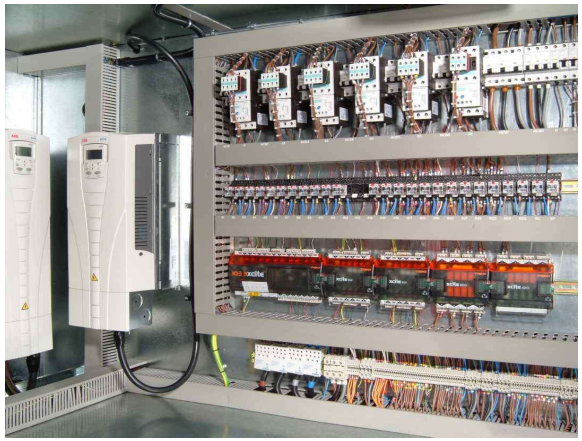

TIGA MIKA ENGINEERING
General Supplier & Engineering
JL.PENDIDIKAN No.120
KEL.TEGAL REJO ,KEC.MEDAN PERJUANGAN
MEDAN-20237 INDONESIA
project_green@tigamikaengineering.com
info_green@tigamikaengineering.com
081320105359

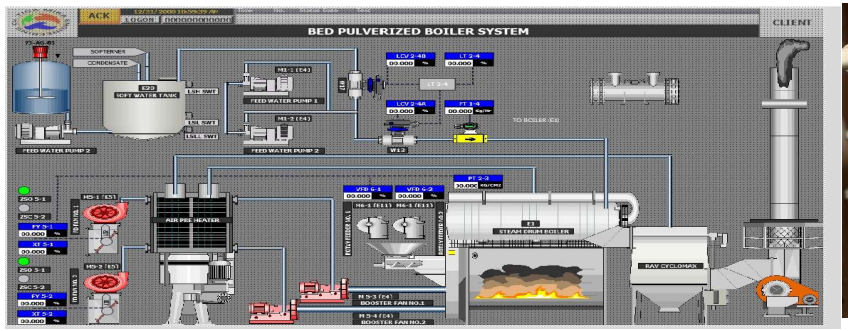
➢ INSTRUMENTATION & ELECTRICAL PANELS



➢ MECHANICAL

- PUMPS & INLINE MIXER
- VALVES & SAFETY
- GAUGES & TRANSMITTER
- FEED MILL
- FISH MACHINES

➢ SCADA & PLC



SELECTION FLOWMETERS GUIDELINES






STEAM → Vortex | Variable Area | Swirl | Diff Pressure | Turbine | Multi Variable

GAS → Vortex | Swirl | Variable Area | Diff Pressure | Turbine | Multi Variable | Thermal Mass Flow

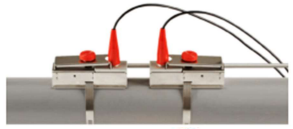
LIQUID

- **Conductive**
  - **Yes**
    - **Clean** → Vortex | Swirl | Variable Area | Diff Pressure | Coriolis
    - **Slurry** → Open Channel | Turbine | Ultrasonic | Electromagnetic | Diff Pressure | Coriolis | Ultrasonic | Electromagnetic | Clamp on
  - **No**
    - **Clean** → Vortex | Water Meter | Ultrasonic
    - **Slurry** → Clamp on | Open Channel | Diff Pressure | Coriolis | Ultrasonic | Clamp on

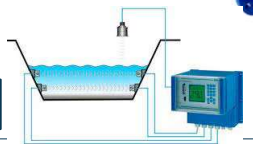




Clamp on



Water Meter



Open Channel

QUALITY CERTIFICATES

Kaifeng AFT Instrument Co.,Ltd
No.614 Dongjingxincheng, Kaifeng, Henan
Email : amy@aft-flowmeter.com
Tel: (86)0371-23215688

AUTHORIZATION LETTER

We Herewith Authorize

CV. Tiga Mika Engineering

Address: Jl. Pendidikan no.120, Kel. Tegal Rejo, Kec.Medan Perjuangan, North Sumatra 20237 INDONESIA
project_ green@tigamikaengineering. com

As our agent to promote, Negotiate, tender, sell, exhibit and responsible for all the aft sale service on behalf of our **Kaifeng AFT Instrument Co. Ltd** in the whole territory of **Indonesia.**

for sale of our Product AFT Instrumentation.

Authorization time limit: Aug 7th, 2023 to Aug 7th, 2024.

This certification will become null and void unless it is agreed between both parties to mark an extension.

Yours Faithfully,

Amy Xie

开封河富特仪器仪表有限公司 KAIFENG AFT INSTRUMENT CO.,LTD

Director

Date: Aug 7th, 2023

SIL

Functional Safety Certificate

No. 3N211202.KAICS36

Certificate's Holder: Kaifeng Aft Instrument Co., Ltd.
No.205 Shanghe Road, Xiangfu District, Kaifeng City, Henan, China

Product: Flowmeter
Model(s): AFTLD, AFTLD/C, AFTLD/R, AFTLUGB, AFTLWGY, AFTLWQ, AFTLGB, AFTLGV, AFTLGW, AFTLGV, AFT-2000, AFT-2000P, AFT-2000W, AFT-2000H, AFTLZ, AFT-MF, CMF, HGF-3000

Standard: Has been assessed per the relevant requirements of:
IEC 61508:2010 Parts 1-7
And meets requirements providing a level of integrity to:
Systematic Capability: SC 3 (SIL 3 Capable)
Random Capability: Type B Element
SIL 2 @ HFT= 0; SIL 3@ HFT=1; Route 2H
PFD_{AVG} and Architecture Constraints must be verified each application
* Safety Function:
The flow meter is defined as an instrument that indicates the measured flow rate and/or the total amount of fluid in the selected time interval. Simply put, it is an instrument used to measure fluid flow in pipes or open channels.
* Is suitable to be safety function according to the description and the configuration defined in Annex I.

Verification Mark: SIL Compliance Approved

The Verification Mark can be affixed on the product. It is NOT permitted to alter the Verification Mark in any way

Remark: This SIL Verification of Compliance has been issued on a voluntary basis. ECM confirms that a Test Report is existent for the above listed product(s) and found to meet the requirements of above standards for application in safety related system up to Safety Level of **SIL 3.**
The unit must be properly designed into a Safety Instrument Function as per the requirements in the Safety Manual. The Verification Mark shown above can be affixed on the product. It is NOT permitted to alter the Verification Mark in any way. In addition the Verification's Holder is NOT allowed to transfer the Verification to third parties. This certificate can be checked for validity at www.entecerma.it

Date of issue 02 December 2021
Service Manager
Luca Bellomi

Expiry date 01 December 2026
Deputy Manager
Amanda Payne

Ente Certificazione Macchine
Via Cà Bella, 243 - 40053 Valsamoggia Loc. Castello di Serravalle (Bo) Italy
☎ +39.0516705141 🖷 +39.0516705156 ✉ info@entecerma.it 🌐 www.entecerma.it

CCRITC

CONFORMITY CERTIFICATE OF EXPLOSION-PROOF

Certificate No.: CCRI 19.2415X

ompany: KAIFENG HUABANG INSTRUMENT CO.,LTD
ddress: NORTH SHANGHE ROAD, XIANGFU DISTRICT, KAIFENG CI
ame of Product: Vortex Flow Meter
ype of Product: HBLUGB Series
larking: Ex ia ⅡC T6 Ga
echnical Documents: Q/KFHB-2018
rawing No.: HBLUGB-00-00
ote(s):
1. It shall be equipped with an associated apparatus that matches its own safety parame
Ui:14VDC,Ii:200mA,Ci:0μF,Li:0mH; Ui:28VDC,Ii:93mA,Ci:0μF,Li:0mH;
Communication terminal: Ui:10VDC,Ii:100mA,Ci:0μF,Li: 0mH;
2.Ambient temperature range:-40℃≤Ta≤+55℃, IP code:IP67;
3.Please refer to the product specification for the series name in the model specification. The difference does not affect the explosion-proof performance;
4.The suffix "X" indicates that the product should avoid an ignition hazard due to impa or friction.

y verifying the drawings and technical documents and checking samples,the roduct complies with the following standards currently valid in P.R.China:

GB 3836.1-2010，GB 3836.4-2010，GB/T 4208-2017

ate of Issue: 2.27.2020
alid till: 2.26.2025
uthorize: 李长坤

China Coal Research Institute Testing Center

he test center of the national safety production of mining equipment and mining oil in Beiji

Note: This certificate is only valid for the products that are in accord with samples tested and verified.
Center Add: No.5 Qingniangou Road,Hepingli,Beijing,100013 Tel/fax: 010-89268018
The query url of Explosion-proof Certificate: http://www.ccrite.com.cn/Home

QUALITY CERTIFICATES

Certificate of Registration

This is to certify that the
Quality Management System
of

KAIFENG HUABANG INSTRUMENT CO.,LTD.
Unified social credit code: 9141021269219938XQ
Registered Address
Shanghe Avenue(N), Xiangfu District, Kaifeng
Office & Production Address
Shanghe Avenue(N), Xiangfu District, Kaifeng
Henan, China

Has been independently assessed and is
compliant with the requirements of:

ISO 9001:2015

For the following scope of activities:

R & D, Production and Sales of Flowmeter

Certificate Number: 19ACM5924Q

Date of initial registration	11/03/2019
Date of this certificate	11/03/2019
Certificate expiry (subject to the company maintaining its system to the required standard)	10/03/2022

Authorised Signatory

During validity period of the certificate a surveillance audit should be carried out once within each 12 months. The label should be pasted on specified position of right side of the certificate then it is valid. The certificate can be checked out at CNCA website (www.cnca.gov.cn).

ACM LIMITED, Unit 5 Merus Court, Meridian Business Park, Leicester, LE19 1RJ, UK (UKAS 245)
Local Office-ACM (CHINA) LIMITED, Rm 8201, No 352, Waihuan Road, Minhang District, Shanghai 201199, China
T: +86 21 64305860 F: +86 21 64881096 W: www.acmcert.com.cn E: info@acmcert.com.cn

TRUSTED FOR OUR STANDARDS

Certificate of Registration

This is to certify that the
Environmental Management System
of

KAIFENG HUABANG INSTRUMENT CO., LTD.
Unified social credit code: 9141021269219938XQ
Registered Address
Shanghe Avenue(N), Xiangfu District, Kaifeng
Office & Production Address
Shanghe Avenue(N), Xiangfu District, Kaifeng
Henan, China

Has been independently assessed and is
compliant with the requirements of:

ISO 14001:2015

For the following scope of activities:

R & D, Production and Sales of Flowmeter

Certificate Number: 20ACM9949R

Date of initial registration	11/03/2019
Certificate expiry	10/03/2022
(subject to the company maintaining its system to the required standard)	

AUTHORISED SIGNATORY
Date of this certificate 30/06/2020, V1

During validity period of the certificate a surveillance audit should becarried out once within each 12 months. The label should be pasted on specified position of right side of the certificate then it is valid. The certificate can be checked out at China CNCA website(www.cnca.gov.cn) and ACM UK website(www.acmcert.com).

ACM-CCAS Limited, Unit 5 Merus Court, Meridian Business Park, Leicester, LE19 1RJ, UK
Local Office-ACM (CHINA) LIMITED, Rm 8201, No 352, Waihuan Road, Minhang District, Shanghai 201199, China
T: +86 21 64305860 F: +86 21 64881096 W: www.acmcert.com.cn E: info@acmcert.com.cn

Certificate – Сертификат – 證明書 – Certificat – 증명서 – شهادة

Certificate of Compliance

No. 0P170404.KAI0O86
Test Report no. LMT0201701166L/LVD, LMT0201701167L/EMC

Certificate's Holder:	Kaifeng AFT Instrument Co., Ltd. No.614 Dongjing Xincheng Kaifeng
Certification ECM Mark:	Type Approved
Product:	Flow Meter
Model(s):	AFTLD, AFTLD/C, AFTLD/R, AFTLUGB, AFTLWGY, AFTLWQ, AFTLGB, AFTLGV, AFTLGW, AFTLGV, AFT-2000, AFT-2000P, AFT-2000W, AFT-2000H, AFTLZ, AFT-MF, CMF, HGF-3000
Verification to:	Standard: BS EN 29104-1991, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 61000-6-1:2007, EN 61000-6-3:2007+AC:2012 related to CE Directive(s): 2014/35/EU (Low Voltage) 2014/30/EU (Electromagnetic Compatibility)

Remark: The product(s) has been verified on a voluntary basis. The product(s) satisfies the requirements of the Certification Mark of ECM, in reference to the above listed Standard(s). The above Compliance Mark can be affixed on the product(s) accordingly to the ECM regulation about its release and its use. The regulation can be found at www.entecerma.it. This Certificate of Compliance can be checked for validity at www.entecerma.it
This verification doesn't imply assessment of the production of the product(s).

Additional information, clarification about the CE Marking:
We attest that a TCF for the CE Marking process is in place. Whereas the Manufacturer is Responsible to start the CE Marking Certification Procedure and to perform all the necessary activities, as required by the Directive before placing the CE Mark on the product(s).

Date of issue 04 April 2017
Chief Manager
Marco Morini

Expiry date 03 April 2022
Deputy Manager
Amanda Payne

Ente Certificazione Macchine Srl
Via Ca' Bella, 243 – Loc. Castello di Serravalle – 40053 Valsamoggia (BO) - ITALY
☎ +39 051 6705141 🖷 +39 051 6705156 ✉ info@entecerma.it 🌐 www.entecerma.it

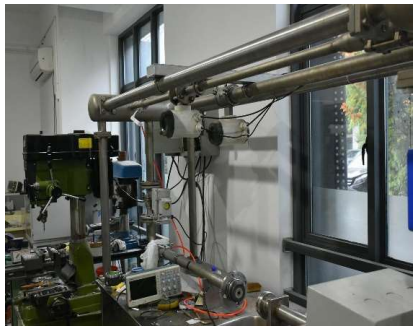
Flow Meter

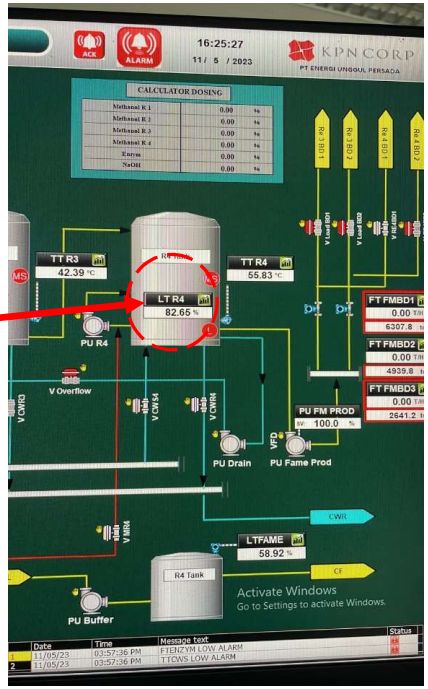
Tank Level

Flow Meter Magnetic Type

Tank Level Radar Type

Workshop Pengujian / Calibrasi





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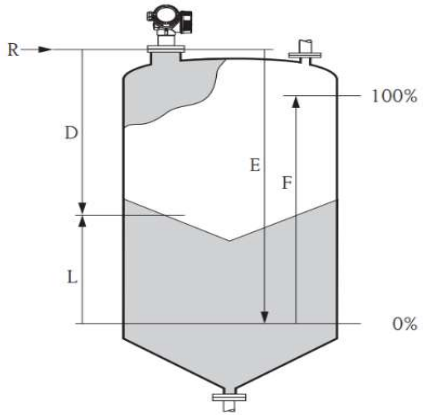
INSTRUMENTATION

Guide Wave Level Radar



LEVEL, TEMPERATURE TRANSMITTER & GAUGES

WATER ANALYSIS & SENSOR ,pH & Turbidity, Residual Chlorine

Slide 7

PBB0 nice

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INSTRUMENTATION

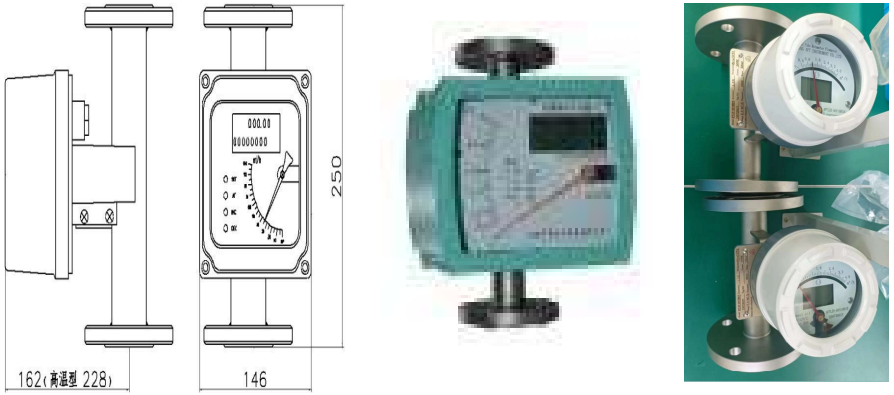
Flow Meter

Magnetic Flow for Chemical Liquid

High Accuracy Mass Flow For Fatty Acid & Others

Vortex Flow Meter For Steam

Local & Transmitter Rotameter Type



VORTEX FLOW METER

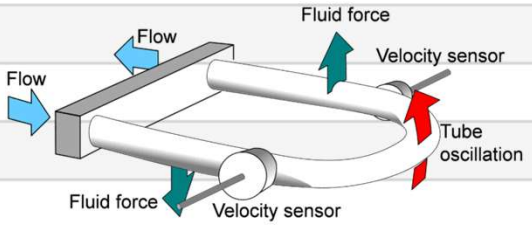
Technical Specification

#	Item Name	Parameter Values
1	Nominal diameter (mm)	DN15-DN300(Pipeline type) , DN200-DN3000 (insertion type)
2	Nominal pressure (MPa)	DN25-DN200 4.0 (> 4.0Agreement Supply) , DN250-DN300 1.6 (> 1.6Agreement Supply)
3	Medium temperature (°C)	Piezoelectric: -40~260, -40~320; Capacitive: -40~300, -40~400, -40~450 (order agreement)
4	Body material	304SS,316L(customize)
5	Allow vibration acceleration	Piezoelectric: 0.2g Capacitive: 1.0~2.0g
6	Accuracy	±1%R, ±1.5%R, ±1FS; plug-in type: ±2.5%R, ±2.5%FS
7	Extent	1:6~1:30
8	Supply voltage	24V DC,3.6V Battery-powered type
9	Output signal	Square wave pulse (excluding battery-powered type): high level ≥5V, low level ≤1V; current: 4~20mA
10	Pressure loss coefficient	Comply with JB/T9249 standard Cd≤2.4
11	Explosion-proof mark	Intrinsically safe type: Exd II ia CT2-T5 Flameproof type: Exd II CT2-T5
12	Protection class	IP65
13	Environmental conditions	Temperature -20°C~55°C, relative humidity 5%~90%, atmospheric pressure 86~ 106kPa
14	Transmission distance	Three-wire pulse output type: ≤300m, two-wire standard current output type (4~20mA): load resistance ≤750Ω

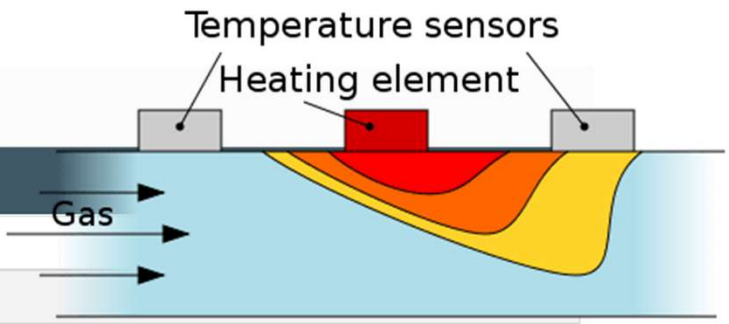
CORIOLIS FLOW METER

Main Specification

#	Item Name	Parameter Values
1	Display	128x64 LCD display, Window size: 54x40mm (WxH) Φ80mm
2	Accuracy	0.02%
3	Mass Flow Rate	g/h、kg/h、t/h、g/m、kg/m、t/m
4	Total flow	g, kg, t
5	Volume Flow Rate	cm3/h、dm3/h、m3/h、cm3/m、dm3/m、m3/m
6	Total Volume	cm3/m、dm3/m
7	Density	kg/m3、g/cm3
8	Temperature	℃、K、℉
9	Ambient Temperature	-20 ~ +60℃
10	Power Supply	18~36VDC power≥7W 85~265VAC power: 10W
11	Dimension	Φ125×180mm
12	Output Signal	0~10000Hz / 4~20mA
13	Communication Signal	RS485, MODBUS protocol / Hart
14	Ex-proof	Ex d [ia]IICT6Gb
15	Protection	IP67



THERMAL MASS FLOW METER



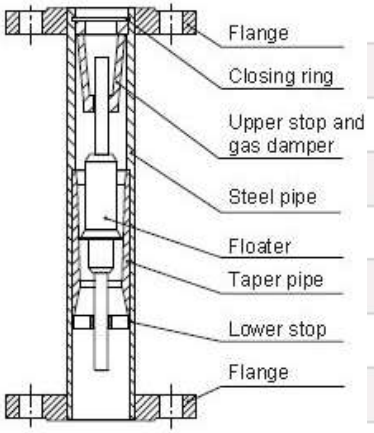
Technical Specification

#	Item Name	Parameter Values
1	Measuring Medium	Various gases (Except the acetylene)
2	Pipe Size	DN10 ~ DN4000mm
3	Velocity	0.1 ~ 100 Nm/s
4	Accuracy	±1 ~ 2.5%
5	Working Temperature	Sensor: -40°C ~ +220°C / Transmitter: -20°C ~ +45°C
6	Working Pressure	Insertion Sensor: medium pressure≤ 1.6MPa Flanged Sensor: medium pressure≤ 1.6MPa
7	Power Supply	Compact type: 24VDC or 220VAC, Power consumption ≤18W Remote type: 220VAC, Power consumption ≤19W
8	Response Time	1s
9	Output	4-20mA (optoelectronic isolation, maximum load 500Ω), Pulse, RS485 (optoelectronic isolation) and HART
10	Alarm Output	1-2 line Relay, Normally Open state, 10A/220V/AC or 5A/30V/DC
11	Sensor Type	Standard Insertion, Hot-tapped Insertion and Flanged
12	Construction	Compact and Remote
13	Pipe Material	Carbon steel, stainless steel, plastic, etc
14	Carbon steel, stainless steel, plastic, etc	4 lines LCD Mass flow, Volume flow in standard condition, Flow totalizer, Date and Time, Working time, and Velocity, etc.
15	Protection Class	IP65
16	Sensor Housing Material	Stainless steel (316)

METAL TUBE FLOW METER

Technical Specification

#	Item Name	Parameter Values
1	Accuracy	Normal type: ±2.5%, high accuracy type: ±1.5%
2	Measuring Medium	Liquid, gases or steam
3	Environment Temperature	-25°C~+100°C
4	Medium Temperature	Standard Type: -20°C~+200°C / aHigh Temperature Type: 300°C / Liner FEP Type: ≤90°C
5	Medium Viscosity	DN15: ≤ 5mPa.s, ≤ 30mPa.s / DN25:≤ 250mPa.s / DN50-150: ≤ 300mPa.s
6	Flow Range Ratio	10:1
7	Power Supply	24VDC, 3.6V lithium battery power
8	Power voltage influence	≤±0.1% F.S
9	Load Influence	≤±0.1%
10	Max Working Pressure	DN15~DN50 is 4.0MPa, DN80~DN150 is 1.6MPa.
11	Pipe Connection	Flange, Thread, Quick coupling
12	Shell	Aluminum Alloy
13	Protection Class	IP65, IP67
14	Electrical Connection	M20×1.5 internal thread, M16×1.5 internal thread, 1/2"NPT
15	Remote transfer converter	4-20mA, HART protocol communication.
16	Measure Pipe Material	Normal type is 1Cr18Ni9Ti,Anti-corrosive is PTFE
17	Explosion Proof	Mark: Exia II CT1~T6



ULTRASONIC FLOW METER

Technical Specification

#	Item Name	Parameter Values
1	Accuracy	Better than ±1%
2	Repeatability	Better than 0.2%
3	Measurement Period	500ms
4	Liquid Turbidity	Less than 10000ppm, with a little bubble
5	Flow Direction	Bi-directional measuring, net flow/heat measuring
6	Temperature Range	Standard: -30°C - 90°C , High-temperature: -30°C - 160°C
7	Power Supply	DC24V
8	Measuring Diameter	from DN15mm to DN6000mm
9	Signal output	4-20mA output,impedance 0-1K,accuracy 0.1%, OTC pulse output, pulse width is 6-1000ms, default is 200ms
10	Signal input	3 channels 4-20mA input, accuracy 0.1%, can collect temperature, pressure, liquid level and other signals, Can connect the two three-wire PT100 platinum resistances, to achieve thermal measurement
11	Sensor Material :	Carbon Steel; Stainless Steel; SS304; 316L
12	Sensor Protection Grade	IP68
13	Connection Type	Flange connection; Thread connection

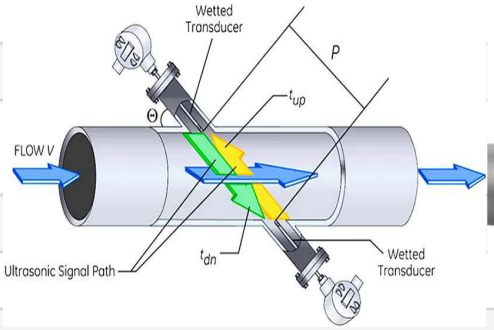


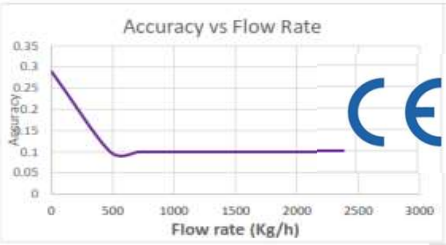
CHART PERFORMANCE

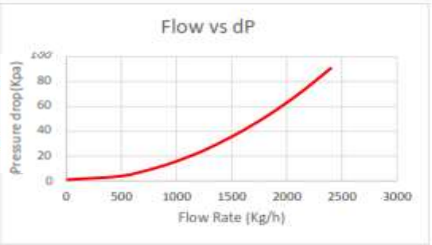
Coriolis Mass Flowmeter Calculating Sheet

DN15			Date:	2023.02.28	
1	Designer				
2	Project name				
3	Application		Tag No.	EE-FT-705	
4	Medium name	Methanol (MeOH)		Liquid	
5	Pipe size	DN25			
6	Pipe material				
7	Process piping class				
8	Operation conditions	Min.	Nor.	Max	Unit
9	Flow rate	0.1	480	2400	Kg/h
10	Pressure		2.5	3	Bar
11	Temperature		30	35	℃
12	Density		785		kg/m^3
13	Viscosity		0.5		mPas
14	Allowed pressure loss			300	Kpa
15	Model	MTCMF-015	Accuracy	0.1%	
16	Measuring tube material	SS316L			
17	Process Piping	DN25 ANSI 150# RF Flange			
18	Electrical interface	M20*1.5			
19	Explosion	Ex d ia IIC T6 Gb	Protection	IP67	
20	Output	4~20mA, Pulse,HART			
21	Power supply	Intergral Type 24VDC Remote type with 2m cables			

22	Flow Rate (Kg/h)	Measuring accuracy (%)	Velocity (m/s)	Pressure loss (kpa)	Re
23	2400	0.1	4.72	90.87	111111
24	2160	0.1	4.25	73.6	100000
25	1920	0.1	3.77	58.15	88889
26	1680	0.1	3.3	44.52	77778
27	1440	0.1	2.83	32.71	66667
28	1200	0.1	2.36	22.72	55556
29	960	0.1	1.89	14.54	44444
30	720	0.1	1.42	8.18	33333
31	480	0.1	0.94	3.63	22222
32	0.3	0.29	0.47	0.91	11111

* The pressure loss and velocity value is calculated based on the 2400 Kg/hr,785kg/m³ 0.5mPas



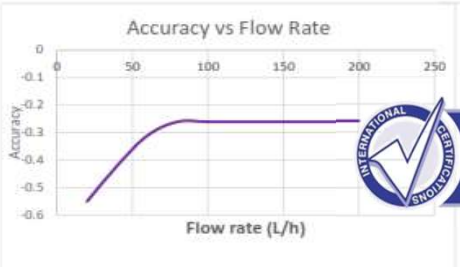


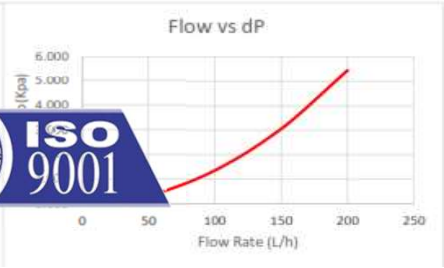
Magnetic Flowmeter Calculating Sheet

DN15			Date:	2023.03.02	
1	Designer				
2	Project name				
3	Application		Tag No.	EE-FT-703	
4	Medium name	16% NaOH		Liquid	
5	Pipe size	DN15			
6	Pipe material				
7	Process piping class				
8	Operation conditions	Min.	Nor.	Max	Unit
9	Flow rate	20	100	200	L/H
10	Pressure		2	3	Bar
11	Temperature		25	30	℃
12	Density			1175.1	kg/m^3
13	Viscosity			80	mPas
14	Allowed pressure loss			300	Kpa
15	Model		Accuracy	1.0%	
16	Measuring tube material	SS316L			
17	Process connection	DN15 ANSI 150# RF Flange			
18	Electrical interface	M20*1.5			
19	Explosion	Ex d ia IIC T6 Gb	Protection	IP67	
20	Output	4~20mA, Pulse,HART			
21	Power supply	Integral Type 24VDC Remote type with 2m cables			

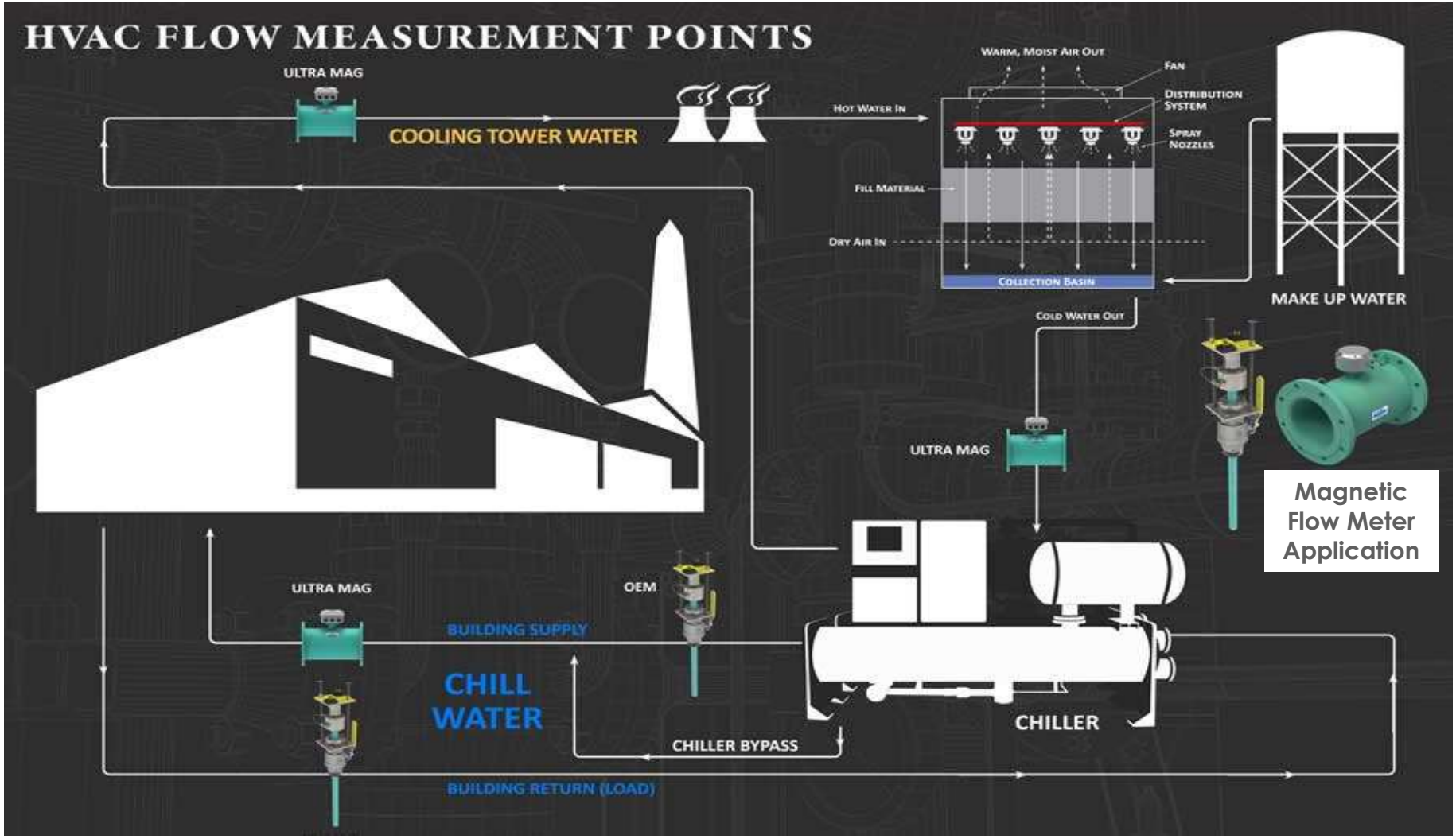
22	Flow Rate (L/h)	Measuring accuracy (%)	Velocity (m/s)	Pressure loss (kpa)	Re
23	200	-0.26	2.0	5.450	173.26
25	160	-0.26	1.6	3.488	138.61
26	140	-0.26	1.4	2.670	121.28
27	120	-0.26	1.2	1.962	103.95
28	100	-0.26	1.0	1.362	86.63
29	80	-0.26	0.8	0.872	69.30
30	60	-0.31	0.6	0.490	51.98
31	40	-0.42	0.4	0.218	34.65
32	20	-0.55	0.2	0.054	17.33

* The pressure loss and velocity value is calculated based on the 200 L/hr) 1175.1kg/m³ , 80mPas

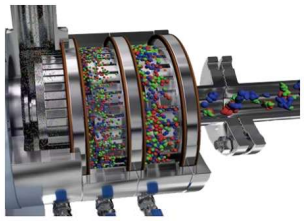




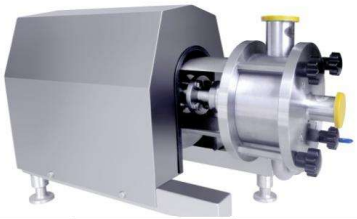
SITE INSTALLATION

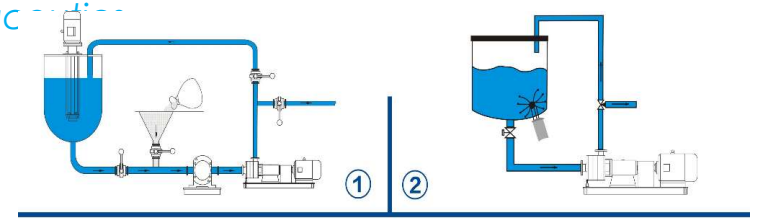


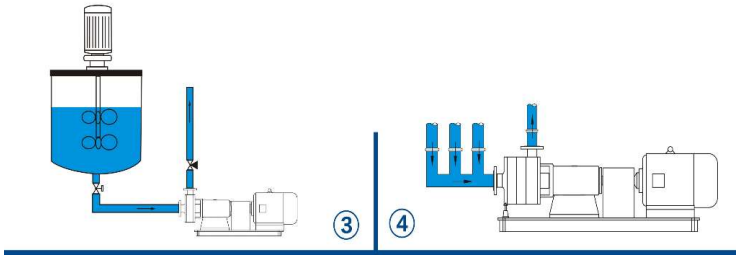
HIGH SHEAR EMULSIFYING AND HOMOGENIZING MIXER



High Shear Emulsifying and Homogenizing for Mixing , Dispersion, Breaking , Dissolution ,Refinery , Biodiesel Methanol & Sodium Methylate Mixing ,Chemicals Plant , Pharmac[illegible] and Food Processing and Pumping



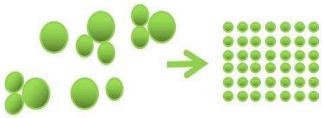




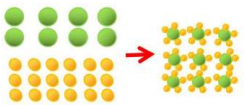
Model	Electrical Power (Kw)	Rotation Speed (r/min)	Capacity (m3/h)	Pressure (Mpa)	Diameter of inlet/outlet
FHM1/100	2.2	2900	0-3	0-0.05	DN40/40
FHM1/120	4	2900	0-4	0-0.1	DN40/40
FHM1/140	5.5	2900	0-5	0-0.1	DN50/40
FHM1/165	7.5	2900	0-8	0-0.15	DN50/40
FHM1/185	15	2900	0-15	0-0.15	DN65/50
FHM1/200	22	2900	0-20	0-0.15	DN80/65
FHM1/220	30	2900	0-30	0-0.15	DN80/65
FHM1/240	37	2900	0-50	0-0.2	DN100/80

Model	Electrical Power (Kw)	Rotation Speed (r/min)	Flow rate (m3/h)	Discharge pressure (Mpa)	Diameter of inlet/outlet
FHM3/100	5.5	2900	0-3	0.1	DN40/40
FHM3/120	7.5	2900	0-4	0.15	DN40/40
FHM3/140	11	2900	0-5	0.2	DN50/40
FHM3/165	18.5	2900	0-10	0.3	DN50/40
FHM3/185	30	2900	0-20	0.4	DN65/50
FHM3/200	45	2900	0-30	0.5	DN80/65
FHM3/220	55	2900	0-40	0.5	DN80/65
FHM3/240	90	2900	0-60	0.6	DN100/80

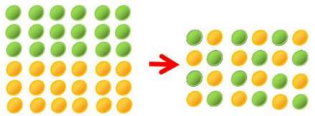
Homogenizing



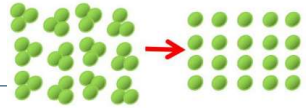
Emulsifying



Mixing dissolution



Dispersing



VALVES & STEAM APPLICATION

Introduction

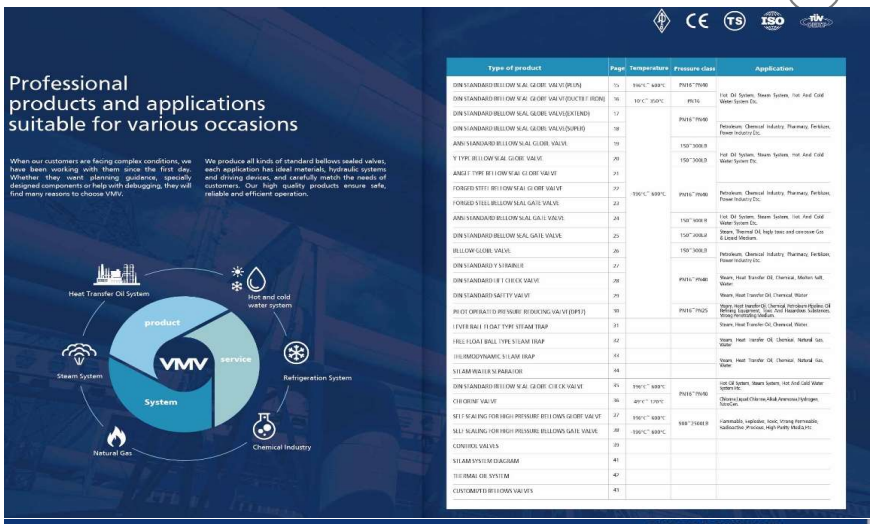
CV.Tiga Mika Engineering
Jl.Pendidikan no.120
Kel.Tegal Rejo , Kec.Medan Perjuangan
MEDAN -NORTH SUMATRA
INDONESIA - 20237

Technical Objectives:
Design valves and systems for safe and energy-saving operation

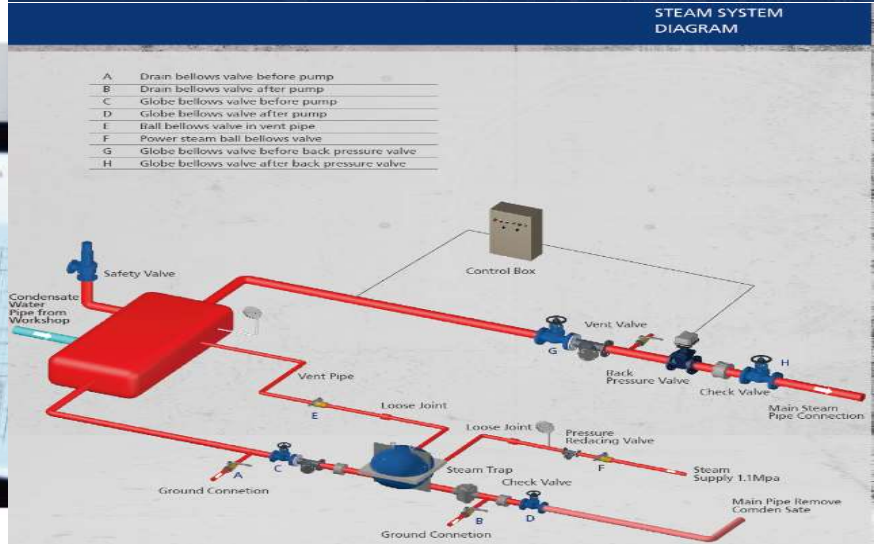
From suppliers to partners: All-round Professional Knowledge Creates Additional Value

When users describe their needs, we listen carefully. We know almost every dangerous transportation safety scheme with extreme temperature and pressure requirements, and provide the right valves and services for each application. Sometimes this means a standard product, sometimes a complete customized solution. It consists of working condition consultation, valves, proven automation and drive technology and a set of services designed to meet each need, which makes VMV one of the best choices for your partners.

VMV is designed with conical seal and bellows and packing. Research and development of new experimental materials to provide outstanding wear resistance and corrosion resistance. Advanced hydraulic simulation software helps us optimize the flow process of valves, and our customers benefit from safety cycles, improved energy efficiency and reduced operating costs.



Type of product	Page	Temperature	Pressure class	Application
DIN STANDARD BELLOW SEAL GLOBE VALVE(PLUN)	15	196℃~ 600℃	PN16~PN40	
DIN STANDARD BELLOW SEAL GLOBE VALVE(DUCTILE IRON)	16	10℃~ 350℃	PN16	Hot Oil System, Steam System, Hot And Cold Water System Etc.
DIN STANDARD BELLOW SEAL GLOBE VALVE(EXTEND)	17		PN16~PN40	
DIN STANDARD BELLOW SEAL GLOBE VALVE(SUPER)	18			Petroleum, Chemical Industry, Pharmacy, Fertilizer, Power Industry Etc.
ANSI STANDARD BELLOW SEAL GLOBE VALVE	19		150~300LB	
Y TYPE BELLOW SEAL GLOBE VALVE	20		150~300LB	Hot Oil System, Steam System, Hot And Cold Water System Etc.
ANGLE TYPE BELLOW SEAL GLOBE VALVE	21			
FORGED STEEL BELLOW SEAL GLOBE VALVE	22	-196℃~ 600℃	PN16~PN40	Petroleum, Chemical Industry, Pharmacy, Fertilizer, Power Industry Etc.
FORGED STEEL BELLOW SEAL GATE VALVE	23			
ANSI STANDARD BELLOW SEAL GATE VALVE	24		150~300LB	Hot Oil System, Steam System, Hot And Cold Water System Etc.
DIN STANDARD BELLOW SEAL GATE VALVE	25		150~300LB	Steam, Thermal Oil, high toxic and corrosive Gas & Liquid Medium.
BELLOW GLOBE VALVE	26		150~300LB	
DIN STANDARD Y STRAINER	27			Petroleum, Chemical Industry, Pharmacy, Fertilizer, Power Industry Etc.
DIN STANDARD LIFT CHECK VALVE	28		PN16~PN40	Steam, Heat Transfer Oil, Chemical, Molten Salt, Water.
DIN STANDARD SAFTTY VALVE	29			Steam, Heat Transfer Oil, Chemical, Water
PILOT OPERATED PRESSURE REDUCING VALVE (DP57)	30		PN16~PN25	Water, Heat transfer Oil, Chemical, Petroleum Pipeline, Oil Refinery Equipment, Toxic And Hazardous Substances, Strong Penetrating Medium.
LEVER BALL FLOAT TYPE STEAM TRAP	31			Steam, Heat Transfer Oil, Chemical, Water.
FREE FLOAT BALL TYPE STEAM TRAP	32			Steam, Heat Transfer Oil, Chemical, Natural Gas, Water
THERMODYNAMIC STEAM TRAP	33			Steam, Heat Transfer Oil, Chemical, Natural Gas, Water
STEAM WATER SEPARATOR	34			
DIN STANDARD BELLOW SEAL GLOBE CHECK VALVE	35	196℃~ 600℃	PN16~PN40	Hot Oil System, Steam System, Hot And Cold Water System Etc.
CHLORINE VALVE	36	-40℃~ 120℃		Chlorine,Liquid Chlorine,Alkali,Ammonia,Hydrogen, Solvents
SET SEALING FOR HIGH PRESSURE BELLOWS GLOBE VALVE	37	196℃~ 600℃	900~2500LB	Flammable, explosive, toxic, strong flammable, radioactive ,Precious, High Purity Media etc.
SLU SEALING FOR HIGH PRESSURE BELLOWS GATE VALVE	38	-196℃~ 600℃		
CONTROL VALVES	39			
STEAM SYSTEM DIAGRAM	41			
THERMAL OIL SYSTEM	42			
CUSTOMOTD BELLOWS VALVES	43			



VALVES & STEAM APPLICATION

LEVER BALL FLOAT TYPE STEAM TRAP

Product Advantages

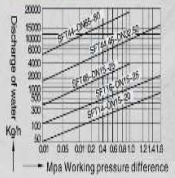
Two balanced valve

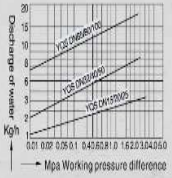
Stainless Steel Structures

Automatic Gas Discharging

- Two balanced valve bases increase the area of flux and acquire large amount of dischargedwater.
- Automatic gas discharging mixture inside can discharge the gas in time while rapidly opening the equipment.
- Stainless steel structures provide perfect anti-corrosive performances.

Displacement Diagram





Application

Steam, Heat Transfer Oil, Chemical, Water.

Material of Main Parts and Components

Body,bonnet	WCB
Float ball	Stainless Steel
Seat	Stainless Steel
Internal filters	Stainless Steel
Thermal element	Karsk alloy
Gasket	Stainless steel + Flexible graphite

FREE FLOAT BALL TYPE STEAM TRAP

Product Advantages

Stable Discharge Of Water

Small Rate Of Steam Leakage

High Rate Of Black Pressure

- Stable discharge of water with large amount ,small rate of steam leakage,high rate of black pressure.
- The main part hollow free-ball of steel is finely ground in the trap.
- The structure of stainless steel provide the ability of anti-corruption and longer service life.

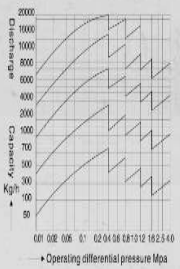
Application

Steam, Heat Transfer Oil, Chemical, Natural Gas, Water.

Material of Main Parts and Components

Body,bonnet	Cast steel、Stainless steel
Float Ball	Stainless steel
Seal	Chromium stainless steel
Internal Filters	Stainless steel
Gasket	Stainless steel + Flexible graphite

Displacement Diagram



DIN STANDARD SAFETY VALVE

Product Advantages

Reduce Welding

Safety Protection

Gas Discharge

- Installed in the commutation of the pipeline to reduce the welding of the pipeline

Specifications

- Design standard :DIN 3320
- Face to face dimension:DIN3202
- Flange standard : DIN 2543-2545
- Test & inspection :DIN7310

Application

Steam, Heat Transfer Oil, Chemical, Water.

PERFORMANCE SPECIFICATION

Nominal Pressure		PN
Test Pressure	Shell test	1.5PN
	Sealing test	1.1PN
	Air test	0.6
Maximum output pressure		PN
Output pressure range		0.2-PN

Material of Major Parts and Components

Body	GS-C25、1.4301、1.4401
Seat	1.4301+ Stellite
Disc	1.4021+ 1.4301+Stellite
Spring	1.4301、1.4401
Copper guide sleeve	Copper alloy、D2、DL2
Gasket	stainless steel + Flexible graphite
Cover	GS-25、1.4301、1.4401
Nut	ASTM 194-2H、A194-8
Double-headed bolt	ASTM 193-B7、A193-B8

PILOT OPERATED PRESSURE REDUCING VALVE(DP17)

Product Advantages

Max Inlet Pressure 16 bar ,25 bar

Diameter 15-200mm

Media temperature 0-285℃

- Especially suitable for steam and water
- Max inlet pressure: 16 bar ,25 bar
- Outlet pressure (Springs pressure setting range) Yellow: 1-3bar ;Blue: 2-8bar; Red: 7-12bar.
- Diameter : 15-200mm.
- Media temperature: 0-285℃
- Max rate inlet pressure /outlet pressure: 10: 1
- DIN,ANSI,GB

Specifications

- Design standard: GB12244
- Flanged ends: DIN
- Test & inspection: GB 12244-4h

Application

Steam, Heat Transfer Oil, Chemical, Petroleum Pipeline, Oil Refining Equipment, Toxic And Hazardous Substances, Strong Penetrating Medium

PERFORMANCE SPECIFICATION

Nominal Pressure		PN	
Test Pressure	Shell test	1.5PN	Mpa
	Sealing test	1.1PN	
	Air test	0.6	
Suitable temp		196℃~ 600℃	

Material of Main Parts and Components

Body,bonnet	WCB
Seat	2Cr13
Disc	2Cr13
Stem	2Cr13
Diaphragm	1Cr18Ni9Ti
Adjustment spring	60Si2Mn

VALVES & STEAM APPLICATION

DIN STANDARD BELLOW SEAL GLOBE VALVE(PLUS)

Product Advantages

Conical Disc Design | Double Seal Design | Coated Sand Casting Technology

- Conical disc design. Benefit from the cone and streamline shape design, the disc can remove the impurity, keep valve in reliable seal and longer service life.
- Double seal design(bellows+packing). Bellow form a metal seal to prevent leakage, and packing can provide seal if the bellow failed.
- Patented central locate design. It can protect stem from tremble and lower noise, so the bellow is with stable performance and long service life.
- Coated sand casting technology. Sand mixed with binder and other additives, which makes the rough casting with less defects like pore, trachoma and cracks, and better tensile strength.

Specifications

- Design standard: DIN 3356
- Face to face dimension: DIN 3202
- Flanged ends: DIN 2543-2545
- Test & inspection: DIN 3230

Application

Hot Oil System, Steam System, Hot And Cold Water System Etc

PERFORMANCE SPECIFICATION

Nominal Pressure		PN	
Test Pressure	Shell test	1.5PN	Mpa
	Sealing test	1.1PN	
	Air test	0.6	
	Bellows test	1.1PN	
Suitable temp		196℃~600℃	

Material of Main Parts and Components

Body	1.0619+N(GS C25) 1.4301、1.4408
Seat	1.4301、Stellite
Disc	1.4021、1.4401+Stellite
Pin	1.4301、1.4401
Bellows	1.4301、1.4401
Stem	20Cr13、F304、F316
Gasket	Flexible graphite + stainless steel
Bonnet	1.0619+N(GS C25)、1.4301、1.4408
Nut	ASTM 194-2H、A194-8
Double-headed Bolt	ASTM 194-8?、A193-B8
Packing	Flexible graphite
Gland	1C25、1.4301、1.4401
Locator	1C25
Stem nut	Copper alloy、D2、BL2
Hand Wheel	1025/KTH330
Cap	1C45

DIN STANDARD BELLOW SEAL GLOBE VALVE(DUCTILE IRON)

New Arrival

Product Advantages

Conical Disc Design | Double Seal Design | Coated Sand Casting Technology

- Conical disc design. Benefit from the cone and streamline shape design, the disc can remove the impurity, keep valve in reliable seal and longer service life.
- Double seal design(bellows+packing). Bellow form a metal seal to prevent leakage, and packing can provide seal if the bellow failed.
- Patented central locate design. It can protect stem from tremble and lower noise, so the bellow is with stable performance and long service life.
- Coated sand casting technology. Sand mixed with binder and other additives, which makes the rough casting with less defects like pore, trachoma and cracks, and better tensile strength.

Specifications

- Design standard: DIN 3356
- Face to face dimension: DIN 3202
- Flanged ends: DIN 2543-2545
- Test & inspection: DIN 3230

Application

Hot Oil System, Steam System, Hot And Cold Water System Etc

PERFORMANCE SPECIFICATION

Nominal Pressure		PN	
Test Pressure	Shell test	1.5PN	Mpa
	Sealing test	1.1PN	
	Air test	0.6	
	Bellows test	1.1PN	
Suitable temp		10℃~350℃	

Material of Main Parts and Components

Body	JS1049 (GGG40)
Seat	1.4301、Stellite
Disc	1.4021、1.4401+Stellite
Pin	1.4301、1.4401
Bellows	1.4301、1.4401
Stem	20Cr13、F304、F316
Gasket	Flexible graphite + stainless steel
Bonnet	JS1049(GGG40)
Nut	ASTM 194-2H、A194-8
Double-headed Bolt	ASTM 194-8?、A193-B8
Packing	Flexible graphite
Gland	1C25、1.4301、1.4401
Locator	1C25
Stem nut	Copper alloy、D2、BL2
Hand Wheel	1025/KTH330
Cap	1C45

CONSTRUCTION SITE INSTALLATION

PT. SSS Tbk Borneo

Replace Coriolis Mass Flow meter 4in – 250 m^3/h

PT.ENERGI UNGGUL PERSADA (GAMA GROUP BONTANG)

Thermax Boiler NEW SCADA – HMI PC- SIEMENS

STEAM VORTEX FLOW METER AT UNILEVER OLEOCHEMICAL

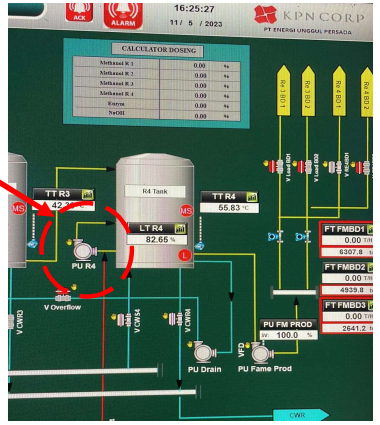
STEAM PRESSURE 19 BAR /220 °C

Pneumatic Actuator Butterfly Valves 8in

WWTP Pump with VFD 7.5kW – ABB

BAKRIE OLEOCHEMICAL

NON CONTACT RADAR LEVEL 15M



GAMA BIODIESEL BONTANG