ambient Temperature range
    - a. Standard: -15°C + 55°C / 5°F + 131°F
    - b. With Heater: -25°C + 55°C / -13°F + 131°F (optional accessory)

- H. Safety devices:
  - 1. Emergency fast lowering device (in case of power failure)
    - a. Emergency lowering time : 1,2 s
    - b. Possibility to disable
  - 2. Manual release: with supplied key
  - 3. Pressure switch

- I. Features
  - 1. Weight
    - a. Total: 167 kg / 368.2 pounds
    - b. Bollard: 112 kg / 247 pounds

### 2.3 MODEL J275 H600 HA V2 – STAINLESS STEEL SATIN FINISHING VERSION.

- A. Overall Description: Hydraulic Automatic retractable bollard. The product is designed for commercial, industrial and urban restricted areas traffic regulation.
- B. Drive
  - 1. Hydraulic unit
  - 2. Power supply: 230 VAC, 50/60 Hz
  - 3. Max Power consumption: 575 W
  - 4. Protection Class: IP67 (hydraulic unit)
- C. Cylinder
  - 1. Height from ground: 600 mm / 23.6 inches
  - 2. Diameter: 275 mm / 10.8 inches
  - 3. Material: AISI 316L (6 mm / 0.2 inches thick)
  - 4. Finishing: Satin finishing,
  - 5. Head: aluminium, Grey - RAL 9006
- D. Reflective strip
  - 1. Height: 55 mm / 2,2 inches
  - 2. Colour: Yellow
- E. Supply cable (not supplied)
  - 1. Numbers: 16+1 conductors
  - 2. Minimum section: 1,5 mm / 0.06 inches
  - 3. Maximum cable length: 50 m / 164 feet
- F. Suggested Usage: commercial, industrial and urban restricted areas traffic regulation
- G. Performances
  - 1. Operating Time
    - a. Rising: 5 s
    - b. Lowering: 3,5 s
  - 2. Resistance Force
    - a. Impact: 67000 J
    - b. Break-in: 207000 J
  - 3. Ambient Temperature range
    - a. Standard: -15°C + 55°C / 5°F + 131°F
    - b. With Heater: -25°C + 55°C / -13°F + 131°F (optional accessory)
- H. Safety devices:
  - 1. Emergency fast lowering device (in case of power failure)
    - a. Emergency lowering time : 1,2 s
    - b. Possibility to disable

2. Manual release: with supplied key
  3. Pressure switch
- I. Features
1. Weight
    - a. Total: 167 kg / 368.2 pounds
    - b. Bollard: 112 kg / 247 pounds
- 2.4 MODEL J275 H800 HA V2 – PAINTED VERSION.
- A. Overall Description: Hydraulic Automatic retractable bollard. The product is designed for commercial, industrial and urban restricted areas traffic regulation.
- B. Drive
1. Hydraulic unit
  2. Power supply: 230 VAC, 50/60 Hz
  3. Max Power consumption: 575 W
  4. Protection Class: IP67 (hydraulic unit)
- C. Cylinder
1. Height from ground: 800 mm / 31.5 inches
  2. Diameter: 275 mm / 10.8 inches
  3. Material: Steel S235JR EN 10219 (7 mm / 0.3 inches thick)
  4. Finishing: Anti- corrosive Cataphoresis and polyester powder painted, Dark grey metallized - RAL 7021
  5. Head: aluminium, Grey - RAL 9006
- D. Reflective strip
1. Height: 55 mm / 2.2 inches
  2. Colour: Yellow
- E. Supply cable (not supplied)
1. Numbers: 16+1 conductors
  2. Minimum section: 1,5 mm / 0.06 inches
  3. Maximum cable length: 50 m / 164 feet
- F. Suggested Usage: commercial, industrial and urban restricted areas traffic regulation
- G. Performances
1. Operating Time
    - a. Rising: 7 s
    - b. Lowering: 4,5 s
  2. Resistance Force
    - a. Impact: 38000 J
    - b. Break-in: 128000 J
  3. Ambient Temperature range
    - a. Standard: -15°C + 55°C / 5°F + 131°F
    - b. With Heater: -25°C + 55°C / -13°F + 131°F (optional accessory)
- H. Safety devices:
1. Emergency fast lowering device (in case of power failure)
    - a. Emergency lowering time : 1,5 s
    - b. Possibility to disable
  2. Manual release: with supplied key
  3. Pressure switch

- I. Features
    - 1. Weight
      - a. Total: 195 kg / 430 pounds
      - b. Bollard: 130 kg / 287 pounds
- 2.5 MODEL J275 H800 HA V2 – STAINLESS STEEL SATIN FINISHING VERSION.
- A. Overall Description: Hydraulic Automatic retractable bollard. The product is designed for commercial, industrial and urban restricted areas traffic regulation.
  - B. Drive
    - 1. Hydraulic unit
    - 2. Power supply: 230 VAC, 50/60 Hz
    - 3. Max Power consumption: 575 W
    - 4. Protection Class: IP67 (hydraulic unit)
  - C. Cylinder
    - 1. Height from ground: 800 mm / 31.5 inches
    - 2. Diameter: 275 mm / 10.8 inches
    - 3. Material: AISI 316L (6 mm / 0.2 inches thick)
    - 4. Finishing: Satin finishing,
    - 5. Head: aluminium, Grey - RAL 9006
  - D. Reflective strip
    - 1. Height: 55 mm / 2.2 inches
    - 2. Colour: Yellow
  - E. Supply cable (not supplied)
    - 1. Numbers: 16+1 conductors
    - 2. Minimum section: 1,5 mm / 0.06 inches
    - 3. Maximum cable length: 50 m / 164 feet
  - F. Suggested Usage: commercial, industrial and urban restricted areas traffic regulation
  - G. Performances
    - 1. Operating Time
      - a. Rising: 7 s
      - b. Lowering: 4,5 s
    - 2. Resistance Force
      - a. Impact: 67000 J
      - b. Break-in: 207000 J
    - 3. Ambient Temperature range
      - a. Standard: -15°C + 55°C / 5°F + 131°F
      - b. With Heater: -25°C + 55°C / -13°F + 131°F (optional accessory)
  - H. Safety devices:
    - 1. Emergency fast lowering device (in case of power failure)
      - a. Emergency lowering time : 1,5 s
      - b. Possibility to disable
    - 2. Manual release: with supplied key
    - 3. Pressure switch
  - I. Features
    - 1. Weight
      - a. Total: 195 kg / 430 pounds
      - b. Bollard: 130 kg / 287 pounds

## 2.6 CONTROL UNIT

**\*\* NOTE \*\* Add eventual extra accessories**

- A. Provide the Control Unit: Model JE275 integrated controller with 2 digits display, 8 digital inputs, 4 digital outputs (one equipped with a relay) : 1 unit can control up to 3 J275 HA bollards
  - 1. Integrated Loop Detectors: 2 double channel loop detectors, with high sensibility
  - 2. Digital inputs:
    - a. Input voltage: 24 VDC
    - b. Total accessories max current: 500 mA
  - 3. Digital outputs: 2 open collector
    - a. Max switching voltage 24 VDC
    - b. Max switching current 100 mA
  - 4. Output relay: 1 normally open contact (isolated)
    - a. Max switching voltage: 24 VDC
    - b. Max switching current: 500 mA
  - 5. Maximum 8 pairs of bus photocells connectable
  - 6. Quick plugin connectors: BUS, radio receiver / decoding card
  - 7. Cycles counter
  - 8. Most I/O parameters are adjustable
  - 9. Most performances are adjustable: deceleration, torque, times.
  - 10. 10 pre-set adjustable operating logics
  - 11. Master/Slave configurations option available
  - 12. Display: two digits 7 segment LED 0,762 cm / 0.3 inches red segments.

## 2.7 ACCESSORIES

**\*\* NOTE \*\* Add eventual extra accessories**

- A. Provide the required installation complement listed below:
  - 1. JP275: J275 HA Bollards dedicated Pit
  - 2. Pit extension (for H800 models installation)
- B. Provide the optional accessories listed below:
  - 1. Pit heater: to be added to enlarge the operation temperature range to extreme low temperatures (as above specified).
  - 2. JC275 Pit cover, to protect the excavation before the bollards installation

## PART 3 EXECUTION

### 3.1 EXAMINATION AND PREPARATION

- A. Verify that all site conditions, installation and operating conditions are compliant to the sections and manufacturer's requirements express in the instructions.
- B. Inspect and prepare substrates and surface properly in accordance to the manufacturer's recommendations.
- C. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
- D. Clean surfaces thoroughly prior to installation.



- E. Verify that required drainage and electrical services are in place as required for the installation.
- F. Verify that the product surrounding area is clear from obstacle and flying electric wiring for proper beam motion
- G. It is suggested to provide an adequate protection against accidental impact if product will be exposed to vehicles, when possible

### 3.2 INSTALLATION

- A. Pit
  - 1. Dimensions:
    - a. H600 model: 590 x 560 x 950 mm / 23.2 x 22 x 37.4 inches (wide x deep x tall)
    - b. H800 model: 590 x 560 x 1220 mm / 23.2 x 22 x 48.3 inches (wide x deep x tall)
  - 2. Pit weight:
    - a. H600 model: 55kg / 121 pounds
    - b. H800 model: 65kg / 143 pounds
- B. Foundation
  - 1. Required excavation dimensions:
    - a. H600 model: 1000 x 1000 x 1250 mm / 39.4 x 39.4 x 49.2 inches (wide x deep x tall)
    - b. H800 model: 1000 x 1000 x 1540 mm / 39.4 x 39.4 x 60.6 inches (wide x deep x tall)
- C. Install in accordance with manufacturer's instructions. Test for proper operation and adjust until satisfactory results are obtained.
- D. Clean all metal surfaces promptly after installation.

### 3.3 FINAL ADJUSTMENT

- A. Check safety devices and compliance to safety regulations, otherwise adjust parameters or replace defective parts until satisfactory results are obtained.

### 3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Prevent product from damage.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION