

PERMANENT MAGNETIC
Coolant Cleaners



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Smooth-faced and extended-pole Coolant Cleaners extend the life of cutting tools, grinding wheels, pumps and metalworking fluids.

Eriez Coolant Cleaners are designed for use with surface grinders, gear grinders, honing and lapping machines, broaches, milling and drilling machines, face grinders, oil reclaiming machines... wherever clean coolant is needed.

Industry demands for higher production rates and closer tolerances at lower costs spurred development of the Eriez Coolant Cleaner. These cleaners keep machine tools running longer and more accurately, with lower costs per part.

When applied properly, these powerful units routinely separate particles down to 15 microns from metalworking fluids. Efficiency rates in the high 90 percent range are quite common.

FEATURES & BENEFITS:

- Cleaner fluids with a longer service life
- Longer tool life
- Machine accuracy maintained
- Reduced machine downtime
- Lower cost per workpiece
- Reduced pump wear
- Easy installation in restricted space
- Can be used on new or existing machines
- Available in different capacities, different types
- Low initial cost
- Virtually no maintenance costs
- Can be used in oil and water based applications



Coolant Cleaners

CONTINUOUSLY ROTATING MODELS CS AND CE

The Continuously Rotating Eriez Coolant Cleaner is furnished with either smooth-faced or extended-pole rolls. These units are designed for use where little or no non-magnetic material is contaminating the coolant. Coolant is gravity fed to the Eriez cleaner where it flows under the magnetic roll. The roll's powerful magnetic field reaches out and captures ferrous contamination in the fluid. Since the roll surface is revolving against the current flow, large and small ferrous particles held tightly to its surface are carried upward out of the liquid to the scraper blade. The contaminant-free coolant discharges from the bottom of the unit back to the machine tool. As more solids are pulled from the fluid, they continually push the sludge off the scraper blades, down the discharge lip and into an open sludge hopper.

INDEXING MODELS IS AND IE

Indexing Coolant Cleaners from Eriez, also available with smooth-faced or extended-pole rolls, are used when both ferrous and non-ferrous contaminants are present. No replaceable filter medium is required.

The magnetic roll, under which the coolant flows, rotates intermittently. The magnetically attracted material builds up a mass of fine hair-like particles between the magnetic roll and the housing. This accumulation serves as a filter medium to entrap fine non-magnetic particles such as grinding wheel scale or other coolant contaminants.

The mass of magnetically-held materials accumulates until it restricts the passageway between the magnetic roll and the housing, causing coolant to back up into the sump. The rising coolant level activates a pressure-type level switch; the magnetic roll is then automatically indexed forward, which moves the packed filter plug from the restricted passageway and permits coolant to once more flow through the magnetic field. The amount of roll movement can be adjusted within a range of 1/4 to 1-1/4 inches (6 to 32 mm); the frequency of movement is controlled by flow and feed conditions, so the Coolant Cleaner operates at maximum efficiency under varying conditions. A phosphor-bronze scraper blade removes the accumulation of fines from the magnetic roll at the discharge point.



EIGHT MODELS, NINE SIZES

Choose from a total of 36 standard Coolant Cleaners to match the requirements of flow rate, viscosity and degree of separation desired:

Models CS5 and CS8

Continuously rotating roll; smooth face

Models CE5 and CE8

Continuously rotating roll; extended pole plates

Models IS5 and IS8

Indexing roll; smooth face

Models IE5 and IE8

Indexing roll; extended poles

These models come in nine magnetic roll widths ranging from 7 to 70 inches (178 to 1780 mm).

Coolant Cleaners

FEATURES:

- **Strong Magnetic Roll**

A specially designed magnetic circuit, using magnet materials that will never lose their attractive force, gives positive removal of ferrous particles. At the maximum operating distance from the face of the roll, where removal is most difficult, Eriez' five-inch (127 mm) diameter rolls are 28 percent stronger than a major competitor's.

- **Two Types of Rolls**

For normal conditions, a smooth faced roll is used; for more magnetic surface area, extended-pole plates are provided.

- **Adjustable Gap**

The distance at which the contaminated coolant flows past the magnetic roll is controlled by an adjustable plate. The Coolant Cleaner can be quickly and easily "fine tuned" to individual requirements of flow rate and percent of separation desired.

- **Adjustable Baffle**

An easily adjusted baffle in the infeed reservoir controls turbulence to provide a constant, even flow to the magnetic roll.

- **Dry Discharge**

Eriez rolls have a radial magnetic circuit. This causes the swarf to form rings around the circumference of the roll and allows coolant to drain back into the sump. In addition, the scraper blade which removes contaminants from the magnetic roll is installed at a slight incline, further facilitating drainage. This produces a discharged material which is virtually liquid-free.

- **Standard Load Height**

Eriez Coolant Cleaners have a load height of either 6-1/2 or 10-3/4 inches (165 or 273 mm), making them easy to install in restricted spaces.

- **Standard Motor**

An off-the-shelf direct-drive motor which can be mounted on either side of the cleaner is positioned out of the splash area to extend motor life.

- **Adaptable Design**

The roll, scraper blades, pressure switch, adjustable gap plate and indexer-control enclosure are interchangeable from one model to another. By adding and substituting parts, an existing Coolant Cleaner can easily be converted from one model to another.

- **Lift Lugs**

For easy movement when necessary, lift lugs are provided on the housing.

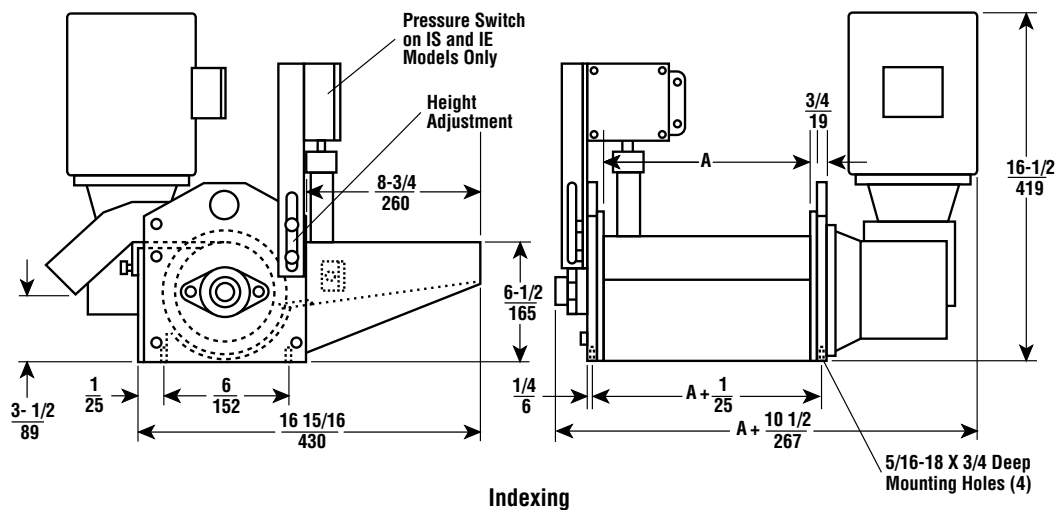
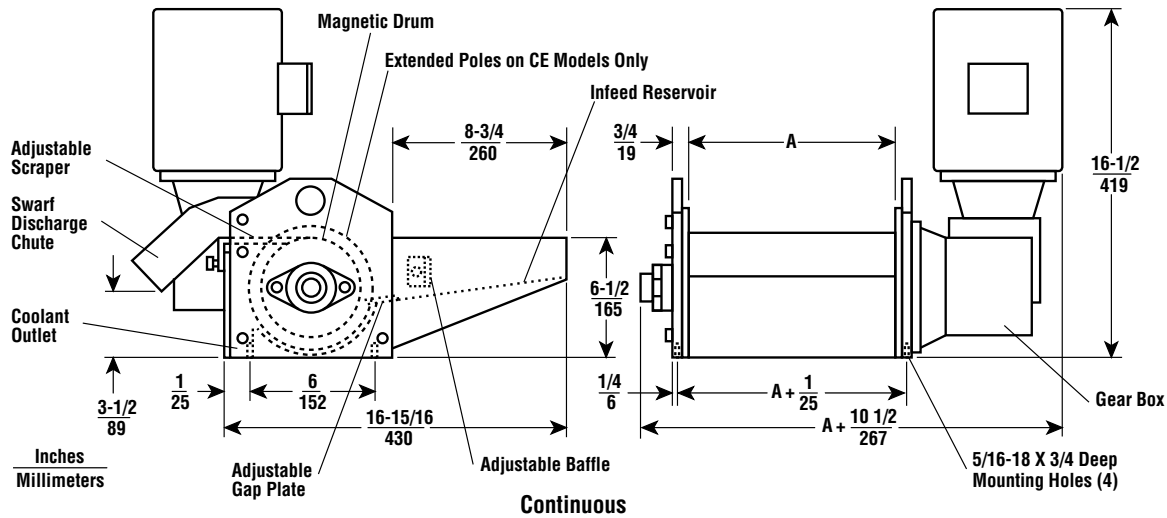
MAXIMUM FLOW RATES

Model	For Optimum Separation Derate by 20-25%					
	Type Coolant		NR – Not Recommended			
	Water Soluble		Oil 40 SSU		Oil 100 SSU	
	GPM	LPM	GPM	LPM	GPM	LPM
CS5-7	21	79	13	49	11	42
CS5-10	30	114	19	72	16	61
CS5-13	39	148	25	95	21	79
CS5-20	60	227	38	144	32	121
CS5-27	81	307	51	193	43	163
CE5-7	17	64	11	42	7	26
CE5-10	24	91	15	57	10	38
CE5-13	31	117	20	76	13	49
CE5-20	48	182	30	114	20	76
CE5-27	65	246	41	155	27	102
IS5-7	11	42	7	26	NR	
IS5-10	15	57	10	38	NR	
IS5-13	20	76	13	49	NR	
IS5-20	30	114	20	76	NR	
IS5-27	41	155	27	102	NR	
IE5-7	8	30	6	23	NR	
IE5-10	12	45	8	30	NR	
IE5-13	16	61	10	38	NR	
IE5-20	24	91	16	61	NR	
IE5-27	32	121	22	83	NR	
CS8-21	180	681	85	322	70	265
CS8-35	300	1135	142	537	117	443
CS8-49	420	1590	198	749	163	617
CS8-70	600	2271	283	1071	233	882
CE8-21	144	545	68	257	56	212
CE8-35	240	908	114	431	94	356
CE8-49	336	1272	158	598	130	492
CE8-70	480	1817	226	855	186	704
IS8-21	95	360	45	170	NR	
IS8-35	158	598	75	284	NR	
IS8-49	222	840	105	397	NR	
IS8-70	317	1200	150	568	NR	
IE8-21	72	272	36	136	NR	
IE8-35	120	454	60	227	NR	
IE8-49	168	636	84	318	NR	
IE8-70	240	908	120	454	NR	

* Rates shown are based on physical capacity. Lower rates may be required depending upon turbulence, amount of contaminants present and the degree of separation desired.

Series 5

SPECIFICATIONS



MODELS CS5, CE5, IS5 and IE5

Model	Dimension A		Weights							
			Model CS		Model CE		Model IS		Model IE	
	in.	mm	lb	kg	lb	kg	lb	kg	lb	kg
7	7	178	110	50	116	53	135	61	141	64
10	10-1/2	267	130	59	138	63	155	70	163	74
13	13-3/4	349	150	68	161	73	175	79	186	84
20	20-1/2	521	195	88	212	96	220	100	237	108
27	27-1/4	692	235	107	257	117	260	118	282	128

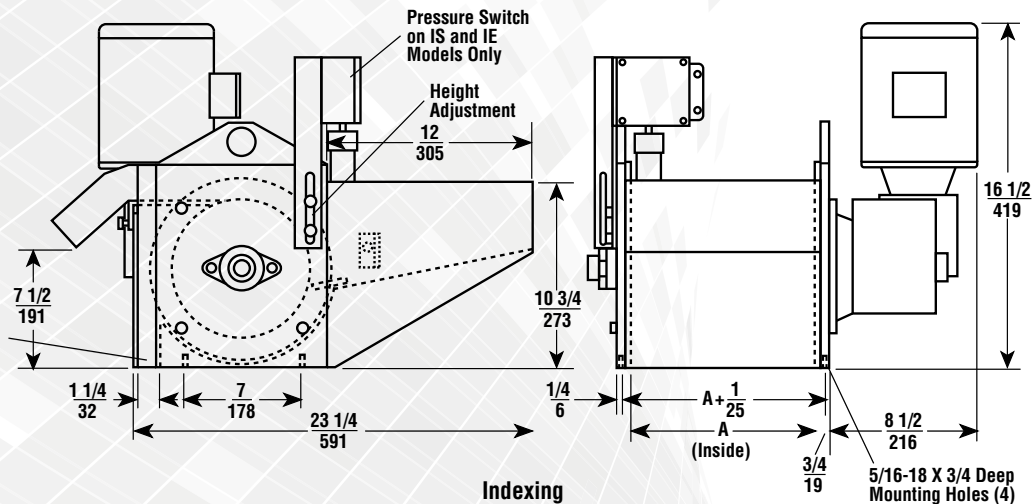
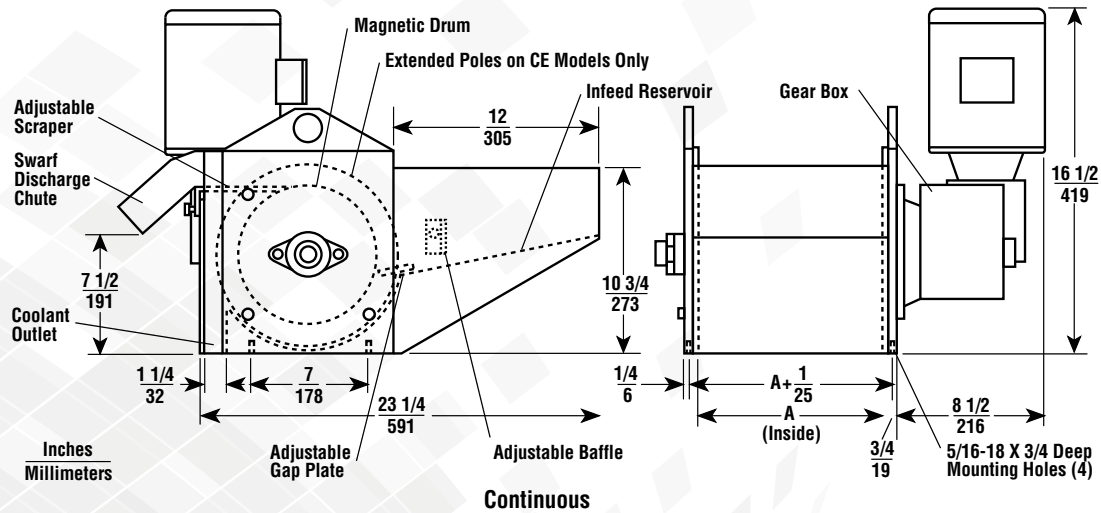
Power Requirements: 1/4 HP, 230/460V, 3 PH, 60 cy; 0.65 amp @ 460V. Control (for Models IS and IE only): NEMA 12 enclosure, 10" x 12" x 5" (254 x 305 x 127 mm); Weight: 25 lbs (11 kg). Specify voltage for models IS and IE.

Dimensions and specifications are subject to change without notice.

Coolant Cleaners

Series 8 - Single Roll

SPECIFICATIONS



Model	Dimension A		Weights							
			Model CS		Model CE		Model IS		Model IE	
	in.	mm	lb	kg	lb	kg	lb	kg	lb	kg
21	22	559	360	163	370	168	385	175	395	179
35	36	914	550	249	560	254	575	261	585	265

NOTE: Motor can be mounted in either the 3, 9 or 12 o'clock position on all Series 5 and Series 8 Coolant Cleaners.

Motors normally mounted as shown can be mounted on opposite side – optional.

Scraper normally mounted as shown can be mounted at 30° downslope. Also, 45° downslope option for Series 8.

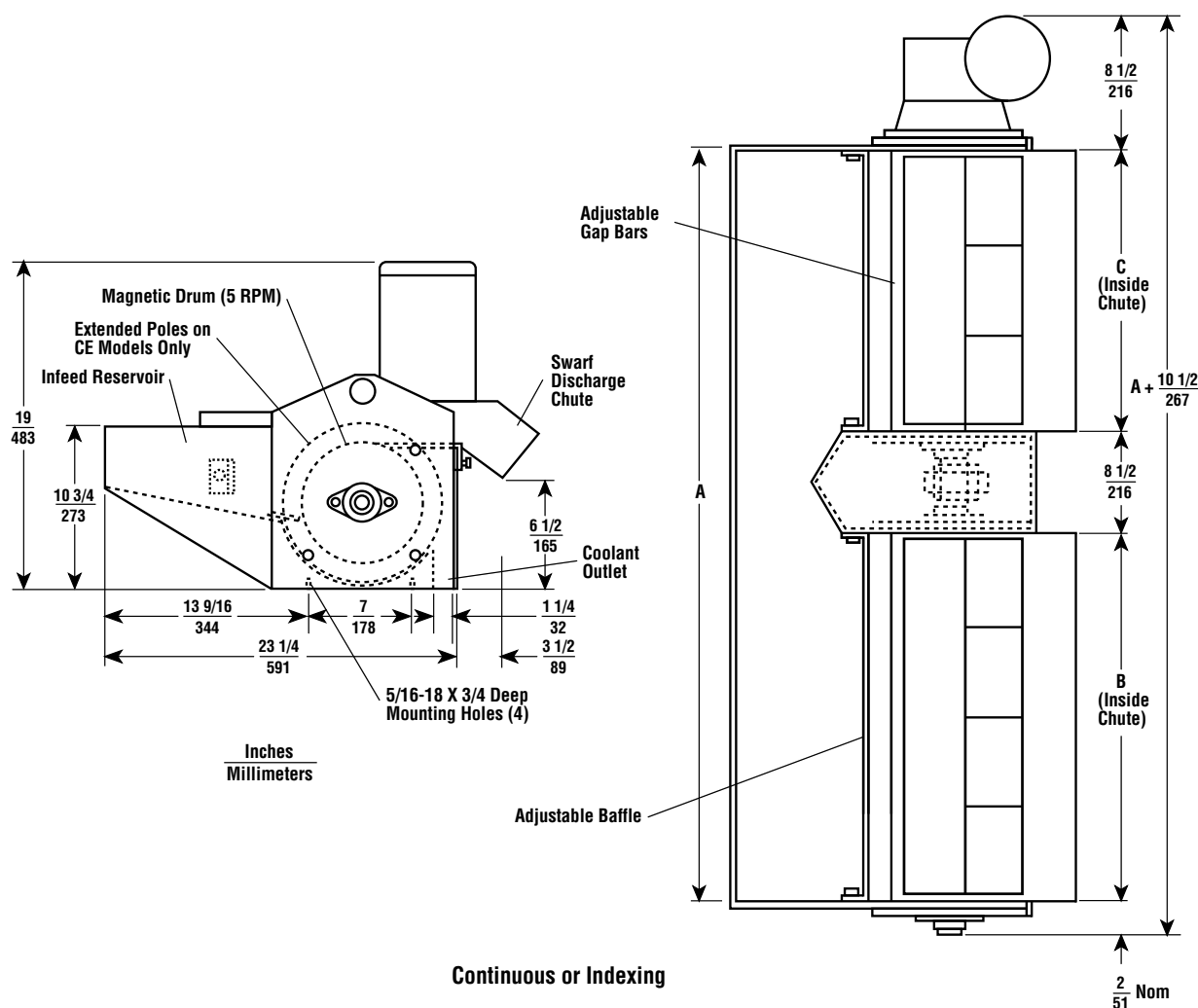
Motorized automatic scraper is available for all units.

Power Requirements: 1/4 HP, 230/460V, 3 PH, 60 cy; .65 amp @ 460V. Control (for Models IS and IE only): NEMA 12 enclosure, 10" x 12" x 5" (254 x 305 x 127 mm); Weight: 25 lbs (11 kg). Specify voltage for models IS and IE.

Dimensions and specifications are subject to change without notice.

Series 8 - Dual Roll

SPECIFICATIONS



MODELS CS8, CE8, IS8 and IE8

Model	Dimension						Weights							
	A		B		C		Model CS		Model CE		Model IS		Model IE	
	in.	mm	in.	mm	in.	mm	lb	kg	lb	kg	lb	kg	lb	kg
49	59	1499	28-3/4	730	21-3/4	552	775	351	790	358	800	361	815	370
70	80	2023	35-3/4	908	35-3/4	908	1075	487	1100	499	1100	499	1125	510

Power Requirements: 1/4 HP, 230/460V, 3 PH, 60 cy; 0.65 amp @ 460V. Control (for Models IS and IE only): NEMA 12 enclosure, 10" x 12" x 5" (254 x 305 x 127 mm); Weight: 25 lbs (11 kg). Specify voltage for models IS and IE.



WORLD AUTHORITY IN SEPARATION TECHNOLOGIES



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