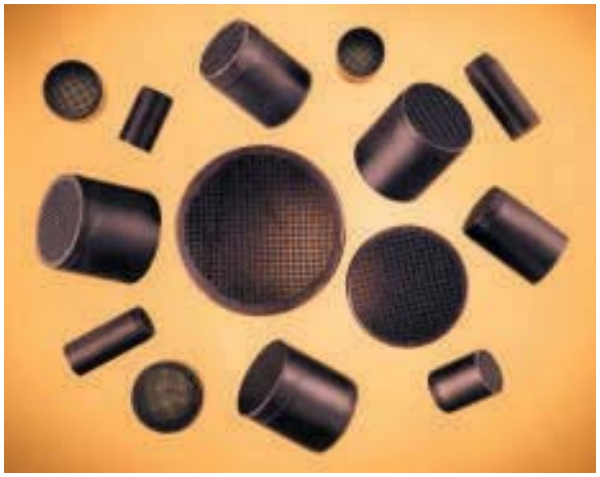
Sintered Vents – For Plastics Injection Molding

Features and Benefits of Sintered Vents – USV

- Venting of air or gas reduces occurrence of short shots and burned parts
- Self-contained standardized vents save time in design, installation and maintenance
- Wide variety of off-the-shelf standard sizes available
- Fast and easy replacement or cleaning of sintered vents improves productivity
- Field tested to ensure product reliability



Sintered vents are a unique venting plug composed of a large number of straight, parallel and uniform pores made through a powdered metallurgy process. The pores allow trapped air or gas to escape from the mold cavity during the injection molding or die casting process, thereby reducing the occurrence of defective parts.

Application Recommendations

Plastics injection molding

A 0.03mm vent diameter should be used with polymers such as polyethylene or polypropylene. Use a vent with a pore diameter of 0.05mm for low-flow polymers such as polycarbonate, nylon, or ABS. When molding highly viscous material (very low-flow properties), use a vent with a 0.10mm pore diameter.

Stainless Steel sintered vents are recommended for plastic materials that are particularly gaseous or corrosive, such as PVC. Stainless Steel sintered vents are also recommended for plastic materials containing flame-retardants.

SINTERED VENTS FOR PLASTICS INJECTION MOLDING APPLICATIONS
VENT MATERIAL: STAINLESS STEEL

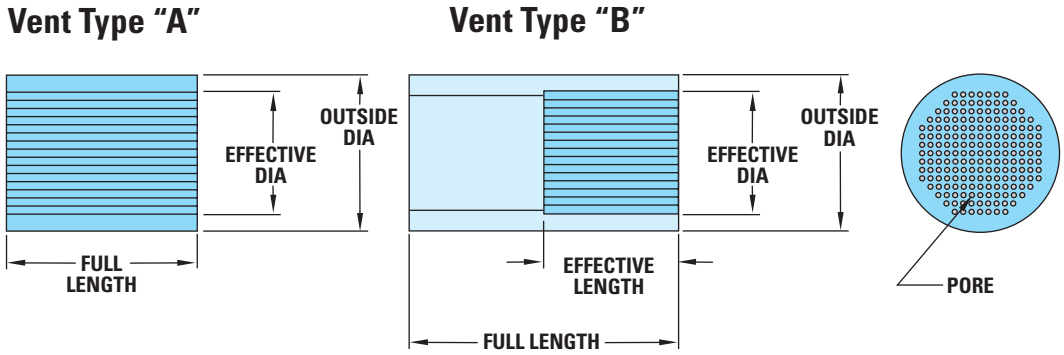
VENT TYPE	ITEM NUMBER	OUTSIDE DIA (MM)	FULL LENGTH (MM)	NO. OF PORES	PORE DIA (MM)	POROSITY % OF EFFECTIVE DIA	EFFECTIVE DIA (MM)	EFFECTIVE LENGTH (MM)
A	USV0035	2	10	280	0.03	25	1	10
	USV0036	3	10	630	0.03	25	1.5	10
	USV0038	2	10	250	0.05	25	1.7	10
	USV0039	3	10	400	0.05	25	2	10
	USV0040	4	10	400	0.05	25	2	10
B	USV0041	6	10	400	0.05	25	2	3
	USV0042	8	10	1600	0.05	25	4	3
	USV0043	10	10	3600	0.05	25	6	3
	USV0044	12	10	6400	0.05	25	8	3
	USV0045	15	10	10000	0.05	25	10	4
	USV0046	5	10	76	0.10	19	2	3
	USV0047	6	10	76	0.10	19	2	3
	USV0048	8	10	300	0.10	19	4	3
	USV0049	10	10	690	0.10	19	6	3
	USV0050	12	10	1200	0.10	19	8	3

SINTERED VENTS FOR PLASTICS INJECTION MOLDING APPLICATIONS
VENT MATERIAL: IRON ALLOY

VENT TYPE	ITEM NUMBER	OUTSIDE DIA (MM)	FULL LENGTH (MM)	NO. OF PORES	PORE DIA (MM)	POROSITY % OF EFFECTIVE DIA	EFFECTIVE DIA (MM)	EFFECTIVE LENGTH (MM)
B	USV0027	10	10	880	0.10	29	5.5	5
	USV0028	8	10	880	0.10	29	5.5	5
	USV0029	10	10	880	0.05	18	3.5	5
	USV0030	8	10	880	0.05	18	3.5	5
	USV0031	6	10	880	0.05	18	3.5	5
	USV0032	10	10	880	0.03	13	2.5	5
	USV0033	8	10	880	0.03	13	2.5	5
	USV0034	6	10	880	0.03	13	2.5	5

All dimensions and tolerances are in mm.

Sintered Vents – For Gravity & Low-Pressure Diecasting



Application Recommendations

Gravity and Low-Pressure Diecasting

Die casters should use vents with pore diameters of 0.5mm, 0.3mm, or 0.2mm, depending on pressure.

Installation Information for All Sintered Vents

- The recommended press-fit is 0.01 to 0.02mm for outside diameters of 10mm or less, and 0.015mm to 0.035mm for outside diameters over 10mm
- Use a plastic or wooden hammer for installation. Do not tap the pore surface of the sintered vent with a metallic or hard tool. The use of hard tools will result in clogging or chipping of the vents
- Do not grind, machine, or cut the pore surfaces

Ultrasonic Cleaning

- Use ultrasonic cleaning to periodically clean pores in the sintered vents, as required

SINTERED VENTS FOR GRAVITY AND LOW-PRESSURE DIECASTING APPLICATIONS
VENT MATERIAL: IRON ALLOY

VENT TYPE	ITEM NUMBER	OUTSIDE DIA (MM)	FULL LENGTH (MM)	NO. OF PORES	PORE DIA (MM)	POROSITY %
A	USV0001	4	10	39	0.5	55
	USV0002	6	10	61	0.5	40
	USV0003	6	15	61	0.5	40
	USV0004	8	10	89	0.5	35
	USV0005	8	15	89	0.5	35
	USV0006	10	10	200	0.5	34
	USV0007	10	15	200	0.5	34
	USV0008	12	10	200	0.5	31
	USV0009	12	15	200	0.5	31
	USV0010	14	15	340	0.5	35
	USV0011	16	15	340	0.5	32
	USV0012	18	15	553	0.5	34
	USV0013	20	15	550	0.5	33
	USV0014	28	15	970	0.5	30
	USV0015	5	10	89	0.3	30
	USV0016	5	15	89	0.3	30
	USV0017	6	10	89	0.3	29
	USV0018	6	15	89	0.3	29
	USV0019	8	10	200	0.3	28
	USV0020	8	15	200	0.3	28
	USV0021	10	10	340	0.3	31
	USV0022	10	15	340	0.3	31
	USV0023	12	10	340	0.3	28
	USV0024	12	15	340	0.3	28
	USV0025	14	15	550	0.3	27
	USV0026	10	10	880	0.2	35

All dimensions are in mm.