

PRE QUALIFICATION



WISEWOJIN

http : www.wisewoojin.co.kr

E-mail : wisewoojin@hanmail.net



1-1. 회사소개 및 주요제품

회사소개



- 회사명 : 와이즈 우진
- 설립일자 : 2001년 9월

- 위치 : 본사 . 공장

서울특별시 금천구 가산디지털2로 53 (가산동 345-90)

한라 시그마 밸리 18층 1808호

전화 : 02-6443-5310

서울 사무소

서울특별시 구로구 경인로 53길 15

중앙유통단지 나동 1111호

전화 : 02-2614-5110

대산 사무소

충청남도 서산시 대산읍 충의로 2576

전화: 041-668-5110

1-2. 제휴 브랜드 소개 및 취급품목

- ♣ 와이즈산전 : Pressure . Temperature . D/P Type Flow Meter . Level Gauge .
Leak Detection System (Wireless . Sensor Cable . Sensor Pape)
- ♣ 하이트롤 : Level Switch . Level transmitter . D/P Type Flow Meter
- ♣ 플로우닉스 : Area flow Meter . Sight Glass & Indicator & Flow Switch . Flow Gauge
- ♣ 도쿄계기 & 오벌엔지니어링 : Mass & Ultrasonic Flow Meter . Radar Level Transmitter
- ♣ 지멘스 : Mass & Magnetic . Vortex Flow Meter . Radar & Ultrasonic Level Transmitter
- ♣ 두온시스템 : D/P Transmitter . Radar . Guide Wave Radar . Level Transmitter
- ♣ 태광후지킨 : Tube Fitting . Ball Valve . Manifold Valve . MFC[Mass Flow Control or Meter]
Closed Loop Sample System
- ♣ SMK TECH: Samless Tube
- ♣ 유니콘밸브 : Control Valve . Globe & Butterfly Valve . Actuator
Electric Valve . Pneumatic Valve . Manual Valve
- ♣ 일신산업전기 : Flame-proof LED Lighting . Flame-proof Box .
- ♣ 델타아이오 . 한국이화기술 : MHI Package . Signal Converter

Pressure Instrument



Anti-corrosion pressure gauge_P870 series

High purity pressure gauge (BA grade)_P830 series (316L type)

Ultra high purity pressure gauge (EP grade)_P820 series (316L)

Ultra high purity pressure gauge (EP grade)_P810 series (316L)



Diaphragm seal for Pressure Instrument_P790 series



Diaphragm pressure gauge with dry type_P770 series



Pressure gauge with diaphragm seal_P761,P762,P763



Flush diaphragm type pressure gauge_P757 series

Pressure Instrument



Low differential pressure gauge_P880 series



Differential pressure gauge with inductive contact type_P690



Differential pressure gauge with reed switch_P680 series



Differential pressure gauge with bellows element_P670 series



Explosion proof type indicating pressure switch (100 mm)_P980



Explosion proof type differential pressure switch_P970 (953)



Explosion proof pressure switch_P953 (953 series)



Adjustable dead band weatherproof type pressure

Pressure Instrument



Gauge / Absolute pressure transmitter_SMT2012-B



High performance pressure transmitter_SMT2012-A



Gauge / Absolute Pressure Transmitter_SMT2002-B



High performance pressure transmitter_SMT2002-A



Differential pressure transmitter_SMT2001-B



High performance differential pressure transmitter_SMT2001-A



Explosion proof type differential pressure switch (Up to 20 kPa)



Explosion proof type indicating pressure switch (125 mm)_P990

Temperature Instrument



Thermocouple & Resistance Temperature Detectors



Explosion proof Non-metallic protection tube



Extended lead wire type

Head type

Heavy duty type resistance temperature detector_R200



Cool-down and leak detector_R190 (RL series)



Remote reading aluminium case thermometer with electrical



Euro gauge Electrical contact type bimetal temperature



Explosion proof type indicating temperature switch_T990



Explosion proof temperature switch_T953 (953 series)



Flow Instruments



Wedge meter_F770



Averaging pitot tube_F760



Venturi cone_F750



Venturi tube_F700



Flow nozzle_F600



Integral flow orifice
assembly_F510

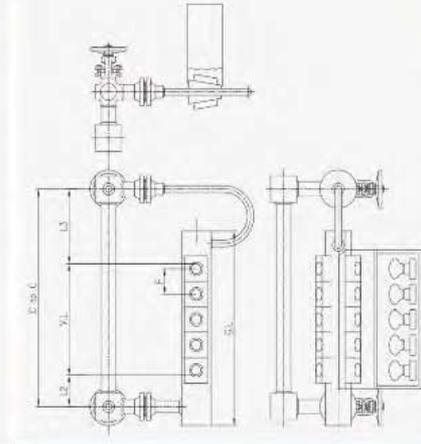


Restriction orifice plate_F400
series

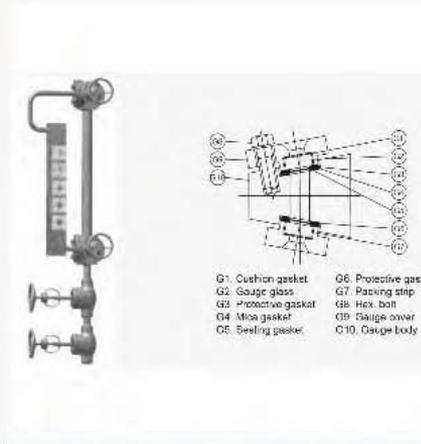
Flow & Level Instrument



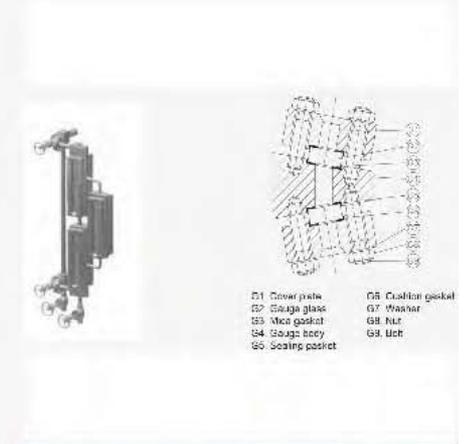
Level Instruments



Pressure and temperature rating for L510



Multi-port type two-color level gauge_L510



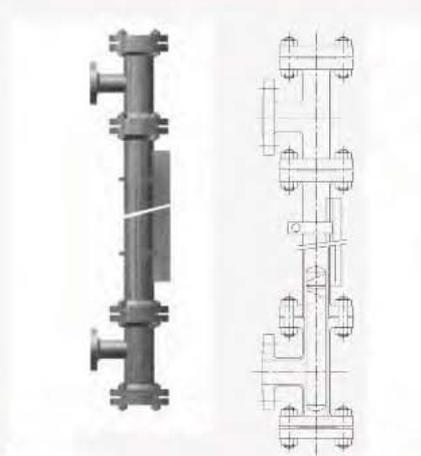
Transparent and two-color type level gauge_L500



Two - color type level gauge_L500, L510



Tubular gauge_L400

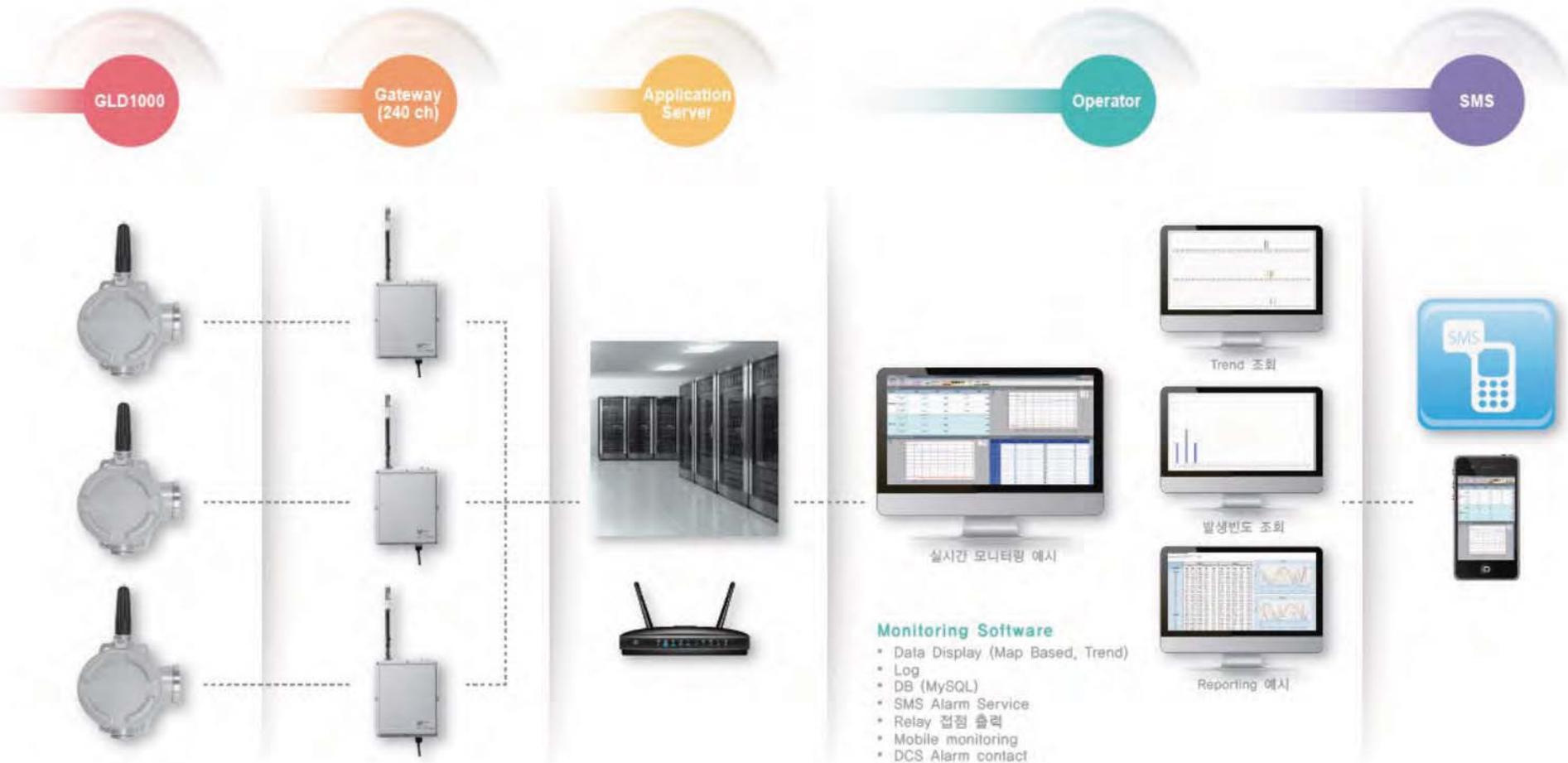


Optional Magnetic float type level gauge with lining for L300



Optional Level switch and transmitter for L300

무선 누액감지 시스템 구성도



WIRELESS GLD1100

접점 무선송신기

- ▶ 누액센서 접점신호를 LoRa로 전송할 수 있는 송신기 개발 중
- ▶ 방폭인증 2018년 6월 획득 예정

GLD1100 송신장치 기능 및 구성

- 1) 상시 전원만 사용 (24 V)
- 2) 상시 수신 대기 상태
- 3) 데이터 수집 장치의 데이터 송신 요구에만 응답
(개별ID Setting - DIP Switch)
- 4) 누액감지기 1 Point 접점 수동
- 5) 방폭지역 설치 가능 (인증예정)



필름 방식 센서



케이블방식 센서



GLD1100 _ Max : 10 ea (상시전원 사용)



PLC 모니터링



Monitoring Software

무선 누액감지 시스템 제품 소개

제품소개 :

GLD1000은 고감도, 저전력 산화물 반도체식 가스센서를 내장한 방폭형 누액 감지시스템으로서, 산업현장에서 누액되는 여러가지 가스를 단일센서로 감지 할 수 있습니다.

LoLa 저전력 무선통신을 채택하여 배터리를 이용하여, 최대 1km거리 내에서는 통신이 가능 하도록설계 되었습니다.

최근 정부는 국민의 안전을 위협하는 “**유해화학물질 대한 환경법안을 제정/개정하여 처벌수위를 강화**”있습니다.

[유해화학물질관리법 (화관법) 시행규칙 강화_환경부령 제701호]

GLD1000 무선누액감지시스템은 유해화학물질 누액 시 곧바로 감지하여 큰 사고로 이어지지 않도록 조기 대처가 가능 합니다.

시스템 장점 :

01. 경제적인 누액 감지 시스템

02. LoLA 무선통신 [저전력 . 장거리]

03. 간편한 설치

04. 고감도 MEMS형 반도체식 센서

05. 다양한 상황 모니터 및 원격 설정

06. 폭넓은 센서 동작온도

07. 내압방폭구조 [Ex de IIC . T6]

08. 태양광 발전모듈 적용으로 장시간 구동 가능

시스템 적용분야 :

전자사업 . 건설산업 . IT(통신)산업 . 중공업 . 석유화학 . 제약/식품산업 . 발전소 . 제철산업 등 ...

Gas Detector

GD-1010

가연성 가스검지기



GT-1010

4~20mA 출력 가연성 가스검지기



GT-1100

디스플레이 타입 가연성 가스검지기



GX-1100(IR)

적외선식 센서 가연성 가스검지기



GT-1100S

흡입식 가연성 가스검지기



GX-1100S(IR)

적외선식 센서 흡입식 가연성 가스...



GX-1010(ELC)

4~20mA 출력 독성 가스검지기

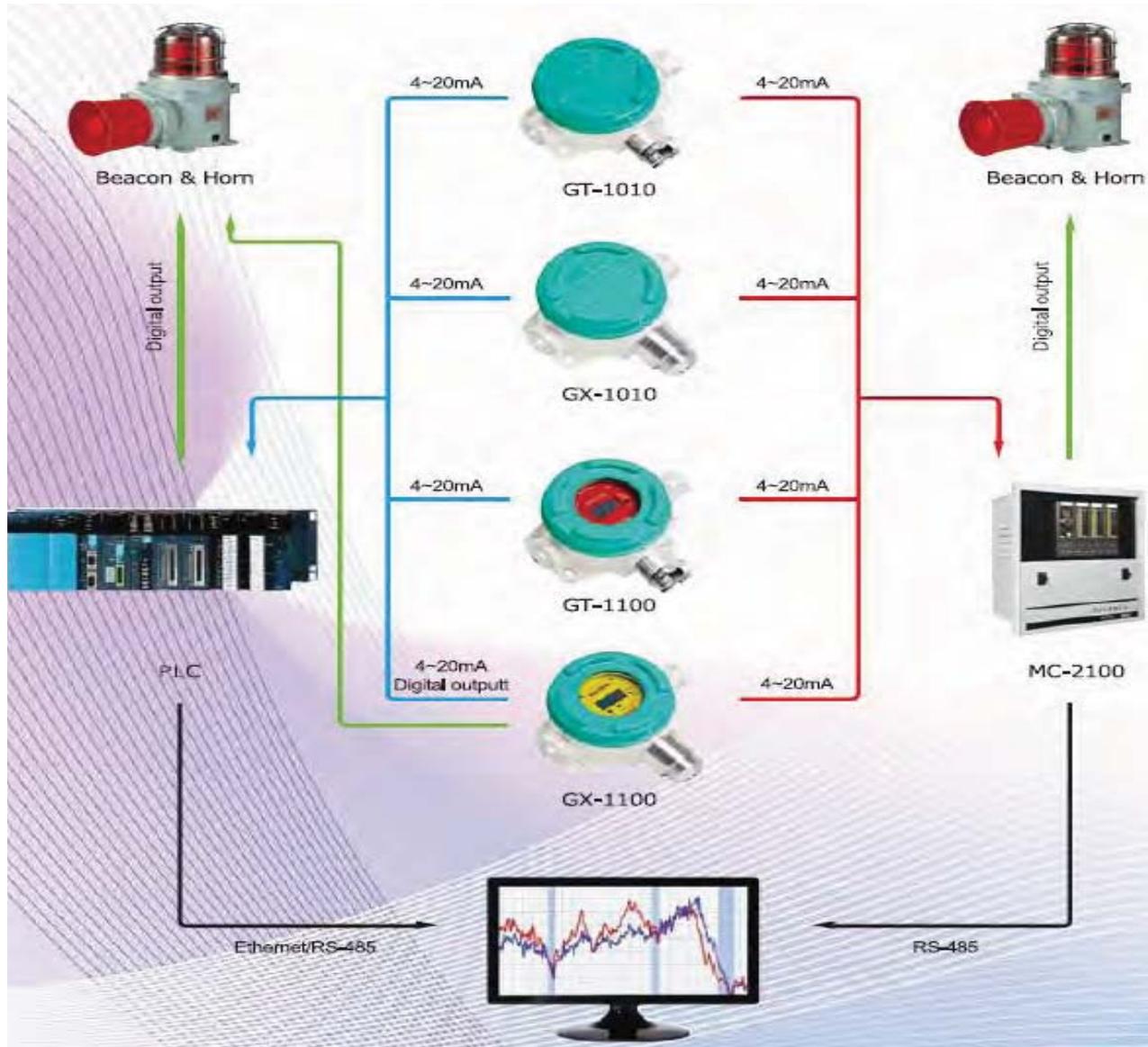


GT-1100(HWS)

열선형반도체식 센서 독성 가스검...



Gas Detector (가스검지기 시스템 구성도)





Flow Meters



Level Transmitters



Level Switches



Level Gauges



Gate Positions



1. Radar Type Level Transmitter
2. Ultrasonic Level Transmitter
3. Displacer Type
4. Float Type
5. Magnetostrictive
6. Level Gauge Glasses
7. Magnetic Float Type Level Gauge



1-3. 하이트롤 제품



TANK GAUGE



HT-100C-2



HT-100RS



HM-90



95 Series



HTM - Series



HM-12 Series

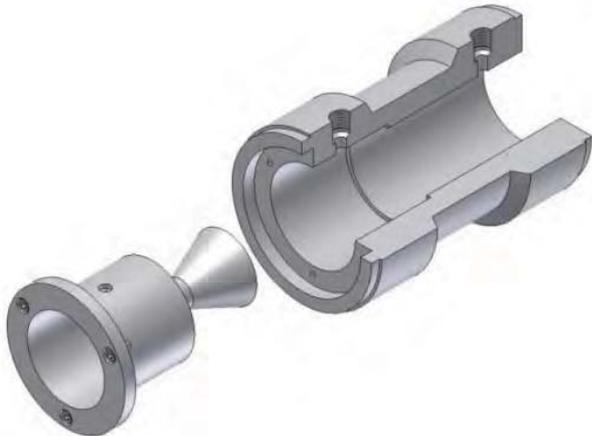
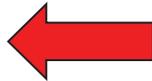


CONTROL UNIT

1. DP HiCone Meter
2. Averaging Pitot Tube
3. Restriction Orifice – Flat and Conical Type
4. Venturi Tube
5. Cavitating Venturi



차압식 유량계 D/P HiCONE METER (HFV- Series)

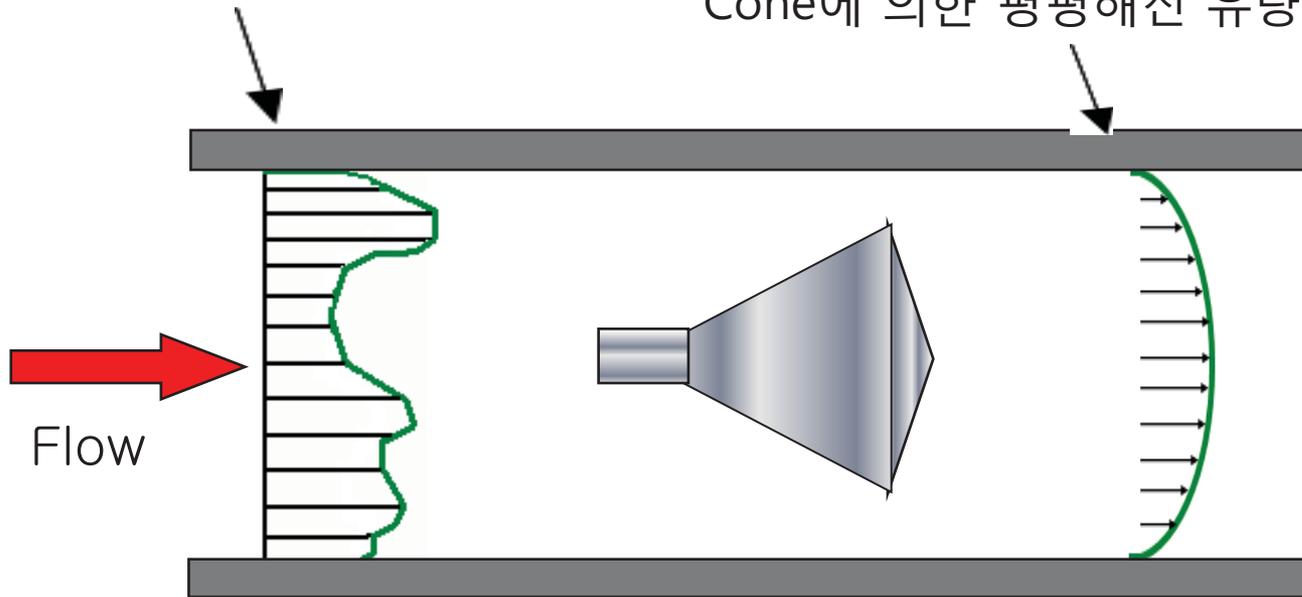


Type	: Differential Pressure
Beta Ratio	: 0.45 ~ 0.85
Line Size	: 0.5" to 72"
Temperature	: Max. 538°C (1000°F)
Process Pressure	: 10 ~ Max. 500kg/cm2(Opt.)
Accuracy	: +/- 0.5% of F.S
Repeatability	: +/- 0.1%
Turndown Ratio	: 10 : 1
Straight Pipe Section	: 3D : 1D
Material	: SUS304 or 316 . C.S Duplex 2205 Hastelloy C-276 Special Material
Line Fluid	: Liquids . Gas . Steam

DP HiCone Meter에 의해 평평해진 유량 프로파일

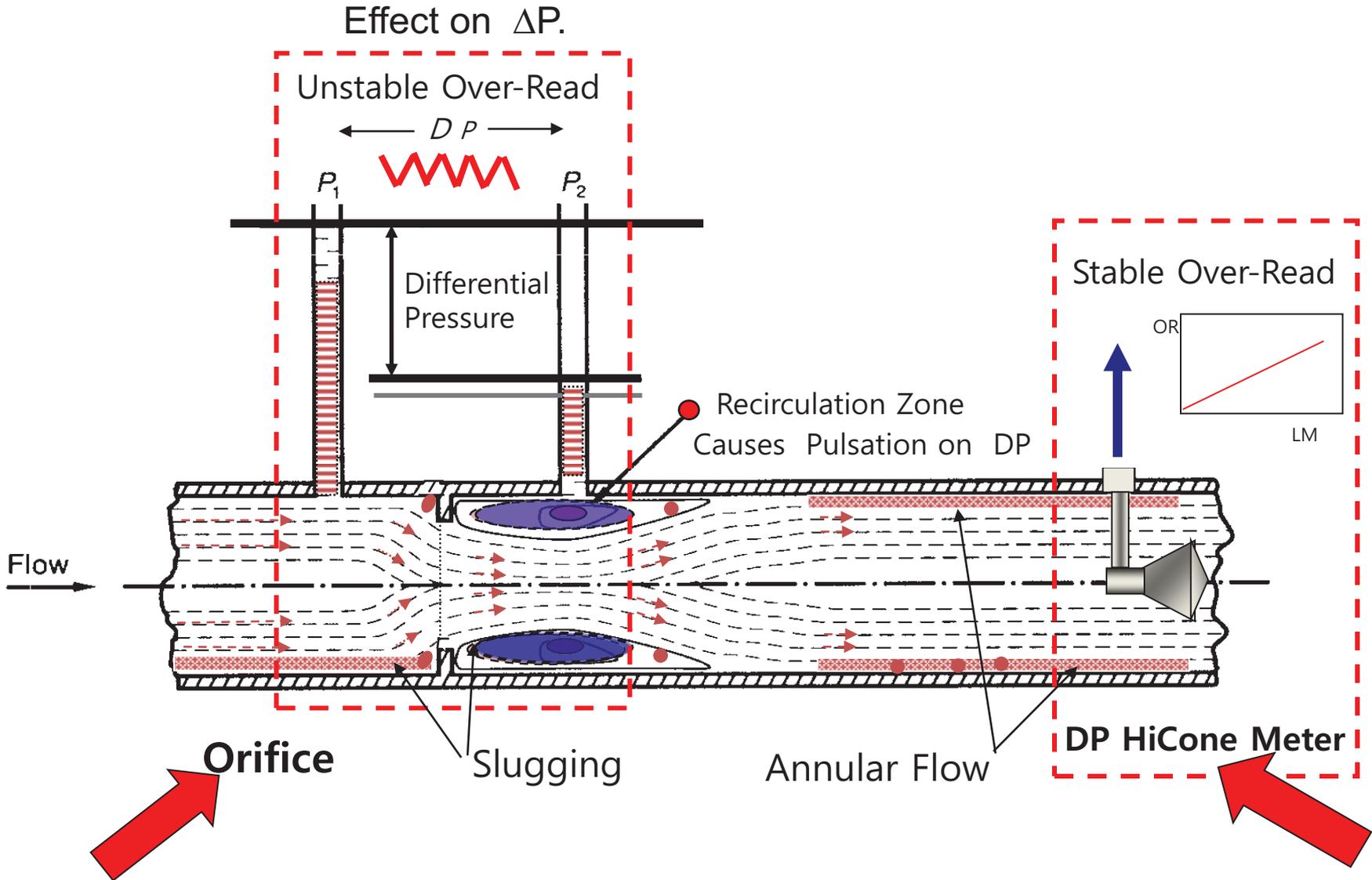
전단의 불규칙한 유량 프로파일

Cone에 의한 평평해진 유량 프로파일



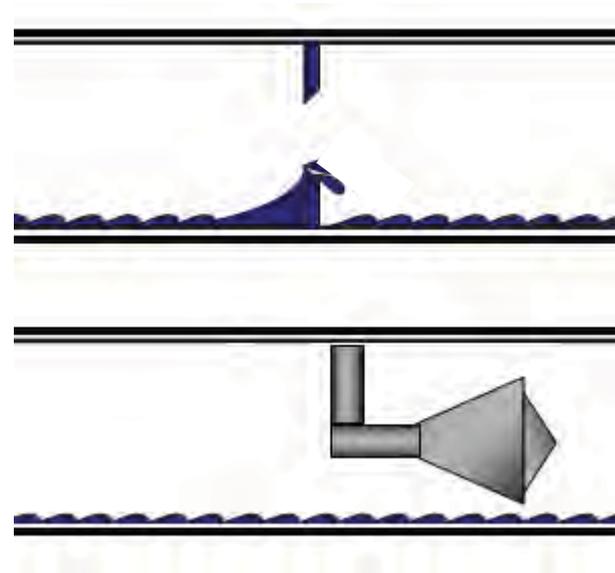
그림과 같이 불규칙한 유량의 프로파일은 CONE을 지나면서 평평해진 유량 프로파일로 바꾸어 다른 차압식 메타(ORIFICE, FLOW NOZZLE, VENTURI TUBE) 보다 짧은 전후단을 가지고, 악조건속의 유속 분포에도 높은 정확도를 유지한다.

➤ Cone Meter vs Orifice



➤ HITROL D/P HiCone Meter

- Oil & Gas : " Wet Gas."
 - Previous meter : *orifice plates venturis*
 - Problem : *wear , liquid hold up*
 - HITROL - Cone :
 - *Self-Cleaning*
 - *LM Correlations*



(see :- Wet Gas Separate Module)

➤ API 22.2 Testing of Cone meter



API 22.2 "Testing Protocol for Differential Pressure Flow Measurement Devices"

The purpose of this testing was to determine the minimum lengths of straight pipe necessary to alleviate the effects of several distinct installation effects both up and down stream.



Standard Testing

The calibrations were performed with the Cone flow meters in a system with 40+ diameters of straight up/downstream piping

Non Standard Testing

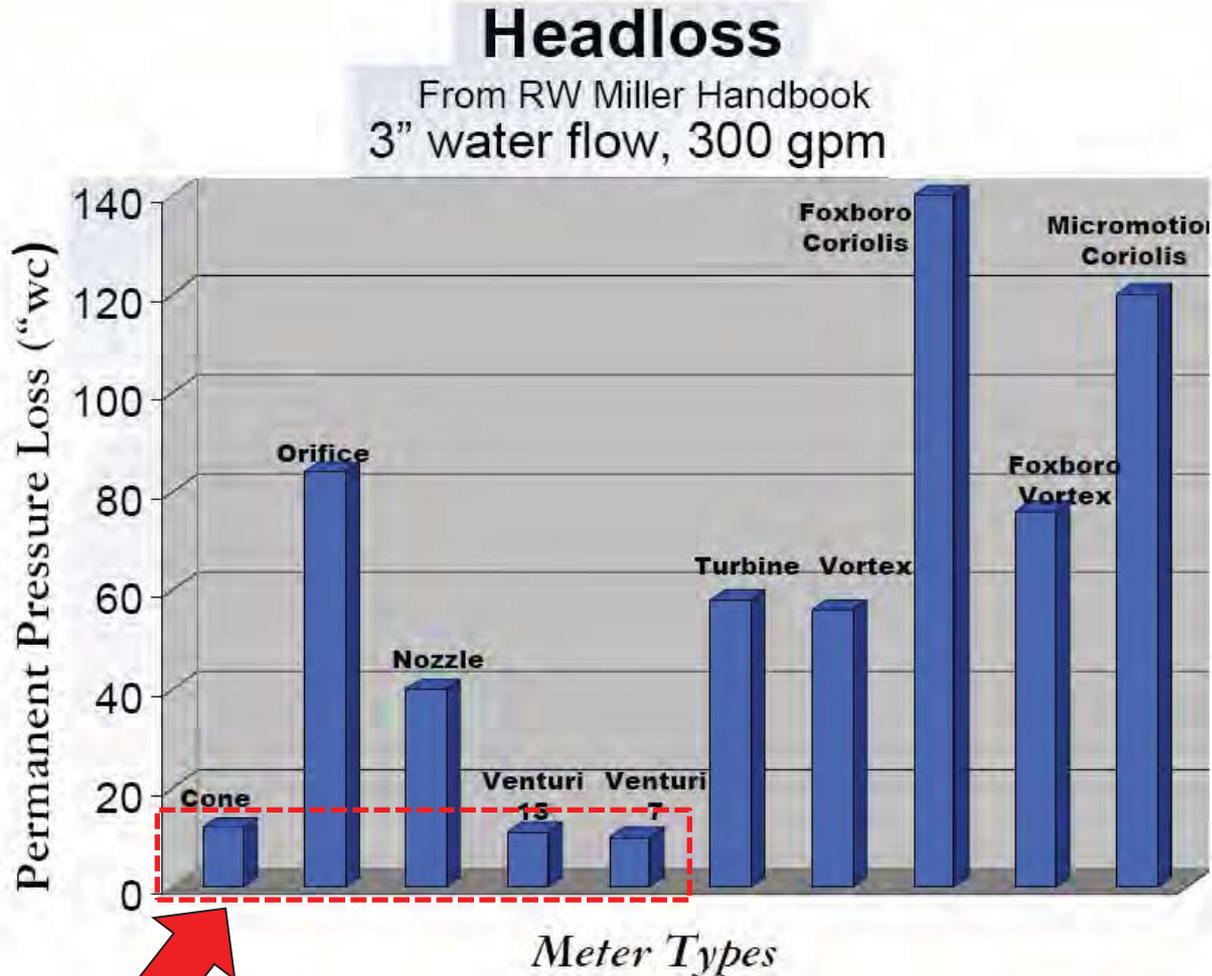
- Half-moon orifice plate upstream of the meter
- Half-moon orifice plate downstream of the meter
- Combination upstream and downstream installation effects
- Out of Plane Elbows upstream of the meter

**6 inch cone meter shown(Out of Plane Elbows)
FCC-Lab & CEESI Testing**

➤ Comparison with DP Element and Cone Meter

구분	Orifice plate	Flow nozzle	Venturi tube	Cone meter
Accuracy (% F.S)	0.5~3.0	0.5~1.0	0.5 ~1.0	0.5~1.0
측정범위	4 : 1	4 : 1	4 : 1	10 : 1
직관부	전단 : 10 ~75D 후단 : 4 ~ 8D (Based on ISO 5167)	전단 : 10 ~80D 후단 : 4 ~ 8D (Based on ISO 5167)	전단 : 8 ~22D 후단 : 4 ~ 8D (Based on ISO 5167)	전단 : 3D 후단 : 1D (Based on ISO 5167)
압력손실	매우 큼	보통	작음	작음
특징	구조가 간단 마모현상 발생 응축수 발생	고온,고압에 주로사용 스팀터빈 TESTING (ASME PTC-6)	작은 압력손실 긴수명	높은 정확성 짧은 직관부 넓은 유량범위
형상				

➤ Comparison for Headloss



➤ ISO/CD 5167-5에 Cone Meter 2016년도에 등재 됨.




COMMITTEE DRAFT ISO/CD 5167-5	
Date 2014-05-30	Reference number ISO/TC 30 / SC 2 N 478
Supersedes document: n/a	

WARNING: This document is not an International Standard. It is distributed for review and comment. It is subject to change without notice and may not be referred to as an International Standard.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

<p>ISO/TC 30 / SC 2</p> <p>Title</p> <p>Measurement of fluid flow in closed conduits - Pressure differential devices</p> <p>Secretariat BSI</p>	<p>Circulated to P- and O-members, and to technical committees and organizations in liaison for:</p> <p><input type="checkbox"/> discussion at [venue/date of meeting] on</p> <p><input type="checkbox"/> comments by [date]</p> <p><input checked="" type="checkbox"/> approval for registration as a DIS in accordance with 2.5.6 of part 1 of the ISO/IEC Directives, by</p> <p>2014-07-31 [date]</p> <p>(P-members vote only: by CIB ballot)</p> <p>P-members of the technical committee or subcommittee concerned have an obligation to vote.</p>
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English title
Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full -- Part 5: Cone meters

French title
Mesure de débit des fluides au moyen d'appareils déprimogènes insérés dans des conduites en charge de section circulaire -- Partie 5: Dispositifs de mesure avec cône de mesure

Reference language version: English French Russian

Introductory note

ISO 5167-5 Draft (May 2014 - WG16 Meeting)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standard bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in that work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some elements of this document may be subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 5167-5 was prepared by Technical Committee ISO/TC 30, *Measurement of fluid flow in closed conduits*, Subcommittee SC 2, *Pressure differential devices*.

The first edition of ISO 5167-5 is complementary to ISO 5167-1:2003, ISO 5167-2:2003, ISO 5167-3:2003, and ISO 5167-4:2003.

ISO 5167 consists of the following parts, under the general title *Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full*:

- Part 1: General principles and requirements
- Part 2: Orifice plates
- Part 3: Nozzles and Venturi nozzles
- Part 4: Venturi tubes
- Part 5: Cone meters



플로우닉스 제품 “Aiea Flow Meter”



GLASS TUBE FLOW METER



METAL TUBE FLOW METER



METAL TUBE (SIGHT INDICATOR)
FLOW METER



TURBINE FLOW METER

Purge Flow Meter & Purge Set



PURGE FLOW METER (ALL)



KOI-A



KOI-C

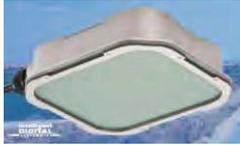


KP3



KV

TOKYO KEIKI 제품



MRF-10

MicroWave Type Radar Level Transmitter

- KRG-10은 주파수 26GHz의 마이크로파를 사용하는 레이더 수위계
- 고주파 마이크로파를 사용, 빔 각도가 좁아서 벽면 드으로 부터의 영향이 적고, 좁은 공간에서도 안정적인 측정이 가능하다.
- 측정정도는 +/- 2mm의 고정도
- 최소 설치 구경 1인치의 Rod Antenna와 PTFE Antenna등의 유체에 일체 접촉 없이 측정이 가능한 다양한 안테나로, 대부분 환경에 대응 가능.



Ultrasonic Flowmeter

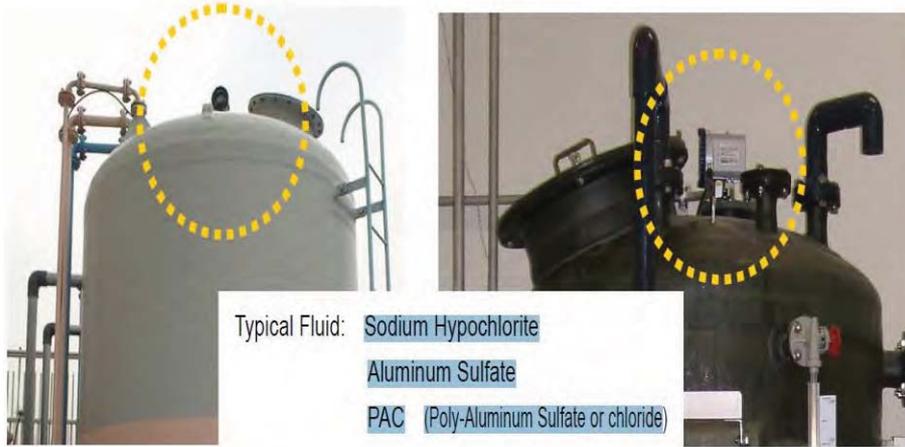
- OVF-30은 Clamp 고정식 다회선 [4-Path System 가능] 초음파 유량계
- 초음파 전파 시간차법 = 고정도 측정 : 측정값의 +/- 1.0%
- 파이프 크기 : DN 25mm ~ DN 6000mm
- 유속 : - 30m/s ~ + 30m/s
- 다양한 출력 : RS232C 디지털 출력 (2포트) . 접점출력(4포트) = 적산 및 경보
아나로그 [4~20mA]출력 (2포트)



- OVF-20은 다기능 휴대용 초음파 유량계
- 2 측정점 측정 기능 [1대의 변환기로 다른 2개의 배관을 동시 측정]
- 파이프 크기 : DN13 ~ DN50 . DN65 ~ DN500 . DN300 ~ DN5000mm
- 열량 측정가능 [측정 저항체 (PT100Ω/최대4점까지)를 접속하여, 휴대용 열량계 (칼로리 미터)로서도 사용 가능
- 두께 측정기능[1~100mm]과 음속 측정 기능을 표준 탑재 . 파형 표시 기능
- USB 메모리에 의한 데이터 전송

TOKYO KEIKI . RADAR LEVEL GAUGE APPLICATION

- Water Process -



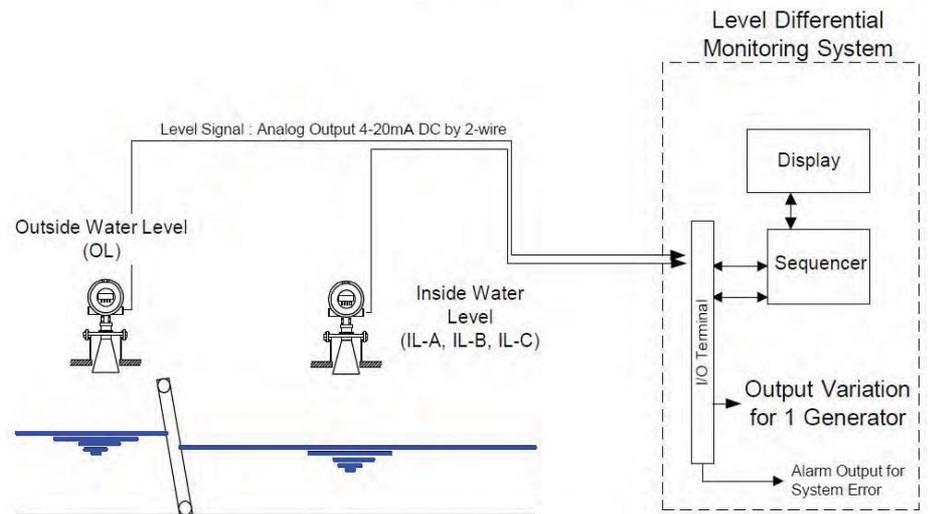
- Storage Tank -



- River Water Monitoring -



- Level Difference Monitoring System -



TOKYO KEIKI . RADAR LEVEL GAUGE APPLICATION

- Level monitoring at water treatment plant -



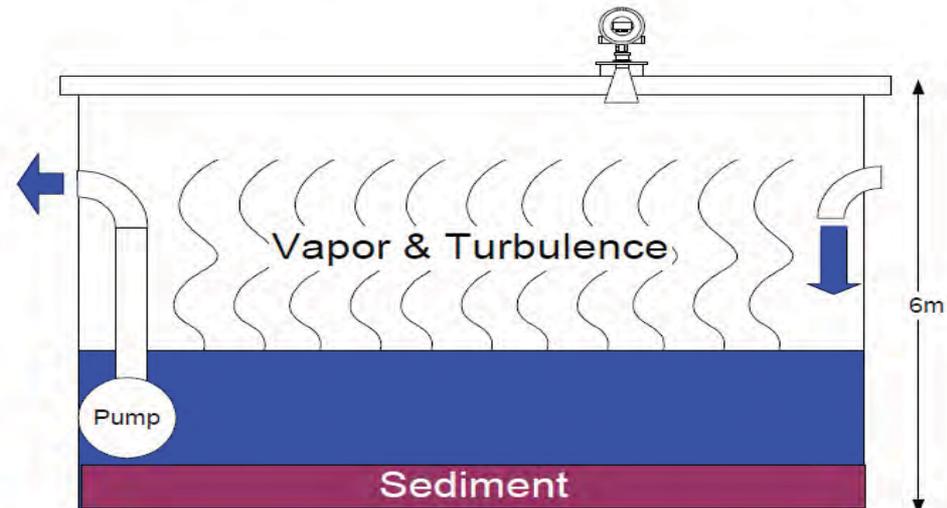
- Irrigation Water Monitoring -



- Weir Flow Measurement -



- Cooling Water Monitoring -



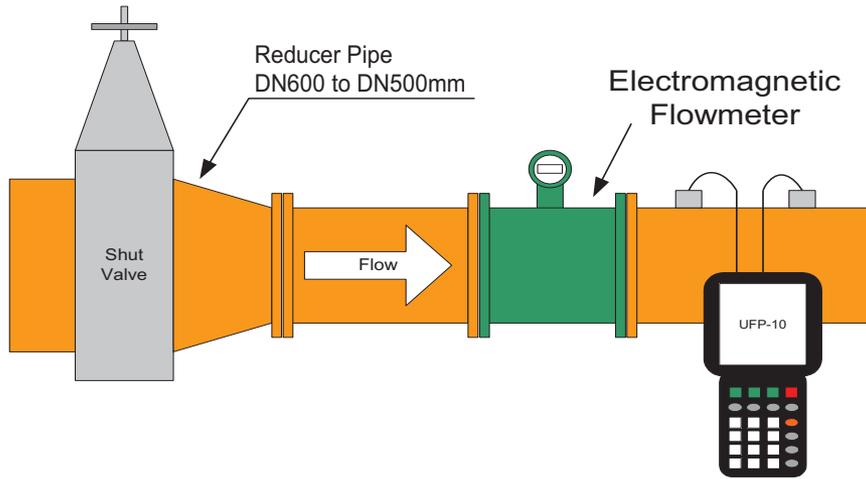
TOKYO KEIKI . ULTRASONIC FLOWMETER APPLICATION

– Hydraulic Power Plant –

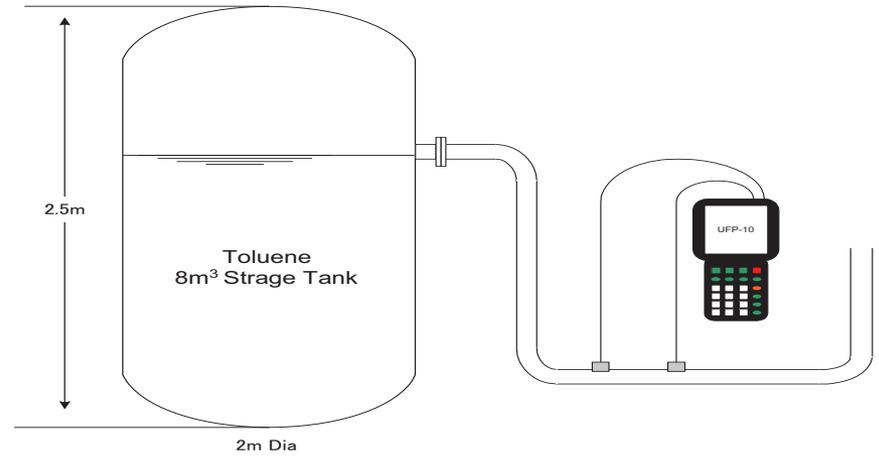


TOKYO KEIKI . ULTRASONIC FLOWMETER APPLICATION

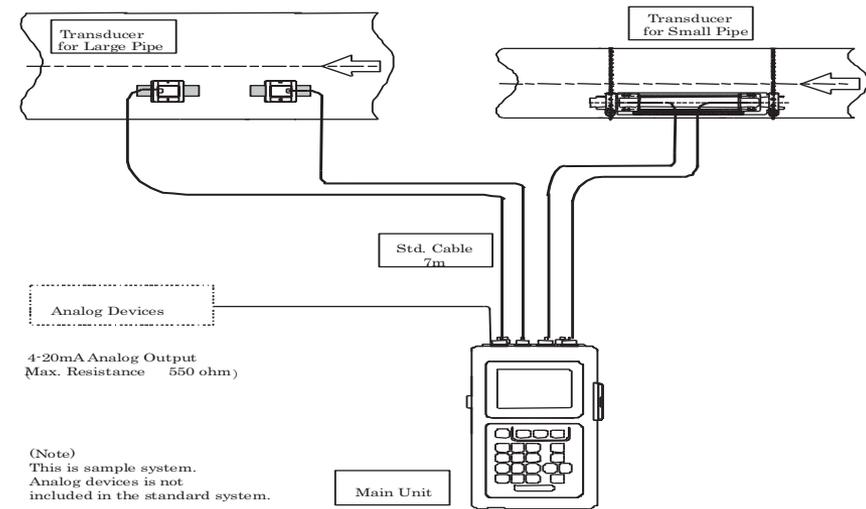
- Return Sludge Line Flow Measurement -



- Toluene Storage Tank outlet -



- 2 different pipes measurement by 1 main unit -



TOKYO KEIKI Ultrasonic Flowmeter

~ Partial List of Clients and Users ~

Asahi Beverage	JFE (NKK) Steel	Samsung SDI (Korea)
Asahi Kasei	JP Hitech	Sapporo Beer
Awa Paper	JSR Optech	Seiko Epson
Bridgestone	Kachon City (Korea)	Seoul Industrial University (Korea)
Bristol Water Consultancy Services	Kaihatsu Denki	Sharp-Takaya
Calpis	Kao Corp.	Shikoku Electric Power
Casio Micronics	Kawasaki Steel	Shinetsu Chemical
Chiba National University	Keiyo Gas	Shinetsu Engineers
Chongae Sewage Treatment Plant (Korea)	Kobe City Bureau of Waterworks	Shinetsu Semiconductor
Chubu Electric Power	Korea Electric Power [KEPCO] (Korea)	Sumitomo Chemical
Chugoku Electric Power	Korea Water Resources Corporation. (Korea)	Sumitomo Heavy Industries
Coca Cola Japan	Drewag-Stadtwerke Dresden GmbH (Germany)	Sumitomo Mining
Daegu Water Purification Plant (Korea)	Mittal Steel Annaba (Algeria)	Taejon Energy Management Corp. (Korea)
Daidan	Mittal Steel Lazaro Cardenas (Mexico)	Taiheiyo Cement
Daikin	Kumamoto University	Taiyo Nippon Sanso
Daito Chemix	Kurume University	Takasago Thermal Engineering
Daya-Damas (Brunei)	Kyoto University	Taiwan Water Public Corp. (Taiwan)
Dominica Water & Wastewater Agency (Dominican Rep.)	Kyowa Hakko Chemical	Three Gorges Project Development Corp. (China)
Ehwa University (Korea)	Kyushu Agriculture Administration	Teijin
Evertec (Korea)	Kyushu Electric Power	Tohcello
Fuji Film	Kyushu Oil	Toho Electric Ind.
Fukuoka Water Supply Authority	LG Philips LCD	Tohoku Electric Power
Hansung Green (Korea)	Liaoning Prov. Sweets, Tobacco & Alcohol Industry Co. (China)	Tokyo Electric Power [TEPCO]
Hashemite Kingdom of Jordan Scientific Institute (Jordan)	Lion	Tokyo Electron BP
Higeta Soy Sauce	Mitsubishi Chemical	Tokyo Institute of Technology
Hiroshima City Sewage Facility	Mitsubishi Heavy Industries	Tokyo Metropolitan Gov't Bureau of Sewerage
Hiroshima University	Mitsubishi Rayon Engineering	Tokyo Metropolitan Gov't Bureau of Waterworks
Hitachi Electronic Services	Naoetsu Electronics	Toray
Hitachi Engineering Service	National Salmon Resources Center	Toshiba
Hokkaido Electric Power	NEC	Toshiba Semiconductor
Hwa-in Industrial (Korea)	NGK Insulators	Toyo Thermal Engineering
Hyundai Steel (Korea)	Osaka Gas	Toyota
Idemitsu Engineering	Osaka Prefecture Bureau of Waterworks	Turkish Nat'l Energy Conservation Agency (Turkey)
Idemitsu Kosan	POSCO Steel (Korea)	US Marine Corp Air Station (Iwakuni)
Japan Green Resources	Republic of Bulgaria Water Purification Plant (Bulgaria)	VA TECH HYDRO
Japan Nuclear Fuel	Water Supply Company Bolivia (Bolivia)	YKK
Japan Precision	AAPOS (Bolivia)	
Japan Unisys	Samsung Construction (Korea)	
Jardine Technical Services (Hong Kong)	Samsung Electronics (Korea)	

Over 2,500 units sold world wide

東京計器(株) 원자력 발전소 초음파 유량계 납품실적 현황

No.	국가	회사명	장소	대	납품 날짜	계측대상	계측대상
1	Japan	일본 원자력 연구소	동해 사업소	1	1998년11월	RTG-40G	물
2	Japan	사국전력 주식회사	이방 원자력 발전소 (해수)	1	1999년11월	RTG-40G	해수
3	Japan	사국전력 주식회사	이방 원자력 발전소 (해수)	5	2000년03월	RTG-40G	해수
4	Japan	사국전력 주식회사	이방 원자력 발전소	1	2000년07월	RTG-40G	해수
5	Japan	사국전력 주식회사	이방 원자력 발전소	1	2001년04월	RTG-40G	해수
6	Japan	북북전력 주식회사	지하 원자력 발전소	2	2003년08월	MRG-10	해수
7	Japan	독립행정법인 일본 원자력 연구개발 기구	배수B 유량계	1	2009년12월	UF-900G	배수
8	Japan	독립행정법인 일본 원자력 연구개발 기구	배수탱크	1	2010년03월	GWS-3300	오수
9	Japan	일본 원자력발전 주식회사	돈하 발전소 2호기	4	2011년11월	MRG-10A	냉각수
10	Japan	일본 원자력발전 주식회사	돈하 발전소	3	2012년02월	MRG-10A	처리수
11	Japan	독립행정법인 일본 원자력 연구개발 기구	나가 핵융합 연구소	5	2012년12월	GWS-3300	처리수
12	Japan	동지 원자력 연구소	N6 건물 폐수탱크	1	2013년01월	GWS-3300	폐수
13	Japan	독립행정법인 일본 원자력 연구개발 기구	핵융합 연구개발부	1	2013년03월	GWS-3300	처리수
14	South Africa	ESKOM	Koeberg nuclear power station	2	2013년09월	UFL-30	

오벌엔지니어링 제품



고정도 . 범용형 용적식 유량계 [PD: Positive Displacement Flowmeters]

- 계량실은 체류부분이 거의 없는 구조이기 때문에 화학 액체를 비롯하여 광범위한 액체에 적용 가능.
- 고정도 : $\pm 0.5\%$ RD [옵션: 0.2% RD] . 저압력 손실 . 고 내구성
- 전지 구동 타입 가능. [전지 교환 가능]



고기능 . 고정도형 질량 유량계 [Mass : Coriolis Flowmeter]

- 극소형[1/4"]부터 대 구경[250mm]까지 제작 가능
- 고정도 : $\pm 0.1\%$ RD \pm 제로점 안전성 [오차= 액체 . 기체 : $\pm 0.5\%$ RD]
- 자기진단기능 향상 . 현장에서 설정변경 가능
- 밀도 계측 가능 [액체형 옵션]



고성능 . 표준형 Vortex 유량계 [Vortex : Vortex Flowmeter]

- 표준형 외에도 대구경 대응 삽입형[200~2000mm]이나 혼합 이물질 대응 프로세스용 Dia형 [액체만]도 있습니다.
- 온라인에서 센서 점검 가능
- 전지 구동 타입 가능 [전지 교환 가능]

오벌엔지니어링 제품



고정도 . 광점도 범위 대응 터빈 유량계 [Turbine : Turbin Flowmeter]

- 낮은 레이놀드수 영역을 포함해, 넓은 점도범위의 액체 대하여, 안정적인 고정도 계측이 가능한 유량계 입니다.
- 고정도 : 0.2% RD 대응 가능 . 구경: 15 ~ 400mm까지 제작 가능
- 온도 : Max. 350℃의 고온용 . Min. -196℃의 저온용



자동 밸브 개.폐 조작기 [AOV : Air Operated Valve Actuator]

- 중 . 대형 밸브를 인력에 의존하여 개 . 폐하여 인력 소모가 많은 공장의 자동화 옥외 또는 개 . 폐를 요하는 밸브까지의 거리가 멀어 개 . 폐의 어려움이 많은 공장에 사용
- 가스 또는 방폭 지역에 전기를 사용할 수 없을때 사용 가능 [Air Type]
- 제품이 가벼워 설치 시에 별도의 장비 없이 설치 가능
- 사용 중인 밸브의 경우 밸브를 떼어내지 않고 설치가 가능하고 신규 밸브 설치 시에는 장기적인 내구성이 더욱 좋습니다.



Siemens SITRANS F M MAG 3100 electromagnetic flow sensor

The SITRANS F M MAG 3100 is an electromagnetic flow sensor in a large variety that meets the demands of almost every flow application.



Siemens SITRANS F C mass flowmeters FC430 FC410 FCS200 MASS 2100

SITRANS F C Coriolis mass flowmeters are designed for measurement of a variety of liquids and gases. The meter offers accurate measurement of mass flow, volume flow, density, temperature and fraction



SITRANS F US clamp-on ultrasonic flowmeters FUE1010 FST020 FUG1010

clamp-on ultrasonic flowmeters. FUS1010(Standard);FST020(Basic);FUP1010 (Portable);FUE1010(Energy);FUH1010(Oil);FUG1010(Gas);FUT1010 (Liquid/Gas).



Continuous level measurement - Ultrasonic transmitters SITRANS Probe LU
SITRANS LU150

SITRANS Probe LU is a 2-wire loop powered ultrasonic transmitter for level, volume and flow monitoring of liquids in open channels, storage vessels, and simple process vessels.



Continuous level measurement - Radar transmitters SITRANS Probe
LR,LR200,LR250

Pulse radar level measurement. SITRANS Probe LR SITRANS LR200 SITRANS LR250 SITRANS LR260 SITRANS LR460 SITRANS LR560



Guided wave radar transmitters Siemens SITRANS LG series

The Siemens SITRANS LG series are guided wave radar transmitters for level, level/interface, and volume measurement of liquids and solids. The SITRANS LG product line can handle changes in process conditions, high temperatures and pressures, and steam.



SITRANS TH100 [1]

저렴하고 컴팩트한 PT100 온도 트랜스미터로 PC(SIPROM T)를 이용하여 설정할 수 있습니다.

SITRANS TH200 [2]

범용 온도 트랜스미터로 PC(SIPROM T)를 이용하여 설정할 수 있습니다.
비용 절감에 효과적인 정비 기능을 갖추고 있습니다.

SITRANS TH300 [2]

HART 범용 온도 트랜스미터로 SIMATIC PDM 또는 HART 프로토콜을 이용하여 설정할 수 있습니다.
비용 절감에 효과적인 정비 기능을 갖추고 있습니다.
분석 및 시뮬레이션 기능을 원격이나 로컬로 실행할 수 있습니다.

SITRANS TH400 [2]

PROFIBUS PA 또는 FOUNDATION Fieldbus를 지원하도록 설계된 필드버스 온도 트랜스미터입니다.
SIMATIC PDM(PA) 또는 AMS(FF)를 이용하여 설정할 수 있습니다.
광범위한 분석 및 시뮬레이션 기능을 갖추고 있으며, BUS cable을 통해 중요한 장치 및 공정 데이터를 전송할 수 있습니다.

GWR	RADAR	Ultra sonic	Float Type	Magne- tostrictive	Capaci- tance	Pressure
						
ALT6100	ALT6200 &ALT6210	ALT6300	ALT6400	ALT6500	ALT6600	APT3X00
Contact	Non- Contact	Non- Contact	Contact	Contact	Contact	Contact
RADAR	RADAR	Sonic	Float	Float	Capaci- tance	Head Pressure

Smart Type Pressure & Temperature Transmitter



Differential Press. Transmitter
Model : APT3100
Type : Smart Type
Accuracy : ± 0.075
Range : 0.075 ~ 41370 kPa



Press. Transmitter
Model : APT3200
Type : Smart Type
Accuracy : ± 0.075
Range : 0.5 ~ 60000 kPa



Temperature Transmitter
Model : APT2100
Type : Smart Type
Accuracy : $\pm 0.03\%$
Input : RTD, TC

1-7. 두온 시스템 제품

Smart Level Transmitter



Guided Wave Radar
Model : ALT6100
Output : Analog 4~20mA with Hart Digital Signal
Accuracy : +,- 3mm
Range : 0.15~20m
Process Temp : -40 ~ +165°C



Radar Level Transmitter
Model : ALT6200 (6.3Ghz) . ALT6210 (26Ghz)
Output : Analog 4~20mA with Hart Digital Signal
Accuracy : +,- 10mm
Range : 0.1 ~ 20m
Process Temp : -40 ~ 150 °C



Magnetostrictive Level Transmitter
Model : ALT6500
Output : Analog 4~20mA with Hart Digital Signal
Accuracy : +,- 0.25mm
Instrumental : Oil Level . Water Level . Temp
Range : 0 ~ 4000mm

태광후지킨 제품



UHP Valve Series



Manifold Valves



UHP Fitting Series



IGS / Gas Panel



UHP Regulator Series



Mass Flow (MFC)

태광후지킨 제품



Three - Pieces Ball V...



Three - Pieces Ball V...



Two - Pieces Flange B...



Two - Pieces Hex Ball...



2D 3D PDF

Cap (TC)



2D 3D PDF

Female 90° Elbow
(TFE)



2D 3D PDF

Female Branch Tee
(TFBT)



2D 3D PDF

Female Connector
(TFC)



2D 3D PDF

Female Run Tee
(TFRT)



2D 3D PDF

PFA Hose Fitting
(THU)



2D 3D PDF

Vacuum Clamp
(TKVCL)



2D 3D PDF

Water Regulator
(WRG)



2D 3D PDF

45 Elbow (HEB)



2D 3D PDF

90 Elbow (EB)



2D 3D PDF

Cap (CB)



2D 3D PDF

Cap Reducer -
Pipe Size (CRB)



2D 3D PDF

Cap Reducer -
Tube Size (CRB)

태광후지킨 제품 “ MFC Series [Mass Flow Control or Meter] ”



FCS **T** **1000** **M** **Z** **D** **C** - **4J2** - **F20L** - **AR** - **R1** - **CR** - **U** *******

FLOW CONTROL SYSTEM ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

① Sensor Type
 T : Mass Flow Controller
 TM : Mass Flow Meter

② Series
 Single Gas
 1005 - 10, 20, 30, 50, 100,
 200, 300, 500 SCCM
 1, 2, 3, 5 SLM
 1030 - 6, 10, 20, 30 SLM
 1050 - 31, 40, 50 SLM
 1200 - 100, 150, 200 SLM
 1500 - 250, 300, 400, 500 SLM
 Multi Gas
 1005 - 30, 100, 300 SCCM
 1, 3 SLM
 1030 - 10, 30 SLM
 1050 -> 50 SLM
 10**MF(C)-HT - High Temp.

③ Seal material
 None : Elastomer
 M : Metal

④ MGMR
 Blank : Single Gas
 Single Range
 Z : Multi Gases
 Multi Ranges

⑤ Communication Interface
 L : Analog
 F : Analog/Digital
 D : DeviceNet™ from the side
 DT : DeviceNet™ from the top

⑥ Valve operating mode
 C : Normally closed
 Blank : Normally open

⑦ End connection / Face To Face dimension
 4J2 : 1/4"UJR 124mm
 4F2 : 1/4"F900 127mm
 4CW1 : 1.125W 79.8mm
 4CW2 : 1.125W 92mm
 4CL2 : 1.125C seal, 92mm
 4WS1 : 1.5W 79.8mm
 4WS2 : 1.5W 92mm
 6J3 : 3/8"UJR 192.4mm
 6F3 : 3/8"F900 192.5mm
 8J3 : 1/2"UJR 199mm
 8F3 : 1/2"F900 204.6mm

⑧ Full scale
 F20: 20SCCM
 F20L : 20SLM

⑨ Gas type
 Example : AR, HE, SIH4
 (A capital letter indicates a gas name.)

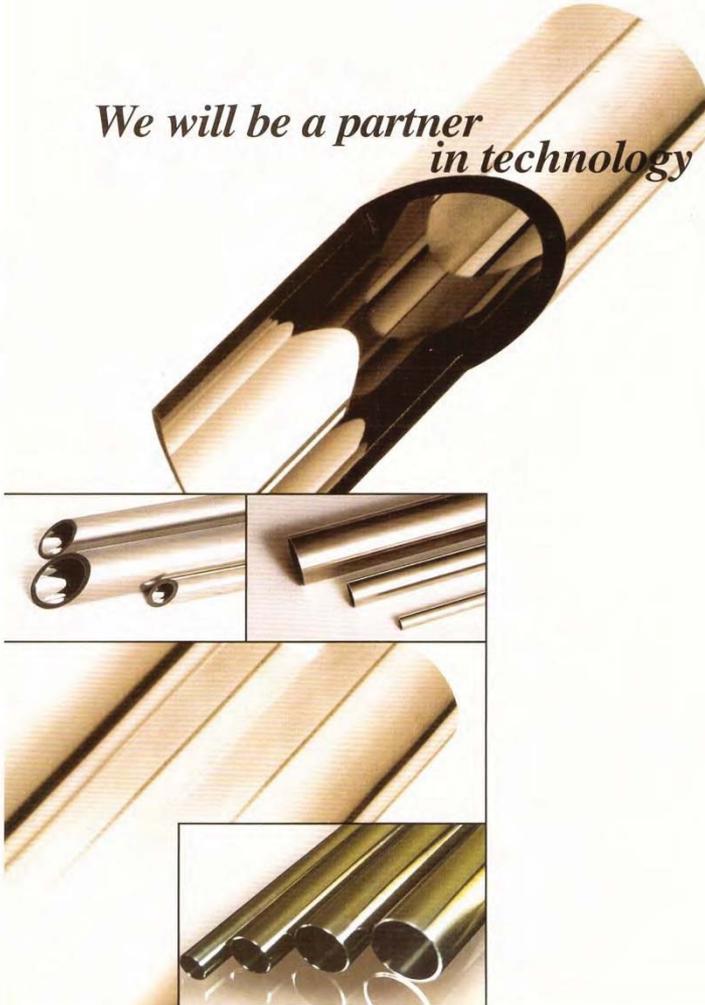
⑩ Bin Numbers
 R1 (Bin 1) 10SCCM ~ 30SCCM
 R2 (Bin 2) 31SCCM ~ 100SCCM
 R3 (Bin 3) 101SCCM ~ 300SCCM
 R4 (Bin 4) 301SCCM ~ 1000SCCM
 R5 (Bin 5) 1001SCCM ~ 3000SCCM
 R6 (Bin 6) 3001SCCM ~ 10000SCCM
 R7 (Bin 7) 10001SCCM ~ 30000SCCM
 R8 (Bin 8) 30001SCCM ~ 50000SCCM

⑪ O-Ring Material
 Blank : FKM
 CR : Chloroprene Rubber

⑫ D-sub 9pin connector screw
 Blank : M3
 U : inch

⑬ user specification
 Example : 006
 25°C 1atm
 Flow Rate Unit: CCM, L/M

*We will be a partner
in technology*



SEAMLESS TUBES

STAINLESS STEEL · NICKEL ALLOYS TITANIUM · TITANIUM ALLOYS

SMK has been recognised as a marketleader in the manufacture of high quality seamless tubes. With continous investment we have been able to make further technical improvements to our already modern and progressive cold pilger mills. In addition considerable commercial investment in inventory has resulted in our capability to manufacture tubes in titanium and high performance alloys. Wherever your location, our quotations can be tailored to meet your emergency breakdown or planned maintainance requirements.

SMK size range of seamless cold finished tubes

OD	1.60 ~ 50.80 mm	1/16" ~ 2"
WT	0.33 ~ 4.57 mm	0.013" ~ 0.180"

Straight Tube Max Lengths : 24 Meter.

Coil Tube Max Lengths : 500 Meter.





V100 SERIES

Unbalance Type Globe Control Valve
VALVE- UNBALANCED TYPE QUICK CHANGE TRIM

The V100 series single seated valve is developed for wide variety application on liquids, steam and gases.

The construction of this range of valves is of a simple form but it has a design which in itself allows specialised applications.

The V100 series valve provides reliable performance and cost effectiveness that will surely satisfy your control requirements.



V200 SERIES

Balance Type Globe Control Valve

The V200 series cage-guided valve is specially designed using the most recent refinements in control valve technology.

It is used to control a wide variety of relatively clean liquids and gases at high-pressure differentials.

The design of the V200 series valve have a quick change design so it guarantees convenient repair and easy replacement of trim.



V300 SERIES

Three Way Globe Control Valves

The V300 Series valve is a three-way design of valve for use on blending two separate flows, by having two inlets and a common outlet port, or dividing a flow into two proportional parts by having one common inlet and two outlet ports.

This range of valves has been designed in three forms designated V310, V320 and V330, the V310 and V330 conventional type is to provide an economic solution for all mixing and selected diverting services.

V320 balanced trim is specially designed for high duty diverting service applications.



V400 SERIES

Pressure Reducing Desuperheater Station

Employing patented fluid flow conditioning technology and a unique nozzle arrangement,

UNICON's new and improved desuperheater station products easily meet today's most challenging steam conditioning applications.



D400 SERIES

Nozzle Spray Desuperheater Station

The UNICON Pipeline Desuperheater Systems provide a convenient method of reducing superheated steam or other vapours to temperatures approaching saturation.

The super heated fluid passes through a section of pipe into which is fitted the D400 series nozzle protrudes into the flow path.

The nozzle introduces coolant flow in the same direction as the super heated fluid.



V510 SERIES

Pilot Type Tank Blanket Valve

The blanket gas regulator is one of the principal components typically installed on as storage tank to protectk the tank and its contents. It is a precision regulator that is capable of maintaining a very low gas pressure(min.0.005 BarG) in the tank by controlling the flow of a high pressure (Max. 13 BarG) blanketing gas.

It maintains a positive pressure in the tank when fluid is pumped out or as fluid temperature decreases.

Typically nitrogen or another compatible gas is used to suppress the tank product vapors.

This reduces losses due to product evaporation and prevents atmospheric contaminants, including moisture, from ring the tank,preventing tank corrosion and product cntamination.

V510 Valve is selfcontained, fully balanced, pilot-operated, and are used for accurate pressure control an tankblanketing systems.



V600 SERIES

Triple - Offset Butterfly Valves

The V600 series triple-offset butterfly valve high-performance in a rotary valve package.

Its patented seating concept and adjustable travel actuator reduces dynamic unbalanced forces and permits seven flow rate adjustments.



V800 SERIES

High Performance Ball Valves

The V800 Series metal seated Ball valve is flow conditioning technology and a unique ball arrangement, UNICON's new and improved design products easily meet today's most challenging special control process applications.

유니콘밸브 제품



A100/200 SERIES

Pneumatic Diaphragm Valve Actuators

The A100/200 Series multispring diaphragm actuator is of the non reversible type.

This has been designed with an improved mechanical structure which makes the product extremely competitive for price as well as suitable for application with critical operating conditions.



A300 SERIES

Pneumatic Cylinder Valve Actuators

The A300 Series pneumatic actuators are specifically-designed for the operation of control valves.

The product range includes both double acting and spring return units available in several sizes which can deliver a force up to 30,000N.

These actuators can assure an extremely smooth valve operation and ensure reliability and safety.

Maintenance, Repair & Operations

BEFORE



DISASSEMBLY



CLEENING



REPAIR



AFTER



“ ON – OFF VALVE ”

Electric Valve



ITQ-3P-NW



ITQ-3P-FR



ITQ-3L



ITQ-3L-NW

Pneumatic Valve



TA-HP



TA-115



TA-V355B



TA-SB

※ Pneumatic PVC Butterfly Valve & PVC Ball Valve

일신산업전기 “ 방폭등기구 . 방폭박스 . 정션박스 . 소방제품 . 배관자재 ”



FGHL-0830



FGHL-10



FGHL-C10



FGHL-F11



FBC-1000 & FBC-1000N



FTSC



FRP



Unit Series



FJB



TB



UBC



EPEXJB



FXBS



FXAL



FES



FXSP



Elbow and Tee



RJB



SRJB



FUX



FUXI



GVF & GHF



FFCX



CGSS, ACG



Signal Conditioner and Digital Controller



신호변환기 (DIN Rail Type)



디지털지시계 (AG500)



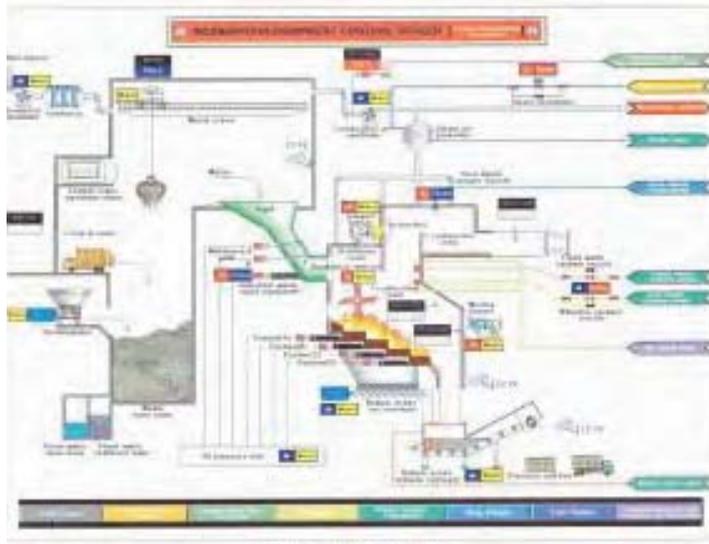
디지털조절계 (FB900)

HMI 소프트웨어



소각로 감시제어 시스템 화면

소각로의 전체 감시화면을 메인화면으로 실시간 가동 상황을 볼 수 있으며 각 보조화면으로 들어가서 각 시설에 대하여 세부적인 운전상황을 파악할 수 있습니다. 아래의 화면은 소각 설비를 제어하기위한 모델화면입니다.



[소각로 감시 제어 화면]

> CLICK

“CLICK”은 Windows2000과 Windows XP 기반에서 운영되며, 자동화 기계 및 공정을 감시하고 제어하는 통합된 HMI/SCADA 소프트웨어 솔루션입니다.

1. 데미터의 원활한 생성과 효율적 관리를 위한기능
2. 수집된 알람 데이터를 표시, 설정하는 기능
3. 태그 편집의 편리성 제공
4. 쉽고 강력한 보고서 지원기능
5. 사용자의 다양한 요구 조건에 효율적으로 관리케하는 기능
6. 디자인 작업의 효율성 제공
7. 사용 Database에 대한 Data처리기능 지원
8. Hardware연결의 편리성 제공
9. Network상의 “Click”연결 기능 제공

> Click-Recorder

온도·유량·압력·레벨 등 각종 Process의 입력 신호를 최대 256 channel을 수집하며, 각 Channel에 대하여 각종 Alarm 정보를 지원하는 Paperless Recorder package software 입니다.

1. 고속 데이터 수집기능 및 데이터표시
2. 모든 채널 순시치 감시
3. 8 Channel / 6 Group의 통합감시 기능지원
4. Bar graph를 통한 실시간 데이터 감시
5. Graph모드와 Text모드의 전환기능
6. 최대 4종류의 Alarm 가능
7. 입력에 대한 Scale 보정기능 지원



THANK YOU !!

WISEWOOJIN

http : www.wisewoojin.co.kr

E-mail : wisewoojin@hanmail.net

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