

# SANITARY LIQUID TRAP MAGNETS

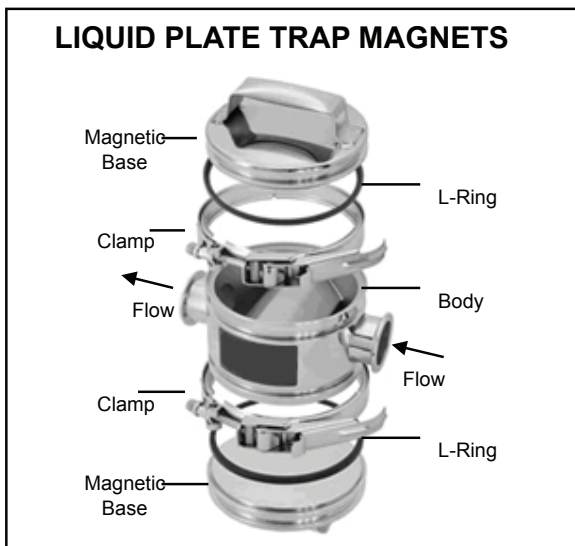
**APPLICATION:**

Engineered to remove ferrous contaminants from liquid and slurry lines. Efficiently remove tramp iron before maintenance and product contamination problems occur. The benefits of this magnetic separator can be experienced in most cases with no appreciable pressure drop or reduction in flow rates. All units incorporate a sump type housing to trap non-ferrous particles. Liquid Traps may be installed horizontally, vertically, or on an angle without affecting their magnetic efficiency.

Metal trash and fines, including work-hardened stainless steel as small as 0.0001 inches are captured by powerful, rare-earth, neodymium magnets and held in-place until cleaned. Powered by proprietary, easy to clean, tube or plate circuits that operate to pressures of 750 PSI and temperatures of 500° F.



**OPTION: Plate Style Liquid Trap Magnets See page 3**



Note: Due to ongoing product development, certain specifications are subject to change without notice.

# STANDARD SANITARY LIQUID TRAP MAGNETS

**OPERATION:**

As liquids or slurries are pumped through the Liquid Trap, ferrous contaminants adhere to the strategically placed magnetic tubes. The design and construction allow the tramp iron to work around the downstream side of the tubes where it is safely out of the product flow and washoff is prevented. Cleaning is achieved by removing the quick release clamp and removing the magnet assembly from the housing. The housing is designed not only to house the magnetic tubes, but also to act as a sump. Unwanted non-magnetic particles tend to gravitate to the bottom of the enclosure. Additionally, the sump bottom is attached by a quick release clamp to ease cleaning of the entire unit.

**SELECTING THE PROPER LIQUID TRAP:**

Use Chart 1 to classify your products viscosity. Choose the correct size Liquid Trap from Chart 2 by matching the Liquid Trap's listed capacity with your system's maximum pumping capacity using your product's group number. Line reducers (expanders) may be used if you choose.

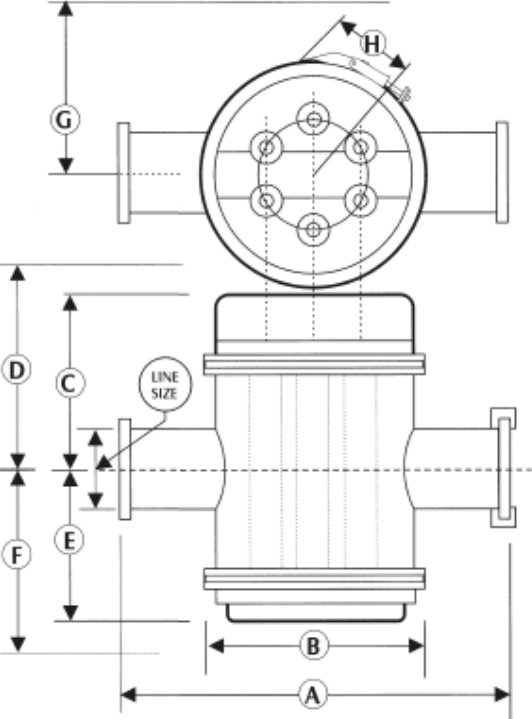


CHART										
LIQUID TRAP: Dimensions and Weights (metric)										
LINE SIZE	A	B	C	D	E	F	G	H	NET WT LB.	SHIP WT LB.
1.5", 2" (40) (50)	10 (254)	7 (178)	4.3 (108)	8.3 (210)	4.3 (109)	4.8 (122)	8.5 (216)	5 (127)	23.4 (10.6)	28 (13)
2.5", 3" (65) (75)	12 (305)	8.9 (225)	5.1 (130)	10.3 (260)	5.1 (130)	5.5 (140)	10 (254)	6 (152)	38.5 (17.5)	48 (22)
4" (100)	12 (304)	8.9 (225)	5.9 (150)	12.8 (324)	5.9 (150)	6.3 (160)	10 (254)	6 (152)	49.7 (22.6)	59 (27)

**Table A. Product Viscosity**

Class 1	Class 2	Class 3	Class 4
Fluids and Strained Products	Pulped Products	Viscous Products	Very Viscous Products
thin salad dressings, thin soups, warm jellies, clear broths, beverages, juices, light sauces	applesauce, pulped fruits and vegetables, custards, syrups, cranberries, hot preserves, baby foods	pumpkin filling, chopped foods, creamed cheese, frozen slush, heavy sauces, batters, heavy purees	nut butters, slow flowing products, cooled products, minced meat, thick batters, pet foods

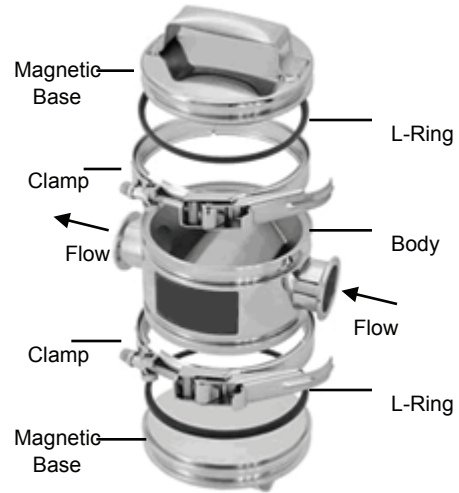
**Table B. Maximum Pressures in Pounds per Square Inch (Bar)  
Maximum Flow Capacity in Gallons Per Minute (Liters Per Minute)**

MODEL	LINE SIZE	MAXIMUM PRESSURE	MAXIMUM FLOW CAPACITY			
			CLASS 1	CLASS 2	CLASS 3	CLASS 4
NLTMF	.5" – 1"	200 (13.8)	4 (15)	3(11)	1.6 (6)	0.8 (3)
NLT	1.5" – 2"	200 (13.8)	95 (360)	67 (252)	38 (144)	19 (72)
	2.5" – 3"	180 (12.4)	187 (708)	131 (495)	75 (284)	37 (142)
NLT	4"	180 (12.4)	252 (954)	176 (668)	101 (382)	50 (191)
	6"	75 (5.2)	560 (2120)	392 (1484)	224 (848)	112 (424)
NLTMF	.75" – 1"	150 (10.3)	45 (170)	32 (119)	18 (68)	9 (34)
NLTHP	1.5" – 2.5"	750 (51.7)	75 (284)	53 (199)	30 (114)	15 (57)

# PLATE STYLE LIQUID TRAP MAGNETS

## APPLICATION:

These magnetic separators are typically used when processing fragile solids such as fruit preserves, cooked meats, cottage cheese, or sinewy products where they are placed in front of pumps, screens, or mills to protect equipment from damage, or in front of fillers to ensure product quality.



## Specific Model and Sizing

Refer to Tables A, B, and C. Use Table "A" to select your application's product viscosity. Use Table B to match your application's product viscosity with pumping capacity to select model or line size. When operating at or close to a Liquid Trap's upper flow capacity we recommend moving up to the next size.

**Table A. Product Viscosity**

Class 1	Class 2	Class 3	Class 4
Fluids and Strained Products	Pulped Products	Viscous Products	Very Viscous Products
thin salad dressings, thin soups, warm jellies, clear broths, beverages, juices, light sauces	applesauce, pulped fruits and vegetables, custards, syrups, cranberries, hot preserves, baby foods	pumpkin filling, chopped foods, creamed cheese, frozen slush, heavy sauces, batters, heavy purees	nut butters, slow flowing products, cooled products, minced meat, thick batters, pet foods

**Table B. Maximum Pressures in Pounds per Square Inch (Bar)  
Maximum Flow Capacity in Gallons Per Minute (Liters Per Minute)**

MODEL	LINE SIZE	MAXIMUM PRESSURE	MAXIMUM FLOW CAPACITY			
			CLASS 1	CLASS 2	CLASS 3	CLASS 4
NSLP	1.5" – 2"	200 (13.8)	58 (220)	41 (154)	23 (88)	12 (44)
	2.5" – 3"	180 (12.4)	75 (284)	53 (199)	30 (114)	15 (57)
NDLP	6"	75 (5.2)	315 (1192)	221 (835)	126 (477)	63 (238)
NDLP	1.5" – 2"	200 (13.8)	115 (435)	81 (305)	46 (174)	23 (87)
	2.5" – 3"	180 (12.4)	190 (719)	133 (503)	76 (288)	38 (144)
	4"	180 (12.4)	210 (795)	147 (556)	84 (318)	42 (159)

**Table C. Food Grade L-Ring Gaskets**

PROPERTY	EPDM (Std.)	BUNA-N	VITON
Temperature Range	-50 to 400° F	-20 to 225°F	-15 to 400°F
Acid resistance	fair	good	excellent
Alkali resistance	good	fair	good
Veg. Oil resistance	poor	excellent	excellent
Steam, to 350°F	good	poor	poor

## INDUSTRIAL LIQUID TRAP MAGNETS

For more industrial applications please refer to our Industrial Liquid Trap Magnet Data Sheet.

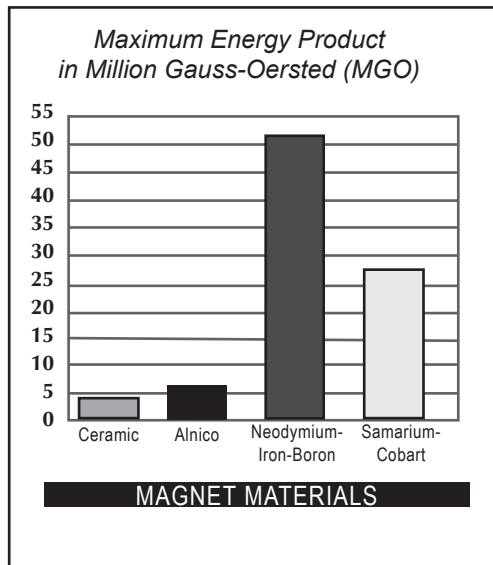


### CONSTRUCTION:

- Highest grade of magnet material with choices including Neodymium-Iron-Boron (rare-earth), Samarium-Cobalt (rare-earth), Ceramic, and Alnico.
- 100% Stainless Steel Construction
- Liquid tight with food grade O-rings
- Easy access for inspection and maintenance
- Tri-clamp, Bevel-seat (Acme thread), or weld end inlet and outlets
- Sanitary construction

### OPTIONS:

- Special alloy construction
- Special inlet/outlet connectors
- Operating pressures up to 750 PSI



For technical assistance or to order

**1-800-SUREMAG™**

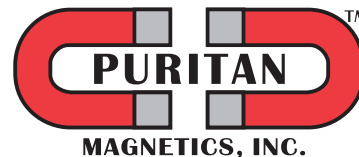
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