

Line Vac Data Sheet

Line Vac products are designed with smooth diameter ends to attach to tube or hose with simple hose clamps. They are made from aluminum, 303 and 316SS or hardened alloy. Line Vacs are available from 3/8" through 5" outside diameters.



Threaded Line Vac products have an NPT thread machined on each end for mounting on to standard pipe or pipe fittings. They are made from aluminum, 303SS, 316SS or hardened alloy. Threaded Line Vacs are available from 3/8 NPT through 3 NPT thread sizes.



Heavy Duty Line Vac products are designed to produce more power for longer conveyance or for heavier materials. The hardened alloy construction combats abrasion from materials like glass, garnet or tumbling media. Heavy Duty Line Vacs are available from 3/4" through 3" sizes in Line Vac or Threaded Line Vac styles.



Sanitary Flange Line Vac products are manufactured to mount with standard ISO 2852 sanitary flange fittings. They are made from 316 stainless steel. Sanitary Flange Line Vacs are available in 1-1/2" through 3" sizes.



High Temperature Line Vacs are available to resist heat up to 900°F (482°C). They are made from 303SS or 316SS in a Line Vac or Threaded Line Vac style. High Temperature models are available in 3/4" through 3" sizes.



Line Vac Material Comparison

Material Type	Temperature Rating	Corrosion Resistance
Aluminum Line Vac	275°F (135°C)	Fair
Stainless Steel Line Vac (Type 303)	400°F (204°C)	Good
Stainless Steel Line Vac (Type 316)	400°F (204°C)	Excellent
High Temperature Stainless Steel Line Vac (Type 303)	900°F (482°C)	Good
High Temperature Stainless Steel Line Vac (Type 316)	900°F (482°C)	Excellent
Heavy Duty Line Vac Hardened Alloy Construction	400°F (204°C)	Good

Conveying Rates and Applications

Material	Density (lb/ft ³)	Line Vac Model	Supply Pressure (psig)	Horizontal Run (ft)	Vertical Run (ft)	Rate (lb/min)
Dense Powder	54	150200 (2" Heavy Duty)	100	8	6	16.25
<p>▼ Conveying Abrasive Polymer Grit</p> <p>Product :- Model 150150 1-1/2" Heavy Duty Line Vac Subcategory :- Power Transmission Equipment</p> <p>Details :- Company manufactures power transmission equipment and ball/roller bearings. They need to convey an abrasive polymer grit material over only a 7 foot distance. A Model 150150 1 1/2"(38mm) Heavy Duty Line Vac will withstand the abrasive nature of the material being conveyed, and the inlet pressure can be reduced since the required conveying distance is only 7 feet, thus reducing air consumption.</p> <p>Application :- Convey Industry :- Manufacturing</p>						
Dry Ice Pellets	94	6064 (2" Stainless Steel)	20	25	14	0.00
			40			6.40
			60			11.40
			80			19.50
Ground Corn Cobs	25	6084 (2" Aluminum)	80	7	5	26.00
Ground Corn Cobs	25	150200 (2" Heavy Duty)	80	7	5	40.00
<p>▼ Conveying Compressed Paper Cubes</p> <p>Product :- Model 6086 3" Alum. Line Vac Subcategory :- Packing Material</p> <p>Details :- Customer makes packing cubes made out of compressed recycled paper. The ground up paper is pressed through an extrusion die and cut into 1" cubes and let to fall into a 4x4 cargotainer. The cargotainer then is trucked to a storage area to later be bagged. Using a Model 6086 3" (76mm) Line Vac, they transferred the cubes directly to the hopper of a bagging machine. This saved floor space and labor trucking the product around. Payback was less than a month.</p> <p>Application :- Convey Industry :- Recycling</p>						
Iron Ore Agglomerates (Chunks and Powder)	112	150200 (2" Heavy Duty)	80	20	7	11.30
Cork Board Pieces	9.2	150250 (2-1/2" Heavy Duty)	80	50	0	19.63
				100	0	11.57
				0	9	29.08
				0	18	19.95

Material	Density (lb/ft ³)	Line Vac Model	Supply Pressure (psig)	Horizontal Run (ft)	Vertical Run (ft)	Rate (lb/min)
Cork Board Pieces	9.2	150300 (3" Heavy Duty)	80	50	0	17.31
				100	0	13.65
				0	9	16.48
				0	18	17.76
Green Ceramic Pellets	80.96	150250 (2-1/2" Heavy Duty)	80	50	0	40.03
				100	0	20.35
				0	9	27.25
				0	18	23.00
Green Ceramic Pellets	80.96	150300 (3" Heavy Duty)	80	50	0	41.55
				100	0	21.52
				0	9	29.52
				0	18	26.91
Tumbling Media	64	6080 (3/4" Aluminum)	80	0	11.33	1.02
				25	11	0.85
Tumbling Media	64	6081 (1" Aluminum)	80	50	0	3.68
				100	0	1.23
				0	11.33	3.69
				0	20.75	1.03
				25	11	2.60
Tumbling Media	64	6082 (1-1/4" Aluminum)	80	50	0	7.13
				100	0	2.55
				0	11.33	8.53
				0	20.75	4.17
				25	11	9.71
Tumbling Media	64	6083 (1-1/2" Aluminum)	80	50	0	9.30
				100	0	2.89
				0	11.33	13.58
				0	20.75	5.54
				25	11	11.16
Tumbling Media	64	6084 (2" Aluminum)	80	50	0	15.52
				100	0	5.41
				0	11.33	16.39
				0	20.75	8.03
				25	11	15.52
Tumbling Media	64	150075 (3/4" Heavy Duty)	80	0	11.33	3.44

Material	Density (lb/ft ³)	Line Vac Model	Supply Pressure (psig)	Horizontal Run (ft)	Vertical Run (ft)	Rate (lb/min)
Tumbling Media	64	150100 (1" Heavy Duty)	80	50	0	6.43
				100	0	1.18
				0	11.33	9.54
				0	20.75	4.35
				25	11	4.84
Tumbling Media	64	150125 (1-1/4" Heavy Duty)	80	50	0	12.46
				100	0	4.99
				0	11.33	12.25
				0	20.75	6.08
				25	11	13.13
Tumbling Media	64	150150 (1-1/2" Heavy Duty)	80	50	0	18.98
				100	0	9.02
				0	11.33	22.52
				0	20.75	8.62
				25	11	16.13
Tumbling Media	64	150200 (2" Heavy Duty)	80	50	0	30.93
				100	0	10.86
				0	11.33	24.97
				0	20.75	7.73
				25	11	24.42

▼ Heavy Duty Threaded Line Vac Conveys Carbon "BBs" 20 Feet Vertically

Product :- Model 153200 2 NPT Heavy Duty Threaded Line Vac Kit Subcategory :- Blasting media

Details :-

This customer needed a solution for moving a large volume of small carbon balls from floor level to a tank, 20 feet up. They were looking for a permanently installed system that could be hopper-fed, so they purchased (2) **Model 153200 2" (51mm) NPT Heavy Duty Threaded Line Vac Systems**. These are operated in series...one near the point of suction, and one approximately halfway up to the tank. This dual Line Vac system provides the high conveyance rate they were looking for, as well as compact installation (2" pipe is simply threaded onto either end of the Line Vacs) and easy operation (a common supply valve operates both Line Vacs simultaneously.)

Application :- Convey Industry :- Finishing

Steel Shot	284	6080 (3/4" Aluminum)	80	0	11.33	2.01
Steel Shot	284	6081 (1" Aluminum)	80	50	0	1.09
				0	11.33	0.59
Steel Shot	284	6082 (1-1/4" Aluminum)	80	50	0	3.25
				100	0	0.53
				0	11.33	2.16

Material	Density (lb/ft ³)	Line Vac Model	Supply Pressure (psig)	Horizontal Run (ft)	Vertical Run (ft)	Rate (lb/min)
Steel Shot	284	6083 (1-1/2" Aluminum)	80	50	0	3.59
				100	0	0.85
				0	11.33	2.19
Steel Shot	284	6084 (2" Aluminum)	80	50	0	2.45
				100	0	1.96
				0	11.33	1.81
Steel Shot	284	150075 (3/4" Heavy Duty)	80	0	11.33	6.42
Steel Shot	284	150100 (1" Heavy Duty)	80	50	0	2.12
				0	11.33	6.56
Steel Shot	284	150125 (1-1/4" Heavy Duty)	80	50	0	4.99
				100	0	0.58
				0	11.33	7.09
Steel Shot	284	150150 (1-1/2" Heavy Duty)	80	50	0	7.73
				100	0	1.91
				0	11.33	8.45
Steel Shot	284	150200 (2" Heavy Duty)	80	50	0	12.19
				100	0	5.75
				0	11.33	7.04
				0	20.75	2.46
Crushed Glass	85	6080 (3/4" Aluminum)	80	50	0	1.57
				100	0	0.80
				0	11.33	2.52
				0	20.75	0.70
Crushed Glass	85	6081 (1" Aluminum)	80	50	0	2.57
				100	0	1.18
				0	11.33	2.85
				0	20.75	1.10
Crushed Glass	85	6082 (1-1/4" Aluminum)	80	50	0	4.57
				100	0	1.67
				0	11.33	4.82
				0	20.75	2.33

Material	Density (lb/ft ³)	Line Vac Model	Supply Pressure (psig)	Horizontal Run (ft)	Vertical Run (ft)	Rate (lb/min)
<p>▼ Conveying Ceramic Spark Plug Parts</p> <p>Product :- Model 6082 1-1/4" Alum. Line Vac Subcategory :- Spark Plugs</p> <p>Details :- A custom robotic systems manufacturer needed a system to remove rejected ceramic spark plug parts from a conveyor. They used a Model 6082 1 1/4" (32mm) Line Vac to remove the part and put it through a sensor to count the number of rejected parts.</p> <p>Application :- Convey Industry :- Automotive</p>						
Crushed Glass	85	6083 (1-1/2" Aluminum)	80	50	0	6.00
				100	0	3.12
				0	11.33	8.67
				0	20.75	3.37
Crushed Glass	85	6084 (2" Aluminum)	80	50	0	10.29
				100	0	4.73
				0	11.33	10.12
				0	20.75	5.21
Crushed Glass	85	150075 (3/4" Heavy Duty)	80	50	0	1.76
				100	0	0.54
				0	11.33	3.47
				0	20.75	0.87
Crushed Glass	85	150100 (1" Heavy Duty)	80	50	0	2.55
				100	0	0.85
				0	11.33	3.72
				0	20.75	1.42
Crushed Glass	85	150125 (1-1/4" Heavy Duty)	80	50	0	3.86
				100	0	1.40
				0	11.33	5.39
				0	20.75	2.72
Crushed Glass	85	150150 (1-1/2" Heavy Duty)	80	50	0	6.48
				100	0	2.83
				0	11.33	9.39
				0	20.75	4.17
Crushed Glass	85	150200 (2" Heavy Duty)	80	50	0	12.00
				100	0	4.83
				0	11.33	13.26
				0	20.75	5.35

Material	Density (lb/ft ³)	Line Vac Model	Supply Pressure (psig)	Horizontal Run (ft)	Vertical Run (ft)	Rate (lb/min)
Sand	96	6080 (3/4" Aluminum)	80	0	10	3.70
Sand	96	6082 (1-1/4" Aluminum)	80	0	10	6.10
Sand	96	6083 (1-1/2" Aluminum)	80	0	10	8.20
Sand	96	6084 (2" Aluminum)	80	0	10	12.00

▼ 2" Heavy Duty Line Vac Kit Circulates Sand and Rock Material

Product :- Model 152200 2" Heavy Duty Line Vac Kit Subcategory :- Separator

Details :-

A manufacturer of vibratory separators built a small scale machine for display purposes and needed to move small gravel and sand at a rate of about 5 pounds per minute up a vertical height of 6 feet. This was to recirculate the material that they were showcasing. The solution was to use a **Model 152200 2" (51mm) Heavy Duty Line Vac Kit** to pick up the material from the bottom of the collection bin and convey it back to the hopper on the top of the machine.

Application :- Convey Industry :- Agriculture

Rock Salt	68	6082 (1-1/4" Aluminum)	80	50	0	3.20
				35	15	3.40
Rock Salt	68	6083 (1-1/2" Aluminum)	80	50	0	1.60
				35	15	0.60
Rock Salt	68	6084 (2" Aluminum)	80	100	0	5.57
				200	0	1.42
				35	15	0.60
Rock Salt	68	130200 (2" Aluminum Light Duty)	80	100	0	2.77
Rock Salt	68	150200 (2" Heavy Duty)	80	100	0	8.73
				200	0	3.33
Kitty Litter	16	6082 (1-1/4" Aluminum)	80	50	0	3.22
				35	15	3.00
Kitty Litter	16	6083 (1-1/2" Aluminum)	80	50	0	1.40
				35	15	0.40
Kitty Litter	16	6084 (2" Aluminum)	80	50	0	1.40
				35	15	0.40

Material	Density (lb/ft ³)	Line Vac Model	Supply Pressure (psig)	Horizontal Run (ft)	Vertical Run (ft)	Rate (lb/min)
Sunflower Seed	38.5	6082 (1-1/4" Aluminum)	80	50	0	5.30
				35	15	4.60
Dog Food	54	6083 (1-1/2" Aluminum)	80	10	0	9.90
				50	0	1.80
				35	15	2.20
Dog Food	54	6084 (2" Aluminum)	80	10	0	13.00
				50	0	3.70
				35	15	3.00
PET Plastic Chips	38	6083 (1-1/2" Aluminum)	80	10	0	8.00
PET Plastic Chips	38	6086 (3" Aluminum)	80	10	0	20.00

▼ Conveying Regrind Chips Into Hopper

Product :- Model 140200 2 NPT Alum. Threaded Line Vac Subcategory :- Plastics

Details :-

This customer is using a **Model 140200 2" (51mm) Threaded Line Vac** to convey regrind PVC flakes into a bin. The material is being taken from the discharge of their rejected material grinder and then gets transported via the Line Vac to a metal separator. The reason the Line Vac was chosen for this application is, the constant flow of material and the simplicity of the design. The total conveyance distance is approximately 8' vertical.

Application :- Convey Industry :- Plastics

Soy Beans	40.6	6083 (1-1/2" Aluminum)	80	32.8	13.1	15.12
Soy Beans	40.6	150150 (1-1/2" Heavy Duty)	80	32.8	13.1	26.45