First certification of energy-efficient lifts by TÜV SÜD

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Munich/Wiedenzhausen. TÜV SÜD has issued the first energy-efficient lift certificate as per VDI Guideline 4707. The energy-efficiency certificate was issued to lifts produced in-house by WITTUR, the lift-component manufacturer. Future plans provide for new lifts and lift components to be placed on the market with energy-efficiency certificates.

At the corporate headquarters of WITTUR Group in Wiedenzhausen, TÜV SÜD Industrie Service GmbH certified the energy efficiency of four visitors' and test lifts. The key components of these lifts were manufactured in-house at WITTUR. "So far, the energy-efficiency classes A to G have primarily been used on refrigerators and washing machines", says Dieter Roas, Head of Lifts and Machinery at TÜV SÜD Industrie Service. "The recently adopted VDI guideline 4707, Part 1, now forms the basis for assessing and identifying the energy performance of lift systems." The guideline offers manufacturers and owners/operators the opportunity of having the energy-efficiency classes of their lift systems determined on the basis of standardized criteria. "Companies such as WITTUR use the certificate to document their responsible resource management and their commitment to improved sustainability in economic activity", explains Dieter Roas. "In addition, the certificate offers reliable guidance for lift owners/operators, purchasers, developers, architects and planners when it comes to assessing the energy demand of their systems."

Process in accordance with VDI 4707: Certificate in three steps

"At WITTUR, we determined the lift systems' energy classes in three steps", explains Kai Kügler, expert in material handling equipment and energy-efficient lift systems at TÜV SÜD Industrie Service. "Depending on the daily travel time and the number of travel cycles, we first assign the lift to a usage category and then determine standby energy consumption. To do so, we measure the energy consumption of all electrical components which ensure during standby that the lift is ready for operation and use. Last but not least, we measure the lift's total energy consumption during operation in a defined test cycle", continues Kügler. The specific consumption data collected will be compared with the reference values of the guideline. The energy-efficiency class is determined from the combined measurement of the individual factors of the lift system.

"Possible starting-points for energy saving include travel operation and particularly standby consumption, which in the majority of cases adds up to a major share of total costs", says TÜV SÜD expert Kügler. Practice has shown, however, that every lift system must be assessed individually, he warns. While there are significant differences between traction and hydraulic lifts, installation also plays an essential role. Other key factors substantially influencing actual energy consumption include environmental conditions and numerous adjustments and settings by the manufacturer.

Energy efficiency as competitive edge

VDI guideline 4707 was initiated by the lift industry, which has been advocating resource efficiency from an early stage. WITTUR Group, one of the leading manufacturers of lift components at international level, is a member of this industry. The company is a member of numerous committees at national and international level that work proactively in standard and guideline development. WITTUR experts, for example, have been involved in the development of VDI Guideline 4707 "Lifts – Energy Efficiency" right from the outset.

Only two months after the VDI guideline came into force, WITTUR had all lifts installed at its headquarters certified by TÜV SÜD. The company plans to apply the potential for improvement of energy efficiency identified in existing lift systems to its own products, to advance the development of technical innovations in components including the drive motors of lift-car doors, electrical and hydraulic lift drives, lift cars and energy-efficient safety components, and to tap competitive edge through energy efficiency. "Today, WITTUR already delivers power-saving electronic components such as lift-car door opening and closing motors which offer the possibility of shutting down power

supply at the landing, gearless machines in accordance with the latest state of the art and lift-car lighting using LED technology", says Wolfgang Adldinger, Technical Director at WITTUR. WITTUR also plans to place newly designed lift construction kits and components on the market, designed to be particularly eco-friendly and thus already marked out as energy efficient.

Further information about the services provided by TÜV SÜD is here available

Certificate award (from left to right): Siegfried Melzer, Head of Certification Body, TÜV SÜD Industrie Service, Lifts & Machinery; Werner Rau, Head of Testing Laboratory, TÜV SÜD Industrie Service, Lifts & Machinery; Dieter Roas, TÜVSÜD Industrie Service, Head of Lifts & Machinery;
Wolfgang Adldinger, Technical Director, WITTUR Holding GmbH; and Markus Hößle, Project Engineer Technics / R & D WITTUR Holding GmbH (Photo: TÜV SÜD)

Energy-Efficient Lift certificate: Kai Kügler, TÜV SÜD Industrie Service, attaches the energy-efficiency certification mark to a lift at WITTUR Group's corporate headquarters .
(Photo: TÜV SÜD)

Previously only seen on household appliances: The new energy-efficiency label for lift systems as per VDI Guideline 4707 indicates the energy-efficiency class.
(Photo: TÜV SÜD)

Information for editorial offices: The photos can be downloaded in camera-ready resolution from here (main category: "Current Press Photos.

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