

Press release

14th May 2013

Serial production of Sumitomo (SHI) Demag injection moulding machines with reduced noise pressure level

Less noise in the manufacture

Now, injection moulding machines from Sumitomo (SHI) Demag develop relatively low noise even in standard version. Sound pressure level can be further reduced through targeted measures to ensure the most quiet production environment.

Generation of noise by injection moulding machines during operation is unavoidable. People engaged in injection moulding production are exposed to machine noise for longer periods. Individual noise perception can vary significantly and everyone reacts to persistent noise exposure in a different way. A sound pressure level of as much as 65 dB (A) can potentially cause concentration disorder and negative effects on cardiovascular system. As a result, to avoid negative effects on employee health, noise development in manufacture should be kept at as low a level as possible. A low noise level of less than 60 dB (A) makes working places more attractive and improves employee performance – they make fewer mistakes and work more precisely. Subsequently, the quality of end products increases.

Noise spreads in the air in form of sound waves. Sound intensity is indicated as sound pressure level in decibel (dB). The rule of thumb is that an increase in sound pressure level by 6 to 10 dB (A) is perceived as double

sound intensity. Sound pressure level of injection moulding machines is determined according to DIN EN 201:2009 Appendix K to obtain comparable measured values.

Noise emission of hydraulic injection moulding machines can reach more than 70 dB (A). At the same time, all-electric machines generate much lower noise levels during operation. For example, sound pressure level of IntElect series from Sumitomo (SHI) Demag Plastics Machinery GmbH is only 59 dB (A). However, hydraulic injection moulding machines can also ensure a relatively quiet production environment, provided that the machine manufacturer pursues the goal to keep noise level as low as possible already in the development phase. For example, Systec series hydraulic injection moulding machines from Sumitomo (SHI) Demag are equipped with electrically adjustable DFEE type control pumps and high-efficiency drive motors. This is why noise level during operation of Systec 210, with 2,100 kN closing force and 560 mm bar width, reaches only 64 dB (A), is relatively low even in standard and is well below the industry standard of approx. 68 dB (A) sound pressure emission.

Hydraulic machines from Sumitomo (SHI) Demag generate even less noise when activeDrive drive concept is used. It reduces the sound pressure level of Systec 210 (2,100 kN closing force, 560 mm bar width) to 60 dB (A).

The innovative activeDrive drive concept from Sumitomo (SHI) Demag consists of a frequency-controlled high-performance motor and a hydraulic pump. Dynamic power adjustment to all cycle-

dependent requirements ensures optimal efficiency because there is only as much power as required in each cycle sequence. This results in significant energy savings of 30 – 60 % and a noticeable, about half as high noise level.

Sumitomo (SHI) Demag Plastics Machinery GmbH

Sumitomo (SHI) Demag has consistently shaped the plastics industry from its inception. As a specialist for injection moulding machines for polymer processing, Sumitomo (SHI) Demag and its Japanese parent company are among the leading companies in this sector globally. The Japanese-German company was formed in the spring of 2008 by merging the injection moulding activities of Sumitomo Heavy Industries (SHI) and those of Demag Plastics Group.

The global development and production network of Sumitomo Heavy Industries and Sumitomo (SHI) Demag consists of four plants in Japan, Germany and China with more than 3,000 employees. The product portfolio encompasses all-electric, hydraulic and hybrid injection moulding machines with clamping forces of between 180 and 20,000 kN. With over 100,000 machines installed, Sumitomo (SHI) Demag is present in all important markets throughout the world.

With more than 5,000 machines sold each year, the Plastics Machinery Business of Sumitomo Heavy Industries counts as one of the largest Global manufacturer of injection moulding machines.

The main Sumitomo plant in Chiba produces machines with low and medium clamping forces. Around 95 % of

all machines supplied by Japan have an all-electric drive.

The main Demag facility in Schwaig/Germany focuses on the hydraulic Systec and the hybrid high performance, high-speed EI-Exis machines. Recognising the increasing importance of electric drive technology for injection moulding machines, Sumitomo (SHI) Demag has expanded the factory in Wiehe/Germany into an international centre of competence for electric machines. Thanks to the new production capacities, Wiehe now supplies all electric injection moulding machines worldwide with its IntElect series with clamping forces up to 4,500 kN and also the hydraulic Systec series with clamping forces of up to 1,200 kN.

Sumitomo (SHI) Demag continues to operate the former Demag plant in Ningbo/China which has been active since 1998. Since 2007 the subsidiary located there, Demag Plastics Machinery (Ningbo) Co., Ltd, had its own, newly built plant and after reaching full capacity, moved to a larger factory with a production area of 11,000 sqm. Injection moulding machines from the Systec C product line with clamping forces of between 500 and 10,000 kN are produced here for Asian markets.

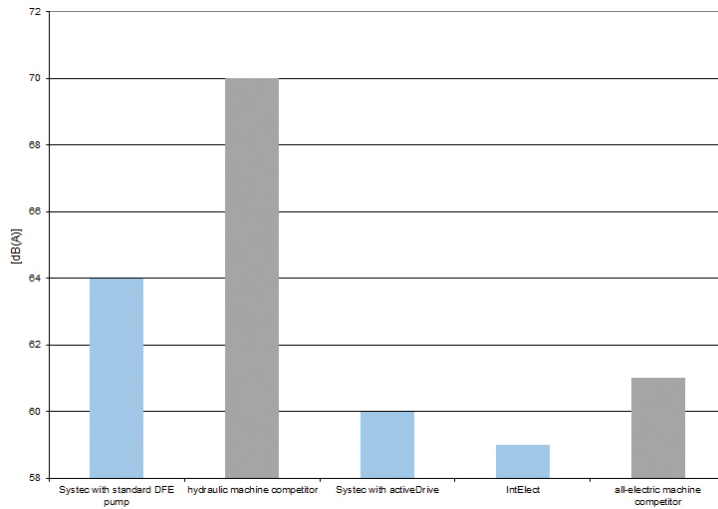
In addition to injection moulding machines, Sumitomo (SHI) Demag offers customised and standardised systems for the automated handling of moulded parts, technical solutions for special applications in process engineering, tailor-made service concepts and various forms of financing for investments in injection moulding machines.

With its seamless sales and service network of subsidiaries and representations, Sumitomo (SHI) Demag is present in all major industrial markets.

www.sumitomo-shi-demag.eu

Contact

Stefanie Lauterbach, Marketing
Sumitomo (SHI) Demag Plastics Machinery GmbH
Phone +49 911 5061-2915
Fax +49 911 5061-750
E-mail: Stefanie.Lauterbach@dpg.com



The Systec series hydraulic injection moulding machines from Sumitomo (SHI) Demag are noise-reduced. Noise level during operation of Systec 210 (2,100 kN closing force and 560 mm bar width) with standard equipment is only 64 dB (A). Due to the activeDrive drive concept, the sound pressure level of the machine can be additionally reduced to approx. 60 dB (A).

Graphics: Sumitomo (SHI) Demag