

LUBETECH

C SERIES PUMPS

ENGINEERING DATA PACK



IR Ingersoll Rand®

TABLE OF CONTENTS

Product Overview.....	3
C Pump Model Number System.....	4
C2F Pump.....	5
C2E Pump Mounting Dimensions	6
C2B Pump Mounting Dimensions	7
C2FA Pump Mounting Dimensions.....	8
C2S Mounting Dimensions	9
C2SA Pump Mounting Dimensions	10
Dimensions for 2CF Close Coupled Pumps to Three Phase Motors	11
Dimensions for Adapter Mounting 2CF Pumps to NEMA C Frame Motors	12
Dimensions for Adapter Mounting 2CB & 4300 Pumps to NEMA C Frame Motors	13
Dimensions for Adapter Mounting CK2B Pumps to NEMA C Frame Motors	14
Dimensions for C Series Mounting Feet (2C81, 3C81, 3CK81 & 5C81).....	15
Temperature Limits	16
Materials of Construction	17
C Pump NPSHr Data	17
Regulatory Compliance Information	18



C SERIES PRODUCT OVERVIEW PAGE

- Positive Displacement Internal Rotary Gear Design
- Cast Iron Construction with NPT Top Ports
- Five Sizes from 3 to 84 GPM
- Typical Viscosity Range is 40 - 10,000 SSU
- Temperatures to 375°F

C2F FEATURES

Flange Mount Configuration
Spring Loaded Viton Lip Seal
Inlet Pressure to 25 PSI
Discharge Pressure to 100 PSI
Maximum Differential Pressure to 100 PSI

OPTIONS

Internal Relief Valve and Outboard Ball Bearing
Reversing Feature and SAE Porting
Adapter Kit for NEMA C-Face Ports
Shaft Modification for Close Coupled Mounting

C2E FEATURES

Foot Mounted Configuration
Spring Loaded Viton Lip Seal
Inlet Pressure to 25 PSI
Discharge Pressure to 100 PSI
Maximum Differential Pressure to 100 PSI

OPTIONS

Internal Relief Valve and Outboard Ball Bearing
Reversing Feature and SAE Porting

C2B FEATURES

Flange Mount Configuration
Viton Mechanical Seal
Inlet Pressure to 250 PSI
Discharge Pressure to 300 PSI
Maximum Differential Pressure to 150 PSI

OPTIONS

Seal Elastomer (Neoprene/EPR)
Internal Relief Valve and Outboard Ball Bearing
Reversing Feature and SAE Porting
Mounting Foot for Direct Drive
Adapter Kit for NEMA C-Face Mounting

G2FA FEATURES

Flange Mount Configuration
Sealless Design for OEM Built-In Applications
Inlet Pressure to 25 PSI
Discharge Pressure to 100 PSI
Maximum Differential Pressure to 100 PSI

OPTIONS

Internal Relief Valve
Outboard Ball Bearing
Reversing Feature
SAE Porting
Tang Shaft Modification

G2S/G2SA FEATURES

Incomplete "Stripped" Configurations for OEM Built-In Applications
C2S Consists of Cover, Housing, Idler Gear, & Rotor C2SA
Consists of Cover, Idler Gear, & Rotor Reversing Feature

GC FEATURES

Flange Mount Configuration Directly to NEMA 56 C, 143/145 TC Motor
Viton Mechanical Seal
Inlet Pressure to 25 PSI
Discharge Pressure to 125 PSI
Maximum Differential Pressure to 100 PSI
Optional Relief Valve

C PUMP MODEL NUMBER SYSTEM

POSITION	SIZE	REVERSING FEATURE	MODEL				PUMP OPTIONS	ROTATION		MODIFICATIONS				SAE PORT OPTION		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

POS. 1 - SIZE

- 2
- 3
- 4
- 5
- 6

POS. 2 - REVERSING FEATURE

- R

POS. 3, 4, 5, & 6 - MODEL

- C2F
- C2FA
- C2E
- C2B

POS. 7 - PUMP OPTIONS

- V = Valve
- N = Outboard Ball Bearing
- U = Cover Rotated 180°

POS. 8 & 9 - ROTATION

- C = Clockwise Rotation
- CC = Counterclockwise Rotation

POS. 8 & 9 - SUCTION PORT LOCATION (PUMPS WITH REVERSING FEATURE)

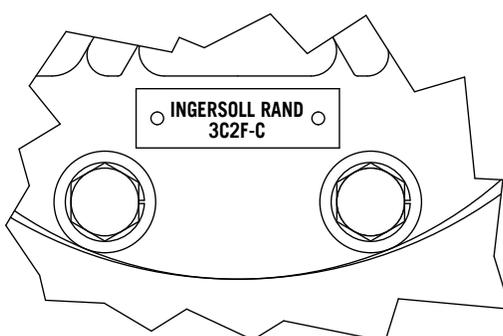
- RH = Right Hand Suction
- LH = Left Hand Suction

POS. 10, 11, 12, 13, & 14 - MODIFICATIONS

- A = Tang Shaft (C2F/C2FA)
- 5 = Neoprene Seal (C2B/CK2B)
- 7 = Viton Seal
- 7-8910 = Abrasion Resistant Viton
- Seal 8 = EPR Seal (C2B/CK2B)
- N = No Flat/Keyway in Shaft

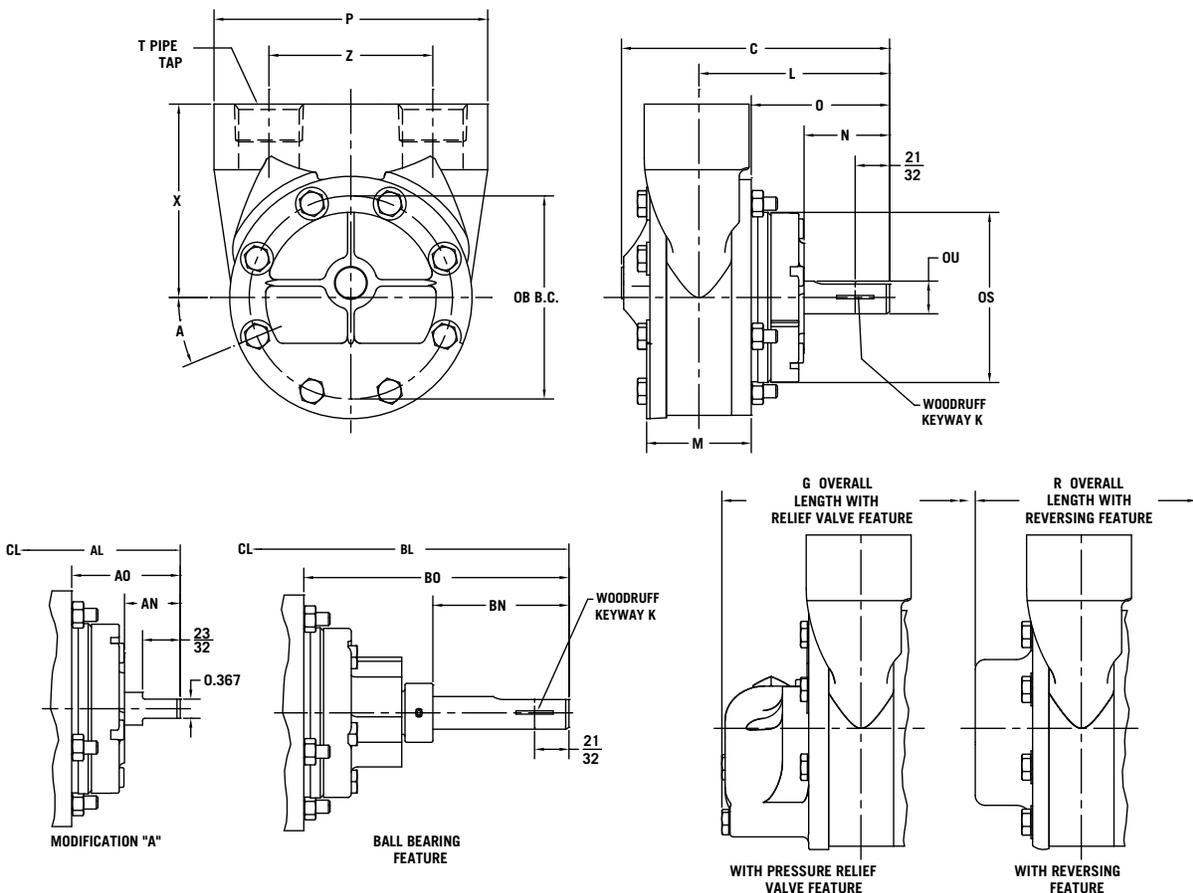
POS. 15, 16, & 17 - SAE PORT OPTION

- SAE8
- (NPT is Standard)

PORT		Pump Size					Model Number is Stamped on a Metal Tag on the Cover
Style	Size	2	3	4	5	6	
NPT	1"	Standard	-	-	-	-	
	1-1/4"	-	Standard	-	-	-	
	1-1/2"	-	-	Standard	Standard	-	
	2"	-	-	-	-	Standard	
SAE	16	Optional	-	-	-	-	
	20	-	Optional	Optional	-	-	
	24	-	-	-	Optional	-	
	32	-	-	-	-	Optional	

C2F PUMP

All measurements are in inches.



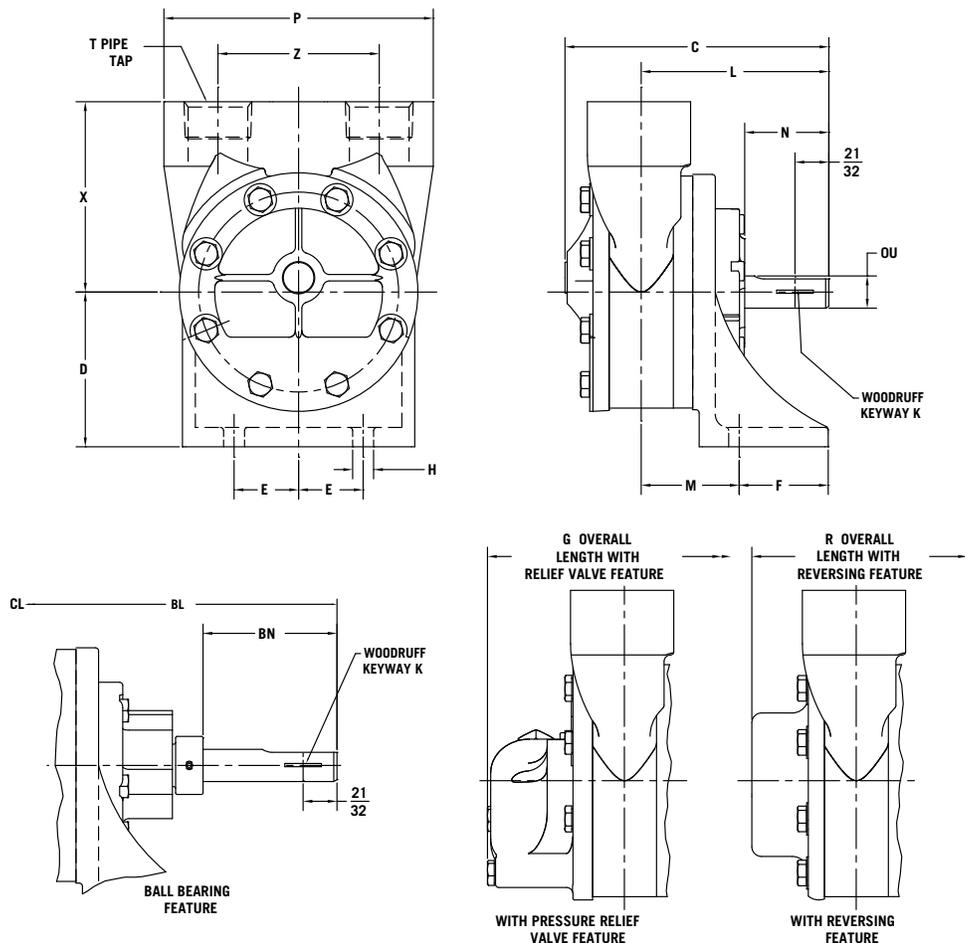
Model #	A	B	C	R	G	K	L	M	N	O	P	S
2C2F	22-1/2°	3-7/8"	5-1/8"	5-21/32"	6-7/32"	#406	3-5/8"	2"	1-5/8"	2-5/8"	5-7/32"	3-1/4"
3C2F	22-1/2°	5-1/8"	6-17/32"	6-7/8"	7-17/32"	#606	4-13/16"	2-5/16"	2-3/32"	3-7/16"	6-5/8"	3-3/4"
4C2F	22-1/2°	5-1/8"	7-27/32"	7-9/16"	8-7/32"	#606	4-29/32"	3"	2-3/32"	3-7/16"	6-1/2"	3-3/4"
5C2F	17°	6-5/8"	9-1/16"	11-5/8"	10-1/4"	#808	5-3/4"	4-5/16"	2-3/8"	3-3/8"	7-1/2"	3-3/4"
6C2F	17°	6-5/8"	9-1/2"	12-1/8"	10-3/4"	#808	6"	4-13/16"	2-3/8"	3-3/8"	8-1/8"	3-3/4"

Model #	T	U	X	Z	AL	AN	AO	BL	BN	BO
2C2F	1" NPT	5/8"	3-11/16"	3-1/8"	3-1/16"	1-1/16"	2-1/16"	6-1/16"	2-19/32"	5-1/32"
3C2F	1-1/4" NPT	3/4"	4-7/8"	4-1/8"	3-7/16"	23/32"	2-1/16"	6-13/16"	2-25/32"	5-7/16"
4C2F	1-1/2" NPT	3/4"	4-1/8"	3-3/4"	3-17/32"	23/32"	2-1/16"	6-29/32"	2-25/32"	5-7/16"
5C2F	1-1/2" NPT	1"	5"	4-3/4"	4-1/4"	7/8"	1-7/8"	6-7/8"	1-29/32"	4-1/2"
6C2F	2" NPT	1"	4-3/4"	4-3/4"	4-1/2"	7/8"	1-7/8"	7-1/8"	1-29/32"	4-1/2"

NOTE: In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data is approximate. Request a quotation for your specific application.

C2E PUMP MOUNTING DIMENSIONS

All measurements are in inches.



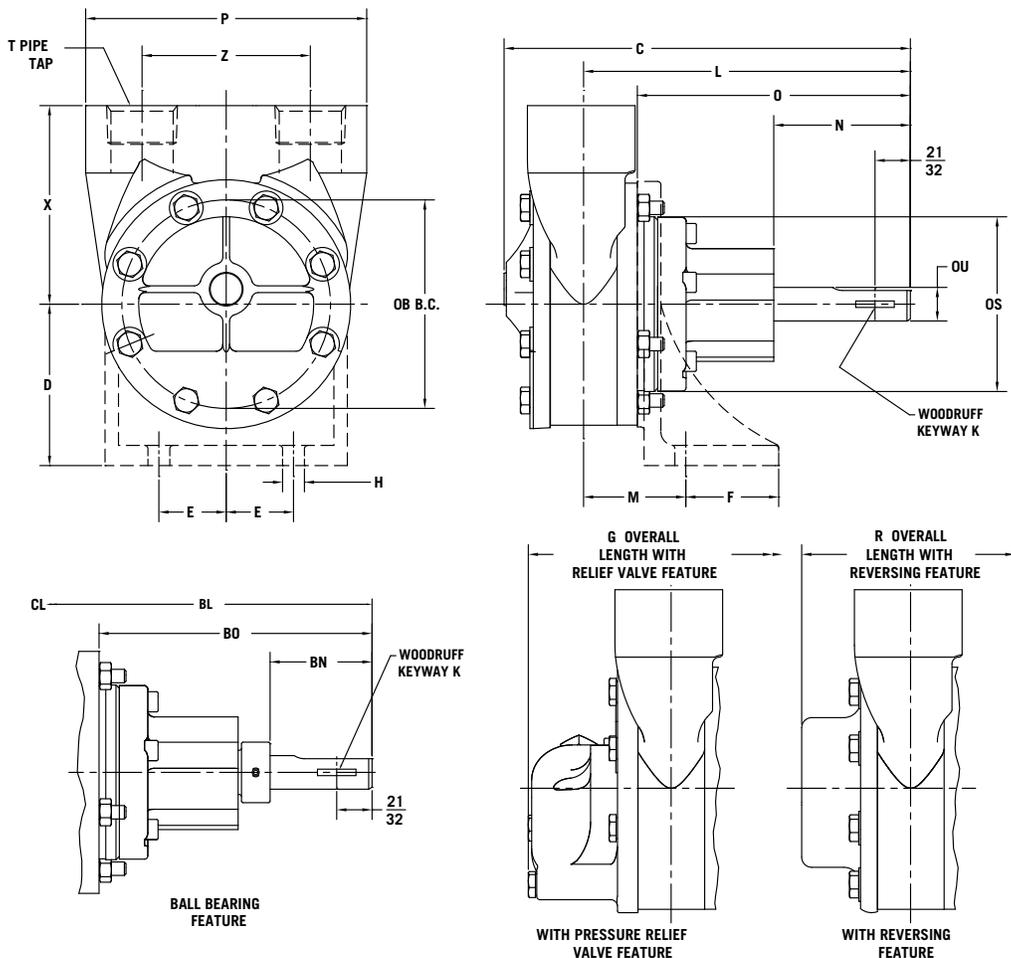
Model #	C	R	G	D	E	F	H	K	L	M	N	P
2C2E	5-1/8"	5-21/32"	6-7/32"	3"	1-1/4"	1-19/32"	13/32"	#406	3-5/8"	1-29/32"	1-5/8"	5-7/32"
3C2E	6-17/32"	6-7/8"	7-17/32"	3-7/8"	1-1/2"	SLOT	15/32"	#606	4-13/16"	SLOT	2-3/32"	6-5/8"
4C2E	7-27/32"	7-9/16"	8-7/32"	3-7/8"	1-1/2"	SLOT	15/32"	#606	4-29/32"	SLOT	2-3/32"	6-1/2"
5C2E	10-3/16"	12-3/4"	11-3/8"	4-3/4"	1-1/2"	SLOT	15/32"	#808	6-7/8"	SLOT	3-1/2"	7-1/2"
6C2E	10-5/8"	13-1/4"	11-7/8"	4-3/4"	1-1/2"	SLOT	15/32"	#808	7-1/8"	SLOT	3-1/2"	8-1/8"

Model #	T	U	X	Z	BL	BN
2C2E	1" NPT	5/8"	3-11/16"	3-1/8"	6-1/16"	2-19/32"
3C2E	1-1/4" NPT	3/4"	4-7/8"	4-1/8"	6-13/16"	2-25/32"
4C2E	1-1/2" NPT	3/4"	4-1/8"	3-3/4"	6-29/32"	2-25/32"
5C2E	1-1/2" NPT	1"	5"	4-3/4"	6-7/8"	1-29/32"
6C2E	2" NPT	1"	4-3/4"	4-3/4"	7-1/8"	1-29/32"

NOTE: In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data is approximate. Request a quotation for your specific application.

C2B PUMP MOUNTING DIMENSIONS

All measurements are in inches.



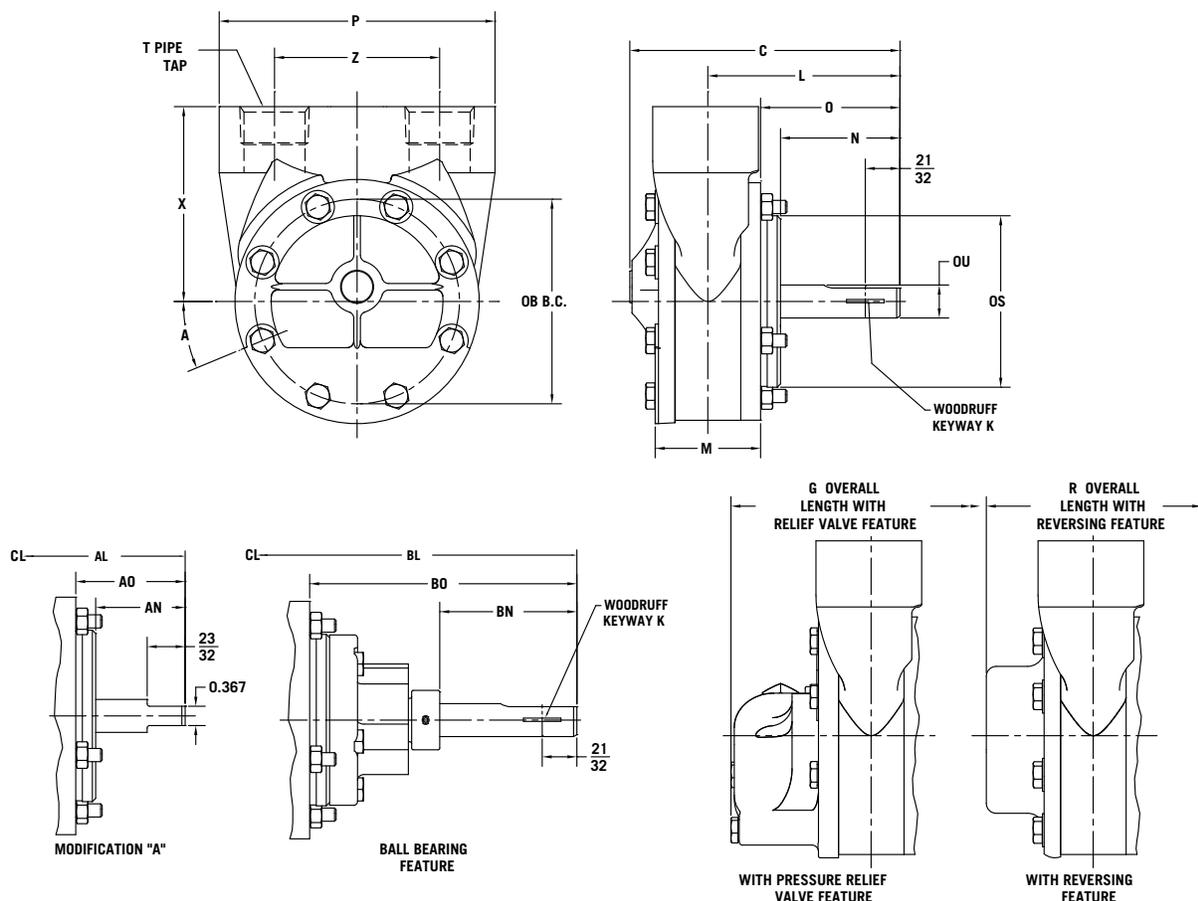
Model #	C	B	R	G	D	E	F	H	K	L	M	N
2C2B	7-9/16"	3-7/8"	8-3/32"	8-21/32"	3"	1-1/4"	1-19/32"	13/32"	#406	6-1/16"	1-29/32"	2-17/32"
3C2B	8-17/32"	5-1/8"	8-7/8"	9-17/32"	3-7/8"	1-1/2"	SLOT	15/32"	#606	6-13/16"	SLOT	2-1/2"
4C2B	9-27/32"	5-1/8"	9-9/16"	10-7/32"	3-7/8"	1-1/2"	SLOT	15/32"	#606	6-29/32"	SLOT	2-1/2"
5C2B	11-15/16"	6-5/8"	14-1/2"	13-1/8"	4-3/4"	1-1/2"	SLOT	15/32"	#808	8-5/8"	SLOT	3-13/32"
6C2B	12-3/8"	6-5/8"	15"	13-5/8"	4-3/4"	1-1/2"	SLOT	15/32"	#808	8-7/8"	SLOT	3-13/32"

Model #	O	P	S	T	U	X	Z	BL	BN	BO
2C2B	5-1/16"	5-7/32"	3-1/4"	1" NPT	5/8"	3-11/16"	3-1/8"	6-1/16"	1-27/32"	5-1/16"
3C2B	5-7/16"	6-5/8"	3-3/4"	1-1/4" NPT	3/4"	4-7/8"	4-1/8"	6-13/16"	1-25/32"	5-7/16"
4C2B	5-7/16"	6-1/2"	3-3/4"	1-1/2" NPT	3/4"	4-1/8"	3-3/4"	6-29/32"	1-25/32"	5-7/16"
5C2B	6-1/4"	7-1/2"	3-3/4"	1-1/2" NPT	1"	5"	4-3/4"	8-5/8"	2-9/16"	6-1/4"
6C2B	6-1/4"	8-1/8"	3-3/4"	2" NPT	1"	4-3/4"	4-3/4"	8-7/8"	2-9/16"	6-1/4"

NOTE: In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data is approximate. Request a quotation for your specific application.

C2FA PUMP MOUNTING DIMENSIONS

All measurements are in inches.



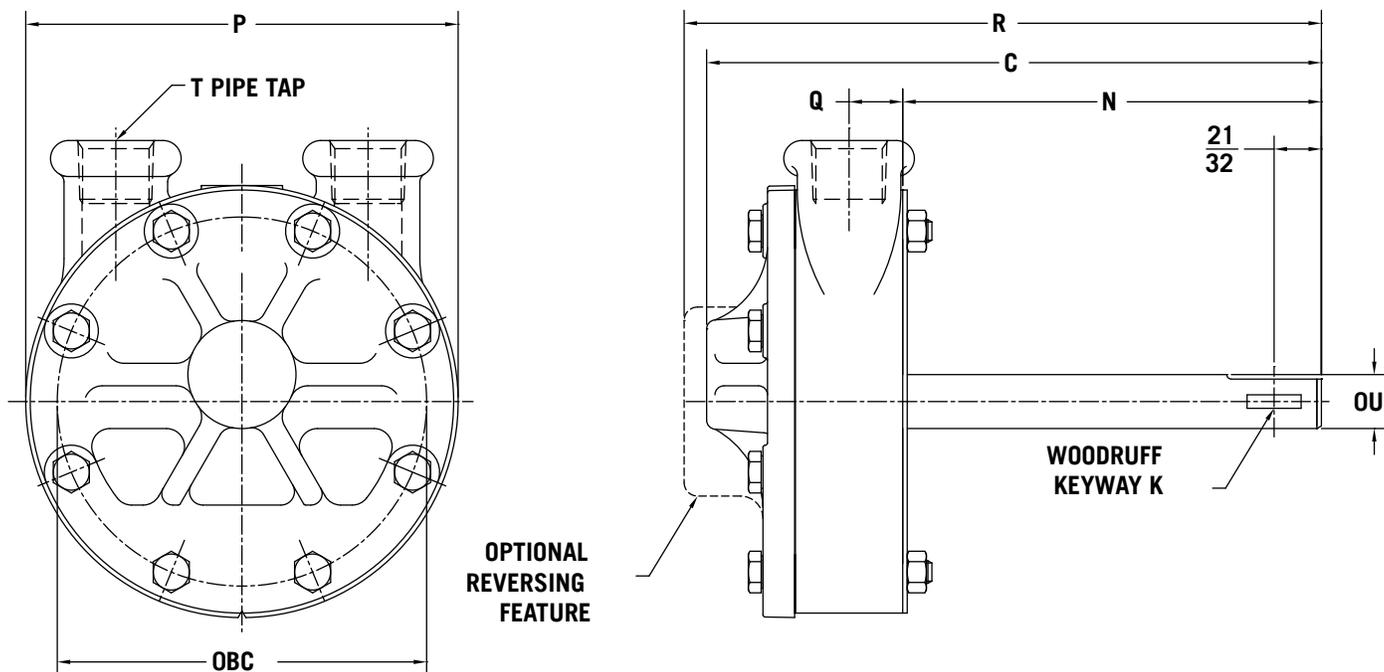
Model #	A	B	C	R	G	K	L	M	N	O	P	S
2C2FA	22-1/2°	3-7/8"	5-1/8"	5-21/32"	6-7/32"	#406	3-5/8"	2"	2-1/8"	2-5/8"	5-7/32"	3-1/4"
3C2FA	22-1/2°	5-1/8"	6-17/32"	6-7/8"	7-17/32"	#606	4-13/16"	2-5/16"	2-19/32"	3-7/16"	6-5/8"	3-3/4"
4C2FA	22-1/2°	5-1/8"	7-27/32"	7-9/16"	8-7/32"	#606	4-29/32"	3"	2-19/32"	3-7/16"	6-1/2"	3-3/4"
5C2FA	17°	6-5/8"	9-1/16"	11-5/8"	10-1/4"	#808	5-3/4"	4-5/16"	2-3/4"	3-3/8"	7-1/2"	3-3/4"
6C2FA	17°	6-5/8"	9-1/2"	12-1/8"	10-3/4"	#808	6"	4-13/16"	2-3/4"	3-3/8"	8-1/8"	3-3/4"

Model #	T	U	X	Z	AL	AN	AO	BL	BN	BO
2C2FA	1" NPT	5/8"	3-11/16"	3-1/8"	3-1/16"	1-9/16"	2-1/16"	6-1/16"	2-19/32"	5-1/32"
3C2FA	1-1/4" NPT	3/4"	4-7/8"	4-1/8"	3-7/16"	1-7/32"	2-1/16"	6-13/16"	2-25/32"	5-7/16"
4C2FA	1-1/2" NPT	3/4"	4-1/8"	3-3/4"	3-17/32"	1-7/32"	2-1/16"	6-29/32"	2-25/32"	5-7/16"
5C2FA	1-1/2" NPT	1"	5"	4-3/4"	4-1/4"	1-1/4"	1-7/8"	6-7/8"	1-29/32"	4-1/2"
6C2FA	2" NPT	1"	4-3/4"	4-3/4"	4-1/2"	1-1/4"	1-7/8"	7-1/8"	1-29/32"	4-1/2"

NOTE: In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data is approximate. Request a quotation for your specific application.

C2S MOUNTING DIMENSIONS

All measurements are in inches.

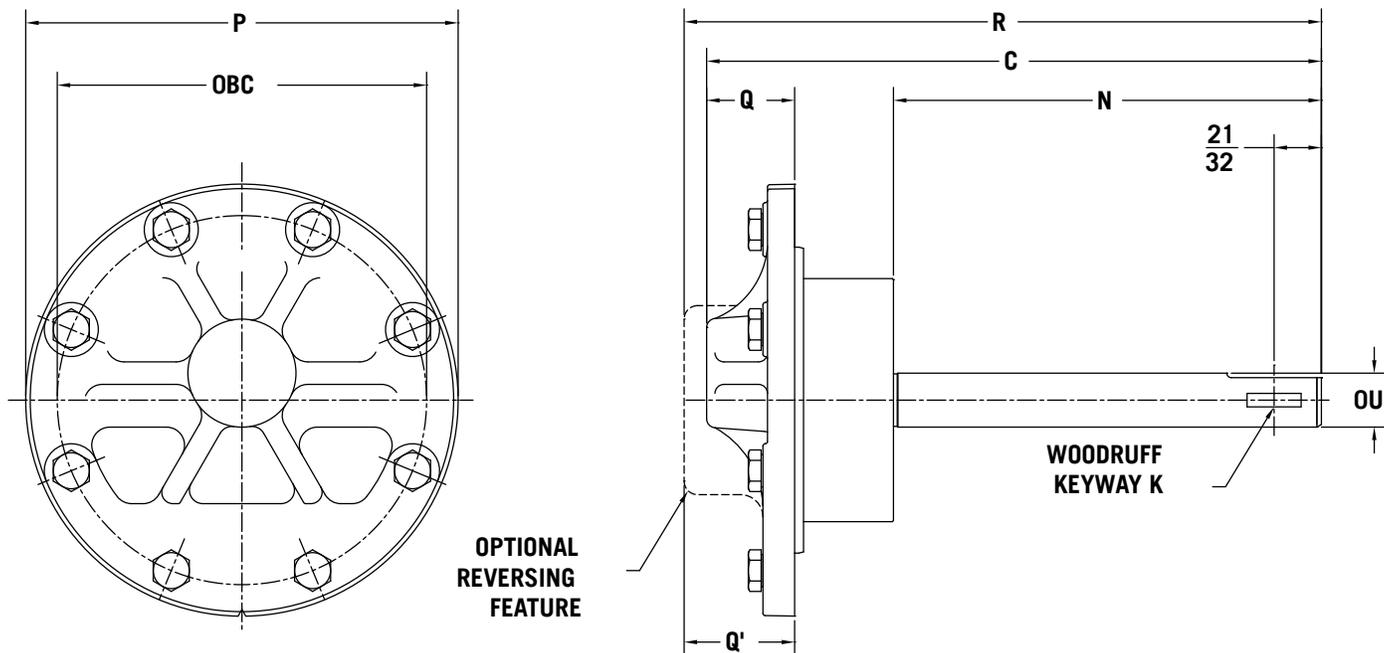


Model #	BC	C	R	K	N	P	Q	T	U
2C2S	3-7/8"	7-9/16"	8-1/16"	#406	5-7/16"	4-5/8"	5/8"	1/2" NPT	$\frac{.624}{.623}$
3C2S	5-1/8"	8-1/2"	8-7/8"	#606	5-13/16"	6"	3/4"	3/4" NPT	$\frac{.749}{.748}$
4C2S	5-1/8"	9-1/4"	9-9/16"	#606	5-13/16"	6"	1-1/4"	1" NPT	$\frac{.749}{.748}$
5C2S	6-5/8"	11-7/8"	14-1/2"	#808	7-1/4"	7-1/2"	1-3/8"	1-1/4" NPT	$\frac{.999}{.998}$
6AC2S	6-5/8"	12-3/8"	15"	#808	7-1/4"	7-1/2"	1-5/8"	2" NPT	$\frac{.999}{.998}$

NOTE: In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data is approximate. Request a quotation for your specific application.

C2SA PUMP MOUNTING DIMENSIONS

All measurements are in inches.

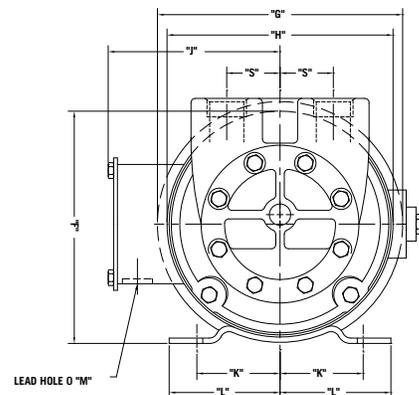
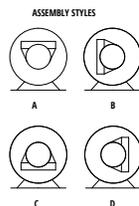
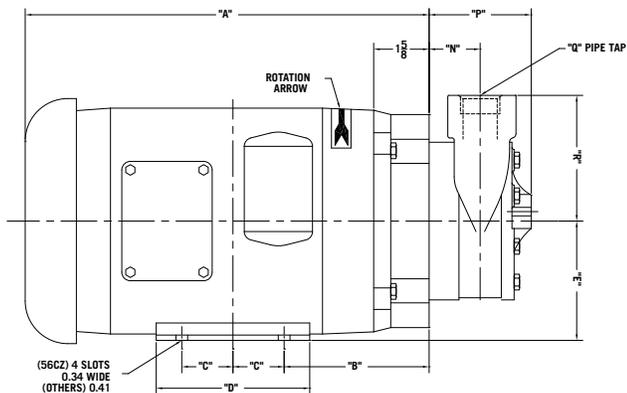


Model #	BC	C	R	K	N	P	Q	Q'	U
2C2SA	3-7/8"	7-9/16"	8-1/16"	#406	5-9/16"	4-5/8"	3/4"	1-15/16"	$\frac{.624}{.623}$
3C2SA	5-1/8"	8-1/2"	8-7/8"	#606	5-15/16"	6"	1-1/4"	1-11/16"	$\frac{.749}{.748}$
4C2SA	5-1/8"	9-1/4"	9-9/16"	#606	5-15/16"	6"	1-7/8"	1-11/16"	$\frac{.749}{.748}$
5C2SA	6-5/8"	11-7/8"	14-1/2"	#808	7-7/16"	7-1/2"	1-15/16"	4-1/2"	$\frac{.999}{.998}$
6C2SA	6-5/8"	12-3/8"	15"	#808	7-7/16"	7-1/2"	1-15/16"	4-1/2"	$\frac{.999}{.998}$

NOTE: In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data is approximate. Request a quotation for your specific application.

DIMENSIONS FOR 2CF CLOSE COUPLED PUMPS TO THREE PHASE MOTORS

All measurements are in inches.



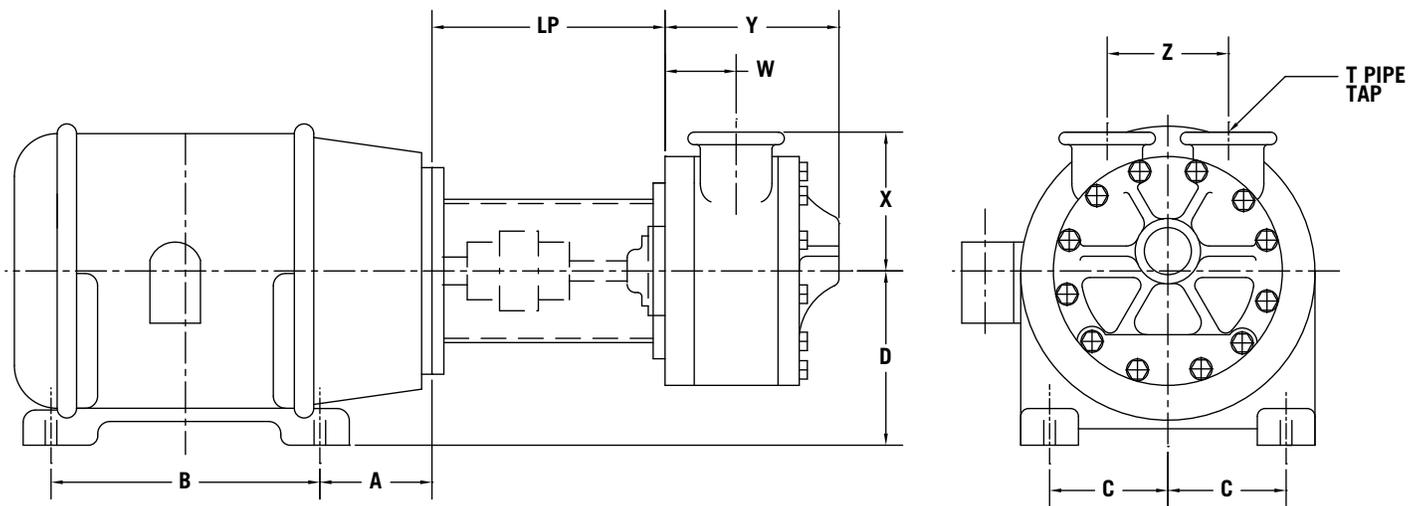
Model #	"N"	"P"	"R"	"S"	"Q" - NPT
2C2F	1-1/32"	2-17/32"	3-11/16"	1-9/16"	1" - 11-1/2
3C2F	1-3/8"	3-3/32"	4-7/8"	2-1/16"	1-1/4" - 11-1/2
4C2F	1-15/32"	4-13/32"	4-1/8"	1-7/8"	1-1/2" - 11-1/2

Model	HP	Description	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	"L"	"M"	WT.
88501	3/4	3PH/50/60/190/380/220/440 VOLT, 208-220/440 VOLT, 1425/1725 RPM, TEFC, 56CZ FRAME	11.81"	4.20"	1.50"	4.50"	3.50"	6.81"	7.16"	6.62"	5.22"	2.44"	3.25"	0.88"	26
88502	3/4	3PH/50//60/190/380/220/440 VOLT, 208-220/440 VOLT, 950/1125 RPM, TEFC, 56CZ FRAME	12.81"	4.20"	1.50"	4.50"	3.50"	6.81"	7.16"	6.62"	5.22"	2.44"	3.25"	0.88"	35
89253	1	3PH/50/60/190/380/220/440 VOLT, 208-220/440 VOLT, 1425/1725 RPM, TEFC, 56CZ FRAME	11.81"	4.20"	1.50"	4.50"	3.50"	6.81"	7.16"	6.62"	5.22"	2.44"	3.25"	0.88"	28
89254	1	3PH/50/60/190/380/230/460 VOLT, 208-230/460 VOLT, 950/1125 RPM, TEFC, 184CZ FRAME	13.81"	4.25"	2.75"	6.50"	4.50"	8.44"	8.60"	7.88"	5.97"	3.75"	4.31"	1.09"	50
89255	1-1/2	3PH/50//60/190/380/230/460 VOLT, 208-230/460 VOLT, 1425/1725 RPM, TEFC, 184CZ FRAME	13.81"	4.25"	2.75"	6.50"	4.50"	8.44"	8.60"	7.88"	5.97"	3.75"	4.31"	1.09"	51
89256	1-1/2	3PH/50/60/190/380/230/460 VOLT, 208-230/460 VOLT, 950/1125 RPM, TEFC, 184CZ FRAME	15.17"	4.25"	2.75"	6.50"	4.50"	8.44"	8.60"	7.88"	5.97"	3.75"	4.31"	1.09"	57
89257	2	PH/50/60/190/380/230/460 VOLT, 208-230/460 VOLT, 1425/1725 RPM, TEFC, 184CZ FRAME	13.81"	4.25"	2.75"	6.50"	4.50"	8.44"	8.60"	7.88"	6.00"	3.75"	4.31"	1.09"	55
89258	3	3PH/50//60/190/380/230/460 VOLT, 208-230/460 VOLT, 1425/1725 RPM, TEFC, 213CZ FRAME	15.18"	4.88"	2.75"	6.50"	5.22"	9.16"	8.50"	7.88"	5.97"	4.25"	4.75"	1.06"	73
89259	3	3PH/50/60/190/380/230/460 VOLT, 208-230/460 VOLT, 950/1125 RPM, TEFC, 215CZ FRAME	16.03"	4.25"	3.50"	8.00"	5.25"	10.03"	10.62"	9.56"	7.46"	4.25"	4.75"	1.09"	95
89260	3	3PH/50/60/190/380/230/460 VOLT, 208-230/460 VOLT, 950/1125 RPM, TEFC, 213CZ FRAME	16.68"	4.88"	2.75"	6.50"	5.22"	9.16"	8.50"	7.88"	5.97"	4.25"	4.75"	1.06"	71

NOTE: In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data is approximate. Request a quotation for your specific application.

DIMENSIONS FOR ADAPTER MOUNTING 2CF PUMPS TO NEMA C FRAME MOTORS

All measurements are in inches.



Pump Model	Motor Frame Size	LP	Adapter	Adapter Kit
2C2F	56C	5-11/16"	2CF51	2CF534
	143TC, 145TC	5-11/16"	2CF51	2CF534A
	182TC, 184TC	6-1/8"	2C1F51-182	2C1F534-182
3C2F 4C2F	56C	6-1/4"	3CF51	3CF534
	143TC, 145TC	6-1/4"	3CF51	3CF534A
	182TC, 184TC	6-15/16"	3C1F51-182	3C1F534-182
	213TC, 215TC	7-11/16"	3C1F51-213	3C1F534-213
5C2F 6C2F	182TC, 184TC	6-7/8"	5C1F51-182	5C1F534-182
	213TC, 215TC	7-5/8"	5C1F51-213	5C1F534-213
	254TC, 256TC	8-5/16"	5C1F51-254	5C1F534-254
	284TC, 286TC	9-1/4"	5C1F51-284	5C1F534-284
	324TC, 326TC	9-3/4"	5C1F51-324	5C1F534-324

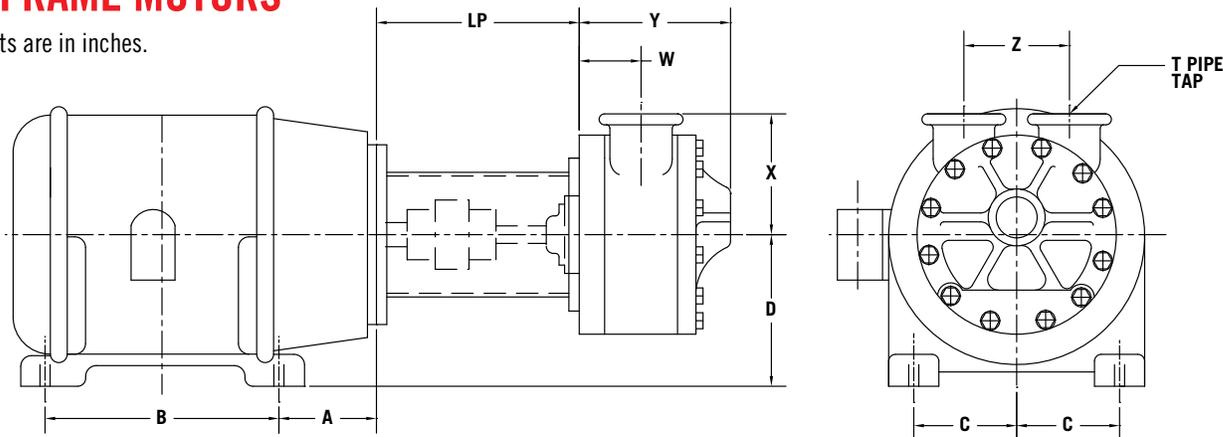
MOTOR FRAME	A	B	C	D
56C	2-3/4"	3"	2-7/16"	3-1/2"
143TC	2-1/4"	4"	2-3/4"	3-1/2"
145TC	2-1/4"	5"	2-3/4"	3-1/2"
182TC	2-3/4"	4-1/2"	3-3/4"	4-1/2"
184TC	2-3/4"	5-1/2"	3-3/4"	4-1/2"
213TC	3-1/2"	5-1/2"	4-1/4"	5-1/4"
215TC	3-1/2"	7"	4-1/4"	5-1/4"
254TC	4-1/4"	8-1/4"	5"	6-1/4"
256TC	4-1/4"	10"	5"	6-1/4"
284TC	4-3/4"	9-1/2"	5-1/2"	7"
286TC	4-3/4"	11"	5-1/2"	7"
324TC	5-1/4"	10-1/2"	6-1/4"	8"
326TC	5-1/4"	12"	6-1/4"	8"

Pump Model	T	W	X	Y	Y DIMENSION WITH RELIEF VALVE	Z
2C2F	1" NPT	1"	3-11/16"	2-1/2"	3-19/32"	3-1/8"
3C2F	1-1/4" NPT	1-3/8"	4-7/8"	3-3/32"	4-3/32"	4-1/8"
4C2F	1-1/2" NPT	1-15/32"	4-1/8"	4-13/32"	5-13/32"	3-3/4"
5C2F	1-1/2" NPT	2-3/8"	5"	5-11/16"	6-15/16"	4-3/4"
6C2F	2" NPT	2-5/8"	4-3/4"	6-1/8"	7-3/8"	4-3/4"

NOTE: In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data is approximate. Request a quotation for your specific application.

DIMENSIONS FOR ADAPTER MOUNTING 2CB & 4300 PUMPS TO NEMA C FRAME MOTORS

All measurements are in inches.



Pump Model	Motor Frame Size	LP	Adapter	Adapter Kit
2C2B 4312	56C	7-5/16"	2C1B51-56	2C1B534-56
	143TC, 145TC	7-5/16"	2C1B51-56	2C1B534-143
	182TC, 184TC	8-9/16"	2C1B51-182	2C1B534-182
3C2B 4313 4C2B 4314	56C	8-5/16"	3C2B51-56	3C2B534-56
	143TC, 145TC	8-5/16"	3C2B51-56	3C2B534-143
	182TC, 184TC	8-15/16"	3C2B51-182	3C2B534-182
	213TC, 215TC	9-11/16"	3C2B51-213	3C2B534-213
5C2B 4315 6C2B 4316	182TC, 184TC	9-3/4"	5C2B51-182	5C2B534-182
	213TC, 215TC	10-1/2"	5C2B51-213	5C2B534-213
	254TC, 256TC	11-3/16"	5C2B51-254	5C2B534-254
	284TC, 286TC	11-15/16"	5C2B51-284	5C2B534-284
	324TC, 326TC	12-11/16"	5C2B51-324	5C2B534-324

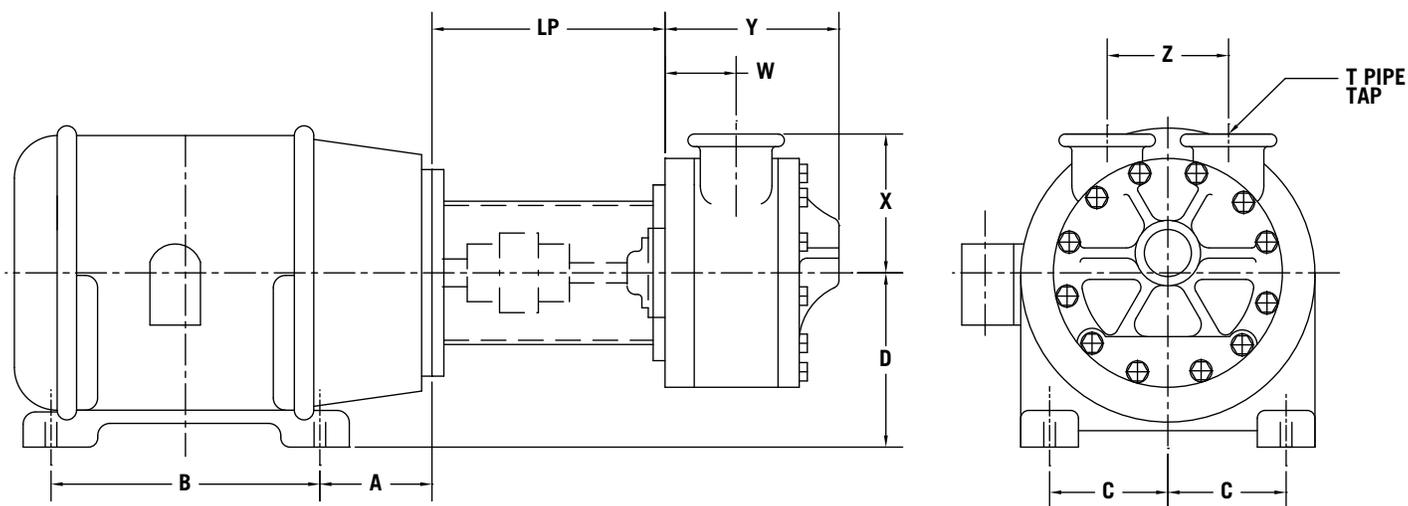
MOTOR FRAME	A	B	C	D
56C	2-3/4"	3"	2-7/16"	3-1/2"
143TC	2-1/4"	4"	2-3/4"	3-1/2"
145TC	2-1/4"	5"	2-3/4"	3-1/2"
182TC	2-3/4"	4-1/2"	3-3/4"	4-1/2"
184TC	2-3/4"	5-1/2"	3-3/4"	4-1/2"
213TC	3-1/2"	5-1/2"	4-1/4"	5-1/4"
215TC	3-1/2"	7"	4-1/4"	5-1/4"
254TC	4-1/4"	8-1/4"	5"	6-1/4"
256TC	4-1/4"	10"	5"	6-1/4"
284TC	4-3/4"	9-1/2"	5-1/2"	7"
286TC	4-3/4"	11"	5-1/2"	7"
324TC	5-1/4"	10-1/2"	6-1/4"	8"
326TC	5-1/4"	12"	6-1/4"	8"

Pump Model	T	W	X	Y	Y DIMENSION WITH RELIEF VALVE	Z
2C2B 4312	1" NPT	1"	3-11/16"	2-1/2"	3-19/32"	3-1/8"
3C2B 4313	1-1/4" NPT	1-3/8"	4-7/8"	3-3/32"	4-3/32"	4-1/8"
4C2B 4314	1-1/2" NPT	1-15/32"	4-1/8"	4-13/32"	5-13/32"	3-3/4"
5C2B 4315	1-1/2" NPT	2-3/8"	5"	5-11/16"	6-15/16"	4-3/4"
6C2B 4316	2" NPT	2-5/8"	4-3/4"	6-1/8"	7-3/8"	4-3/4"

NOTE: In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data is approximate. Request a quotation for your specific application.

DIMENSIONS FOR ADAPTER MOUNTING CK2B PUMPS TO NEMA C FRAME MOTORS

All measurements are in inches.



Pump Model	Motor Frame Size	LP	Adapter	Adapter Kit
4CK1B	56C	8-5/8"	3CK1B51-56	3CK1B534-56
	143TC, 145TC	8-5/8"	3CK1B51-56	3CK1B534-56
	182TC, 184TC	9-1/8"	3CK1B51-182	3CK1B534-182
	213TC, 215TC	10-1/4"	3CK1B51-213	3CK1B534-213
6CK1B	182TC, 184TC	10-5/16"	5CK1B51-182	5CK1B534-182
	213TC, 215TC	11-1/16"	5CK1B51-213	5CK1B534-213
	254TC, 256TC	11-7/8"	5CK1B51-254	5CK1B534-254
	284TC, 286TC	12-7/8"	5CK1B51-284	5CK1B534-284
	324TC, 326TC	13-3/4"	5CK1B51-324	5CK1B534-324

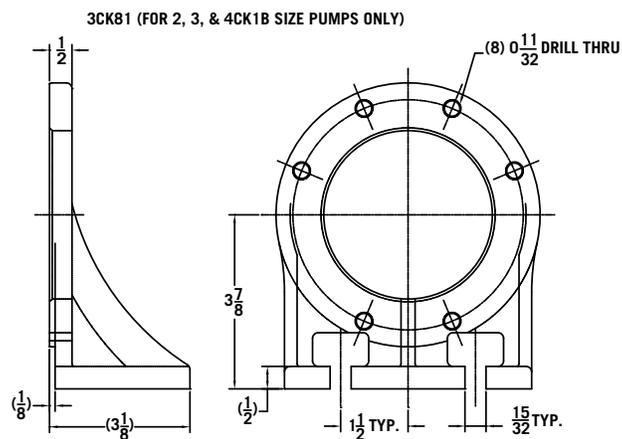
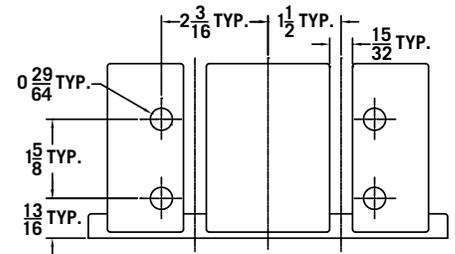
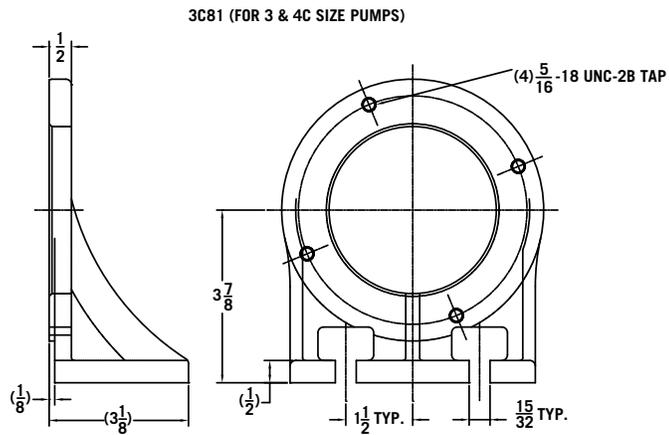
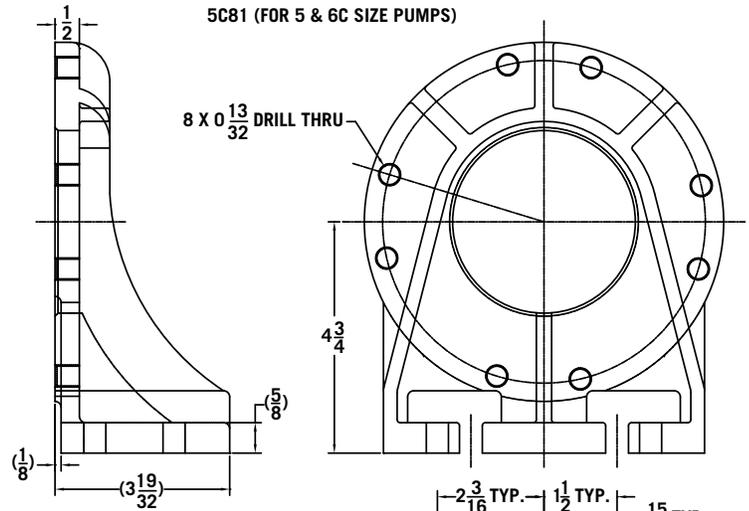
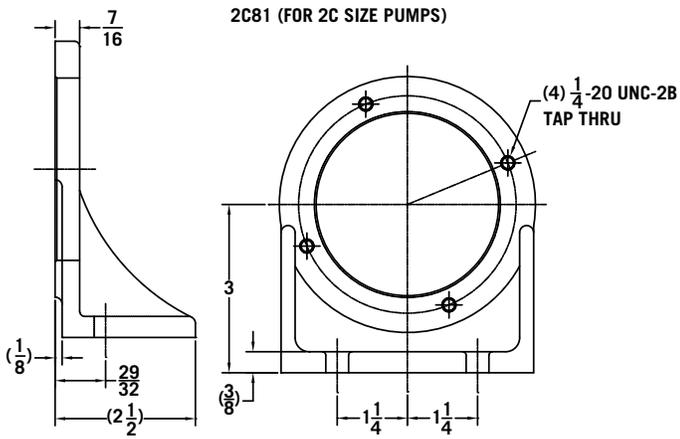
MOTOR FRAME	A	B	C	D
56C	2-3/4"	3"	2-7/16"	3-1/2"
143TC	2-1/4"	4"	2-3/4"	3-1/2"
145TC	2-1/4"	5"	2-3/4"	3-1/2"
182TC	2-3/4"	4-1/2"	3-3/4"	4-1/2"
184TC	2-3/4"	5-1/2"	3-3/4"	4-1/2"
213TC	3-1/2"	5-1/2"	4-1/4"	5-1/4"
215TC	3-1/2"	7"	4-1/4"	5-1/4"
254TC	4-1/4"	8-1/4"	5"	6-1/4"
256TC	4-1/4"	10"	5"	6-1/4"
284TC	4-3/4"	9-1/2"	5-1/2"	7"
286TC	4-3/4"	11"	5-1/2"	7"
324TC	5-1/4"	10-1/2"	6-1/4"	8"
326TC	5-1/4"	12"	6-1/4"	8"

Pump Model	T	W	X	Y	Y DIMENSION WITH RELIEF VALVE	Z
4CK1B	1" NPT	1-3/16"	3-3/4"	3-19/32"	4-19/32"	3-3/4"
6CK1B	2" NPT	1-3/4"	4-3/4"	5-9/16"	6-13/16"	4-3/4"

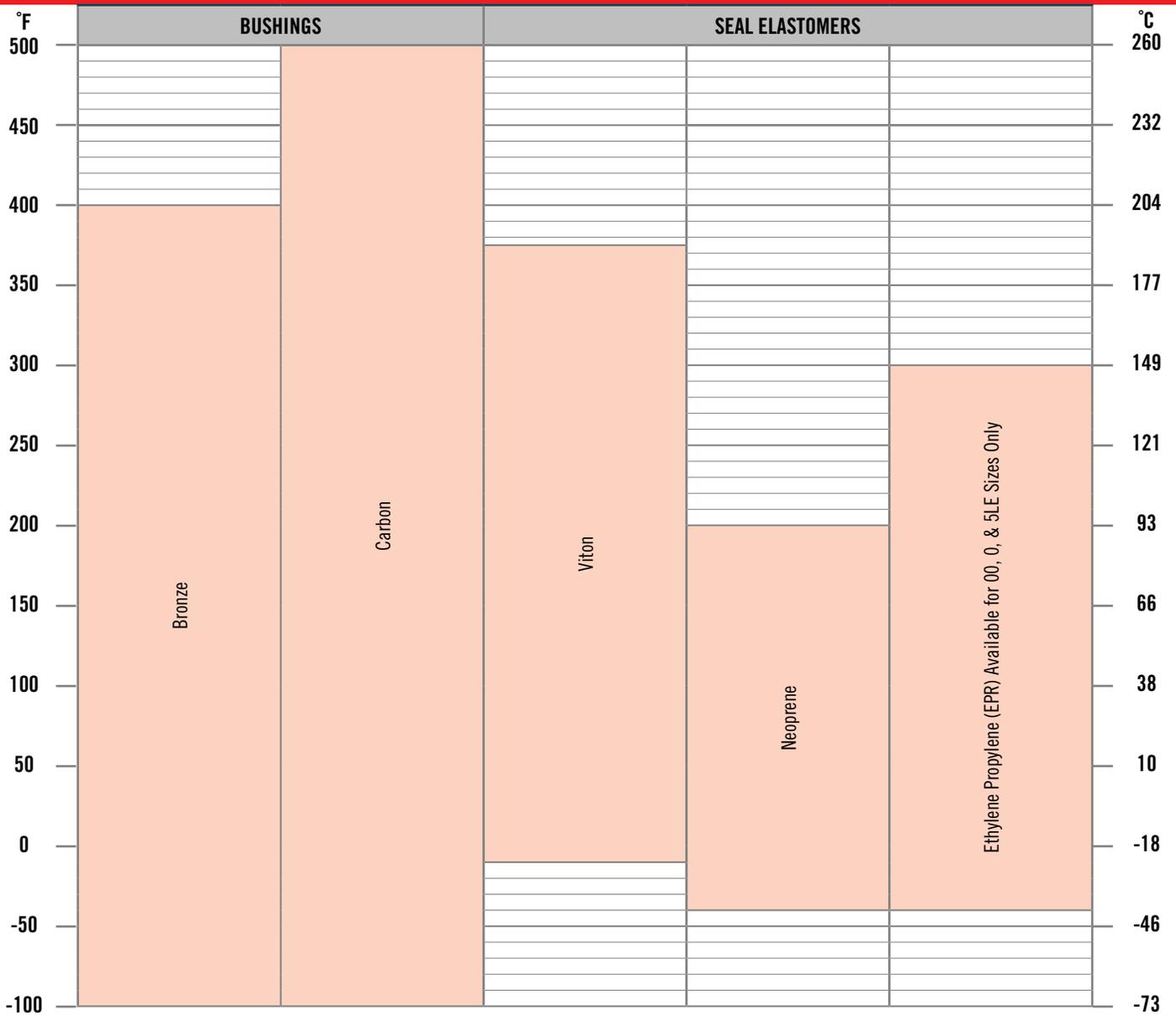
NOTE: In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data is approximate. Request a quotation for your specific application.

DIMENSIONS FOR C SERIES MOUNTING FEET (2C81, 3C81, 3CK81 & 5C81)

All measurements are in inches.



C SERIES TEMPERATURE LIMITS



C SERIES MATERIALS OF CONSTRUCTION

PART NAME	MATERIAL	STANDARD	COMMENTS	AVAILABILITY
HOUSING	Cast Iron	ASTM A48 - 96a	Classes 30, 35, or 40	Standard
BRACKET	Cast Iron	ASTM A48 - 96a	Classes 30, 35, or 40	Standard
BRACKET BUSHING	Bronze	SAE 660		Standard
	Carbon			Optional
COVER	Cast Iron	ASTM A48 - 96a	Classes 30, 35, or 40	Standard
ROTOR	Steel	C1137 or C1141	Steel Forging	Standard
IDLER	P/M Steel	FC-0508-P		Standard
IDLER PIN	Steel	C1117	Heat Treated	Standard
IDLER BUSHING	Bronze	SAE 660		Standard
	Carbon	Carbon Graphite Resin		Optional
SEAL GLAND	Cast Iron	ASTM A48 - 96a	Classes 30, 35, or 40	Standard
	DU Bushing		Only on C2B models	
O-RINGS & SEALS	Viton			Standard
	Neoprene			Optional
	EPR			Optional

C PUMP NPSH_r DATA

Pump Series	300 RPM	600 RPM	900 RPM	1200 RPM	1500 RPM	1800 RPM
2	1.2'	2.0'	2.8'	3.8'	5.1'	6.6'
3	1.4'	2.4'	3.6'	5.2'	7.1'	9.4'
4	1.6'	2.7'	4.4'	6.5'	9.1'	12.2'
5	1.8'	3.0'	5.2'	8.2'	11.9'	16.2'
6	2.0'	3.3'	6.0'	9.9'	14.8'	20.1'

VISCOSITY CORRECTION FACTOR

Viscosity	2500 SSU	5000 SSU	10000 SSU	25000 SSU
Correction Factor	1.3	1.7	2.0	2.7

REGULATORY COMPLIANCE INFORMATION



ATEX

The C Series pumps' technical file is lodged in accordance with Article 13(1)(b)(ii) of ATEX Directive 2014/34/EU of 26 February 2014

THE FOLLOWING STANDARDS WERE USED TO VERIFY CONFORMANCE:

2006/42/EC – The Machinery Directive

EN 1127-1:2011 – Explosive atmospheres - Explosion prevention and protection - Part 1: Basic concepts and methodology

EN ISO 80079-36:2016 – Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic method and requirements

EN ISO 80079-37:2016 – Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres - Nonelectrical type of protection constructional safety "c", control of ignition sources "b", liquid immersion "k"



Ingersoll Rand's C Series pumps and 4100 series pumps are UL listed for Power-operated pumps for fuel oil service.



The C Series pumps comply with the European Directive 2006/42/EC

THE FOLLOWING STANDARDS WERE USED TO VERIFY CONFORMANCE:

EN ISO 12100:2010 – Safety of machinery - General principles for design

EN 809:1998+A1:2009 – Pumps and pump units for liquids - Common safety requirements

2011/65/EU – The Restriction of Hazardous Substances Directive

Ingersoll Rand

12500 South Pulaski Road
Alsip, Illinois 60803 USA
P: 708.389.2500
www.ingersollrand.com/pumps

Birkdale Close
Manners Industrial Estate
Ilkeston, Derbyshire DE7 8YA UK
P: 44.0.115.932.5226
www.ingersollrand.com/pumps

