



UL 1389 Certified Eco and Isochem Pumps Technical Information

Pulsafeeder Inc. manufactures high quality ECO and ISOChem series gear pumps to safely handle highly corrosive, hazardous, explosive, or toxic chemicals industrial applications.

DESCRIPTION

Eco and Isochem “E Series” extraction pumps certified to UL 1389 “Plant Oil Extraction Equipment for Installation and Use in Ordinary (Unclassified) Locations and Hazardous (Classified) Locations [ANSI/CAN/UL/ULC 1389:2019 Ed.1]”

USES

Recommended for vacuum or pressurizes processes of plant oil extraction, wiped film or falling film distillation

FEATURES

- Limited to specific pressures to meet 5x rated pressure (Maximum System Pressure) for UL pressure containment requirement
- Connections
 - NPT or Flanged Ports: All models
 - Sanitary (Tri-Clamp): Sizes 2,4,6,8 only
- Updated ATEX temperature limitations
- ATEX and UL 1389 Intertek certification nameplate
- Special ATEX / UL addendums to standard Eco and Isochem IOM
- Limited to 316 SST construction

SELECTION INFORMATION

Refer to standard performance curves for sizing Eco and Isochem models at www.pulsa.com/literature.

Generally, these are standard Eco and Isochem products limited to 316 stainless steel construction and preceded with the “E” letter code:


Example Pump Model Code:

E GMC 2 - A C T - T T F
0 1 2 - 3 4 5 - 6 7 8 X X X X

Position 0: “E” (“Extraction” Series)

Position 1-9: Normal GA/GC (ECO) or GMC (ISOChem) configuration code, limited to 316 SST base material. *To configure a model string refer to the Selection Guide section of this document.*

TECHNICAL SPECIFICATIONS

Base Material of Construction	316 Stainless Steel
Maximum System Pressure	
All models except GA/GC/GMC8	75 psig
GA/GC/GMC8	50 psig
UL Rating	
Certified to ANSI/CAN/UL/ULC STD 1389	
CLASS I, DIV 2, GOUP D T4	
ATEX Temperature Classification Table (When required)	
ATEX and IEC Equipment Group	II
ATEX and IEC Temperature Class	T4
Maximum Fluid Temperature	200°C (392°F)
Maximum Surface Temperature	130°C (266°F)
$-20C \leq Tamb \leq 50C$ II 2G Ex h IIC T4 Gb II 2D Ex h IIIC T135C Db 	

DOCUMENTATION

- Link to Intertek UL 1389 Authorization To Mark (ATM) Certificate: https://www.pulsa.com/wp-content/uploads/2021/01/Intertek_Authorization_to-Mark_UL1389_ECO_Isochem.pdf
- [Addendum to Eco and Isochem IOMs](#)

PRODUCT DATA

See www.pulsa.com/literature for dimensional information



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SELECTION GUIDE – Eco E Series

E Series - Eco Extraction Pump Model Code Definitions												
Pump Model Code	EGx	x	-	x	x	x	-	x	x	x	-	x
Model Code Position	1	2	-	3	4	5	-	6	7	8	-	9
Pump Style			-		*	*	-	*	*		-	*
EGA - Sealed Long Coupled	EGA											
EGC - Sealed Close Coupled	EGC											
Pump Size												
EGA or EGC												
Size 2. Rating: 1.5 gpm		2										
Size 4. Max Flow: 3 gpm		4										
Size 6. Max Flow: 10 gpm		6										
Size 8. Max Flow: 22 gpm		8										
Size 12. Max Flow: 28 gpm		12										
Size 16. Max Flow: 55 gpm		16										
EGH												
Size H6. Max Flow: 10 gpm		6										
Size H8. Max Flow: 22 gpm		8										
Housing Material and Ports												
A - 316 SS / NPT Ports					A							
S - 316 SS / Tri-Clamp Ports (Sizes 2, 4, 6, 8 Only)					S							
U - 316 SS / Flanged Ports					U							
Drive Gear												
* - Varies												
Idler Gear												
* - Varies												
Wear Plates												
* - Varies												
Bearings												
* - Varies												
Mechanical Seal												
U - Single Seal - Carbon / SiC / PTFE												Q
Q - Single Seal - SiC / PTFE												E
E - Double Seal - SiC / PTFE												U
Pump Options												
* - Varies												

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SELECTION GUIDE – Isochem E Series

EGM Series - ISOChem Extraction Pump Model Code Definitions												
Pump Model Code	EGMx	x	-	x	x	x	-	x	x	x	-	x
Model Code Position	1	2	-	3	4	5	-	6	7	8	-	9
Pump Style			-		*	*	-	*	*	*	-	*
EGMC - ISOChem Mag Drive Extraction												
Pump Size												
EGMC	EGMC											
Size 2. Rating: 1.5 gpm		2										
Size 4. Max Flow: 3 gpm		4										
Size 6. Max Flow: 10 gpm		6										
Size 8. Max Flow: 22 gpm		8										
EGM	EGM											
Size 12. Max Flow: 28 gpm		12										
Size 16. Max Flow: 55 gpm		16										
Housing Material and Ports												
A - 316 SS / NPT Ports					A							
S - 316 SS / Tri-Clamp Ports (Sizes 2, 4, 6, 8 Only)					S							
U - 316 SS / Flanged Ports					U							
Drive Gear												
* - Varies												
Idler Gear												
* - Varies												
Wear Plates												
* - Varies												
Bearings												
* - Varies												
Motor Adapter												
* - Varies												
Pump Options												
* - Varies												

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