

BLAIN VALVES FOR HYDRAULIC ELEVATORS



Excellence in Simplicity and Performance

INFORMATION NOTE

Unsafe products used at elevator applications

21.03.2024

Dear Blain Customer,

Blain valves comply with the EN81-20/50, ASME 17.1 and ISO 8100 standards. These standards dictate rules to ensure sufficient safety for elevators and elevator components.

Blain Hydraulics have been informing the world market regularly against copy products and issuing warnings. Copy Blain valves or copy components mounted on Blain valves do not assure essential safety. This is because of the fact that every valve, accessories and spares produced by Blain possesses deep know-how and experience, which have been detailed in the products by means of special design, manufacturing and assembly practices that make Blain products safe and reliable.

It should not be forgotten that to fulfil safety requirements and high reliability, various special design and manufacturing details, which have been gained throughout 50 years of experience and know-how, are applied during the production of each Blain product that is near to impossible to be copied to assure the same safety, reliability and quality. As an example, special alloy material is used for the housings of control valves that withstands high pressure, improves machinability, reduces surface roughness and provides higher strength. All housings are heat treated to reduce friction and wear that eliminates the risk of jamming of moving parts otherwise, serious accidents can be encountered at varying temperature and pressure conditions. Basically, every batch of raw material, springs, seals and manufactured parts undergo approval tests. Burst-pressure tests (at 500bar) applied to every manufacturing batch randomly. Finally, every valve produced is tested for functionality up at 100 bar pressure and adjusted according to customer's needs. These are a few examples to make the industry understand the importance of using original products.

Additionally, use of copy components and accessories, such as a hand pump, uncertified pressure switches, down valves (HX, MX) and internal spares would increase risk of malfunction of the main control valve and decline safety. All peripheral components should be functional and reliable for the safe operation of elevators. The best example is copies of Blain hand pumps. They seem like easy to produce but majority of the copies do not work and create risk at installation/rescue situations. Similarly, uncertified pressure switches can cause entrapments and malfunction of elevators. Therefore, Blain Hydraulics do not allow any copy products to be mounted on Blain control valves. If components or spare parts that are different than the original ones are mounted on Blain products warranty expires automatically. Blain Hydraulics assumes no liability for any personal injuries, property damage, losses or claims arising from in appropriate use of copy products with Blain valves.

The risk in safety becomes even more questionable with copy safety valves, such as L10 (UCM) and R10 (rupture valve) being used in various markets. There have been only a few companies in the world that can produce safety valves for elevators. This is because conditions for safety in the EN81 standards are rather difficult to satisfy. Additionally, providing accurate and reliable equipment and testing conditions are other issues to be satisfied.

Pfaffenstrasse 1, 74078 Heilbronn, Germany
T: +49-7131-28210
F: +49-7131-282199

info@blain.de
www.blain.de

BLAIN VALVES FOR HYDRAULIC ELEVATORS



Excellence in Simplicity and Performance

All safety valves are obliged to have type certificate by an accredited notified body (such as TÜV) to assure their safety and reliability. Any rupture valve should satisfy the certification conditions under the ranges of flow, pressure, ambient temperatures and oil viscosity. That is, tests should be verified at least 10 times for each set-up, i.e., at the highest and lowest pressures, temperatures and flows. Before performing these tests, resistance against pressure test should be completed, in which the rupture valve should resist deformation under the resistance pressure (=5 times maximum pressure) for 2 minutes. Moreover, during the tests pressure peaks higher than 3.5xStatic pressure shall not occur longer than 0,04s; the time between rated flow (100 % flow) and the maximum flow does not exceed 0,16 s; retardation should not exceed 1g; stopping time shall satisfy the EN81 requirements. For all these tests accurate measurement devices (accuracy levels are again defined by the standard) are needed and measurement records shall be done between, flow vs time, pressure before and after the rupture valve vs time. Thus, certification of safety valves is a serious commitment for the notified bodies that requires applying testing conditions, accurate testing, recording and evaluations. Safety valves are also required to be inspected yearly by the notified body to approve their functionality. After all, needles to mention that copy safety valves constitute totally unsafe elevators, while prevention against expected risks such as, free fall and unintended car movement have not been taken care.

Furthermore, certifications from unaccredited authorities or notified bodies should not be valued by elevator manufacturers and inspectors. Approval and acceptance of testing equipment and setup conditions are vital in order to perform reliable tests. It should be noted that copy valve producers, installers and certification bodies will have the full accountability to protect public health and keep hydraulic elevators safe.

Copy valve producers are also aware of the fact that they cannot provide the essential safety, reliability and quality therefore, they use exact replica of Blain valves (using unlawfully Blain name on copy valves), which cannot be identified easily by unexperienced eyes. Such producers do not only break the intellectual property rights of Blain Hydraulics but most importantly place unsafe products in the market that can cause fatal elevator accidents. Therefore, elevator installers and manufacturers should choose reliable suppliers and register their valves in Blain's web (<https://register.blain.de/>) to approve originality.

Without having sufficient expertise in elevator valve design and manufacture, it is impossible to produce safe products in the elevator industry. Public should be provided with safe vertical transportation means. Opportunists, such as copy product manufacturers, put their own people life in danger. We believe that with the support of the national authorities, unlawful attempts against copy production will be prohibited, inspection authorities will act responsible with the intention of providing safe and reliable vertical transportation systems for their people.

Best regards,

Anja Blain

Managing Director/CEO

A handwritten signature in blue ink, appearing to read "Anja Blain", with a long horizontal flourish extending to the right.

Pfaffenstrasse 1, 74078 Heilbronn, Germany

T: +49-7131-28210

F: +49-7131-282199

info@blain.de

www.blain.de