

# CERAMIC LINING BALL VALVE

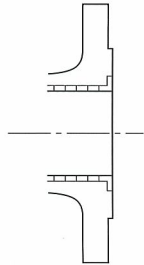
Ceramic Lining Ball Valve is designed for hard powder & high speed pneumatic conveyer system, and it has high performance for anti-erosion. Hisaka's ceramic lining has supplied many kinds critical application and obtained good evaluation from industrial market.

**HISAKA WORKS, LTD.**

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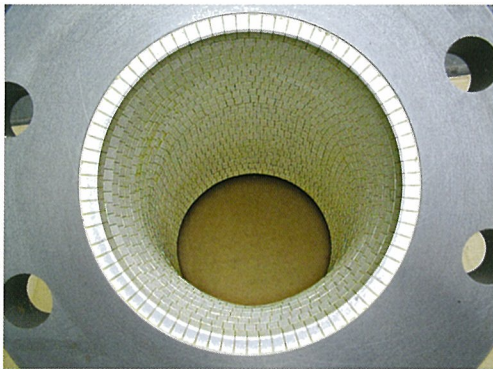
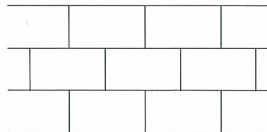
## Characteristic

- ① High performance for anti-erosion achieved to prolong a life time of valve.
- ② It can be used Hisaka's standard valve so it can be reduced cost and can be shortened the delivery time.
- ③ Valve of complex shape also can be processed.



● Edge of valve port attached "L" shape tips. So it can be protected erosion and flaking off the tips on edge part.

● Array of tips is by hound's tooth pattern, it can be protected erosion and flaking off in parts of seam.



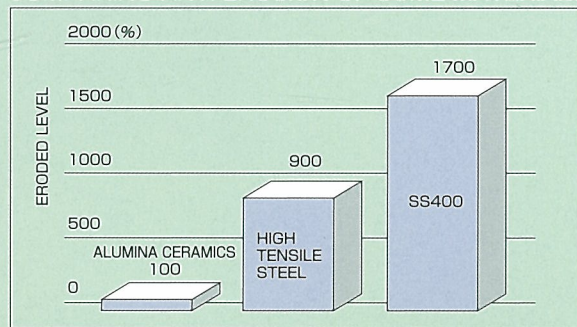
## SPECIFICATION

AVAILABLE RANGE	25A~600A
CERAMIC TIPS	MATERIAL:ALUMINA 92%
	SHAPE:TIP (t1.5 t3)
ADHESIVE	EPOXY or SILICON
OPERATION TEMP.	EPOXY ~150°C
	SILICON ~200°C
ANTI-EROSION	FC200×20times

## COMPARING ANTI-EROSION

Hisaka's ceramic lining has high technology for attaching tips by special adhesive. So it is possible to demonstrate for the performance of anti-erosion.

### COMPARING ANTI-EROSION OF SOME MATERIALS



(TEST CONDITION:SPRAYING STEEL GRIT, SPRAYING 30DEGREE,PRESS 0.69MPa,TIME 60HOURS)

## SUPPLY RECORD OF POWDER FLUID

FLY ASH, COAL POWDER, CEMENT POWDER, WASTE PLASTICS, QUICK LIME, CASTING SAND, ORE POWDER, IRON POWDER, DIATOMITE, SILICA and etc.

## FOR PROPER USE OF HISAKA BALL VALVE

Following points must be considered in order to use HISAKA ball valves in a proper way.

1. Do not allow the slurry (dirts in the pipe, welding slag, rust, etc.) to enter into the standard valve. If the slurry thrust into the ball seat or causes damage on it, the leakage or defective function may result. Install the valve only after the through cleaning is made inside the pipe. If the liquid containing the slurry is to be supplied, exchange the standard valve with the valve for slurry use.
2. Do not use the standard valve to the liquid which shows a large temperature fluctuation. If the high temperature liquid is supplied to the low temperature condition, the liquid inside the valve body shows the heat expansion, forming the high pressure. In such a case, the leakage or defective function may be caused. Either reduce the temperature fluctuation or exchange with the valve having the relief port in the above case.
3. Do not apply undue force (as caused by one-side tightening of bolts, the tightening against a large gap, etc.) or vibration to the valve. Otherwise, the leakage or faulty function may happen. Observe the piping dimensions as instructed and arrange the support for a heavy valve.
4. Bolts and nuts are loosened in some cases due to the vibration during the transport. Therefore, check the tightening condition before use. If found loose, retighten the bolts.
5. Special treatment is necessary, if the valve is used for oxygen or hydrogen service.

6. Please clarify the detail of operation condition and fluid. The flow direction of fluid is designated in certain valves. The reverse flow may cause the leakage. Install the valves as instruction, if the flow direction is designated.
7. At the time of disassembling the automatic valve, do not disassemble the pneumatic cylinder if the pressure still remains inside. Otherwise, the parts pop out. disassemble it only after the air is purged.
8. Do not disassemble the pneumatic cylinder of spring back type. If it is to be disassembled under unavoidable circumstances, exchange the end cap set bolt with the long bolt before disassembling. Otherwise, the spring may jump out what is dangerous.
9. Make the working test once a month or so, automatic valve is kept out of operation over a long period.
10. In case of using the teflon seat valve only for ON-OFF operation, the interim opening position deforms the seat and the leakage is caused.
11. If you have any question or requirement about our product, please contact us or our local sales agent.

- ISO 14001 CERTIFIED FACTORY
- HIGH PRESSURE GAS AUTHORISED FACTORY
- ISO 9001 CERTIFIED FACTORY
- API CERTIFIED FACTORY

**HISAKA WORKS, LTD.**  
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