

0245P EDGESMITH AUTOMATION FOR VEHICLE AND PEDESTRIAN GATES, BARRIER ARMS AND ANCILLARIES

Branded worksection

This branded worksection *Template* has been developed by NATSPEC in conjunction with **Edgesmith** (the Product Partner) and may be used whilst the Product Partner is licensed to distribute it. The copyright remains with NATSPEC. As with all NATSPEC worksections, it is the responsibility of the user to make sure it is completed appropriately for the project. The user should also review its applicability for local conditions and regulations. Check www.natspec.com.au for the latest updated version.

Worksection abstract

This branded worksection *Template* is applicable to Edgesmith automation for vehicle and pedestrian gates, barrier arms and ancillaries.

How to use this worksection

Customise this worksection *Template* for each project. See [A guide to NATSPEC worksections \(www.natspec.com.au\)](http://www.natspec.com.au) for information on *Template* structure, word styles and completing a worksection.

Related material located elsewhere in NATSPEC

If a listed worksection is not part of your subscription package and you wish to purchase it, contact NATSPEC.

Related material may be found in other worksections, including:

- 0241 Landscape - walling and edging.
- 0242 Landscape - fences and barriers.
- 09 ELECTRICAL workgroup for electrical requirements.

Documenting this and related work

You may document this and related work as follows:

- Show the location, size and position of gates on the drawings.

The *Normal* style text of this worksection may refer to items as being documented elsewhere in the contract documentation. Make sure they are documented.

Search acumen.architecture.com.au, the Australian Institute of Architects' practice advisory subscription service, for notes on the following:

- Guarantees and warranties.

Specifying ESD

The following may be specified by using included options:

- Roger technology products, which operate at low voltage, maintaining low energy consumption, and have been manufactured through environmentally responsible production processes.

Refer to the NATSPEC TECHreport TR 01 on specifying ESD.

1 GENERAL

Edgesmith Ltd, founded in New Zealand in 2000 and expanded into Australia in 2023, is headquartered in Auckland (NZ) and Melbourne (AU). Specialising in vehicle and pedestrian access control, we supply gate automation solutions for trade professionals, backed by comprehensive technical support. Our mission is to provide energy-efficient brushless motors that operate quickly, quietly, and safely, enhancing the security of both property and individuals.

1.1 RESPONSIBILITIES

General

Requirement: Provide Edgesmith automation for vehicle and pedestrian gates, barrier arms and ancillaries, as documented.

Documented is defined in 0171 General requirements as meaning contained in the contract documents.

1.2 COMPANY CONTACTS

Edgesmith technical contacts

Website: www.edgesmith.com.au/pages/contact-us-esau

1.3 CROSS REFERENCES

General

Requirement: Conform to the following:

- 0171 General requirements.

0171 General requirements contains umbrella requirements for all building and services worksections. List the worksections cross referenced by this worksection. 0171 General requirements references the 018 Common requirements subgroup of worksections. It is not necessary to repeat them here. However, you may also wish to direct the contractor to other worksections where there may be work that is closely associated with this work. NATSPEC uses generic worksection titles, whether or not there are branded equivalents. If you use a branded worksection, change the cross reference here.

1.4 MANUFACTURER'S DOCUMENTS

Technical manuals

Website: www.edgesmith.com.au/pages/resources-au

1.5 TOLERANCES

General

Requirement: To Edgesmith's recommendations.

1.6 SUBMISSIONS

Certification

Completion: On completion, submit installer's certification that the installation conforms to Edgesmith's installation requirements.

Operation and maintenance manuals

Requirement: Submit manuals to **COMPLETION, Operation and maintenance manuals.**

Products and materials

Drawings: Submit Edgesmith's standard drawings and details showing methods of construction, assembly and installation, with dimensions and tolerances.

Type tests: Submit tests results of drivers to **PRODUCTS, GENERAL, Tests.**

Type tests are carried out off-site. However, submission of evidence of a successful type test may be called up here for requirements specified in PRODUCTS.

Evidence of delivery: Submit delivery docket as evidence of delivery of [complete/delete]

If evidence of delivery to site is required for particular products, consider including this *Optional* style text by changing to *Normal* style.

Subcontractors

General: Submit names and contact details of proposed installers.

Delete if installer details are not required.

Warranties

Requirement: Submit warranties to **COMPLETION, Warranties.**

1.7 INSPECTION

Notice

Inspection: Give notice so that inspection may be made of the following:

- Boundary survey location.
- Set-out before construction.
- Completion of installation.

Edit to suit the project, adding critical stage inspections required.

Hold points, if required, should be inserted here.

2 PRODUCTS

2.1 GENERAL

Product substitution

Other products: Conform to **SUBSTITUTIONS** in *0171 General requirements*.

SUBSTITUTIONS in *0171 General requirements* sets out the submissions required if the contractor proposes alternative products. Refer also to NATSPEC TECHnote GEN 006 for more information on proprietary specification.

Storage and handling

General: Deliver, unload and store components and accessories in unbroken manufacturer's packaging. Inspect upon delivery for the required quantity and quality.

Product identification

General: Marked to show the following:

- Manufacturer's identification.
- Product brand name.
- Product type.
- Quantity.
- Product reference code and batch number.
- Date of manufacture.

Edit the list to suit the project or delete if not required.

Tests

0171 General requirements defines different tests in **INTERPRETATION, Definitions**.

Drivers: To AS/NZS 60335.1 (2022) and AS/NZS 60335.2.103 (2024).

AS/NZS 60335.2.103 (2016) will also remain current for 3 years after the date of publication of AS/NZS 60335.2.103 (2024).

2.2 SLIDING GATE OPERATORS

Roger Grande BG30

Description: Electromechanical high speed brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital encoder, built-in digital controller and magnetic limit switch. Suitable for sliding gates with a maximum weight of 1500 kg and maximum length of 20 m.

Finish: Aluminium housing reinforced with titanium. Epoxy paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening speed: 25 m/min (0.42 m/s).

IP rating: IP44.

Controller: B70/1DCHP.

Roger Medio BH30

Description: Electromechanical high speed brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital encoder, built-in digital controller and magnetic limit switch. Suitable for sliding gates with a maximum weight of 600 kg and maximum length of 12 m.

Finish: Aluminium housing reinforced with titanium. Epoxy paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 24 V a.c.

Opening speed: 26 m/min (0.43 m/s).

IP rating: IP43.

Controller: B70/IDC.

Roger Bambino BM30

Description: Electromechanical high speed brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital encoder, built-in digital controller and magnetic limit switch. Suitable for sliding gates with a maximum weight of 400 kg and maximum length of 12 m.

Finish: Aluminium housing reinforced with titanium. Epoxy paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 24 V a.c.

Opening speed: 26 m/min (0.43 m/s).

IP rating: IP43.

Controller: B70/1DC.

Roger Tower TW90

Description: Compact, electromechanical high speed brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital encoder and built-in digital controller. Suitable for sliding gates with a maximum weight of 600 kg and maximum length of 20 m.

Housing: Column with minimum 135 mm x 140 mm internal dimensions.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 24 V a.c.

Opening speed: 25 m/min (0.42 m/s).

IP rating: IP44.

Controller: B70/1T.

Roger Tower TW110

Description: Compact, electromechanical high speed brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital encoder and built-in digital controller. Suitable for sliding gates with a maximum weight of 1600 kg and maximum length of 20 m.

Housing: Column with minimum 187 mm x 220 mm internal dimensions.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening speed: 21 m/min (0.35 m/s).

IP rating: IP44.

Controller: B70/1THP.

2.3 SWING GATE OPERATORS

RogerSmarty4/HS

Description: Electromechanical high speed brushless motor, which operates at low voltage with a 100% duty cycle, with a digital controller and mechanical stopper in opening and closing. Suitable for swing gates with a maximum weight of 400 kg and maximum length of 4 m per leaf.

Finish: Aluminium housing reinforced with titanium. Epoxy paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening time at 90°: 15 to 25 seconds.

IP rating: IP44.

Controller: EDGE1/BOX.

RogerSmarty7

Description: Electromechanical high speed brushless motor, which operates at low voltage with a 100% duty cycle, with a digital controller and mechanical stopper in opening and closing. Suitable for swing gates with a maximum weight of 700 kg and maximum length of 7 m per leaf.

Finish: Aluminium housing reinforced with titanium. Epoxy paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening time at 90°: 35 to 50 seconds.

IP rating: IP44.

Controller: EDGE1/BOX.

Roger Presto BE20/200/HS

Description: Electromechanical high speed brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital controller and mechanical stopper in opening and closing. Suitable for swing gates with a maximum weight of 200 kg and maximum length of 2.5 m per leaf.

Finish: Aluminium housing reinforced with titanium. Epoxy paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening time at 90°: 10 to 15 seconds.

IP rating: IP43.

Controller: EDGE1/BOX.

Roger Presto BE20/400

Description: Electromechanical high speed brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital controller and mechanical stopper in opening and closing. Suitable for swing gates with a maximum weight of 400 kg and maximum length of 4 m per leaf.

Finish: Aluminium housing reinforced with titanium. Epoxy paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening time at 90°: 17 to 26 seconds.

IP rating: IP43.

Controller: EDGE1/BOX.

Roger Fantasma BR21

Description: Electromechanical underground brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital encoder and mechanical stopper in opening and closing.

Suitable for swing gates with a maximum weight of 800 kg and maximum length of 4.5 m per leaf.

Finish: Aluminium housing reinforced with titanium. Epoxy paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening time at 90°: 19 to 29 seconds.

IP rating: IP67.

Controller: EDGE1/BOX.

Roger Ayron AY-250

Description: Electromechanical high speed brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital encoder and mechanical stopper in opening and closing.

Suitable for swing gates with a maximum weight of 250 kg and maximum length of 2.5 m per leaf.

Finish: Aluminium housing reinforced with titanium. Epoxy paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 24 V a.c.

Opening time at 90°: 10 to 18 seconds.

IP rating: IP43.

Controller: B70/2ML.

2.4 BARRIER ARM OPERATORS

Roger Bionik 4

Description: Compact brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital encoder. Suitable for boom gates with a maximum length of 4 m.

Finish: Aluminium barrier arm and carbon steel barrier operator assembly. Paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening time at 90°:

- Boom gates with barrier arms up to 3 m length: 1.5 to 6 seconds.
- Boom gates with barrier arms up to 4 m length: 3 to 6 seconds.

IP rating: IP54.

Controller: CTRL.

Roger Bionik 6

Description: Compact brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital encoder. Suitable for boom gates with a maximum length of 6 m.

Finish: Aluminium barrier arm and carbon steel barrier operator assembly. Paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening time at 90°: 4 to 8 seconds.

IP rating: IP54.

Controller: CTRL.

Roger Bionik 8

Description: Compact brushless motor, which operates at low voltage with a 100% duty cycle, with a built-in digital encoder. Suitable for boom gates with a maximum length of 8 m.

Finish: Aluminium barrier arm and carbon steel barrier operator assembly. Paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening time at 90°: 9 to 29 seconds.

IP rating: IP54.

Controller: CTRL.

2.5 PEDESTRIAN GATE OPERATORS

Locinox Venus-S

Description: Compact, reversible motor, with integrated power supply and electronics, and sliding arm. Suitable for pedestrian swing gates with a maximum weight of 100 kg per leaf and maximum length of 1.4 m per leaf.

Finish: Steel gearbox with aluminium cover.

Power line supply: 230 V a.c.

Motor power supply: 24 V d.c.

Opening time at 90°: 4 seconds.

IP rating: IP54.

Controller: Built-in.

Locinox products meet gate standards in Europe and the United States for safety and accessibility.

Locinox Venus-A

Description: Compact, reversible motor, with integrated power supply and electronics, and articulated arm. Suitable for pedestrian swing gates with a maximum weight of 100 kg per leaf and maximum length of 1.4 m per leaf.

Finish: Steel gearbox with aluminium cover.

Power line supply: 230 V a.c.

Motor power supply: 24 V d.c.

Opening time at 90°: 4 seconds.

IP rating: IP54.

Controller: Built-in.

Locinox products meet gate standards in Europe and the United States for safety and accessibility.

Roger Sled

Description: Reversible, electromechanical brushless motor, which operates at low voltage with a 100% duty cycle, with built-in power inverter and digital encoder. Suitable for pedestrian swing gates with a maximum weight of 150 kg per leaf and maximum length of 1.8 m per leaf.

Finish: Aluminium housing reinforced with titanium. Epoxy paint finish.

Power line supply: 230 V a.c. at 50 Hz.

Motor power supply: 36 V a.c.

Opening time at 90°: 6 to 30 seconds.

IP rating: IP44.

Controller: F70/IPU36.

2.6 ANCILLARIES

General

Requirement: Ancillary items to complete the installation, including hardware, keypads, remote control devices and control boxes.

Contact Edgesmith for recommendations on gate hardware and safety requirements for automated gates.

Hinges: Hinges with smooth operation and adjustment for future sagging.

3 EXECUTION

3.1 PREPARATION

General

Requirement: Make sure the gate, wall or surface that the operator will be installed on is level. Adjust if required.

Electrical: Before installation, cut off the mains power supply.

Underground motor: Excavate the foundation pit to the required level. Install drainage piping and electrical conduits.

Applies to the Roger Fantasma BR21 operator.

3.2 INSTALLATION

General

Requirement: Install to Edgesmith's recommendations.

Electrical: Make sure electrical works, including connections, are performed by a qualified electrician.

Swing gates: Mount control boxes on the adjacent external wall on the same side as the keypad.

Control boxes are required for the Roger Smarty4/HS, Roger Smarty7, Roger Presto BE20/200/HS, Roger Presto BE20/400, Roger Fantasma BR21 and Roger Sled operators.

Underground motor: After the motor has been installed, embed the housing in concrete. Make sure the surface of the housing is 5 mm to 6 mm above ground level.

Applies to the Roger Fantasma BR21 operator.

3.3 COMMISSIONING

For information on the commissioning process refer to NATSPEC TECHnote GEN 020.

General

Requirement: Commission to Edgesmith's recommendations.

3.4 COMPLETION

Operation

General: Make sure moving parts operate freely and smoothly, without binding or sticking, at correct tensions or operating forces and that they are lubricated if appropriate.

Safety: Make sure all safety features are operating.

Remote control devices: Make sure devices are programmed and operating.

Operation and maintenance manuals

Requirement: Prepare a manual including the following:

- Edgesmith's published use, care and maintenance requirements.
- Operating instructions, including instructions for automatic, manual and emergency operation.

Warranties

Refer to 0171 General requirements for appropriate warranty type and the terms covered in the warranty.

Type: Manufacturer's warranty.

Period: As follows:

- Roger technology products: 2 years.
- Locinox products: 3 years.

Refer to Edgesmith's website for product warranty conditions.

4 SELECTIONS

Schedules are a tool to specify properties required for products or systems. If the principal permits documentation of the product or system by proprietary name, some of the properties may be unnecessary and can be deleted. Document the product or system's location or application here and/or on the drawings with a matching project code. Refer to NATSPEC TECHnote GEN 024 for guidance on using and editing schedules.

4.1 PRODUCTS

Operator schedule

	A	B	C
Type			
Product			
Gate weight (kg)			
Gate length (mm)			
Options			

The codes in the header row of the schedule designate each application or location of the item scheduled. Edit the codes to match those in other contract documents.

Type and Product: Select from the following:

- Sliding gate operator: Roger Grande BG30, Roger Medio BH30, Roger Bambino BM30, Roger Tower TW90 or Roger TW110.
- Swing gate operator: Roger Smarty4/HS, Roger Smarty7, Roger Presto BE20/200/HS, Roger Presto BE20/400, Roger Fantasma BR21 or Roger Ayrone EY-250.
- Barrier arm operator: Roger Bionik 4, Roger Bionik 6 or Roger Bionik 8.
- Pedestrian gate operator: Roger Sled, Locinox Venus-S or Locinox Venus-A.

Gate weight (kg): Nominate the weight. If the operator is for double swing doors, nominate the weight per leaf.

Gate length (mm): Nominate the length. If the operator is for double swing doors, nominate the length per leaf.

Options: e.g. Magnetic limit switch, fail open setting or external battery. Consult manufacturer's data for available options for the nominated product.

REFERENCED DOCUMENTS

The following documents are incorporated into this worksection by reference:

AS/NZS 60335		Household and similar electrical appliances - Safety
AS/NZS 60335.1	2022	General requirements (IEC 60335-1 Ed 6, MOD)
AS/NZS 60335.2.103	2024	Particular requirements for drives for gates, doors and windows

The following documents are mentioned only in the **Guidance text**:

AS/NZS 60335		Household and similar electrical appliances - Safety
AS/NZS 60335.2.103	2016	Particular requirements for drives for gates, doors and windows
NATSPEC GEN 006		Product specifying and substitution
NATSPEC GEN 020		Building commissioning
NATSPEC GEN 024		Using NATSPEC selections schedules
NATSPEC TR 01		Specifying ESD