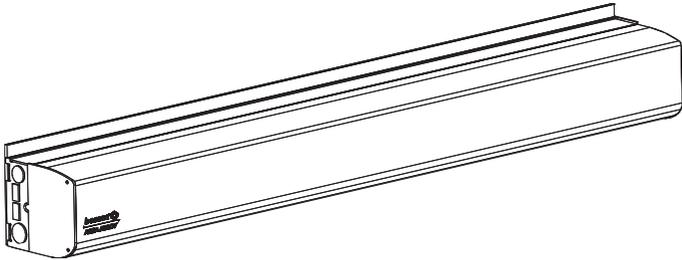


Besam Swing Door Operator SW200i

Owners Manual

Original instructions



CONTENTS

Congratulations on your new automatic door!	3
Electronic equipment reception interference	3
Environmental requirements	4
Product liability	4
Warranty	4
Service	5
Intended use	5
How the SW200i works	6
Technical specification	6
Regular safety checks	7
General accessories	11
Safety accessories	11
Troubleshooting	11
Maintenance plan	12
Other products from Besam	12

© All rights in and to this material are the sole property of Besam US Inc.. Copying, scanning, alterations or modifications are expressly forbidden without the prior written consent of the applicable company within Besam US Inc.. Rights reserved for changes without prior notice.

Backtrack information: folder: Library, version: a349, date: 2012-03-19, time: 14:47:29, state: Working

Congratulations on your new automatic door!

Besam has developed automatic doors for more than 40 years. State-of-the-art technology and carefully tested materials and components provide you with a superior product.

As with all other technical products, your automatic door requires periodic maintenance and service. It is essential that you know your automatic door (system) and that you recognize the importance of maintaining it in compliance with applicable standards for safety.

Your local Besam-authorized representative is familiar with these standards, as well as all applicable local codes and Besam recommendations for power-operated pedestrian doors. Service and adjustments performed by your Besam-authorized representative, will ensure safe and proper operation of your automatic door unit.

WARNING!



Failure to observe the information in this manual may result in personal injury or damage to equipment.

To reduce the risk of injury to persons - use this operator with single or double pedestrian swinging or folding doors only.
Save these instructions for future reference.

Electronic equipment reception interference

The equipment complies with the European EMC directive (US market FCC Part 15), provided installed according to Installation and Service manual.

The equipment may generate and use radio frequency energy and if not installed and used properly, it may cause interference to radio, television reception or other radio frequency type systems.

If other equipment does not fully comply with immunity requirements interference may occur. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna.
- Relocate the receiver with respect to the equipment.
- Move the receiver away from the equipment.
- Plug the receiver into a different outlet so that equipment and receiver are on different branch circuits.
- Check that protective earth (PE) is connected.

If necessary, the user should consult the dealer or an experienced electronic technician for additional suggestions.

Environmental requirements

Please act according to your local regulations and dispose of your unused product(s) and packaging properly. The correct disposal will help prevent potential negative consequences for the environment and human health.

Besam products are equipped with electronics and may also be equipped with batteries containing materials which are hazardous to the environment. Remove this material from the operator before it is scrapped and make sure that it is disposed of properly as was done with the packaging.

This manual contains the necessary details and instructions for the installation, maintenance and service of the Swing Door Operator Besam SW200i.

Product liability

According to regulations, the following are the responsibility of the owner or caretaker of the equipment

- that the equipment operates correctly, so that it gives sufficient protection in regard to safety and health
- that the equipment is operated and regularly maintained, inspected and serviced by someone with documented competence in the equipment and in applicable regulations
- that a journal is kept of inspection, maintenance and service records including the provider
- that inspection covers the emergency opening function (when applicable)
- that the closing force is appropriate for the door size on fire-approved door systems (when applicable)

Warranty

Besam warrants its products to be free from defects in material and workmanship under intended use and service for a warranty time of 12 months, beginning at time of delivery. This warranty extends only to the original buyer of the equipment.

Besam warrants that the software will operate substantially in accordance with its functional descriptions and that it has been recorded on non-defective media.

The Besam warranty does not apply to

- That the software will be error-free or operate without interruption
- General wear and tear on the system
- Fuse, disposable batteries and glass damage
- System deviations caused by installer other than Besam
- System that has been altered or damaged by vandalism or misuse
- System that has been additionally equipped with non-Besam original branded parts and/or spare parts
- Unrequired visits due to poor client communication (door working when our technician arrives, reset, power discontinuation)
- Adjustments (closing and opening speed and also detection field radars) due to customer requests (excludes operational adjustments thought to create a hazard)
- Water damage
- Adverse weather conditions

- Any damage caused, directly or indirectly, by a circumstance beyond the control of the applicable company within Besam US Inc., such as industrial dispute, fire, natural disaster, war, extensive military mobilization, insurrection, requisition, seizure, embargo, restrictions in the use of power and defects or delays in deliveries by sub-contractors caused by any such circumstances

Please note:

- Non-compliance with manufacturers care and maintenance recommendations may void the warranty.
- Besam -authorized resellers shall extend this warranty to end-users only, but have no authority to extend a greater or different warranty on behalf of Besam.
- A service agreement with Besam will help secure the availability of a fully operational system and will give priority at call-out, thus minimizing the time that the equipment is unusable.

Service

Regular inspections by a trained and qualified person, and the frequency of service occasions, should at minimum be made according to national regulations or industry standard, in the absence of a national regulation. Environmental aspects shall also be considered. This is especially important when the installation concerns a fire-approved door or a door with an emergency-opening function. To extend the life of your investment and ensure safe and reliable operation of the door, we recommend a minimum of 2 visits per year or more, depending on usage and operating conditions. Talk to your Besam representative for the best solution for your installation and to learn more about Besam Pro-Active Care! For contact information, see last page of this manual.



Intended use

The door is designed to offer continuous use, a high degree of safety and maximum lifetime. The Besam SW200i is an automatic swing door operator developed to facilitate entrances to buildings and within buildings.

The SW200i is a combination of a Heavy Duty (HD) operator for large heavy doors as well as an low energy electromechanical operator (LE), mainly suitable for almost all types of internal swing doors - but also external doors. This operator will be mainly used in the health care sector.

The operator itself is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the operator by a person responsible for their safety.

This does not however prevent those persons to use the door where the operator is installed. Do not let children play with the door or the fixed controls.

Keep remote controls away from children.

For installation and maintenance see Installation and Service manual 1007718.

How the SW200i works

The swing door operator SW200i uses a DC motor which is connected to the output shaft by a combination of a bevel gear and spur gears. The arm system that is connected to the output shaft opens the door in a wall mounted application.

There is also an adjustable spring mechanism connected to the output shaft. During opening of the door, the clock spring is tensioned by the rotation of the output shaft. During the closing cycle, the accumulated spring force is acting in the closing direction. The spring force can be adjusted so there is appropriate force to close the door when it is operated manually or in case of a power failure.

To activate the operator you can use a manual activator (elbow switch) or an automatic activator (radar device). It is also possible – where local standards allow – to activate the operator by just pushing the door, if Push & Go is selected.

After the door has been activated it will open and stay open for a specified Hold Open Time (HOT). When the HOT has elapsed the door will close.

The SW200i can be set in three or four different modes, depending on programme selector type, see table below.

In fully manual use (or in case of a power failure) the SW200i acts as a normal door closer.

Position	Function
 OFF	The door is closed. The door cannot be opened with inner and outer activation units. The door is locked if an electromechanical locking device has been fitted. The door can be opened with a key switch (if fitted).
 EXIT	Passage from inside only. The door is normally locked if an electromechanical locking device has been fitted. The door can only be opened with the inner activation unit and with a key switch (if fitted).
 AUTO Normal position	The door can be opened with the inner and outer manual and/or automatic activators. The electric strike, if fitted, is open.
 OPEN	The door is held permanently open by the motor.

Technical specification

Manufacturer:	Besam US Inc.
Address:	1900 Airport Road, US-Monroe, NC 28110
Type:	SW200i
Mains power supply:	120 V AC +10/-15%, 50/60 Hz
Power consumption:	Max. 300 W
Standards:	The SW200i complies with ANSI/BHMA.

Regular safety checks

To help you fulfil the national/international requirements and to avoid malfunction and risk for injuries, we have provided the following checklist.



Do not use if repair or adjustment is necessary.

Daily Action		If problem occurs	
Activate your operator and check <i>visually</i> , fastening of <ul style="list-style-type: none"> • operator ① • arm system ② • position switch ③ • hinges ④ • door and glass ⑤ 			
Also inspect your operator and check <i>visually</i> for <ul style="list-style-type: none"> • sharp edges on the door leaf and door frame (if any) ⑥ • condition of door seals ⑦ • finger protection ⑧ • and finally that the complete door runs properly and closes slowly in a smooth way 		 	
Set the programme selector in OFF mode and check that the operator and lock work together. Also check that the lock really secures the door ⑨.			
Activate the manual activation units ⑩ if any, and walk towards the door. Check that the door has opened sufficiently while you pass the entrance/exit. Then proceed with the automatic activation units ⑪ in the same way.			
Check the non-monitored safety sensors ⑫ if any, by standing in the swing path and activate the operator. The door must not hit you when opening nor when closing. If you are unsure of which type of sensor you have, please contact your Besam representative.			
Escape doors	By law, these tests must be performed regularly by trained personnel.	Set the programme selector in AUTO mode. Push the door manually in escape direction and make sure that no object or function will prevent the door from opening. Also make sure the escape route is free for use.	
Fire doors		Let the door close after an impulse and make sure that no object will prevent the door from closing and locking (if demanded).	

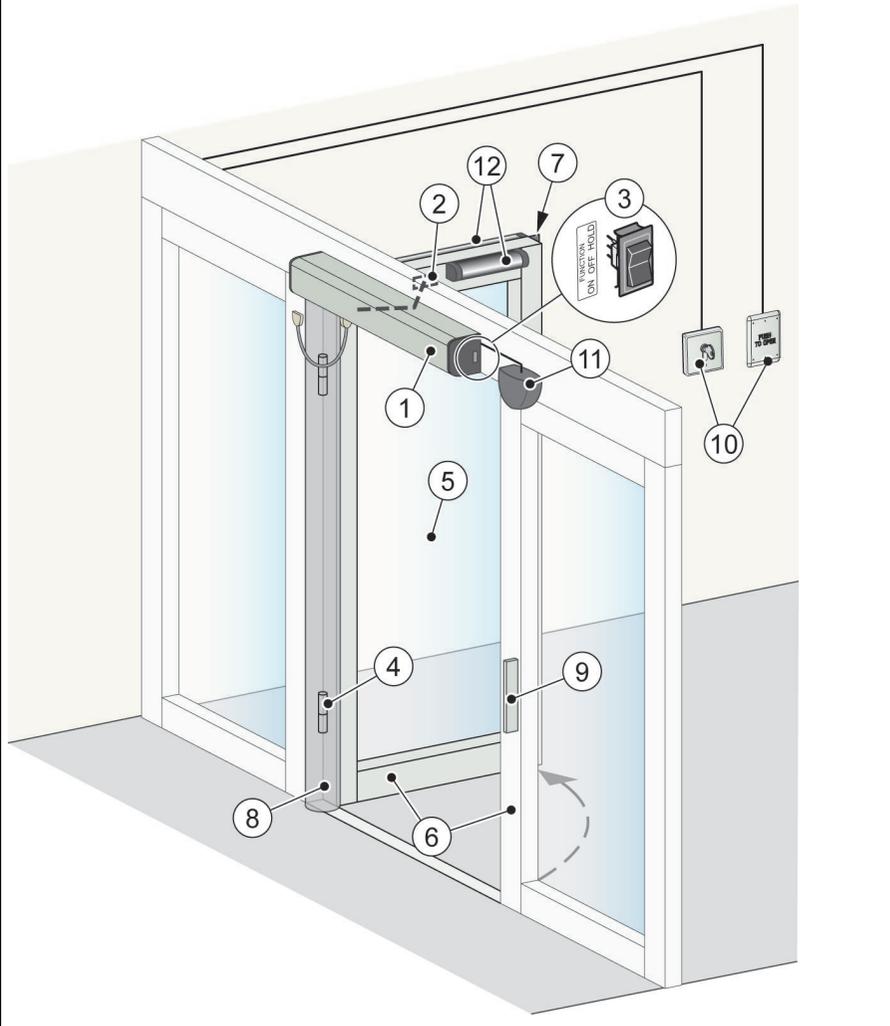


= Contact your Besam representative. For contact information, see last page.



= Take appropriate measures.

FUNCTION AND VISUAL INSPECTION

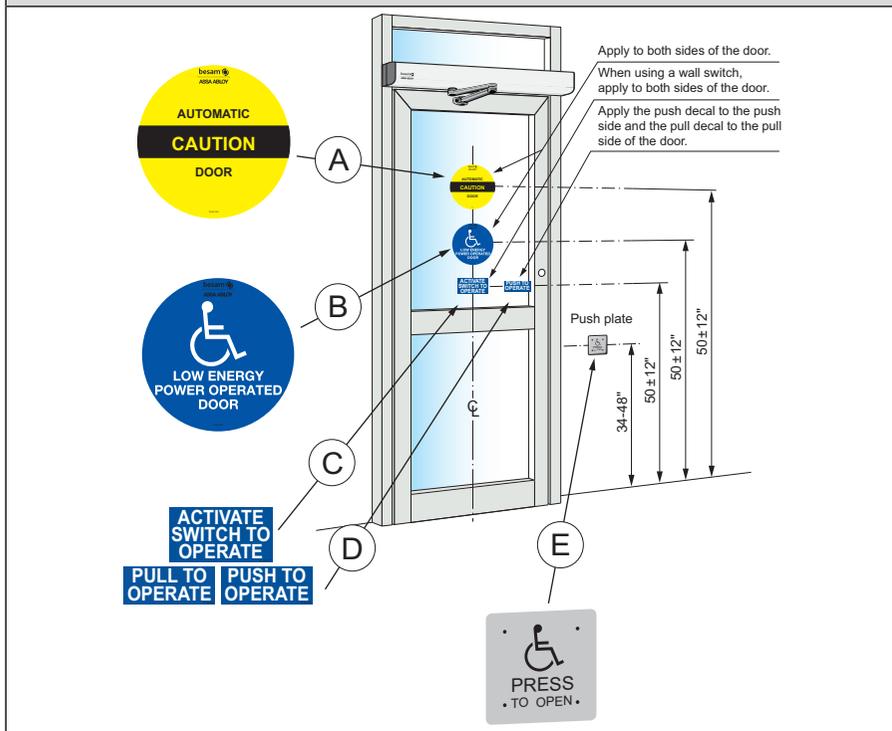


CLEANING

The best way to remove dust and dirt from the SW200i is to use water and a soft cloth or a sponge. A gentle detergent may be used. To maintain the quality of the enamel layer, the surfaces should be cleaned once/four months period. The cleaning should be documented. To avoid damages to the profiles the brushes/weather stripping must be vacuum-cleaned weekly.

- Do not expose windows, doors or profiles to alkalis. Both aluminium and glass are sensitive to alkalis.
- Do not clean with high pressure water. Operator, programme selector and sensor may be damaged and water may enter the profiles.
- Do not use polishing detergent.
- Do not scrub with materials like Scotch-brite, as this will cause mechanical damage.

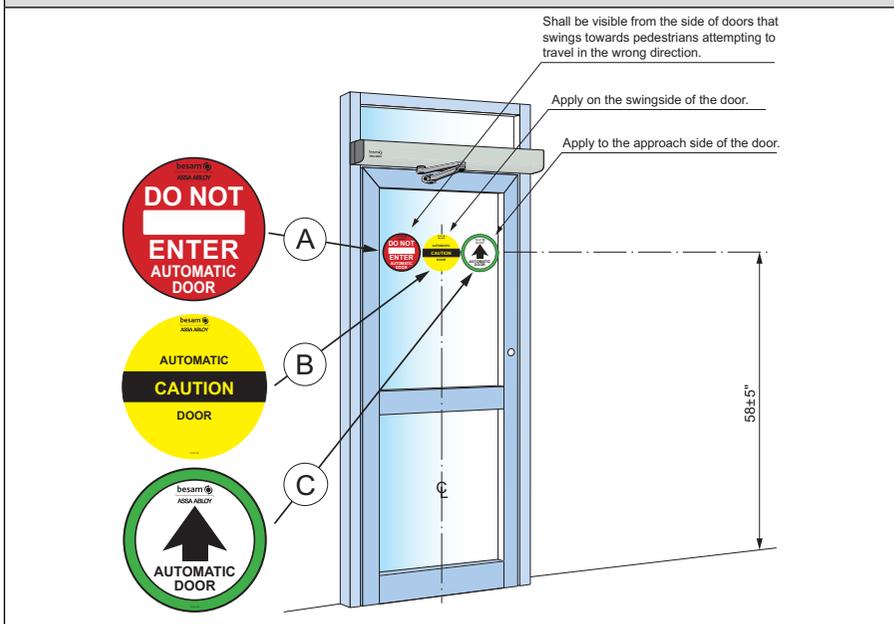
SIGNAGE according to ANSI /BHMA A 156.19 (Low energy)



Action		If problem occurs
Check that all required signage is applied and intact. Mandatory indicates that the signage is required by European directives and equivalent national legislation outside the European Union.		
(A)	Dual Side "AUTOMATIC DOOR / CAUTION"	
(B)	Operator designed for disabled people: Recommended, if applicable (applied to both sides of the door)	
(C)	Dual Side "Activate Switch to Operate"	
(D)	Push side "PUSH TO ACTIVATE" Pull side "PULL TO ACTIVATE"	
(E)	Activation by disabled people: Recommended, if applicable	

= Contact your Besam service representative. For contact information, see last page.

SIGNAGE according to ANSI / BHMA A 156.10



	Action	If problem occurs
	Check that all required signage is applied and intact. Mandatory indicates that the signage is required by European directives and equivalent national legislation outside the European Union.	
(A)	Back Side "AUTOMATIC DOOR / DO NOT ENTER" No entry, identifying one-way traffic: Mandatory, if applicable. Used in combination with label (C).	
(B)	Dual Side "AUTOMATIC DOOR / CAUTION"	
(C)	Front Side "AUTOMATIC DOOR" – In Used in combination with label (A).	

 = Contact your Besam service representative. For contact information, see last page.

General accessories

Your SW200i can be further improved with the following add-ons (please contact your local Besam company for detailed description).

- Position switch ③, see page 8
- Electrical lock ⑨, see page 8
- Key switch ⑩, see page 8
- Elbow switch ⑩, see page 8
- Radar ⑪, see page 8
- Wireless transmitters (not illustrated)
- Access control (not illustrated)
- Door stop (not illustrated)

Safety accessories

Even though the SW200i is installed to comply with all applicable safety regulations, it is possible to enhance safety/comfort with the following add-ons (please contact your local Besam company for detailed description).

- Safety sensors ⑫, see page 8
- Finger protection ⑧, see page 8

Troubleshooting

What's wrong?	Remedies
The door does not open	
The motor does not start	Change the setting of the program selector (see page 6).
	Check that there are no objects in the detection zone if a sensor is fitted.
	Check the mains switch and fuse in the building.
The motor starts but door(s) will not open	Unlock the mechanical locks.
	Check that nothing is jammed beneath the door.
The door does not close	Change the setting of the program selector (see page 6).
	Check that there are no objects in the detection zone if a safety sensor is fitted.
	Check that nothing is jammed beneath the door.
The door opens and closes continuously	Check that there are no moving objects within 39"-59" (1-1.5 m) from the door if an automatic activation unit is fitted.
If the problem continues, please contact your Besam representative.	

Maintenance plan

As mentioned earlier in this manual, service and adjustments performed by your Besam-authorized representative will ensure safe and proper operation of your automatic door unit. The table below shows the recommended interval in months, when to replace parts during preventive maintenance. Talk to your Besam representative to learn more about Besam Pro-Active Care!

Part	Part number	Cycles/hour in operation			Abusive Environment
		<10	<100	>100	
		Low traffic	Medium traffic	High traffic	
PUSH arm service kit	330000271 SI/BK	24	12	6	6
PULL arm service kit	330000272 SI/BK	24	12	6	6
Stop arm kit	330000276	24	12	6	6
Micro switch kit	330000275	24	12	6	6
Adaptor kit	330000270	24	12	6	6
Transmission unit	331007291	60	60	60	60
Connection box kit	331007504	60	60	60	60
CU-200 control unit	331007752	60	60	60	60
EXU-SA	331003557	60	60	60	60
EXU-SI	331003554	60	60	60	60

Other products from Besam

- Door Systems
- Balanced doors
- Air curtains
- Rollershutters
- Revolving doors
- Sliding doors
- Swing doors
- Automatic and manual activation units
- Service such as preventive maintenance and upgrade programs, emergency repairs, service advice and door management

Australia:

Besam Australia Pty Ltd.,
235 Huntingdale Road,
Oakleigh Victoria,
Australia 3166
Tel: +61 1300 13 13 10
Fax: +61 3 8574 3865
admin@besamaustralia.com

Austria:

Besam Austria GmbH,
Hütteldorferstraße 216c,
1140 Wien
Tel: +43 1 914 55 37 0
Fax: +43 1 914 92 98
vertrieb@besam.at

Belgium:

Besam Belgium NV,
Centrum-Zuid 3042,
3530 Houthalen
Tel: +32 11 609 500
Fax: +32 11 604 680
info@besam.be

Canada:

Besam Canada, Inc.,
4090 Ridgeway Dr. Unit #16,
Mississauga, Ontario
L5L 5X5 Canada
Tel: 905 608 9242
Fax: 905 608 1151
general@besam.ca

China:

Besam Automatic Door Systems Trading
(Shanghai) Co. Ltd.,
Suite 1903,
Modern Communication
Commercial Tower
218, Hengfeng Road,
Shanghai, PRC 200070
Tel: +86 21 5128 8909
Fax: +86 21 5128 8919
info@besam.com.cn

Czech Republic:

Besam spol. s r.o.,
Košarova 23,
197 00 Praha - Kbely
Tel: +420 2 8600 1560
Fax: +420 286 001 570
besam@besam.cz

Denmark:

Besam A/S,
Marielundvej 20,
2730 Herlev
Tel: 44 53 70 80
Fax: 44 53 20 22
besam@besam.dk

Finland:

Besam OY,
Agronominraitti 2,
00790 Helsinki
Tel: +358 9 7288 5400
Fax: +358 9 799 292
besam@besam.fi

France:

Besam S.A.S.,
10 Rond Point du Général de Gaulle,
94864 Bonneuil s/Marne Cedex
Tel: +33 1 43 77 55 66
Fax: +33 1 43 39 56 00
besam@besam.fr

Germany:

Besam GmbH,
Lagerstraße 45,
64807 Dieburg
Tel: +49 6071 2080
Tel: +49 6071 208 111
info@besam.de

Hungary:

Besam Kft.,
Nagytényi út 112,
1222 Budapest
Tel: +36 1 424 7274
Fax: +36 1 226 1949
besam@besam.hu

Italy:

Besam S.p.A.,
Via Monzoro 142,
20010 S
Pietro all'Olmo (MI)
Tel: +39 02 936 11 311
Fax: +39 02 936 21 16
besamsales@besam.it

Netherlands:

Besam Nederland BV,
Postbus 8155
6710 AD Ede
Tel: +31 318 69 89 69
Fax: +31 318 63 83 46
info@besam.nl

New Zealand:

Doorman Besam Ltd.,
10 Haultain St.,
PD Box 15 784 New Lynn,
Auckland 1232
Tel: +64 (0)9 815 8392
Fax: +64 (0)9 815 8391
admin@doormanbesam.co.nz

Northern Ireland:

Tel: +44 (0) 28 71 26 80 11
Fax: +44 (0) 28 71 27 11 15
info@besam.co.uk

Norway:

Besam Norge AS, Broekkveien 80
Postboks 25 Tveita,
0617 Oslo, Norway
Tel: +47 69 24 53 00
Fax: +47 69 24 53 50
info@besam.no

Poland:

Besam Polska Sp. z o.o.,
ul. J. Olbrachta 94
PL-01-102 Warszawa
Tel: +48 22 331 86 80
Fax: +48 22 331 86 81
biuro@besam.com.pl

Portugal:

Besam Portugal,
Av. Marechal Gomes da Costa,
Fracção AD, 1º Piso, Cabo Ruivo
1800-255 Lisboa
Tel: +351 212 969 290
Fax: +351 212 974 132
apoiocliente@besam.com

Republic of Ireland:

Besam Ltd,
unit 39, Navan Enterprise Centre,
Trim Road
Navan, Co. Meath
Tel: +353 46 76747
Fax: +353 46 76745
info@besam.co.uk

Russia:

Besam Export AB (Russian office)
Box 120, Ovchinnikovskaya nab. 22/24, building 1
Moscow 115035 Russia
Tel: +7 495 542 97 25
Fax: +7 495 542 97 25
info@besam.ru

Singapore:

Besam (Mfg) Pte Ltd.,
No 33 Ubi Ave. 3 #03-52 Vertex
Singapore 408868
Tel: +65 6745 6228
Fax: +65 6745 7322
info@besam.com.sg

Slovak Republic:

Besam, spol. s r.o.,
Kapitulská 15,
811 01 Bratislava
Tel: +421 254 431 045
Fax: +421 254 431 247
besam@besam.sk

Spain:

Besam Ibérica S.A.,
Sepúlveda, 7A
28108 Alcobendas (Madrid)
Tel: +34 91 657 48 60
Fax: +34 91 661 43 80
informacion@besam.es

Sweden:

Besam Sverige AB,
Box 353
261 23 Landskrona, Sweden
Tel: +46 418 510 00
Fax: +46 418 140 60
swsales@besam.se
Besam Export AB
Box 669,
261 25 Landskrona
Tel: +46 418 514 00
Fax: +46 418 513 55
export@besam.se

United Kingdom:

Besam Ltd.,
Washington House,
Brooklands Close,
Sunbury on Thames,
Middlesex TW16 7EQ
Tel: +44 1932 765 888
Fax: +44 1932 765 864
info@besam.co.uk

US:

Besam US Inc.,
1900 Airport Road,
Monroe, NC 28110
Tel: +1 704 290 5520
Fax: +1 704 290 5555
marketing@besam-usa.com

Besam US Inc., 1900 Airport Road, US-Monroe, NC 28110
Tel: (704) 290 5520 • Fax: (704) 290 5544
Tel: (877) 237 2687 (service) • Tel: (866) 237 2687 (sale)
marketing@besam-usa.com • www.besam.com