Energizer™ Gaskets

for Data Center Cooling Systems

Modern data centers generate enormous heat loads, and the cooling loops that keep servers online run around the clock with zero tolerance for leaks. Most facilities circulate glycol or glycol/water mixtures through CPVC and PVDF piping and flanges — corrosion-resistant, lightweight, and cost-effective. But plastic flanges cannot handle high bolt loads: over-torque and the flange cracks; under-torque a conventional gasket and it leaks.

The CTG Energizer™ Gasket solves both problems at once. Its EPDM core delivers proven compatibility with glycol and glycol/water fluids, while its seamless "no-seam" shield seals reliably at very low bolt load — the thickest protection on the market. That is why engineers are specifying the Energizer™ by name in new data center construction nationwide.

SPECIFIED FOR NEW DATA CENTER CONSTRUCTION

As data centers are built across the country, engineers and contractors are specifying the CTG Energizer™ gasket by name for glycol cooling systems.

Features

- EPDM elastomer core — the proven elastomer for glycol and glycol/water heat-transfer fluids
- 100% pure virgin TFM® or PTFE sealing surface, totally bonded to the body
- Seamless "no-seam" sealing surface — thickest available shield without sacrificing compression set properties
- Minimal torque required to seal — will not crack CPVC or PVDF flanges
- Non-asbestos construction
- 65 to 75 Durometer elastomer body
- Typical compression set values of 15% or better
- Can be supplied with or without ribs
- TFM® shield available for highly demanding applications

Built for the Data Center Cooling Challenge

- **Low torque sealing for plastic flanges** — seals at very low bolt load, protecting the CPVC and PVDF flanges that carry your coolant
- **Glycol & water compatibility** — EPDM core stands up to continuous glycol/water service in around-the-clock cooling loops
- **Zero-downtime reliability** — seamless shield will not come apart at the inside seam
- **24/7 emergency delivery** — construction schedules don't wait, and neither do cooling system failures

Applications in the Cooling Loop

- Chilled water and glycol distribution loops
- CPVC and PVDF piping flange connections
- Pump, valve, and manifold flanges
- Heat exchanger and dry cooler connections
- CRAH/CRAC unit supply and return piping
- Liquid cooling and immersion cooling support systems

Benefits

- Longest lasting, continuous use gasket on the market
- Suitable for temperatures between -40°F and 300°F
- Available in standard sizes from ½ in. to 36 in.
- Sealing surface material permanently bonded to gasket body
- Designed specifically for FRP and plastic piping systems

Data Center Cooling Requirements vs. Energizer™ Capabilities

Data Center Requirement	Energizer™ Answer
Glycol / glycol-water heat-transfer fluid	EPDM core — the proven elastomer for glycol and water service
CPVC and PVDF piping and flanges	Seals at very low bolt load; will not crack plastic flanges
Zero-downtime, leak-free operation	Seamless no-seam shield with the thickest protection on the market
Fast-track construction schedules	24/7 emergency delivery available nationwide
Demanding or specialty fluid conditions	TFM® shield option for superior permeation and compression properties

Specifications

All measurements in inches. For CPVC, PVDF, and other plastic or FRP flanges, use the Dual/FRP Flanges torque values.

Size	Part Number	ID	OD	Bolt Circle	Hole Dia.	Bolt Holes	Steel Flanges	Dual/FRP Flanges
½	CTG100100	0.71	3.50	2.38	0.62	4	15-25	15
¾	CTG100101	0.86	3.88	2.75	0.62	4	15-25	15
1	CTG100102	1.16	4.25	3.125	0.62	4	15-25	15
1¼	CTG100103	1.25	4.63	3.50	0.62	4	15-30	15
1½	CTG100104	1.72	5.00	3.875	0.62	4	15-30	15
2	CTG100105	2.16	6.00	4.75	0.75	4	25-50	25
2½	CTG100106	2.50	7.00	5.50	0.75	4	25-80	25
3	CTG100107	3.15	7.50	6.00	0.75	4	25-80	25
3½	CTG100108	3.46	8.50	7.00	0.75	8	25-80	25
4	CTG100109	4.06	9.00	7.50	0.75	8	30-55	30
5	CTG100120	4.97	10.00	8.50	0.88	8	30-80	30
6	CTG100110	6.14	11.00	9.50	0.88	8	30-80	30
8	CTG100111	8.10	13.50	11.75	0.88	8	40-120	40
10	CTG100112	10.13	16.00	14.50	1.00	12	40-115	40
12*	CTG100113	12.22	19.00	17.00	1.00	12	40-155	45
14*	CTG100114	13.87	21.00	18.75	1.12	12	50-235	50
16*	CTG100115	15.81	23.50	21.25	1.12	16	50-210	50
18*	CTG100116	17.90	25.00	22.75	1.25	16	50-210	50
20*	CTG100117	19.96	27.50	25.00	1.25	20	60-220	60
24*	CTG100119	23.94	32.00	29.50	1.37	20	65-300	65
26**	CTG106485	26.00	34.25	31.75	1.38	24	70-350	70
28**	CTG106486	28.00	36.50	34.00	1.38	28	80-400	80
30**	CTG106487	30.00	38.75	36.00	1.38	28	95-475	95
32**	CTG106663	32.00	41.75	38.502	1.62	28	105-495	105
34**	CTG106488	34.00	43.75	40.50	1.62	32	115-525	115
36**	CTG106892	36.00	46.00	42.75	1.62	32	135-575	135

Styles

The Energizer™ Gasket is available in non-ribbed (NRT) and ribbed (ET) styles.

NRT Energizer (non-ribbed) — Will not interfere with the raised (serrated) portion of the flange. Can be used on fiberglass or steel/stainless steel flanges using typical steel bolt torque loadings for raised or flat-face metal flanges. Flange types include cast and ductile iron, CPVC, PVC, Fibercast FRP, machine-made FRP, press-molded FRP, PVDF, and serrated or ribbed steel.

ET Energizer (ribbed) — Three sealing ribs (two ribs if diameter is less than 2 in.) with increased shield thickness for maximum protection. Available in both new and old standard sizes. Flange types include contact-molded FRP, flat-faced, hand lay-up FRP, and flanges with no ribs or serrations.

Materials

CTG makes Energizer™ Gaskets from the following materials. For data center glycol and glycol/water cooling loops, EPDM is the proven choice:

EPDM • Aflas® • Butyl • Nitrile • Viton® A • Viton® B • Viton® GF • Viton® Extreme™

ET-style Energizer™ Gaskets are also available in 100% elastomer, or with an EPDM filler and a PTFE shield.

Building or retrofitting a data center? Get the gasket the specs call for.

Request a quote or call 713.856.8667 — 24/7 emergency delivery available.

To discuss your data center application, give us a call!

CTG

ctgsales@ctgasket.com

Address:12308 Cutten Road | Houston, Texas US | 77066 **US Toll Free: 1.800.299.1685 | 24/7: 713.856.8667**

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