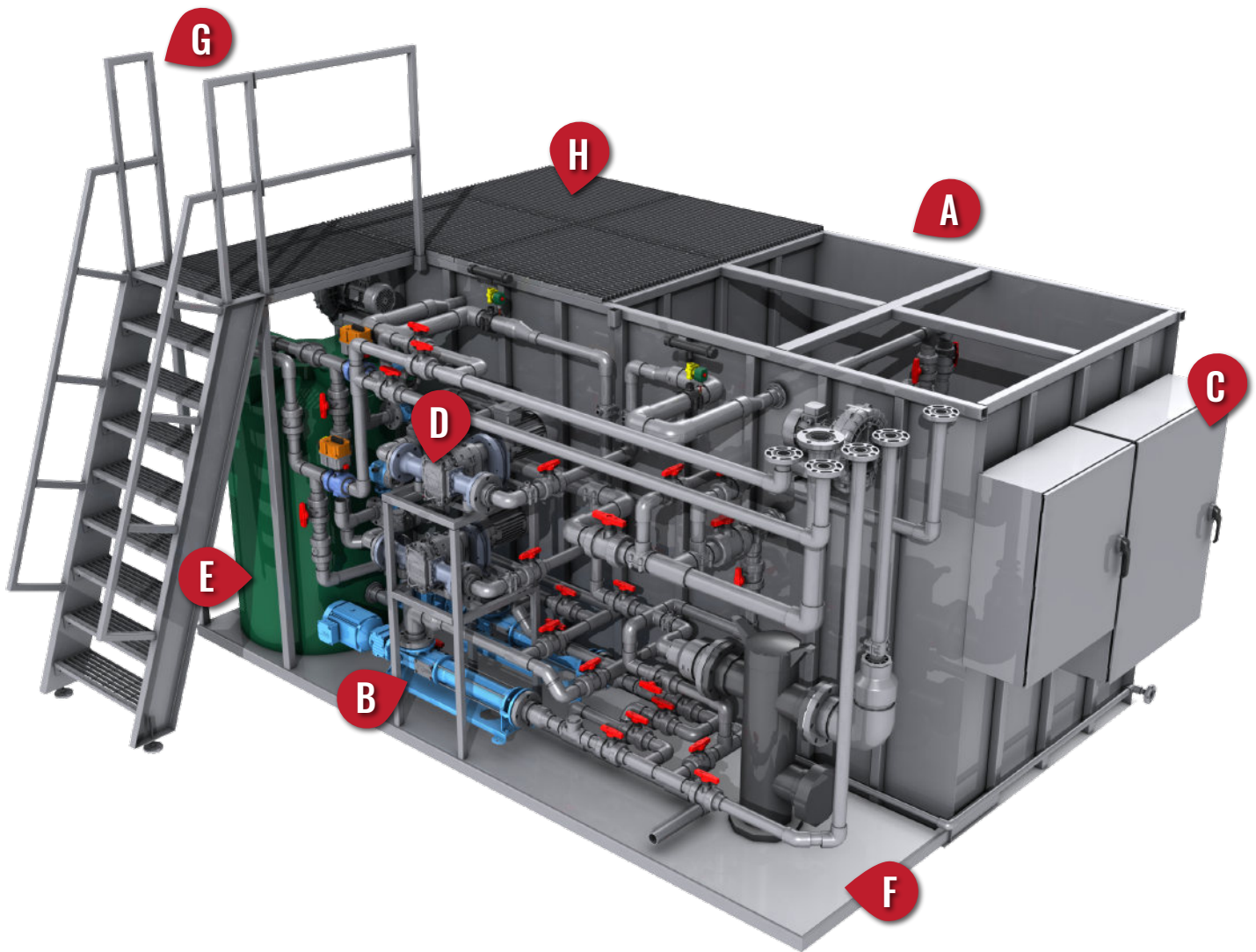


CEMPAC™ SLUDGE THICKENING SYSTEM



- A:** Scalable ceramic membrane cassette
- B:** Thickened sludge transfer pumps
- C:** Stainless steel controls enclosures
- D:** Reversible permeate pump

- E:** Integrated clear well for automated Clean-In-Place (CIP)
- F:** Factory-integrated stainless steel equipment skid
- G:** Optional ship ladder or stairs
- H:** Optional pedestrian decking

Prior to delivery, clients will be given exact connection points for power, communication, influent and effluent.

THICKENS SLUDGE WITHOUT POLYMERS

PRODUCT DESCRIPTION



Cloacina has revolutionized sludge thickening by being the first company to incorporate Silicon Carbide (SiC) membranes into a package sludge thickening system that can be easily installed at sites with thickening needs. Clients can now thicken sludge without the use of polymers and their downstream effects!

Cloacina's CEMPAC includes a silicon carbide ceramic flat sheet membrane capable of thickening difficult waste streams: up to 5% solids, very high or low pH ranges and those containing abrasives. The membrane is extremely durable, can be pressure washed and, if properly cared for, has an expected useful life of decades. The membrane has easy recovery of flux and can be stored dry. The CEMPAC can be incorporated into any existing wastewater treatment system.

TYPICAL THICKENED SLUDGE PARAMETERS

CONSTITUENT	VALUE	UNITS
TSS	20,000 - 50,000	mg/L

TYPICAL INFLUENT PARAMETERS

CONSTITUENT	VALUE	UNITS
TSS	500 - 10,000	mg/L
Temperature	30 - 120	°F
pH	0 - 14	
Oil and grease	<500	mg/L
Free oil	<500	mg/L

TYPICAL PERMEATE PARAMETERS

CONSTITUENT	VALUE	UNITS
TSS	<10	mg/L
Turbidity	<0.5	NTU
Oil and grease	<2	mg/L
SDI	<3	SDI units
Bacteria	>Log4 reduction	Removal rate