

Products Lineup Overview



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YOSHITAKE
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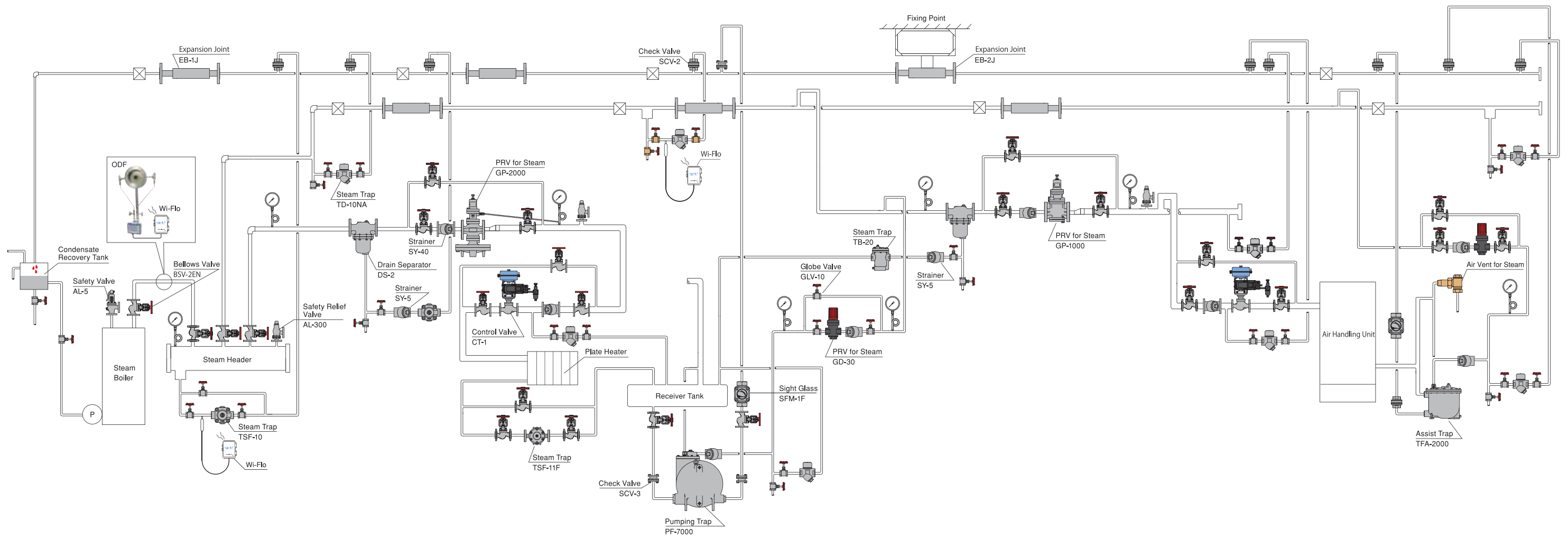
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YOSHITAKE

YOSHITAKE Products in Steam System

for energy saving and high efficiency



Application of Steam Heating System

Condensate Return System

Air Conditioning System with Steam

Automatic valve

Without human power, it regulates pressure and temperature etc automatically by use of fluid pressure, temperature and spring force.



PRV for steam GP-2000 PRV for steam GP-1000 Safety valve AL-150 Steam trap TSF-8 Steam trap TB-20F Steam trap TD-10NA

Manual valve

With human power, conducting open and close operation of handle or lever, it flows or regulates fluid.



Globe valve GLV-10 Bellows valve BSV-2EN

Control valve

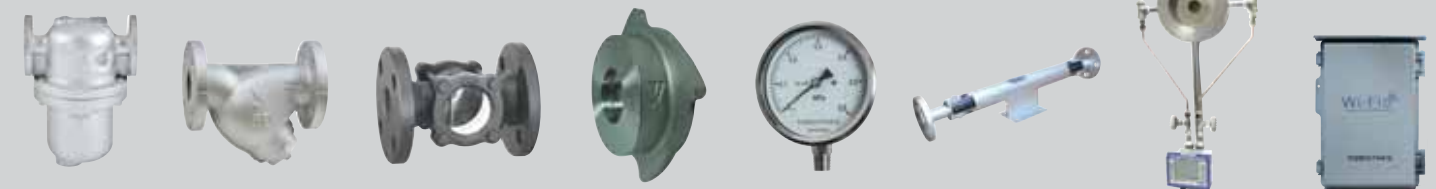
Using air and electricity as power source, combined with various instruments, it regulates temperature, water level, flow amount, pressure, etc.



Control valve CT-1

Peripheral devices

Drain separator, strainer, pressure gauge, sight glass, check valve, etc. Devices needed for protection and control of pipeline.

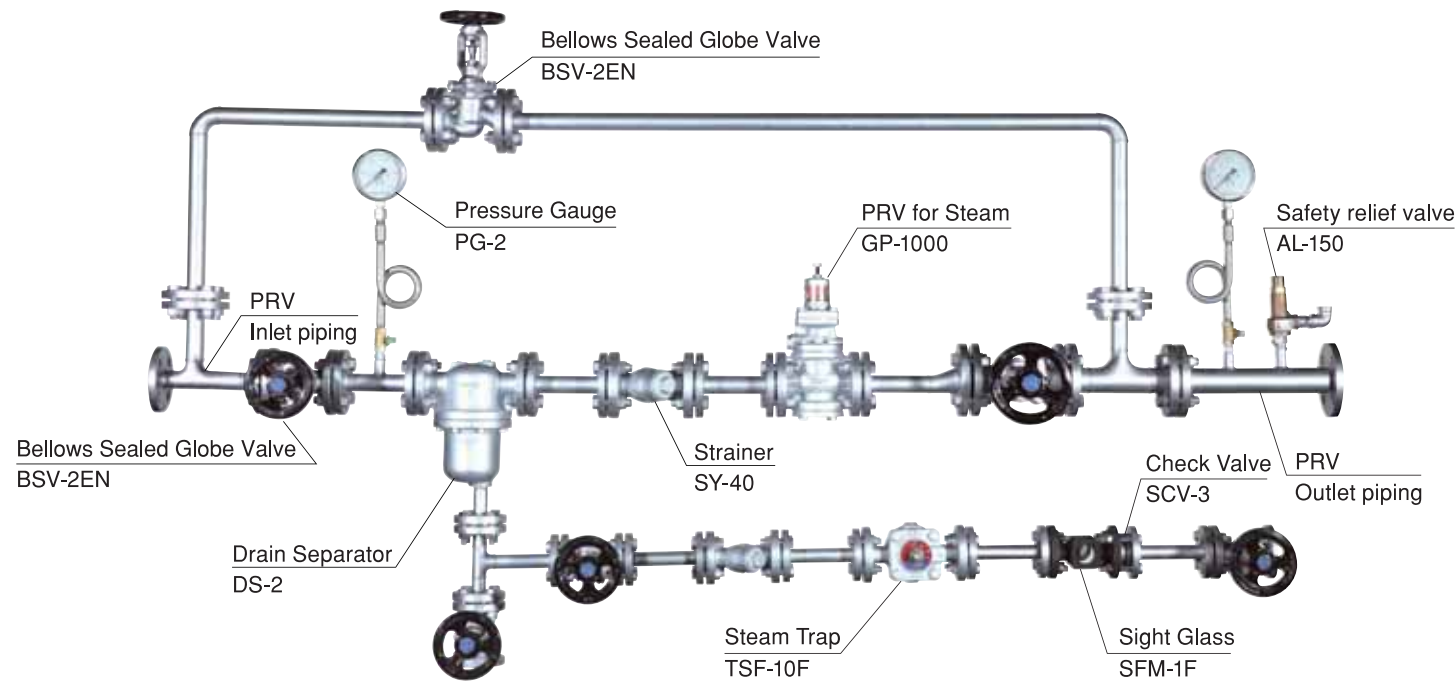


Drain separator DS-2 Strainer SY-40 Sight glass SFM-1F Check valve SCV-3 Pressure gauge PG-2 Expansion joint EB-2J Flow meter ODF Wi-Flo

Steam Pressure Reducing Unit

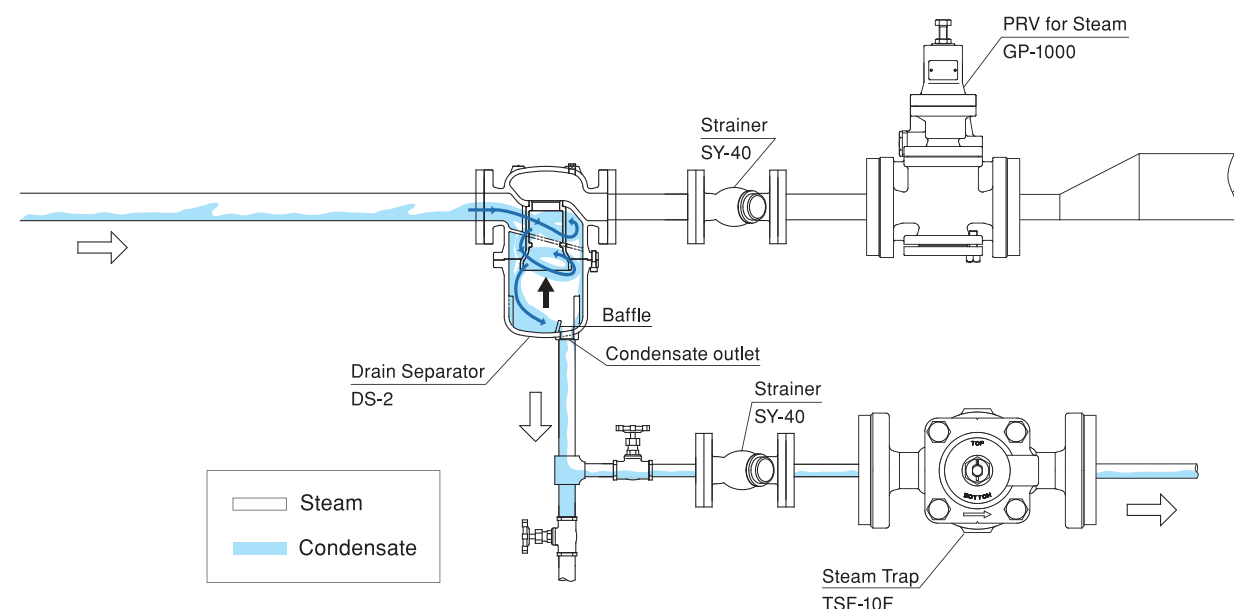
PRV Station

Trouble zero for PRV!



DRAIN SEPARATOR

Yoshitake's DS-2 drain separator separates condensate by cyclone and make it hit the baffle. Having the hybrid structure (cyclone and baffle), it realizes the stable separation under all conditions from minimum flow rate (Low velocity) to maximum flow rate (high velocity), and leads the condensate and scale from the outlet connected to the steam trap.

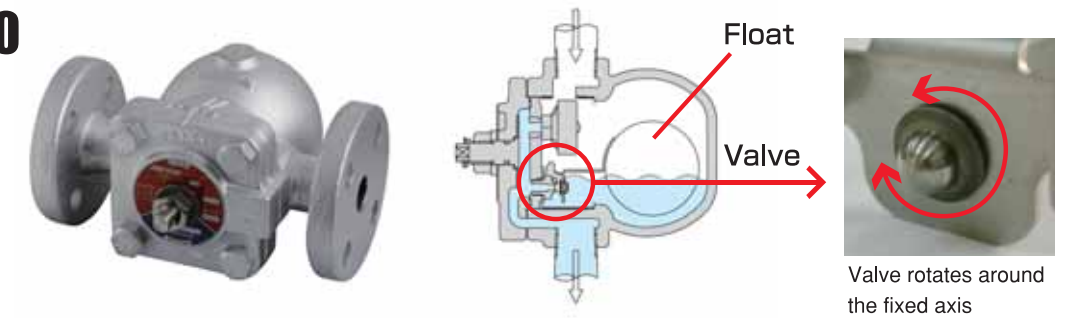


STEAM TRAP

TSF-10F steam trap adopts lever float mechanism and works by difference in specific gravity between steam and condensate. It discharges the condensate promptly without condensate retention at inlet side, regardless of the condensate volume. Because there is a degree of freedom for the valve as a feature of the product, it rotates around the fixed axis and seats on the valve seat with the highest sealing properly.

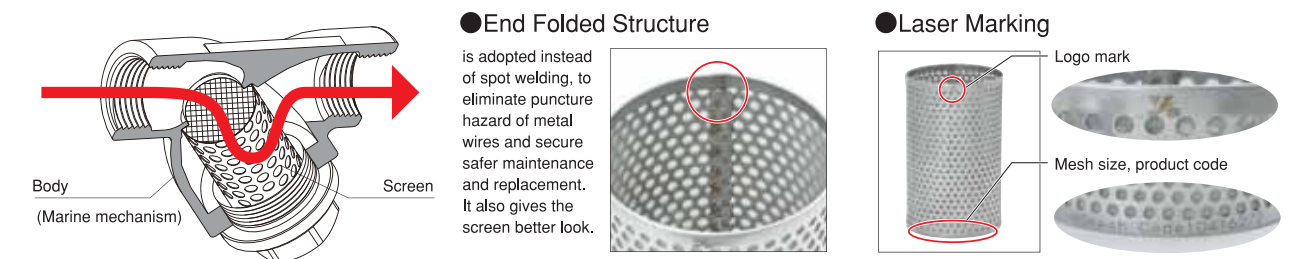
TSF-10F maintains tight sealing for long time due to valve and valve seat made of hardened chromium steel with high durability. Also, it is not affected by back pressure and suitable for condensate recovery system.

TSF-10F-10



STRAINER

1. Considering the decrease in flow rate due to clog, it adopts marine mechanism so that it can use whole screen effectively.
2. Screen ends are folded by pressing for better quality. Mesh size and product code are clearly indicated on the screen body by laser marker for better identification.

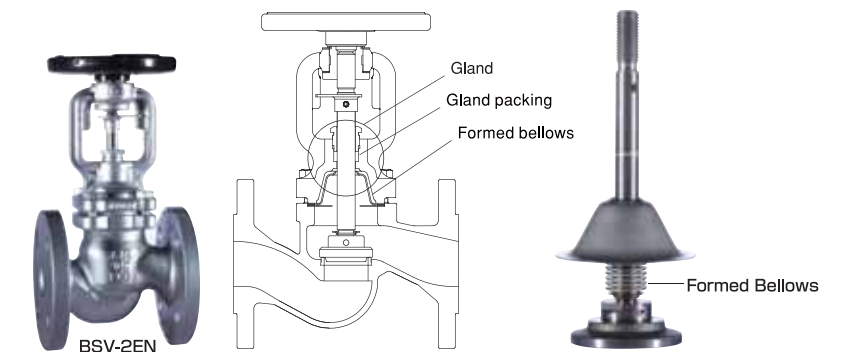


Bellows sealed globe valve (Zero leak at gland)

Previously, bellows valves are regarded as expensive products for chemical plant, but Yoshitake has developed BSV-2EN as specialized manual valve for steam application. By using bellows valve, the PRV station improves its safety and operability.

1. BSV-2EN has a feature that its gland is protected by double sealing (formed bellows and gland packing) without outside leakage. Besides, there is no need of replacement/retightening of gland packing.
2. BSV-2EN is easy to turn to open and close by small torque. It gets easier compared to conventional globe valve, as the size gets larger.

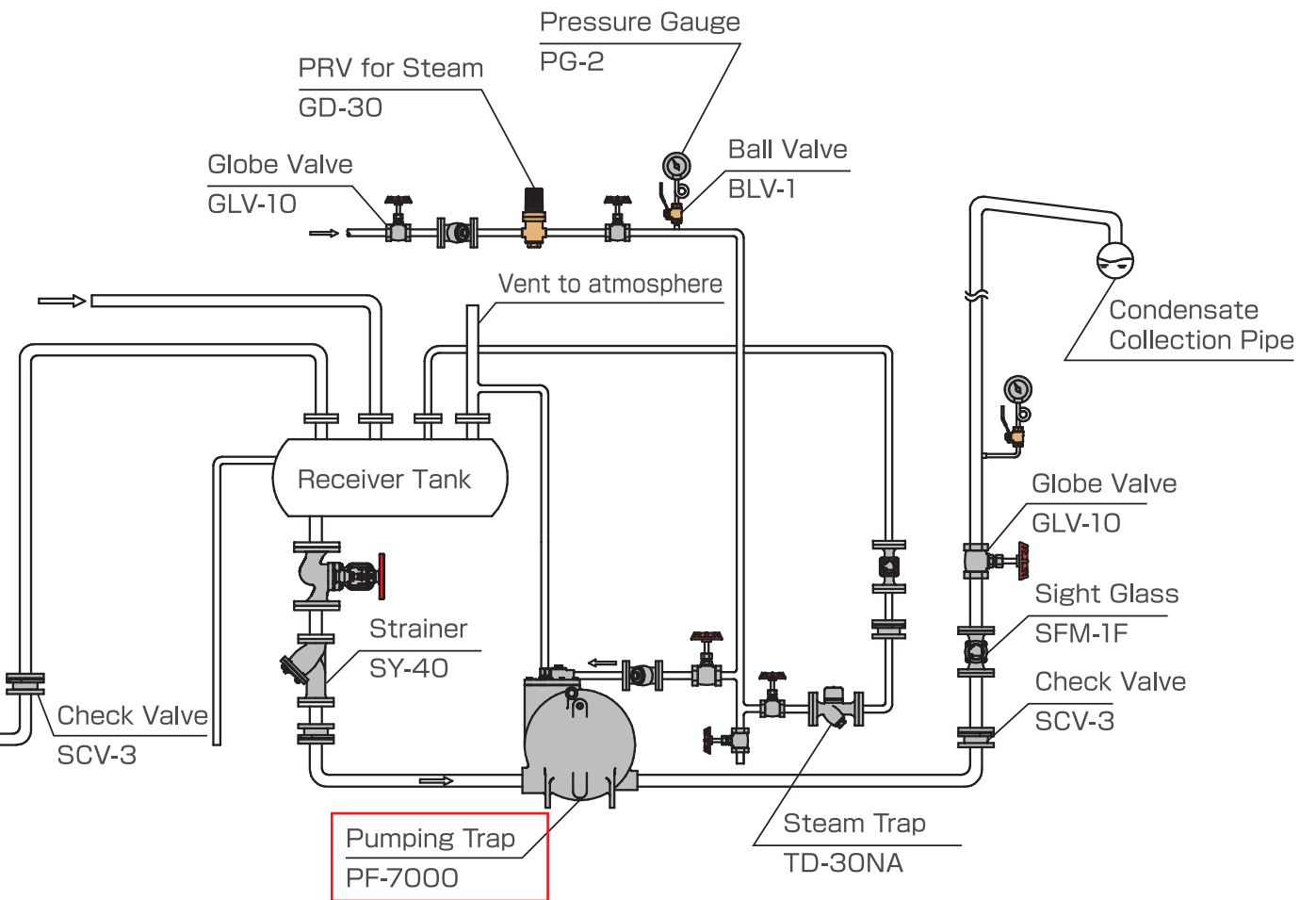
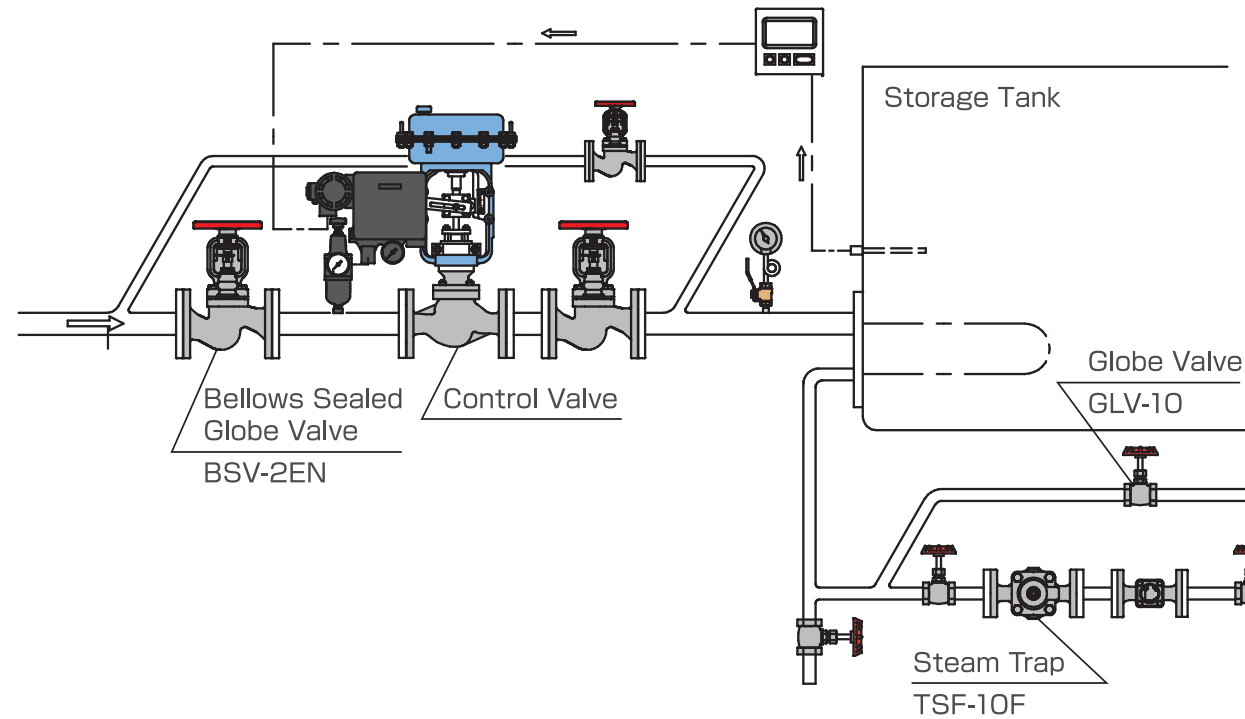
The torque of turning the handle by bellows is **about 1/10** of conventional valve.
(for 50A, compared with conventional Yoshitake product)



Condensate Return System with YOSHITAKE PUMPING TRAP

Steam changes into water when losing heat. This water is called condensate. Steam system does not need condensate, however, condensate has heat energy, so by recovering condensate, large energy saving effect can be obtained. Through total support of Yoshitake, you can realize saving energy effect by reuse of steam condensate.

[Piping layout example] Condensate return open system with pumping trap



Benefits of condensate recovery

Benefit 1

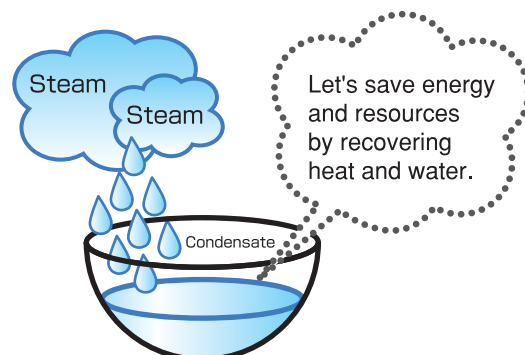
Recovery of heat energy
Sensible heat of recovered condensate can be used in boiler feed water or for other pre-heating process.

Benefit 2

Water recycling
Condensate is originally from boiler feed water treated with chemical, so it can be used again as boiler feed water if treated properly.

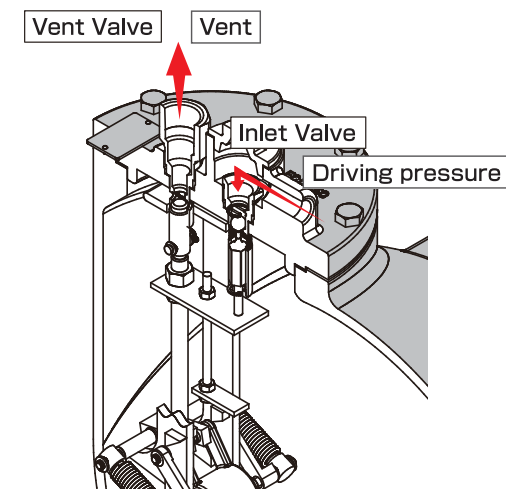
Benefit 3

Reduce the environmental impact
Condensate recovery can reduce the amount of water drained to environment.



What is Pumping Trap?

Pumping trap is a mechanical pump which utilizes steam pressure or air pressure for operation instead of vacuum pump which utilizes electricity for operation.



PF-2000
For small flow rate
Discharge capacity : 650kg/h

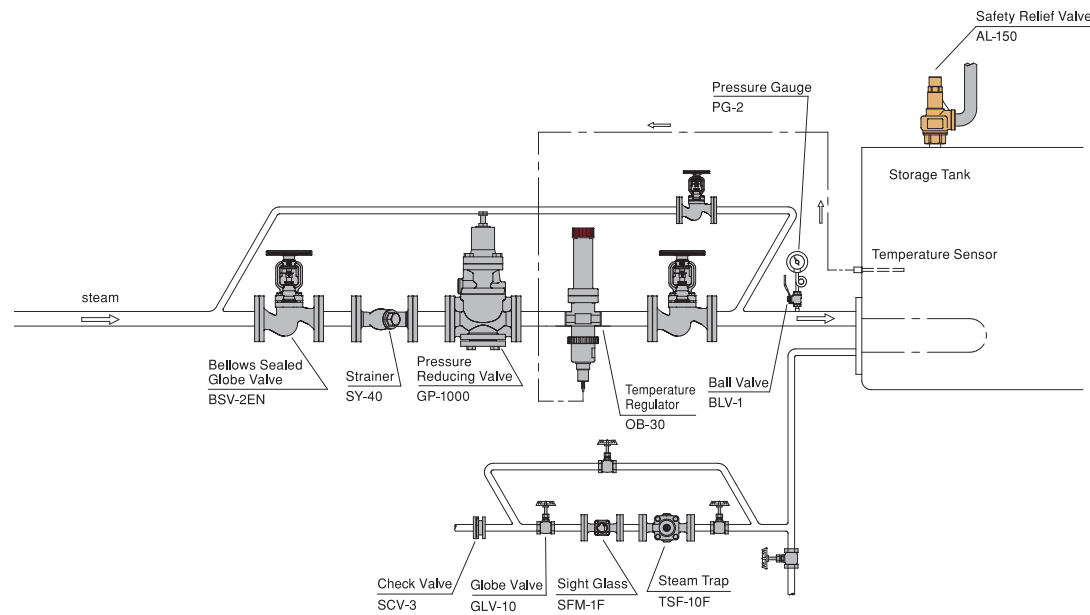


PF-7000
For large flow rate
Discharge capacity : 7,000kg/h

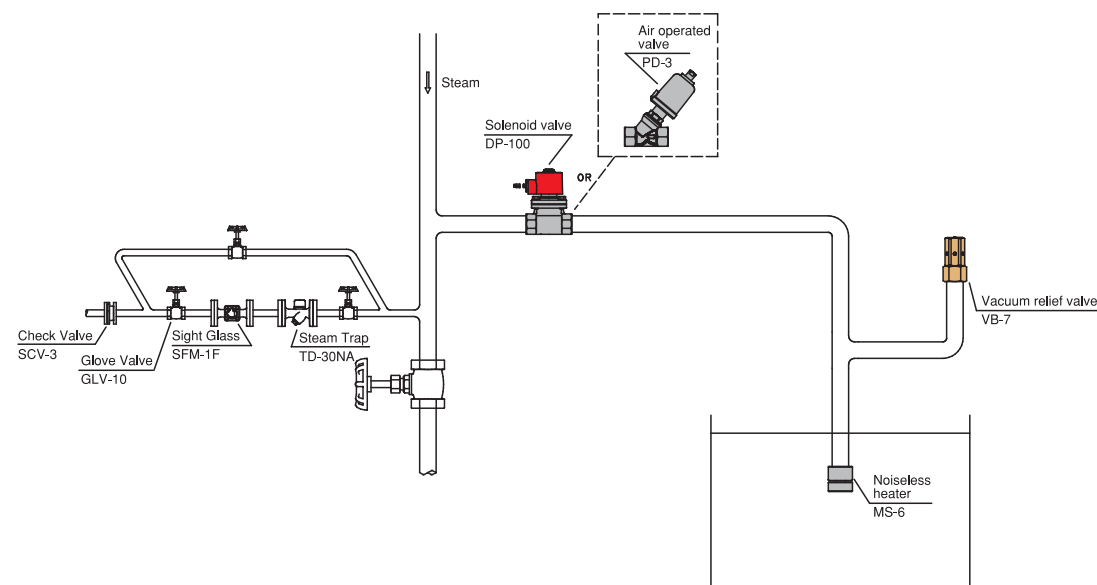
YOSHITAKE Products

-Various Applications-

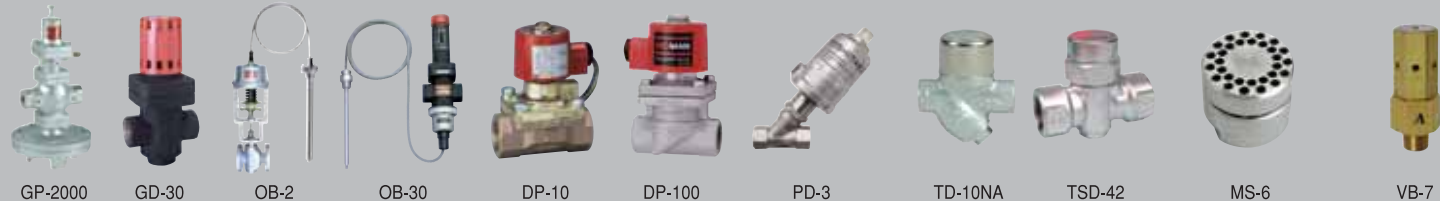
Steam heating system using temperature regulator



Direct Heating



Pressure reducing valve Temperature regulator Solenoid valve Air operated valve Steam trap Noiseless heater Vacuum relief valve



Insulation Jacket for Yoshitake products

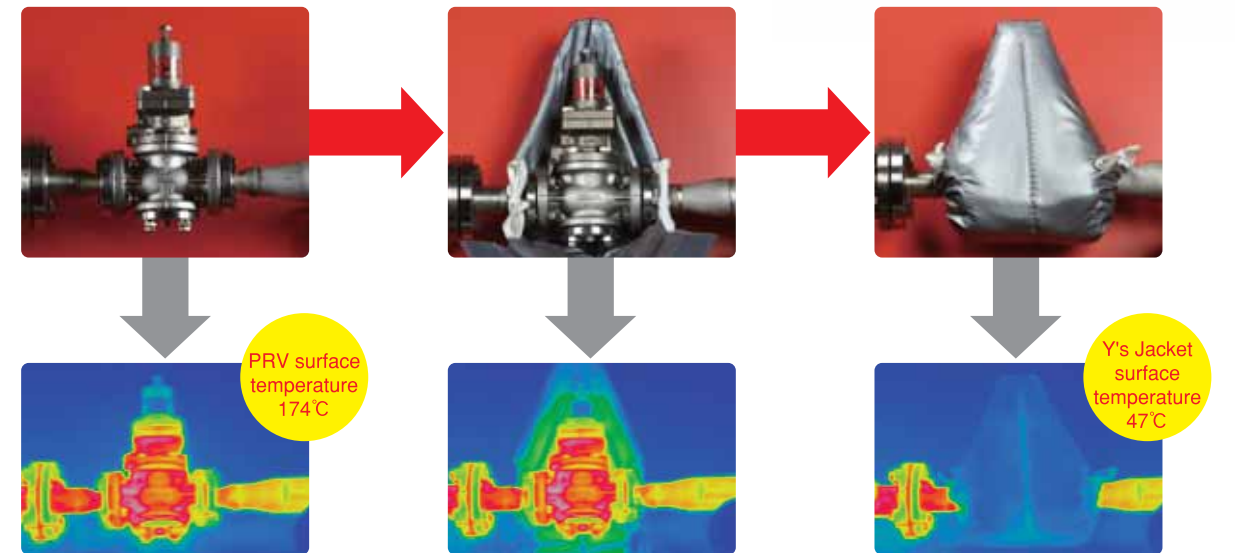


Heat radiation increases in proportion to the surface area, so heat energy loss at valves in complicated shapes are bigger than at pipes. Y's Jacket perfectly fits Yoshitake products in use.

Moreover it helps to prevent accidents, such as burns or bruises and create a safe and comfortable work environment.

It is easy to set and reusable after valve maintenance, environment-friendly.

Effect



Instantaneous flow indicator • Integral flow indicator • Alarm output ODF series Flow meter



Specifications

Model	ODF	
Application	Liquids and gases	Steam
Max. Working pressure	Standard: 2.0MPa High pressure type: 13MPa	Standard: 2.0MPa High pressure type: 13MPa (A separate differential pressure gauge is required.)
Max. Working temperature	70°C (A separate differential pressure gauge is required, high temperature type.)	220°C
Flow direction	Right→Left/Left→Right/Top→Bottom/Bottom→Top	
Nominal size	10A (3/8") - 400A (16")	15A (1/2") ~400A (16")
Connection	JIS 10K (Other flange standards are also available.)	
Accuracy	±5%F.S.	

※Orifice plate only is applicable.

Standard Material List

Parts name	For water	For other liquids • gases	For steam	liquids
Orifice ring	SUS304	SS400	SS400	Please specify the required material, or we will select depending on the fluid.
Orifice plate	SUS304	SUS304	SUS304	
O-ring	NBR	NBR	—	

Wi-Flo™

wireless flow monitoring system

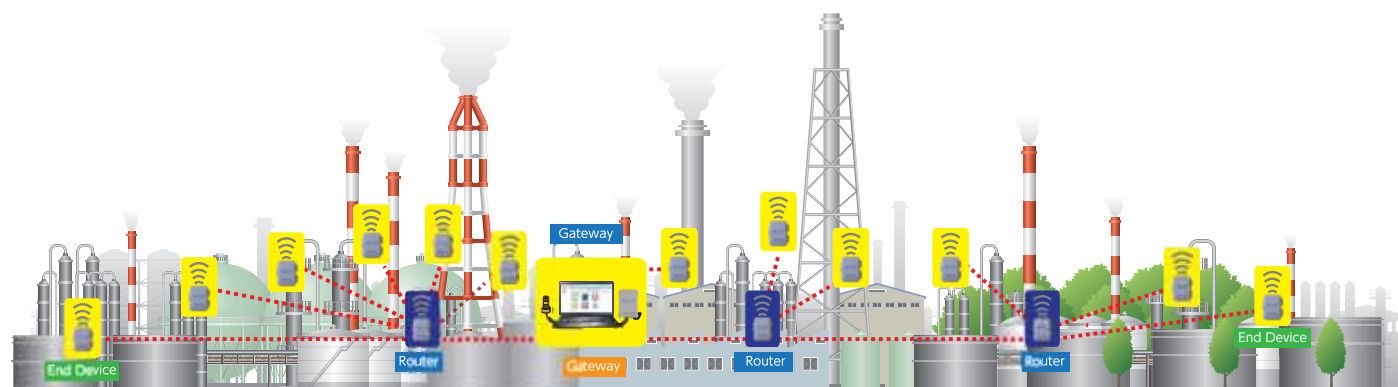
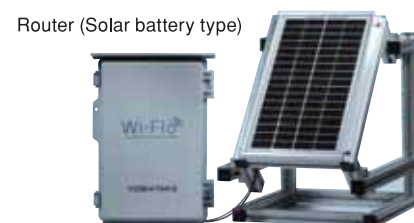
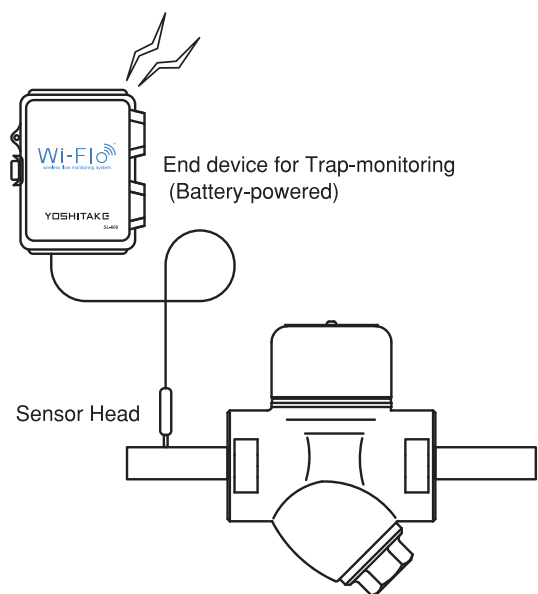


Wi-Flo is an IoT system that enables you to monitor both fluid flow and operation of devices on PC at any time.

Measured data such as operation of steam trap, pressure, differential pressure, vibration, temperature, and flow rate can be monitored on PC by wireless monitoring system. Wi-Flo reduces the trouble of walking around the worksite and enables unified control, history control, and predictive maintenance on your devices and facilities.

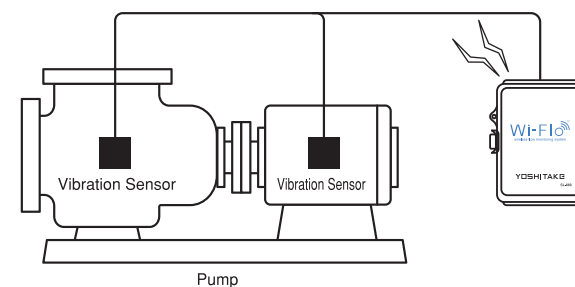
Steam Trap Monitoring

- Wi-Flo detects leakage or clogging of steam traps.
- By detecting troubles at early stage, you can take action and minimize problems.

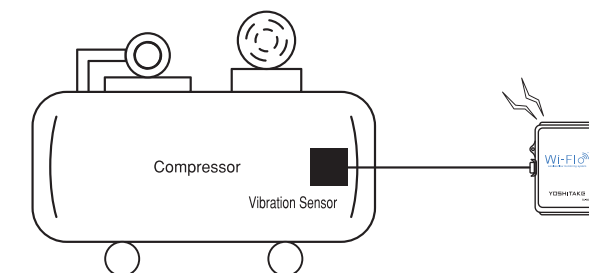


Other applications Wi-Flo can be used for

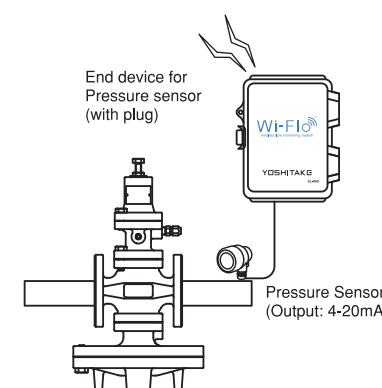
Monitoring for abnormal vibration at pump



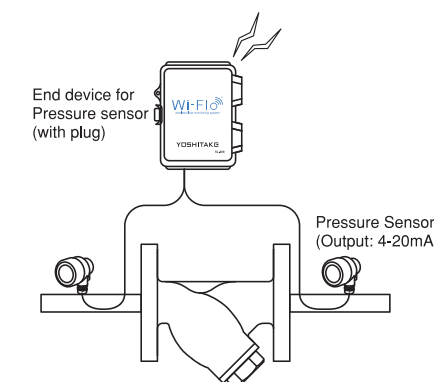
Monitoring for abnormal vibration at compressor



Monitoring for pressure rise/drop at PRV outlet



Monitoring for clogging at strainer



Steam Trap Checker

STC-1

STC-1 inspects operating condition of steam traps and displays the judgement automatically in 8 seconds.

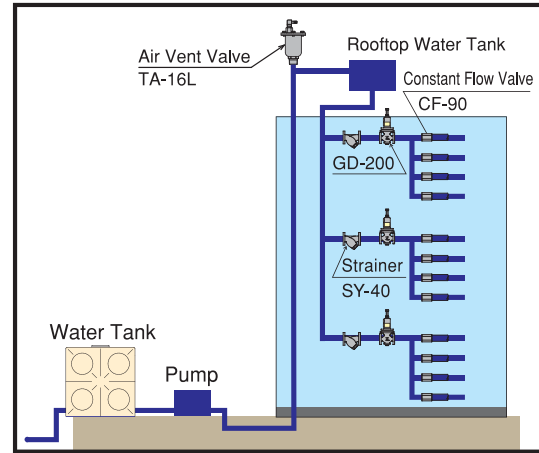
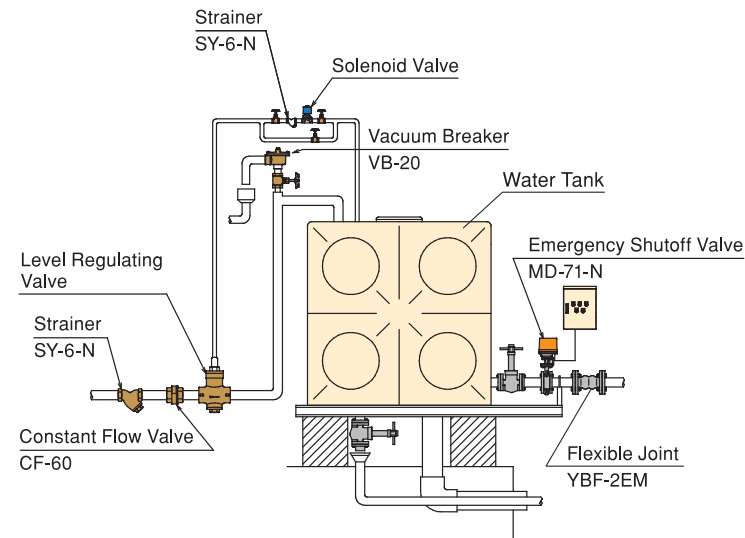
Completion of the inspection is notified with vibration and LED light.

YOSHITAKG	YOSHITAKG	YOSHITAKG	YOSHITAKG
CAUTION	LEAK	LOW TEMP.	GOOD
TEMP.: 130 °C	TEMP.: 130 °C	TEMP.: 50 °C	TEMP.: 130 °C
TYPE: FLOAT	TYPE: FLOAT	TYPE: FLOAT	TYPE: FLOAT
PRESS.: 0.1~0.5 (MPa)	PRESS.: 0.1~0.5 (MPa)	PRESS.: 0.1~0.5 (MPa)	PRESS.: 0.1~0.5 (MPa)
Slight leak	Leak	Clogged	Good



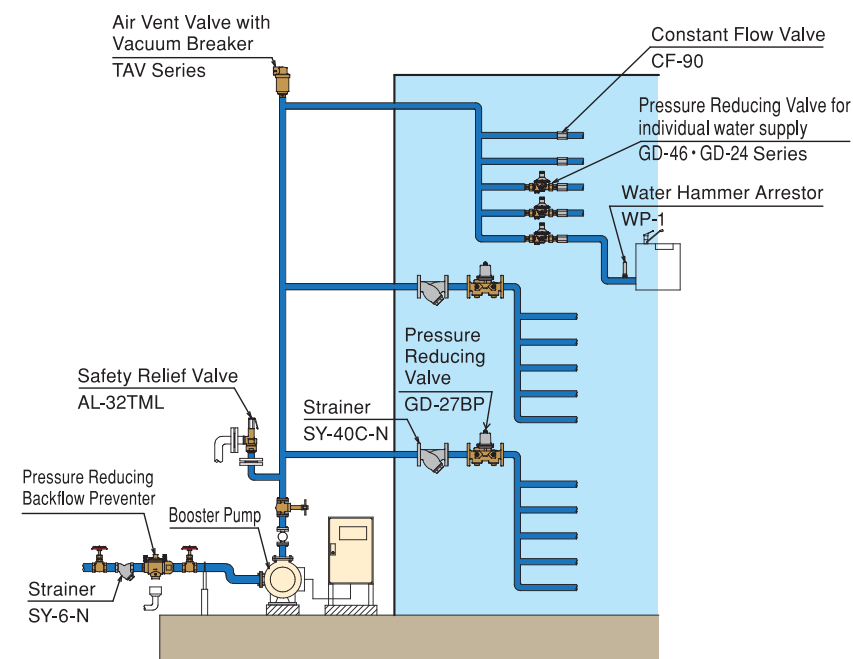
YOSHITAKE Products for Water

Water-Receiving Tank System



※Image is for illustration purposes only.

Direct Water Supply System



※Image is for illustration purposes only.

GD-200



Size	15-150A
Application	Water, Air, Oil
Inlet pressure	1.0MPa or less
Outlet pressure	0.05-0.7MPa
Body material	Ductile Cast Iron
Connection	JIS 10K FF

GD-24



Size	15-50A
Application	Water
Inlet pressure	1.6MPa or less
Outlet pressure	0.05-0.55MPa
Body material	Cast Bronze
Connection	JIS Rc

Constant Flow Valve

CF-60



Nominal size	25~50A	65~100A
Application	Cold and hot water	
Fluid temperature	5~60°C	
Max. Pressure	1.0MPa	
Differential pressure range	0.2~0.8MPa	
Flow rate range	20~270L/min	100~1000L/min
Material (Body)	Cast Bronze (NPb-treated)	
Connection	JIS Rc	Wafer type

Pressure Reducing Valve

GD-41/43



Model	GD-41	GD-43-10	GD-43-20
Nominal size	15~25A		
Application	Cold and hot water		
Max. Temperature	90°C		
Inlet pressure	0.07~2MPa	0.07~1MPa	0.07~2MPa
Outlet pressure	0.02~0.5MPa		
Material (Body)	Stainless Steel		
Connection	JIS Rc	JIS 10K FF	JIS 20K RF

Safety Relief Valve

AL-150T



Structure	Closed type	
Application	Air, Cold and hot water, Oil, Other non-dangerous fluids	
Working pressure	0.05~1.0MPa	
Max. temperature	120°C	
Material	Spring case	Cast bronze
	Valve, Valve seat	Cast stainless steel (SCS14A)
	Adjusting spring	Stainless steel
	O-ring	FKM
Connection	JIS Rc	

Air Vent Valve

TA-22ML



Application	Cold and hot water	
Working pressure	0.01~1.0MPa	
Max. temperature	100°C	
Material	Body	Bronze
	Float	Heat-resistant resin
	Disc	FKM
	Inlet	JIS R
Connection	Outlet	Hose joint type (joint cap)
	Metal plating	Nickel-plated

Constant Flow Valve

CF-90



Nominal size	15~25A
Application	Cold and hot water
Fluid temperature	5~90°C
Max. Pressure	1.0MPa
Differential pressure range	0.2~0.7MPa
Flow rate range	1~40L/min
Material (Body)	Cast Bronze (NPb-treated)
Connection	JIS Rc

Pressure Reducing Valve

GD-27BP with bypass function



Nominal size	20~100A
Application	Cold and hot water
Max. Temperature	90°C
Inlet pressure	1.0MPa or lower
Outlet pressure	0.05~0.7MPa ※
Material (Body)	Cast Bronze (NPb-treated)
Connection	JIS 10KFF

※A: 0.05~0.35MPa, B: 0.3~0.7MPa

Air Vent Valve

TA-18ML



Nominal size	6 · 10 · 15 · 20A	
Application	Cold and hot water	
Max. Temperature	100°C	
Working pressure	0.01~0.3MPa	
Material (Body)	Stainless steel	
	Float	Heat-resistant resin
Connection	Inlet	JIS R
	Outlet	Hose joint type (joint cap)

●Please use Vinyl hose (Internal diameter: φ6).

Solenoid Valve

DP-200 / DP-200F



Model	DP-200	DP-200F
Nominal size	10~50A	15~50A
Application	Cold and hot water	
Max. Temperature	60°C (no freeze condition)	
Working pressure	0~1.0MPa (Unusable under vacuum)	
Material (Body)	Cast Bronze	
Connection	JIS Rc	JIS 10K FF flanged

Vacuum Breaker

VB-20



Nominal size	20A	
Application	Cold and hot water	
Fluid temperature	5~90°C	
Max. Pressure	1.0MPa	
Air suction rate	17m³/h or more (when pressure is -1.5kPa)	
Material (Body)	Cast Bronze (NPb-treated)	
Connection	Inlet	JIS Rc3/4
	Outlet	JIS Rc1

Strainer

SU-20



Nominal size	20~150A	
Max. Pressure	1.0MPa	
Max. Temperature	220°C	
Material	Body	Ductile cast iron (FCD450)
	Screen	Stainless Steel
Connection	JIS 10K FF flanged	

Air Vent Valve

TA-3



Application	Cold and hot water, Oil (specific gravity: 0.8 or more)	
Working pressure	0.01~1.0MPa	
Max. Temperature	90°C	
Material	Body, cover	Ductile cast iron (FCD450)
	Valve	Brass
	Valve seat	Brass (equipped with NBR disc)
	Float	Stainless steel
Connection	JIS Rc	

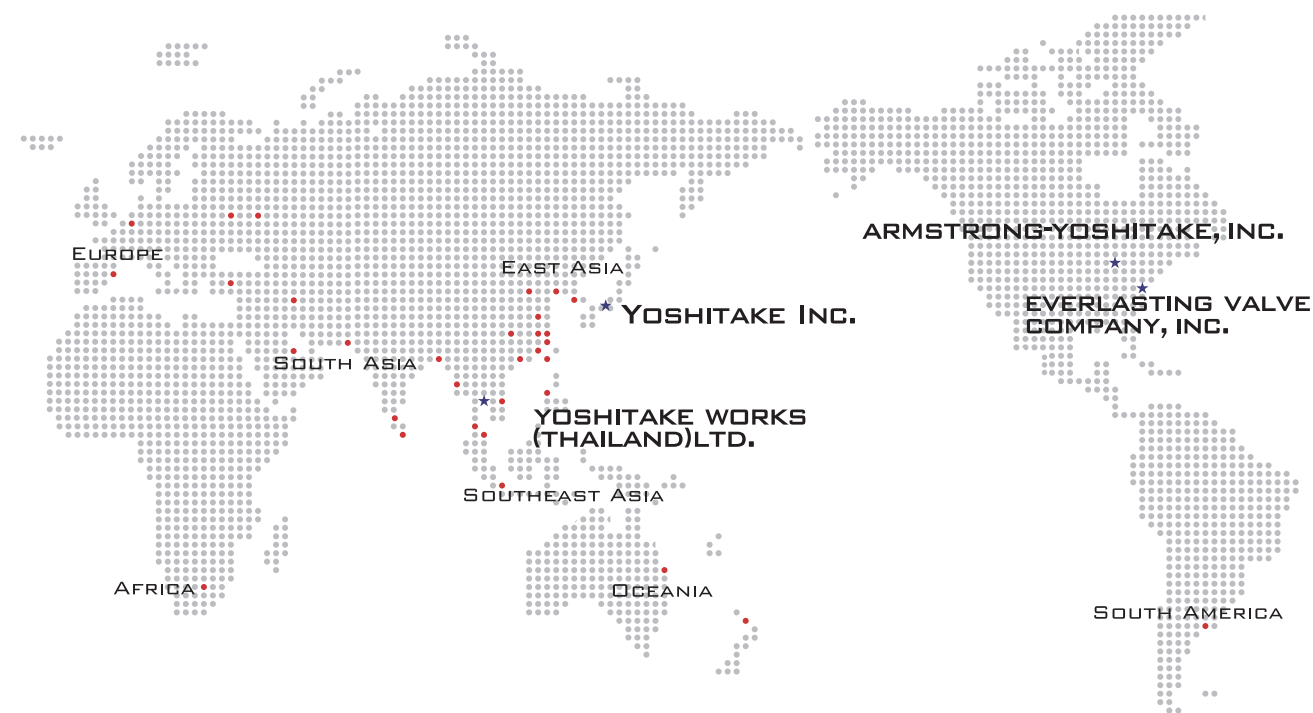
Water Hammer Arrestor

WP-1



Nominal size	15~25A
Application	Cold and hot water, Air, N ₂ gas, CO ₂ gas (dry), Ar gas, Oil (20 cSt or less)
Max. Temperature	90°C
Max. Pressure	1.0MPa
Material (pipe)	Copper
Charged pressure	0.15MPa
Connection	JIS R

YOSHITAKE Global Network



PRODUCTS AND SUPPORT



STEAM, AIR, WATER CONSULTING

Yoshitake provides the best answers, offering the optimal solution through its cultivated technology with experience of many years. Please consult us for the systems of various application including steam, air, and water, including modification and maintenance.

ENERGY CONSERVATION CONSULTING

We offer the best solution for troubles, even the potential problems that customers are not yet aware of. We can give you suggestions to improve your system.

FLUID CONTROL ENGINEERING

Our engineering team provides you with good achievement in fluid control, maximizing our technical, information, and network capabilities.

ENERGY CONSERVATION DIAGNOSIS

We diagnose your system for your better energy conservation, with our 72-year experience and technology.

Our passion is not only for manufacturing. We develop all possible services before and after the sales so that our customers can use our products without anxiety for the long term.



In Technical Seminar Center (TSC), you can understand the mechanism of phenomenon occurrence on steam line intuitively.

We introduce the technique for rationalization of steam piping system and the methods for energy saving, productivity improvement and preventive maintenance, using equipments such as jacket (double) pot.



YOSHITAKE TECHNICAL GUIDEBOOK full of product data and other useful technical information is free to download from:

<http://www.yoshitake.jp/download/catalogue.html>

TECHNICAL GUIDEBOOK

