

Sintered Vent

About a Sintered Vent



Sintered Vent is produced by applying sintering process of powder metals and has many paralleled, straight micro pores that allow air/gas purge. It is also called air vent or gas vent and used as gas purging vent during aluminum casting and resin molding. If a certain level of air and/or gas, which comes from raw materials, remains inside the cavity at the time of injection of melted resin or casting of aluminum alloy under low pressure, it defects the finished products. Our vent helps purging those air and gas during molding process.

Characteristics of Sintered Vent

Contains micro pores of 0.02mm to 0.5mm

300 to thousands of straight micro pore per 1cm²

Various combinations of pore diameter and numbers of pore

Better thermal conductivity due to copper infiltration method

Steam treatment for rusting prevention

Application of Sintered Vent

Gas purging for aluminum alloy gravity and low pressure casting

- Our Sintered Vent has 4 to 30times larger pores than conventional vent and offers the best results even with smaller outer diameter.
- For larger casting of aluminum alloy, vent with 0.5mm pore diameter as an effective diameter should be proper application.
For smaller and higher pressure casting, 0.3mm pore diameter should work the best.
- With better purging performance, more accurate molding is available without lack of filler and missed molding at convex tip.



For gas vent for injection molding

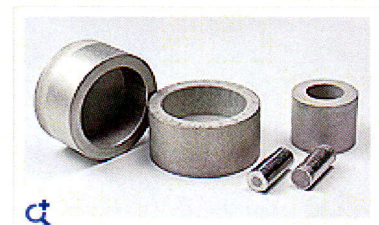
- Effectively purge air in the cavity and prevent gas burn and missed molding.
- For injection molding of resin, attach the Sintered Vent with 0.05mm+/- at the outlet to purge gas.
- Easily move the welded line.
- Reduces the shot cycle and significantly improve productivity.
- Inject the vent in the center of ejector pin or locations of underfill to maximize the advantages of the vent.

For gas vent for blow molding of resin

- Gas vent for blow molding of resin for automotive parts and household and industrial resin containers, Sintered Vent with 0.3 to 0.5mm pores are applied.

We also provide SUS W-type vent for injection molding.

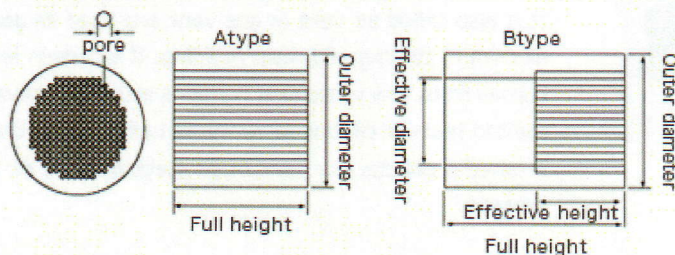
- SUS vent is effective to prevent decay caused by gas. W-type vent has more porosity than P-type vent with the same pore diameter.



Specification of Sintered Vent

*Item Number description (example) **50310**

Full height (mm)
Outer diameter (mm)
Pore diameter ($\times 0.1$ mm)



For gravity/low pressure casting

• P-type vent [Material: Fe-Cu-C type]

Type	Code No.	Outer diameter (mm)	Full height (mm)	No. of pores	Pore dia (mm)	Porosity (%)
A	50310	3	10	39	0.5	60
A	50410	4	10	39	0.5	55
A	50510	5	10	61	0.5	45
A	50610	6	10	61	0.5	40
A	50615	6	15	61	0.5	40
A	50810	8	10	96	0.5	35
A	50815	8	15	96	0.5	35
A	51010	10	10	200	0.5	34
A	51015	10	15	200	0.5	34
A	51210	12	10	200	0.5	31
A	51215	12	15	200	0.5	31
A	51415	14	15	341	0.5	35
A	51615	16	15	341	0.5	32
A	51815	18	15	553	0.5	33
A	52015	20	15	553	0.5	33
A	52815	28	15	973	0.5	30
A	30510	5	10	96	0.3	30
A	30515	5	15	96	0.3	30
A	30610	6	10	96	0.3	29
A	30615	6	15	96	0.3	29
A	30810	8	10	200	0.3	28
A	30815	8	15	200	0.3	28
A	31010	10	10	341	0.3	31
A	31015	10	15	341	0.3	31
A	31210	12	10	341	0.3	28
A	31215	12	15	341	0.3	28

Tolerance of outer diameter +0.03 to 0.08 Length ± 0.5

Injection Molding and Die Casting

• P-type vent [Material: Fe-Cu-C type]

Type	Code No.	Outer diameter (mm)	Full height (mm)	No. of pores	Pore dia (mm)	Porosity (%)	Effective height (mm)	Effective diameter (mm)
B	201010	10	10	880	0.2	35	5	6
B	100810	8	10	880	0.1	29	5	5.5
B	101010	10	10	880	0.1	29	5	5.5
B	050610	6	10	880	0.05	18	5	3.5
B	050810	8	10	880	0.05	18	5	3.5
B	051010	10	10	880	0.05	18	5	3.5
B	030610	6	10	880	0.03	13	5	2.5
B	030810	8	10	880	0.03	13	5	2.5
B	031010	10	10	880	0.03	13	5	2.5

Tolerance of outer diameter +0.03 to 0.08 Length ± 0.5

• W-type vent [Material: Fe-Ni-Cr Mo type]

Type	Code No.	Outer diameter (mm)	Full height (mm)	No. of pores	Pore dia (mm)	Porosity (%)	Effective height (mm)	Effective diameter (mm)
A	W200610	6	10	169	0.2	27	10	5
A	W200810	8	10	288	0.2	27	10	6.5
B	W201010	10	10	180	0.2	23	3	5.5
A	W100110	1	10	7	0.1	19	10	0.6
A	W100210	2	10	55	0.1	19	10	1.7
A	W100310	3	10	76	0.1	19	10	2
A	W100410	4	10	76	0.1	19	10	2
B	W100510	5	10	76	0.1	19	3	2
B	W100610	6	10	76	0.1	19	3	2
B	W100810	8	10	300	0.1	19	3	4
B	W101010	10	10	690	0.1	19	3	6
B	W101210	12	10	1200	0.1	19	3	8
B	W101510	15	10	1900	0.1	19	4	10
B	W102010	20	10	4300	0.1	19	4	15
A	W050110	1	10	43	0.05	25	10	0.65
A	W050210	2	10	225	0.05	22	10	1.7
A	W050310	3	10	225	0.05	25	10	2
A	W050410	4	10	225	0.05	25	10	2
B	W050510	5	10	400	0.05	25	3	2
B	W050610	6	10	400	0.05	25	3	2
B	W050810	8	10	1600	0.05	25	3	4
B	W051010	10	10	3600	0.05	25	3	6
B	W051210	12	10	6400	0.05	25	3	8
B	W051510	15	10	10000	0.05	25	4	10
B	W052010	20	10	20000	0.05	22	4	15
A	W030110	1	10	70	0.03	25	10	0.5
A	W030210	2	10	280	0.03	25	10	1
A	W030310	3	10	630	0.03	25	10	1.5
A	W030410	4	10	1120	0.03	27	10	2
B	W030510	5	10	1120	0.03	27	2	3
B	W030610	6	10	1120	0.03	27	2	3
A	W020210	2	10	224	0.02	9	10	1.8
A	W020310	3	10	532	0.02	9	10	2.3
A	W020410	4	10	750	0.02	7	10	3.2

Tolerance of outer diameter +0.05 Length ± 0.2

Instruction for Use of Sintered Vent

1. Do not damage the pore surface by metals and hard materials. It will cause clog and chip.
2. Do not polish/grind the pore surface.
3. Use resin or wooden hammer to inject the vent.

- Sintered Vent is a trademark of FINE SINTER Co Ltd.
- The number of pores and effective diameter of vents are subject to change without advanced notification.
- Please allow 2 weeks lead time for W-type vent due to its special specification.
- Please ask sales office for product prices.