



PREQUALIFICATION



YONGKWANG FLEXIBLE IND. CO., LTD.



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1. Company Introduction



Here you find people who substantially challenge to bring forth an impressionable satisfaction for the clients in the 21st century.

Overcoming of many difficulties both technology and marketing in the past, we always only concerned to pursue and produce the best and honest products. We sometimes happened to get distorted view a jealous critics of others and competitors.

However we frankly admitted them and took those for the constructive motives and encouragement.

You are assured of our continued effort and confidence to hold ourselves commensurate with the new era of leading technology and information in the 21st century.

Assuring you of our best and honest products always, we look forward to your kind and continuing business and relationship.



2. General Information



- Company Name : **YONGKWANG FLEXIBLE IND. CO., LTD.**
- Address : 156, Namdongdong-ro, Namdong-gu, Incheon, Korea
- TEL : +82-32-815-0106
- FAX : +82-32-815-1087
- E-mail : desk@yongkwang.co.kr
- Date of Establishment : AUG. 10, 1977
- Equity Capital : US\$500,000
- Annual Sales Volume
 - 2014 : US\$10.2 Mil.(Domestic: 4.2 Mil., Export: 6.0 Mil.)
 - 2013 : US\$10.8 Mil.(Domestic: 4.9 Mil., Export: 5.9 Mil.)
 - 2012 : US\$11.3 Mil.(Domestic: 5.2 Mil., Export: 6.1 Mil.)
 - 2011 : US\$ 7.8 Mil.(Domestic: 3.3 Mil., Export: 4.5 Mil.)
- Plant Area: Total 4,083 **m²** (Indoor: 1,440 **m²**, Outdoor: 2,643 **m²**)
- Personnel: Total: 43
 - Management:12 - Engineer: 15 - Technician: 16



3. Company History



- | | | |
|------|------|--|
| AUG. | 1977 | Established YONGKWANG FLEXIBLE HOSE as a manufacturer of the expansion joints and flexible joints |
| APR. | 1978 | Started to produce large-sized expansion joints(800A~1200A) |
| JUL. | 1978 | The large-sized expansion joints were delivered to a steam power plant of the first domestic project |
| SEP. | 1982 | Registered of Factory(Registered No.: Incheon 3-50-5-900) |
| DEC. | 1985 | Registered by Korea Association of Machinery Industry (Registered No.: 04 - 206 - 1002) |
| DEC. | 1985 | Obtained the Authorization of using KOREA STANARD Mark for Bellow type Expansion Pipe Joints(Authorized No.: 4318) |
| MAY. | 1986 | Registered as a local supplier of Expansion Joints and Flexible tube/Hose by Pohang Integrated Iron and Steel Co., Ltd.(POSCO) |
| JAN. | 1987 | Authorized to manufacture of Expansion Joints by Korean Register of Shipping (K.R) (Approved No.: IN-02304 / 01) |



3. Company History



DEC.	1988	Chosen as a Promising Small and Medium Enterprise by the Academy of Korea Association of Machinery Industry
NOV.	1988	Incorporation re-named YONGKWANG FLEXIBLE IND. CO., LTD.
AUG.	1990	Authorized as a local supplier of the expansion Joints and Flexible Tube/Hose by Korea Electric Power Company(KEPCO)
FEB.	1994	Moved to 96B-16L, Namdong Industrial Area, Incheon
DEC.	1994	Registered as a local supplier of Expansion Joints and Flexible Tube/Hose by Korea Electric Power Company (Nuclear Power Plant Part-"T", "R" CLASS)
JAN.	1995	Designated to a Defense Industry Company by Ministry of Trade and Industry
NOV.	1997	Acquired "100PPM(Parte Per Million)" Quality Control Certification (Certificated No.: 1-04-2-297)
FEB.	1998	Acquired Certification of FF SMOKE PIPE Assembly (Certificated No.: 98-001~99-010)
JUL.	1999	Acquired BS EN ISO 9001 and KS A 9001 Certification for Quality Management System (Certificated No.: 894 / EAQA)



3. Company History



- | | | |
|------|------|--|
| MAY | 2000 | Awarded as "Outstanding Performance as a Superior Manufacturing & Exporter" from Small and Medium Industry Promotion Corporation (NO. 2000-0286) |
| FEB. | 2003 | Acquired AS/NZS ISO 9001: 2000 Certification for Quality Management System (Certificated No : 6852/ EAQA) from BUREAU VERITAS |
| NOV. | 2006 | Awarded "Million Dollars Export Trophy" from Korea International Trade Association |
| NOV. | 2006 | Selected as a "Management Innovation Small and Medium Enterprise" by Small and Medium Industry Promotion Corporation |
| FEB. | 2008 | Acquired AS/NZS ISO14001:2004 Certification for Environmental Management System (CERTIFICATE NO : AR01-E0814) from BUREAU VERITAS |
| FEB. | 2011 | Approved by TAKREER in U.A.E. (NO. 908635) |
| NOV. | 2011 | Approved by SABIC in Saudi Arabia |



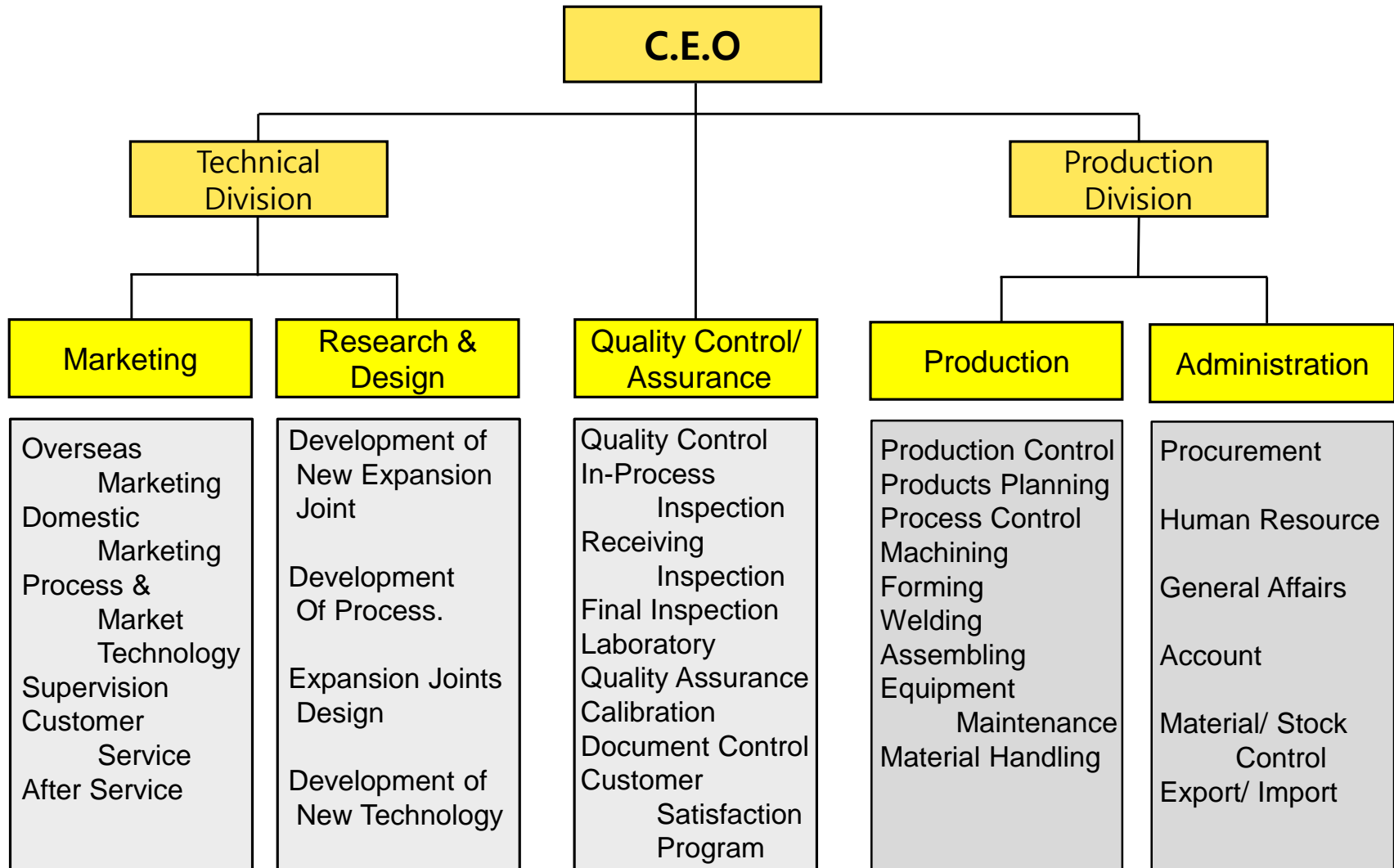
3. Company History



- APR. 2012 Acquired ASME "S" "U" Stamp to Manufacture and Assemble of Power Boiler and Pressure Vessel from American Society Mechanical Engineer(ASME) (Certificated No. : #42,628 / #42,629)
- FEB. 2013 Acquired Certification of Recognition of "Visionary Enterprise with Great Potential" from Mayor of Incheon Metropolitan City (Certificated No.: 2013-020)
- FEB. 2013 Classified as "The Supplier in Year 2013" by Doosan Heavy Industries & Construction Co., Ltd.
- MAR. 2013 Acquired AS/NZS ISO 14001:2000, Certification for Quality & Environmental Management System from BREAU VERITAS (Certificated No.: 20BK00052-UK)
- MAR. 2013 Acquired OHSAS 18001:2007, Certification for Occupational Health and Safety Management System from BREAU VERITAS (Certificated No.: BK50119)
- FEB. 2014 Classified as "The Supplier in Year 2014" By Doosan Heavy Industries & Construction Co., Ltd.

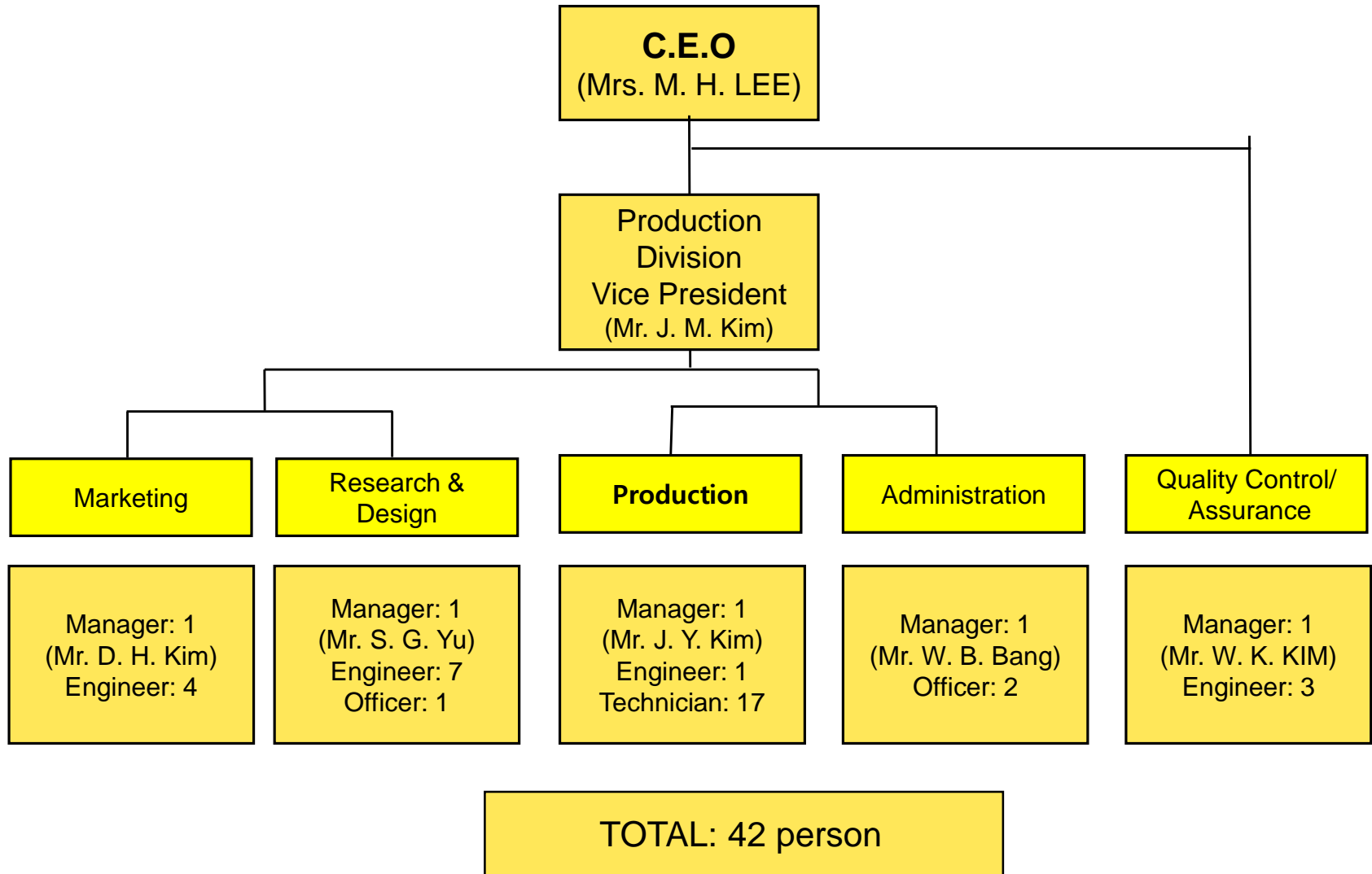


4. Organization(Responsibility)



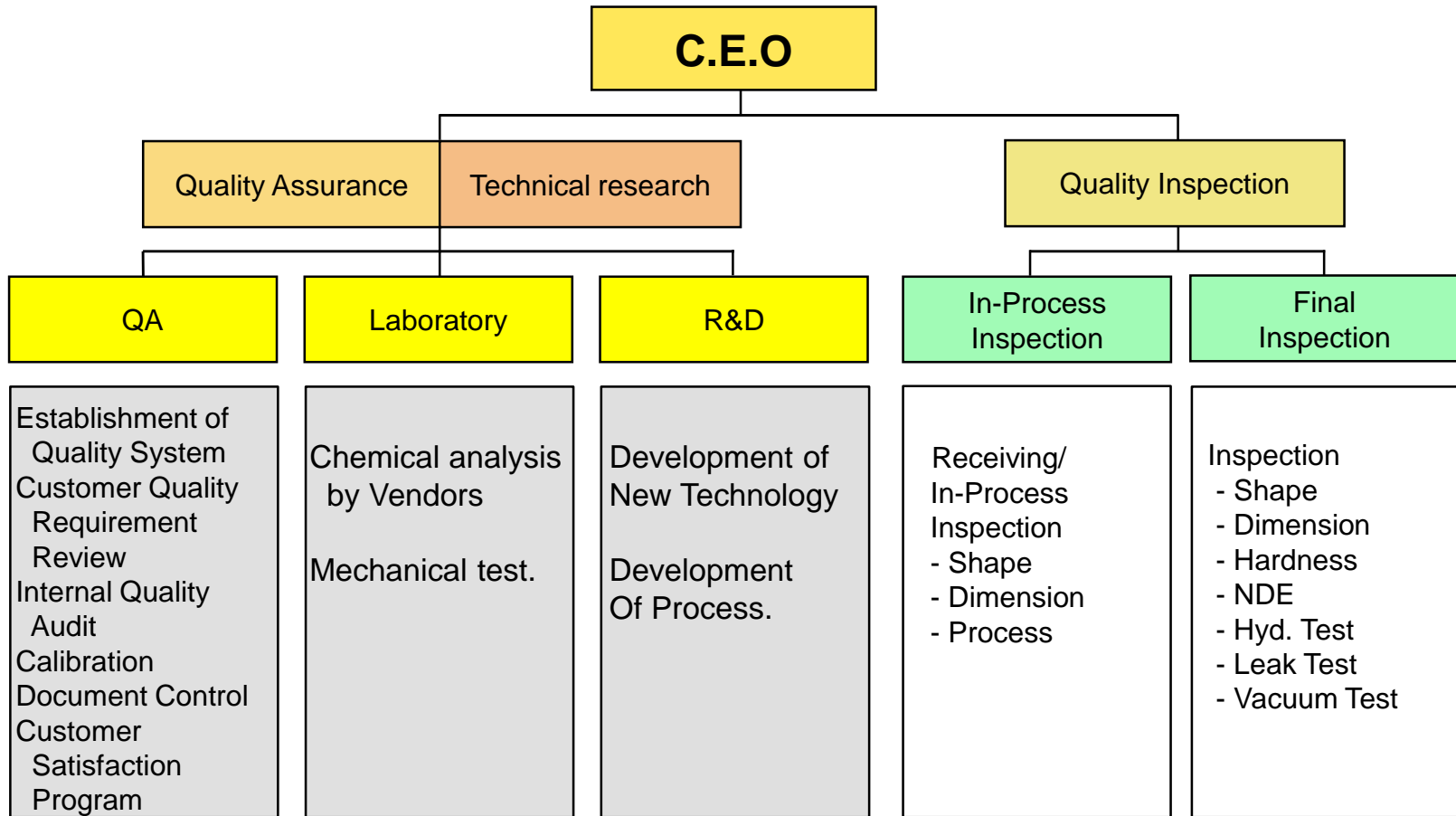


4. Organization(Man-Power)





5. Quality Assurance

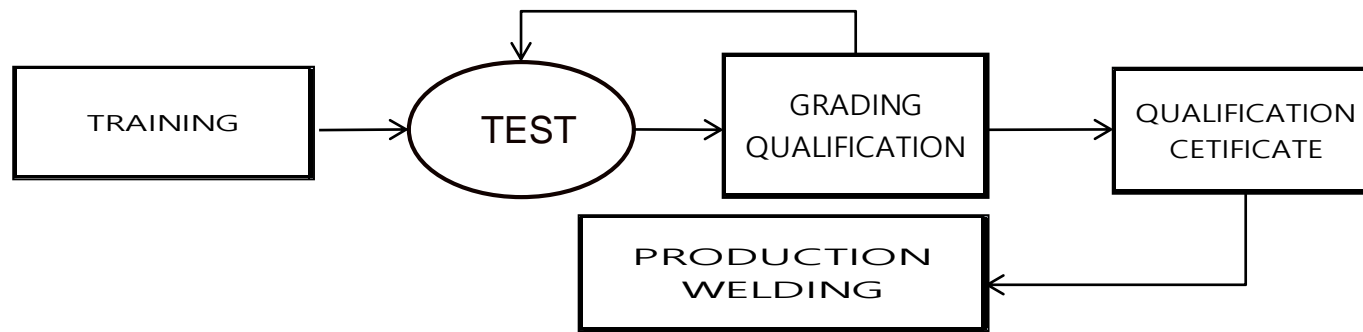




5. Quality Assurance



WELDING & OPERATOR QUALIFICATION PROCEDURE



WELDER'S QUALIFICATION

QUALIFICATION	APPLICATION
YKFC – WQ – I	WELDING OF BELLOWS TO END – PIPE
YKFC – WQ – II	WELDING OF CANNING & FLANGE TO END – PIPE
YKFC – WQ – III	WELDING OF TACK & HOLDER



5. Quality Assurance

HSE Performance Statistics



Overview of Accidents (2012~2014)

Classification	2012			2013			2014		
	Number of Injuries	Injuries Rate	Number of Worker	Number of Injuries	Injuries Rate	Number of Worker	Number of Injuries	Injuries Rate	Number of Worker
Direct/ Management	0	0	40	0	0	40	0	0	42
Sub-Vendor	0	0	22	0	0	22	0	0	22

Type of Injuries (2012~2014)





6. Certificates



ISO 9001

BUREAU VERITAS
Certification

Yong Kwang Flexible IND Co., Ltd.
96B-16L, 156 Namdongdong-ro, Namdong-gu, Incheon, Korea

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standards

ISO 9001:2008 / KS Q ISO 9001:2009

Scope of certification

Design, Development, Manufacturing and Servicing of Expansion, Flexible Joints and Exhaust Pipes for Industrial Use

Certification cycle start date: **16 March 2013**

Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on: **15 March 2016**

Original certification date: **15 March 2010**

Certificate No. **10BK00635** Version N, Revision date: **14 March 2013**

Joseph Young

UKAS
MANAGEMENT SYSTEMS
008

Certification Authority

Certification body address: Brandon House, 180 Borough High Street, London SE1 1LH, United Kingdom
Local office: Rm 1102, Keungji Tower, 677-25, Yeoksam-Dong, Gangnam-Gu, Seoul, Korea

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call: +82 2 567 9001

ISO 14001

BUREAU VERITAS
Certification

Yong Kwang Flexible IND Co., Ltd.
96B-16L, 156 Namdongdong-ro, Namdong-gu, Incheon, Korea

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standards

ISO 14001:2004 / KS I ISO 14001:2009

Scope of certification

Design, Development, Manufacturing and Servicing of Expansion, Flexible Joints and Exhaust Pipes for Industrial Use

Certification cycle start date: **16 March 2013**

Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on: **15 March 2016**

Original certification date: **15 March 2010**

Certificate No. **20BK00052-UK** Version N, Revision date: **08 March 2013**

Joseph Young

UKAS
MANAGEMENT SYSTEMS
008

Certification Authority

Certification body address: Brandon House, 180 Borough High Street, London SE1 1LH, United Kingdom
Local office: Rm 1102, Keungji Tower, 677-25, Yeoksam-Dong, Gangnam-Gu, Seoul, Korea

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call: +82 2 567 9001



6. Certificates



ASME "S" STAMP

The American Society of Mechanical Engineers



CERTIFICATE OF AUTHORIZATION

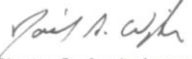
The named company is authorized by the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the certification mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this certification mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.


COMPANY:
Yongkwang Flexible Ind. Co., Ltd.
 96B-16L, #663-15, Gojan-Dong, Namdong-Gu
 Incheon 405-818
 South Korea

SCOPE:
Manufacture and assembly of power boilers at the above location only

AUTHORIZED: **April 2, 2012**
 EXPIRES: **April 2, 2015**
 CERTIFICATE NUMBER: **42,628**


 Vice President, Conformity Assessment


 Director, Conformity Assessment



ASME "U" STAMP

The American Society of Mechanical Engineers



CERTIFICATE OF AUTHORIZATION

The named company is authorized by the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the certification mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this certification mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:
Yongkwang Flexible Ind. Co., Ltd.
 96B-16L, #663-15, Gojan-Dong, Namdong-Gu
 Incheon 405-818
 South Korea

SCOPE:
Manufacture of pressure vessels at the above location only

AUTHORIZED: **April 2, 2012**
 EXPIRES: **April 2, 2015**
 CERTIFICATE NUMBER: **42,629**


 Vice President, Conformity Assessment


 Director, Conformity Assessment





6. Certificates



Certification of OHSAS 18001 : 2007



BUREAU VERITAS
Certification

Yong Kwang Flexible IND Co., Ltd.
96B-16L, 156 Namdongdong-ro, Namdong-gu, Incheon, Korea

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standards

OHSAS 18001:2007

Scope of certification

Design, Development, Manufacturing and Servicing of Expansion, Flexible Joints and Exhaust Pipes for Industrial Use

Certification cycle start date: **25 March 2013**

Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on: **24 March 2016**

Original certification date: **25 March 2013**

Certificate No. **BK50119** Version N, Revision date: **25 March 2013**


Signature

Certification Authority

Local office: Rm 1102, Keungji Tower, 677-25, Yeoksam-Dong, Gangnam-Gu, Seoul, Korea

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call: +82 2 567 9001

The Supplier of the Year 2014 from Doosan Heavy Industries & Construction Co. Ltd.



제2014-030호

2014년도 우수 협력사

The Supplier of the Year

용광후렉시블공업(주) YONGKWANG FLEXIBLE IND. CO., LTD.

귀사는 두산중공업의 협력사로서 혁신활동을 통하여 우수한 품질의 제품을 적기에 공급하여 당사의 GLOBAL 경쟁력 강화에 기여하였으므로 2014년 우수협력사로 선정하여 본 인증서를 드립니다.

In recognition of total business performance, you are classified as The Supplier of the Year 2014.

2014. 2.

두산중공업
대표이사 사장 한기선 *한기선*



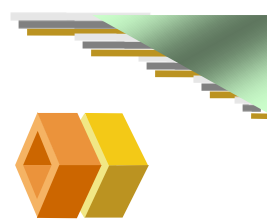
6. Certificates



Under Processing for followings:

- ❖ ASME PP Stamp
- ❖ ASME NPT Stamp
- ❖ CE

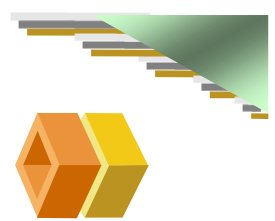
7. Main Products



- Metallic Expansion Joints
 - Rectangular Type Expansion Joints for Exhaust Gas of Power Plant
 - Free Type Expansion Joints



7. Main Products



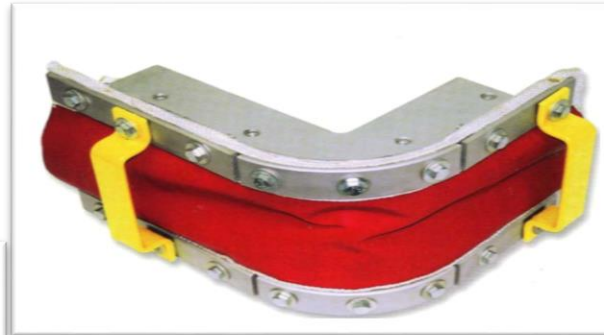
- Metallic Expansion Joints
 - Pressure Balance Type Expansion Joints
 - Hinge Type Expansion Joints
 - Control Ring Type Expansion Joints
 - Gimbal Type Expansion Joints



7. Main Products

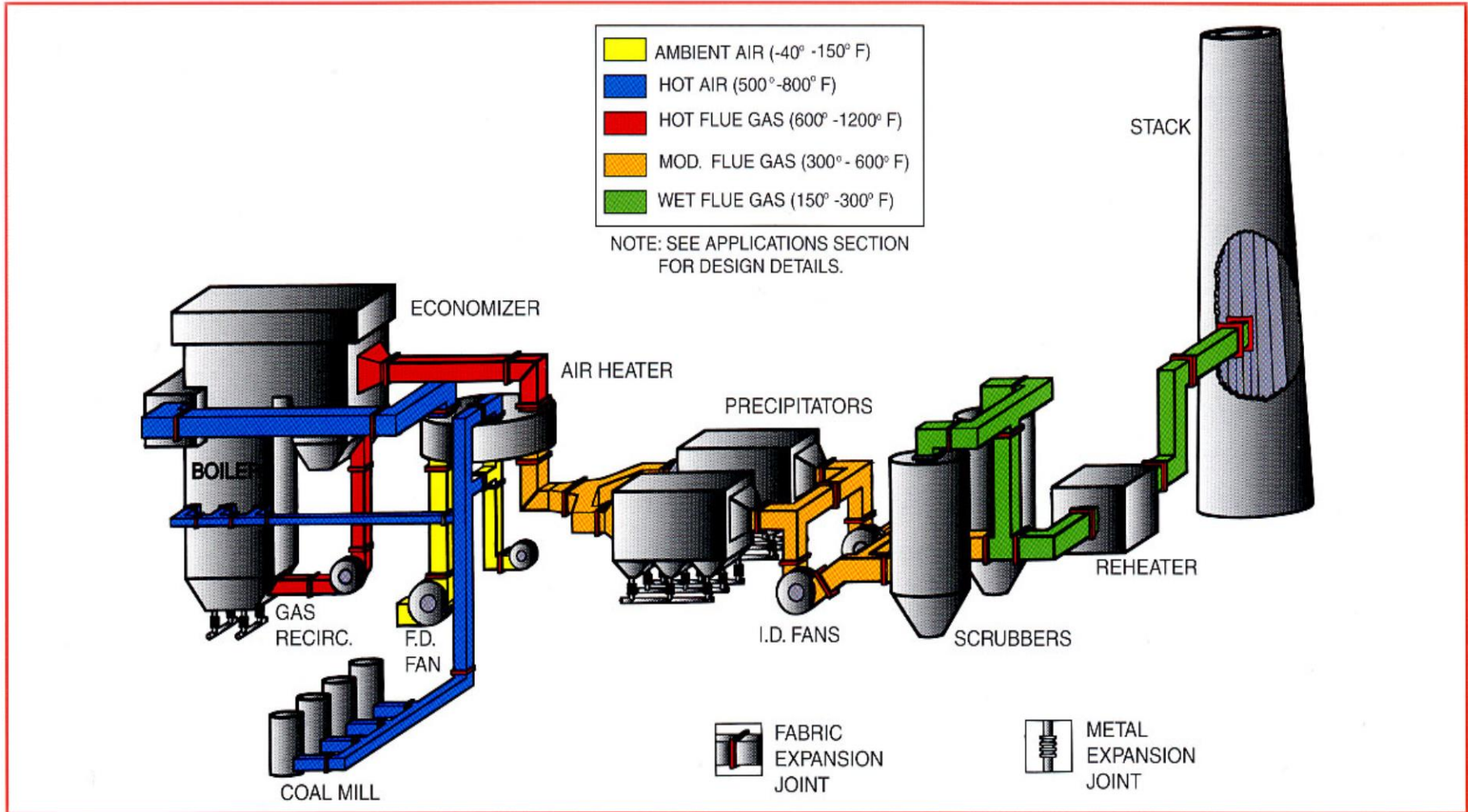


- Non-Metallic Expansion Joints for Power Plant
- Flexible Joints/ Tubes/ Hoses
- Rubber Expansion Joints for Cooling Water & Sea Water





8. Application





9. Design Activity



- Design Tool(Computer Program)
 - Auto CAD - Solid Works
 - Bellows Calculation Program according to EJMA
 - Microsoft Excel, Word, Powerpoint

- Expansion Joint Design

The heart of the expansion joint is the bellows element itself. YONGKWAN utilizes the equations shown in the EJMA Standards as the basis for their standard and custom bellows designs. In addition, we can perform additional bellows analyses utilizing the equations shown in other codes such as ASME Section VIII, Div. 1, ASME B31.3, or international codes (see below). You will receive free of charge a detailed bellows design calculation for each expansion joint you are interested in.

- Design Procedure

- Technical Requirement – Pressure, Temperature, Movement, Fluid, etc.

- Data Sheet & Calculation, Material Selection

- Basic Design

- Detail Design

- Design Review Meeting – Design, Marketing, Quality, Production, Purchasing

- Confirmation from Customer

- Final Design

- Production & Inspection/Test.



10. Research & Development



(Technical Development)

No.	Description	Registered Date	Patent Registered No.
1	Special Expansion Joints in the Ground	1999-04-16	0151434
2	Structure for Inlet and Exhaust Pipe	2000-03-24	0184762
3	Inlet and Exhaust Pipe for Combustion Chamber	2000-09-08	0204038
4	Exhaust Pipe for Combustion Chamber	2001-08-07	0243288
5	Filter Cover Structure for Hood	2002-05-30	0278239
6	Exhaust Pipe connection Structure of Boiler	2007-05-18	20-0436107
7	Sealing Device of Hood	2004-01-19	0417121
8	Pre-setting and Installation Method for Bellows Cover	2007-06-26	10-0734211
9	Expansion Joint Insulation Improvement for HRSG Boiler	Under Developing	
10	Special Material Bellows for HRSG Boiler (Instead of Metal Bellows)	Under Developing	



11. Manufacturing & Test Capabilities



Manufacturing

Item	Size	Capacity	2013	2012	2011
Metal Expansion Joint	~ 7,000A	12,000 ton	8,400 ton	8,600 ton	6,800 ton
Non-Metal Expansion Joint	SQ20M x 20M	6,500 ton	2,500 ton	2,700 ton	2,200 ton
Rubber Expansion Joint	~3300A	4,500 ton	940 ton	970 ton	880 ton
Flexible Hose/Tube	~2500A	150 ton	24 ton	27 ton	20 ton

Test & Inspection(Y: by Yongkwang, S: by Sub-Vendor)

Item	Code	Item	Code	Item	Code
Hydrostatic Test	Y	Radiography	S	Magnetic Particle	S
Low Temperature Impact Test	Y, S	Ultrasonic Flaw Detection	S	PMI Test	Y
Thickness Test	Y	Liquid Penetrant	Y, S	Hardness Test	Y, S
Tensile & Bend Test	Y, S	Chemical Analysis	S	Halogen Detection	S



12. Manufacturing and Inspection Flow



Manufacturing Process	Quality Control Activity
Material Incoming	Material Verification – MTR Review Appearance Inspection
Marking, Cutting for Bellows & Neck Pipe	Marking/Cutting Inspection
Bending, Welding for Bellows/Neck Pipe	NDE(PT/RT)
Bellows Forming	In-Process Inspection
Heat Treatment	Hardness Inspection
Assembly	Final Visual/ Dimension Inspection Verification for Alloy Material(PMI Test) NDE(PT/RT) for Weld Part
Final Test	Pressure Test (Hydrostatic Test)
Painting	Painting Inspection
Packing	Packing Inspection
Delivery	Documentation Review Report Review for all Inspection and Tests



13. Code & Standard



- EJMA : Standard of the Expansion Joints Manufacturers Association
- KS: Korean Standards
- FSA: Fluid Sealing Association
- ASTM: American Society for Testing & Materials
- ASME: American Society of Mechanical Engineers
- ANSI: American National Standard Institute
- AWWA: American Water Work Association
- JIS: Japanese Industrial Standards
- DIN: Deutsche Industries' Norm
- BS: British Standards
- API: American Petroleum Institute
- ISO: International Organization for Standardization
- EN: European Standards
- AISC: American Institute of Steel Construction
- AWS: American Welding Society
- SSPC: Steel Structure Painting Council
- KS B 1536 : Korean Standard for Bellow Type Expansion Joints



14. Raw Materials Technical Information



- FLANGE
 - ① ANSI B 16.5 : PIPE FLANGES & FLANGED FITTINGS
 - ② KS B 1503.1511.JIS B 2222.2223.2224.2225 : STEEL WELDING PIPE FLANGE
 - ③ AWWA C 207 : STEEL PIPE FLANGES FOR WATER WORKS SERVICE-SIZE 41 NCH THROUGH 144 INCH
 - ④ MSS SP-25 : STANDARD MARKING SYSTEM FOR VALVES, FITTINGS, FLANGES AND UNIONS
 - ⑤ DIN 2576 : FLANGS,SLIP-ON TYPE FOR BRAZING OR WELDING
 - ⑥ BS 3293 : CARBON STEEL PIPE FLANGES
 - ⑦ THE OTHERS : ACCORDING TO THE SPECIFICATIONS BY OWNER/CUSTOMER



14. Raw Materials Technical Information



- MATERIAL OF BELLOWS
 - ① KS B 3698 : COLD ROLLED STAINLESS PLATES.SHEETS AND STRIP
 - ② KS B 3705 : HOT ROLLED STAINLESS PLATES.SHEETS AND STRIP
 - ③ JIS G 4304.5 :HOT & COLD ROLLED STAINLESS STEEL PLATES & SHEETS
 - ④ ASTM A 240 : HEAT-RESISTING CHROMIUM AND CHROMIUM-NICKEL STAINLESS STEEL PLATE.SHEET.AND STRIP FOR PRESSURE VESSELS
 - ⑤ ASTM/ASME B 409 : SPECIFICATION FOR NICKEL-IRON-CHROMIUM ALLOY PLATE SHEET. AND STRIP (INCONEL)
 - ⑥ ALLOY 803, ALLOY 825, HASTELLOY, VITON, PTFE, ETC.
 - ⑦ THE OTHERS : ACCORDING TO THE SPECIFICATIONS BY OWNER/ CUSTOMER



14. Raw Materials Technical Information



- NECK PIPE
 - ① KS D 3507/JIS G 3452 : CARBON STEEL PIPES FOR ORDINARY PIPING
 - ② KS D 3562/JIS G 3454 : CARBON STEEL PIPE FOR PRESSURE SERVICE
 - ③ ASTM A 53 : PIPE. STEEL. BLACK & HOT-DIPPED. ZINC-COATED WELDED & SEAMLESS
 - ④ ASTM A 106 : SEAMLESS CARBON STEEL PIPE FOR HIGH-TEMPERATURE SERVICE
 - ⑤ THE OTHERS : ACCORDING TO THE SPECIFICATIONS BY OWNER/ CUSTOMER
 - ⑥ ASTM/ASME B 862-02 : TITANIUM AND TITANIUM ALLOY WELDED PIPE
- TEST AND SURFACE TREATMENT: ASME, ASTM, KS, JIS, EJMA, API, FAS



15. Equipment & Facilities



DESCRIPTION	SPEC. & CAPACITY	QUANTITY	Installation Year	Maintenance Code
LATHE	800 X 1060	1	1995	W, M, A
	400 X 1060	1	2002	W, M, A
MILLING MACHINE	700 X 700	1	1997	W, M, A
RADIAL DRILLING M/C	MAX. Φ 60	3	1998/2005	W, M, A
BENCH DRILLING M/C	MAX. Φ 25	3	1999/2004	W, M, A
MAGNETIC DRILLING M/C	MAX. Φ 18	2	2000/2006	W, M, A
HYDRAULIC PUNCHER	MAX. Φ 24	1	1998	W, M, A
POWER PRESS	5.3.1.0.5.TON	6	1996/2003	W, M, A
HYDRAULIC PRESS	800.80.50.TON	5	1995/2004	W, M, A
AUTO HYDRAULIC BELLOWS FORMING M/C	20A – 300A	2	2001/2005	W, M, A
ROLLED BELLOWS FORMING M/C	200A – 6000A	2	1998/2004	W, M, A
AUTO BELLOWS FORM M/C	50A – 150A	1	2004	W, M, A



15. Equipment & Facilities



Description	Spec. & Capacity	Quantity	Installation Year	Maintenance Code
SHEARING MACHINE	1200 X1.0t	1	1995	W, M, A
	400 X 1060	1	2001	W, M, A
AUTOMATIC CUTTING M/C (SAW)	20A – 300A	1	1998	W, M, A
AUTO CANNING PIPE CUTTING MACHINE(자동제관PIPE절단기)	MAX 150MM	2	2001	W, M, A
AUTO CANNING PIPE CUTTING FOR AIR SUPPLY & EXHAUST OPENNING INSTRUMENT (금배기구용 PIPE 자동 절단기)	MAX 150MM	1	1999	W, M, A
MANUAL PIPE CUTTING M/C	CUTTER 12”	1	2002	W, M, A
MANUAL TUBE CUTTING M/C (SKILL SAW)	CUTTER 10”	1	2002	W, M, A
PLASMA CUTTING M/C	MAX 12t	1	2005	W, M, A
PATTERN GAS CUTTING M/C	300 X 300	1	2003	W, M, A



15. Equipment & Facilities



Description	Spec. & Capacity	Quantity	Installation Year	Maintenance Code
ARC WELDING M/C	15KVA-550KVA	8	1998~2006	W, MA, A
CO ₂ WELDING M/C	500AMP	2	2001/2007	W, MA, A
TIC WELDING M/C	300AMP – 500AMP	8	1995~2008	W, MA, A
SPOT WELDING M/C	35KVA	5	1996~2006	W, MA, A
AUTOMATIC TIG M/C	300AMP	1	2003	W, MA, A
SEMI AUTO TIG M/C	300AMP	1	2005	W, MA, A
WELDING ROD DRY OVEN	300Kg	2	1996	W, MA, A
OVER HEAD CRANE	5 . 3 . 0.3 TON	3	1995	W, M, A
GENTRY OVER GEAD CRANE	2.8 TON	1	2006	W, M, A
CHAIN HOIST	3.1 TON	2	2005	W, M, A
COMPRESSOR	7.5HP	2	2001	W, M, A
HEAT TREATMENT FURNACE	400 X 400 / 1400 C	1	2000	W, M, A



15. Equipment & Facilities



Description	Spec. & Capacity	Quantity	Installation Year	Maintenance Code
UNIVERSAL TESTING MACHINE	MAX 30 TON (4 STEP)	1	1996	MA,, C
ROCKWELL HARDNESS TESTER	MAX.150Kgf/Cm (4STEP)	1	2001	MA, C
UNIVERSAL TESTER(CYCLD, PRESSURE,LEAK TEST)	20A – 500A	1	1995	MA, C
VACUUM TEST MACHINE	10- TORR	1	2006	MA, C
CYCLE TEST MACHINE	20A – 500A	1	1996	MA, C
REPITION BENDING MACHINE	20A – 200A	1	2004	MA, C
DRY FILM THICKNESS MEASUREMENT	0 – 500um	1	2010	C



15. Equipment & Facilities



Description	Spec. & Capacity	Quantity	Installation Year	Maintenance Code
OUTSIDE MICROMETER	0 – 100MM	9	2009~2010	C
VERNIER CALIPERS	150 – 600MM	12	2008~2010	C
MICRO-SCOPE	50 TIMES	1	2010	C
HEIGHT GAUGE	600mm	1	2005	C
CYLINDER GAUGE	50 – 150mm	3	2004	C
RADIUS GAUGE	26PCS(0.5-13.0)	3	2007	C
THICKNESS GAUGE	0.03 – 1.0mm	2	2008	C
PITCH GAUGE	4 – 60 PITCH	2	2009	C
DIAL GAUGE	5mm	3	2010	C
ELECTRIC FURNACE	1300°C	1	2003	MA, C
DRY OVEN	300°C	1	2002	MA, C
PMI	-	1	2012	C



15. Equipment & Facilities (Maintenance)



- D: Daily Cleaning and Oiling
- W: Weekly Cleaning and Oiling
- M: Monthly Cleaning and Oiling
- A: Annually Maintenance
- C: Periodically Calibration
- MA: Monthly Adjustment



16. Material Suppliers



ITEM		COMPANY	ADDRESS	TEL	FAX
Plates	carbon steel	ASUNG STEEL	106B-7L Gojan-dong, Namdong-gu, Incheon, KOREA	+82-32-819-6251	+82-32-816-3240
	low alloy steel	SEJONG STEEL	2-2, Moonne-dong, Yongdeungpo-gu, Seoul, KOREA	+82-2-2678-5411	+82-2-2675-0070
	stainless steel				
Pipe and fittings	carbon steel	SEJONG STEEL	2-2, Moonne-dong, Yongdeungpo-gu, Seoul, KOREA	+82-2-2678-5411	+82-2-2675-0070
	low alloy steel				
	stainless steel				
FLANGE	carbon steel	A-JOO FITTING	591-7 Hawjeon-dong, Gangseo-gu, Busan, KOREA	+82-51-329-5000	+82-51-329-5001
	stainless steel				
BOLT & NUT	carbon steel	SN	103-4 Gocheok-dong Guro-gu, Seoul, KOREA	+82-2-6094-1495	+82-2-6094-1497
	stainless steel				



17. Sub-Contractors



ITEM	COMPANY	ADDRESS	TEL	FAX
NDE	SITCO	665-1, Jakeon-3dong, GyeYang-gu, INCHEON, KOREA	+82-32-549-8457	+82-32-551-7480
HEAT TREATMENT, PAINT	HYUP DONG DAE HYEUNG HEAT TREATMENT	725-4, Go-Jan dong, Nam-dong Gu, INCHEON, KOREA	+82-32-814-3104	+82-32-816-7497

18. Main Customers



Doosan Heavy Industries & Construction



KOREA HYDRO & NUCLEAR POWER CO., LTD.



SAMSUNG ENGINEERING



DAEWOO E&C



DAEWOO ENGINEERING COMPANY

SK ENGINEERING & CONSTRUCTION CO., LTD.

DAELIM INDUSTRIAL COMPANY LIMITED

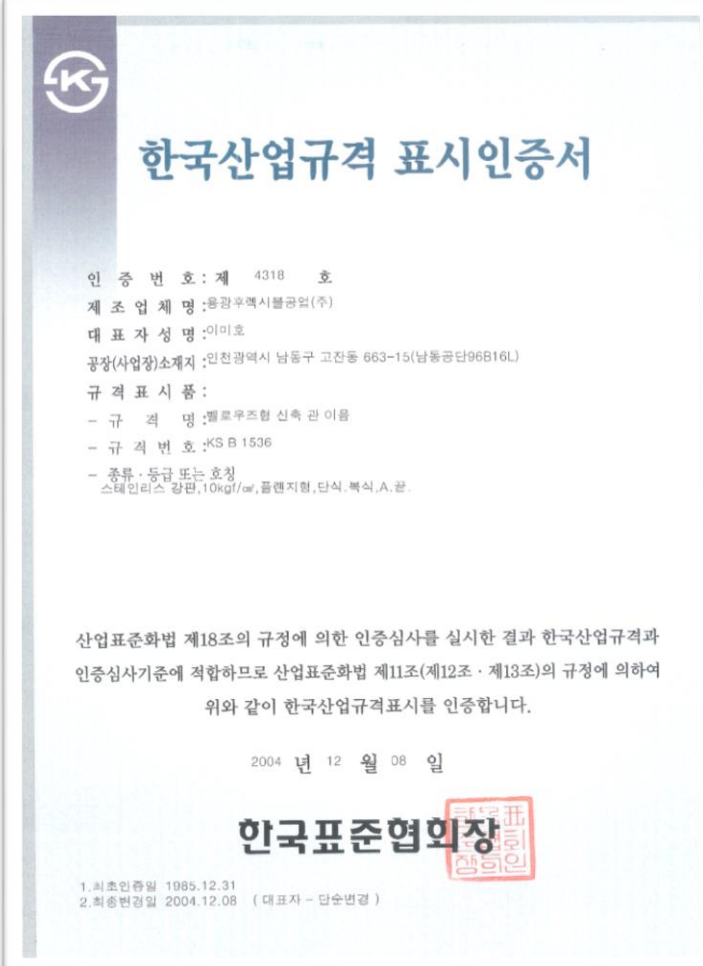




19. Approval from Customers



KS Certificate



한국산업규격 표시인증서

인증번호: 제 4318 호
 제조업체명: 용광후렉시블공업(주)
 대표자성명: 이미호
 공장(사업장)소재지: 인천광역시 남동구 고잔동 663-15(남동공단96B16L)
 규격표시품:
 - 규격명: 팰로우즈형 신축관 이름
 - 규격번호: KS B 1536
 - 종류·등급 또는 호칭: 스테인리스 강편, 10kgf/cm², 플랜지형, 단식, 복식, A, 관.

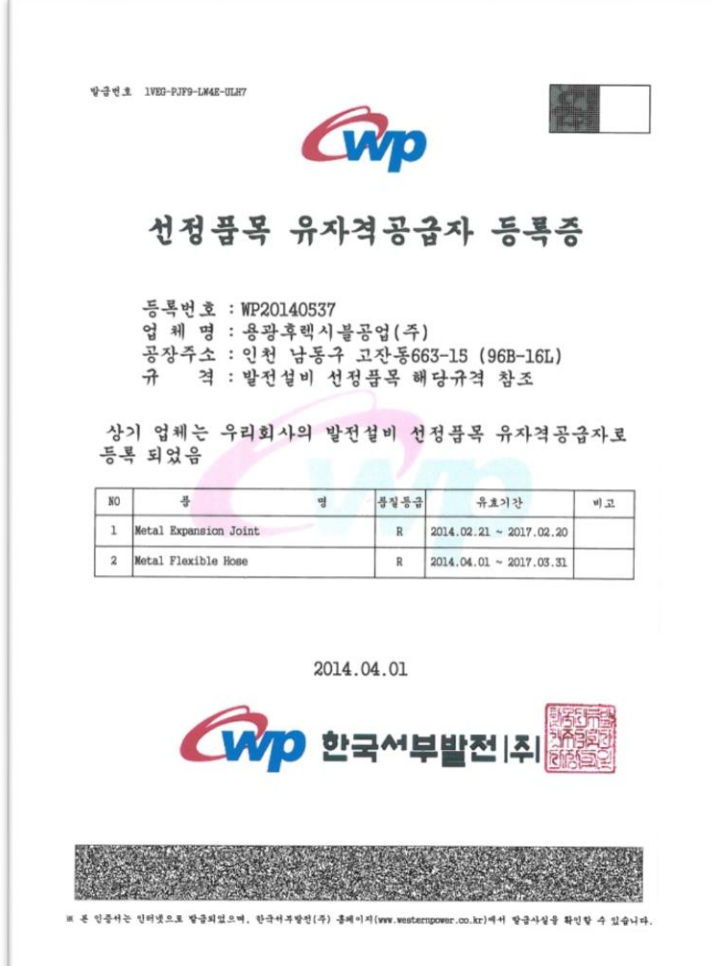
산업표준화법 제18조의 규정에 의한 인증심사를 실시한 결과 한국산업규격과 인증심사기준에 적합하므로 산업표준화법 제11조(제12조·제13조)의 규정에 의하여 위와 같이 한국산업규격표시를 인증합니다.

2004 년 12 월 08 일

한국표준협회장

1. 최초인증일 1985.12.31
 2. 최종변경일 2004.12.08 (대표자 - 단순변경)

KOREA WEST POWER CO.



발급번호: 1VEB-PJF9-LM4E-0L4T

선정품목 유자격공급자 등록증

등록번호: WP20140537
 업체명: 용광후렉시블공업(주)
 공장주소: 인천 남동구 고잔동663-15 (96B-16L)
 규격: 발전설비 선정품목 해당규격 참조

상기 업체는 우리회사의 발전설비 선정품목 유자격공급자로 등록되었음

NO	품명	품질등급	유효기간	비고
1	Metal Expansion Joint	R	2014.02.21 ~ 2017.02.20	
2	Metal Flexible Hose	R	2014.04.01 ~ 2017.03.31	

2014.04.01

한국서부발전(주)

본 인증서는 인터넷으로 발급되었으며, 한국서부발전(주) 홈페이지(www.westpower.co.kr)에서 발급사실을 확인할 수 있습니다.



19. Approval from Customers



KOREA MIDDLE POWER CO.

등록번호: 3L5I-CF36-Z6JN-NQ27 1/1

기자재 공급자 등록증

등록번호: J118
 업체명: 용광후력시플공업(주)
 공장주소: null
 규격: 발전설비 선정품목 해당규격 참조

NO.	품명	품질등급	유효기간
1	Flexible Metal Hose	R	2014.07.07 ~ 2017.07.06
2	Metal Expansion Joint	R	2014.07.07 ~ 2017.07.06

상기 업체를 중부발전의 협력업체 관리업무 편람에 의거
기자재 등록자로 인증함.

2014.07.07

한국중부발전(주) 사장

※ 인터넷으로 발급된 인증서이며, 한국중부발전(주) 홈페이지(www.komipo.co.kr)에서 원본 확인이 가능합니다.

KOREA HYDRO & NUCLEAR POWER CO.

KHNP
KOREA HYDRO & NUCLEAR POWER CO., LTD

유자격공급자 등록증
Certificate of Registration

등록번호 (Certificate No.) : 201300133
 상호 (Company Name) : 용광후력시플공업(주)
 공장주소 (Factory Location) : 인천광역시 남동구 남동동로 156, 남동공단96B16L (고잔동)
 대표자 (Chief Executive officer) : 이미호

상기 업체는 우리 회사의 공급자관리지침에 따라 심사한 결과 보조기기
기자재 공급업체로 등록되었음을 증명합니다.

This is to certify that according to KHNP's qualification procedure, this company has been registered on KHNP's Approved BOP Vendor List for the below items.

NO	품목 코드 Item Code	품명 Item Description	품질 등급 Quality Class	운용 분야 Field	유효기간 Authorized Period
1	P220	ASME B31.1 Metal Expansion Joint & Flexible Metal Hose	T	원자력	2013.06.21~2016.06.20

2013.06.21

한국수력원자력(주)
KOREA HYDRO & NUCLEAR POWER CO., LTD

※ 본 인증서는 인터넷으로 발급되었으며 한국수력원자력(주)(<http://www.khnp.co.kr>)의 발급문서확인매뉴얼 통해 문서확인번호 또는 문서화단의 바코드 내용의 위변조 여부를 확인해 주십시오.
다만 문서확인번호를 통한 확인은 발급일로부터 90일까지 가능합니다.

1/Inter>1/1



19. Approval from Customers



KOREA SOUTH POWER CO.

등록번호 DV51-C3QB-NQ6E-X2J2  1/2 

명부품목 유자격공급자 등록증

등록번호 : KSP2014-00039 업체코드 : 118
 업체명 : 동광후핵시플공업(주)
 공장주소 : 인천 남동구 고잔동663-15(96B-16L)
 품명 : Flexible Metal Hose
 운영구분 : 건설(기계)
 자격유효기간 : 2014.04.09 ~ 2017.04.08

비 고 :

상기 업체는 우리회사의 기자재공급자관리지침에 따라 심사한
 결과 발전설비 명부품목 유자격공급자로 등록 되었음.

2014.04.09

 **한국남부발전(주)** 



* 인터넷으로 발급된 인증서이며, 한국남부발전(주) 홈페이지(www.kospo.co.kr)에서 원본 확인이 가능합니다.

21. Our Products



Metallic Expansion Joints



Metallic Expansion Joints



Metallic Expansion Joints



Metallic Expansion Joints



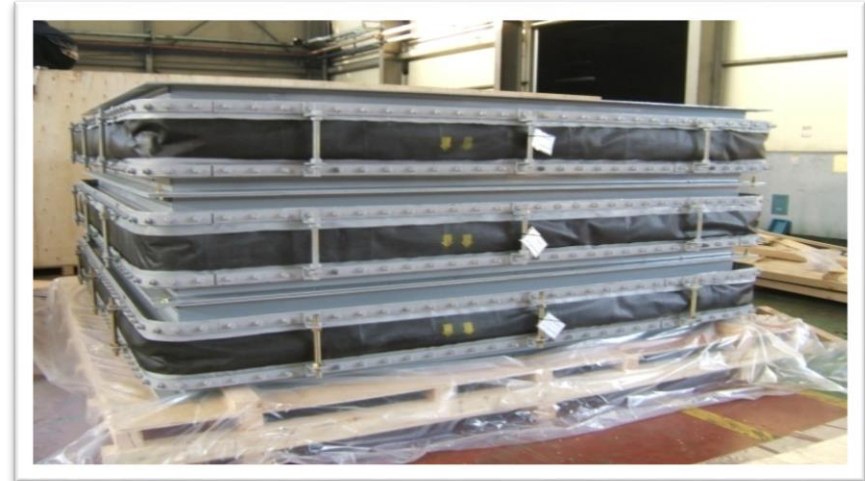
21. Our Products



Metallic Expansion Joints



Non-Metallic Expansion Joints



Metallic Expansion Joints



Metallic Expansion Joints



21. Our Products



Metallic Universal Pressure Balanced
Expansion Joint (PEM-BS/BL)



Metallic Universal Expansion Joint
(PEM-UN/UT)

