



ASAHI AV™

ASAHI YUKIZAI CORPORATION

Lineup Guide Leaflet

How to Understand This Digest

Valve Type → **Diaphragm Valve (Type 14, 15, 72)**

Compatible Actuator → **Manual** **Pneumatic** **Electric**

QR code 1) → **Manual** **Pneumatic** **Electric**

Connection → **Connection**

Body Material → **U-PVC** **C-PVC** **PP** **PVDF**

Diaphragm Material or Seal Material → **EPDM** **PTFE** **FKM**

Standard → **JIS** **DIN** **ANSI**

Product Image → **Round Handle** **Type AN** **Type AP** **Type AV** **Type J** **Type M** **Type S**

Size → **Size**

Type		Type 14										Type 15		Type 72	
	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	
Manual	Round Handle	●	●	●	●	●	●	●	●	●	●	●	●	●	
Pneumatic	Type AN	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Type AP	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Type AV	—	—	—	—	—	—	—	—	—	—	—	—	—	
Electric	Type J	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Type M	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Type S	—	—	—	—	—	—	—	—	—	—	—	—	—	

● Plastic actuator
● Plastic actuator
● Plastic actuator
● Plastic actuator
● Superior environmental resistance
● High-precision control
● Compatible with three-phase power supply only

1) QR Code is a registered trademark of DENSO WAVE INCORPORATED

Material Indication

We use abbreviations for indicating product materials. The meanings of the abbreviations are as follows:

Body Material

Symbol	Overview
U-PVC	PVC is an abbreviation of Polyvinyl Chloride. The first letter "U" is an abbreviation of Unplasticized. Therefore, U-PVC refers to Unplasticized Polyvinyl Chloride.
C-PVC	The first letter "C" is an abbreviation of Chlorinated. Therefore, C-PVC refers to Chlorinated Polyvinyl Chloride (thermal-resistant hard polyvinyl chloride).
HI-PVC	The first "HI" is an abbreviation of High Impact. Therefore, HI-PVC refers to High Impact

Diaphragm Material or Seal material

Symbol	Overview
PTFE	Abbreviation of Poly Tetra Fluoro Ethylene.
EPDM	Abbreviation of Ethylene Propylene Diene Rubber.
FKM	Abbreviation of Fluorocarbon Rubber.
ViflonF FKM-F	Abbreviation of Fluorocarbon Rubber of Terpolymer. Viflon is a registered trademark of ASAHI YUKIZAI CORPORATION and indicated to FKM-F or ViflonF.
ViflonC FKM-C	Abbreviation of Fluorocarbon Rubber of Terpolymer. Viflon is a registered trademark of ASAHI YUKIZAI CORPORATION that is indicated to FKM-C or

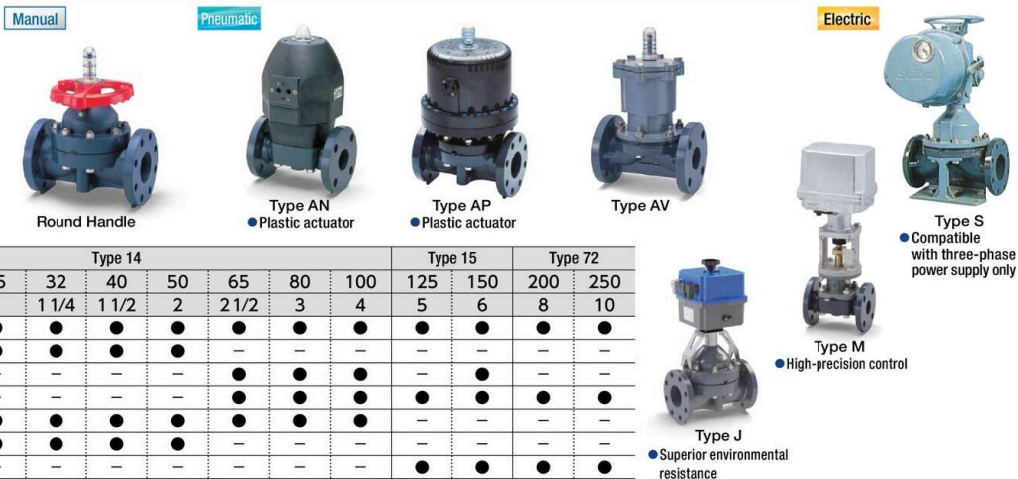
Diaphragm Valve(Type 14,15,72)

Manual		Round Handle	Pneumatic		Type AN Type AP Type AV	Electric		Type J Type M Type S	Connection
									Flange Type

Body
U-PVC C-PVC PP PVDF

Diaphragm
EPDM PTFE FKM

Standard
JIS DIN ANSI



Type		Type 14										Type 15		Type 72	
Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	
Manual	Round Handle	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Type AN	●	●	●	●	●	●	—	—	—	—	—	—	—	
Pneumatic	Type AP	—	—	—	—	—	—	●	●	●	—	●	—	—	
	Type AV	—	—	—	—	—	—	●	●	●	●	●	●	●	
Electric	Type J	●	●	●	●	●	●	●	●	●	—	—	—	—	
	Type M	●	●	●	●	●	●	—	—	—	—	—	—	—	
	Type S	—	—	—	—	—	—	—	—	—	●	●	●	●	

True Union Diaphragm Valve Type 14

Manual		Round Handle	Pneumatic		Type AN	Electric		Type J Type M	Connection
									Socket Type Spigot Type

Body
U-PVC C-PVC PP PVDF

Diaphragm
EPDM PTFE

O-ring
EPDM FKM

Standard
JIS DIN ANSI

Removable from the line thanks to true union type



Size		15	20	25	32	40	50	65	80	100	125	150	200	250
mm	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10
Manual	Round Handle	●	●	●	●	●	●	—	—	—	—	—	—	—
Pneumatic	Type AN	●	●	●	●	●	●	—	—	—	—	—	—	—
Electric	Type J	●	●	●	●	●	●	—	—	—	—	—	—	—
	Type M	●	●	●	●	●	●	—	—	—	—	—	—	—

Diaphragm Valve(Type AI)

Pneumatic		Type AI	Connection
			Flange Type

True Union Diaphragm Valve(Type AI)

Pneumatic		Type AI	Connection
			Flange Type

Diaphragm Valve(Type 16)

Pneumatic		Type AD	Connection
			Flange Type

Ball Valve(Type 21,21a)

Manual

Lever

Pneumatic

Type AR

Type TA

Electric

Type T

Connection

Flange Type

Socket Type

Spigot Type

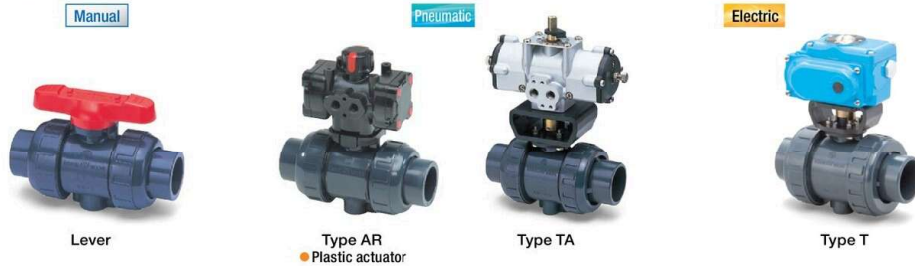
Threated Type

Body
 U-PVC C-PVC PP PVDF

O-ring
 EPDM FKM

Standard
 JIS DIN ANSI

Equipped with dual O-rings
 on the stem for enhanced sealing



Size	mm	6	10	13	15	20	25	32	40	50	65	80	100
	inch	1/4	3/8	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Manual	Lever	—	●	●	●	●	●	●	●	●	●	●	●
Pneumatic	Type AR	—	—	—	●	●	●	●	●	●	●	●	●
Pneumatic	Type TA	—	—	—	●	●	●	●	●	●	●	●	●
Electric	Type T	—	—	—	●	●	●	●	●	●	●	●	●

3Way Ball Valve Type 23

Manual

Lever

Pneumatic

Type AR

Type TA

Electric

Type T

Connection

Flange Type

Socket Type

Spigot Type

Threated Type

Body
 U-PVC C-PVC PP PVDF

O-ring
 EPDM FKM

Standard
 JIS DIN ANSI



Valve structure enables switching between
 two flow paths and complete shutoff

Size	mm	6	10	13	15	20	25	32	40	50	65	80	100
	inch	1/4	3/8	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Manual	Lever	—	—	—	●	●	●	●	●	●	●	●	●
Pneumatic	Type AR	—	—	—	●	●	●	●	●	●	●	●	●
Pneumatic	Type TA	—	—	—	●	●	●	●	●	●	●	●	●
Electric	Type T	—	—	—	●	●	●	●	●	●	●	●	●

3Way Ball Valve Type 23H

Manual

Lever

Connection

Flange Type

Socket Type

Spigot Type

Threated Type

Compact Ball Valve Type 27

Manual

Lever

Pneumatic

Type AR

Connection

Socket Type

Threated Type

Labcock



Connection	
Male Threaded Type	
Hose Type	Female Threaded Type

Body

U-PVC

Seat

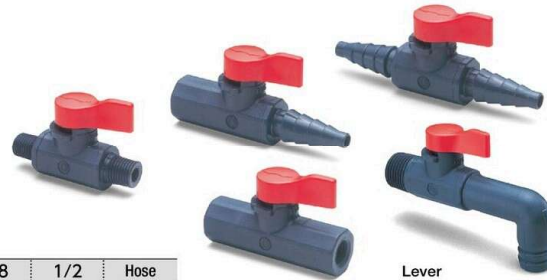
PTFE EPDM

O-ring

EPDM FKM

Standard

JIS DIN ANSI



Lever

Screw Size	1/4	3/8	1/2	Hose
Manual Lever	●	●	●	●

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Butterfly Valve(Type 57,56,75)



Connection	
	Wafer Type

Body

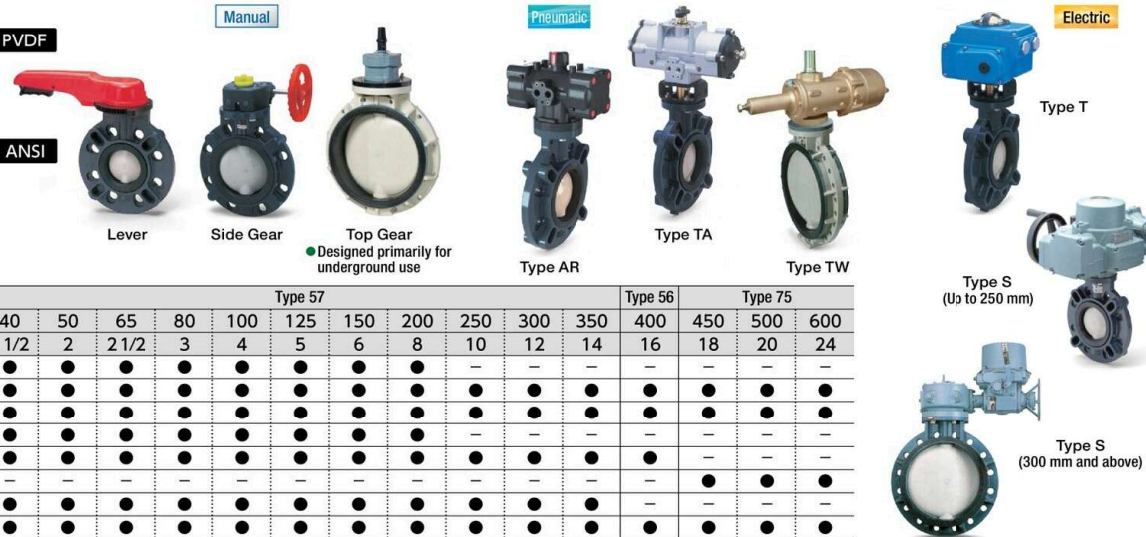
U-PVC PP PVDF

Seat

EPDM FKM

Standard

JIS DIN ANSI



Lever

Side Gear

Top Gear
● Designed primarily for underground use

Type AR

Type TA

Type TW

Type T

Type S
(Up to 250 mm)

Type S
(300 mm and above)

		Type 57										Type 56		Type 75		
Size	mm	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24
Manual	Lever	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Side Gear	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Top Gear	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Pneumatic	Type AR	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Type TA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Type TW	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Electric	Type T	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Type S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Butterfly Valve(Type 56D,75D)



Connection	
	Wafer Type

Butterfly Valve Type 55

Manual



Lever
Side Gear

Pneumatic



Type TA

Electric



Type T
Type S

Connection	
	Wafer Type

Body

FCD-S *Epoxy powder coating

Seat

PTFE

Standard

JIS DIN ANSI

Ideal for corrosive chemical lines

Continuous operation from -20°C to 100°C



Lever

Side Gear



Type TA



Type T



Type S

Size	mm	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24
Manual	Lever	—	●	—	●	●	●	●	●	●	—	—	—	—	—	—
	Side Gear	—	●	—	●	●	●	●	●	●	—	—	—	—	—	—
Pneumatic	Type TA	—	●	—	●	●	●	●	●	●	—	—	—	—	—	—
Electric	Type T	—	●	—	●	●	●	●	●	●	—	—	—	—	—	—
	Type S	—	●	—	●	●	●	●	●	●	—	—	—	—	—	—

Butterfly Valve Type 55IS

Manual



Lever
Side Gear

Pneumatic



Type TA

Electric



Type T
Type S

Connection	
	Wafer Type

Body

FCD-S *Epoxy powder coating

Seat

PTFE

Standard

JIS DIN ANSI

Ideal for corrosive chemical lines

Continuous operation from -20°C to 100°C



Lever

Side Gear



Type TA



Type T



Type S 1)

Size	mm	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
	inch	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24
Manual	Lever	—	●	●	●	●	●	●	●	●	—	—	—	—	—	—
	Side Gear	—	●	●	●	●	●	●	●	●	—	—	—	—	—	—
Pneumatic	Type TA	—	●	●	●	●	●	●	●	●	—	—	—	—	—	—
Electric	Type T	—	●	●	●	●	●	●	●	●	—	—	—	—	—	—
	Type S	—	●	●	●	●	●	●	●	●	—	—	—	—	—	—

1) The actuator model differs depending on nominal diameter.
(Photo: Up To 250mm.)

Lug Butterfly Valve Type 57L

Manual



Lever
Side Gear

Connection

Wafer Type

Lug Butterfly Valve Type 57TL

Manual



Lever
Side Gear

Connection

Wafer Type

PDCPD Butterfly Valve



Connection	
	Wafer Type

Body

PDCPD

Seat

EPDM

Standard

JIS DIN ANSI

Used in large-scale agricultural and water supply lines

Manual



Side Gear

Electric



Type S

Size	mm	700	800	900	1000	1100	1200
	inch	28	32	36	40	44	48
Manual	Side Gear	●	●	●	●	●	●
Electric	Type S	●	●	●	●	●	●

ASAHI AV™

Butterfly Valve Type 58



Connection	
	Wafer Type

Body

PDCPD

Seat

EPDM

Standard

JIS DIN ANSI

Face-to-face dimensions
in accordance with the ISO short pattern

Manual



Side Gear

Pneumatic



Type FL

Electric



Type S



Type A

Size	mm	700	800	900	1000	1100	1200
	inch	28	32	36	40	44	48
Manual	Side Gear	●	●	●	—	—	—
Pneumatic	Type FL	●	●	●	—	—	—
Electric	Type S	●	●	●	—	—	—
	Type A	●	●	●	—	—	—

Rotary Damper (Type 57,56,75)



Connection	
	Wafer Type

Swing Check Valve



Connection	
Flange Type	

Body

HI-PVC PP PVDF

Seat

EPDM FKM PTFE
PFA FKM-F FKM-C

Standard

JIS DIN ANSI

Arm-type check valve with low fluid resistance



Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
Manual		●	●	●	●	●	●	●	●	●	●	●	●	—	—

Wafer Check Valve



Connection	
Wafer Type	

Body

U-PVC

O-ring

EPDM FKM

Standard

JIS DIN ANSI

Corrosion resistance enhanced by a coated spring and all-resin wetted parts



Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
Manual		—	—	—	—	—	—	—	—	●	●	●	●	●	●

Ball Check Valve



Connection	
Flange Type	
Socket Type	Threated Type

Body

U-PVC C-PVC PP PVDF

Seat

EPDM FKM

Standard

JIS DIN ANSI

Flow path design that minimizes fluid resistance



Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
Manual		●	●	●	—	●	●	—	●	●	—	—	—	—	—

True Union Ball Check Valve



Connection	
Flange Type	
Socket Type	Threated Type
Spigot Type	

Body

U-PVC C-PVC PP PVDF

Seat

EPDM FKM

Standard

JIS DIN ANSI

Can be detached without breaking the piping, thanks to unions on both sides

*For more information, please consult your nearest company sales office



Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
Manual		●	●	●	—	●	●	—	—	—	—	—	—	—	—

Ball Foot Valve



Connection	
Flange Type	
Socket Type	Threated Type

Stop Valve



Round Handle

Connection	
Flange Type	
Socket Type	Threated Type

Control Valve

Pneumatic	QR Code	Type AV	Electric	QR Code	Type M	Connection
						Flange Type

Body

U-PVC PVDF

Seat

EPDM FKM-F FKM-C

Standard

JIS DIN ANSI

High-precision control valve



Type AV

Type M

Size	mm	15	20	25	32	40	50	65	80	100
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Pneumatic	Type AV	●	—	●	—	—	●	—	●	●
Electric	Type M	●	—	●	—	—	●	—	●	●

Constant Flow Valve

Manual	QR Code	Round Handle	Connection
			Flange Type

Body

U-PVC

Seat

EPDM

Standard

JIS DIN ANSI

Wide rangeability

Equipped with an opening indicator to verify the set flow rate



Round Handle

Size	mm	15	20	25	32	40	50	65	80	100
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Manual	Round Handle	●	●	●	—	—	●	—	●	●

Needle Valve

Manual	QR Code	Round Handle	Connection
			Flange Type

Body

U-PVC

Seat

EPDM

Standard

JIS DIN ANSI

Specially shaped plug enables high-precision flow adjustment



Round Handle

Size	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
Manual	Round Handle	●	●	●	—	—	—

Gauge Valve

Manual	QR Code	Round Handle	Connection
			Flange Type

Body

U-PVC PP

Diaphragm

EPDM PTFE

Standard

JIS DIN ANSI

Includes a drain plug for sample liquid collection



Round Handle

Size	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
Manual	Round Handle	—	●	●	—	—	—

Sediment Strainer(Type Y)

Manual	QR Code	Connection
		Flange Type
		Socket Type Threated Type

Pinch Valve Type 01

Manual	QR Code	Round Handle	Pneumatic	QR Code	Type AX	Connection
						Flange Type
						Socket Type Threated Type
						Spigot Type

Gate Valve Standard Type(Type P)



Connection	
Flange Type	
	Threated Type

Body

HI-PVC

O-ring

EPDM

Standard

JIS DIN ANSI

The valve body opens and closes
by partitioning the fluid flow at a right angle
Lightweight with excellent impact resistance



Inside Screw Cap Type

Inside Screw Round Handle Type

Size	mm	40	50	65	80	100	125	150	200	250	300	350
	inch	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14
Manual	Top Cap	●	●	●	●	●	●	●	●	●	●	●
	Round Handle	●	●	●	●	●	●	●	●	●	●	●

Gate Valve Soft Seal Type(Type S)



Connection	
Flange Type	
	Threated Type

Body

HI-PVC

Seat

SBR NBR

O-ring

EPDM

Standard

JIS DIN ANSI



Inside Cap Type (Type 66)

Inside Screw Cap Type

Inside Screw Round Handle Type

● Outstanding watertightness thanks to a rubber soft-seal design

Size	mm	40	50	65	80	100	125	150	200
	inch	1 1/2	2	2 1/2	3	4	5	6	8
Manual	Top Cap	●	●	●	●	●	●	●	●
	Round Handle	●	●	●	●	●	●	●	●

PVC Pipes & Fittings



General Pipes, Agriculture, Water Supply, Perforated Pipes

Connection	
TS Joint	
Threaded joint	

Super Pipes & Fittings(C-PVC)



Connection	
TS Joint	
Threaded joint	

Pipes and fittings C-PVC

- Excellent Corrosion
- Having Excellent resistance to High Temperatures
- Lightweight for easy installation



Size	mm	13	16	20	25	30	40	50	65	75	100	125	150	200
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
Pipes and fittings		●	●	●	●	●	●	●	●	●	●	●	●	●

PP Pipes & Fittings



Polypropylene(PP)Pipe Material

Connection	
	Fusion joint

Pipes and fittings PP

- Applicable for high temperature and high pressure
- No dioxins are generated during the combustion of the Pipe
- Environment-Friendly Clean Material



Size	mm	13	15	20	25	32	40	50	65	75	100	125	150	200
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
Pipes and fittings		—	●	●	●	●	●	●	●	●	●	●	●	●

AV Pipes & Fittings

Compostive Pipe Integrated and Reinforced with FRP

Connection	
TS Joint	

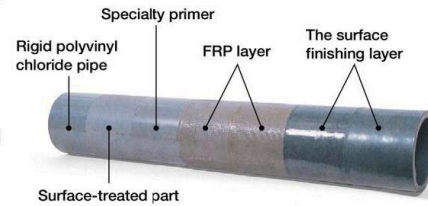
Internal Corrosion-Resistant Layer

U-PVC PP

External Reinforcement Layer

FRP

- Excellent Corrosion-And Heat-Resistance



Size	mm	13	16	20	25	30	40	50	65	75	100	125	150	200
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
Pipes and fittings		●	●	●	●	●	●	●	●	●	●	●	●	●

Size	mm	250	300	350	400	450	500	600
	inch	10	12	14	16	18	20	24
Pipes and fittings		●	●	●	●	●	●	●

ASAHI AV™

High Purity Series

Valve, Pipe, Joint for Pure Water

Dymatrix™



High-performance thermoplastic valves

Dymatrix products are ideally suited for semiconductor and flat panel display process needs

Realizes accurate flow control and durability for ultra-pure water, corrosive fluid and slurry applications.

Wide selection from various valves, depending on the applications



Dymatrix™

Falcons™



High-accuracy flow Controller

These flow control systems boast their structure ideal for the cmp process and a high level of durability

Ultrasonic flow meters and motor-driven valve integrated

High precision flow control systems

AVFCS2

- Compact slurry flow
- Controller with a straight passage structure



FALCONICS™

Inline Mixer



Time difference type mixer(AVTDM),
Slit type mixer(AVSTM)

Connection	
Flange Type	
Socket Type	Threated Type

Body

U-PVC PP PVDF

O-ring

EPDM FKM

Reduces uneven mixture of
concentration efficienstaic
Mixer in the piping line.



Mixworx™

Size	mm	15	20	25	32	40	50	65	80	100	125	150	200
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AVTDM		●	●	●	—	●	●	●	●	●	—	—	—
AVSTM		●	●	●	●	●	●	●	●	●	●	●	—

Ejector



Swirl-flow type ejector(AVEJT),
Regular type ejector(AVEJH)

Connection	
Flange Type	
Socket Type	Threated Type

Body

U-PVC PP PVDF

O-ring

EPDM FKM

Excellent stirring effect

Self-contained mixer with less
affected by back-pressure



Mixworx™

Size	mm	15	20	25	32	40	50	65	80	100	125	150	200
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AVEJH		●	●	●	●	●	●	●	●	●	—	—	—
AVEJT		●	●	●	—	●	●	—	—	—	—	—	—

Molded parts, Secondary Materials



Bolt&Nut, Saddle, AV Gauge Flange,
AV Gasket, Diaphragm Manomator

Joints



Multi-Joint, Prefab Joint,
Expansion Joint

AV Adhesive



Various adhesives for general pipe,
Ultrapure, HI, Super Pipe

ENGINEERING

Pipe design and Construction

We engage in design and construction of various facilities (semiconductor, ironmaking, chemical plant, aquarium, etc.) with our in-house products (valves, pipes, etc.)

Fabricated piping product

We can provide our specially fabricated products for difficult construction on site. Ex.Header pipe.
Use our services for product assurance, accuracy improvement and cost reduction.

Fabricated PP Pipe



Fabricated AV Pipe

PP Tower/ Tank, Plastics processed product

We can provide design, manufacturing and installation of PP (poly propylene) Tanks and other various thermo plastic products on site.
Design and production according to customer's requests are available.

PP Tank



Pit Regeneration (PP Seat Lining)



Resistance to major chemicals

More detailed chemical resistance sheets can be downloaded from our website.



The list below shows the evaluation results of AV product materials in our original evaluation method based on immersion tests, accumulated field experiences and literature. It does not intend to guarantee the quality of AV products.

In actual use, the effects on the materials vary depending on the use conditions by the customer (pressure, temperature, stress, time, slurry, vibration, environment, etc.) It is recommended to perform demonstration tests if there is any doubt.

	Salt																													
Chemicals	Calcium chloride CaCl ₂						Sodium chloride NaCl						Aluminum sulfate Al ₂ (SO ₄) ₃						Ferrous sulfate FeSO ₄						Hydrochloric HCl					
Concentration	Saturation*1						Saturation*1						Saturation*1												25					
Temp.	20	40	60	80	100	120	20	40	60	80	100	120	20	40	60	80	100	120	20	40	60	80	100	120	20	40	60	80	100	120
U-PVC	○	○	○				○	○	○				○	○	○				○	○	○				○	○	○			
C-PVC	○	○	○	○			○	○	○	○			○	○	○	○			○	○	○	○			○	○	○	○		
PP	○	○	○	○			○	○	○	○			○	○	○	○			○	○	○	○			○	○	○	○		
PVDF	○	○	○	○	○	○	○	○	○	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
PTFE	○	○	○	○	○	○	○	○	○	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
FKM	○	○	○	○	○		○	○	○	○	○		○	○	○	○			○	○	○	○	○		○	○	○	○	△	
EPDM	○	○	○	○			○	○	○	○			○	○					○	○	○	○			○	○	○	×		
FKM-F	○	○	○	○	○		○	○	○	○	○		○	○	○	○			○	○	○	○			○	○	○	○	○	
FKM-C	○	○	○	○	○		○	○	○	○	○		○	○	○	○			○	○	○	○			○	○	○	○	△	

	Inorganic acid																		Organic acid											
Chemicals	Sulfuric acid H ₂ SO ₄												Phosphoric acid H ₃ PO ₄						Acetic acid CH ₃ COOH											
Concentration	50						80						85						10						50					
Temp.	20	40	60	80	100	120	20	40	60	80	100	120	20	40	60	80	100	120	20	40	60	80	100	120	20	40	60	80	100	120
U-PVC	○	○	○				○	○	○				○	○	○				○	○	○				○	○	○			
C-PVC	○	○	○	○			○	○	○	△			○	○	○	△			○	○	○	○			○	○	△	×		
PP	○	○	○	○			○	○	○	○			○	○	○	○			○	○	○	○			○	○	○			
PVDF	○	○	○	○	○	○	○	○	○	○	○	×	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
PTFE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
FKM	○	○	○	○	○	○	○	○	○	○	△		○	○	○	○	○		○	○	△	×			△	×				
EPDM	○	○	○	○			○	○	○	×			○	○	○	○			○	○	○				○					
FKM-F	○	○	○	○	○		○	○	○				○	○	○	○	○		○	○	○				△	×				
FKM-C													○	○	○	○	○		○	○	△	×			△	×				

Organic solvent									
Acetone		Ethanol		Methanol		Toluene		Benzene	

○.....Little or no effect ○.....Slight effect △.....Noticeable effect X.....Severe effect

Inorganic acid

acid	Nitric acid HNO ₃												Hydrofluoric acid HF												Chemicals
	35						10						30						10						Concentration
	20	40	60	80	100	120	20	40	60	80	100	120	20	40	60	80	100	120	20	40	60	80	100	120	Temp.
	○	○	○				○	○	○				○	○	○				○	○	△				U-PVC
	○	○	○	○			○	○	○	○			○	○	○	△	X		○	○	○	△	X		C-PVC
	○	○	○	○			○	○	○	○			○	○	○	○	○		○	○	○	○	○		PP
	○	○	○	○	○	△	○	○	○	○	○		○	○	○	○	○	○	○	○	○	○	○		PVDF
	○	○	○	○	○	○	○	○	○	○	○		○	○	○	○	○	○	○	○	○	○	○		PTFE
	○	X					○	○	○	○	○		○	○	○	○	△		○	○	○	○	○		FKM
	○	X					○	○	○	X			○	○	X				○	○	○	○	○		EPDM
	○	○	○	○			○	○	○	○	○		○	○	○	○	○		○	○	○	○	○		FKM-F
	○	○	○	○			○	○	○	○	○		○	○	○	○	△		○	○	○	△			FKM-C

Alkali

Ammonia water NH4OH							Sodium hydroxide (caustic soda) NaOH												Chemicals	
40							5						30						Concentration	
20	40	60	80	100	120		20	40	60	80	100	120		20	40	60	80	100	120	Temp.
○	○	○					○	○	○					○	○	○				U-PVC
×	×	×	×				△	×	×	×				○	○	△	×			C-PVC
○	○	○	○				○	○	○	○				○	○	○	○			PP
○	○	○	○	○	○		○	○	○	△	△			○	○	○	△	×		PVDF
○	○	○		○	○		○	○	○	○	○	○		○	○	○	○	○	○	PTFE
○	△	×					△	△	×					△	×					FKM
○	○	○					○	○	○	○				○	○	○	○			EPDM
○	△	×					○	○	△					○	○					FKM-F
○	△	×					○	○	△					○	○					FKM-C

Other

Mixed acid

Hydrogen peroxide

Sodium hypochlorite

Nitric acid + Hydrofluoric acid

Aqua regia

Global Network

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Please note that due to product improvements, the specifications, etc.
listed in this catalog are subject to change without prior notice.

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