

DECLARATION OF INCORPORATION OF PARTLY COMPLETED MACHINERY

According to EC machinery directive 2006/42/EC, Annex II, Part 1, sector B for a partly completed machine

Manufacturer:

SEIKO EPSON CORPORATION
3-5, Owa 3-chome, Suwa-shi
Nagano-ken 392-8502
Japan

Entity placing on the market:

EPSON Deutschland GmbH,
Mr. Volker Spanier
Otto-Hahn-Straße 4
40670 Meerbusch
Germany

Attorney to compile the relevant technical documentation:

EPSON FRANCE S.A.
Mr. Joaquin Castano
Parc Technologique, 60 Rue Auguste Perret
94043 Créteil Cedex
France

The manufacturer undertakes to electronically supply the relevant technical documentation, referred to in Annex VII part B for the partly completed machinery, to national authorities upon reasoned request.

This partly completed machine must not be put into service until the machinery into which it is to be incorporated, has been declared in conformity with the provisions of the Machinery Directive.

The manufacturer/assignee confirms hereby that following product(s):

Product Name:	Model:
Industrial Robot	G series robots (Serial number 00501 -) With RC180 controller (Serial number 00501 -)

fulfil(s) the basic requirements of the Machinery Directive 2006/42/EC as listed in the attachment to this declaration of incorporation

Furthermore this partly completed machinery fulfils all relevant provisions of the directive:

- Electromagnetic Compatibility (EMC) 2004/108/EC

Following harmonised norms and specifications are applied:

EN 55011	2009	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement
EN 61000-6-2	2005	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
EN ISO 12100	2010	Safety of machinery – General principles for design – Risk assessment and risk reduction (ISO 12100:2010)
EN ISO 10218-1	2011	Robots and robotic devices – Safety requirements for industrial robots – Part 1: Robots (ISO 10218-1:2011)
EN ISO 13849-1	2008	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design

EN ISO 13850	2008	Safety of machinery - Emergency stop - Principles for design
EN 60204-1	2006 /A1:2009	Safety of machinery - Electrical equipment of machines - Part 1: General requirements

Nagano-ken, 28.02.2014

(Place, Date)

Mutsuaki Yamazaki
CS Quality Assurance Department
General Manager

(Signatory's surname, first name and position)



(Signature)

Annex to declaration of incorporation of partly completed machinery

for following product(s):

Product Name:

Model:

Industrial Robot

G series robots (Serial number 00501 -)

With RC180 controller (Serial number 00501 -)

The following basic requirements of the **Machinery Directive 2006/42/EC** are applied and will be adhered. Appropriate items to be marked "X".

Machinery Directive linie 2006/42/EG, Annex I - Essential health and safety requirements relating to the design and construction of machinery	Applicable and adhered C :Conform NC:Not conform NA:Not applicable
1. Essential health and safety requirements	-
1.1. General	-
1.1.1. Definitions	-
1.1.2. Principles of safety integration	C
1.1.3. Materials and products used	C
1.1.4. Integral lighting	NA
1.1.5. Handling of machinery and parts of machinery	C
1.1.6. Ergonomic principles	C
1.1.7. Operating positions in hazardous environments	NA
1.1.8. Seating and the provision of seats	NA
1.2. Control systems	-
1.2.1. Safety and reliability of control systems	C
1.2.2. Control devices	C
1.2.3. Control of starting	C
1.2.4. Stop control devices	-
1.2.4.1. Normal stop control devices	C
1.2.4.2. Operational stop	C
1.2.4.3. Emergency stop devices	C
1.2.4.4. Stop controls for assemblies of machinery	C
1.2.5. Mode Selection	C
1.2.6. Failure of the power supply	C
1.3. Protection against mechanical hazards	-
1.3.1. Stability	C
1.3.2. Break-up during operation	C
1.3.3. Falling or ejected objects	C
1.3.4. Sharp edges and angles and rough surfaces	C
1.3.5. Combined machinery	NA
1.3.6. Variations in operating conditions	NA
1.3.7. Moving parts	C
1.3.8. Moving parts	NA
1.3.8.1. Moving transmission parts	NA
1.3.8.2. Moving parts involved in the process	NA

Machinery Directive line 2006/42/EG, Annex I - Essential health and safety requirements relating to the design and construction of machinery	Applicable and adhered C :Conform NC:Not conform NA:Not applicable
1.3.9. Uncontrolled movements	C
1.4. Required characteristics of guards and protective devices	-
1.4.1. General requirements for guards and protective devices	NA
1.4.2. Special requirements for guards	-
1.4.2.1. Fixed guards	NA
1.4.2.2. Interlocking movable guards	NA
1.4.2.3. Adjustable guards restricting access	NA
1.4.3. Protective devices	NA
1.5. Risks due to other hazards	-
1.5.1. Electricity	C
1.5.2. Unwanted static electricity	C
1.5.3. Energy supply other than electricity	NA
1.5.4. Errors of fitting	C
1.5.5. Extreme temperatures	NA
1.5.6. Fire	C
1.5.7. Explosion	NA
1.5.8. Reduction of noise emission	C
1.5.9. Vibrations	C
1.5.10. Ionising and non-ionising radiation	C
1.5.11. External radiation	C
1.5.12. Laser radiation	NA
1.5.13. Emissions of hazardous materials and substances	NA
1.5.14. Risk of being trapped	NA
1.5.15. Slips, trips and falls	NA
1.5.16. Lightning	C
1.6. Maintenance	-
1.6.1. Maintenance	C
1.6.2. Access to operating positions and servicing points	NA
1.6.3. Isolation of energy sources	C
1.6.4. Operator interventions	C
1.6.5. Cleaning of internal parts	NA
1.7. Information	-
1.7.1. Information and warnings / language	C
1.7.1.1. Information and information devices	C
1.7.1.2. Warning devices	NA
1.7.2. Warning of residual risks	C
1.7.3. Marking of machinery	C
1.7.4. Instructions	C
1.7.4.1. General guideline for instructions	C
1.7.4.2. Instruction's content	C

Machinery Directive linie 2006/42/EG, Annex I - Essential health and safety requirements relating to the design and construction of machinery	Applicable and adhered C :Conform NC:Not conform NA:Not applicable
1.7.4.3. Sales literature	C

Machinery Directive linie 2006/42/EG, Annex I - Essential health and safety requirements relating to the design and construction of machinery	Applicable and adhered C :Conform NC:Not conform NA:Not applicable
2. Supplementary essential health and safety requirements for certain categories of machinery	NA

Machinery Directive linie 2006/42/EG, Annex I - Essential health and safety requirements relating to the design and construction of machinery	Applicable and adhered C :Conform NC:Not conform NA:Not applicable
2.1. Hygiene requirements for machinery intended for use with foodstuffs or with cosmetics or pharmaceutical products	-
2.1.1. General	NA
2.1.2. Instructions	NA
2.2. Hand-held and/or hand-guided machinery	-
2.2.1. Supplementary requirements for portable hand-held and hand-guided machinery	NA
2.2.2. Portable fixing and other impact machinery	-
2.3. Machinery for working wood and material with similar characteristics	NA
3. Supplementary essential health and safety requirements to offset hazards due to the mobility of machinery	NA
3.1. General	-
3.1.1. Definitions	NA
3.2. Seatings	-
3.2.1. Driving position	NA
3.2.2. Seating	NA
3.2.3. Positions for persons other than the driver	NA
3.3. Controls	NA
3.3.1. Control devices	NA
3.3.2. Travel movements	NA
3.3.3. Slowing down, stopping and immobilisation	NA
3.3.4. Movement of pedestrian-controlled machinery	NA
3.3.5. Failure in the power supply to steering	NA
3.4. Protective measures against mechanical hazards	-
3.4.1. Uncontrolled movements	NA
3.4.2. Access to the engine compartment	NA
3.4.3. Roll-over and tip-over	NA
3.4.4. Falling objects	NA
3.4.5. Steps and handholds for access	NA
3.4.6. Towing devices	NA
3.4.7. Removable mechanical transmission devices	NA
3.5. Other hazards	-
3.5.1. Batteries	NA
3.5.2. Fire extinguishers and extinguisher systems	NA
3.5.3. Protection of sprayer operators against risks due to exposure to hazardous substances	NA
3.6. Information and allegation	-
3.6.1. Signs, signals and warnings	NA
3.6.2. Marking of mobile machinery	NA
3.6.3. Instructions	-
3.6.3.1. Declaration of vibrations transmitted by mobile machinery	NA
3.6.3.2. Instructions for multiple uses	NA

Machinery Directive linie 2006/42/EG, Annex I - Essential health and safety requirements relating to the design and construction of machinery	Applicable and adhered C :Conform NC:Not conform NA:Not applicable
4. Supplementary essential health and safety requirements to offset hazards due to lifting operations	NA
4.1. Scope of application	-
4.1.1. Definitions	NA
4.1.2. Protection against mechanical hazards	-
4.1.2.1. Risks due to lack of stability	NA
4.1.2.2. Rail tracks and guide rails	NA
4.1.2.3. Mechanical strength	NA
4.1.2.4. Pulleys, drums, wheels, ropes and chains	NA
4.1.2.5. Lifting accessories and their components	NA
4.1.2.6. Control of movements	NA
4.1.2.7. Prevention of risks of collisions	NA
4.1.2.8. Machinery serving fixed landings	-
4.1.2.8.1. Movements of the carrier	NA
4.1.2.8.2. Access to the carrier	NA
4.1.2.8.3. Contact with the moving carrier	NA
4.1.2.8.4. Loads falling off the carrier	NA
4.1.2.8.5. Safety at landings	NA
4.1.3. Checking fitness for purpose	NA
4.2. Requirements to machinery not driven by human power	-
4.2.1. Control of movements of the machinery and the load	NA
4.2.2. Preventing overloading and overturning	NA
4.2.3. Guide ropes	NA
4.3. Informations and marking	-
4.3.1. Information and marking of chains, ropes and webbing	NA
4.3.2. Marking of lifting accessories	NA
4.3.3. Marking of lifting machinery	NA
4.4. Instructions	-
4.4.1. Instructions for lifting accessories	NA
4.4.2. Instructions for lifting machinery	NA

Machinery Directive linie 2006/42/EG, Annex I - Essential health and safety requirements relating to the design and construction of machinery	Applicable and adhered C :Conform NC:Not conform NA:Not applicable
5. Supplementary essential health and safety requirements for machinery intended for underground work	NA
6. Supplementary essential health and safety requirements for machinery presenting particular hazards due to the lifting of persons	NA
6.1. Scope of part 6	-
6.1.1. Mechanical strength	NA
6.1.2. Loading control	NA
6.2. Control devices	NA
6.3. Risks for persons in or on the load	-
6.3.1. Movement of the carrier	NA
6.3.2. Tilt of the carrier	NA
6.3.3. Protective roof	NA
6.4. Machinery for lifting persons serving fixed landings	-
6.4.1. Risks to persons in or on the carrier	NA
6.4.2. Controls at landings	NA
6.4.3. Access to the carrier	NA
6.5. Markings in the carrier	NA

Annex to manipulator type

The model numbers of the G series manipulator are shown below.

The robots are divided into several type depend on the arm length, the size of mechanical components used on each axis and the purpose (for the use in clean room).

G 1 - 17 1 S Z - UL
a b c d e f g

a	: Series name	G	
b	: Payload	1	: 1kg
c	: Arm length	17	: 175mm
		22	: 225mm
d	: Axis#3 stroke	1	: 100mm
			: 80mm (Clean)
e	: Environment	S	: Standard
		C	: Clean
f	: Axis	None	: 4-axis spec
		Z	: 3-axis spec
g	: UL	None	: Standard
		UL	: UL

G 3 - 25 1 S M - R - UL
a b c d e f g h

a	: Series name	G	
b	: Payload	3	: 3kg
c	: Arm length	25	: 250mm
		30	: 300mm
		35	: 350mm
d	: Axis#3 stroke	1	: 150mm
			: 120mm (Clean)
e	: Environment	S	: Standard
		C	: Clean
f	: Mounting	None	: Standard
		M	: Multi layout
g	: Arm type	None	: Standard
			: Right carving
			: Left carving
h	: UL	None	: Standard
		UL	: UL

G 6 - 45 1 D R - UL
a b c d e f g

a	: Series name	G	
b	: Payload	6	: 6kg
c	: Arm length	45	: 450mm
		55	: 550mm
		65	: 650mm
d	: Axis#3 stroke	1	: 170mm or 180mm
		3	: 330mm
		4	: 420mm
e	: Environment	S	: Standard
		C	: Clean
		D	: IP54
		P	: IP65
f	: Mounting	None	: Standard
		R	: Ceiling
		W	: Wall
g	: UL	None	: Standard
		UL	: UL

G 10 - 85 1 D R - UL
a b c d e f g

a	: Series name	G	
b	: Payload	10	: 10kg
c	: Arm length	65	: 650mm
		85	: 850mm
d	: Axis#3 stroke	1	: 180mm
		4	: 420mm
e	: Environment	S	: Standard
		C	: Clean
		D	: IP54
		P	: IP65
f	: Mounting	None	: Standard
		R	: Ceiling
		W	: Wall
g	: UL	None	: Standard
		UL	: UL

G 20 - A0 1 D R - UL
a b c d e f g

a	: Series name	G	
b	: Payload	20	: 20kg
c	: Arm length	85	: 850mm
		A0	: 1000mm
d	: Axis#3 stroke	1	: 180mm
		4	: 420mm
e	: Environment	S	: Standard
		C	: Clean
		D	: IP54
		P	: IP65
f	: Mounting	None	: Standard
		R	: Ceiling
		W	: Wall
g	: UL	None	: Standard
		UL	: UL