

Good Reasons for using Magtraps:

- No Electricity
- No Moving Parts
- Built to Sanitary Standards
- Easy to Install
- Available to 300°F
- Built to Last
- Pressures to 200 psi
- Easy to Clean
- Clean-In-Place (CIP) Capable
- Captures Items Smaller than Electronic Metal Detectors Sense

HOW TO SIZE A MAGTRAP

Maximum magnetic efficiency is attained with slow flow rates. It is easier to extract metal through low viscosity products than through high viscosity products. With the above in mind, use **TABLE A** to select your product's viscosity class (Example: Water is Class 1, Molasses = Class 4), then move to **TABLE B**. From Table B, match your line's viscosity class and maximum pumping capacity with the various MAGTRAP model's maximum flow ratings, then select the appropriate model and line size. Line reducers (expanders) may be needed. When operating at or near a MAGTRAP's upper flow capacity, move up one line size to assure meeting future increased pumping needs.

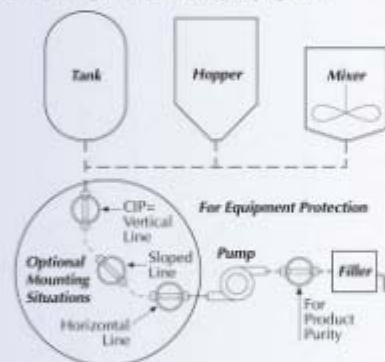


TABLE A

Select a class that best matches the most viscous product to be pumped. Remember that temperature and percent of liquid can greatly affect a product's viscosity class. If needed, water jackets can be added to heat or cool the product.

CLASS 1

Beverages, clear broths, thin soups, juices, warm jellies, light sauces, thin salad dressings.

CLASS 2

Applesauce, pulped fruits and vegetables, syrups, custards, baby foods, cranberries, hot preserves.

CLASS 3

Chopped foods, creamed cheese, pumpkin filling, frozen slush, heavy sauces, batters, heavy purees.

CLASS 4

Cooled products, pet foods, nut butters, minced meat, thick batters and slow flowing products.

TABLE B - MODEL 135

| Line Size | Maximum Flow - Gallons/Minute | | | | Maximum Pressure |
|-----------|-------------------------------|---------|---------|---------|------------------|
| | Class 1 | Class 2 | Class 3 | Class 4 | |
| 1.5"-2" | 150 | 105 | 60 | 30 | 200 PSI |
| 2.5"-3" | 250 | 175 | 100 | 50 | 200 PSI |
| 4" | 340 | 240 | 140 | 70 | 200 PSI |

TABLE B - MODEL 125

| Line Size | Maximum Flow - Gallons/Minute | | | | Maximum Pressure |
|-----------|-------------------------------|---------|---------|---------|------------------|
| | Class 1 | Class 2 | Class 3 | Class 4 | |
| 1.5"-2" | 130 | 90 | 52 | 26 | 200 PSI |
| 2.5"-3" | 200 | 140 | 80 | 40 | 200 PSI |
| 4" | 250 | 175 | 100 | 50 | 200 PSI |

TABLE B - MODEL 115

| Line Size | Maximum Flow - Gallons/Minute | | | | Maximum Pressure |
|-----------|-------------------------------|---------|---------|---------|------------------|
| | Class 1 | Class 2 | Class 3 | Class 4 | |
| 2" | 60 | 42 | 24 | 12 | 200 PSI |
| 3" | 85 | 60 | 34 | 17 | 200 PSI |

FOOD GRADE I-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 |

LINE CONNECTIONS (FERRULES)

Tri-Clamp and weld ends are standard. To assure a perfect weld end match, specify your line's outside and inside diameters. Bevel Seat (Acme Thread), International Dairy Fitting (IDF), pipe sizes and threads, Victaulic, Cam-Lock, John Perry, I-line, Q-line, 150# pipe flanges, connections with captive nuts and various other domestic and European sanitary ferrules are available. Non-similar end sizes are available on Models 125 and 135. Inquire regarding other connection options.

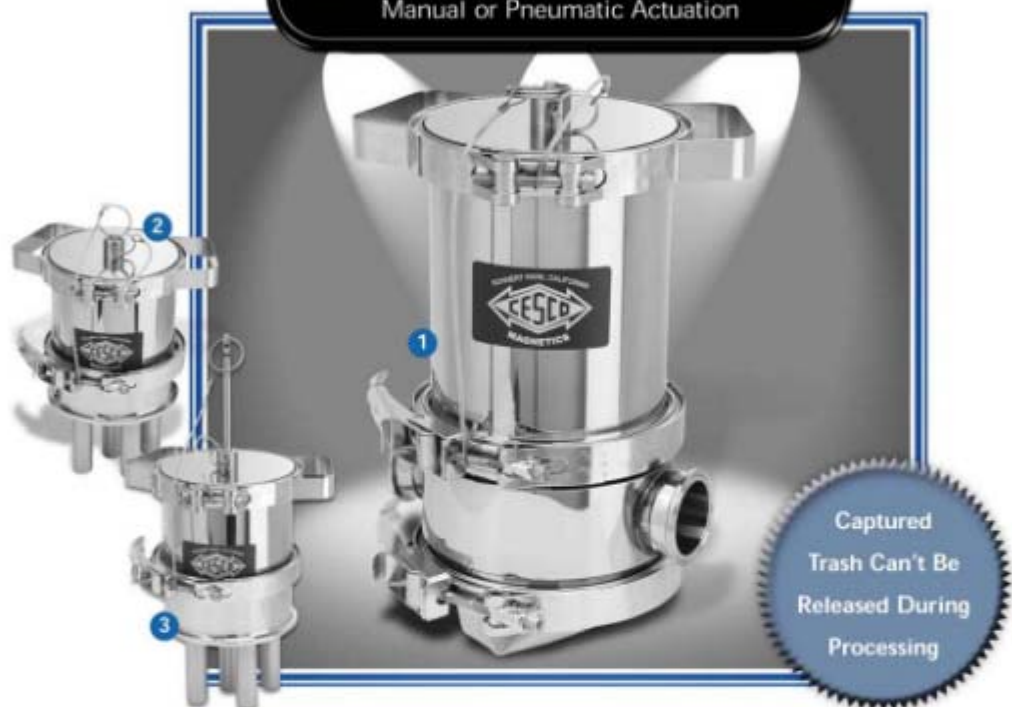
OTHER CESCO MAGTRAPS

CESCO Model 170 MAGTRAPS for pressures to 800 psi, Micro MAGTRAPS for micro line size applications, Models 120's and 130's for 6" line size and Model 135EC's (Easy Clean) that allow easy removal of captured trash and pneumatic actuation.

Continual improvement and customization require that these specifications are subject to change without notice.

SERVING THE FOOD INDUSTRY SINCE 1946

• **MODEL 135EC (EASY CLEAN) MAGTRAP** •
Manual or Pneumatic Actuation



Easy Clean Magtrap - One Pull And Unwanted Trash Is Gone

Magtraps Remove Unwanted Ferrous From Your Products

Easy Clean (EC) Magtraps and elements are available in line sizes to 4". Release of captured metal during processing is impossible without leaving evidence of tampering. Carry handles provide ease of handling. Available with water jackets. All types of connections are available.

• **THE EASY CLEAN (EC) MAGTRAP** is available complete, as shown in photo 1, or as an element, as shown in photo 2. Elements fit all existing CESCO Model 135 bodies. A manually operated EC is shown. Pneumatic actuation is available.

• **THE EASY CLEAN ELEMENT IN THE "OPERATING POSITION"** (Photo 2) The Easy Clean (EC) element is removed from the Magtrap body by releasing the middle clamp. A stainless safety cable connects this clamp to the lift rod. This cable prevents release of collected trash during processing. Product flows past the stainless

tubes beneath the element. Rare earth magnets inside the tubes capture and hold the unwanted ferrous, nickel, carbide and work-hardened stainless debris.

• **THE EASY CLEAN ELEMENT IN THE "CLEANING" POSITION** (Photo 3) Raising the lift rod instantly releases all collected metal trash from the magnets. The tubes are then rinsed and cleaned. The lift rod is lowered into the "operating" position (photo 2). The Easy Clean element is reattached to the body (photo 1) and processing can continue.

Model 135EC (Easy Clean) Magtrap



LINE CONNECTIONS: Tri-Clamp and weld ends are standard. To assure a perfect match on weld ends, specify your line's outside and inside diameters. Bevel Seat (Acme Thread), John Perry, International Dairy fittings (IDF), Q-line, I-line, pipe threads, connections with captive nuts, pipe flanges and various European sanitary females are available at extra cost. Non-similar sized ends are also available. For all except our standard connections, please inquire.

MAGNETS: Rare earth magnets capture and hold the very finest of ferrous and nickel particles as well as bits of work hardened 300 series stainless steel and carbide. Standard rare earth magnets operate to a maximum of 210°F. (99°C.) without degrading their strength. By substituting other rare earth magnets the maximum working temperature can be extended to 400°F. (204°C.).

SPECIFICATIONS: All product contact surfaces are type 316L stainless steel except for gaskets. Gaskets are available in several Food Grade compounds.

REPLACEMENT PARTS (Part numbers on left): CESCO maintains stock of replacement parts at all times. Please provide the serial number stamped on the unit, or the model and line size, when ordering parts.

HOW TO SIZE A MAGTRAP:

MAGTRAPs work best with slower flow rates. It is easier to pull particles through low viscosity products than through higher viscosity products. Use **TABLE A** to classify your product's viscosity (Example: Water is Class 1, Cold Molasses, Class 4). From **TABLE B** select the appropriate size by comparing your line's maximum pumping capacity with various size MAGTRAP maximum flow ratings and product classes. If operating near the top of a flow capacity limit, move up one MAGTRAP size to provide for future increased pumping needs.

TABLE A:
 Select a class that best matches the most viscous product to be pumped. Remember that temperature and percent of liquid greatly affect viscosity.

CLASS 1:
FLUID AND STRAINED PRODUCTS (1-1,000 CPS):
 Beverages, clear broths, thin soups, juices, warm jellies, light sauces, thin salad dressings.

CLASS 2:
PULPED PRODUCTS (1,000-5,000 CPS):
 Applesauce, pulped fruits and vegetables, syrups, custards, starchy foods, cranberries, hot preserves.

CLASS 3:
VISCOUS PRODUCT (5,000-50,000 CPS):
 Chopped foods, creamed cheese, pumpkin filling, frozen slush, heavy sauces, batters, heavy purees.

CLASS 4:
VERY VISCOUS PRODUCTS (50,000+ CPS):
 Cooled products, pet foods, nut butters, minced meat, thick batters and slow flowing products.

TABLE B
 Maximum Effective flow in
 Gallons/Minute & Liters/Minute

| Line Size | Class 1 | Class 2 | Class 3 | Class 4 |
|-----------|---------|---------|---------|---------|
| 1" - 2" | 120 | 105 | 60 | 30 |
| 38 - 50 | 570 | 400 | 230 | 115 |
| 2.5" - 3" | 250 | 175 | 100 | 50 |
| 65 - 75 | 950 | 660 | 380 | 190 |
| 4" | 340 | 240 | 140 | 70 |
| 100 | 1290 | 900 | 520 | 260 |

Weight in Pounds & Kilograms

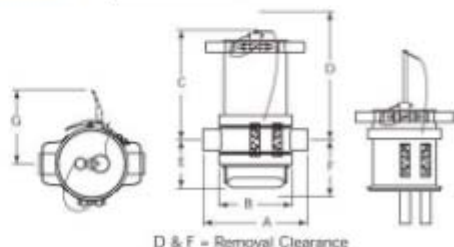
| Line Size | Elements Only | | Complete | |
|-----------|---------------|------|----------|------|
| | Net | Ship | Net | Ship |
| 1" - 2" | 19 | 25 | 34 | 40 |
| 38 - 50 | 8.6 | 11.3 | 15.4 | 18.2 |
| 2.5" - 3" | 33 | 43 | 57 | 67 |
| 65 - 75 | 14.9 | 19.5 | 25.8 | 30.4 |
| 4" | 39 | 49 | 70 | 80 |
| 100 | 17.7 | 22.3 | 31.8 | 36.4 |

Call for information regarding pneumatic actuation

Dimensions - English (inches) & Metric (mm)

| Line Size | A | B | C | D | E | F | G |
|-----------|-----|-----|-----|------|-----|-----|-----|
| 1" - 2" | 10 | 7 | 4.3 | 8.3 | 4.3 | 4.8 | 8.5 |
| 38 - 50 | 254 | 178 | 108 | 210 | 108 | 120 | 216 |
| 2.5" - 3" | 12 | 8.9 | 5.1 | 10.3 | 5.1 | 5.5 | 10 |
| 65 - 75 | 305 | 225 | 130 | 260 | 130 | 152 | 254 |
| 4" | 12 | 8.9 | 5.9 | 12.8 | 5.9 | 6.3 | 10 |
| 100 | 304 | 225 | 150 | 324 | 150 | 160 | 254 |

Dimensions and weights subject to change.



Model 170 High Pressure Magtrap



HOW TO SIZE A MAGTRAP:

MAGTRAPs are more effective at slower rates of flow. It is easier to extract metal trash through low viscosity products than through higher viscosity products. With this in mind, use TABLE A to select your product's viscosity class (Example: Water is Class 1, Molasses = Class 4), then move to TABLE B. From TABLE B, match your line's viscosity class and maximum pumping capacity with the MAGTRAP's maximum flow rates and select the appropriate line size.

TABLE A:

Select a class that best matches the most viscous product to be pumped. Remember that temperature and percent of liquid can greatly affect a product's viscosity class.

CLASS 1 (1-1000 CPS)

Beverages, clear broths, thin soups, juices, warm jellies, light sauces, thin salad dressings.

CLASS 2 (1000-5000 CPS)

Applesauce, pulped fruits and vegetables, syrups, custards, baby foods, cranberries, hot preserves.

CLASS 3 (5000 - 50,000 CPS)

Chopped foods, creamed cheese, pumpkin filling, frozen slush, heavy sauces, batters, heavy purées.

CLASS 4 (50,000+ CPS)

Cooled products, pet foods, nut butters, minced meat, thick batters and slow flowing products.

TABLE B Maximum Flow in Gallons/Minute & (Liters/Minute)
Maximum Pressure - 750 PSI (53 Bar)

| Line Size | Class 1 | | Class 2 | | Class 3 | | Class 4 | |
|-----------|---------|-------|---------|-------|---------|-------|---------|------|
| | GPM | LPM | GPM | LPM | GPM | LPM | GPM | LPM |
| 1" - 2.5" | 90 | (340) | 65 | (240) | 36 | (135) | 18 | (70) |

LINE CONNECTIONS (FERRULES):

Tri-Clamp and weld ends are standard. To assure a perfect weld end match, specify your line's outside and inside diameters. Bevel Seat (Acme Thread), International Dairy Fitting (IDF), pipe sizes and threads, John Perry, I-line, Q-line, Camlocks, 150# pipe flanges, connections with captive nuts and various other domestic and European sanitary ferrules are available. Non-similar sizes are available on special order. Inquire regarding other connection options.

MAGNETS:

Rare earth magnets capture and hold the very finest of ferrous and nickel particles as well as bits of work hardened 300 series stainless steel and carbide. Standard rare earth magnets operate to a maximum of 210°F. (99°C.) without degrading their strength. By substituting other rare earth magnets the maximum working temperature can be extended to 400°F. (204°C.).

REPLACEMENT PART NUMBERS:

(on left) CESCO maintains replacement parts ready for immediate shipment. When ordering parts, please provide the serial number stamped on the unit.



| Line Size | A | B | C | D | E | F | G | H | Net Wt. | Ship Wt. |
|---------------|----------|-------|-------|-------|------|------|------|-------|---------|----------|
| 1" - 2.5" | about B* | 6.1 | 5.3 | 10 | 2.4 | 3.5 | 3.7 | 6.6 | 26 | 30 |
| (25) - (63.5) | (203)* | (155) | (135) | (254) | (60) | (90) | (95) | (165) | (12) | (13.6) |

Metric values in parenthesis *Varies with each type of connector

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