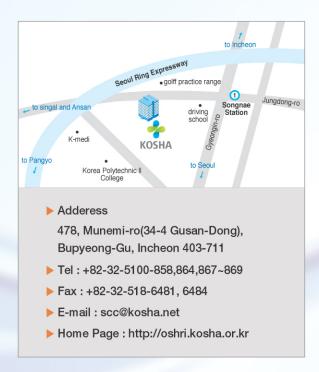
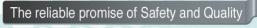




KOREA OCCUPATIONAL
SAFETY & HEALTH AGENCY
Safety Certification Center



2013-연구원-99





# Safety Certification Guide

2013



KOREA OCCUPATIONAL
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S mark system is a voluntary safety certification system in accordance with the OSH Regulations Art.34-4. It is a certification system that authorizes use of the mark on products whose safety has been certified through a comprehensive inspection on the stability and reliability of the product as well as the technical capability & production system of the manufacturer.

## Products for S mark

### Industrial machinery

- Machine tools such as CNC lathes, milling machines etc.
- Industrial trucks such as fork-lifts, battery powered trucks
- Semiconductor & LCD manufacturing machinery
- Automatic system such as industrial robots etc.
- General industrial machines etc.

#### Components

- Sensors Electrical parts such as circuit breaker etc.
- Gauges
   Industrial computer and peripheral such as monitor
- Lifting device such as sling
   General safety components etc.

#### Assessment & Duration

Assessment		Duration
Preliminary assessment	To confirm whether applied machinery is in the scope of S mark certification or not	7 days
Documentary assessment	To assess technical construction file including drawing, calculation data, instruction manual etc. of the applied product	15/30 days (domestic/ overseas)
Technical capability & production system assessment	To assess quality assurance of manufacturer	30/45 days (domestic/ overseas)
Product assessment	To assess safety performance and function of applied products - Individual-product assessment : all the applied products should be subject to assessment - Type-product assessment : products manufactured for the first time should be subject to assessment by types	15/30 days (Individual/ Type)
Surveillance	To confirm whether the certified products and technical capability & production system meet still the requirements in the standards.	-

## **Electromagnetic Compatibility(EMC)Test**

#### Electromagnetic Interference(EMI)

- Conducted emission(CE)
- Radiated emission(RE)

## Electromagnetic Susceptibility(EMS)

- Electrostatic discharge(ESD)
- Radiated susceptibility(RS)
- Electrical fast transient(EFT)
- Surge
- Conducted susceptibility(CS)
- Voltage dip

## Prerequisite for S mark

#### Electromagnetic Interference(EMI)

- · Machinery using high frequency energy such as industrial electric induction heater, industrial highfrequency heater, high-frequency welder, etc.
- · Machinery generating arc or spark, such as electric discharge machine, electric welder, etc.
- Laser machine (except for inspection and measurement equipment)





## Electromagnetic Susceptibility (EMS)

- Industrial robot or machinery incorporating industrial
- Machine tools using NC, CNC
- · Machinery using wireless remote control device
- Protective devices and sensors
- Unmanned transporter(using electricity, electromagnetic)
- Industrial computers, and peripherals such as monitor



## **Procedure**

## Consultation

(Manufacturer)



Notice of test items

**KOSHA** 



**EMC Test** 

**KOSHA** 



Test report issue

**KOSHA** 

## **Submission of Document**

Assessment	Documents	
Preliminary assessment	<ul> <li>Preliminary questionnaire</li> <li>Product specification/arrangemer and overall assembly drawings of product</li> </ul>	
Documentary assessment	<ul> <li>Geneal description for product</li> <li>Drawings (Mechanical, electrical, pneumatic and fluid etc.)</li> <li>Instruction manual</li> <li>Calculation data</li> <li>Checklist of applied standard (in case of components)</li> <li>Test reports</li> <li>Document showing authorized representative of applicant (If necessary)</li> </ul>	
Assessment for technical capability and production system	<ul> <li>Establishment and implementation of quality management system</li> <li>Procedure for verifying safety and specified purchase requirements for safety</li> <li>Procedure for control of production and processes where deficiencies become apparent after the product is in use or the service has been delivered</li> <li>Procedure for supplementary system of control of production and service provision</li> <li>Control and record the Identification of product and parts, preservation of product</li> <li>The implementation of monitoring in processing and control of measuring devices and equipment</li> <li>Analysis of data and corrective and preventive action</li> <li>Procedure for dealing with nonconforming product</li> </ul>	

## International Partnership

KOSHA has signed Memorandum of Understanding(MOU) with 9 foreign organizations regarding mutual service partnership for S mark. These organizations will offer practical help in acquiring S mark certificate.

## Organizations Signed MOU

SGS Korea

TÜV Rheinland Korea







Amtri Veritas (UK)

Bureau Veritas Korea





TÜV SÜD AG(Germany)

Intertek SEMKO(Sweden)





TIIS(Japan)

Cermet(Italy)





SZU(Czech)

