



# ENVIRONMENTAL SOCIAL AND GOVERNANCE (ESG) REPORT 2023

Hangzhou Hua Guang Advanced Welding Materials  
Corporation Limited



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# HUAGUANG



**ENHANCE INDUSTRIAL  
CONNECTIVITY AND  
CONTRIBUTE TO A WIN-WIN  
INDUSTRY CHAIN**



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## ○ About the Report

This is the third environmental, social and governance (ESG) report issued by Hangzhou Hua Guang Advanced Welding Materials Corporation Limited (hereinafter “Huan Guang Welding”, “the Company”, or “we”). We strive to integrate sustainable development into corporate governance, and present our practice as well as achievement concerning ESG to stakeholders.

## ○ Scope

- Reporting Scope: Unless otherwise stated, data and facts involved herein covers Hangzhou Hua Guang Advanced Welding Materials Corporation Limited and its wholly-owned subsidiaries.
- Reporting Period: From January 1st to December 31st, 2023. Some contents may be extended to ensure coherence.

## ○ Preparation Basis

The report was prepared with reference to the GRI Sustainability Reporting Standards (2021) promulgated by the Global Sustainability Standards Board (GSSB) (see Appendix: GRI Index for related information disclosure). As a publicly-listed company (SSE: 688379.SH) on the Science and Technology Innovation Board of Shanghai Stock Exchange (SSE), we also referred to the requirements for social responsibility disclosure.

## ○ Data Description

Data and cases involved herein are from official documents and reports of the Company and its subsidiaries. Unless otherwise stated, the amounts in this report are denominated in CNY.

## ○ Access to the Report

The report is a solely independent ESG report provided in both English and Chinese for reference. The electronic version can be downloaded from the websites of Shanghai Stock Exchange (<http://www.sse.com.cn/>) and Hangzhou Hua Guang Advanced Welding Materials Corporation Limited (<https://www.cn-huanguang.com/Investor.html>)

## ○ Feedback

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## Leader's Message

2023 marks the first year for fully implementing the guiding principles from the 20th National Congress of the Communist Party of China (CPC). It is also a crucial year for achieving the objectives and tasks laid down in the 14th Five-Year Plan (2021-2025). As a leader in the domestic brazing and welding industry, Hua Guang is famous as the single champion in the median-temperature hard brazing filler metal industry through 28 years of devotion to the field. Following the tenet of independent innovation, the Company continues to invest in the R&D of new products and technologies, and strives to bolster the total factor productivity and the new quality productive forces. All employees are concentrating on promoting high-quality development, and actively advocating the idea of green business. With its corporate mission, “Enhance industrial connectivity and build a win-win industry chain”, and the corporate spirit, namely “Integrity, Diligence, Exploration, Dedication”, Hua Guang Welding contributes continuously to the sustainable development of economy, society and environment.



This year, the Company made great efforts to improve corporate governance by establishing a governance structure consisting of Shareholders' General Meeting, Board of Directors, Supervisory Committee and senior management. Characterized by clear definition of duties and responsibilities, the three bodies and management team altogether have operated in an efficient manner and laid a solid foundation for the robust development of the Company in the long term. Besides, the risk management mechanism and system were strengthened to achieve scientific prevention and control of business risks, for example, compiling and improving various management systems for different types of risk. In addition, the Company continued to promote the compliance management mechanism and culture. To build its own brand of anti-corruption, the Company pushed forward the construction of clean management systems, and education of probity culture. In 2023, the Company carried out two compliance trainings offline and three internal meetings to imbue altogether 660 participants with general knowledge of laws and regulations.

This year, the Company insisted on promoting green business development. Xi Jinping, General Secretary of the United Nations, pointed out that green development is the defining feature of high-quality development, as new quality productive forces are green productive forces per se. Hua Guang Welding fully supported China's “30-60” decarbonization goal of carbon peaking and carbon neutrality. With accordance to the green and low-carbon principle of reducing emissions from the source, the Company integrated the ideas of green design, green manufacturing and low-carbon environmental protection into business operations and the entire life cycle of the products. By establishing and constantly improving our environmental protection policies, we strengthened the risk management of environmental impact to ensure sustainable development of corporate economy as well as the environment. We were deeply engaged in the waste-free city building and has become one of the “Waste-Free Factories”, thanks to the ongoing efforts of reducing consumption, losses and pollutant emissions; opposing waste; and optimizing energy utilization. In 2023, the Company strived for progress in a steady manner. For example, besides consolidating its advantages in the fields of refrigeration and HVAC, and power industry, it actively expanded its business to new sectors including the electronics, renewable energy vehicles, etc. The Company also carried out a project of intelligent manufacturing of new green brazing materials, with an annual output of 4,000 metric tons, which improved the production size and the level of equipment automation, boosting the Company entering a new growth period. In summary, the Company realized a win-win situation in terms of economic returns and social benefits when striving to become an eco-friendly enterprise, as it made technological innovations in the greening of product, manufacturing, and APPs, leading the industry to a green development path.

This year, the Company improved the working mechanism for talent train in accordance with the requirements for the development of new quality productive forces. The Company has always regarded professional cultivation and organizational vitality as important factors in corporate strategy, and played an active role in contributing to employees' welfare. Thus, we continuously empowered our employees to grow in an all-rounded way and improved their competitiveness, for instance, offering an equal, inclusive and friendly workplace, building a people-oriented HR managerial system, and providing carefully-structured training opportunities of multi levels and aspects. We also worked hand in hand with our supply chain partners to enhance customer service and industry synergy. By implementing green management for the whole life cycle of our products, we helped our downstream clients reduce pollution and carbon emissions. To strengthen the supply chain resilience, we built a resource pool of suppliers and carried out relevant visits, research and training. Putting people first, the Company focused on improving employee recognition and support for ESG. As for the top-level design, we solidly pushed forward the management of corporate risk and compliance, business ethics, and so on. Committed to “self-fulfillment via social contribution”, we have always paid due attention to societal interests and needs. In 2023, our public welfare donations amounted to 601,260 CNY, and we carried out 13 volunteer services, with around 200 employees serving for more than 300 hours.

New quality productive forces, with defining features of innovation and high quality, are in fact advanced productive forces per se. As the manufacturing industry develops in diversified ways, such as automation, intelligence, low-carbonization, and these changes put forward higher requirements for the form, structure, and performance of the brazing materials. New brazing technologies mainly develops in the following directions, for example, they become greener, of lower temperature, composite, of lower cost, more flexible, and of high reliability.

Looking forward, Hua Guang Welding will continue to link to the global market, and integrate the ESG strategic requirements into the daily management and operation of the Company. Meanwhile, the Company will pay deep attention to the interests of all stakeholders, enhance its financial reputation, and do our bit to the cause of global clean energy.

**Limei JIN,**  
Chairman

# About Hua Guang Welding

## Company Profile

Founded in 1995, Hangzhou Hua Guang Advanced Welding Materials Corporation Limited is a national high-tech enterprise specializing in intelligent, efficient and green welding solutions. The Company endeavors to the R&D and high-quality manufacture of brazing alloys, and has become a leading enterprise in the field of welding and brazing through 28 years of continuous innovation and development.

Hua Guang Welding is the vice president of Brazing Materials, Equipment and Processes Branch, China Welding Association (CWA); member of Brazing and Soldering Branch, TC55/SC2; member of Standing Committee of Brazing and Specialty Connections Branch, Chinese Welding Society. The Company has established its own Key Enterprise Research Institute, R&D Centre, and Post-Doctoral Workstation, and undertaken several key national and provincial projects. It has also engaged in the revision of the national standard “Silver brazing filler metals” (GB/T 10046—2008), as well as the drafting of 7 national standards and 8 industrial standards such as “Copper base brazing filler metals” (GB/T 6418-2008). Besides, the Company owns 45 invention patents, 74 utility model patents and 1 appearance design patent. Hua Guang Welding has been awarded the second prize of “National Science and Technology Progress”, one of the most prestigious scientific awards in China, and the grand prize of “China Machinery Industry Science and Technology Award”. Our Company and products have obtained a series of honors, including “the first (sets of) product in key areas of the equipment manufacturing industry of Zhejiang”; “Famous Zhejiang Brand”; “Famous Zhejiang Trademark”; “Green and Low-Carbon Factory of Zhejiang”; “Green Enterprise of Zhejiang”; “Demonstration Enterprise of Industrial Recycling in Zhejiang”; “Zhejiang-Made Defined-Quality ( “品” ) Product”; etc.

The Company’s main products are high-performance brazing alloys, including copper base, silver, tin base, and conductive silver paste. The Company is capable of designing and producing brazing consumables in the forms of rods, strips, rings, wires, foils, powder and paste with thousands of specifications. The Company has formed its product scheme of multi varieties and specifications based on core technologies it owns, such as green, silver-saving, vacuum, composite, preformed brazing, and silver paste, solder pastes, etc.

In the future, we aim to become a professional global leader in providing functional connection materials and their solutions. In recent years, while sharpening the edge in the field of medium-temperature brazing alloys, we have been expanding new technologies and products as well, such as electronic pastes, soft brazing alloys, and high-temperature brazing materials. Thus, we have fully covered the business line of all types of brazing alloys, gradually accumulating successful cases of solutions meanwhile.

Hua Guang Welding always believes that technological innovation leads corporate development. We have been carrying out industry-university-research (IUS) collaborative innovations with renowned domestic universities, and constantly developing new connecting materials and technology. By contributing to the rapid growth of advanced equipment manufacturing industry, the Company succeeded in enhancing industrial connectivity and building a win-win industry chain. In a word, adhering to the Hua Guang Spirit of “Integrity, Diligence, Exploration, Dedication”, we will keep making market-oriented tech innovations as well as promoting HUAGUANG brazing alloys, hopefully the most promising world brand, to the market.

### Corporate Mission

Enhance industrial connectivity and contribute to a win-win industry chain

### Values

Build products that customers appreciate  
With dedicated craftsmanship

### Corporate Spirit

- Integrity
- Diligence
- Exploration
- Dedication

### Vision

Focusing on customer needs, we are committed to intelligent, green and efficient welding solutions, building a collaboration platform for the industry chain to realize our value.

### Quality Culture

Concentration, Full Participation,  
Standardization, Precise Execution

## Major Events

### Starting Out and Growing Up

- 1995 Hangzhou Hua Guang Welding Materials Plant was established, the same year that copper base brazing alloy was developed and available for mass production.
- 1996 BCuP-2 achieved mass production to supply Midea and Gree, which enabled the Company to localize brazing and solder alloys.
- 1997 Hangzhou Hua Guang Materials of Welding Co., Ltd. ( “杭州华光焊接材料有限公司” ) was established.
- 1998 The Company became the first in the domestic brazing industry to pass ISO9002:1994 (quality management system, now upgraded to ISO9001:2015).

### Developing and Strengthening

- 2001 The Company changed its name to Hangzhou Hua Guang Welding Materials Co., Ltd. ( “杭州华光焊料有限公司” ), the same year silver solder was developed and available for mass production.
- 2002 High silver brazing alloy in the form of 0.5mm wire achieved stable mass production by improved technology.
- 2005 The Company became the first in the industry to pass ISO14001 (environmental management system).
- 2007 The Company ranked first in the share of segment market of the domestic air conditioning industry chain
- 2008 Gouzhuang Factory was put into operation with a design capacity of 2,000 tons per year.
- 2010 The Company became a leader in China to introduce continuous casting into the industry of brazing manufacturing, and developed a mass production process.

### Prospering and Leading

- 2011 The Company completed the reform of shareholding systems and changed its name to Hua Guang Advanced Welding Materials Co., Ltd.
- 2012 Vacuum brazing solders were invented, which enabled the Company to enter the industries of vacuum electrical appliances, magnetrons for microwave oven, and rail transportation.
- 2015 Renhe Factory was put into operation, the same year the flux-cored brazing ring was invented. Soon the flux-cored brazing alloys achieved mass production and localized supply for domestic customers.
- 2017 Research related to “the elimination of welding materials’ negative environmental impact and improvement of welding efficiency” won the second prize of National Science and Technology Progress Award. The research tackles the negative environmental impact of traditional brazing alloys and methods, and breaks the international technical barriers to harmless treatment of brazing filler metal.
- 2018 Product of the Company was rewarded “the first (sets of) product in key areas of the equipment manufacturing industry of Zhejiang”
- 2019 Hua Guang was elected “Outstanding Single Champion”, a national business honor awarded by the Ministry of Industry and Information Technology (MIIT) and China Federation of Industrial Economics (CFIE). t
- 2020 The Company was publicly listed on the Science and Technology Innovation Board of SSE
- 2021 The Company was awarded “Green and Low-Carbon Factory of Zhejiang”, with an annual revenue of over 1 billion
- 2022 The Company’s overseas business exceeded 100 million
- 2023 A joint research project led by Hua Guang Welding, “Efficient preparation of high-performance copper base filler metal and its applications in carbide tool manufacturing”, won the second prize of China Mechanical Industry Science and Technology Award. The invention of solder paste products marks the Company’s entry into the field of microelectronic soldering.

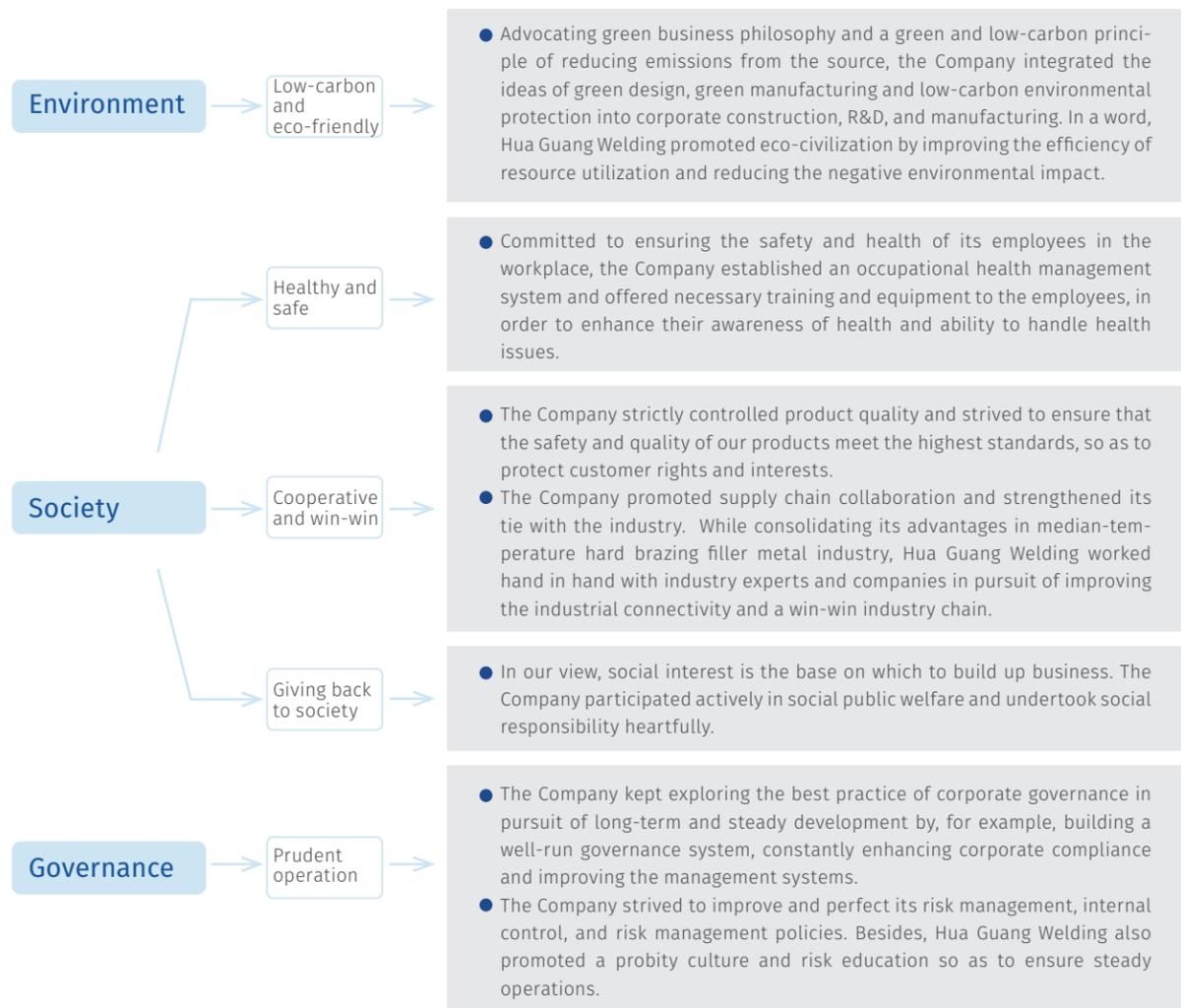
# Promoting Sustainable Development

## Management of Sustainable Development

Keeping “integrity, diligence, exploration and dedication” as corporate spirit, Hua Guang Welding took an active part in practicing the idea of sustainable development. For instance, the Company established and improved its ESG governance structure and ESG management policy, integrating ESG into corporate strategy, business operation, and corporate culture. While continuously promoting social responsibility management and practice, Hua Guang Welding paid great attention to effective communications among stakeholders including employees, customers and suppliers, and strived for a win-win situation for the economy, environment and society.

## Our Sustainability Approach

Hua Guang Welding’s sustainability approach has the following features: low-carbon and eco-friendly; healthy and safe; cooperative and win-win; giving back to society; and prudent operation.



## Communication with Stakeholders

Hua Guang Welding understands keenly that our sustainable development cannot be achieved without the support of all stakeholders. Through an effective communication mechanism, we continue to understand the opinions and expectations of our stakeholders, with whom we engage in close exchanges and quick responses. The Company thus has enhanced the communication quality with stakeholders in the hope of improving its management.

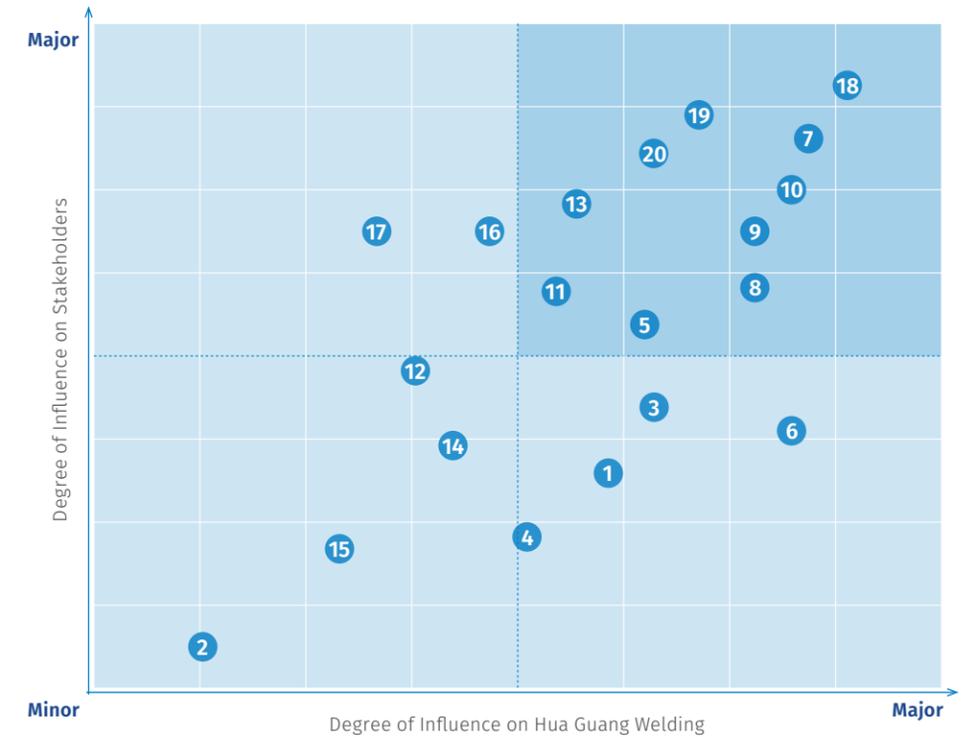
Important Stakeholders	Issues of Concern	Ways of Communication
Stockholders and investors	Corporate Governance Compliance Management Risk Management Anti-Corruption and Business Ethics Investor Protection R&D and Innovation Business Results and Development Planning	General meetings Financial report Earnings report Roadshows, etc.
Clients	R&D and Innovation Product Quality and Safety Customer Service and Entitlements Green Product	Meetings with clients Satisfaction surveys Global service network Events such as exhibitions, forums, conferences
Suppliers	Compliance Management R&D and Innovation Sustainable Supply Chain Industry exchanges and collaborations	Purchase promotions Websites, social media Forums, conferences Training and evaluation Visits, site surveys Satisfaction surveys
Employees	Occupational Health & Safety Employee Development and Training Employee Rights Protection Compliance Management	Labor Union, Staff and Worker Representative Congress Discussion meetings with employees Employee trainings Employee activities Employee assessment and promotion Employee satisfaction surveys WeChat culture group
Government and regulatory institutions	Compliance Management Anti-Corruption and Business Ethics Green Product Environmental Management System Reaction to Climate Change	Regulatory visits Official correspondence Focus research and site meetings Policy implementation Information disclosure Website, social media
Public and Community	Resource and Energy Management Pollutant Waste Management Compliance Management Anti-Corruption and Business Ethics Public Welfare Product Quality and Safety	Activities for public welfare Community volunteer activities Environmental management system
Industry Experts and Scholars	Cutting-Edge Technology Industry Challenges R&D and Innovation New Product and Technology Promotion	Industry forums IUS cooperations

## Material Issues Analysis

Based on the materiality analysis model, Hua Guang Welding carried out material issues analysis to understand the influence of various ESG issues on its stakeholders, and their suggestions or expectations for Hua Guang's fulfillment of social responsibility. The Company then responded to the above-mentioned topics by relevant disclosure in the report.

Material Topics Identification and Process Analysis	
Identifying a pool of ESG issues	Given a variety of key topics, including the nation's economic and social development, cutting-edge trends of industry sustainable development, and the Company's growth strategy, Hua Guang Welding identified important issues of impact on the Company itself and stakeholders. Next, these issues were categorized according to environment, society, and governance to form a pool of material issues.
Evaluation and ranking	The Company prepared and sent out surveys to internal and external stakeholders, inviting them to rank the 20 topics in the pool in terms of two dimensions, i.e. "degree of influence on Hua Guang Welding" and "degree of influence on the stakeholders".
Identifying and reporting material topics	The Company formed a Material topics matrix to rank the importance of the issues based on the statistical analysis of the survey results, and disclosed relevant information in the report.

Material Topics Matrix for Hua Guang Welding



Topics on Environment	Topics on Society	Topics on Governance
1 Environment Management System	7 Product Safety and Quality	16 Corporate Governance
2 Response to Climate Change	8 R&D and Innovation	17 Investor Protection
3 Resources and Energy Management	9 Employee Rights Protection	18 Compliance Management
4 Water Resource Management	10 Occupational Health and Safety	19 Anti-Corruption and Business Ethics
5 Pollutant Waste Management	11 Employee Development and Training	20 Risk Management
6 Green Product	12 Sustainable Supply Chain	
	13 Customer Service and Entitlements	
	14 Industry exchanges and collaborations	
	15 Public Welfare	

## I.1 Strengthening the Foundation of Governance

Hua Guang Welding continued to improve corporate governance structure with the intention of strengthening the foundation of development. The Company worked at a steady and sustainable growth by upgrading its governance system to a more standardized, procedural, professional and scientific one.

### Governance Structure of Shareholders’ General Meeting, Board of Directors, Supervisory Committee, and Senior Management

Hua Guang Welding strictly carried out the regulatory requirements of China capital market as a publicly-listed company. With accordance to regulatory documents, including the Company Law of the People’s Republic of China (hereinafter “Company Law”) and the Securities Law of the People’s Republic of China (hereinafter “Securities Law”), the Company continued to practice the best modern corporate governance by establishing a governance structure consisting of Shareholders’ General Meeting, Board of Directors and Supervisory Committee, and senior management. Characterized by clear definition of duties and responsibilities, the three bodies and management team altogether have operated in an efficient manner and laid a solid foundation for the robust development of the Company in the long term.

# I. BUILDING THE FOUNDATION OF GOVERNANCE

Good corporate governance is the essential guarantee for promoting sustainable corporate development and keeping an excellent business performance. Besides, it is also the key to a long-term value creation of the enterprise. Hua Guang Welding kept exploring the best practice of corporate governance in pursuit of long-term and steady development by, for example, building a well-run governance system, constantly enhancing corporate compliance and improving the management systems. The Company consolidated its risk management, strengthened investor protection to ensure a long-term steady growth.

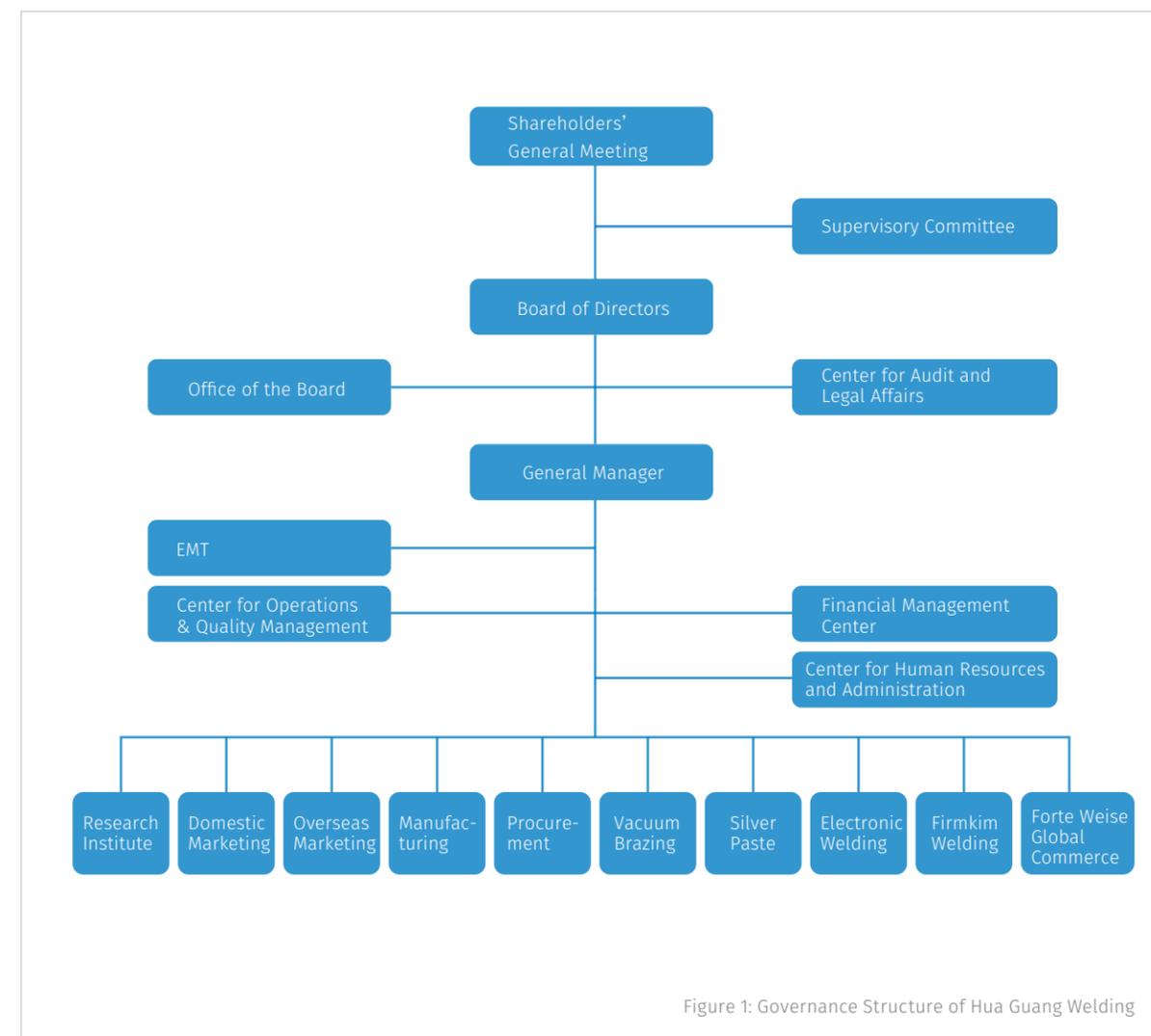


Figure 1: Governance Structure of Hua Guang Welding

Governance Body	Responsibilities
Shareholders' General Meeting	The shareholders' general meeting (GM) is the highest authority of the Company. Its responsibilities include exercising the authority in accordance with the laws to decide on business policies, investment plan, and to consider and approve the report of the Board of Directors.
Board of Directors	The Company sets the Board of Directors responsible for GM. Its main duties include convening and reporting to GMs, implementing the resolutions of GMs, and deciding on the business plans and investment proposals. There are Strategy Committee, Audit Committee, Remuneration and Evaluation Committee, and Nomination Committee under the Board of Directors. Each of these specialized committees works strictly in accordance with the corresponding rules, giving full play to its expertise in the operation and management of the Company.
Supervisory Committee	The Supervisory Committee shall have one chairman, who is elected by more than half of all supervisors. Its responsibilities include reviewing and submitting written opinions on periodic reports prepared by the Board of Directors, reviewing financial data, supervising the behavior of directors and senior management in performing their duties, etc.
Senior Management	The senior management includes general manager, vice general manager, chief financial officer, and secretary of the Board of Directors. They shall carry out their duties and fulfill their obligations in accordance with the Company Law and the Articles of Association of Hangzhou Hua Guang Advanced Welding Materials Corporation Limited (hereinafter "Articles of Association"), for example, promoting the business growth, internal control, and sustainable development of the Company.

Event	Meetings Held	Proposals/Reports Scrutinized
Shareholders' General Meeting	3 (1 annual general meeting and 2 extraordinary general meetings)	103
Meeting of Board of Directors	12	
Meeting of Supervisory Committee	10	

## Diversity and Independence of the Board of Directors

The Company has clearly stipulated the composition, duties and meetings of the Board of Directors and its committees in the Articles of Association to fully ensure the independence and effectiveness of the Board of Directors. Hua Guang Welding also revised several corporate documents, i.e. the Working System of Independent Directors of Hangzhou Hua Guang Advanced Welding Materials Corporation Limited and the Rules of Procedure of the Board of Directors of Hangzhou Hua Guang Advanced Welding Materials Corporation Limited in 2023, so as to further enhance the effectiveness of the Board of Directors in performing its duties.

Independence

Directors shall be elected or replaced by the shareholders' general meeting, and the term of office shall be three years. Where re-elected upon expiration of his/her term of office, a director may serve consecutive terms. The Board of Directors establishes the Remuneration and Evaluation Committee, which is responsible for integrating individual performance and the overall performance of the Company, and contributing to the strategic development via scientific management methods. The detailed measures include: formulating the evaluation standards for the directors and senior management, and conducting the evaluation; formulating and reviewing the remuneration plans for the directors and senior management, etc.

Expertise

The current members of the Board of Directors and the Supervisory Committee have expertise in a wide range of fields, for instance, business administration, educational psychology, chemistry, accounting, mechanical casting, control and instrument specialty, etc. All of the members have extensive experience in the industry.

Diversity

The Company has given due consideration to the industry experience, background, gender and other factors of the Board of Directors and Supervisory Committee to ensure an optimal and diversified composition of the Board. In the year of 2023, the Company re-elected the Board of Directors and the Supervisory Committee. The Company now has a total of 6 directors, including 4 females and 3 independent directors, and a total of 3 supervisors, including 2 females and 1 supervisor appointed from representatives of staff and workers.

The Company is committed to improve the incentives and restraint systems for directors and senior management, with the intention of building a professional, devoted, standard and efficient board of directors. The Remuneration and Evaluation Committee shall evaluate and determine the remuneration of directors and senior management in accordance with relevant regulations such as the Company Law, the Code of Corporate Governance for Listed Companies, and the Articles of Association. The evaluation indicators of directors and senior management shall be linked to the overall performance indicators of the Company. Besides, to ensure wholeness, the evaluation results of corresponding business segments under management shall also be taken into account. Such a scientific, standard and efficient evaluation system guarantees that the core management team is able to perform its duties and obligations in a diligent and conscientious manner. In addition, it helps boost the governance effectiveness and stimulate the endogenous corporate momentum.

## 1.2 Improvement of Compliance Management

Hua Guang Welding has been upholding its high-quality compliance management so as to build the foundation of the Company’s sustainable development. For example, the Company established and improved the compliance management system, standardized the compliance management process, and fully integrated the idea of ESG into every step of corporate compliance.

### 1.2.1 Audit Management

In respect of audit management, the Company has formulated the Rules Governing Internal Auditing of Hangzhou Hua Guang Advanced Welding Materials Corporation Limited (hereinafter “Rules Governing Internal Auditing”) in accordance with the Securities Law, the Audit Law of the People’s Republic of China (hereinafter “Audit Law”), the Rules Governing the Listing of Stocks on Shanghai Stock Exchange, the Provisions on Internal Auditing of National Audit Office, as well as the Articles of Association. These measures strengthened the compliance management, led to a more standardized internal auditing process, and protected the safety and integrity of the Company’s assets.

The Company has set up an Internal Audit Department under the Audit Committee, which formulates annual audit plans and carries out spot checks on a monthly basis. The Internal Audit Department verifies the work of internal control and identifies business risks by division or department, raises potential problems and suggestions on improvement. As the Company supervises the rectification and adopts audit recommendations, its operational risk control capability is comprehensively enhanced. Meanwhile, an accounting firm is hired annually to review the management behaviors, processes and documents in terms of legality, procedure, rigor, applicability and risk level, and put forward compliance audit advice.

In order to further strengthen the line of compliance and consolidate compliance management, the Company has established a comprehensive compliance training system for its employees.

In 2023, Hua Guang Welding worked at fostering a compliance culture, and carried out 2 compliance trainings offline and 3 internal meetings to imbue altogether 660 participants with general knowledge of laws and regulations. Topics of training include bidding and tendering, probity culture construction, the Labor Law of the People’s Republic of China (hereinafter “Labor Law”), the Labor Contract Law of the People’s Republic of China (hereinafter “Labor Contract Law”), etc. In a word, these measures helped enhance the awareness of internal control compliance and risk management of the employees.



Figure 3: Group photo after the “Prosecutor’s Visit to Hua Guang: Compliance and Probity Training”



Figure 4: Procurement and technical departments listening to the Practice Training on Bidding and Tendering

Topics of Training	Way of Training	Target Group
“Prosecutor’s Visit to Hua Guang: Compliance and Probity Training” and Probity Culture Promotion of Hua Guang Welding	Offline	Talents and beyond
Practice Training on Bidding and Tendering	Offline	Procurement and technical departments
Lessons of General Knowledge of Laws and Regulations: I. Basics of Contract	Online	All employees
Lessons of General Knowledge of Laws and Regulations: II. Basics of Contract	Online	All employees
Lessons of General Knowledge of Laws and Regulations: III. The Labor Law and the Labor Contract Law	Online	Employees of the Human Resources Administration Center

## 1.2.2 Regulation of Affiliated Transactions

The Company sets up a series of rules and systems to regulate the affiliated transactions, such as the Articles of Association, the Rules of Procedure of the Board of Directors, the Provisions on the Work of Independent Directors, and the Rules Governing Affiliated Transactions of Hangzhou Hua Guang Advanced Welding Materials Corporation Limited. Content includes reducing unnecessary affiliated transactions, and prohibiting affiliated transactions by controlling shareholders, de facto controllers, directors and supervisors that are detrimental to the interests of the Company as well as small- and medium-sized shareholders. Such documents strictly regulate the scope, review process, disclosure rules and recusal system of affiliated transactions to ensure the fairness and impartiality of decision making on affiliated transactions to all shareholders.

## 1.2.3 Information Security Protection

In addition, the Company attaches great importance to information security management. Hua Guang Welding has formulated the Provisions on the File Confidentiality Management of Hangzhou Hua Guang Advanced Welding Materials Corporation Limited, with the IT department providing support and regular inspection. It plays an important role in improving confidentiality management of classified documents, enhancing the awareness of employees, and safeguarding the legitimate rights and interests by protecting confidential information. Looking ahead, the network security architecture and infrastructure is likely to facilitate the firm’s development of 3 to 5 years, as it provides a fine strategic basis for the subsequent informatization projects. The infrastructure put into operation in 2023 include jump servers, Zabbix, etc.

## 1.2.4 Probity Culture Cultivation

The Company adheres to the bottom line of compliance, and carries out anti-fraud management from the aspects of clean management and probity culture education. Hua Guang Welding has endeavored to build its brand of integrity, “Zhengxin Hua Guang”, and established nine appointment standards and ten exclusive conditions for selecting and appointing officials. The Company also imbues each newly-hired employee with the probity culture, and asks them to sign a Statement of Commitment on Integrity, so that the idea of probity and integrity is rooted in the heart and practiced in the behavior. Thanks to these efforts, Hua Guang Welding was awarded “Model Private Enterprise of Integrity” in 2023, which is a strong proof of its excellence in clean business.

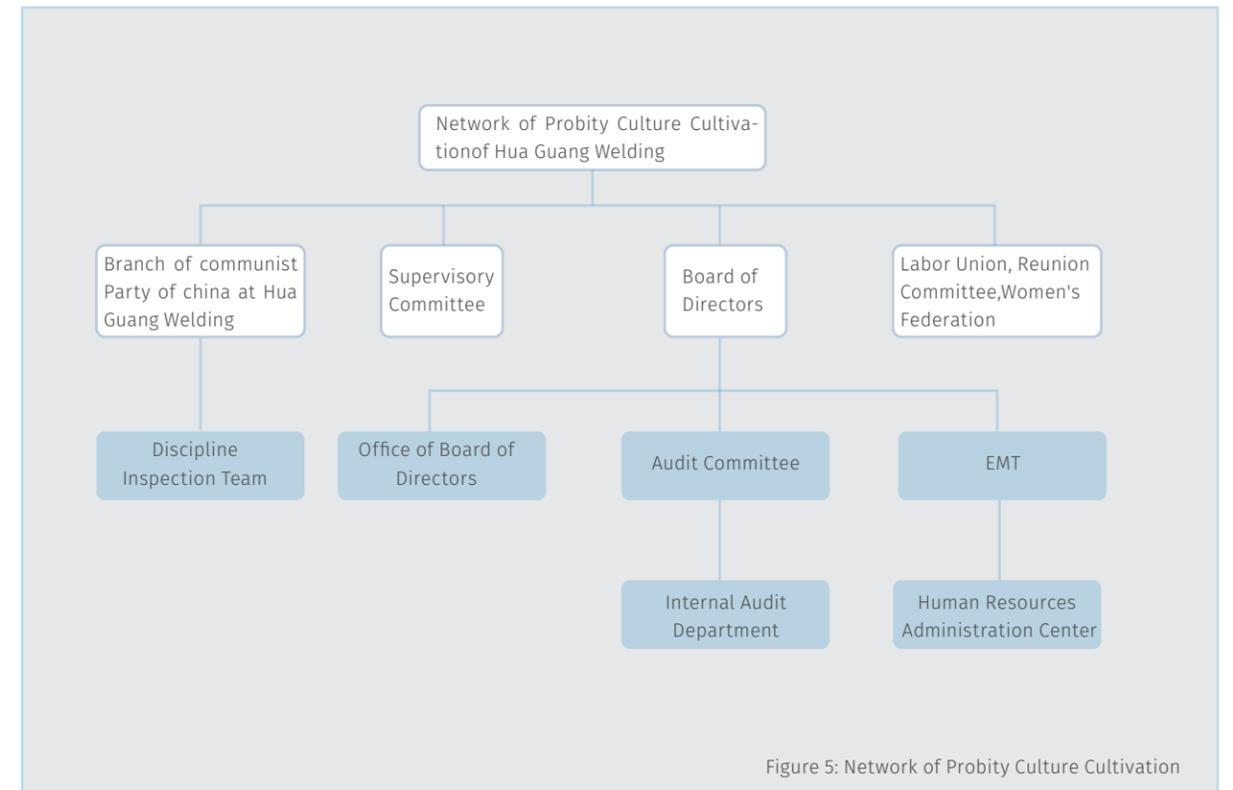


Figure 5: Network of Probity Culture Cultivation

### Case 1: Scheduling Meeting for Building Private Enterprises of Integrity, Zhejiang

On August 4th, Scheduling Meeting for Building Private Enterprises of Integrity was held at Hua Guang Welding, Zhejiang. The meeting studied the current condition of the brand of integrity, “Zhengxin Hua Guang”. Hua Guang people have always put uprightness and probity first, leading a life of noble virtue. The Company believes in a managerial style of integrity and strict governance, and strives to polish the brand of “Zhengxin Hua Guang” through unremitting cultivation of probity culture. The branch of Communist Party of China at Hua Guang Welding has set up a discipline inspection team to lead and supervise the anti-corruption work. The team established a series of institutional mechanisms of clean construction, such as the roadmap, positive list and negative list, standards for appointing officials, exclusive conditions for selecting and appointing officials, etc. The Company strives to make sure each and every employee is upright and clean, or as it says, to become a practitioner and successor “of integrity, faith, and leads an aboveboard and bright life”.



Figure 6&7: Leaders of Zhejiang Federation of Industry and Commerce gave “Zhengxin Hua Guang” high recognition

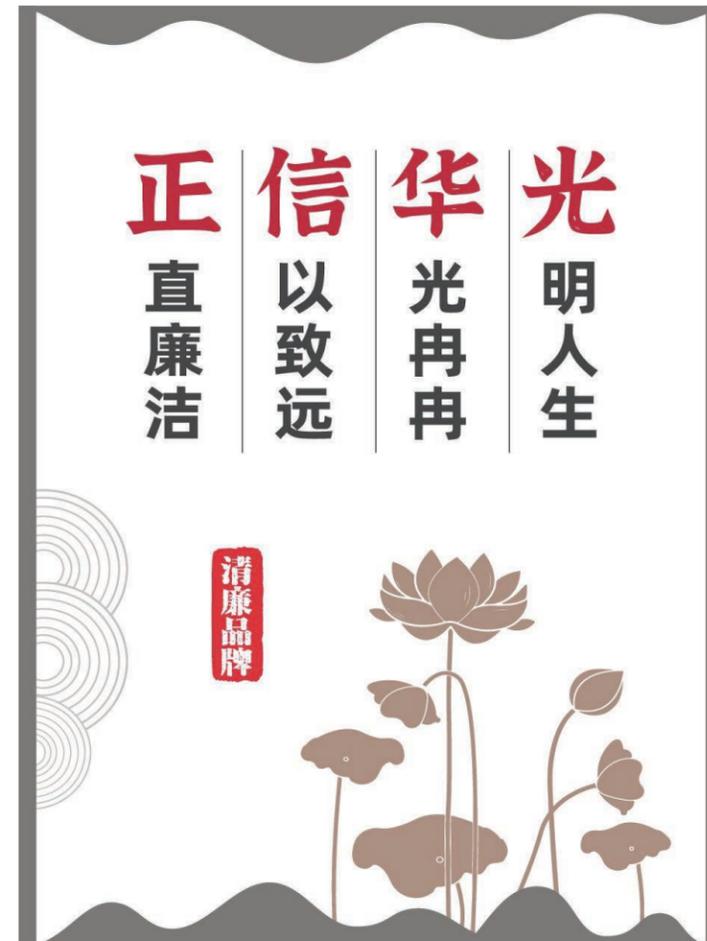
### Case 2: “Prosecutor’s Visit to Hua Guang”: Compliance and Probity Training, and Probity Culture Promotion of Hua Guang Welding

In order to fully implement the spirit of the 20th CPC National Congress, and to follow the lead by General Secretary XI Jinping of the theories on private economy development and close and clean political-commercial relations, Hua Guang Welding hosted the “Prosecutor’s Visit to Hua Guang”: Compliance and Probity Training together with the Probity Culture Promotion on September 21st, continuously promoting integrity in every aspect of the Company. GU Dongdong, prosecutor from People’s Procuratorate of Yuhang, Hangzhou, was invited as a special guest to deliver lessons. Other distinguished guests from the Company included senior executives such as the general manager, the chairman of the Executive Management Team (EMT), as well as other representatives from various departments. At the training, Mr. GU explained the importance of integrity and compliance in depth through the interpretation of regulations and case sharing. The lesson imbued the employees with the awareness of probity and compliance, and bolstered their ability to resist corruption and prevent moral decline. The gathering ended with a collective pledge to enhance the awareness of probity and compliance.



Figure 8&9: “Prosecutor’s Visit to Hua Guang”: Compliance and Probity Training

### Case 3: “Model Private Enterprise of Integrity” awarded in 2023



Hua Guang Welding heeded the call of Zhejiang to promote probity in every aspect, and applied for the honorary title of Model Private Enterprise of Integrity in Yuhang District. In accordance with the specific requirements of the Evaluation Criteria and Standards for Awarding a Model Private Enterprise of Integrity in Yuhang, the Company meticulously conducted self-assessment, scoring, and provided relevant materials for the joint evaluation by the CPC local committees, and a panel of judges set up by the Discipline Inspection Commission, the United Front Work Department of the CPC District Committee, and the Federation of Industry and Commerce of Yuhang. During the application, the Company carefully filed documents that reflect the implementation of probity culture cultivation and relevant achievements, vividly demonstrating the company culture “of integrity and faith towards an aboveboard and bright life”. Thanks to the unremitting efforts of building the brand “Zhengxin Hua Guang” for years, the Company made the list and was awarded “Model Private Enterprise of Integrity” in 2023 by the Federation of Industry and Commerce of Yuhang, Hangzhou. and won the title of “Benchmark Clean Private Enterprises” of Yuhang District, Hangzhou Yuhang District, awarded by Hangzhou Yuhang District Federation of Industry and Commerce in the year of 2023, and was conferred a plaque.

Figure 10: “Zhengxin Hua Guang”, Brand of Integrity

中共杭州市余杭区纪委  
中共杭州市余杭区委统战部文件  
杭州市余杭区工商业联合会

余联〔2024〕1号

关于授予浙江华是科技股份有限公司等十家企业为余杭区“标杆清廉民企”的通知

各镇街（平台）、有关单位：  
根据《关于开展“清风领航”创建工作高质量推进清廉民企建设的通知》（余联〔2023〕7号）要求，由各镇街、平台党（工）委对具备条件的企业进行推荐申报，并经区纪委监委、区委统战部、区工商联联合会审，确定浙江华是科技股份有限公司等十家民营企业为2023年度余杭区“标杆清廉民企”，现将名单公布如下：

序号	企业名称	所属镇街（平台）
10	杭州华光焊接新材料股份有限公司	钱江经济开发区

抄送：区纪委监委、区委统战部  
杭州市余杭区工商业联合会 2024年1月31日印发

Figure 11&12: List of “Model Private Enterprises of Integrity 2023”

## I.3 Improvement of Risk Management

An efficient risk management system is the cornerstone of steady operation. In the past year, Hua Guang Welding continuously strengthened its internal control system, formulated risk management policies and guidelines, and inspected the implementation of risk management timely. The Company enhanced its risk management work in various aspects, such as management system, risk education, compliance operation, business control, and so on.

Hua Guang Welding has a comprehensive risk management system covering the Board of Directors, Supervisory Committee, Audit Committee, senior management, Operation and Quality Management Center, the Internal Audit Department, and other functional departments and branches. Besides, the Company established a well-structured risk management architecture and a series of control procedures, covering risk identification processes and countermeasures. Every single department and person have assumed the responsibility for risk management. The Company also established, reviewed and updated its risk list annually. By identifying the risks and opportunities in each business, and setting up corresponding preventive or control measures, the Company embarked on a more scientific and effective way of corporate governance.



Figure 13: Risk Management Control Process

## I.4 Investor Protection

The Company worked on its investor relations (IR) in strict accordance with relevant laws and regulations, such as the Company Law, the Securities Law, the Rules Governing the Listing of Stocks on Shanghai Stock Exchange, and the Provisions on Information Disclosure Management. The Company accordingly protected the rights of the investors to know and to participate in major matters. Besides, the Company protected the interests of small and medium-sized investors, and continued to generate fair return on assets.

The Company fulfilled its obligations of information disclosure in a truthful, accurate, complete, and timely manner with accordance to the law. It actively utilized the official website, WeChat official account, SSE E-interactive Platform, investor hotline etc. to disclose all information that may cause a material effect on decision-making of stakeholders including shareholders, which guarantees the shareholders' right to know.



Figure 14&15: The Company answered the questions of general concern in the IR meeting

In 2023, the Company issued a total of 65 interim results announcements and 4 periodic reports, and replied to 4 questions on the SSE E-interactive Platform.

### Case: “Here Come the Shareholders”: Knowledge Contest on Investor Rights and Interests

In 2023, the Investor Protection Bureau of China Securities Regulatory Commission (CSRC) organized “Here Come the Shareholders”, a knowledge contest on investor rights and interests and offered guidance, China Securities Investor Services Center (ISC) and CSRC Beijing Office as co-hosts. The Company unswervingly promoted investor protection into practice as a publicly-listed company. For example, the Company attached great importance to this activity, and mobilized all employees to participate in it. Thanks to the five mini games of education through entertainment, i.e. “Individual Challenge”, “Word Guess and Crush”, “Mind-reading Magic House”, “1v1 Arena”, and “Dongdong’s Adventure in the World of Investor Education”, the employees gained a deeper understanding of investor rights and interests protection.



Figure 16: The Company called on all employees to take an active part in the “Here Come the Shareholders” Contest as a way to learn about investor rights and interests, which was held in six weekly matches covering five mini games.

## II. BUILDING ECO-CIVILIZATION WITH CONCERTED EFFORTS

Hua Guang Welding is keenly aware of the importance of sustainable development. Advocating green business philosophy and a green and low-carbon principle of reducing emissions from the source, the Company integrated the ideas of green design, green manufacturing and low-carbon environmental protection into corporate construction, R&D, manufacturing and product application. In a word, Hua Guang Welding continuously explored and implemented ways of environmental protection, and contributed to the sustainable development of economy, society and environment.

### II.1 Environmental Management System

Hua Guang Welding is keenly aware of the increasing exposure to compliance risks with the stricter law and regulation over environment. Given that, the Company rigorously abided by the Environmental Protection Law of the People's Republic of China, the Environmental Impact Assessment Law of the People's Republic of China, etc., and continuously improved the Company's environmental protection policy and system. As the management of environmental impact and related risk strengthens, the Company strived to achieve the sustainable economic and environmental development.

The Company has established its own environmental protection management sector to perform its duties. With accordance to relevant laws and regulations, the Company formulated a series of internal provisions to carry out environmental impact assessment and monitoring, such as the Control Procedures for New Extension Projects, the Control Procedures for EOHS Non-conformity, the Control Procedures for EOHS Surveillance and Measurement, and the Control Procedures for Identification and Assessment of Environmental Factors. The Company applied for the pollutant emission permit based on the construction of its plants, and carried out self-monitoring regularly in accordance with the Requirements for Self-monitoring of Pollutant Emission Permit.

The Company attaches great importance to environmental risk prevention. For instance, the Control Procedures for Emergency and Response stipulates that the Company utilizes an environmental emergency monitoring and early warning system to regularly investigate potential environmental safety hazards and deal with them in a timely manner. The Company prepared contingency plans for environmental emergencies, set up emergency rescue teams and material reserves, and conducted regular drills to improve the emergency response capability of its employees. At the stage of emergency disposal and rescue, the company was able to start the contingency plan in time with effective disposal measures to prevent environmental pollution incidents, and minimize the negative impact on the environment and the public.

Following the environmental protection policy of prevention first, integrating prevention with control and comprehensive treatment, the Company passed ISO14001 (environmental management system). Energy saving and efficient environmental protection have become its core competitiveness.

### II.2 Addressing Climate Change

Keenly aware of the materiality and urgency of addressing climate change, Hua Guang Welding fully supported China's "30-60" decarbonization goal of carbon peaking and carbon neutrality. With accordance to the green and low-carbon principle of reducing emissions from the source, the Company integrated the ideas of green design, green manufacturing and low-carbon environmental protection into business operations and the entire life cycle of the products. Besides, the Company continued to improve its green manufacturing system, and carried out the greening of energy consumption, resource utilization, infrastructure, ecosystem and operation management.

As the Company played an exemplary role of industry benchmark in the fields of industrial energy efficiency and green manufacturing, it was awarded "Green and Low-Carbon Factory of Zhejiang" in 2021.



### Case 1: “Green and Low-Carbon Factory of Zhejiang” won by Hua Guang Welding

Hua Guang Welding actively practiced green business philosophy by greening and upgrading the whole enterprise. Given the achievement of reducing consumption and pollutant emission, the Company was awarded “Green and Low-Carbon Factory of Zhejiang” in 2021.

**Lighting system:** The Company has changed its whole lighting system to LED and other energy-saving lamps. The factory area of the Company uses large windows, and the office building transparent glass windows, to make the best use of natural light. In other functional areas, such as the workshop, office, dormitory and canteen, partition and graded management is applied. The Company adopts the light sensor and latitude& longitude sensory control system, which automatically activates the lighting system in case of dim light and passage of people. It saves electricity for lighting and extends the life of lighting products.

**Renewable energy:** The Company has constructed a 0.4MW (subject to actual installed capacity) grid-connected PV system using polycrystalline silicon modules on the roof of a building of about 7,000 square meters. A total of 1,210 sets of photovoltaic modules were laid, with a total installed capacity of 0.3 MWp and an average annual power generation of about 300,000 kWh.

**Energy-saving equipment and facilities:** The Company has ensured that all the equipment meets the requirements for the national energy-efficiency level. The efficiency in actual operation is satisfactory, and the main parameters meet the standard of energy-saving operation. All the equipment can operate efficiently and economically as it saves energy and reduces GHG emissions.



Figure 17: Renewable energy sources such as photovoltaics in the plant



Figure 18: LED and other energy-saving lamps were generally used in the factory area

In 2023, the Company strived to become an eco-friendly enterprise, as it made technological innovations in the greening of product, manufacturing, and APPs, leading the industry to a green development path.

### Case 2: Newly-Invented Green Products of the Company at China Refrigeration Expo 2023

During April 7-9, 2023, the 34th International Exhibition for Refrigeration, Air-Conditioning, Heating and Ventilation, Frozen Food Processing, Packaging and Storage (hereinafter “China Refrigeration Expo 2023”) was held at Shanghai New International Expo Center. Hua Guang Welding showed up with its full line of products in the exhibition. In addition to the general products, the Company proudly presented HUA GUANG 0, a new energy-saving green product.

Compared with the traditional copper-phosphorus products, it ensures the welding quality and helps downstream clients to save energy and reduce carbon. As it is likely to promote the low-carbon development of the industry, it received wide attention during the exhibition.



Figure 19: China Refrigeration Expo 2023

The renewable energy and power business of the Company saw a steady development in 2023. Relevant products are now applied to wind power, hydropower, photovoltaic, energy storage, and other green power business. Last year, the Company supplied silver brazing alloys in large quantities for the power battery parts of renewable energy automobiles, and the silver-saving products were also widely used in the field of vacuum electrical appliances.

In order to better understand the efficiency of the Company’s energy conservation and emission reduction, the Company checked its greenhouse gas (GHG) emissions with reference to relevant requirements, and reviewed the data recorded to confirm the calculation results.

#### GHG emissions of the Company:

Disclosure	Unit	2021	2022	2023
Direct (Scope 1) GHG emissions	metric tons of CO2 equivalent	121.1	171.04	158.79
Energy indirect (Scope 2) GHG emissions	metric tons of CO2 equivalent	11315.80	11308.27	13115.00
Other indirect (Scope 3) GHG emissions	metric tons of CO2 equivalent	21501.16	25664.4	23929.74
Reduction of GHG emissions	metric tons of CO2 equivalent	/	814.0	117.0

## II.3 Energy Management

### II.3.1 System of Energy Management

Energy management is one of the keys to green manufacturing, and also the key measure to realize low-carbon corporate development. With accordance to laws and regulations such as the Law of the People's Republic of China on Conserving Energy, Hua Guang Welding is committed to improving energy utilization efficiency and sustainable development. The Company has formulated the Handbook for Energy Management System of Hangzhou Hua Guang Advanced Welding Materials Corporation Limited, which specifies its energy policy, objectives, processes, procedures, and energy performance objectives. Besides, it has also issued a series of procedure documents, such as the Control Procedures for Energy Assessment, Control Procedures for Energy Surveillance, Measurement and Analysis, Control Procedures for Energy Benchmarking and Performance Parameters, Control Procedures for Energy Objectives, Indicators and Management Solutions, Control Procedures for Energy Performance Monitoring and Evaluation, etc. Thanks to the standardization and enhancement of energy management, the Company has passed GB/T23331 and RB/T119 (energy management system).

In order to smoothly implement the energy management system and continuously improve its energy performance, the Company has set up an energy management system working group to implement the energy management work, enhance the energy saving awareness of employees at all levels and continuously improve energy performance.

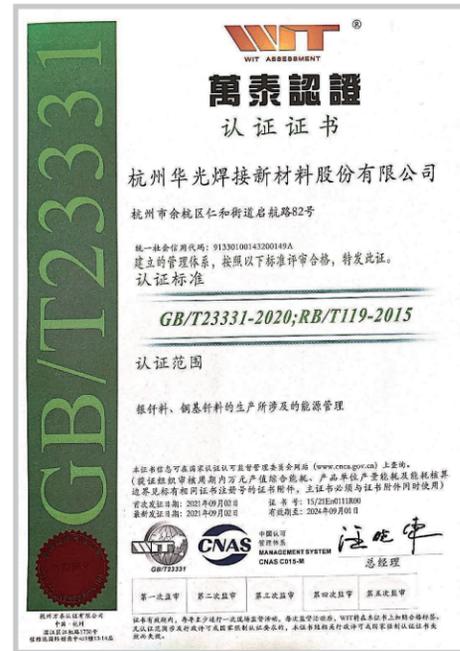


Figure 20: The Company has passed GB/T23331 and RB/T119 (energy management system)

### II.3.2 Energy Management Measures

Hua Guang Welding identified the energy factors to develop an energy management plan with assessment indicators, based on which the Company supervised the energy consumption of each production workshop and determined respective assessment mechanisms. As for designing new projects, improving or expanding existing projects, the Company considered the opportunities for improving energy performance. Specifically, it clarified relevant requirements and evaluated each project's energy performance impact on the main energy-consuming equipment in terms of facilities, process, and system. Meanwhile, the Company led its technological transformation to save energy and reduce resource consumption.

Featuring cost saving and energy structure adjustment, the Company took a series of measures to save energy and reduce consumption. To thoroughly reduce energy consumption, the Company introduced the rooftop solar photovoltaic power generation system, and carried out the equipment modification of energy-saving lamps in the factory, waste heat recovery system, heat exchange system of melting furnaces, etc. Besides, equipment such as the numerical control ring rolling machine, the extruder intermediate-frequency temperature control display device, were also introduced.

#### Case 1: Waste Heat Recovery System Modification to Save Energy and Reduce Consumption

Hua Guang Welding modified its old waste heat recovery system of oil-injected screw compressors for hot water preheating. The new solution replaced electric heating with air compressor preheating, achieving an energy-saving rate of nearly 50%. By utilizing the waste heat recovery system, the heat generated from the existing 3 air compressors is collected and used for heating and supplying hot water to the baths, thus reducing electric consumption. Waste heat recovery is safe, reliable, stable and durable, which also makes the production process green and energy efficient. The annual amount of electricity saved is estimated to be 244,800 kWh after the waste heat system is renewed.

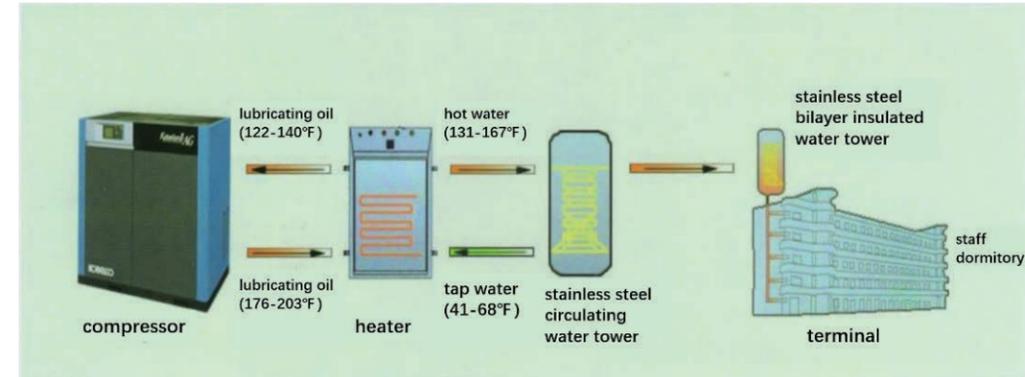


Figure 21: heat recovery by an air compressor

#### Case 2: Energy Improvement of Extruder Heating Ring

Hua Guang Welding is committed to the R&D and promotion of energy saving applications. To resolve the problem of high cost and energy consumption of the current press heating devices, 315T and 400T, the Company replaced the original heating rings made of electric welder and pure copper pipe with ceramic fiber ones. Based on the principle of electromagnetic heating, the power is reduced to 5kW, greatly cutting the electricity consumption compared with the original heating power of 40kW.

## II.4 Waste Management

Hua Guang Welding is in full compliance with national environmental laws and regulations, including the Law of the People's Republic of China on Prevention and Control of Water Pollution, the Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, the Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes. It has carried out pollutant waste management in all aspects and formulated relevant provisions, such as the Provisions on Hazardous Waste Management, the Provisions on Effluents and Gaseous Waste Treatment, and the Control Procedures for Pollution. The Company was deeply engaged in the waste-free city building and has become one of the "Waste-Free Factories", thanks to the ongoing efforts of reducing consumption, losses and pollutant emissions; opposing waste; and optimizing energy utilization. As for waste discharge, the Company classified the waste generated in production and operation to recycle or harmlessly dispose of them in a proper way. The pollution in the entire production process was in good control, as the Company kept the pollutant as well as the total quantity of pollution under control to ensure that the discharge meets the national standards. The Company has shown its capacity to monitor and control the pollutant discharges, and is able to disclose monitoring information to administrative authorities and the public. The company has now passed two rounds of audits on cleaner production, and realized a win-win situation in terms of economic returns and social benefits.

In terms of effluents management, the Company established and strictly followed the instructions of three major provisions, i.e. the Provisions on Rainwater and Sewage Self-Inspection System, the Provisions on Self-Monitoring, and the Provisions on Environmental Protection Accounts. Besides, the Company also took an active part in carrying out the Program of Zero Direct Sewage Discharge. One practice is to configure a testing laboratory for sewage treatment station monitoring, and have one person responsible for everyday testing. With the adoption of a treatment process of "primary precipitation+ secondary precipitation+ pH adjustment", the Company dealt with production wastewater by discharging it after proper treatment and test. A third party is commissioned to conduct monitoring on an unregular basis every year.

In terms of gaseous waste, which is comprised of particulate matter (PM) and metal fume generated by the melting furnace in the Company's production process, it is discharged at high altitude after centralized treatment to meet the discharge standard, in compliance with the requirements of the Emission Standard of Air Pollutants for Foundry Industry (T/CFA030802.2-2020) and the Comprehensive Emission Standards for Air Pollutants (GB16297-1996). The air pollutants generated by the Company are mainly sulfuric acid fumes, and the emission has already been reduced and treated in compliance with relevant standards. Both of the emission rate and the concentration are significantly lower than the required values.

The Company has always attached great importance to solid waste management in order to reduce pollution, protect health and promote sustainable stewardship of resources. Most of the hazardous waste of the Company, i.e. waste mineral oil, waste emulsion, sludge, waste lubricating oil, waste brazing agent, is transferred to treatment plants with appropriate qualifications for disposal. Solid waste such as packaging bags and casting slag, is transferred to qualified third parties to carry out recycling and disposal. Pieces of material left over from internal production are collected by the Company, and utilized in a unified manner to realize resource recycling. Domestic garbage is removed by the sanitation department and sent to the landfill. There are independent disposal sites a safety management system for chemicals and hazardous waste, and other materials such as printer consumables are recycled and disposed of by specialized agencies.

Awards



Figure 22: Awards of green design and green manufacturing



Figure 23: Awards of green enterprises

# III. INNOVATIVE AND HIGH-QUALITY DEVELOPMENT

Hua Guang Welding always believes that technological innovation leads corporate development. We have been constantly developing new connecting materials and technology and boosting the growth of the advanced equipment manufacturing industry in pursuit of our own innovative and high-quality development.

## III.1 Product Quality Management

Product quality control is of great significance, not only for the survival and development of an enterprise, but also for the degree of customer satisfaction and trust. Hua Guang Welding continuously strives for excellent product quality by adopting effective product quality control strategies to meet consumers' growing pursuit of product quality and function, which leads to a lasting success.

### III.1.1 Product Quality Management System

Hua Guang Welding has formulated a series of quality control provisions to standardize product quality management. The Provisions on Inspection Management of Hangzhou Hua Guang Advanced Welding Materials Corporation Limited clarifies the quality management responsibilities of each department, as well as the product quality inspection procedures, to ensure the incoming quality control (IQC), in-process quality control (IPQC), final quality control (FQC) and outgoing quality control (OQC). Besides, in order to improve the final quality and customer satisfaction, the Company set up the Provisions on Product Inspection Management. Under the guidance, outgoing products are checked in accordance with the product inspection process to ensure that the products meet the requirements of the drawings and customer needs, instead of being delivered with any defect.

### III.1.2 Product Quality Management Measures

The Company has adopted a series of quality management measures to ensure that the safety and quality of its products meet the highest standards as possible. Hua Guang Welding started to work for technological breakthroughs in quality improvement in 2023. Based on meticulous research and upgrading on the welding process, the Company improved its yield of welding ring, thus lowering the incidence of welding quality problems. As for the problem of welding rod oxidation, the Company resolved it successfully by introducing new materials and improved process, thus ensuring the reliability and stability of welded joints. Meanwhile, the Company improved the formula for welding wire and adjusted the welding process in order to tackle the problem of brittleness, which guarantees the quality and reliability of its products.

To promote the in-depth development of total quality management, the Company encouraged employees to carry out activities in quality management (QC) groups. We took an active part in organizing, guiding and inspiring employees to form QC groups, and to conduct group study and research on small but interesting topics of product quality improvement. Such activities proved to enhance the employees' sense of duty to strive for progress, and stimulate their will to improve product quality, which constitutes the quality management culture of the Company. In addition, the Company has formulated the Provisions on QC Group Activity Management in pursuit of systematic procedures for QC group organization on a regular basis, making the QC group system even better.

The Company has established a mature quality inspection process. Following the Process Inspection Guidelines issued by the Company, which specifies the requirements, frequency, judgment standards, etc. of product inspection, the products shall be thoroughly assessed in terms of quality and safety to ensure safe and reliable products for sale. In addition, to guarantee the safe use of products or services, the Company provided relevant safety information to customers via the Material Safety Data Sheet (MSDS) report. The MSDS report contains production information of its chemical composition, physical properties, hazard assessment, and recommendations for safe use and disposal. Thus, the report can further help the customers to avoid potential risks caused by incorrect use or improper disposal. It is also of benefit to the environment as it reduces the negative impact on the ecosystem.

The Company has passed ISO9001, ISO14001, ISO45001, ITAF16949 (quality management system), as well as GB/T23331 and RB/T119 certifications. Besides, the Company owns a CNAS-accredited analysis and testing center, which provides strong technical support for the R&D validation of new technologies, and the monitoring of in-process products.

## III.2 Science, Technology and Innovation Leads

### III.2.1 R&D Innovation System

Hua Guang Welding has formulated the innovation strategy of "to lead this generation of products while reserving the next generation and ready for the following generation of research iteration", namely to insist on leading a way of technological innovation. According to the Patent Law of the People's Republic of China, the Rules for the Implementation of the Patent Law of the People's Republic of China, etc., the Company formulated the Provisions on Patent Management to regulate the patent work, promote technological innovation and the formation of independent intellectual property rights. Besides, the Provisions on Intellectual Property Management strengthens the management of intellectual property rights and encourages invention of the Company.

The Company set up a research institute as the main R&D center, and built a hierarchical R&D innovative system consisting of provincial key enterprise research institutes, provincial enterprise technology centers, provincial R&D centers and provincial post-doctoral scientific research stations, which helps scientific and technological innovation in all aspects.

### III.2.2 Implementation of the Innovation Strategy

In order to enhance its ability to innovate, Hua Guang Welding established cooperative relationships with renowned universities and research institutions from home and abroad in terms of talent and technology R&D. Universities that have founded IUS cooperation with the Company are: Harbin Institute of Technology, Central Iron and Steel Research Institute, Zhejiang University of Technology, North China University of Technology, Xi'an Aeronautical Institute, Nanjing University of Posts and Telecommunications, Zhejiang University of Science and Technology, China Jiliang University, etc. Thanks to the collaborations for years, the Company successfully applied for multiple research projects, for instance, quality requirements for the hard brazing of copper brazing alloys, nickel brazing alloys, aluminum brazing alloys, and other filler metals; the laboratory methods for sampling soot and gases generated from copper and copper alloy welding wires, welding, and related processes.

Taking lean design as its approach, the Company put customers first and focused on rapid iteration and continuous improvement. By connecting research results closely with user needs, many core technology results from the R&D projects have been successfully transformed. In 2023, the Company has made significant progress in the R&D projects of solder paste, hard brazing paste, and AMB active brazing alloys.

#### Case 1: R&D Projects of Hua Guang Welding Made Significant Progress

In 2023, the Company successfully finished the R&D projects of solder paste, hard brazing paste and AMB active brazing alloys. As the Company continued its product innovations, the products have been more technology-intensive and the quality has greatly improved.

The new sample of solder paste have passed the alloy composition test, solder ball test, slumping performance test, and continuous printing test, all of which are in line with the industry standard. Besides, the continuous printing performance of the sample was better than expected.

After the progress in colloid preparation process and identifying dispensing parameters, the corrosion resistance and dispersion performance of hard brazing paste have been improved, and the sample stability in storage performed better than that of its competitors in the same industry.

By developing improved materials, now the active brazing paste has been equipped with AMB formulation capability. It has higher thermal conductivity, better ability to join copper, and the advantages of lower thermal resistance and higher reliability.

With keen market insight and deep technical foundation, the Company provided customers with brand new experience by breakthroughs in product development and innovation. In 2023, two newly-developed products of the Company have passed the assessment by the expert evaluation group and won the honorary title of "Zhejiang Industrial New Product", namely the non-splatter and silver-saving flux-cored silver brazing alloy with high mechanical strength; and the silver-saving vacuum brazing alloy for bridge construction. In addition, the green flux-cored silver brazing filler metal with good flow has passed the appraisal of Zhejiang Metallurgical Non-ferrous Industry Association.

### Case 2: “Zhejiang Industrial New Product” won by the non-spatter and silver-saving flux-cored silver brazing alloy with high mechanical strength

The non-spatter and silver-saving flux-cored silver brazing alloy with high strength overcomes the disadvantages of low-silver brazing filler metal, such as high melting point, and low mechanical strength of joints after welding. It can be used in the fields of refrigeration and alloy cutting tools. The product is characterized by high mechanical strength, spatter-free, silver saving, etc. The improved formula for the cored flux, on which the Company applied for a PCT patent, is leading among similar products in China.



Figure 24: Certificate of “Zhejiang Industrial New Product”: The non-spatter and silver-saving flux-cored silver brazing alloy with high mechanical strength

### Case 3: “Zhejiang Industrial New Product” won by the silver-saving vacuum brazing alloy for bridge construction

The silver-saving vacuum brazing alloy can be used for core parts soldering for bridge construction. It is of good social and economic benefit, as it is easy to clean, spatter-free, and silver saving.



Figure 25: Certificate of “Zhejiang Industrial New Product”: The silver-saving vacuum brazing alloy for bridge construction

### Case 4: Green flux-cored silver brazing filler metal with good flow that passed the appraisal of Zhejiang Metallurgical Non-ferrous Industry Association

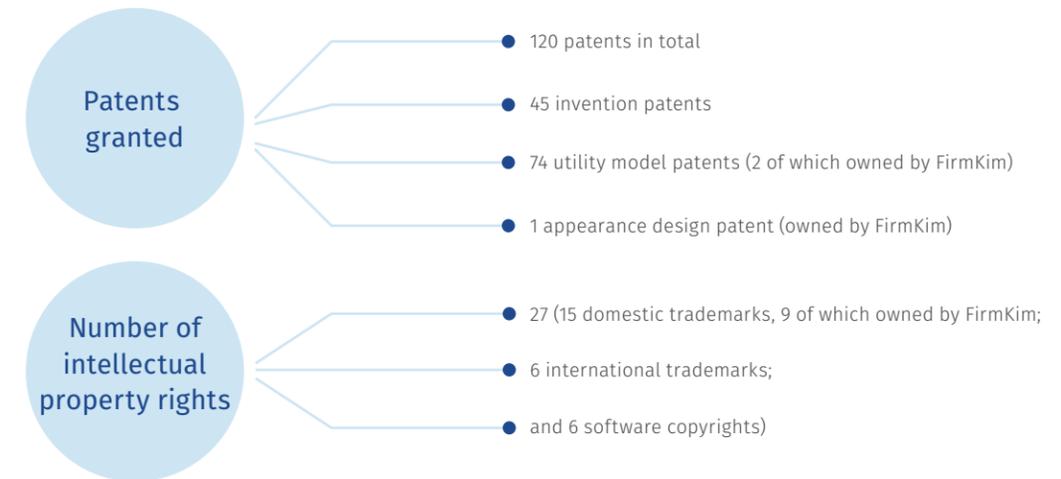
The Company has independently developed the technologies of directional sedimentation slagging and electromagnetic stirring filtration, which effectively removes the harmful elements such as lead and cadmium. Besides, the adding of low-melting metal to the cored flux has reduced the level of silver content. The improved filler metal is green and eco-friendly of high mechanical strength with good flow. This kind of flux-cored brazing filler metal eliminates the harm to people and the environment caused by cadmium-containing welding rods, in line with the green-trend of brazing and well-regarded by the customers.



Figure 26: Certificate of Science and Technology Achievement: The green flux-cored silver brazing filler metal with good flow

## III.2.3 Innovations

The Company has achieved fruitful results with the continuous R&D and innovation. By the end of 2023, the Company has obtained a total of 120 patents, including 45 invention patents, 74 utility model patents (2 of which owned by its subsidiary FirmKim), and 1 appearance design patent (owned by FirmKim). Meanwhile, the number of intellectual property rights, including trademark rights and copyrights, has reached 27. These include 15 domestic trademarks (9 of which owned by FirmKim), 6 international trademarks and 6 software copyrights.



The Company has won a series of awards as listed below:



Award (project)	Certificate Authority
First prize of China IUR Collaboration Award (“Advanced green welding technology and application”)	China Industry-University-Research Institute Collaboration Association
First prize of the 2023 Promotion of New Practical Welding Technologies, Processes and Manufacturing	China Welding Association (CWA), Jiangsu Welding Chamber of Commerce
First prize of Henan Science and Technology Award (“Advanced green welding technology and application”)	People’s Government of Henan Province
Hangzhou Patent Model Enterprise	Hangzhou Municipal Market Supervision Bureau
Second prize of the CMIF Science and Technology Award 2023 (“Efficient preparation of high-performance copper base filler metal and its applications in carbide tool manufacturing”)	China Machinery Industry Federation (CMIF)
First prize of the CAMMT Science and Technology Award 2023	China Association of Machinery Manufacturing Technology (CAMMT)
Hangzhou Headquarter Enterprise	Hangzhou Leading Group of Headquarters Economy Development
Silver Prize in the 2nd CMIF Product Quality Innovation Competition (“Preparation technology, development and industrialization of cleansed Copper-Phosphorus brazing alloy”)	China Machinery Industry Federation (CMIF)

Figure 27: Awards List

## IV.1 Sustainable Supply Chain

### IV.1.1 Supplier Quality Management

Supplier management is of great significance in the development of an enterprise. It not only ensures a stable and reliable supply chain system, reduces procurement costs, but also enhances the overall innovation ability and market competitiveness of the company. Hua Guang Welding has always attached importance to supplier management, actively establishing long-term partnership and continuously improving the supply chain to achieve sustainable development and excellence.

The Company has formulated the Provisions on Supplier Management, which identifies the responsible parties of supplier management and relevant requirements for the category, evaluation, management processes of suppliers. Management to different categories of suppliers is differentiated, so as to ensure the quality, resilience and flexibility of the supply chain.

With the supplier management procedures that specify the quality management concerning multiple dimensions, such as qualification inspection, performance, and elimination mechanism, the Company conducts a comprehensive qualification inspection, and carries out on-site inspections for Category A/B. Suppliers receive clear quality requirements from the Company, and are evaluated with accordance to the Provisions on Supplier Performance Evaluation and Review in terms of quality, delivery and adaptability. Suppliers that are evaluated as “unqualified” for three consecutive months will be eliminated directly.

The Company has paid due attention to supply chain risks. The Provisions on Supplier Risk Assessment and Contingency Plans regularizes how to identify, analyze and determine supplier risks, as well as relevant contingency plans or preventive measures, to avoid severe or major risks originated from suppliers. When an unexpected event occurs at a supplier, an emergency team is set up to respond.

In addition, after the annual review of suppliers and the supplier quality evaluation, the Company provides targeted training for non-conformities in order to help improve supplier quality and deepen the cooperation.

#### Case 1: Building a pool of qualified suppliers

The Company established a resource pool of suppliers, and improved the efficiency of supplier categorization, review and processing. In 2023, the Company conducted a summary of all suppliers' data, and achieve one-on-one feedback of performance evaluation on the cloud platform. It also reviewed and renewed the access information of 117 suppliers to support further supplier management.

#### Case 2: Conducting market research during visits to suppliers

In order to strengthen its tie with suppliers, the Company visited 63 suppliers in 2023 and conducted a series of market research. As the Company exchanged ideas about market situation with the suppliers, and shared with them the cooperation philosophy, corporate culture and procurement needs. This approach enhanced communication with suppliers and helped establish strategic relationships for long-term cooperation.



Figure 29: Research and surveys while visiting the suppliers

## IV. WIN-WIN PARTNERSHIP

As a national high-tech enterprise specializing in intelligent, efficient and green welding solutions, Hua Guang Welding worked hand in hand with supply chain partners to ensure industry synergy. The Company also carried out IUS collaborations with renowned domestic universities, improved customer service and strived to build a win-win value chain.

### Case 3: Supplier management training

The Company conducted 12 supplier management trainings in 2023, covering procurement negotiation skills, procurement training, risk management, integrity education, etc. In addition, the Company organized 6 book sharing sessions and created a supply chain bookcrossing corner. These activities helped the staff improve their expertise in procurement and the ability to identify risks, carry out bids and conduct cost analysis, contributing to a differentiated talent echelon.



Figure 30: Supplier management training

## IV.1.2 Improved Supply Chain Resilience

Hua Guang Welding integrates the idea of sustainable development into the supply chain management system, and actively implements the environmental and social responsibility risk management for suppliers.

Adding environmental, social and governance factors to its supplier access criteria, the Company formulated the frame of “Hua Guang Welding Procurement Contract” and claimed these requirements in it. Meanwhile, the suppliers were required to sign the Environmental, Occupational Health and Safety Commitment and the Supplier CSR Guidelines. In 2023, the percentage of new suppliers screened using the environmental and social criteria reached 100%. It is ensured that all suppliers have conducted environmental impact assessments last year.

The Company attaches great importance to procurement compliance management. Based on the principles of openness, fairness, selecting on the basis of merit and strengthening control, the Company has clarified the responsible body of procurement, and enhanced supervision management. Besides, the Company actively revised the procurement rules and carried out relevant trainings. In 2023, altogether 3 procurement rules were revised, and 12 trainings were carried out to publicize the revisions. In addition, the Company organized 34 procurement compliance inspections and other regular sessions of procurement integrity education, so as to bolster the ability to build a strong compliance control line of defense.



Figure 31: Training of procurement management rules

## IV.2 Customer Rights Protection

Hua Guang Welding attaches great importance to the protection of customer rights and interests. Committed to providing high-quality products and services, the Company stands in the position of customers to think and tackle problems as possible.

The Company continued to conduct customer satisfaction surveys to improve user experience. The survey includes multiple aspects such as the products, technical services, sales services, after-sales service, etc. The Company collected customer comments and scores on a quarterly basis, and made respective improvements according to the advice on products and services, so as to perfect product quality and service experience.

In addition, the Company has formulated the Control Procedures for Customer-related Processes to regularize and improve the pre-sale, in-sale and after-sale service system. The company set up a special customer communication channel to maintain contact with customers. In response to customer complaints, the Company paid due attention to every piece of information and analyzed the issues in a timely manner to reduce complaint rate. The complaints were also shared with relevant departments responsible for proposing solutions and supervising later improvement. As a result, the sum of customer complaints dropped year-on-year, and the complaint resolution rate achieved 100%.

The Company carried out training activities to introduce its business and increase the communication with the clients. Based on the efforts made, the Company may establish a long-term and stable business relationship with customers and enhance customer satisfaction. The cooperative relationship enables more opportunities for common progress and development, which urges the Company to thoroughly understand customer expectations, think in their shoes, and provide better solutions that meet customer needs.

### Case 1: Welding skills training promotes customer interaction

The Company carried out the Freezer Brazing Skills Training at Changxue Refrigeration Equipment Co., and the Brazing Skills Training at Shaanxi Newland Industrial Co., in June and July 2023 respectively. Welders from the Company taught welding theories to the customers and guided them to practice. The trainings deepened the customers’ understanding of welding, and promoted the benign interaction between the Company and customers, which laid a solid foundation for the future collaboration.



Figure 32&33: Freezer Brazing Skills Training at Changxue Refrigeration Equipment Co. and the Brazing Skills Training at Shaanxi Newland Industrial Co.

### Case 2: Partnering with customers in project development to build high quality and innovative products

The Company actively worked with its customers to help bolster R&D innovation projects.

The Company has completed the project of developing brazing materials for ceramic substrates used in power semiconductors in collaboration with its customers. Under mutual cooperation, the Company successfully applied argon ion sputtering to spray brazing materials in the form of ions onto the ceramic substrate to realize the pre-coating of welding materials, followed by the brazing process to efficiently connect copper plates to ceramic substrates. The R&D process demonstrates Hua Guang Welding’s endeavor to provide customers with high-quality products and services.

## IV.3 Industry Exchanges and Joint Efforts

Since its establishment, Hua Guang Welding has been committed to brazing alloy industry. With the hope of bolstering high-quality industry development, as well as the transformation and industrialization of scientific and technological achievements, the Company has been deploying the innovation chain around the industrial chain, relying on the innovation chain to enhance the value chain. Meanwhile, the Company has continued to invest in the integrated innovation model of “industry-university-research-application”. Specific ways include: working hand in hand with renowned welding experts from home and abroad on advanced welding technology topics; working jointly with a number of top universities to set up welding technology R&D teams; cooperating with important strategic customers to set up welding research laboratories; and so on.

In a word, adhering to the Hua Guang Spirit of “Integrity, Diligence, Exploration, Dedication”, the Company has cooperated with many of the world’s top500 and well-known manufacturers at home and abroad. The Company wishes to build an open platform for mutual benefits by active contribution, and to explore the future trend of development with its partners. In the field of equipment manufacturing industry, the Company focuses on constructing an innovation highland, and seeks for a new model of co-prosperity by win-win cooperation in harmony through sharing.

### Case 1: The 7th Forum on Green Connection & Intelligent Manufacturing, Hangzhou, China

On the afternoon of April 1st, 2023, the 7th Forum on Green Connection & Intelligent Manufacturing in Hangzhou was successfully held in Mengqi Town, Yuhang. The main hosts were the National Key Laboratory of Precision Welding and Joining of Materials and Structures and Brazing Materials, Equipment and Processes Branch of China Welding Association. Hua Guang Welding and its subsidiaries helped organized the conference.

Focusing on the theme of “innovation and synergy towards a better future”, a number of industry experts and scholars delivered great speeches at the forum, such as academicians, director of the National Key Laboratory, and director of Science and Innovation Research Center. Besides, two symposia were held during the forum, namely the “Ni3Al applications and non-ferrous metal laser welding, and applications of advanced forming technology”, and “Innovations and applications of electronic connectivity materials”. The participants, including the industry experts and downstream users, communicated openly and extensively on the applied technical challenges and prospects. They provided new thoughts and ideas for the industrial and technological growth, bolstering the high-quality development of the whole industry.

The success of the forum is in line with what the Company has always strived to do, i.e. to broaden the future of welding and joining industry by overcoming the application challenges concerning new materials and technologies via a collaborative platform.



Figure 34-37: Focusing on the theme of “innovation and synergy towards a better future”, a number of industry experts and scholars delivered great speeches at the forum

### Case 2: The 19th Annual Meeting of Southern China SMT Academics and Application Technologies

On December 21st, the 19th Annual Meeting of Southern China SMT Academics and Application Technologies was held in Shenzhen. More than 1,000 practitioners in the electronic manufacturing industry gathered to discuss and analyze the current technical trends. The Electronic Connectivity Division of the Company participated in the meeting in order to keep pace with the latest news, trends and market changes. Meanwhile, they also shared their insights and experiences at the discussion sessions to contribute to the industry on behalf of Hua Guang Welding.



Figure 38-41: Electronic Connectivity Division of the Company participated in the meeting

### Case 3: 2023 “Hua Guang Welding Cup” Competition

On October 30, 2023, the award ceremony of the 3rd CWA Hua Guang Welding Cup was held in Chengdu, at which the papers awarded excellent achievement were promoted. A total of 62 papers were collected, and 25 papers were recommended after screening and approval, which were published in the 1st Supplement of Electric Welding Machine in 2023.

The competition aimed at promoting key applied technologies, such as basic original technologies for solving welding production problems; key technologies for welding major equipment and related materials as well as key components; applied technologies for industrial interconnection, collaborative manufacturing, remote welding education and training. It further improved the industrial influence and the quality of the papers recommended. At the same time, the paper “Research on Laser Welding Process for Lap Joints between Cast Iron and Carbon Steel” written by Hua Guang Welding technical team won the first prize, which highlights the outstanding achievements of the Company in technology R&D.



Figure 42: At the paper review meeting

Figure 43: Hua Guang Welding technical team won the first prize

## V. BUILDING A STRONG ENTERPRISE WITH TALENTS

Hua Guang Welding treasures its employees, and regards professional talent training and organizational vitality as important goals in its corporate development strategy. The Company keenly respects and protects the basic rights and interests of each employee, and provides good welfare and development opportunities for them. Concerned about employee welfare in all aspects, the Company empowers each and every one of them and continues to grant their safety and health. In conclusion, Hua Guang Welding offers a career platform for everyone to show their talents and creativity, and strives for a better life in company with the employees.

## V.1 Employee Rights and Welfare

In compliance with laws and regulations such as the Labor Law of the People's Republic of China and the Labor Contract Law of the People's Republic of China, Hua Guang Welding signs labor contracts with its employees, and improves the human resources management system to protect the legitimate rights and interests. The company improves its management in many aspects such as equal rights protection, communication, solicitude for employees, etc. It effectively improves the level of human resource management, stimulates the innovation and vigor of the staff, and thus retains excellent human resources for the future high-quality development.

### V.1.1 Employee Rights Protection

The Company adheres to the principle of equal employment, and actively promotes the diversity of its workforce. Besides, the company does not discriminate against its employees or treat them unfairly in terms of age, gender, ethnicity, or whether or not they are the members of a labor union, etc., thus ensuring a diverse workplace.

#### Equal Rights

The Company adheres to the principles of justice, fairness, openness and voluntariness in recruitment, and prohibits any forced or deceptive means to attract applicants. The Company has formulated the Policy and Management Procedures for the Prevention of Forced Labor and the Control Procedures of Prohibiting Human Trafficking, which clearly stipulate that any forced or deceptive means of recruitment is prohibited, so as to protect the equal rights and interests of employees.

Employment Category	Indicator	Unit	2023	
hires	total employees	Number	662	
	By gender	Male	Number	417
		Female	Number	245
	By age group	Under 30 years old	Number	166
		30-50 years old	Number	385
		Over 50 years old	Number	111
	By employee category	Management	Number	59
		Non-management	Number	603

The Company has formulated the Policy on Freedom of Association for Employees, which clearly respects and protects the employees' legal rights to participate in and organize associations that they decide and deliberate on their own. The policy creates an environment free from all forms of nuisance, abuse and discrimination, and declares other content such as the mechanism for resolving disputes, relevant trainings, and so on.

#### Remuneration Management

The Company established and continued to renew the employee remuneration and welfare protection system by improving the remuneration plan, system and structure. The Company paid remuneration in accordance with relevant national and local policies, and provided social insurance and provident fund for all employees. Meanwhile, the Company provided commercial insurance for rehired staff, and implemented equity incentives for employees of higher titles. To do so, the Company repurchased shares for equity incentives.

### Female Employee Rights Protection

The Company keenly respects the rights and interests of female employees. According to the Policy on Special Protection for Female Employees established by the Company, the Company is in strict compliance with the equality of the sexes and equal pay for equal work in terms of labor, employment and remuneration to guarantee the rights of female employees. In addition, the Company has set up a Women's Federation, which actively listens to the voices and demands of female employees, and gives play to the role of women in corporate development.

### Employee Communication Mechanism

Communication efficiency is the key to a good condition of teamwork and its efficient operation. Believing that, the Company continues to protect the legitimate rights and interests of employees, such as the right to know, the right to participate and the right to supervise. The Company encourages employees to participate in the democratic corporate management in all aspects, so that everyone can make contributions.

The Company attaches importance to communication with employees and encourages them to make suggestions for corporate development. The Company has established a labor union, ensuring the rights of the staff congresses according to the requirements. The Company supports the collective bargaining rights of the employees, and at the same time opens up the "General Manager's Mailbox" for collecting thoughts from the employees.

### Case: Hua Guang Welding was honored as the second batch of "Happy Community Leading Goose Enterprises" in Zhejiang

Hua Guang Welding won the honorary title of the second batch of "Happy Community Leading Goose Enterprises" in Zhejiang, jointly awarded by Zhejiang Provincial Federation of Labor Union, Zhejiang Provincial Department of Industry and Information Technology, Zhejiang Provincial State-owned Assets Supervision and Administration Commission, and Zhejiang Federation of Industry and Commerce.

The selection of "Happy Community Leading Goose Enterprises" aims to promote the sense of responsibility and the system and mechanism of companies. It also boosts the supply of services, and helps build a community with a shared cause and future, leading to a win-win situation for both the enterprise and its employees.

The Company has attached great importance to the recruitment and cultivation of talents since its establishment, and has always valued efficient talent use and improvement highly as the corporate strategy. The Company was awarded the Hangzhou Advanced Enterprise for Creating Harmonious Labor Relations, Yuhang Advanced Organization for Valuing and Caring for Talents, Hangzhou Model Collectives, and so on.

In terms of employee care, the Company provides diversified welfare policies and colorful cultural and sports activities, in order to create a warm home and an environment of cohesion for employees. Based on that, the Company actively promotes the reform of industrial workers. For example, the Company established a career growth platform for management and technology talents, and took other measures to encourage their initiative and creativity, including raising salary according to skills, stabilizing the talent echelon as well as the company by paying due salary, etc. Such measures enable the employees to share the fruits of high-quality development, and help build harmonious and stable labor relations of mutual growth together with the Company.



## V.1.2 Occupational Health and Safety

With strict accordance to the legal requirements, such as the Work Safety Law of the People's Republic of China, the Interim Measures for the Investigation and Management of Hidden Dangers in Work Safety Accidents, the Guidelines for Safety Risk Investigation and Management of Hazardous Chemical Enterprises, Hua Guang Welding established an OHS management system and prepared OHS-related documents to ensure employee safety of work and production, for instance, the Management Regulations for Civilized Construction at Production Sites, the Provisions on Hazardous Waste Management, the Provisions on Pre-Holiday Management, the Employee Dress Code, etc.

The Company carried out OHS risk investigation based on the hazard identification and risk evaluation form. Meanwhile, the Company continued to rectify hazardous sources and formulated relevant management scheme. The OHS management was carried out through a series of work, including the identifying and evaluating hazardous factors, monitoring work environment, conducting safety trainings and occupational health checkups, configuring protective equipment, identifying and treating hidden dangers, managing equipment and facilities, and so on. In addition, newly-recruited employees are required to go through the "three-level" safety training, i.e. the Company, the department (or workshop team), and site, before they are allowed to work. In 2023, the Company conducted 135 OHS trainings containing employees from the corporate management team, departments, and specific positions, covering the Manufacturing Division, Vacuum Division, and Silver Paste Division.



Figure 44-46: At the OHS training

## V.1.3 Employee Welfare

### Vacation Policy

To strengthen the management of working hours and vacations, the Company has issued the Rules for Annual Leave for Employees and the Provisions on Attendance Management. The Company stipulates regular working hours and compensation for extended working hours. Besides, employees are entitled to statutory holidays, paid annual leave, marriage leave, bereavement leave, work injury leave, maternity leave, paternity leave, and parental leave.

### Subsidies

The Company provides employees with good welfare, for instance, a variety of subsidies such as the labor subsidies for disabled people, labor subsidies for fresh college students, subsidies for staying in Hangzhou, employment subsidies for fresh graduates, living subsidies, rental subsidies, rewards and subsidies for high-skilled personnel, etc. In addition, with accordance to the Provisions on Granting Allowances for Special Positions in the Production Line, the Company issues subsidies for special positions every month in conjunction with the production arrangements to improve the competitiveness of the positions, and to protect the rights and interests of employees. In 2023, the Company formulated the Provisions on Employee Care and Support for Major Diseases. According to the provision, the Company paid the Xihu Yilian Insurance for all employees in addition to the basic medical insurance, and set the corresponding relief standards according to the employees' self-paid medical expenses. It is indeed a set of down-to-earth caring measures in preventing and relieving difficulties for the employees who are suffering from critical illnesses. Meanwhile, the company formulated the Provisions on Retired Employee Welfare to achieve the humanistic care and management of retired employees.

The Company carried out long-term research on the situation of employee support work in order to solve their actual problems, for example, helping eligible employees in need of their children's school enrollment, connecting with the government to help eligible employees apply for talent housing in Yuhang, and so on.

### Festivals and Activities

The Company cares for the physical and mental health of each employee, and advocates happy work and healthy life. Integrating corporate culture with traditional festivals, the Company carries out all kinds of festive activities and provides gifts for employees. In 2023, the Company organized a number of employee activities, which greatly improved employee satisfaction and sense of belonging.

Chinese New Year	The Company organized a New Year's Eve Dinner and provides employees with gift packages for staying in Hangzhou during the holiday, so as to thank them for their hard work and support throughout the year.
International Working Women's Day	The Company organized female employees to participate in flower arranging activities, providing a chance for them to appreciate floral art.
Tug-of-War Competition	The Company organized the largest annual meeting and held a tug-of-war competition to cultivate the spirit of unity and hard work among employees.
Preventing Heatstroke in Summer	The Company sent out watermelon, cold drinks and other food from June to October to relieve summer heat and prevent the employees from heatstroke.
Mid-Autumn Festival	The Company carried out the activity of making mooncakes for the staff to celebrate the festival of reunion.
Double Ninth Festival (Chung Yeung)	The Company held a mountain-climbing activity with the theme of "celebrating the Double Ninth Festival and enjoying good health every year" on Chung Yeung, which improved the physical quality of the employees and sent them good wishes.
Winter Solstice	The Company offered winter solstice hot pot for employees, and organized dormitory culture festivals to enrich employee life and create a welcoming environment.



Figure 47: Chung Yeung Climbing Activity



Figure 48: Hot pot on Winter Solstice Dormitory Day

### Case: Hua Guang Welding 3V3 Basketball Challenge 2023

On December 8th, 2023, the Hua Guang Welding 3V3 Basketball Challenge 2023 hosted by Hua Guang Basketball Team was successfully held in Renhe factory. The game aimed to provide employees with cultural and sports activities, and to improve the collaboration ability of horizontal departments. There is no doubt that the sporty atmosphere in the game was demonstrated vividly. The employees will bring the spirit of being united as one back to their work and strive for a better future for Hua Guang Welding.



Figure 49-50: Hua Guang Welding 3V3 Basketball Challenge 2023

## V.2 Employee Training and Development

Hua Guang Welding attaches importance to talent cultivation and development, and is committed to improving the comprehensive ability of the employees. The Company strives for improving the corporate competitiveness by forming a high-quality and highly-united talent team with broadened horizons and excellent performance. The Company also makes efforts to train talents for key positions.

The Company worked on strengthening the top-level design of employee training, with the intention of building a high-quality employee education and training system to escort the career development of employees in all aspects. The company has established the Control Procedures for Human Resources and the Provisions on Training Management, which state the types of training, training implementation, training evaluation, and the establishment of training files.

The Company formulated the four-tier training system roadmap, i.e. four cultivation programs of the burgeon plan, the enrichment plan, the elite plan and the brilliance plan targeting employees of different titles. With different training types, such as company training, workshop training, project leading, rotational learning, the Company established and improved its own talent cultivation mechanism. Through the selection plans of key position successors and reserve talents, the Company excavated and cultivated the talent reserve and echelon, providing human resources support for the sustainable development.

Every year, the Company organizes a variety of trainings, covering company-level, department-level and certification training for employees. Training types include internal training, external training, self-study, and language skills enhancement. The Company regularly introduces some external online courses to enrich the knowledge reserve of employees. Besides, Hua Guang Welding has established special training programs, such as the training program for fresh college students, etc. To encourage employees to improve their language skills, and further enhance their job competence, the Company has formulated the Provisions on Subsidies and Incentive Programs for the Enhancement of Language Proficiency of Employees, and the Incentive Program for Internal Lecturers. The latter has continuously helped its internal trainers to improve.

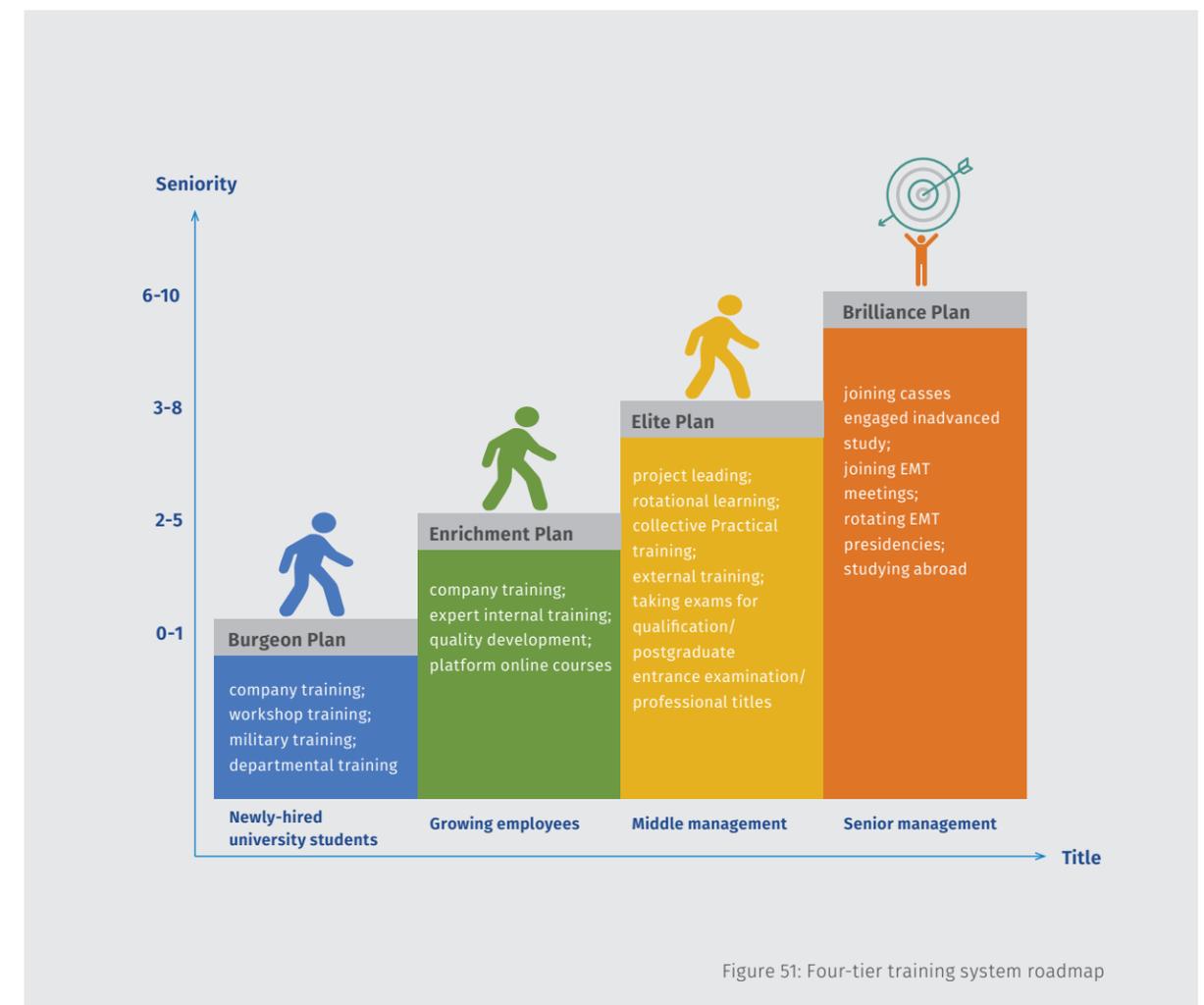


Figure 51: Four-tier training system roadmap

The Company attaches importance to the cultivation of college students. Fresh college graduates within two years of graduation are assigned with a mentor, and the cultivation covers the whole business modules. 21 college graduates were newly-hired in 2023, and the retention rate after probation period reached 100%. During the cultivation, the graduates took a total of 4 general education classes, 3 application classes, 5 cultural guidance classes, and 3 group building games, which promoted the all-around development of the talents.



Figure 52: At the opening ceremony of the Bourgeois Class



Figure 53: At the site of employee training



Figure 54: At the site of employee training

### Case: Hua Guang Welding Participated in the First Digital Technology Engineer Training in Zhejiang

In August 2023, the opening ceremony of the first digital technology engineer cultivation program in Zhejiang: Intelligent Manufacturing (Junior) was held in the College of Mechanical Engineering, Zhejiang University of Technology. In order to realize the strategic goal of Hua Guang Welding Intelligent Manufacturing 3.0, Hua Guang Welding worked hand in hand with Zhejiang University of Technology to set up "Hua Guang Class", and 32 students of the Company became the first batch of students. With the help of a good learning platform, the trainees participated in the training courses that helped bolster the professional and technical capabilities, such as industrial big data, on-site operation technology of intelligent equipment and production line, virtual debugging of intelligent equipment and production line, etc. The training plan is another outstanding achievement of the Company in talent cultivation, which demonstrates the emphasis on empowering employees, and its determination to promote the high-quality development of China's intelligent manufacturing.



Figure 55: At the opening ceremony of the First Digital Technology Engineer Training

## V.3 Party Building Leads

CPC members occupy nearly 60% in the senior management team of the Company, playing an essential role in corporate operation. The Party branch prudently dealt with all sorts of Party affairs, for example, recruiting and cultivating new Party members, organizing activities such as the Party Theme Day study, the "democratic life meeting", theoretical knowledge study, collaborative Party building, etc. Party branch of the Company also organized Party members to join volunteer activities including condoling the elderly, adopting and fulfilling little wishes of the underprivileged, and assisting the Asian Games. Such activities enhanced the awareness of Party members to serve the public and dedicate themselves, and to actively play an exemplary and vanguard role in real life by setting an example.

The Party branch of the Company organizes the Party members to learn theoretical knowledge on a monthly basis. Through regular theoretical learning, Party members are used to utilizing the theoretical knowledge as a weapon to arm their minds, strengthening their Party consciousness, and always maintaining their advanced nature and purity. The Company carried out altogether 17 Party building activities in 2023, and created a good organizational environment through Party co-building.



Figure 56-57: On July 1, the Party branch carried out on-site study of "Pursuing the Thoughts on Socialism with Chinese Characteristics back to its origins, learning the ideas and promoting practice" in conjunction with the Party Theme Day.

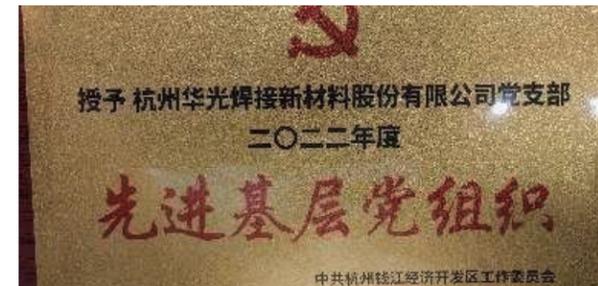


Figure 58-59: The Company's Party branch was selected as "Advanced Primary-Level Party Organization" by Hangzhou Qianjiang Economic Development Zone Working Committee of CPC, and the secretary of the Party branch delivered a speech on the stage as an excellent Party worker.



Figure 60-61: Meijuan LI, chairman of the Company's labor union, Party member, member of the Party branch committee, and Liu HUANG, Hangzhou model worker and Hangzhou excellent Party member, were selected as the torchbearer of the 19th Asian Games and successfully finished the torch relay.



Figure 62-63: Cheering squad of the Asian Games of the Company



As a responsible corporate, Hua Guang Welding believes that social interest is the base on which to build up business. The Company actively participates in cultural preservation, women's development, educational support and other social welfare undertakings along with the stakeholders to build a better society.

## VI.1 Public Welfare Donations

Adhering to the idea of "self-achieving and giving back to the community", Hua Guang attaches great importance to public welfare and charitable activities, putting corporate social responsibility into practice. In terms of cultural protection and research, the Company donated to Liangzhu Culture Protection and Research Foundation of Yuhang, Hangzhou, China Dunhuang Grottoes Protection and Research Foundation, etc. to bolster cultural inheritance and development. In terms of women empowerment, the Company has long been concerned about women's and children's public welfare programs, and has sent care, help, and hope to women and children in need of help. In the past three years, the company has donated more than 2.9 million CNY.

In 2023, the Company spent a total of 601,260CNY on public welfare donations, focusing on three major areas, i.e. the local economic, industrial and cultural development, poverty alleviation, and disaster relief. Through various forms of donations and support, we constantly give back to the society and develop together with the society.



Figure 65: Hangzhou Organizing Committee of the 19th Asian Games awarded the Company with a certificate of donation

Beneficiaries	Donations (CNY)
Organizing Committee of the 19th Asian Games	500,000
Charity Federation of Yuhang District	100,260
Red Cross Society of Yuhang District	1,000

Figure 64: Donation list 2023 of Hua Guang Welding

### Case 1: Establishment of the "Charitable Origin Title Fund"

In order to carry forward the traditional virtues of the Chinese nation of being kind, charitable, and helping the needy, the Company passed the "Motion on the Proposed Signing of the Agreement on Charitable Origin Title Common Wealth Fund of the Charity Federation of Yuhang, Hangzhou" in 2023. The agreement requires the Company to donate a total of 1.8 million CNY in three years with its own capital since the signing. The money is used in the construction of the Common Wealth Demonstration Zone for poverty alleviation, relief of major diseases, and rural revitalization of Yuhang District.

The establishment of this fund will be able to help people in difficulty in Yuhang to feel the warmth of the society, which is also a manifestation of the Company's active support for charitable causes, effective assumption of social responsibility, care for people in difficulty and assistance in rural revitalization.

### Case 2: Mrs. Limei JIN, chairman of the Board of Directors, was honored with the Individual Donation Award of the First "Hangzhou Charity Award"

On December 13th, the first Hangzhou Charity Conference was held at Hangzhou Civic Center. Mrs. Limei JIN, chairman of the Board of Directors of Hua Guang Welding, was honored by the Hangzhou Municipal Party Committee and Municipal Government at the ceremony and awarded the "Hangzhou Charity Award" for individuals. The honor represents the high recognition of her role as a responsible entrepreneur, as she showed her care and goodwill with practice in addition to her leadership in the steady development of the Company. Chairman JIN returns to society through a variety of ways. Her donations cover the fields of culture inheritance, support for education and rural revitalization, and social care. She has played an exemplary role on the path of giving back to society.

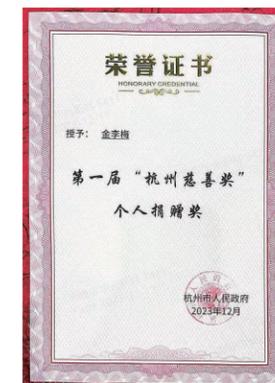


Figure 66: Mrs. Limei JIN, chairman of the Board of Directors, was honored with the Individual Donation Award of the First "Hangzhou Charity Award"

## VI.2 Volunteer Activities

Hua Guang Welding is concerned about the development of the local community. The Company widely advocates Party members, members of the League, Women’s Federation and labor union to participate in volunteer work, so as to create a healthy working environment with humanistic vibes, and to implement the mission of putting people first. In 2023, the Company actively organized and carried out 13 volunteer services, with around 200 employees serving for more than 300 hours. During the activities, the Company attached great importance to the quality and effectiveness of the services, reached out to the public to understand their needs, solved the hot issues of the residents, and promoted the integration of society and enterprises.

### Case: Sending Coolness in Summer: High Temperature Condolence Activities

On the morning of August 16th and 17th, 2023, the Company and the Yuhang Charity Federation carried out the high temperature condolence activity of “sending coolness in summer”. In the scorching sun, the deputy secretary-general and vice president of Yuhang Charity Federation, together with the relevant persons in charge of the Company, visited many police stations, street traffic police squadrons and fire stations to bring the police officers and firefighters cool drinks. This is to thank them for their contribution to the safety of the people and the smooth traffic in the heat.



Figure 67-68: The Company brought the police officers and firefighters cool drinks to thank them for their dedication to their work in the heat

## Reference

### Performance Results » Environmental Performance



#### GHG Emissions and Management

Disclosure (unit)	2021	2022	2023
Gross (Scope 1 and 2) GHG emissions (metric tons of CO2 equivalent)	11,436.90	11,479.31	13,273.79
Of which: Direct (Scope 1) GHG emissions (metric tons of CO2 equivalent)	121.10	171.04	158.79
Energy indirect (Scope 2) GHG emissions (metric tons of CO2 equivalent)	11,315.80	11,308.27	13,115.00
Other indirect (Scope 3) GHG emissions (metric tons of CO2 equivalent)	21,501.16	25,664.40	23,929.74
Reduction of GHG emissions (metric tons of CO2 equivalent)	\	814.00	117.00

#### Environmental Protection Management

Disclosure (unit)	2021	2022	2023
Instances for which fines were incurred (time)	0.00	0.00	0.00
Instances for which non-monetary sanctions were incurred (CNY)	0.00	0.00	0.00
Investment in environmental protection (thousands of CNY)	225.98	497.97	205.82

#### Energy and Resource Consumption

Disclosure (unit)	2021	2022	2023
Power generation from renewable energy facilities (kWh)	314480.00	327390.00	304890.74
Total consumption of recycled water (m3)	4282	4716	5645
Percentage of recycled water to total water consumption (%)	4.39%	4.12%	4.66%
Total energy consumption (metric tons of standard coal)	1981.26	1980.64	2166.82
Total energy consumption per millions of CNY	1.64	1.62	1.53
Petrol consumption	0	66.99	45.52
Electricity consumption	0.161	0.161	0.176

### Gaseous Waste, Effluents and Solid Waste

Disclosure (unit)	2021	2022	2023
Suspended particulate and particulate matter (PM) emissions	2	1.57	0.86
Suspended particulate and particulate matter (PM) emissions per millions of CNY	0.0017	0.0013	0.0006
Fume emissions	0.004	0.0263	0.074
Particulate emissions	2	1.57	0.86
Solid waste emissions	833.59	628.8	641.62
Sludge emissions	582.62	448.46	496.44
Non-hazardous waste emissions	76.41	112.85	120.09
Total non-hazardous waste generated per millions of CNY	0.0631	0.0925	0.0849
Hazardous waste emissions	757.18	515.95	521.53
Total hazardous waste generated per millions of CNY	0.63	0.42	0.37
Total effluents discharged	77746	77708	75924
Total effluents generated per millions of CNY	64.2	63.68	53.65
COD of effluents discharged	23.9	17.1	20.59
COD of effluents discharged per millions of CNY	0.02	0.01	0.01
Ammonia and nitrogen in effluents discharged	0.24	1.7	0.19
Ammonia and nitrogen in effluents discharged per millions of CNY	0.0002	0.0014	0.0001

## Social Performance

### Employment and Training

Disclosure (unit)	2021	2022	2023
Total number of employees	557	590	662
By age group:			
Under 30 years old (number/ rate)	144/ 25.85%	130/22.03%	166/25.08%
31-50 years old (number/ rate)	320/57.45%	361/61.19%	385/58.16%
Over 50 years old (number/ rate)	93/16.70%	99/16.78%	111/16.77%
By gender:			
Male employees (number/ rate)	358/64.27%	373/63.22%	417/62.99%
Female employees (number/ rate)	199/35.73%	217/36.78%	245/37.01%
Total number of management	66	62	59
By gender:			
Male management (number/ rate)	32/48.48%	33/53.23%	26/44.07%
Female management (number/ rate)	34/51.52%	29/46.77%	33/55.93%
By age group:			
Management under 30 years old (number/ rate)	20/30.30%	21/33.87%	24/40.68%
Management between 31-50 years old (number/ rate)	39/59.09%	33/53.23%	30/50.84%
Management over 50 years old (number/ rate)	7/10.61%	8/12.90%	5/8.47%
Total hours of training per year	552.03	360.12	389.64
By gender:			
Avg. training hours per male (hour)	1.01	1.16	1.04
Avg. training hours per female (hour)	1.05	1.29	1.15
By employee category:			
Avg. training hours per production staff	0.15	0.2	1.2
Avg. training hours per R&D staff	2.57	4.32	3.56
Avg. training hours per sales staff	0.4	0.42	0.43
Avg. training hours per administrative& functional staff	2.36	3.26	2.5
Percentage of total employees who received a regular performance and career development review during the reporting period	51.17%	50.34%	53.98%
By gender:			
Percentage of male employees who received a regular performance and career development review during the reporting period	32.50%	30.00%	31.73%
Percentage of female employees who received a regular performance and career development review during the reporting period	18.67%	20.34%	22.26%
By employee category:			
Percentage of production staff who received a regular performance and career development review during the reporting period	17.41%	16.78%	21.20%
Percentage of R&D staff who received a regular performance and career development review during the reporting period	13.11%	11.02%	10.68%
Percentage of sales staff who received a regular performance and career development review during the reporting period	6.64%	6.95%	7.52%
Percentage of administrative& functional staff who received a regular performance and career development review during the reporting period	10.77%	14.07%	13.08%
Percentage of senior management who received a regular performance and career development review during the reporting period	2.33%	2.20%	2.11%
Percentage of middle management who received a regular performance and career development review during the reporting period	3.59%	2.71%	3.16%
Percentage of junior management who received a regular performance and career development review during the reporting period	5.92%	5.59%	3.61%
Percentage of general staff who received a regular performance and career development review during the reporting period	39.32%	39.83%	45.11%
Minimum number of weeks' notice typically provided to employees and their representatives prior to the implementation of significant operational changes that could substantially affect them (week)	4	4	4

### Occupational Health and Safety (OHS)

Disclosure (unit)	2021	2022	2023
Number of workers covered by an occupational health and safety management system	132	169	268
Number of fatalities as a result of work-related injury	0	0	0
Number of high-consequence work-related injuries (excluding fatalities)	0	0	0
Number of recordable work-related injuries	2	9	3
Number of fatalities as a result of work-related ill health	0	0	0
Number of cases of recordable work-related ill health	0	0	0

### Supply Chain

Disclosure (unit)	2021	2022	2023
Number of suppliers as of the end of the reporting period	41	47	48
Percentage of new suppliers that were screened using environmental criteria	100%	100%	100%
Number of suppliers assessed for environmental impacts	41	47	48
Number of suppliers identified as having significant actual and potential negative environmental impacts	0	0	0
Percentage of new suppliers that were screened using social criteria	100%	100%	100%
Number of suppliers identified as having significant actual and potential negative social impacts	0	0	0

## Appendix

### GRI Content Index »



#### Statement of use

Hua Guang Welding has reported in accordance with the GRI Standards for the period from January 1st to December 31st, 2023 (some contents may be extended).

#### GRI 1 used

GRI 1: Foundation 2021

Chapter	Content	GRI Standard
About the Report		2-1,2-2,2-3
Leader's Message		2-9,2-11,2-14,2-22,2-23
About Hua Guang Welding		2-1,2-2,2-4,2-6,2-16
Promoting Sustainable Development		2-22,2-29,3-1,3-2,3-3
Building the Foundation of Governance	Strengthening the Foundation of Governance	2-1,2-9,2-11,2-12,2-13,2-10,2-16,2-18,2-19
	Improvement of Compliance Management	2-2,2-12,2-27,2-29,205-1,205-3
	Improvement of Risk Management	2-12,2-25
	Investor Protection	2-6,2-29
Building Eco-Civilization with Concerted Efforts	Environmental Management System	/
	Addressing Climate Change	201-2
	Energy Management	302-4,302-5
Innovative and High-Quality Development	Waste Management	301-3,303-2,303-4,306-1,306-2,306-3,306-4,306-5,306-6
	Product Quality Management	2-6
	Science, Technology and Innovation Leads	2-2,2-6
Win-win Partnership	Sustainable Supply Chain	414-1,414-2,308-1
	Customer Rights Protection	416-1,416-2,417-1
	Industry Exchanges and Joint Efforts	2-6
Building A Strong Enterprise with Talents	Employee Rights and Welfare	2-7,2-19,2-30,201-3,401-2,405-1,408-1,409-1,403-1,403-2,403-3,403-5,403-6,403-7,403-8
	Employee Training and Development	404-2
	Party Building Leads	/
Social Contributions	Public Welfare Donations	413-1,415-1
	Volunteer Activities	415-1

