



2022

Shang Gong Group Corporate Social Responsibility (ESG) Report

(Short Version)



|| Chairman's Statement

Success only favors those who boldly forge ahead. In 2022, Shang Gong Group (“SGG” or “SGGroup”) actively responded to the opportunities and challenges in the process of global economic recovery, deeply cultivated the frontier fields of sewing technology, intelligent manufacturing and service-oriented manufacturing, achieved continuous growth and breakthroughs.

As a world-class manufacturer of intelligent processing equipment for flexible material, SGG owns internationally renowned industrial sewing machine brands, including Dürkopp Adler, PFAFF Industrial, KSL, Mauser Spezial, Shang Gong, SGGEMSY and Richpeace, as well as well-known household sewing machine brands, including Butterfly (a time-honored Chinese brand), Flying Man and Bee, serving many different industries and fields such as automotive interior, aerospace, shoes, garments and bags, furniture and home textiles, and new material processing. SGG has always adhered to the development philosophy of “continuous globalization, customer orientation, leading innovation, and green development”. With advanced technologies, powerful global resources and multinational management experiences, SGG is striding forward on the way to lead the development of the global sewing industry, and is committed to promoting economic and social development as well as environmental and ecological protection by continuously cultivating new strengths in high-quality and sustainable development.



Facing the future, we usher in a broad prospect. SGG will resolutely implement the business strategy of “driving development with innovation and services”, continue to give full play to its advanced technologies, innovative development and global layout. As driven by digitalization, we will boost green and intelligent manufacturing and realize green and low-carbon development on all front. Centering on customers, we will expand innovative application scenarios, set a model for service-oriented new manufacturing, and create the second profit curve of enterprise growth. With value co-creation as the core, we will build up our sustainable competitiveness through intelligent manufacturing, form a new pattern of shared values with our stakeholders, and draw a new blueprint for high-quality development.

Zhang Min
Chairman & President

ESG Strategy

» ESG Concept

As a leading company in the global sewing equipment industry, SGG, together with stakeholders, is committed to promoting innovation and technological progress and accelerating green and low-carbon transformation. It keeps enhancing employees' capability of sustainable development, taking the initiative to invest in community development, and consolidating compliance and corporate governance, in order to cultivate its own sustainable competitiveness and pursue the synergy of enterprise development, economic and social development and environmental and ecological protection.

» ESG Strategic Measures

1

Driven by innovation and digitalization, SGG promotes green production and intelligent manufacturing to lead the transformation and upgrading of the sewing industry. SGG enhances environment management by taking energy conservation and emission reduction measures to minimize environmental impacts and seek green development. SGG also follows up on the trend of low-carbon development, deploys green investments, and fosters new growth drives.

2

Adhering to the development philosophy of “continuous globalization, customer orientation, leading innovation, and green development” and centering on customers, SGG keeps improving engineering application and services, initiates the transformation from “production-oriented manufacturing” to “service-oriented manufacturing”, and cultivates the second profit curve of enterprise growth.

3

Sticking to people orientation with respect for multicultural, SGG manages employees in a local manner, and provides employees with a fair, safe and healthy working environment. SGG constantly offers professional trainings to improve employees' occupational skills to achieve shared growth with the company.

4

SGG actively invests in community development, by spreading cloth art with Butterfly charity events, organizing volunteer services, participating in public welfare activities, making contributions to the society with practical actions.

5

SGG insists on prudent operation, and continuously improves corporate governance, optimizes the internal control system, reinforces risk management, and consolidates the foundation for high-quality development.

Environmental Responsibilities

Green Development

In active response to China's carbon emission peak and carbon neutrality strategies, in order to drive development with innovation and services, SGG further scaled up its primary business of intelligent equipment manufacturing by accelerating digital transformation and upgrading. SGG developed digital and intelligent application scenarios for manufacturing, sped up the R&D of platform products, and minimized environmental pollution while improving production efficiency, so as to set a model for high-quality development of "China Intelligent Manufacturing". Meanwhile, SGG strengthened cooperation with peers in the low carbon sector, and jointly promoted transformation, upgrading and green development of the industry.

The "intelligent + green" factory

Case

Shang Gong Sewing Machinery (Zhejiang) Co., Ltd. ("SG Zhejiang"), an intelligent factory with an annual output of 390,000 units of electromechanical sewing machines set up by SGG in Huangyan, Taizhou, owns an intelligent manufacturing system for flexible material, featuring automatic production and information-based management, which can improve the overall efficiency of production and management, is a comprehensive application of digital and networking technologies in the factory sector, and an important practice of SGG to promote green and intelligent manufacturing. The factory of SG Zhejiang in Huangyan was awarded the "Intelligent Factory of Zhejiang Province" on December 22, 2020, and is currently a candidate of "2024 Intelligent Factory of Zhejiang Province".

The intelligent factory produces products at a high output, high quality and low cost, improves the product qualification rate with digital application, reduces energy consumption from rework and repair, minimizes environmental pollution by effectively processing exhaust gas, wastewater and dust with powder spraying technique and powder recovery and processing technologies.



● Exterior of the intelligent factory.



● Interior of the intelligent factory.

Technical reform project

Case

SGG Zhangjiagang Manufacturing Base purchased vertical machining center, high-precision horizontal milling machine and drill grinding and CNC lathes, and reformed the existing supporting facilities and technologies for precision parts processing of the whole sewing machine assembly products, with advanced technologies of CNC machining center programming, processing and operation.

the electricity consumption of workshops reduced to

22,000 kWh/year

After the project was put into operation, SGG is able to produce the most demanding key parts of sewing machines on its own, guaranteeing the supply efficiency of spare parts and the intellectual property protection of whole-machine products. This technical reform project, not only improves product manufacturing quality and performance, but further reduces energy consumption, with the electricity consumption of workshops reduced from 30,000 kWh/year to 22,000 kWh/year. Furthermore, the project allows technicians to master the international frontier technologies of processing industrial sewing machine parts, and reserves talents for the factory as well as the local machinery manufacturing industry.



E-CON project

Case

Dürkopp Adler GmbH (“DA”), a subsidiary of SGG, launched the E-CON project, aiming to provide efficient, energy-saving and sustainable sewing solutions that can reduce energy consumption and carbon footprints with advanced technologies while ensuring efficient and environmentally-friendly production process and maintaining high productivity. These solutions have been successively added to product mixes and, by using the corresponding technology in the new DELTA e-con, they ensure a high level of sewing efficiency while saving 25% of energy consumption compared to comparable digital competitors. The steel, aluminum, plastic and other material components used in DA’s sewing machines can all be reclaimed, with a reclaim rate of 90%.



saving of energy consumption **25** % with a reclaim rate of **90** %

Support environmental protection industry with intelligent equipment development

Case

In 2021, SGG completed the non-public offering of A-shares and raised funds of RMB800 million, of which RMB375 million was invested in the R&D, manufacturing and marketing of carbon fiber composite structural parts, 3D sewing robots, automatic programmed pattern sewing machines, automatic industrial textile sewing machines, automatic intelligent manufacturing workstations and integrated system upgrade, automotive interior and safety part sewing workstations, and core parts and techniques related to the hydrogen energy industry. It also gave full play to the technical advantages of its German subsidiaries in equipment manufacturing techniques and automated assembly line solutions, to enhance green manufacturing and to support China’s energy conservation and environmental protection industry with intelligentization of products, production and facilities.

raised funds of RMB
375 million

By developing the technique solution of wind blade prefabrication robot , SGG realized automated tape-laying and sewing process of carbon fibers and glass fibers, effectively improved the production efficiency of wind power equipments.

Cooperation in the low carbon sector

Case

Shanghai Shensy Enterprise Development Co., Ltd. (“SHENSY”), a subsidiary of SGG, continued to conduct exchanges and cooperation in the low carbon sector. As a representative of logistics enterprises, it held a number of carbon-related basic knowledge training at several national industry summits, provided carbon neutrality consultation for manufacturing enterprises, and helped manufacturing enterprises enhance the awareness and ability of low-carbon supply chain management. It also cooperated with Baowu Group, IKEA and Changan Minsheng APLL Logistics in the field of low carbon supply chain, participated in zero carbon freight actions, and jointly promoted the green development of the logistics industry. From 2023 to 2025, SHENSY will work with CFLP’s Green Logistics Branch to establish a data collection system and build data models for carbon emission to provide customers with online real-time information on the carbon footprints and carbon emissions of logistics.



- Automatic spraying technologies such as powder spraying and recovery were put into use in the manufacturing workshop, where waste gas, waste water and dust can be effectively treated and recovered, to minimize environmental pollution.



- The use of automatic polishing line, improves production efficiency, while greatly reducing dust, noise and other harmful factors in the workplace, lowering the labor intensity of workers and occupational health and safety risks.

|| Green Production

SGG intensified environmental management in multiple dimensions. It integrated green and low-carbon development into the whole process of production, promoted low-carbon energy consumption, resource recycling, clean production process, and green product supply, explored new models of carbon emission reduction in the whole life cycle of products, continued to improve the efficiency of green production, leading the industry's practices of "carbon emission peak and carbon neutrality". It also invited experts to offer multiple "dual carbon strategy" lectures for its employees, and set resource waste reduction targets and appraisal policies for branches, subsidiaries, and departments.

In terms of environmental management and ecological protection, SGG enhanced the pre-work of production and operation process by optimizing the procedures, defining the procedures for pollutant control and treatment, and adopting monitoring and evaluation system. In terms of the technical transformation for energy conservation, all subsidiaries of SGG enhanced waste reduction technical transformation in the production process and reduced the emissions of wastewater, exhaust gases and waste. In addition, SGG explored the application of the new energy vehicle battery replacement technology and the hydrogen energy vehicle technology to promote green transportation, and continued to optimize product packaging and reclaim the materials and wastes of products to minimize environmental impacts.



 **Case**

Integrate high-efficiency production with environmental protection

Shang Gong Sewing Machinery (Zhejiang) Co., Ltd. (“SG Zhejiang”), a subsidiary of SGG, enhanced pollution control facilities. In the spraying workshop, it added laser rust removal devices to effectively reduce the pollution caused by casing rust removal, canceled the intermediate coating process for better recycling and reuse of spraying powders, and optimized the packaging design of S2, S4, 5501E, 5601E and 1790 to scale down packages and reduce packaging and transportation costs. Under high temperatures in summer, it made reasonable production schedules to reduce electricity consumption. In 2023, SG Zhejiang is going to improve dust collection on the processing line of 8957 casing, add dust cleaning equipment, and further reduce dust pollution to optimize the production environment. In July 2022, both the headquarters of SGG and SG Zhejiang were granted the environmental management system certification.

PFAFF Industrial Sewing Machine (Zhangjiagang) Co., Ltd. (“PIZ”), a subsidiary of SGG, had the key links of the production process all monitored and tracked. It properly collected, stored and treated all hazardous pollutants and wastes, including a total of 4.318 tons of hazardous wastes (waste cutting fluids, waste oil drums and metal muds) in 2022. It also implemented the rain and sewage diversion and piping project in Zhangjiagang Park, and built a complete and compliant rain and sewage water separation pipeline system to help improve the ecological environment, enhance the city image, and promote local economic and social development.

Dürkopp Adler GmbH, a subsidiary of SGG, reduced energy consumption by various methods, including adopting the LED technology and lowering the warming temperature, and classified and collected wastes under the inspection and certification of external service providers, achieving a reclaim rate of over 90%.

PFAFF Industriesystem und Maschinen GmbH, a subsidiary of SGG, built its new factory in Bensheim according to the latest energy conservation standards, used LED lamps and motion detectors to save light use, installed a central ventilation and heat pump system to ensure regional temperature controlled within the appropriate range, and required reuse of cutting fluids and engaged a professional company to discharge them. In terms of product packaging, it used only compulsory packaging, made used packaging completely recyclable, distinguished between the packages for land transport, air transport and sea freight, minimized packaging sizes, and continued to optimize product packaging for higher sustainability.

Shanghai Shensy Enterprise Development Co., Ltd. (“SHENSY”), a subsidiary of SGG, took the initiative to explore the use of the new energy vehicle battery replacement technology and the hydrogen energy vehicle technology in the field of logistics and transportation, and put 200 new energy vehicles in use in more than 10 cities in China. It sold 60 vehicles meeting China VI Vehicle Emission Standards in cooperation with FAW Jiefang, guided customers to change the traditional mode of cargo transportation, and transported over 100,000 tons of goods through road-rail transportation and road-sea transportation in cooperation with Sinar Mas Group, realizing green transportation. In the future, SHENSY will continue to provide customers with application solutions of new energy vehicle technologies, continue to improve service experience and efficiency, and achieve 100% replacement of all its vehicles with those meeting China VI Vehicle Emission Standards and new energy vehicles.

treated hazardous wastes of

4.318 tons

wastes achieving a reclaim rate of over

90 %

200 new energy vehicles put in use



Green Operation

SGG built itself into a resource-saving enterprise on all fronts. It further revised the management policies for energy conservation and consumption reduction, continuously upgraded effective energy conservation measures for water use, electricity use, vehicle energy and office supplies. On one hand, it posted banners in the office building to promote the concept of green operation and guide all employees to establish the awareness of energy conservation and environmental protection. On the other hand, it created a green and low-carbon office environment through regulations, rules, inspections and technical means, such as setting temperature and wind strength of central air conditioning and enabling timed auto-off function.

Centralized management was implemented in all directions. In the first half of 2022, SGG moved its headquarters to SHENSY Building in Shanghai Baoshan Technology Park to further implement centralized and refined management, and optimize resource sharing among the branches and subsidiaries of SGG, which formerly located in different areas of Shanghai, including the headquarters and subordinate units of SGG, such as the sales company, R&D center, asset management company, SHENSY logistics company, Butterfly Shared Factory and Butterfly Sewing Machine Store. By integrating its business offices in Shanghai, SGG greatly improved the efficiency of administrative work and effectively saved office resources.

Digital management was further boosted. By optimizing office system and, applying the OA system - Kingdee, SGG realized paperless office and greatly improved administrative efficiency. Moreover, it unified the ERP platform - Kingdee K3 Cloud, which covers the group company and all domestic subsidiaries, including accounting, supply chain and manufacturing modules meeting all business demands, forming an informatized operation. In particular, the accounting module provides inventory checking, cost center and financial reconciliation functions, and has further improved the internal management efficiency of SGG. In 2022, a total of 4,890 electronic approvals were completed within the group company and all domestic subsidiaries, reducing carbon emissions by 85.6 kg.

SGG is now proactively introducing photovoltaic projects to its offices and production facilities, covering a total area of about 50,000 square meters, including its headquarters SHENSY Building in Baoshan District, Shanghai, SG Zhejiang factory in Huangyan District, Taizhou, Zhejiang, and PIZ factory in Zhangjiagang, Jiangsu, to replace part of the energy consumption with green and environmental-friendly power.



● SHENSY Building, the headquarters of SGG.



|| Green Procurement

SGG adheres to fair, open and just green procurement. With digitalized and intelligentized management, SGG conducted the whole process of procurement from access approval, purchase, analysis to evaluation, and worked with suppliers to build a green, low-carbon and win-win cooperation.

All suppliers were required to undergo annual reviews and due diligence to have their social responsibility fulfillment, product quality, cost, sales and services evaluated. On that basis, SGG selected high-quality suppliers, and dismissed suppliers subject to environmental penalties or employment violation. Suppliers with ISO9001 Quality Management System Certification, ISO14001 Environmental Management System Certification and ISO45001 Occupational Health Management System Certification are preferred.

SGG carried out procurement following the procedure of “evaluation - planning - application - implementation - inspection - warehousing”, strictly supervised procurement planning, supplier management, quality inspection and inventory management, optimized the existing resource allocation to guarantee the material supply, and closely worked with upstream and downstream departments to ensure effective control over all links in the supply chain.

Supplier analysis and evaluation



DA further implemented Germany's Due Diligence Act (which will officially take effect in 2024) on the mandatory due diligence and risk inspection for all suppliers, and conducted market analyses of different suppliers. For every order of every supplier, it applied SGG's *General Terms for Procurement and Code of Conduct Applicable to Business Partners*, which had been released on the company's website. Every month, suppliers were rated for quality, full delivery and on-time delivery, and supplier ratings were reviewed by the quality department and procurement department of the company on a regular basis.

Build a sustainable development ecosystem



Every year, SHENSY invited suppliers nationwide to join its ecosystem partner conference, which is an important form and channel for effective communication between the company and suppliers. At the conference, the company will honor the suppliers with excellent performance, and underline its specific requirements for quality and integrity.

Social Responsibilities

Improving International Competitiveness

SGG is the first listed company in China's sewing machinery industry, as well as the first Chinese sewing equipment enterprise that conducts multinational operations. After decades of development, it has developed from a traditional sewing machine manufacturer into a world-class manufacturer of intelligent processing equipment for flexible material, and has set up a model for state-owned enterprise reform and found its own path of global operation and development.

As the pioneer of "going global" among Chinese enterprises, SGG took the lead in "bringing in" high-end products through cross-border mergers and acquisitions, and promoted the commercialization of scientific and technological achievements in Shanghai, integrating both the technologies and markets at home and abroad, and successfully creating a new Shanghai manufacturing model where R&D and sales are conducted inside Shanghai and production outside.

As a pacesetter in China's sewing machinery industry, SGG gave full play to its leading technologies, innovative development and global layout, strengthened the synergy of domestic and foreign companies, and integrated resources in terms of production bases, marketing networks, raw material procurement and R&D. Worldwide, it has established a comprehensive sales and service network, and developed a professional structural multi-brand marketing strategy. With the production bases in Europe and Asia under gradient division management, it continuously provides global high-end customers with advanced sewing equipments and leading R&D technologies, and keeps enhancing its international competitiveness.

SGG's history of global development

In 2004 >>>

SGG determined the business strategy of "high-quality, differentiated and international" development, and established ShangGong (Europe) Holding Corp.

In 2013 >>>

SGG acquired PFAFF, another century-old sewing machine manufacturer in Germany, and KSL, an innovative enterprise engaging in sewing automation (now KSL Branch of PFAFF), got control of the world's top sewing technologies such as 3D sewing robots and 360-degree programmable rotating head, consolidating its global leading position in the field of automatic sewing technology.

In 2005 >>>

SGG acquired the highly-reputed Dürkopp Adler AG with a history of more than 150 years, and embarked on its journey of globalization. After years of overseas practice, SGG, together with Dürkopp Adler, has surpassed numerous competitors and strengthened its confidence and determination to further implement its development strategy through cross-border M&A.

As a domestic benchmark enterprise of “Industry 4.0”, SGG forges ahead with innovation and determination. Through domestic and overseas mergers and acquisitions and internal restructuring and integration, it promoted the co-R&D between China and Germany. With the advantage of synergistic collaboration across the Group and the concept of intelligentization, it took the high ground of global sewing technologies, continued to consolidate its core competitiveness, kept reinforcing the foundation for high-quality and sustainable development, and opened new chapters of global operation and development with firm steps, becoming a blazing name of “intelligent manufacturing in China” globally.

In 2018 >>>

SGG acquired 65% of the equity of Tianjin Richpeace Computer & Machinery Co., Ltd., and renamed it Tianjin Richpeace AI Co., Ltd., thus accelerating the independent development of CAD software and “intelligent manufacturing in China” of industrial cutting beds, embroidery machines, pattern sewing machines, multi-needle machines, mask machines and other special programmed equipments.

In 2020 >>>

SGG established Shang Gong Sewing Machinery (Zhejiang) Co., Ltd. in Taizhou, Zhejiang, an intelligent manufacturing factory with an annual output of 390,000 industrial sewing machines.

In 2015 >>>

SGG seized the opportunity of domestic industry restructuring, set up the joint venture Zhejiang Shanggong GEMSY Co., Ltd., and resumed the production and operation of standardized industrial sewing machines with appropriate timing. In the same year, it established its domestic production base of special sewing machines and parts in Zhangjiagang, Jiangsu, and thus formed a Shanghai manufacturing model where R&D and marketing are conducted inside Shanghai and production outside.

In 2021 >>>

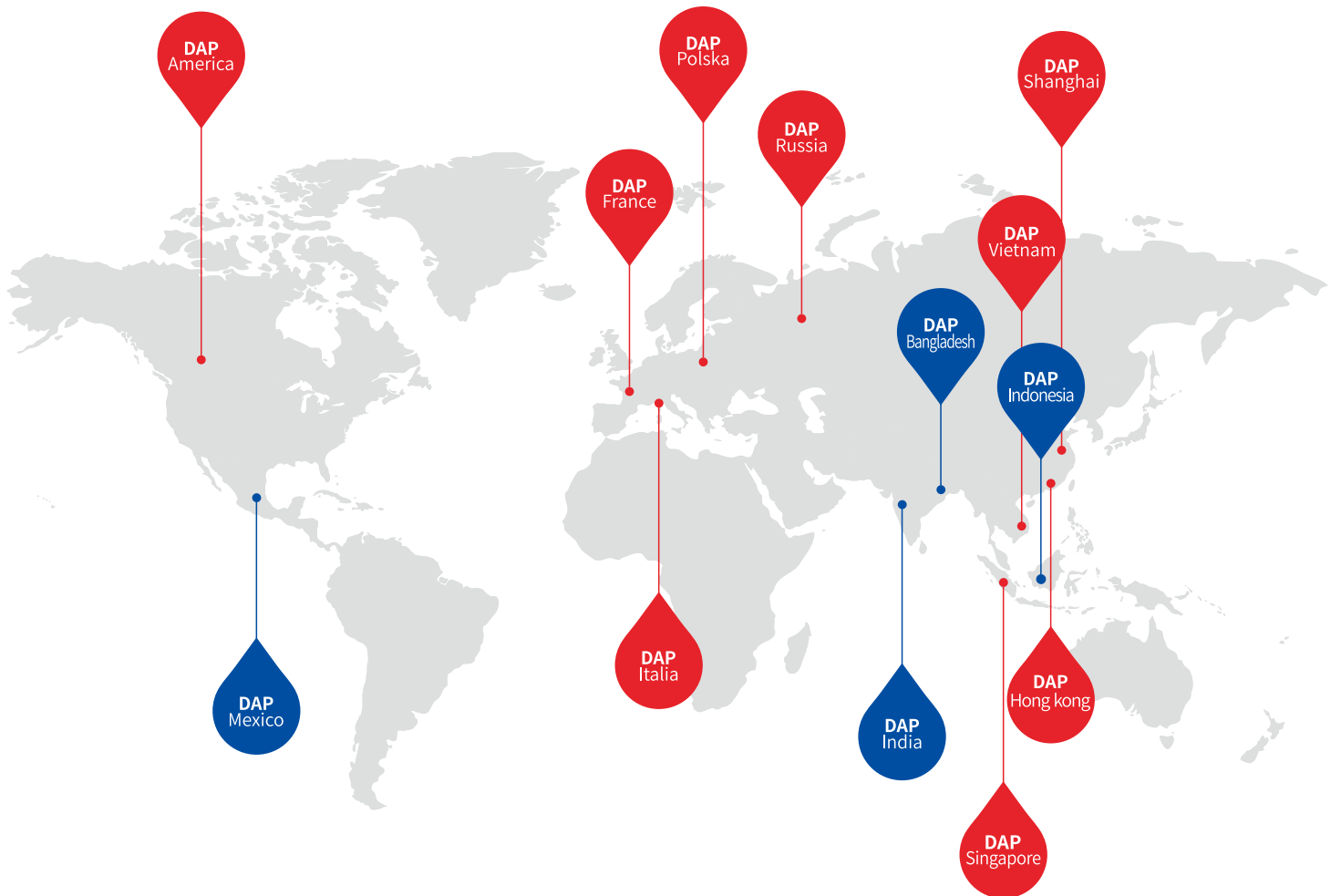
SGG completed the non-public offering of A-shares, expanded the innovation & R&D center in Bensheim, Germany, the production base in Zhangjiagang, and the R&D and sales center at its headquarters, and invested in the R&D projects of special sewing equipments and the intelligent workstations. It also established Shanghai Butterfly Digital Technology Co., Ltd. in Lin’ gang, Shanghai, and built the M2C platform of fashion products based on Butterfly Digital Shared Factory.



Global sales and service network

SGG owns world-famous brands of industrial sewing equipment, including Dürkopp Adler, PFAFF Industrial, KSL, Mauser Spezial, Shang Gong, SGGEMSY and Richpeace, as well as well-known household sewing machine brands, including Butterfly (a time-honored Chinese brand), Flying Man and Bee. In China, Germany, the Czech Republic and Romania, it has ten industrial sewing equipment manufacturing factories, and a marketing network of its subsidiaries and dealers all around the world.

SGG has formed a global network of sales and service companies. With the multi-brand marketing strategy and precise market segmentation, it provides customers of different market segments with the most suitable products and drives a steady increase in its market share.



● Market Coverage ●



SGGROUP
together for you



● On July 29, 2022, SGG attended China Int'l Sewing Machinery & Accessories Show 2021 (CISMA2021) at Ningbo International Conference & Exhibition Center.



Empowering Industrial Innovation

SGG adhered to the business strategy of “driving development with innovation and services”, continued to explore the new business model with digitalization, intelligentization and informatization, further realized automated intelligent

the annual output of medium and heavy material sewing equipment was recovered up to around

30,000 sets

manufacturing and digital management. By promoting digital production and lean management, the capacity of medium and heavy material sewing equipment was significantly improved, the annual output was recovered up to around 30,000 sets, and the delivery cycle shortened by 20% to 30%. As precision R&D continued to be accelerated, SGG saw a quick expansion of digital products in terms of automatic shoe upper processing, automatic air filter bag sewing production line, automatic airbag production line and automotive interior processing. Its revolutionary technology innovations played an important role in the upgrading of traditional industries such as shoes, garments and bags, and kept empowering the development of emerging industries, further consolidating SGG’s world-leading position in industrial technologies and making SGG a technical frontier of the sewing industry and intelligent manufacturing.

1 Upgrading the manufacturing industry with digitalization

SGG integrated digital management into all production and R&D processes, generated digital production orders with ERP, and formed paperless daily reports with OA to monitor production progress, strengthening the whole-process control over production. In the next step, it plans to introduce the PLM system to support its R&D subsidiaries in digital management of design, project, process and CNC transmission. In terms of developing industry standards, SGG participated in the formulation of several digital technology standards of the industry.

In 2021, SGG implemented the standards of the informatization-industrialization integrated management system. The group company and its branches and subsidiaries designed and manufactured products with 3D design software, improved its innovativeness through co-R&D and co-design, and enhanced its operation through the comprehensive use of the ERP system for inventory, supply chain, sales and accounting management.

Butterfly Shared Factory



SGG established Shanghai Butterfly Digital Technology Co., Ltd. (“Butterfly Digital Technology”) in Lin’ gang, Shanghai, which is committed to creating the first domestic BCIM digital and intelligent manufacturing platform for clothing production capacity sharing that is based on new consumption pattern and driven by digital technologies such as big data, IoT, blockchain and AI. It is aimed to realize digital and intelligent capacity sharing where products can be sold immediately after being produced through the intensified supply chain network, by adopting the core concept of quick return from small orders, on-demand design and manufacturing.

Butterfly Shared Factory will gather all the participants on the industry side and consumption side of the textile and clothing industry, and promote the interaction and integration of online (consumer e-commerce platforms) and offline (textile and clothing enterprises) resources through technology, equipment and service sharing. With the Internet manufacturing platform, it will take full advantage of the information transmission mode of “cloud computing, Internet network, intelligent terminals”, form a more efficient industrial system with greatly improved marginal efficiency, and initiate a comprehensive transformation from a high-end sewing equipment supplier to an integrated digital solution provider.



Digital intelligent management

Case

In 2022, SG Zhejiang put up three automatic MAZAK casing processing lines and one MAZAK FMS casing processing line of special machines for flexible material, realizing a significant drop in both manpower and labor intensities compared with traditional processing lines. Production automation was improved with the full use of automatic production equipments and high-performance robots for automatic grinding, spraying, transfer, packaging and stacking. In 2023, SG Zhejiang is going to introduce the MES manufacturing operation system, the WMS intelligent warehouse management system and the WCS warehouse control system, to perform digital intelligent management with automatic convey lines of casing, such as loading and unloading, sorting, assembly and finished product transfer and AGV distribution of parts.



Participating in the formulation of industry standards

Case

In terms of developing industry standards, SGG participated in the formulation of *Industrial Sewing Machine: Fully-automatic Hot Air Sealing Machine* standard of the National Technical Committee of Standardization for Sewing Machinery, the China Sewing Machinery Association's group standard *Quality Classification and "Leader" Evaluation Requirements: Computer-controlled High-speed Overlock Sewing Machine*, and standards including *Test Method for Energy Consumption of Sewing Machinery Part 2: Roland Machine*, *Industrial Sewing Machine: Test Method for Stitch Tightening Rate of Single Needle Straight Lockstitch Machine*, and *Computer-controlled Household Sewing-Embroidery Sewing Machine*. It was granted the Enterprise Standard Leader certificate issued by the China Sewing Machinery Association for *Computer-controlled High-speed Lockstitch Machine*, *Computer-controlled High-speed Overlock Sewing Machine*, and *Computer-controlled High-speed Flat Seaming Machine*.



Promoting the transformation to service-oriented manufacturing with customer centricity

SGG adhered to “market orientation and customer centricity”, gave full play to its technical strengths based on its pioneering role in the era of Industry 4.0, meeting customers’ individualized demands in an all-around manner. In view of customers’ difficulties and pain points, it provided tailor-made processing technology solutions, and formed a new business pattern of products plus services. It actively promotes the transformation to service-oriented manufacturing, by continuously providing digital products, technologies and services to the traditional shoes, garments and bags manufacturing industry, and expanding the R&D cooperation and digital innovation in emerging industries in automobile, environmental protection and new energy sectors.



- DA won the Innovation Award in the field of “New Digitalization” at Texprocess 2022 held in Frankfurt, Germany, for its “QONDAC Guided Working” software module.

- In early 2023, SGG established strategic cooperation with Jiangsu Sunshine Group to jointly promote the construction of intelligent garment processing factories, explore new technological breakthroughs and set up a new model for intelligent manufacturing enterprises in the era of “Industry 4.0” .

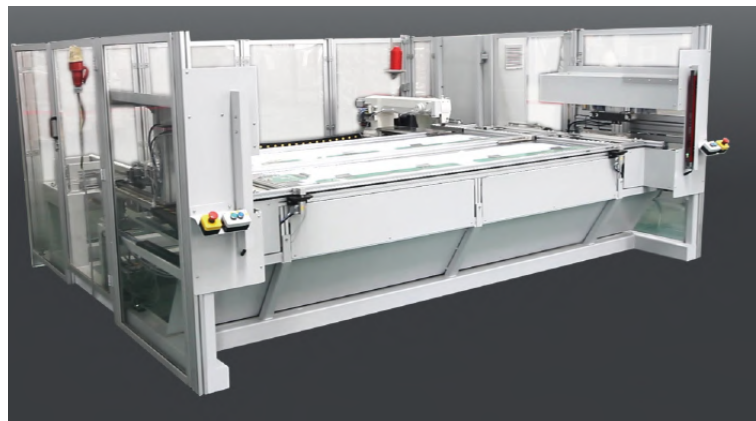


- KSL Branch of PFAFF developed the automatic multi-station shoe upper manufacturing production line and shoe upper weaving machine for internationally-renowned shoemakers and world-famous sports brands. The projects not only help produce the shoe uppers that fit consumers’ foot types with better supportability and comfortability, the production line and machine have also reduced labor cost and workload in labor-intensive industries, promoted the informatization of downstream industries, and opened up a new era of technological revolution of the third-generation shoe machine.



● The CM05 project is a digital automated airbag processing line customized for a leading enterprise in vehicle passive safety industry. It has the advantages of digital collection of product and equipment information, workload reduction, and intelligent process.

● The S-310 project optimized the components of sewing applications targeting customers' demands, including a hook device functioned with broken stitch alarm, for which a patent certificate was granted.



● Butterfly household sewing machine business unit developed two new products to meet the increasing DIY demand of household users. One is an entry-level household sewing machine made at low-cost and of PP (an environmentally-friendly material), which has a compact body and a fashionable appearance and is more suitable for home use and storage. The other one is the Butterfly X60 Sewing-Embroidery Machine, which is advantageous in the rotation speed, stitch length and width, stability and easy operation and provides better user experience in terms of wireless communication.



Improving Customer Experience

SGG kept optimizing products and services to provide customers with better experience. It enhanced the quality management system, carried out whole-process, closed-loop management of product compliance and quality, optimized the after-sales service process, delivering timely response and problem resolution, continuously improving customer satisfaction.

In terms of product quality, it established and refined the product quality control system, further standardized the quality control of material sourcing, production and finished products, performed ERP digital filing on all product parts, assembly and commissioning processes, and tracked and ensured product quality in an effective manner. Besides, SGG established the quality review mechanism, carried out summary and analysis of quality problems identified in part inspections, whole machine sample inspections and market feedback, and refined inspection rules and procedures and optimized the inspection instructions on whole machines and parts according to the analysis results. By offering employee training on coating, assembly and inspection, it kept improving employees' job skills and professional competence. In 2022, SGG was granted the GB/T19001-2016 Quality Management System Certification, the GB/T24001-2016 Environmental Management System Certification and the GB/T45001-2020 Occupational Health and Safety Management System Certification.

In terms of after-sales service, SGG improved the after-sales service process and formulated detailed rules to guarantee users' rights and interests. With the full-coverage network of its sales branches, SGG set up local service teams for prompt responses to customers' problems and door-to-door technical services within 24 hours, effectively improving customer experience.

In terms of customer complaint management, SGG responded to customers' complaints within 8 hours through its online platform. It also updated the claim form format and optimized the data acquisition and online approval procedure to improve the efficiency of claim response.

door-to-door technical services within
24 hours

responded to customers' complaints within
8 hours

Continuously optimizing after-sales services

Case

DA realized faster and more effective after-sales services with "Enhanced Support", where service technicians interact with customers through smart glasses, tablets or smartphones to provide customers with remote support and quick responses, thus improving the first fix rate and enabling automatic generation of service reports at every remote support communication. After the optimization of after-sales services, customer complaints were further reduced.

PFAFF kept offering employees training on machines, equipment and customer services, evaluated key quality data on a monthly basis, and intensified employees' quality management training. It continuously carried out customer satisfaction investigations where customers could voluntarily or anonymously fill out the questionnaires attached to invoices or machines. By optimizing the procedures for incoming inspections, production control and customer complaint handling, analyzing the cause of each complaint and having frank discussions with customers, it provided customers with solutions in a timely manner.



Shared Development

In pursuit of the people-orientation, SGG creates a diverse, equal and harmonious working atmosphere, promotes shared growth with employees. It gives great importance to the guarantee of employees' rights and interests, and creates a safe and healthy working environment for employees. Centering on employees' career development, it increases accesses for their personal value realization. It also highlights humanistic care, and organizes activities of various forms to keep improving employees' satisfaction and sense of happiness.

1 Protecting employees' rights and interests

SGG strictly abode by the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China* and other laws and regulations, ensured fair, open and just procedures for contract signing, renewal and labor relationship termination and rescission with employees and that such processes would not be affected by gender, race or other factors, and protected the right of employees to enjoy national holidays and rest days, as well as other paid holidays, according to the state's regulations.

2 Empowering employee growth

Based on business development and job requirements, SGG carried out employee trainings in various channels and forms, so as to improve employees' professional skills in an all-around manner. In 2022, 164 training sessions were held worldwide across the Group with 1,732 attendees, among which 6 special trainings were held by the headquarters on topics of system operating, HR mangement, SHR system, HR analysis and strategies, corporate social responsibilities and accounting, all achieving good results.

164 training sessions held worldwide
with 1,732 attendees across the Group

PIZ organized a dozen of employee trainings with 115 attendees according to employees' job characteristics, which involved production safety, rules and regulations, self rescue from fire and skill improvement. Some attendees were granted training course certificates. Among them, Guo Lijuan participated in the 10th Zhangjiagang Municipal "Industry Master" Vocational Skills Competition, and won the title of "Zhangjiagang Municipal Skill Master" with the corporate HR manager project.

Case

Internal appraisal and appointment of professional titles

In order to encourage technicians for continuous improvement in professionalism and technical skills to support the business development of the company, SGG carries out internal appraisal of professional titles in a standardized and orderly manner. In 2022, it organized the internal appraisal of professional titles on engineering, and 35 engineers, including 2 professor-level senior engineers, 6 senior engineers and 27 engineers and assistant engineers were recommended, evaluated and appointed by the election committees. At the beginning of 2023, SGG organized the internal appraisal of professional titles for economists and accountants and technicians, and 12 accountants, 14 economists and 2 technicians were appointed, including 6 with a senior title.



Case

Carrying forward the spirit of model workers and craftsmen

In 2022, before May 1st International Labor Day, by publicizing the deeds of national model workers such as Zhang Min, Gao Jiezhong and Sang Nairong and giving full play to their leading role, SGG formed a positive corporate culture and an atmosphere of “competing with each other, learning from each other, helping each other and surpassing each other” among the employees through active encouragement of the spirits of hard work, model workers and craftsmen. SGG organized the “2022 SGG Craftsman” model election activity among all domestic and foreign subsidiaries, 11 SGG craftsmen were elected, and two of them were recommended to the “2022 Shanghai Light Industry Craftsman” model election activity of Shanghai Light Industry Association, at which Liu Jingbo from the R&D Center at headquarters was honored with the title. Through the model election activity, SGG encouraged employees to carry forward the spirit of model workers and craftsmen and contribute to SGG’s core competitiveness, and rising position in the industry.

2 Caring for employees

SGG organized a variety of activities to enhance communication and relieve work pressure for the employees. It held “Team building and healthy run” activities on a regular basis, as well as movie watching, study tours and online public mental healthcare courses, to enhance team cohesion and increase employees’ sense of happiness during work.

a total of RMB **354,300**
of difficulty relief for **571** employees

During high temperature hours in summer, it organized activities for front-line employees working at high-temperature production positions, also for some aged and retired employees and model workers to bring them coolness and care. As for employees with difficulties, the subordinate asset management company was required to help those that had left their posts or retired. Throughout the year, a total of RMB354,300 was spent on difficulty relief for 571 employees.

Case

2022 Healthy Run

On October 22, 2022, SGG held the annual Healthy Run activity, aiming to encourage the striving spirit of the employees to work with ambition, health and innovativeness. The “Team building and healthy run” activity has been carried out for three consecutive years, and it has become a stage for the employees to show their healthy and enterprising outlook and their fearlessness of hardship, a grand meeting to cultivate hobbies, strengthen physical fitness and express themselves, and an activity that further enhances the cohesion of the team.





Contribution to the Society

SGG took the initiative to devote itself to public charity. It increased investment in poverty alleviation and community development, spread its positive energy through concrete actions, and continued to repay society with dedication.

Every year, it holds Butterfly cloth art workshops and trainings in communities, sub-districts, enterprises and schools, spreading cloth art and sewing culture, and providing a platform for fabric lovers and handicraft lovers from all walks of life to learn, create and communicate. In 2022, it held 15 charity events of cloth art workshops and trainings, which were attended by 400 community residents, enterprise employees, students and teachers.

In cooperation with vocational and technical colleges, it invited students to participate in the CISMA exhibition, and offered them on-site trainings for equipment operation. It also organized campus recruitment to boost the employment of college students.



Helping disadvantaged groups and building a harmonious society



In 2022, SGG donated RMB200,000 to Pudong Branch of Shanghai Charity Foundation to support poverty alleviation, and provided free health check-up services to 40 migrant workers. It also took the initiative to care for front-line workers in difficulties and allocated over RMB100,000 for special assistance to support the families of workers in need.

In view of the changes in the economic situation in 2022, SGG offered discounts or rent-free periods to qualified small- and micro-sized enterprise tenants and self-employment business tenants, and reduced or exempted the rent of over 30 tenants, easing the operational difficulties of small and micro enterprises.

Supporting local urban development



Every year, DA sponsored Das kommt aus Bielefeld and Bielefeld City Marketing projects with over EUR3,000 to publicize and promote Bielefeld, attract investment, promote market products, enhance economic cooperation and boost employment, supporting the economic development of Bielefeld.

Case

Shanghai Butterfly flies into the Red River Valley

Pangda Village in Yadong County, located on the west bank of the Yadong River Valley in Donglang Area, is at the border of Tibet. After learning that Pangda Village was going to develop cultural and creative products and initiate independent production with the county tourism industry, SGG, of its own accord, integrated resources, and assigned its “Butterfly Home” service team to connect with the Human Resources and Social Security Bureau of Yadong County and jointly establish Pangda Village Rural Cooperative and the production demonstration base of Butterfly Home in Pangda Village.

It donated 15 sets of Butterfly intelligent household sewing machines, and helped Pangda Village Rural Cooperative produce, design, and sell cultural and creative products by offering trainings, product design and integrating government resources and e-commerce

platforms, and created a new model of the demonstration base of Butterfly Home. So far, herdsmen in Pangda Village are living in warm and bright new houses and can create, sew and embroider cultural and creative products with Tibetan characteristics at home with Butterfly sewing machines, which not only enriches local tourism features but also increases villagers’ income and leads them to wealth through developing up local industry.





● Butterfly cloth art workshops and trainings.



Corporate Governance

|| Prudent Governance

▶ SGG's corporate governance structure was refined.

Adhering to standardized operation and following the *Company Law*, the *Securities Law* and the *Articles of Association*, SGG formed a corporate governance structure composed of the Shareholders' Meeting, the Board of Directors, the Board of Supervisors and the Management, with well-defined and balanced powers and responsibilities, intercoordination and mutual complement. The *Rules of Procedure of Shareholders' Meeting*, the *Rules of Procedure of the Board of Directors*, the *Rules of Procedure of the Board of Supervisors* and the *Rules of Procedure of the Management* have been formulated to define the powers and responsibilities as well as protocols of the Shareholders' Meeting, the Board of Directors, the Board of Supervisors and the Executives, thus ensuring that decision-making, execution and supervision are independent of each other. Under the Board of Directors, there are Audit Committee, Strategy Committee, Nomination Committee and Remuneration and Appraisal Committee, supporting the scientific decision-making of the Board of Directors. Each of these committees has their defined powers and responsibilities, decision-making protocols and rules of procedure. During the reporting period, SGG held 2 shareholders' meetings, 6 Board of Directors' meetings and 5 Board of Supervisors' meetings.

▶ Sound investor relationships were established.

SGG attached great importance to investor relationship management, and maintained unobstructed and efficient communication and exchange with investors. Through its website and SSE e-Interactive platform and via email and phone, it invited investors and researchers to conduct on-site investigations and participate in bokeratge strategy meetings, so as to allow them to have a deeper understanding of SGG and enhance its competence of investor relationship management.

▶ Information disclosure was sufficient and all-sided.

SGG carried out information disclosure following the principle of "true, accurate, complete, timely, fair and open". During the reporting period, it released 33 announcements in total, and formulated information confidentiality and disclosure measures including the *Policy for Internal Reporting of Material Information*, the *Policy for Internal Reporting of Material Financial Events*, the *Policy for Registration and Management of Persons in the Know of Insider Information*, the *Policy for Confidentiality*, the *Policy for Information Disclosure Management*, and the *Policy for Management of External Information Users*. In communicating with shareholders and investors, SGG paid continuous attention to details, kept improving the transparency of corporate operations, and safeguarded the right to know and legitimate rights and interests of shareholders, investors and the public.

▶ The Employee Stock Ownership Plan (ESOP) was promoted.

At SGG's first extraordinary shareholders' meeting in 2022, the proposals on the *2022 Employee Stock Ownership Plan (Draft) and its Abstracts and the Management Measures for 2022 Employee Stock Ownership Plan* were deliberated and approved. ESOP follows the principle of independent decision, voluntary participation and self risk assumption, and is open to the directors of the board (excluding independent directors of the board), supervisors of the board, executives of SGG, and middle-level managers and key employees of SGG and its controlling subsidiaries. A total of 159 employees participated in this ESOP, including 6 directors of the board (excluding independent directors of the board), supervisors of the board and executives. ESOP intends to establish and improve the benefit sharing mechanism for employees and shareholders, enhance corporate governance, strengthen employees' cohesion and initiative and creativity, and foster SGG's long-term and healthy development with greater competitiveness.



► The ESG management system was built.

SGG formulated the *Policy for Social Responsibilities Management* to include the requirements for social responsibility fulfillment in the whole-process business operation and define the corresponding responsibilities and obligations. The Policy covers production safety, product quality control, environmental and ecological protection, resource conservation, employment promotion, protection of employees' rights and interests, fostering the harmonious development between the company and the economy, society and environment. The Board of Directors of the company is the highest authority and the ultimate responsible body for social responsibility (ESG) matters, responsible for the formulation of ESG strategies and approval of plans, as well as guiding the promotion and implementation of ESG practices. SGG releases annual *Corporate Social Responsibility (ESG) Report* to fully disclose its performance in environmental, social and governance issues, respond to the concerns of its stakeholders such as the government, customers, employees, the public, and shape a sound corporate citizenship, so as to realize high-quality and sustainable development.

|| Compliance and Internal Control

SGG's internal control system, based on actual business operation, focuses on "proper operation and effective control" as a goal, follows the principle of risk-orientation, has been continuously improved and optimized.

In 2022, the internal audit department carried out 7 special audits and 1 financial audit while maintaining regular supervision over internal control. The Board of Supervisors of SGG thoroughly reviewed the design and operating effectiveness of internal control of the year, prepared the *2022 Internal Control Assessment Report*, and held that SGG maintained effective internal control over financial reporting in all major aspects in accordance with the requirements of the enterprise internal control standard system and relevant regulations, and did not have material weaknesses.

SGG kept strengthening the prevention and control of risks overseas to guard its global operation and development. Its affiliated overseas enterprises established refined corporate governance structures and operation policies following the local laws and regulations. SGG formulated the *Management Measures for Overseas Invested Enterprises* in its early phase of cross-border M&A, to define the decision-making mechanism and internal control system inside the multinational company and strictly implemented the policies for reporting and approval, in order to ensure prompt knowledge of the business status of overseas invested enterprises, including material matters relating to their economic operation, finance, capital and foreign investment, as well as due diligence of the management. It also assigned managing directors (executives) to overseas invested enterprises to supervise and perform regular checks on the implementation of resolutions, so as to promote the healthy development of these enterprises and further improve its competence of international operation.

In addition, it formulated the *Policy for Venture Capital Management*, *Policy for Material Risk Warning*, *Policy for Internal Reporting of Material Information*, *Policy for Production Safety Management* and *Policy for Reporting and Handling of Production Accidents*, highlighted the dual management scheme of risk classification & control and potential risk identification & handling, and analyzed and mitigated potential risks in all sectors solidly.



|| Production Safety Management

SGG always adheres to the principle of “safety first with prevention and comprehensive management”, implements the production safety accountability system, achieving good results in production safety and environmental protection and ensuring zero production accident. It established an organizational structure led by the group company, involving safety managers of branches and subsidiaries to be fully accountable for the production safety and fire control, set production safety appraisal indicators for each branch and subsidiary yearly, and include every aspect of production safety in its daily work.

◎ Production safety standards were strictly implemented.

SGG set full-time posts for production safety management and refined the production safety ledger. It prepared registries for special equipment and its certified operators, and managed fire equipments according to their validates and timely replaced the expiring ones.

◎ Safety and 6S inspections were carried out.

SGG held regular safety meetings, organized all-around inspections of potential production safety hazards, carried out centralized rectification in key areas of its factories through cross-departmental cooperation, prevention, control and management, and strictly examined fire facilities, emergency facilities, equipment operation, labor protection supplies, motor instruments and pressure vessels. As required by safety supervisory and environmental authorities, SGG submitted the information on material hazard sources, safety risk spots and rectification progress on a monthly and quarterly basis, participated in the “Blue Sky Protection Action”, and reported the latest data of hazardous waste generation, storage and transfer on a monthly basis. It also revised and formulated the *Emergency Plan for Typhoon and Flood Control* for 2022, established the emergency rescue team, thoroughly inspected typhoon and flood control supplies and the on-site conditions of the industrial area, and made timely rectification in view of inspection findings, so as to ensure typhoon and flood control.

◎ Occupational health and safety management was implemented on all fronts.

In strict accordance with the *Labor Law of the People’s Republic of China* and the laws and regulations of the countries where it runs business overseas, SGG safeguarded employees’ safety and health in an all-round manner. It organized comprehensive annual physical examinations and occupational disease inspections for employees, and also provides medical insurance to reduce the burden of personal medical expenses on employees with illnesses. During high temperature days, SGG took measures to prevent heatstroke by following up on daily temperature changes, preparing summer supplies and heatstroke prevention and cooling medicines for employees, so as to ensure staff’s work safety during the summer. Moreover, it also arranged professional institutes to carry out occupational sanitation inspections and issued the *Occupational Sanitation Inspection Report*, according to which, all hazardous factors, such as dust and noise, in SGG’s workplaces were in line with standards.

|| Intellectual Property Protection

SGG attached great importance to intellectual property, continued to strengthen its market competitiveness by enhancing its capability of protecting, creating, safeguarding and using intellectual property. As at the end of 2022, SGG has had 360 valid patents, 269 utility models and 65 appearance designs, as well as 96 patents, 45 utility models and 19 appearance designs pending for approved.

It has registered each of its legal and exclusive brand names and trademarks worldwide. As for the innovations and inventions of its subsidiaries, SGG has applied for the patent rights to Chinese and European patent offices, with practical progress in brand building and protection.



360
valid patents



269
utility models



65
appearance designs



Appendix

Key Performance

Table 1 Social and Economic Contribution Value

Indicators	Unit	2022
Total assets	RMB million	5,837.54
Total loans	RMB million	1,197.35
Operating income	RMB million	3,329.00
Staff cost	RMB million	751.00
Interest expense	RMB million	42.38
Taxes	RMB million	134.23
Total external donations	RMB million	0.22
Social value contributed per share (by weighted average number of shares)	RMB	1.40

Table 2 Resource and Energy Use

Indicators	Unit	2022
Total water consumption	Ton	4,157
Total electricity consumption	kWh	713,310
Total fuel consumption	L	20,000
Total paper consumption	kg	500
Percentage of video conferences	%	95%
Coverage of video equipment	%	100%
Kitchen waste	L	7,000
Harmless disposal processing rate	%	100%

Note: The statistics cover the headquarters of SGG.



Table 3-1 Basic Information of Domestic Employees

Indicators	2022
Number of employees	1,733
Employment contract signing rate	100%
Number of contracted employees	1,604
Number of dispatched employees	129
Male	1,240
Female	493
Number of new employees	115
Number of ethnic-minority employees	23
Number of foreign employees	1
Number of employees with bachelor's degree or above	385
Number of employees with college degree	436
Per capita paid vacation days for employees	8

Table 3-2 Basic Information of Overseas Employees

Indicators	2022
Number of employees	1,660
Employment contract signing rate	100%
Male	1,332
Female	328
Number of new employees	165
Per capita paid vacation days for employees	27



Table 4-1 Training of Domestic Employees

Number of training sessions	Number of employees trained	Expenditure (RMB)	Per capita expenditure (RMB)	Per capita training duration (days)
83	1,014	22,505	144	1

Table 4-2 Training of Overseas Employees

Number of training sessions	Number of employees trained	Expenditure (EUR)	Per capita expenditure (EUR)	Per capita training duration (days)
81	718	94,659	132	2

Table 5 Protection of Employees' Rights and Interests

Indicators	Unit	2022
Rate of establishment of workers' and employees' congress	%	100%
Amount of disaster grant	RMB thousand	100
Amount of medical aid	RMB thousand	17.2
Amount of life support	RMB thousand	399.5

Note: The statistics cover domestic branches and subsidiaries.

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