

Annex II Brief Introduction to the Operation or Process of Collaborative Robots

The brief introduction to the operation and process of Collaborative Robots shall at least include the following:

1. Description of operation mode and process of Collaborative Robots:
 - (1) Action modes (moving or grabbing objects) of Collaborative Robots.
 - (2) Potential Process hazards during the operation of Collaborative Robots (high-temperature welding or high-pressure lamination, and please specify the exact temperature and pressure scale of operation).
2. The Detailed Range of Motion of Collaborative Robot and Collaborative Workspace:
 - (1) The layout for the floor where Collaborative Robots are installed for operation, including but not limited to the number and location of Robots, and those of the workers participating the works, the repairing and maintenance areas, and the number staff working at such floor.
 - (2) The moving paths of the Collaborative Robots in conducting the collaborative works, which includes detailed illustration for Robots traffic flow and collaborative workspace and the walking paths for collaborative workers.
 - (3) The layout of collaborative workspace includes the collaborative workspace and range of motion for all Collaborative Robots.
3. Collaborative Robots shall be marked with the following:
 - (1) The manufacturer's and, where appropriate, the authorized supplier's business name and complete address;
 - (2) The designation of type of collaborative robot and model number or reference number (if any);
 - (3) The month and year of manufacture;

- (4) The mass and/or weight of robot;
 - (5) The maximum reach and load capacity;
 - (6) Supply data for electrical and, where applicable, hydraulic and pneumatic systems (e.g. minimum and maximum pneumatic pressures);
 - (7) Lifting points for transportation and installation purposes, where applicable.
 - (8) Telephone number of the manufacturer for emergency contact.
 - (9) The above items all comply with CNS14490, ISO10218 or other equivalent standards.
4. The content of safety manual of Collaborative Robots shall be disclosed risks and safety measures at least including Robots' transportation, assembly and installation, commissioning, operational use (including start-up, shut-down, setting, teaching/programming or process change over, operation, cleaning, fault finding, and maintenance), and Robots shall comply with the requirements of CNS14490, ISO 10218 or equivalent standards.
5. Relevant Information
- (1) The cases of successful installation and operation of such Collaborative Robots at other companies or factories.
 - (2) The plans of review and improvement for incident caused by Collaborative Robots at the business entity.