

Falk CT-Series — Type CTA



Type CTA Right Angle

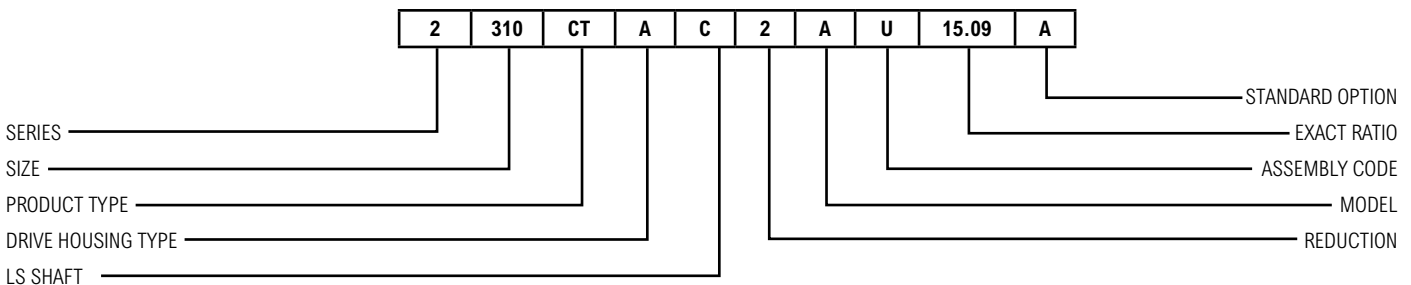
The Falk® type CTA gear drives, brought to you by the makers of Addax® Composite Couplings, are specifically designed to directly replace Amarillo® and Marley® M Series gearboxes* for cooling tower and vertical drive applications. The critical mounting dimensions of the type CTA matches comparable Amarillo and Marley models, allowing for quick and easy replacement of existing gearboxes.

* Amarillo and Marley are registered trademarks of their respective owners, and are in no way associated with Rexnord Corporation or any of its brands.

Features and Benefits:

- Manufactured to **American Gear Manufacturers Association (AGMA)** and **Cooling Technology Institute (CTI)** standards.
- **Double reduction spiral bevel** gear units are designed for cooling tower installations and feature a tub and cover housing and **pump-less lubrication**. Oil is delivered to all requisite locations using an oil slinger in conjunction with an elaborate oil management system.
- Castings are designed and **built to absorb internal and external loads** with minimum deflection. Gear case and covers are designed to assure permanent alignment of bearings and gears under load. All casting materials are gray cast iron for effective damping of noise and vibration.
- **Tub and cover housing design** utilizes dowel pins to ensure proper alignment and is **sealed using a formed-in-place gasket material** that eliminates weeping.
- Spiral bevel gears are finished using a **state-of-the-art hard cut process**, with special software monitoring to match the profile of the mating gears.
- The housing utilizes **vertical fins to maximize thermal performance in high ambient temperatures** such as those found in cooling tower applications with no additional cooling devices required.
- **All bearings are roller-type**, and sized to meet or exceed a **minimum L₁₀ life** as specified by AGMA and CTI standards.
- **Standard marine grade paint** conforms to ISO 12944-5 C5-M to ensure long service life in the harsh cooling tower environment.
- **Standard accessories are available**, including:
 - Backstop
 - Oil level switch
 - Vibration sensor
 - RTD temperature sensors
 - Oil heater

Nomenclature Guide



Series

2000 Series

Size

310

Product Type

CT — Falk CT-Series

Drive Housing Type/Output Shaft Configuration

A — Right angle drive, matches Amarillo footprint

LS Shaft

C — Solid shaft

Reduction

2 — Number of reductions/stages in gear drive

Model

A — Model A

Assembly Code

U — L.S. shaft up

Ratio

Exact ratio expressed as (5) characters including decimal point

Standard Options

A — Oil level switch

B — Oil heater with thermostat

C — Oil sump and HS bearing RTDs

D — Vibration sensor (HS bearing)

Type CTA Right Angle

Maximum Allowable Low Speed Shaft Thrust Load[‡]

Drive Size	Maximum Thrust Load	
	kg	lbs
2310	4,037	8,768

[‡] The listed thrust ratings are the maximum allowable axial load at the low speed shaft to maintain L₁₀ of 100,000 hours. Contact the factory if higher thrust load ratings are required.

Weight and Oil Quantity

Size	Weight kg (lbs)	Oil Quantity L (gal)*
2310	1,134 (2,499)	50 (13.21)

• The volume of oil indicated in the table is only a rough guideline, depending on the ratio the actual oil volume can vary. The exact level of oil is to be maintained as per the dipstick marking or the level indicator as applicable.

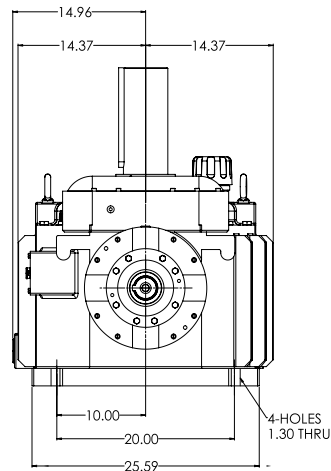
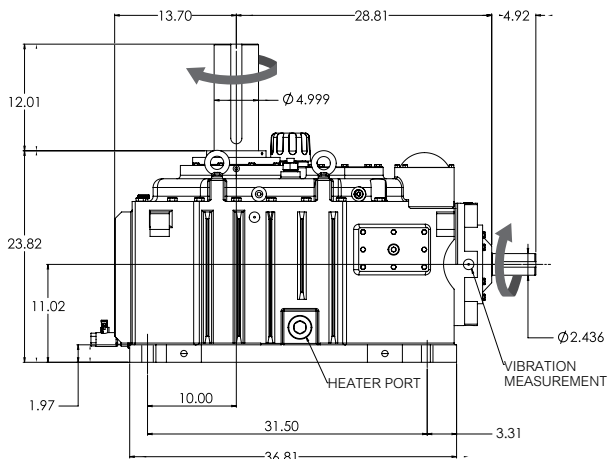
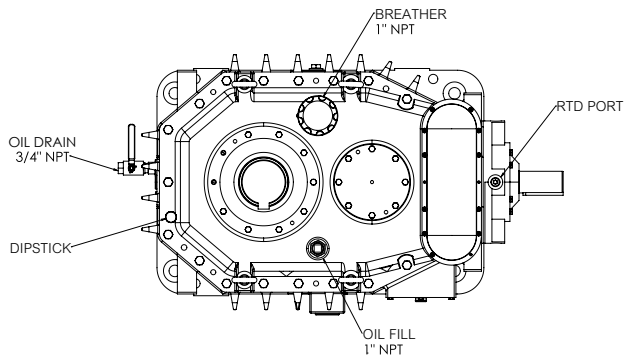
Actual Ratio

Nominal Ratio	Drive Size
	2310
9.0	9.043
10.0	10.17
10.5	10.67
11.0	11.16
12.0	12.00
12.5	12.55
13.0	13.05
14.0	14.22
15.0	15.09
15.5	15.50
16.0	16.00

Service Power Ratings[†] (Minimum Service Factor 2.0)

High Speed Shaft rpm	Nominal Ratio	Approx LS Shaft rpm	Drive Size	
			2310	
			HP	kW
1750	9.0	194	312	233
	10.0	175	290	216
	10.5	167	281	210
	11.0	159	270	201
	12.0	146	253	189
	12.5	140	252	188
	13.0	135	240	179
	14.0	125	231	172
	15.0	117	214	160
	15.5	113	208	155
16.0	109	200	149	
1430	9.0	159	259	193
	10.0	143	240	179
	10.5	136	230	172
	11.0	130	226	169
	12.0	119	212	158
	12.5	114	213	159
	13.0	110	201	150
	14.0	102	188	140
	15.0	95	177	132
	15.5	92	171	128
16.0	89	167	125	
1170	9.0	130	207	154
	10.0	117	190	142
	10.5	111	185	138
	11.0	106	179	133
	12.0	98	170	127
	12.5	94	169	126
	13.0	90	159	119
	14.0	84	150	112
	15.0	78	142	106
	15.5	75	137	102
16.0	73	133	99	

Double Reduction Solid Low Speed Shaft, Base Drive — Size 2310



[†] Service ratings are based upon an ambient temperature of 100°F (38°C) at sea level and a CTI standard minimum service factor of 2.0. For other vertical applications or ambient conditions, contact the factory.

Shaft diameters are held to limits of +/- 0.0005". Shaft keyseat depth is one-half of key height.

Low speed shaft key: 1.250" x 1.250" x 11.22"

High speed shaft key: 0.625" x 0.625" x 4.53"



866-REXNORD/866-739-6673 (Within the U.S.)
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