

SEWON Q&TECH CO., LTD.

Safety System for Storage Tanks



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1. Company Profile

- 1. COMPANY NAME
- Sewon Q&Tech Co., Ltd.

- 2. ADDRESS
- 1) Head Office & Factory
- Address : 163-4, Sangdong-ro 375 beon-gil, Sangdong-myeon, Gimhae, Gyeong-Nam, Kore
- Tel. : +82-55-323-5894
- Fax. : +82-55-323-5898
- Web Site : <http://www.swqt.co.kr>
- E-mail : sewon@swqt.co.kr
- 2) Seoul Office
- Address : #302, Namyang B/D, 81-6, Karak-Dong, Songpa-Ku, Seoul, Korea
- Tel. : +82-2-406-5013
- Fax. : +82-2-406-7022
- E-mail : sewon@swqt.co.kr

3. MAN POWER STATUS

Regular Employee	Temporary Employee	Production	Design	QA	Sales	Others
23	2	10	4	2	5	4

- 4. ANNUAL SALES AMOUNT
- USD 6,000,000.00
-



2. Brief History of Sewon



1970's

- Dec. 1976 Established company, Korea Vessel Rigging Company
- Apr. 1979 Appointed the First Shipbuilding Machine Supplies and Materials Specialized Factory by the Ministry of Traded and Industry.

1980's

- Jan. 1983 Changed company name to Sewon Industries Company Limited.
- Jan. 1988 Developed Pressure & Vacuum Relief Valves, and Emergency Vent Hatch Covers.

1990's

- May. 1990 Deflagration Type Flame Arresters were developed.
- Feb. 1992 Flame Traps are developed
- Feb. 1993 Detonation Flame Arrester were developed with KIMM
(KIMM: Korea Institute of Machinery & Materials, Established by the Government)
- Sep. 1993 Factory was moved & expanded to Jungkwan-Myun, Kyang-Kun, Busan.
- Feb. 1994 Computerized flow test equipment(max. Capacity=14000m³/h at 4000mmH₂O)
& endurance burning test equipment are fully installed at SE-WON laboratory.
- Feb. 1996 Established The SEWON Controls Company for import & export Sales.
- Jun. 1998 Established 2nd Factory in Kimhae City, Manufacturing the Storage Tank
-Accessories for Industrial products.
- Nov. 1998 Certified ISO 9002 Quality Management Systems.
- Dec. 1999 Factory was moved & expanded to Juchon-Myun, Kimhae, KyeongNam.

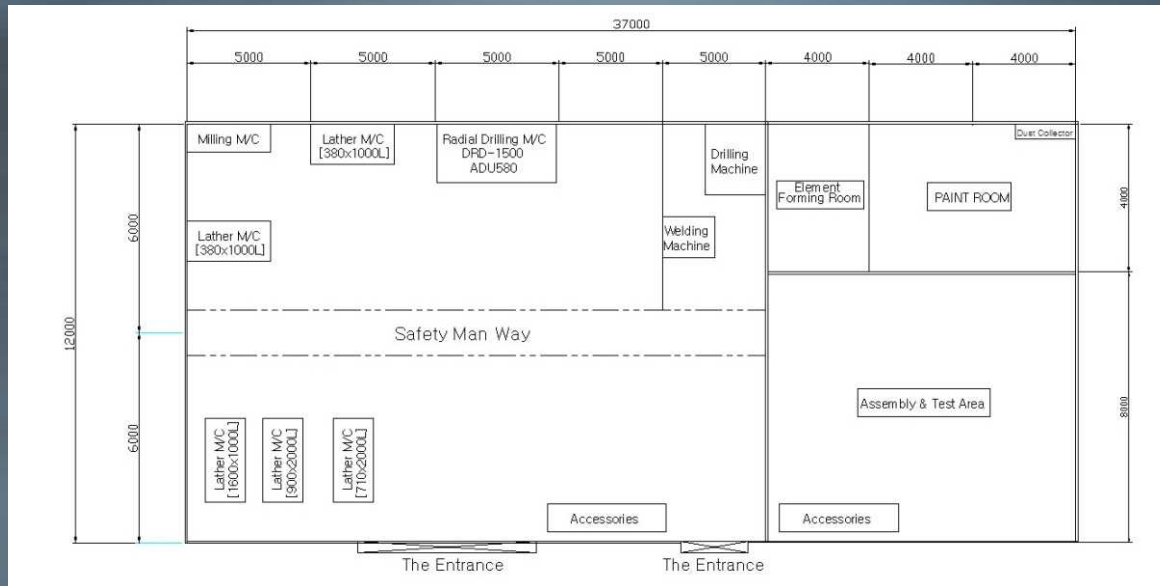
2000's

- Dec. 2000 Changed Company Name to Sewon Q&Tech Company limited.
- Dec. 2003 Certified ISO 9001:2000 Quality Management Systems.
- Mar. 2004 EC Type Examination Certification according Directive 94/9/EC (CE Certificate for Flame Arrester)
- Apr. 2006 Certified Company for venture business – High Technology.
- Nov. 2006 Certified ISO 14001 Environmental Management Systems.
- May. 2007 Promising Export Firm by the Small & Medium Business Administration.
- Feb. 2010 EC Type Examination Certification according Directive 94/9/EC (CE Certificate for Breather Valve & Emergency Vent)
- Apr. 2013 Factory was moved & expanded to Sangdong-Myeon, Kimhae, KyeongNam.

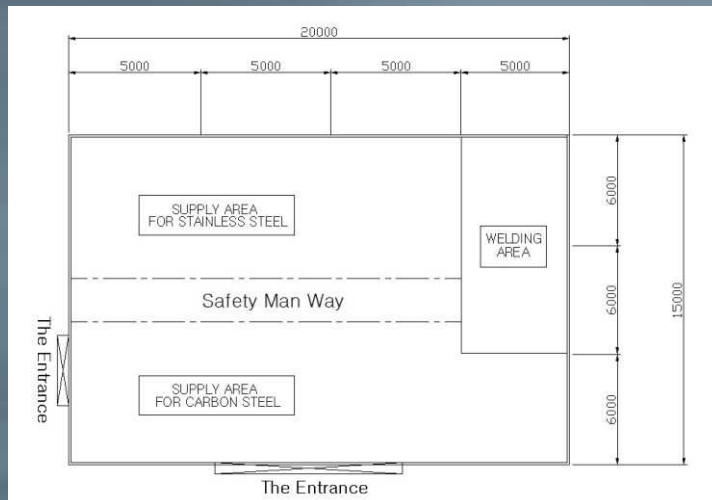
3. Shop Information

PLANT LAYOUT DRAWING AND MAIN EQUIPMENT LIST

- 1. Main Factory -For Machining, Assembling and Painting



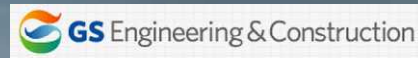
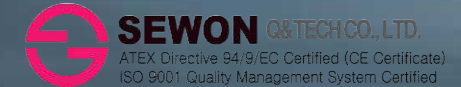
- 2. Sub Factory-For Welding and Assembling



- COMPANY AREA-

- 1) Head Office & Factory : Ground-1994 m², Building-1050 m²
- 2) Seoul Office : Office

4. Major Customer



- Samsung Engineering Co., Ltd.
- Hyundai Engineering & Construction Co., Ltd.
- Hyundai Heavy Industries Co., Ltd.
- Daelim Industrial Co., Ltd.
- SK Engineering & Construction Co., Ltd.
- GS Engineering & Construction Co., Ltd.
- Daewoo E&C Co., Ltd.
- JGC Corporation.
- Doosan Heavy Industries Co., Ltd.
- Vopak Terminal Korea & Singapore
- ODFJELL Terminals Korea
- Nippon Steel Corporation
- Formosa Petrochemical Corporation.
- Rotary Engineering Ltd.
- Hyundai Oil Bank
- S-OIL Corporation
- SK Innovation.

5. Quality Management



ISO 9001

Quality Management System

Directive 94/9/EC

Quality Assurance System



BEST QUALITY



SEWON Q&TECH CO., LTD.
ATEX Directive 94/9/EC Certified (CE Certificate)
ISO 9001 Quality Management System Certified

6. Major Project Experience

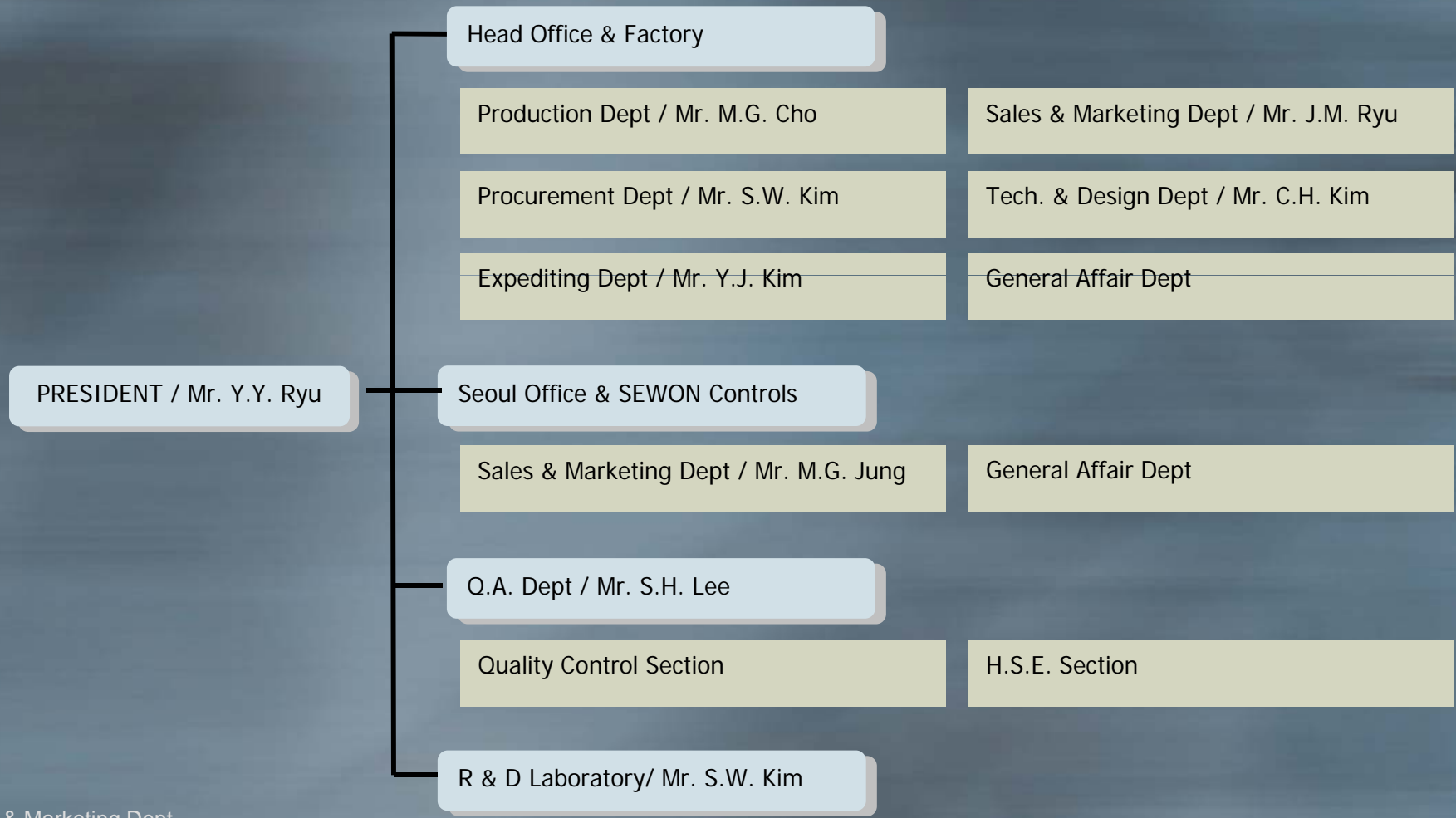


- CTCI Corp. Project- Shanghai Secco Petrochemical Company Ltd. in China
- SPC PDH/PP Project in Saudi Arabia
- Attahaddy Gas Field Development in Libya
- Felca International Corp. Project in Taiwan
- Formosa Chemicals & Fibre Corp. Project in Taiwan
- Formosa ABS Plastics - in Taiwan
- Nan Ya Plastics Corp. Project in Taiwan
- Nan Chung Petrochemical Corp project in China
- South Pars Gas Phase 4&5 in Iran
- KUFPEC PHI Facilitise Epic Plus O&M in Indonesia
- PHU MY Fertilizer Project in Vietnam
- NPC Project in Thailand
- PHU MY Fertilizer Project in Vietnam
- DHDS Project in Oman
- Vopak Tank Terminal Project in Korea
- 5TH Gas Separation Plant Project in Thailand
- NGL-4 EPC Project in Qatar

7. Distributor Network

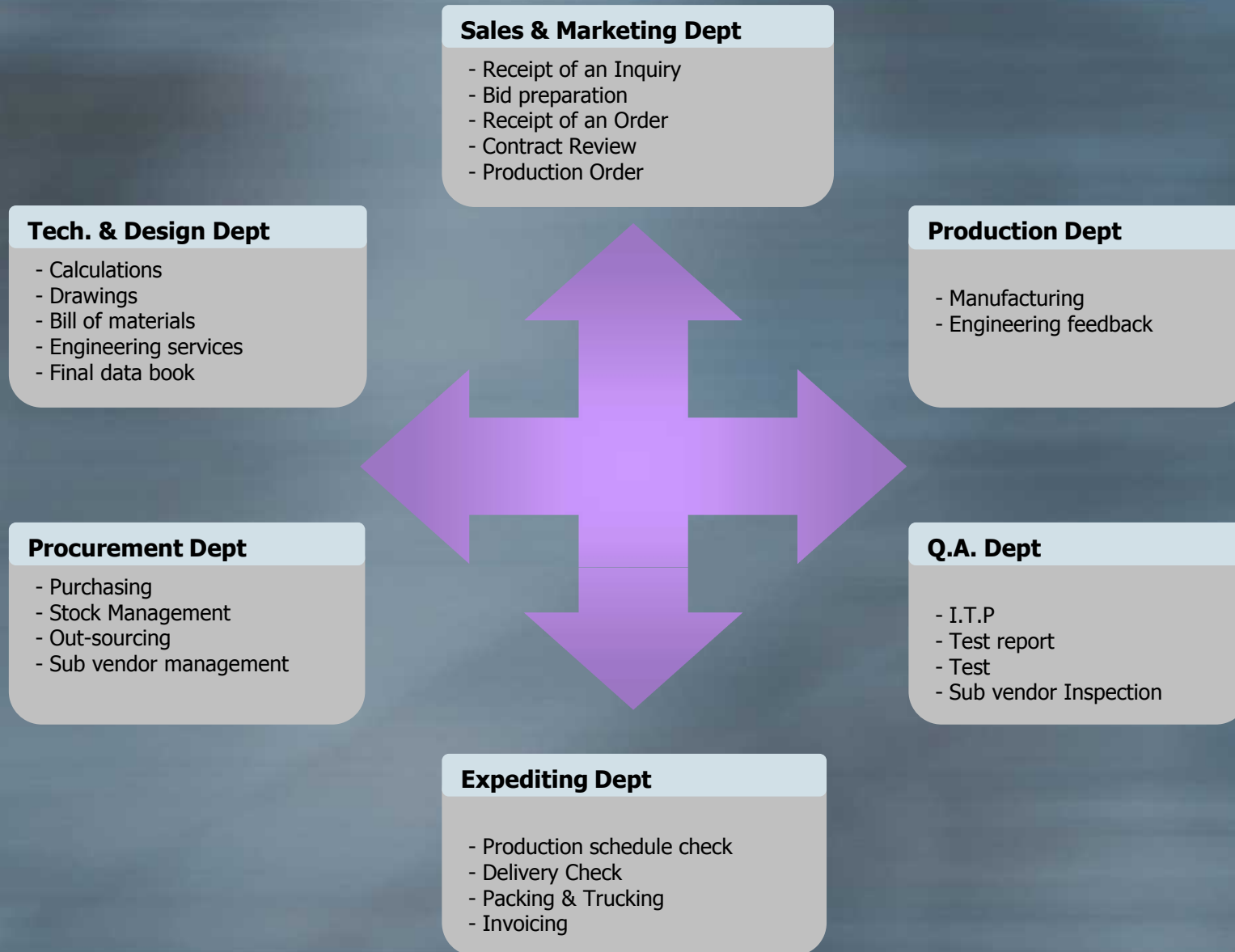


8. Organization Chart



- 1) Sale & Marketing Dept.
: Mr. J.M. Ryu(General Manager) - e-mail :jmryu@swqt.co.kr
- 2) Tech. & Design Dept.
: Mr. C.H. Kim(Director) - e-mail :chkim@sewon-ind.co.kr
- 3) Q.A. Dept
: Mr. S.H. Lee(Deputy General Manager) - e-mail :shlee@sewon-ind.co.kr

9. Example organization chart for project Work



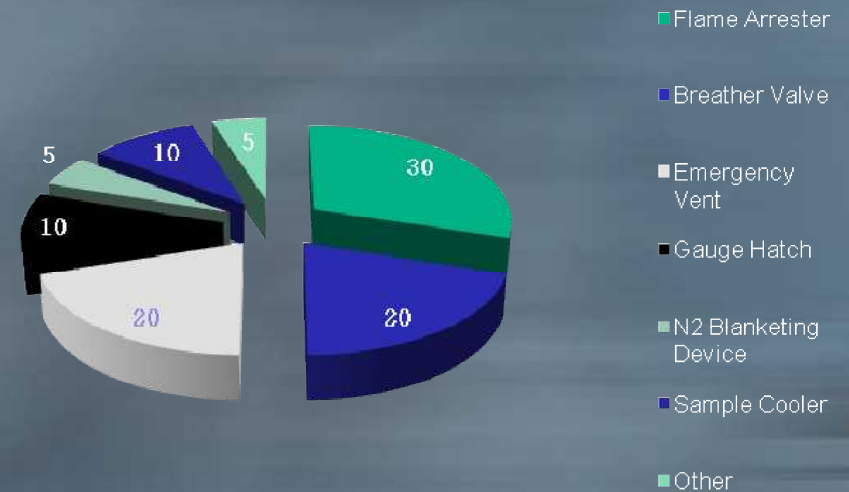
10. Sales Analysis

Year	2012	2013	2014
Sales / Mil. USD	60	55	64

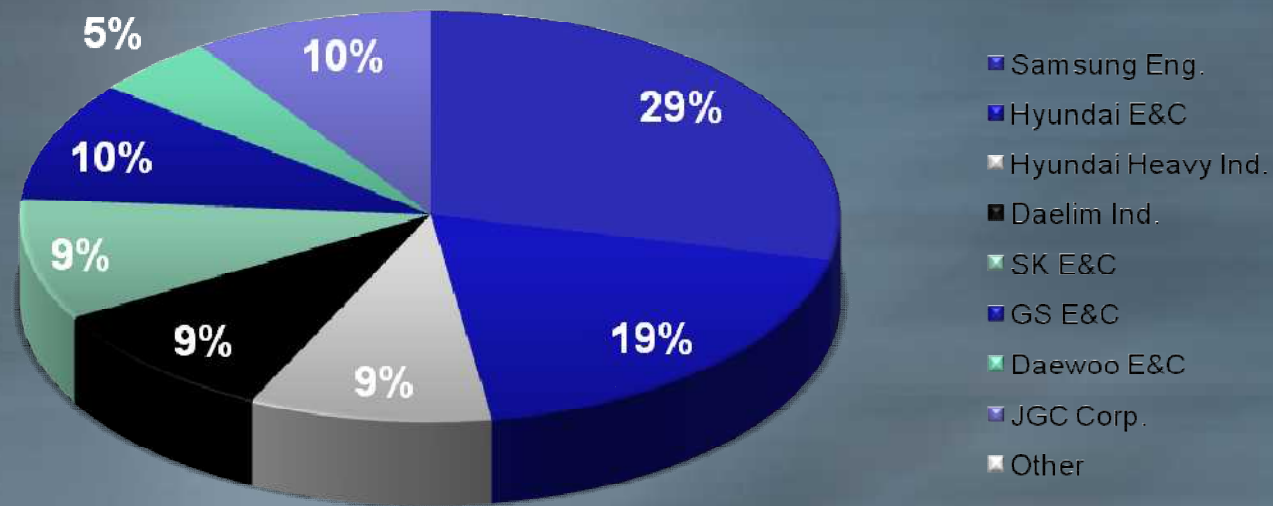
Sales Analysis



Sales Analysis by Products for 3 years(%)



10. Sales Analysis



11. Product Information



■ Tank Accessories

- ▶ Breather Valve
- ▶ Flame Arrester
- ▶ Emergency Vent Cover
- ▶ Gauge Hatch
- ▶ Slot Dipping & Sampling Device
- ▶ Inert Gas Blanketing System

■ Other

- ▶ Sample Cooler
- ▶ Sampling System
- ▶ Exhaust Head
- ▶ Etc.

11-1. Tank Accessories



Breather Valve



11-2. Tank Accessories



Flame Arrester



11-3. Tank Accessories



Emergency Vent Cover



11-4. Tank Accessories

Gauge Hatch



11-5. Tank Accessories

Inert Gas Blanketing Device



11-6. Tank Accessories

Slot Dipping & Sampling Device



11-7. Other Product



Sample Cooler



11-8. Other Product



Sampling System



11-9. Other Product



Exhaust Head



Hydrant



Injection Nozzle



11-10. Other Product



Goose Neck Vent



Condensate Pot



12. Quality Achievement



ISO 9001: 2008

CE Certificate

-Pressure and Vacuum Relief valve
& Emergency Vent Cover

CE Certificate

-Flame Arrester

CERTIFICATE OF REGISTRATION

Certificate No: **QMS - 1231**

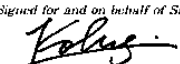
Company Name: **SEWON Q & TECH CO., LTD.**
163-4, Sangnang-ro 375beon gil, Sangdang-myeon, Gimhae-si, Gyeongsangnam-do, Korea



Scope of registration : **The design and production of flame arresters, pressure/vacuum relief valves, sampling system, power piping equipment and accessories of petroleum storage tanks**

Standard : **KS Q ISO 9001:2009 / ISO 9001:2008**



SPEC Certification Co., Ltd. hereby certifies that the Quality Management System of the above organization has been assessed and found to meet the requirements of the standard and scope of registration detailed above

Certificate From : **2013-10-23** Certificate Expiry : **2016-10-22**
(Registration on 2001-10-23)
Reissue : Re-certificate
Issue date : **2013-10-04**

Signed for and on behalf of SPEC

 By authority of the Chief Executive

■ The Accredited Body (KAB) indicates approval of the organization's management system by the International Accreditation Forum (IAF).
 ■ SPEC is a member of the International Accreditation Forum (IAF) and is authorized to issue certificates for Quality Management Systems.

DET NORSKE VERITAS ACKNOWLEDGEMENT OF RECEIPT - EC

ACKNOWLEDGEMENT NO. 70473-2010-CE-KOR


This Acknowledgement consists of 2 pages


This is to confirm that the Technical File for the following product(s):
Breather Valve & Emergency Vent Cover
with type designation(s)
See page 2

Manufactured by
SEWON Q&TECH CO., LTD.
 1038-2, Chunggok-ri, Juchon-myun, Kimhae, Gyeong-nam, Korea

has been received and stored according to
 the conformity assessment procedure described in Article 8.1.(b).(ii), of Council Directive 94/9/EC (ATEX) of 23 March 1994, category 2 non-electrical equipment.

Further details are given overleaf.



Place and date
 Høvik, 2010-02-10
 for DET NORSKE VERITAS

Marianna Spøren
 Certification Manager 784930415

This Acknowledgement is valid until
 2020-02-10

Håkon S. Håkonsen
 Technical Reviewer

This Acknowledgement is subject to the conditions specified in the Declaration of Design or Construction upon receipt of this acknowledgement and shall be valid only if the product is in accordance with the technical file and the Declaration of Design or Construction.

Det Norske Veritas Certification AS
 Veritaveien 1, 1322 Høvik, Norway, 44 878 9900, -875 78911



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EC TYPE EXAMINATION CERTIFICATE

<ol style="list-style-type: none"> 1. ATTESTATION D'EXAMEN CE DE TYPE 2. Attestation de conformité de protection destinée à être utilisée en atmosphères explosives. 3. Directive 94/9/CE 4. Numéro de l'attestation CE de type 5. LCIE 04 ATEX 6056 X 6. Appareil ou système de protection : Arête-flamme antidéflagration fin de ligne. Type : SFG 7. Demandeur : SEWON Q&TECH CO., LTD 8. Adresse : 1038-2, Chunggok-ro, Juchon-myun, Kimhae, Gyeongnam, KOREA 621-840 9. Cet appareil ou système de protection et ses variantes éventuelles acceptées est décrit dans l'annexe II de la présente attestation et dans les documents descriptifs cités en annexe. 10. Le LCIE, organisme notifié sous la référence 0081 conformément à l'article 9 de la directive 94/9/CE du Parlement européen et du Conseil du 23 mars 1994, relative aux appareils ou systèmes de protection anti-collision aux engins explosifs en ce qui concerne la sécurité et la santé, pour la conception et la construction d'appareils et de systèmes de protection destinés à être utilisés en atmosphères explosives, cités dans l'annexe II de la directive. Les vérifications et épreuves figurent dans notre rapport confidentiel N° 00013814 / 807201 / 02. 11. Le respect des exigences essentielles en ce qui concerne la sécurité et la santé est assuré par la conformité aux documents suivants : - EN 13463-1 (2001), prEN 13463-2 (2009), - EN 12874 (2001). 12. Le type X lorsqu'il est placé à la suite du numéro de l'attestation, indique que ce matériel ou système de protection ne répond pas aux conditions requises pour une utilisation sûre, mentionnées dans l'annexe II de la présente attestation. 13. Cette attestation d'examen CE de type concerne uniquement la conception et la construction de l'appareil ou du système de protection spécifié, conformément à la directive 94/9/CE. Des exigences supplémentaires de cette directive sont applicables pour la fabrication et la fourniture de l'appareil ou du système de protection. 14. Le marquage de l'appareil ou du système de protection devra comporter, entre autres indications utiles, les mentions suivantes : CE I 2 G cIIA T6 	<ol style="list-style-type: none"> 1. EC TYPE EXAMINATION CERTIFICATE 2. Equipment or protective system intended for use in potentially explosive atmospheres 3. Directive 94/9/EC 4. EC Type Examination Certificate number 5. LCIE 04 ATEX 6056 X 6. Equipment or protective system : Flameless anti-flammable flame arrester 7. Type : SFG 8. Applicant : SEWON Q&TECH CO., LTD 9. Address : 1038-2, Chunggok-ro, Juchon-myun, Kimhae, Gyeongnam, KOREA 621-840 10. This equipment or protective system and any acceptable variation thereof is described in the schedule to this certificate and the documents therein referred to. 11. The LCIE, notified body number 0081 in accordance with article 9 of the Directive 94/9/EC of the European Parliament and Council of 23 March 1994, certifies that this equipment or protective system has been found to comply with the essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmospheres, given in Annex II of the Directive. 12. The main verification and test results are recorded in confidential report No. 00013814 / 807201 / 02. 13. Compliance with the Essential Health and Safety Requirements has been assured by compliance with : - EN 13463-1 (2001), prEN 13463-2 (2009), - EN 12874 (2001). 14. If the type X is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate. 15. This EC Type Examination certificate relates only to the design and construction of this specific equipment or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive apply to the manufacture and supply of this equipment or protective system. 16. The marking of the equipment or protective system shall include the following : CE I 2 G cIIA T6
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Fontenay-aux-Roses, le 26 mars 2010


 Le Directeur de l'organisme certificateur
 Manager of the certification body


Seul le texte en français est engageant et responsable du LCIE. Ce document ne peut être reproduit que dans son intégralité, sans aucune modification.
 The CE is valid only when used in its original form. The document may be reproduced in full but without any change.

Lieu de fabrication : France
 Lieu de montage : France
 Lieu de distribution : France
 Lieu de service : France

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13. List of Equipment in Workshop



ID No.	EQUIPMENTS	SIZE	MAKER
SW-LT-01	LATHER	1600 x 1000L	Daejoo
SW-LT-02	LATHER	900 x 2000L	Hankook M/C
SW-LT-03	LATHER	710 x 2000L	Hankook M/C
SW-LT-04	LATHER	580 x 1000L	Hwacheon
SW-LT-05	LATHER	480 x 1000L	Nseng
SW-LT-06	LATHER	380 x 1000L	Nseng
SW-RM-01	RADIAL DRILLING M/C	DRD-1500	Doosan
SW-RM-02	RADIAL DRILLING M/C	ADU580	Asia tools
SW-MR-01	MILLING M/C		Ilkwang
SW-AL-01	ELEMENT FORMING	800	Sewon
SW-HS-01	HOIST	2.8 ton	Daesung
SW-CM-01	AIR COMPRESSOR	5HP	Dongsung Tech
SW-CM-02	AIR COMPRESSOR	5HP	New Korea
SW-CM-03	AIR COMPRESSOR	15HP	EJ motor
SW-CM-04	HIGH AIR COMPRESSOR	300-100kg/cm2	Ailair Tech
SW-FL-01	LIFT TRUCK	FBD10 / 1ton	Tongmyung
SW-PT-01	DUST COLLECTOR	20HP x 220m3	Chungwoo
SW-PT-02	FILTER DUST COLLECTOR	60m3/h	Wooyang
SW-WD-01	TIG WELDING M/C	TIG-ARC-500YT	Century
SW-WD-02	TIG WELDING M/C	500AM	Donglim Ele
SW-WD-03	SPOT WELDING M/C	7.5-12KVA	National W/D
SW-WD-04	CO2 WELDING M/C	350A	Sewon
SW-WD-05	ARC WELDING M/C	7.5kw	Donglim Ele
SW-MD-01	DRILLING M/C	19mm	Woosung
SW-MD-02	DRILLING M/C	HTD-360	Haenam Tech

14. List of Testing / Calibration Equipment normally used in workshop



ID No.	EQUIPMENTS	SIZE	MAKER
SW-I-01	MICROMETER	0-25 mm	Mitutoyo
SW-I-02	MICROMETER	25-50 mm	Starrett
SW-I-03	MICROMETER	50-70 mm	Mitutoyo
SW-I-04	MICROMETER	125-150 mm	N.S.K
SW-I-05	MICROMETER	150-175 mm	Mitutoyo
SW-I-06	MICROMETER	275-300 mm	N.S.K
SW-I-07	VERNIER CALIPERS	150 mm	Mitutoyo
SW-I-08	VERNIER CALIPERS	300 mm	Mitutoyo
SW-I-09	VERNIER CALIPERS	600 mm	Mitutoyo
SW-I-10	VERNIER CALIPERS	1,000 mm	Mitutoyo
SW-I-11	DIAL GAGE	0.1-10 mm	Mitutoyo
SW-I-12	HEIGHT GAGE	300 mm	Mitutoyo
SW-I-13	COATING THICKNESS GAGE	0-600 mm	Mitutoyo
SW-I-14	DIGITAL THICKNESS GAUGE	0-2 mm	Elcometer 345
SW-I-15	HYDRO TEST M/C	200 kg/cm ²	Goldstar
SW-I-16	PRECISION SURFACE TESTER	1200x900x150	Yonhap Precision
SW-I-17	DIAL GAGE		Mitutoyo
SW-I-18	GAS DETECTOR	0-3%(XP-311A)	Cosmos
SW-I-19	FLOW METER	0-100m	JAPAN
SW-I-20	FLOW CONDITION TEST M/C	12,000m ³ /h	T.L
SW-I-21	ENDURANCE BURNING TEST M/C	300A	Sewon
SW-I-22	FLASHBACK TEST M/C	LPG/GASOLINE	Sewon
SW-I-23	GAS CONCENTRATION DETECTOR	0-100%(XP-314A)	Cosmos