



UNGGUL  
PRAKARSA  
PRISMA



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## PT. UNGGUL PRAKARSA PRISMA

( *Engineering Supply Company* )

Kompleks Intercon Plaza Blok D8-9, Jl. Meruya Ilir Raya  
Jakarta 11630 - Indonesia

Phone : 62-21-58901302 ( Hunting ), 5852531, 5860158, Fax : 62-21-5304380, 5304885

Email : [unggulpp@upp.co.id](mailto:unggulpp@upp.co.id) , Web : [www.unggulpp.com](http://www.unggulpp.com)



## Flush Bottom Valve Piston / Ram Valve

ALL Custom made in Japan

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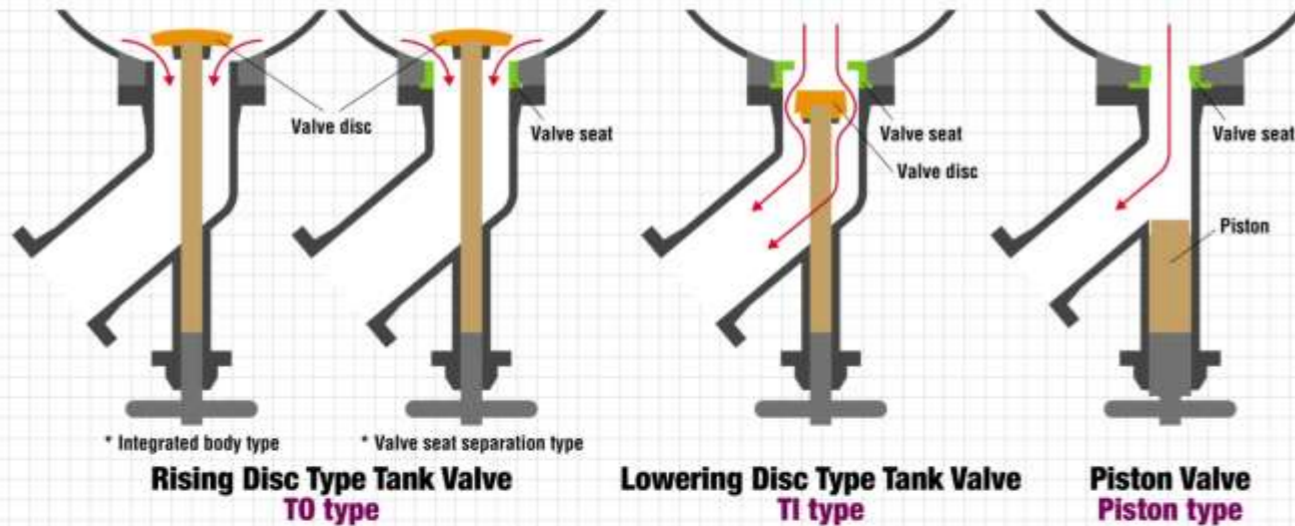
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All valves from Aska Corporation are unique, designed to suit the order from the customer.

## Types of Tank Valves



### Rising Disc Type

The valve opens when the valve disc has risen into the tank.

### Lowering Disc Type

The valve opens when the valve disc has lowered into the valve.

### Piston type

Full bore is reached when the piston has lowered.

	Rising Disc Type	Lowering Disc Type	Piston type
Flow of fluid	○	△	◎
Interfering with in-tank agitator	△	◎	◎
Double action cylinder (Fail Last)	○	○	○
Single action cylinder (Fail Close, Fail Open)	○	○	×
Air motor	○	○	◎
Thermometer attachment	○	○	○

Teflon® and other coatings and linings are available, so they can be used not only for polymer applications, but for pharmaceuticals and foods, where corrosion resistance, chemical resistance, and impurity adhesion prevention are required.

Standard Materials Handled : SCS13/CF8 (SS304), SCS14/CF8M (SS316), SCS19/CF3 (SS304L), SCS16/CF3M (SS316L), Hastelloy alloys B/C

Standard Manufacturing Sizes : Rising/lowering disc type valves: 20 A to 500 A; Piston valves: 15 A to 300 A

### Manual Handle Standard Manual hand wheel



This valve is opened and closed manually. Both rotating types and non-rotating types are available.

### Air Motor Air motor



A motor controls the valve via a continuous supply of air. They are lightweight, small, and provide high output, so they can be installed in cramped spaces. The flowrate can be adjusted by adding a control unit. A limit switch/positioner can be installed. Types with a manual handle are available.

### Air Cylinder Air cylinder

This instrument uses compressed air to control the valve. Aska Corporation air cylinders are manufactured in-house, and can be customized in various ways. Various accessories including solenoid valves, air sets, limit switches, positioners, speed controllers, and silencers can be installed.

#### Single Action Single action (FC/FO)



Fail Close  
Fail Open

The valve is opened by air pressure. If the air supply fails, an internal spring keeps the valve closed (Air Fail Close). The opposite setting (Air Fail Open) is also possible. Types with a manual handle are available.

#### Double Action Double action (FL)



Fail Last

The valve is opened and closed by air pressure. If the air supply fails, the valve disc stops at that position (Fail Last). Types with a manual handle are available.

### Electric Motor Electrical motor



This electric motor is computer-controlled. Various settings can be configured by remote control, and there is a digital display panel showing the extent of opening/closing. The flowrate can be adjusted by adding a control function.

### Diaphragm Diaphragm actuator



This instrument uses compressed air to control the valve. 4 mA to 20 mA control can be set. Fine-tuned control is possible due to the flexibility of the diaphragm. The flowrate can be adjusted by adding a positioner. This is optimal for trace quantity control valves.

## Optimal Design and Strict Quality Control

### Product Lineup

Diverter valves / 3-to-7-way valves  
Tank valves / flush bottom valves  
Piston valves / ram valves  
Sampling valves / drain valves  
Injection valves  
Plug valves  
Control valves  
Y-globe valves  
Die / die head valves

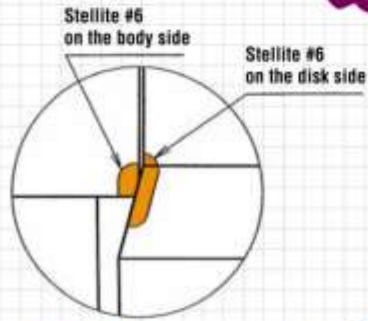
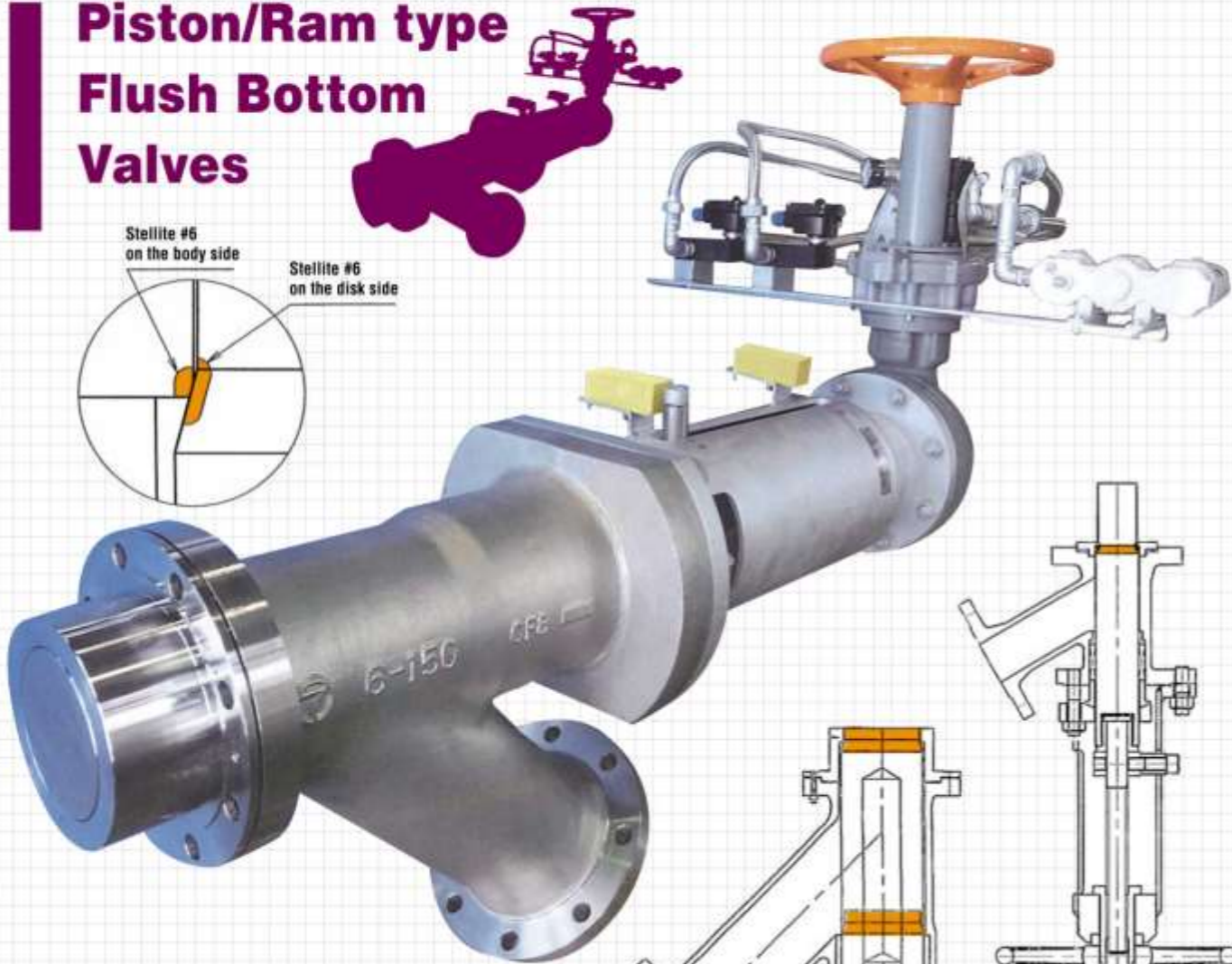
### APPLICATIONS

PET / PC / PBT  
PP / PE / PS / PU / PVC  
/ LDPE / HDPE / LCD  
PTA / PLA  
PA6 / PA66  
TONNER / RESINS  
Pharmaceutical intermediates  
/ nuclear power / foods



# Piston Valve

## Piston/Ram type Flush Bottom Valves



Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

## Dead Space Free Design

The best feature of piston valves is that when the valve is opened, full bore is reached while the piston drops all the way to the flow outlet. This is also optimal for viscous fluids.

## Piston Valve

- They can be fitted regardless of the shape of the vessel nozzle.
- They can also be used for sampling and flushing from pipes.
- The valve tip can be completely fitted on the vessel wall.
- The shape of the piston tip can be sharpened, so that it can break up any residue within the vessel.
- With piston valves, the inside of the valve is cleaned each time the piston moves. This is ideal for slurries and other fluids that are prone to clogging.

<Standard Piston Valve>

**High Temperatures and High Pressures**  
Valves compatible with high temperatures and high pressures are required.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Thick Fluids**  
Fluids are highly viscous, so they must be evacuated without pausing, and with no dead spaces.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Thermometer**  
The temperature of the fluid at the bottom of the tank must be determined.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Agitator**  
The agitator is at the bottom, so there are concerns that it will interfere with the valve.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Linings**  
Linings are required because the fluid is corrosive.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Fail Close / Fail Open**  
In an emergency such as air supply failure, valves must be closed or opened with a single action cylinder.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Metal Touch**  
Application of Stellite to the body and both sides of the valve disc is standard at Aska Corporation.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Bellows**  
The sealing properties of the packing must be enhanced by adding a bellows seal.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Washing Nozzle / Purge**  
A washing nozzle and purge must be installed.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**High-Pressure Gas**  
A high pressure gas-compatible valve is required.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Quick Delivery (1 to 2 Months)**  
Quick delivery is required.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Compatible Sizes**

Inlet — Outlet	SCS13	SCS14
25A — 20A	○	○
40A — 25A	○	○
50A — 40A	○	○
80A — 50A	○	○
100A — 80A	○	○
150A — 100A	○	○

## Tank valves from Aska Corporation solve a variety of issues for our customers.

**Jacket**  
Jacket type valves are required. Full-jacket and semi-jacket types are available.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Pulverizing**  
Because material can accumulate at the bottom of the tank, the valve tip must be sharpened so that valve seats can be fitted while pulverizing residue.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Direct**  
The valve must be attached to the pipe.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Teflon Disc**  
Fitting seats with little force is required. Disc replacement must be easy.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**BUFF**  
The inner surface must be buffed.  
Up to 4400

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Dead Space Free**  
The structure must ensure that fluid does not accumulate.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Ball Valves with Dead Space**  
A replacement for ball valves, which have dead space, is required.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Flowrate Adjustment**  
Flowrate adjustment while monitoring the extent of valve opening is required.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Perfect Fit**  
The valve tip must match the round, curved bottom of the tank.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Replacement of Previously Installed Valves**  
The replacement must match the previously installed valve and interface.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Seatless**  
A valve with a seatless rod seal structure is required.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

**Wetted Parts Must Be Visible**  
The fluid flow must be checked via a polycarbonate body.

Rising Disc Type  
Lowering Disc Type  
**Piston Valve**

# Rising Disc Type and Lowering Disc Type Tank Valves

Rising Disc Type

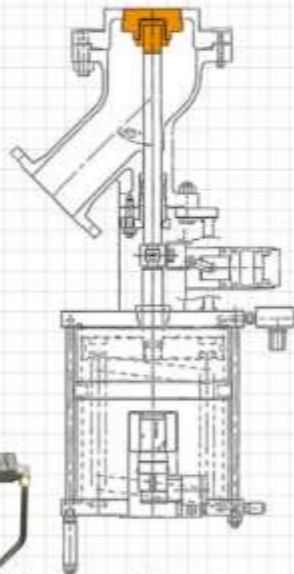
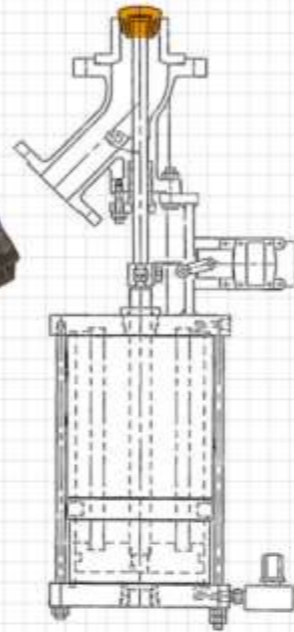
Lowering Disc Type

Piston Valve

Disc type  
Flush Bottom  
Valves



Rising Disc Type  
TO Type



Leak-Proof Valves  
Featuring  
High Seal Performance

Tank valves are designed to expel fluids from reactors, vessels, and storage tanks.

An advantage of the disc type is that the opening/closing stroke is short. The labor saving air cylinder type is common.



Lowering  
Disc Type  
TI Type

Rising Disc Type and  
Lowering Disc Type Tank Valves

- A lowering disc type and a rising disc type are available.
- Valves can be fitted regardless of the shape of the vessel nozzle, so replacement of previously installed valves is easy.
- The lowering disc type valve can be completely fitted on the vessel wall.
- The valve disc can be sharpened, enabling it to break up any residue within the vessel.
- The temperature in the vessel can also be measured.



Special Machining for Tank Valves

Rising Disc Type

Lowering Disc Type

Piston Valve

# Valves Equipped With Resistance Thermometer Sensor

Resistance  
Thermometer  
Sensor  
Valves



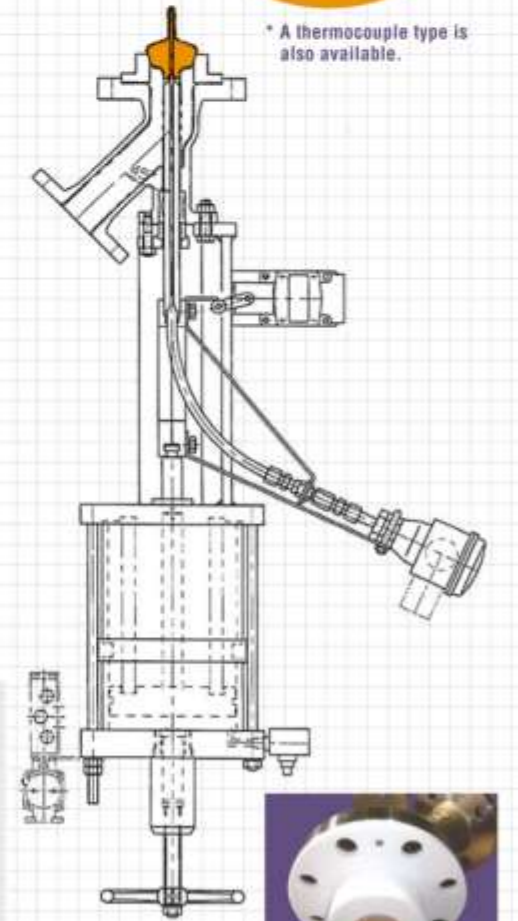
\* A thermocouple type is also available.

Valves That  
Measure Temperature

These days, our customers use a variety of fluids, and there is a strong need for in-tank temperature measurements. Many customers have asked if the in-tank temperature can be measured at the valve. With conventional thermometers attached to the tank, there are concerns about contamination, and adjustments to the attachment position are difficult.

Attaching the thermometer to the valve has the following advantages.

- The resistance thermometer sensor can be replaced while the valve is left attached to the tank.
- A thermometer nozzle in the tank jacket is not required, and an in-tank thermometer is not required.
- Combined use of a Teflon coating enables temperature measurements of highly corrosive fluids.
- Combined use of a bellows seal is possible.
- If there is a risk of interference with an agitator, it is possible to change to thermocouple specifications, and the protrusion length can be adjusted.
- The temperature can be measured all the way to the final trace amounts in the reaction layer at the bottom of the tank.



Teflon Coated