

# CERTIFICATE of ACCREDITATION

## PRODUCT CERTIFICATION

The American National Standards Institute hereby affirms that

**UL LLC**

333 Pfingsten Road, Northbrook, IL 60062, USA

**ACCREDITATION ID# 0198**

meets the ANSI accreditation program requirements and those set forth in  
ISO/IEC Guide 65: 1996 General Requirements for Bodies Operating Product Certification Systems  
ASME A17.7.1/CSA B44.7.1 General Requirements for Accredited Elevator/Escalator Certification Organizations

for programs within the following

### **SCOPE OF ACCREDITATION**

GRANTED 2009-03-12:

Accredited Elevator/Escalator Certification Organization (AECO): Elevator systems, subsystems, components, and functions for issuance of Certificates of Conformance and Marks in according to ASME A17.7/CSA B44.7

(Please see the following pages)



**ANSI Accredited Program  
PRODUCT CERTIFICATION**



A handwritten signature in blue ink that reads "Lance Hallenbeck".

ANSI VICE PRESIDENT, ACCREDITATION SERVICES

2013-06-01  
VALID THROUGH

## PRODUCT CERTIFICATION

# UL LLC

ACCREDITATION ID# 0198

### SCOPE OF ACCREDITATION

#### GRANTED 1996-06-01:

11.040.10 Anaesthetic, respiratory and reanimation equipment  
11.040.20 Transfusion, infusion and injection equipment  
11.040.30 Surgical instruments and materials  
11.040.50 Radiographic equipment  
11.040.55 Diagnostic equipment  
11.040.60 Therapy equipment  
11.040.70 Ophthalmic equipment  
11.040.99 Other medical equipment  
11.060.20 Dental equipment  
11.080.10 Sterilizing equipment  
11.100.10 In vitro diagnostic test systems  
11.100.30 Analysis of blood and urine  
11.140 Hospital equipment  
11.180.10 Aids and adaptation for moving  
11.220 Veterinary medicine  
13.020.01 Environment and environmental protection in general  
13.030.40 Installations and equipment for waste disposal and treatment  
13.030.50 Recycling  
13.040.01 Air quality in general  
13.040.35 Cleanrooms and associated controlled environments  
13.110 Safety of machinery  
13.140 Noise with respect to human beings  
13.200 Accident and disaster control  
13.220.01 Protection against fire in general  
13.220.10 Fire-fighting  
13.220.20 Fire protection  
13.220.40 Ignitability and burning behaviour of materials and products  
13.220.50 Fire-resistance of building materials and elements  
13.230 Explosion protection  
13.240 Protection against excessive pressure  
13.260 Protection against electric shock. Live working  
13.280 Radiation protection  
13.300 Protection against dangerous goods  
13.310 Protection against crime  
13.320 Alarm and warning systems  
13.340.10 Protective clothing

#### GRANTED 1996-06-01:

13.340.20 Head protective equipment  
13.340.40 Hand and arm protection  
13.340.50 Leg and foot protection  
13.340.60 Protection against falling and slipping  
13.340.70 Lifejackets, buoyancy aids and flotation devices  
17.140.01 Acoustic measurements and noise abatement in general  
17.220.20 Measurement of electrical and magnetic quantities  
19.020 Test conditions and procedures in general  
19.060 Mechanical testing  
19.080 Electrical and electronic testing  
21.080 Hinges, eyelets and other articulated joints  
21.180 Housings, enclosures, other machine parts  
23.020.10 Stationary containers and tanks  
23.040.10 Iron and steel pipes  
23.040.15 Non-ferrous metal pipes  
23.040.20 Plastics pipes  
23.040.40 Metal fittings  
23.040.45 Plastics fittings  
23.040.50 Pipes and fittings of other materials  
23.040.60 Flanges, couplings and joints  
23.040.70 Hoses and hose assemblies  
23.040.80 Seals for pipe and hose assemblies  
23.040.99 Other pipeline component  
23.060.10 Globe valves  
23.060.20 Ball and plug valves  
23.060.30 Gate valves  
23.060.40 Pressure regulators  
23.060.50 Check valves  
23.060.99 Other valves  
23.080 Pumps  
23.100.01 Fluid power systems in general  
23.100.10 Pumps and motors  
23.100.40 Piping and couplings  
23.100.50 Control components  
23.100.60 Filters, seals and contamination of fluids  
23.120 Ventilators. Fans. Air-conditioners

## PRODUCT CERTIFICATION

# UL LLC

ACCREDITATION ID# 0198

### SCOPE OF ACCREDITATION

GRANTED 1996-06-01:

23.140 Compressors and pneumatic machines  
23.160 Vacuum technology  
25.040.10 Machining centres  
25.040.20 Numerically controlled machines  
25.040.30 Industrial robots. Manipulators  
25.040.40 Industrial process measurement and control  
25.080.10 Lathes  
25.080.20 Boring and milling machines  
25.080.25 Planing machines  
25.080.30 Broaching machines  
25.080.40 Drilling machines  
25.080.50 Grinding and polishing machines  
25.080.60 Sawing machines  
25.100.10 Turning tools  
25.100.20 Milling tools  
25.100.25 Tools for planing and broaching machines  
25.100.30 Drills, countersinks, reamers  
25.100.40 Saws  
25.100.50 Taps and threading dies  
25.120.10 Forging equipment. Presses. Shears  
25.120.20 Rolling, extruding and drawing equipment  
25.140.10 Pneumatic tools  
25.140.20 Electric tools  
25.140.99 Other hand-held tools  
25.160.30 Welding equipment  
25.180.10 Electric furnaces  
25.220.99 Other treatments and coatings  
27.020 Internal combustion engines  
27.060.10 Liquid and solid fuel burners  
27.060.20 Gas fuel burners  
27.060.30 Boilers and heat exchangers  
27.070 Fuel cells  
27.080 Heat pumps  
27.160 Solar energy engineering  
27.180 Wind turbine energy systems  
27.200 Refrigerating technology

GRANTED 1996-06-01:

29.020 Electrical engineering in general  
29.035.01 Insulating materials in general  
29.035.10 Paper and board insulating materials  
29.035.20 Plastics and rubber insulating materials  
29.035.30 Glass and ceramic insulating materials  
29.035.99 Other insulating materials  
29.040.01 Insulating fluids in general  
29.040.10 Insulating oils  
29.040.99 Other insulating fluids  
29.060.10 Wires  
29.060.20 Cables  
29.080.10 Insulators  
29.080.20 Bushings  
29.080.30 Insulation systems  
29.100.01 Components for electrical equipment in general  
29.100.10 Magnetic components  
29.100.20 Electric and electromechanical components  
29.100.99 Other components for electrical equipment  
29.120.10 Conduits for electrical purposes  
29.120.20 Connecting devices  
29.120.30 Plugs, socket-outlets, couplers  
29.120.40 Switches  
29.120.50 Fuses and other overcurrent protection devices  
29.120.70 Relays  
29.120.99 Other electrical accessories  
29.130.01 Switchgear and controlgear in general  
29.130.10 High voltage switchgear and controlgear  
29.130.20 Low voltage switchgear and controlgear  
29.130.99 Other switchgear and controlgear  
29.140.10 Lamp caps and holders  
29.140.20 Incandescent lamps  
29.140.30 Fluorescent lamps. Discharge lamps  
29.140.40 Luminaires  
29.140.50 Lighting installation systems  
29.140.99 Other standards related to lamps  
29.160.01 Rotating machinery in general

## PRODUCT CERTIFICATION

# UL LLC

ACCREDITATION ID# 0198

### SCOPE OF ACCREDITATION

GRANTED 1996-06-01:

29.160.10 Components for rotating machines  
29.160.20 Generators  
29.160.30 Motors  
29.160.40 Generating sets  
29.160.99 Other standards related to rotating machinery  
29.180 Transformers. Reactors  
29.200 Rectifiers. Converters. Stabilized power supply  
29.220.10 Primary cells and batteries  
29.220.20 Acid secondary cells and batteries  
29.220.30 Alkaline secondary cells and batteries  
29.220.99 Other cells and batteries  
29.240.10 Substations. Surge arresters  
29.240.30 Control equipment for electric power systems  
29.260.10 Electrical installations for outdoor use  
29.260.20 Electrical apparatus for explosive atmospheres  
29.260.99 Other electrical equipment for working in special conditions  
31.020 Electronic components in general  
31.040.10 Fixed resistors  
31.040.20 Potentiometers, variable resistors  
31.040.30 Thermistors  
31.040.99 Other resistors  
31.060.10 Fixed capacitors  
31.060.20 Ceramic and mica capacitors  
31.060.30 Paper and plastics capacitors  
31.060.40 Tantalum electrolytic capacitors  
31.060.50 Aluminium electrolytic capacitors  
31.060.60 Variable capacitors  
31.060.70 Power capacitors  
31.080.01 Semiconductor devices in general  
31.080.10 Diodes  
31.080.20 Thyristors  
31.160 Electric filters  
31.180 Printed circuits and boards  
31.220.10 Plug-and-socket devices. Connectors  
31.220.20 Switches  
31.260 Optoelectronics. Laser equipment

GRANTED 1996-06-01:

33.020 Telecommunications in general  
33.040.01 Telecommunication systems in general  
33.040.99 Other equipment for telecommunication systems  
33.050.01 Telecommunication terminal equipment in general  
33.050.10 Telephone equipment  
33.050.20 Paging equipment  
33.050.30 Equipment for telex, teletext, telefax  
33.050.99 Other telecommunication terminal equipment  
33.060.01 Radiocommunications in general  
33.060.20 Receiving and transmitting equipment  
33.060.30 Radio relay and fixed satellite communications systems  
33.060.40 Cabled distribution systems  
33.060.99 Other equipment for radiocommunications  
33.080 Integrated Services Digital Network (ISDN)  
33.100.10 Emission  
33.100.20 Immunity  
33.120.01 Components and accessories in general  
33.120.10 Coaxial cables. Waveguides  
33.120.20 Wires and symmetrical cables  
33.120.99 Other components and accessories  
33.160.10 Amplifiers  
33.160.20 Radio receivers  
33.160.25 Television receivers  
33.160.30 Audio systems  
33.160.40 Video systems  
33.160.50 Accessories  
33.160.60 Multimedia systems and teleconferencing equipment  
33.160.99 Other audio, video and audiovisual equipment  
33.180.10 Fibres and cables  
33.180.20 Fibre optic interconnecting devices  
35.020 Information technology (IT) in general  
35.080 Software  
35.160 Microprocessor systems  
35.180 IT terminal and other peripheral equipment  
35.200 Interface and interconnection equipment  
35.220.20 Magnetic storage devices in general

## PRODUCT CERTIFICATION

# UL LLC

ACCREDITATION ID# 0198

### SCOPE OF ACCREDITATION

#### GRANTED 1996-06-01:

35.220.30 Optical storage devices  
35.240.40 IT applications in banking  
35.260 Office machines  
37.040.10 Photographic equipment. Projectors  
37.100.10 Reproduction equipment  
37.100.20 Materials for graphic technology  
39.040.20 Clocks  
43.040.10 Electrical and electronic equipment  
43.040.20 Lighting, signalling and warning devices  
43.040.40 Braking systems  
43.060.40 Fuel systems  
43.060.50 Electrical and electronic equipment. Control systems  
43.120 Electric road vehicles  
43.180 Diagnostic, maintenance and test equipment  
45.040 Materials and components for railway engineering  
47.020.60 Electrical equipment of ships and of marine structures  
47.020.90 Marine ventilation, air conditioning and heating systems  
53.020.20 Cranes  
53.020.99 Other lifting equipment  
53.040.10 Conveyors  
53.040.20 Components for conveyors  
53.060 Industrial trucks  
53.080 Storage equipment  
55.040 Packaging materials and accessories  
55.100 Bottles. Pots. Jars  
55.120 Cans. Tins. Tubes  
55.140 Barrels. Drums. Canisters  
55.200 Packaging machinery  
55.220 Storing. Warehousing  
55.230 Distribution and vending machines  
59.080.30 Textile fabrics  
59.080.60 Textile floor coverings  
61.080 Sewing machines and other equipment for the clothing industry  
65.020.30 Animal husbandry and breeding  
65.060.70 Horticultural equipment  
65.060.80 Forestry equipment

#### GRANTED 1996-06-01:

65.100.10 Insecticides  
67.020 Processes in the food industry  
67.050 General methods of tests and analysis for food products  
67.250 Materials and articles in contact with foodstuffs  
67.260 Plants and equipment for the food industry  
71.040.40 Chemical analysis  
71.100.45 Refrigerants and antifreezes  
71.100.80 Chemicals for purification of water  
73.100.20 Ventilation, air-conditioning and illumination equipment  
75.080 Petroleum products in general  
75.100 Lubricants, industrial oils and related products  
75.120 Hydraulic fluids  
75.140 Waxes, bituminous materials and other petroleum products  
75.160.20 Liquid fuels  
75.180.01 Equipment for petroleum and natural gas industries in general  
75.180.30 Volumetric equipment and measurements  
75.200 Petroleum products and natural gas handling equipment  
77.060 Corrosion of metals  
79.060.10 Plywood  
79.060.20 Fibre and particle boards  
79.120.10 Woodworking machines  
81.080 Refractories  
83.060 Rubber  
83.080.01 Plastics in general  
83.080.10 Thermosetting materials  
83.080.20 Thermoplastic materials  
83.100 Cellular materials  
83.120 Reinforced plastics  
83.140.01 Rubber and plastics products in general  
83.140.10 Films and sheets  
83.140.20 Laminated sheets  
83.140.30 Plastics pipes and fittings for non fluid use  
83.140.40 Hoses  
83.140.50 Seals  
83.140.99 Other rubber and plastics products  
83.180 Adhesives

## PRODUCT CERTIFICATION

# UL LLC

ACCREDITATION ID# 0198

### SCOPE OF ACCREDITATION

GRANTED 1996-06-01:

87.020 Paints and varnishes  
87.040 Paint coating processes  
87.080 Inks. Printing inks  
87.100 Paint coating equipment  
91.060.10 Walls. Partitions. Façades  
91.060.20 Roofs  
91.060.30 Ceilings. Floors. Stairs  
91.060.40 Chimneys, shafts, ducts  
91.060.50 Doors and windows  
91.100.60 Thermal and sound insulating materials  
91.120.10 Thermal insulation of buildings  
91.120.20 Acoustics in building. Sound insulation  
91.120.40 Lightning protection  
91.140.10 Central heating systems  
91.140.30 Ventilation and air-conditioning systems  
91.140.40 Gas supply systems  
91.140.50 Electricity supply systems  
91.140.60 Water supply systems  
91.140.65 Water heating equipment  
91.140.70 Sanitary installations  
91.140.90 Lifts. Escalators  
91.160.01 Lighting in general  
91.160.10 Interior lighting  
91.160.20 Exterior building lighting  
91.190 Building accessories  
91.220 Construction equipment  
93.025 External water conveyance systems  
93.030 External sewage systems

GRANTED 1996-06-01:

97.030 Domestic electrical appliances in general  
97.040.01 Kitchen equipment in general  
97.040.10 Kitchen furniture  
97.040.20 Cooking ranges, working tables, ovens and similar appliances  
97.040.30 Domestic refrigerating appliances  
97.040.40 Dishwashers  
97.040.50 Small kitchen appliances  
97.040.60 Cookware, cutlery and flatware  
97.040.99 Other kitchen equipment  
97.060 Laundry appliances  
97.080 Cleaning appliances  
97.100.10 Electric heaters  
97.100.20 Gas heaters  
97.100.30 Solid fuel heaters  
97.100.40 Liquid fuel heaters  
97.120 Automatic controls for household use  
97.130.10 Shelving  
97.130.20 Commercial refrigerating appliances  
97.140 Furniture  
97.145 Ladders  
97.150 Non-textile floor coverings  
97.170 Body care equipment  
97.180 Miscellaneous domestic and commercial equipment  
97.195 Items of art and handicrafts  
97.200.10 Theatre, stage and studio equipment  
97.200.20 Musical instruments  
97.200.50 Toys  
97.220.30 Indoor sports equipment