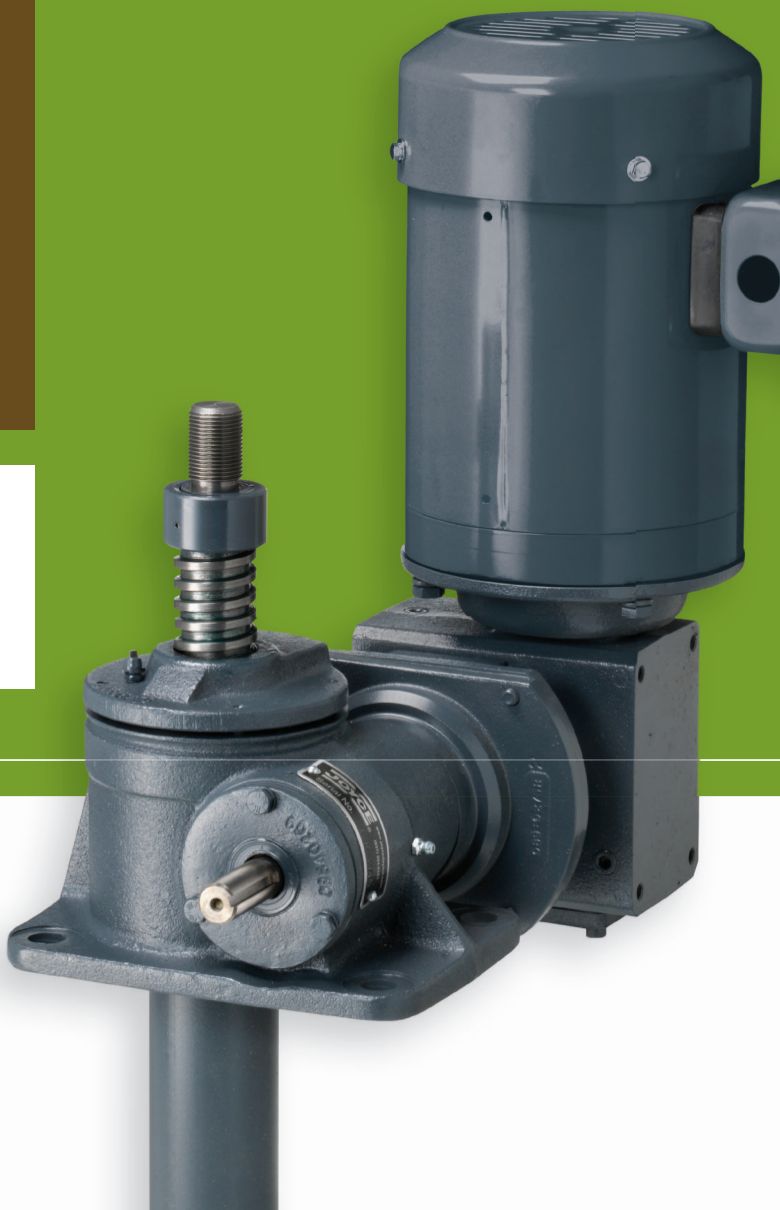


MACHINE SCREW ComDRIVES®



Joyce machine screw ComDRIVES® combine a machine screw jack, motor and gear reducer into a single compact unit. ComDRIVES are available in 2-ton through 30-ton capacities. They provide travel speeds up to 35.1 inches per minute. ComDRIVES with single lead screws (CD) are self-locking; those with double lead screws (DCD) may require a brake motor or external locking device to hold position.

Four standard end conditions are available and ComDRIVES can be fitted with protective boots. Limit switches, anti-backlash devices, and other options are also available.

ComDRIVE Benefits:

- Can power an entire jacking system.
- Reduces the number of components that must be specified.
- Simplifies design.
- Reduces installation costs with only a single plate needed to mount the jack body.
- Reduces the number of couplings and shafts required in multi-jack systems.
- Standard 230/460 volt, 3-phase, 60 hertz motor included.

ComDRIVES can be specified without the motor. The reducer flange accepts standard NEMA motor frame sizes.

Joyce can customize ComDRIVES to meet your specifications. Ask about larger size ComDRIVES.

Joyce offers Machine Screw ComDRIVES in several designs including:

- Translating
- Keyed for non-rotation
- Keyed for traveling nut (KFTN)
- Double clevis
- Trunnion mount

A guide for ordering is on pages 46 and 47.



Scan the QR Code to view this product on our website.

MACHINE SCREW ComDRIVES® ORDERING INFORMATION

Instructions: Select a model number from this chart.

2-Ton	3-Ton	5-Ton	10-Ton	15-Ton	20-Ton	25-Ton	30-Ton
CD62 CD122 CD242	CD63 CD123 CD243	CD65 CD125 CD245	CD810 CD2410	CD815 CD2415	CD820 CD2420	CD1125 CD3225	CD1130 CD3230
DCD62* DCD122* DCD242*	DCD63* DCD123* DCD243*	DCD65* DCD125* DCD245*	DCD810* DCD2410*	DCD815* DCD2415*	DCD820* DCD2420*	DCD1125* DCD3225*	DCD1130* DCD3230*

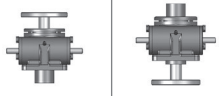
Important Note: *Not self-locking, may lower under load. Brake motors or external locking systems are recommended.

DCD: Double lead screw.

(For 25:1 ratio contact Joyce.)


Sample Part Number: CD65U2S-18.50-P1AB-STDX-B

Jack Configuration



U=Upright I=Inverted

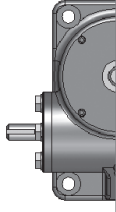
End Conditions



1=T1 (plain end)
2=T2 (load pad)
3=T3 (threaded end)
4=T4 (male clevis)

Left Side Shaft Code

(see below)

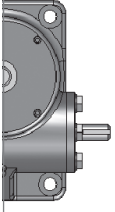


XXXX=Remove
STDX=Standard
CUST=Custom

For optional shaft codes, see page 47.

Right Side Shaft Code

(see below)



XXXX=Remove
STDX=Standard
CUST=Custom

For optional shaft codes, see page 47.


Additional Options*

X=Standard Jack, no additional options
S=Additional Specification Required (comment as necessary)
Anti-Backlash p. 177
A=Split Nut
A90=A90 Design
A95=A95 Design
Protective Boots pp. 166-169
B=Protective Boot
D=Dual Protective Boot
Finishes p. 178
F1=Do Not Paint
F2=Epoxy Paint
F3=Outdoor Paint Process
Motor Options
M1=Less Motor
M2=Brake Motor
M3=Single Phase Motor (120VAC)
M4=50Hz Motor
M5=Special Motor
Grease/Seals
H1=High Temperature Operation
H2=Food Grade
Screw Stops
Extending and retracting stops are standard on ComDRIVES.
* Specify as many options as needed

ComDRIVE® Rise

Rise is travel expressed in inches and not the actual screw length. When companion jacks are ordered with the ComDRIVE®, their screws are lengthened to match the ComDRIVE®.

Jack Designs



S=Translating K=Keyed for Non Rotation N=Traveling Nut D=Double Clevis A=KFTN Trunnion* T=Trunnion*

*Standard trunnion mounts available on 2-ton through 20-ton jacks. (See page 179)

MACHINE SCREW ComDRIVES[®] SHAFT CODES

Instructions: Select the appropriate shaft codes for both right and left hand shafts. One shaft code must be specified for each side of the ComDRIVE[®].

Screw Stops (p. 10) and Boots (pp. 166-169)

Extending and retracting screw stops are standard on ComDRIVES. When boots are added to ComDRIVES, the closed height of the unit may be increased.

Mechanical Counters (p. 176)

CNT0=0.001" Increments

Note: Contact Joyce for availability and options.



G geared Potentiometers (p. 171)

POTA=0-10V

POTB=4-20mA

POTC=0-10V w/2 switches

POTD=4-20mA w/2 switches

IP65 rated enclosures



Encoders (pp. 172-173)

ENCA=Absolute Encoder 0-10 VDC, programmable

ENCB=Absolute Encoder 4-20mA, programmable

ENCC=Absolute Encoder CAN Open

ENCD=Absolute Encoder SSI

ENCS=Stainless Steel Incremental Encoder 1024 PPR

ENCX=Incremental Encoder 200 PPR

ENCY=Incremental Encoder 1024 PPR



ComDRIVE Reducers (pp. 49-57)

Ordering Example: **P2AC**

Motor code from chart at right

Mounting Positions	Ratio			
	P1	P2	P3	P4
Left Side Shaft Options				
Right Side Shaft Options				

Motors

Size	Code
1/4 HP	K
1/3 HP	A
1/2 HP	B
3/4 HP	C
1 HP	D
1-1/2 HP	E
2 HP	F
3 HP	L
5 HP	G
7-1/2 HP	H
10 HP	I
15 HP	J

All standard motors are 3-phase, 208-230/460 VAC or 230/460 VAC. Other motor options are available including international voltages, and single phase AC. Specify the appropriate motor size from the chart above. Refer to the "Additional Options" chart on the preceding page as needed. Brake motors are required for ball screw ComDRIVES[®]. Contact Joyce for options that are not listed.

Mechanical Limit Switches (p. 170)

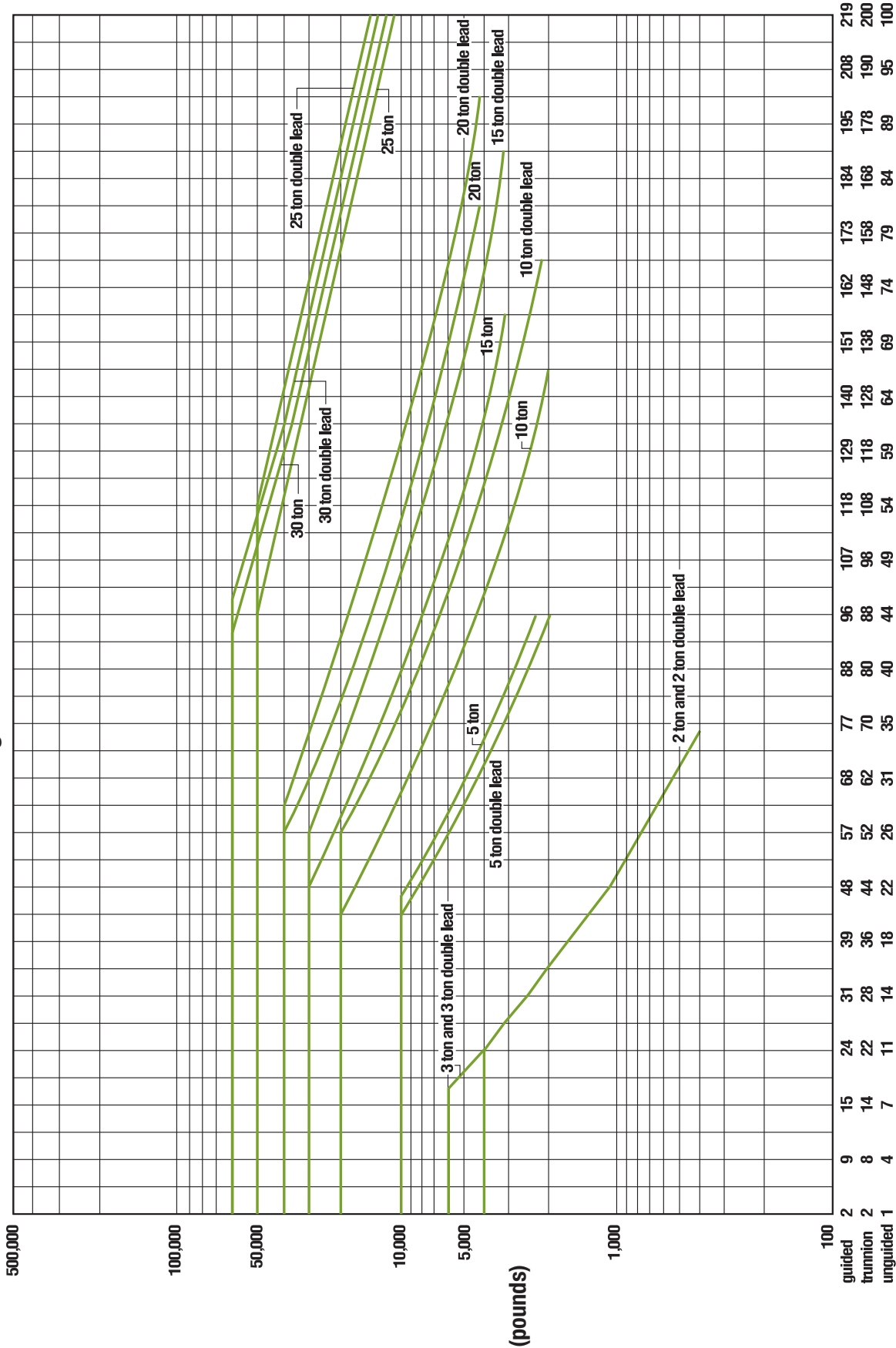
Ordering Example: **LA13**

Models		Number of DPDT Switches (see p. 170)	Available Positions							
Model	Code		1	2*	3	4	5	6*	7	8
LS7-402	LI	NOTE: Will always be 0 for LS7 models								
LS8-402	LA									
LS8-404	LB									

- 2, 3, 5, 10, 15, and 20 ton ComDRIVES are available with positions #1, #3, and #5.
- 25 and 30 ton ComDRIVES are available with positions #1, #4, #7 and #8.
- * These positions are not standard. Contact Joyce with your requirements.

MACHINE SCREW ComDRIVES[®] COLUMN LOADING

Machine Screw ComDRIVE[®] Column Loading Chart



Screw Length (inches)

This chart includes a 2:1 Factor-of-Safety based on the Euler-Johnson equation for column loading (Oberg, Erik et al: Machinery's Handbook, 24th Edition, c. 1992 Industrial Press Inc.) The horizontal portion of each line represents the jack's maximum dynamic capacity. Under static conditions, these lines can be exceeded. Please contact factory for assistance.

MACHINE SCREW ComDRIVES[®] SPECIFICATIONS

2 Ton Model Number		CD62			CD122			CD242			DCD62			DCD122		DCD242	
Reducer Ratio		5	7 1/2	10	5	7 1/2	5	7 1/2	10	5	7 1/2	10	7 1/2	5	7 1/2	10	
Travel Speed IPM		13.88	9.50	7.04	6.94	4.75	3.47	2.38	1.76	27.75	19.00	14.08	9.50	6.94	4.75	3.52	
Lifting Capacity, Lbs.	1/3 HP	1,865	2,650	3,500	3,350	4,000	4,000	4,000	4,000	1,300	1,850	2,450	3,300	3,830	4,000	4,000	
	1/2 HP	2,875	4,000	4,000	4,000					2,000	2,825	3,720	4,000	4,000			
	3/4 HP	4,000								3,060	4,000						

3 Ton Model Number		CD63			CD123			CD243			DCD63			DCD123		DCD243	
Reducer Ratio		5	7 1/2	10	5	7 1/2	5	7 1/2	10	5	7 1/2	10	7 1/2	5	7 1/2	10	
Travel Speed IPM		13.88	9.50	7.04	6.94	4.75	3.47	2.38	1.76	27.75	19.00	14.08	9.50	6.94	4.75	3.52	
Lifting Capacity, Lbs.	1/3 HP	1,910	2,700	3,555	3,425	4,790	5,610	6,000	6,000	1,335	1,890	2,485	3,350	3,925	5,415	6,000	
	1/2 HP	2,920	4,095	5,380	5,235	6,000	6,000			2,045	2,865	3,765	5,085	6,000	6,000		
	3/4 HP	4,430	6,000		6,000					3,100	4,340		6,000				

5 Ton Model Number		CD65			CD125		CD245		DCD65		DCD125		DCD245	
Reducer Ratio		5			10		10		5		10		10	
Travel Speed IPM		20.81			10.56		5.28		2.64		27.75		14.08	
Lifting Capacity, Lbs.	1 HP	3,760			6,980		10,000		10,000		3,320		6,170	
	1 1/2 HP	5,755									5,085			
	2 HP	7,750									6,845			

10 Ton Model Number		CD810			CD2410			DCD810			DCD2410		
Reducer Ratio		5			10			5			10		
Travel Speed IPM		20.81			10.56			6.94			3.52		
Lifting Capacity, Lbs.	1 HP	3,680			7,070			9,000			16,760		
	1 1/2 HP	5,760						14,090			4,925		
	2 HP	7,840						19,165			6,700		
	3 HP	12,150			20,000			20,000			20,000		
	5 HP										10,385		

15 Ton Model Number		CD815			CD2415			DCD815			DCD2415		
Reducer Ratio		5			10			5			10		
Travel Speed IPM		20.81			10.56			6.94			3.52		
Lifting Capacity, Lbs.	1 HP	3,140			6,200			7,535			14,385		
	1 1/2 HP	5,035						12,085			4,350		
	2 HP	6,925						16,620			5,990		
	3 HP	10,850			20,425			26,040			30,000		
	5 HP	18,515						30,000			16,010		

20 Ton Model Number		CD820			CD2420			DCD820			DCD2420		
Reducer Ratio		5			10			5			10		
Travel Speed IPM		20.81			10.56			6.94			3.52		
Lifting Capacity, Lbs.	1 HP	2,715			5,570			6,520			12,920		
	1 1/2 HP	4,475						10,745			3,730		
	2 HP	6,235						14,965			5,195		
	3 HP	9,880			18,785			23,715			40,000		
	5 HP	17,000						40,000			14,175		

25 Ton Model Number		CD1125			CD3225			DCD1125			DCD3225		
Reducer Ratio		5			10			5			10		
Travel Speed IPM		20.79			10.55			6.93			3.52		
Lifting Capacity, Lbs.	3 HP	9,050			17,165			20,390			36,800		
	5 HP	15,700			29,420			35,390			50,000		
	7 1/2 HP	23,930			45,755			50,000					
	10 HP	32,625			50,000						26,625		
	15 HP	49,410									40,325		

30 Ton Model Number		CD1130			CD3230			DCD1130			DCD3230		
Reducer Ratio		5			10			5			10		
Travel Speed IPM		20.82			10.57			6.94			3.52		
Lifting Capacity, Lbs.	3 HP	9,435			17,540			21,260			37,620		
	5 HP	16,100			29,815			36,280			60,000		
	7 1/2 HP	24,335			46,170			54,840			19,430		
	10 HP	33,040			60,000			60,000			26,385		
	15 HP	49,845									39,800		

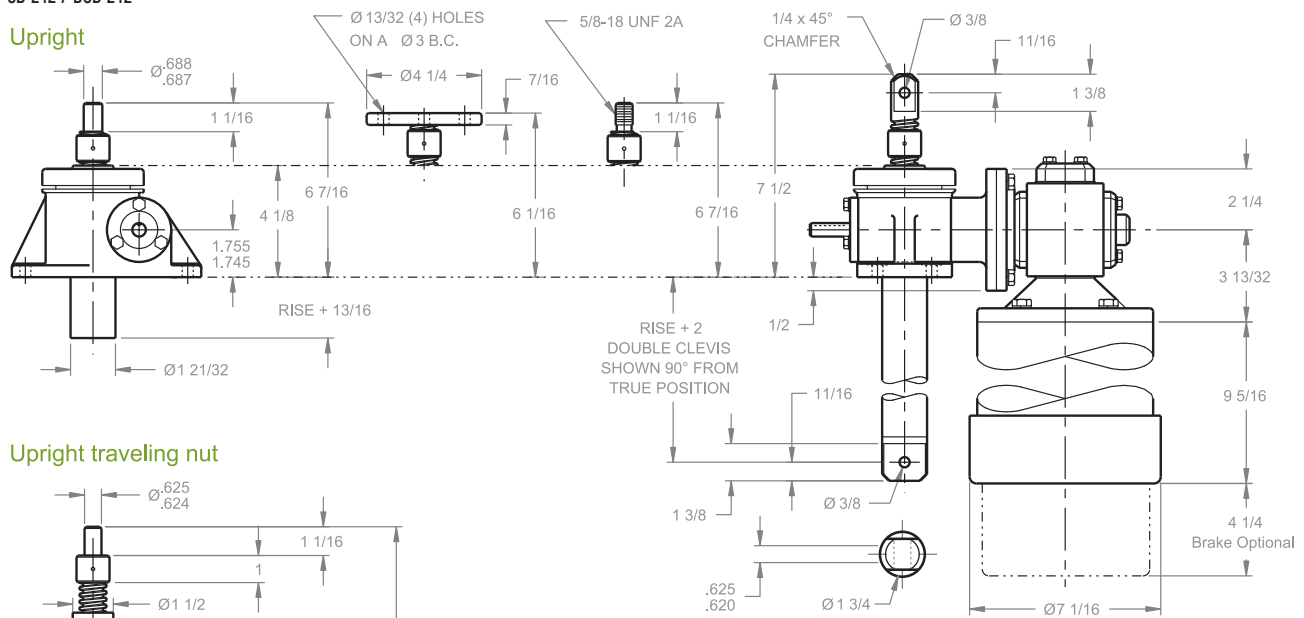
Important Note: DCD models may lower under load. Brake motors or external locking systems are recommended.

MACHINE SCREW ComDRIVES®

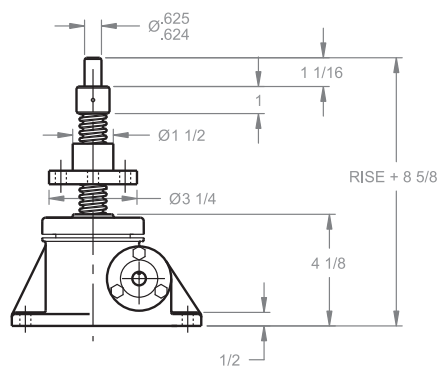
2 TON - 1" SCREW

CD 62 / DCD 62
 CD 122 / DCD 122
 CD 242 / DCD 242

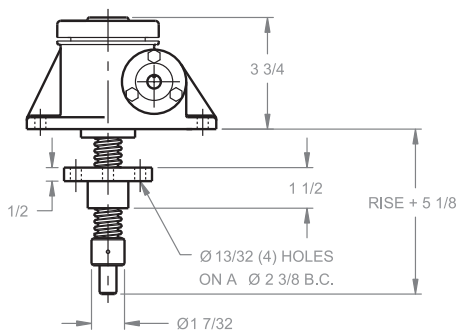
Upright



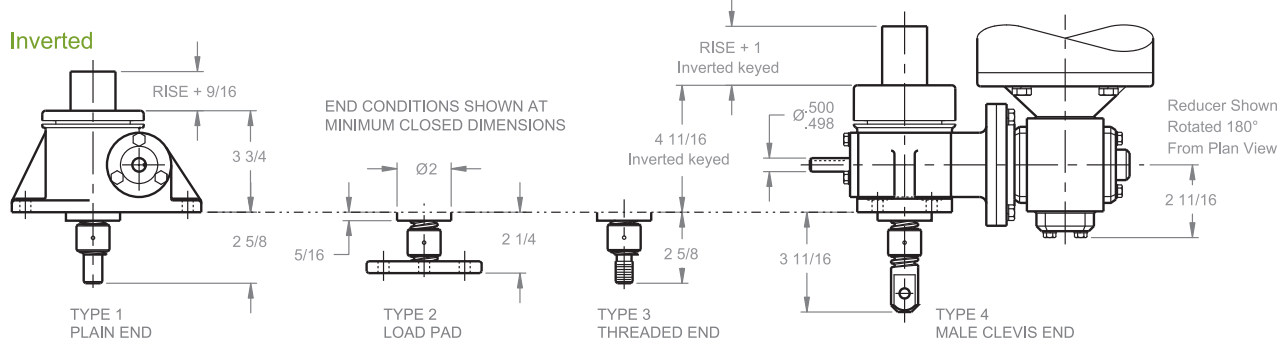
Upright traveling nut



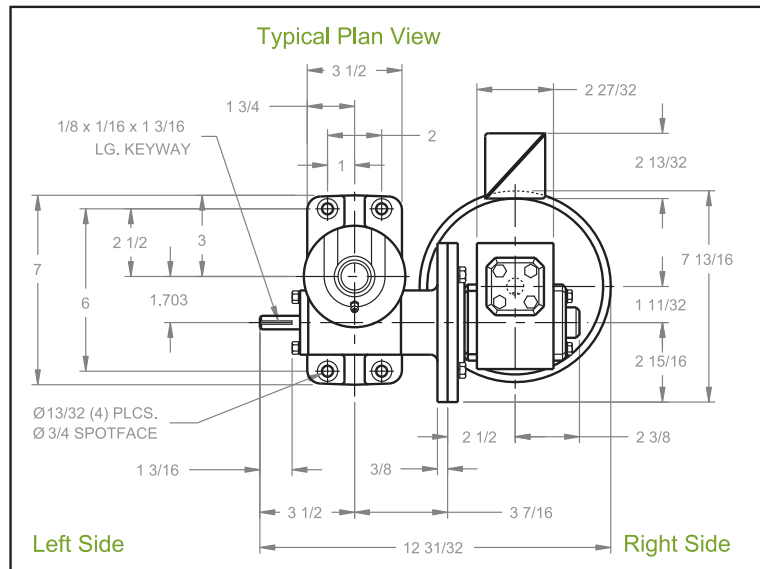
Inverted traveling nut



Inverted



NOTE: FOR LIFTING CAPACITIES SEE PAGE 49

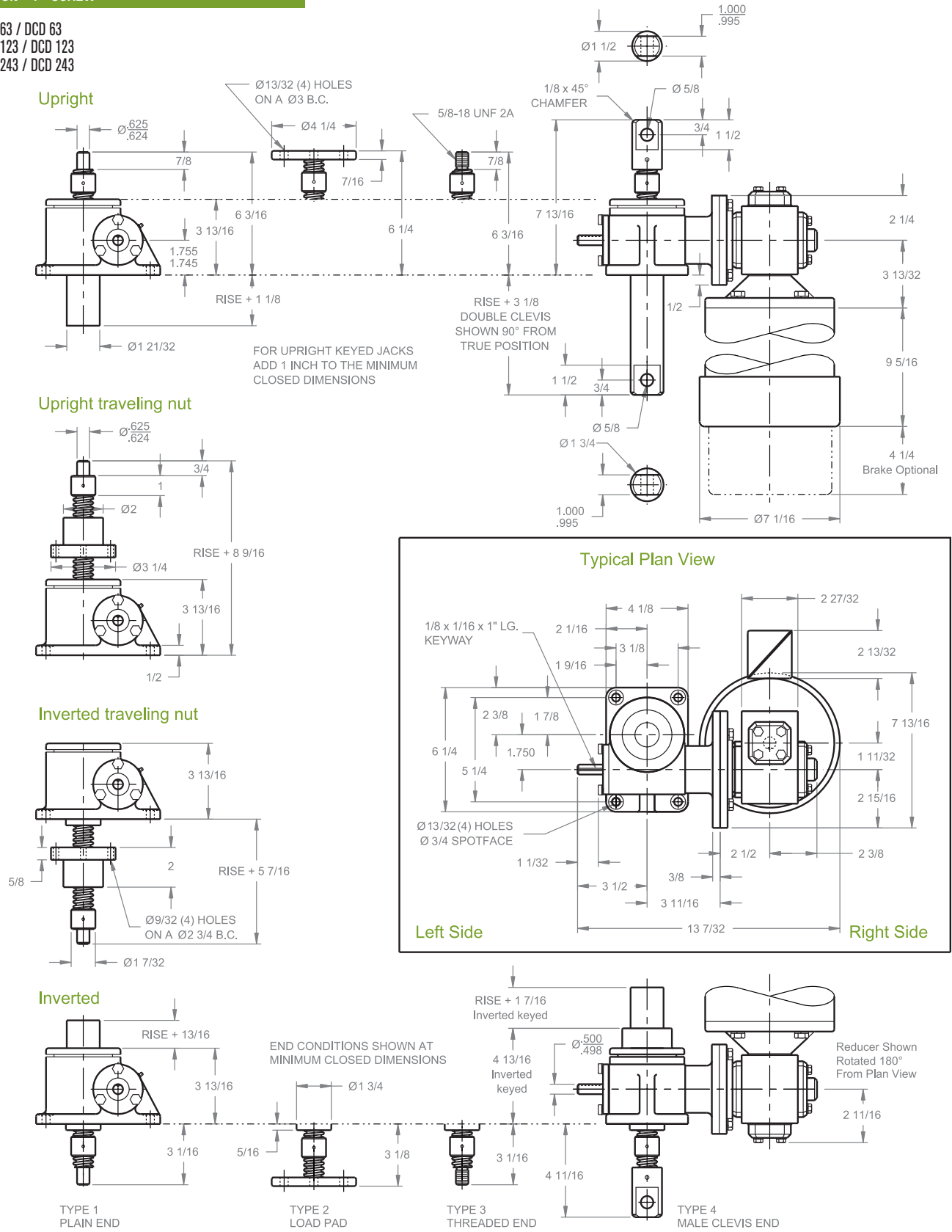


Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

MACHINE SCREW ComDRIVES®

3 TON - 1" SCREW

CD 63 / DCD 63
 CD 123 / DCD 123
 CD 243 / DCD 243

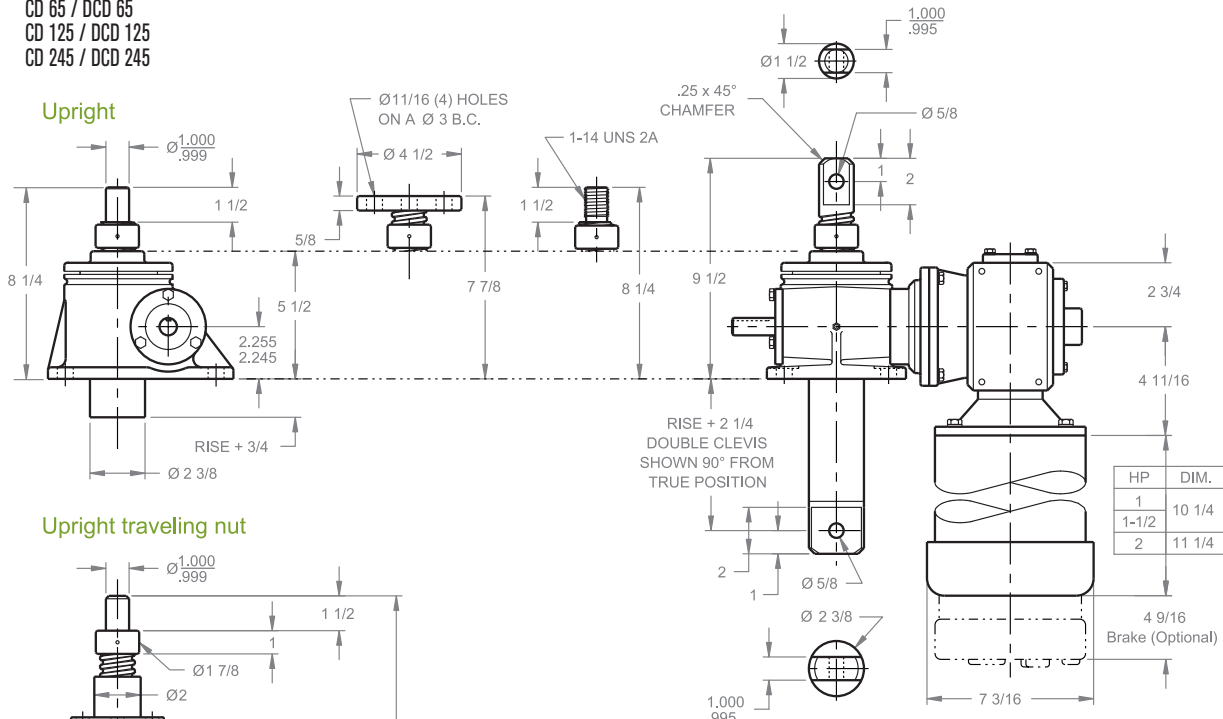


Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

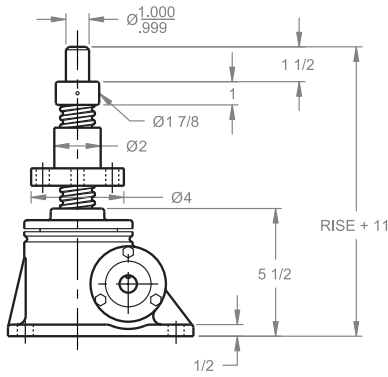
MACHINE SCREW ComDRIVES®

5 TON - 1 1/2" SCREW

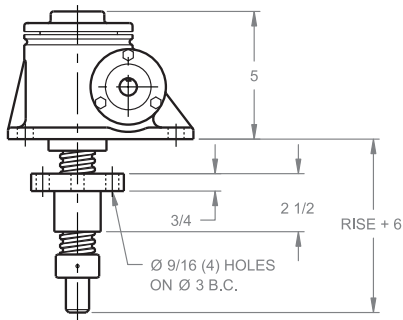
CD 65 / DCD 65
 CD 125 / DCD 125
 CD 245 / DCD 245



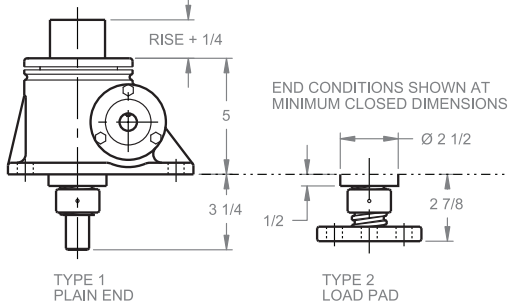
Upright traveling nut



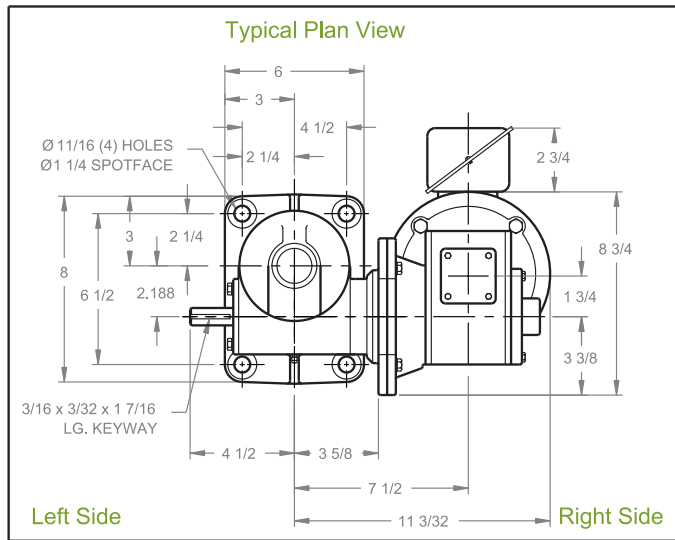
Inverted traveling nut



Inverted



NOTE: FOR LIFTING CAPACITIES SEE PAGE 49



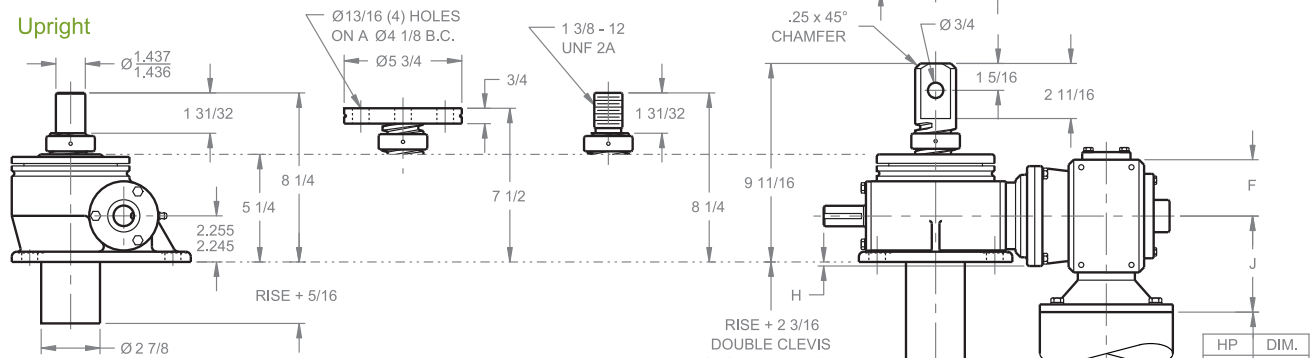
Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

MACHINE SCREW ComDRIVES®

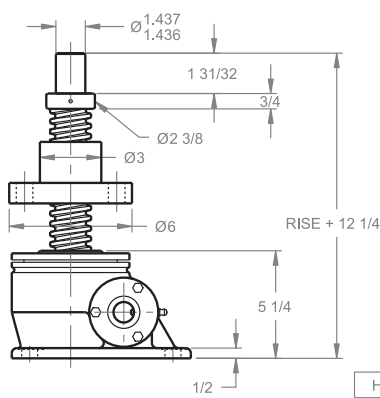
10 TON - 2" SCREW

CD 810 / DCD 810
CD 2410 / DCD 2410

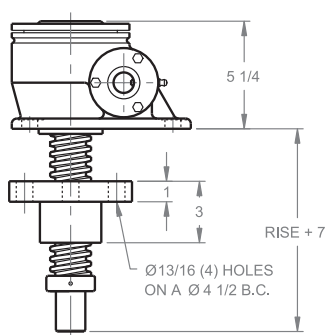
Upright



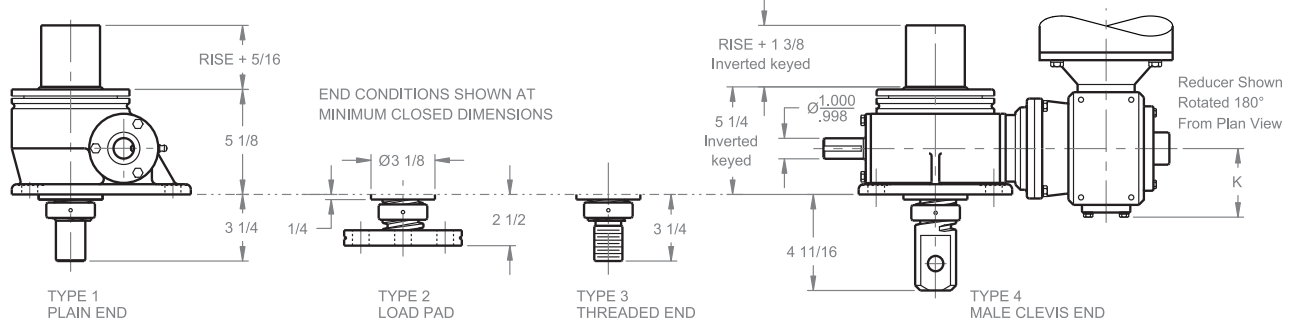
Upright traveling nut



Inverted traveling nut



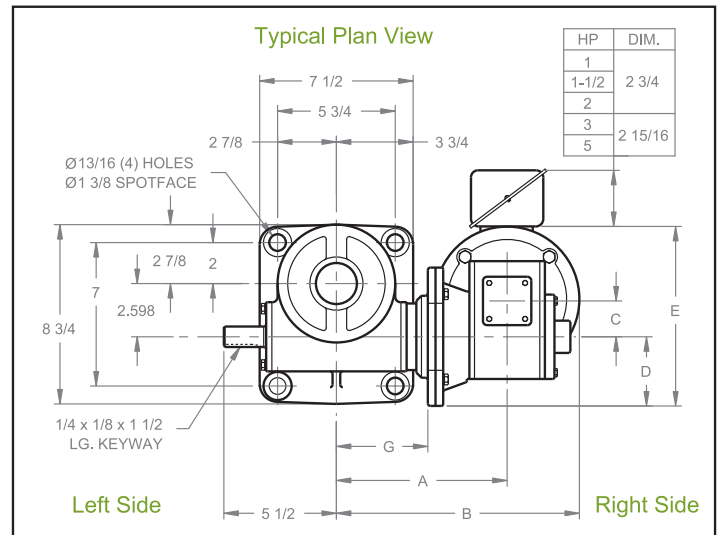
Inverted



NOTE: FOR LIFTING CAPACITIES SEE PAGE 49

Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

REDUCER DIMENSIONS		
HP	1, 1 1/2, 2	3, 5
A	8 11/32	8 29/32
B	11 21/32	13 17/32
C	1 3/4	2 5/8
D	3 3/8	4 7/16
E	8 7/16	11 11/16
F	2 3/4	3 7/8
G	4 15/32	4 15/32
H	3/16	1 5/8
J	4 11/16	5 3/4
K	3 11/32	4 5/16



Left Side

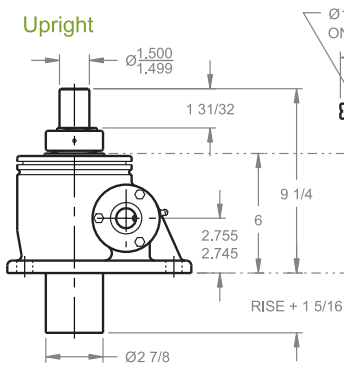
Right Side

MACHINE SCREW ComDRIVES®

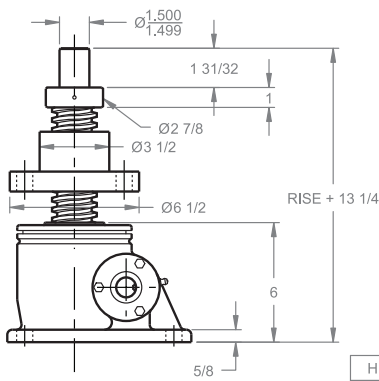
15 TON - 2 1/4" SCREW

CD 815 / DCD 815
CD 2415 / DCD 2415

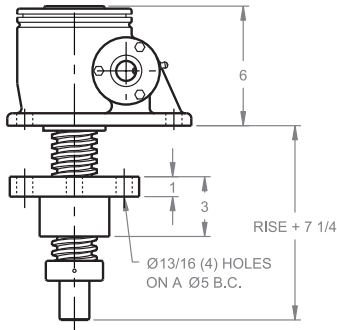
Upright



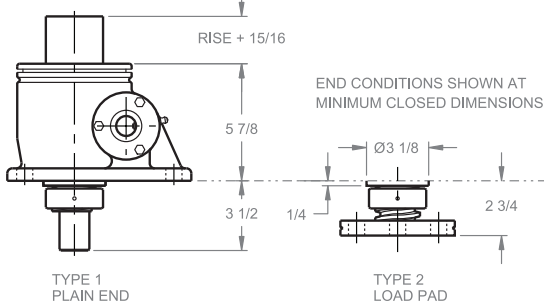
Upright traveling nut



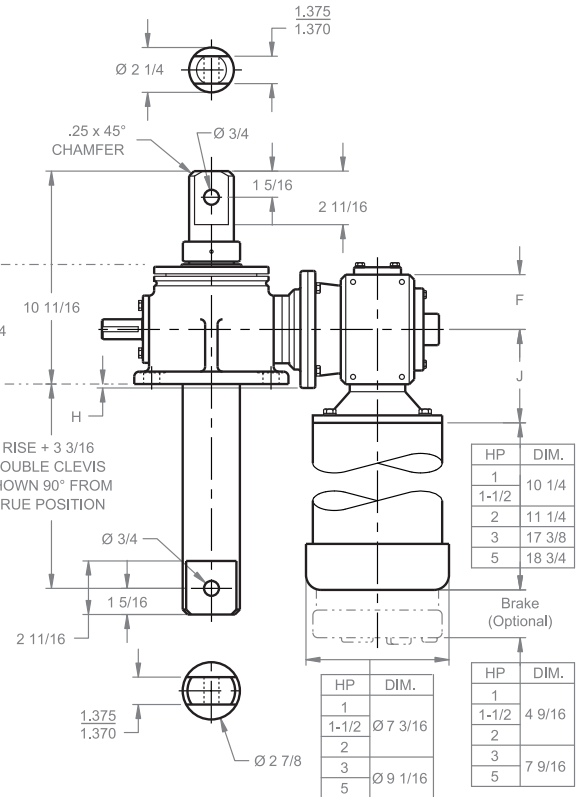
Inverted traveling nut



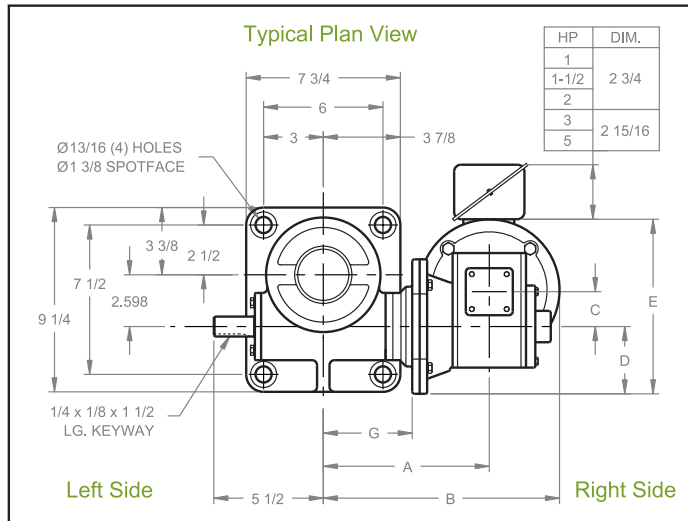
Inverted



NOTE: FOR LIFTING CAPACITIES SEE PAGE 49

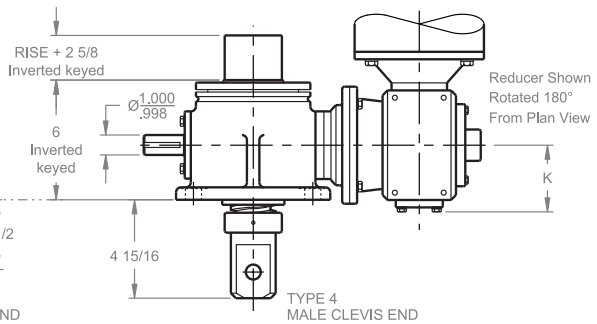


REDUCER DIMENSIONS		
HP	1, 1 1/2, 2	3, 5
A	8 11/32	8 29/32
B	11 21/32	13 17/32
C	1 3/4	2 5/8
D	3 3/8	4 7/16
E	8 7/16	11 11/16
F	2 3/4	3 7/8
G	4 15/32	4 15/32
H	0	1 1/8
J	4 11/16	5 3/4
K	3 11/32	4 5/16



Left Side

Right Side



TYPE 1
PLAIN END

TYPE 2
LOAD PAD

TYPE 3
THREADED END

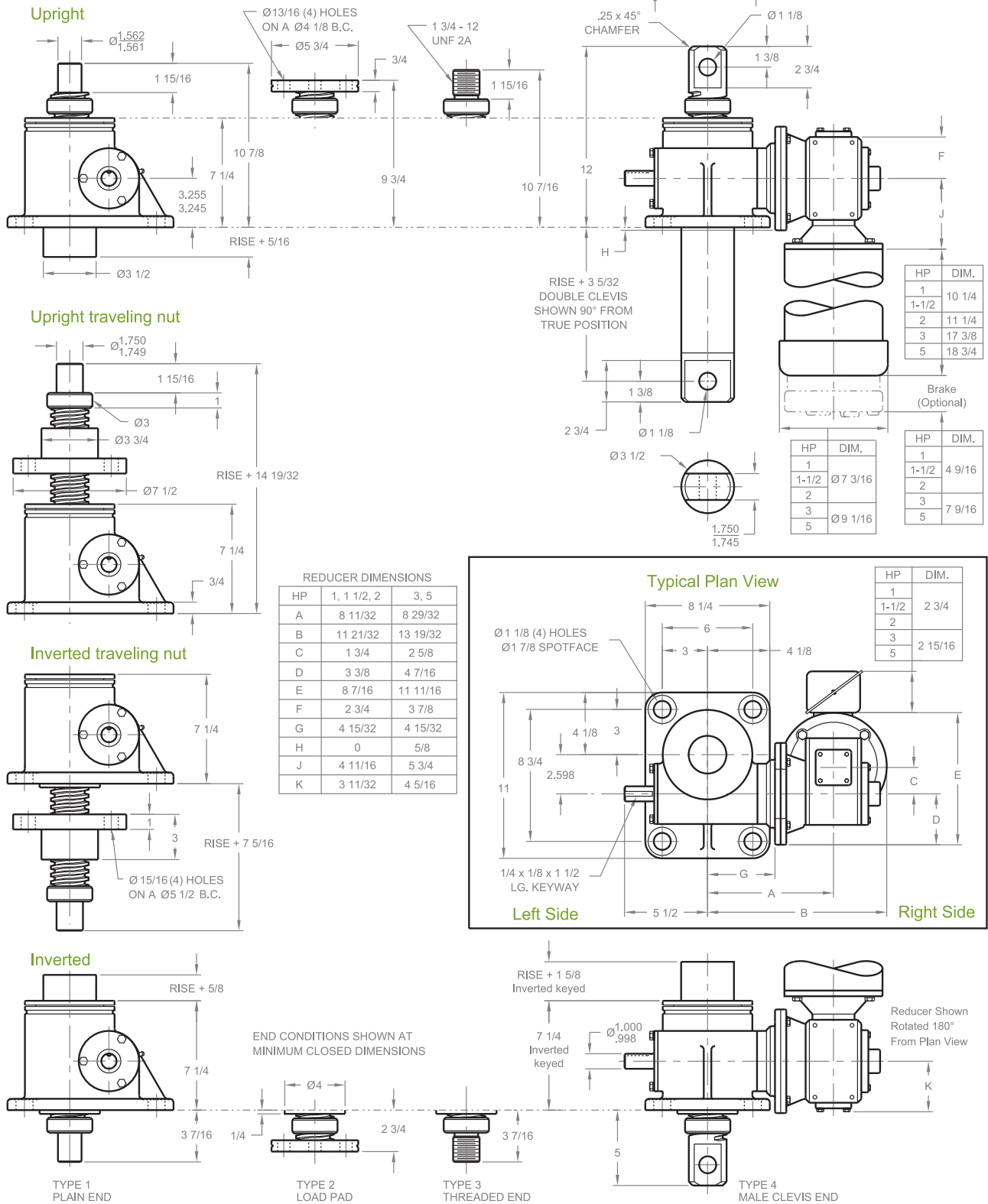
TYPE 4
MALE CLEVIS END

Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

MACHINE SCREW ComDRIVES®

20 TON - 2 1/2" SCREW

CD 820 / DCD 820
CD 2420 / DCD 2420



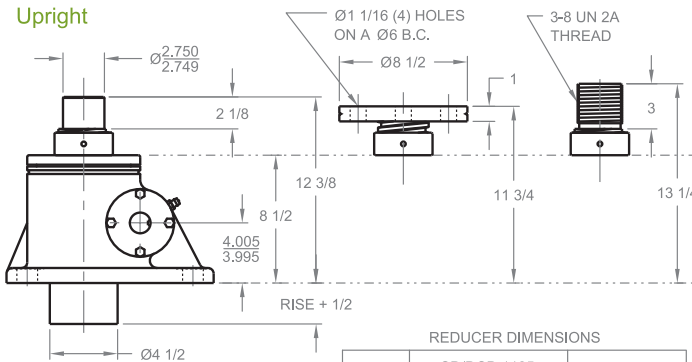
Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

MACHINE SCREW ComDRIVES®

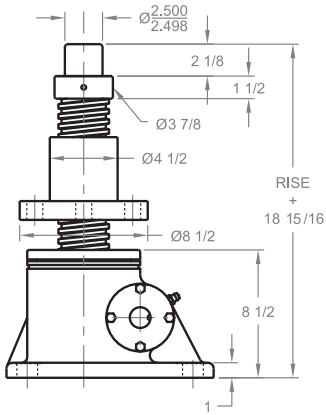
25 TON - 3 3/8" SCREW

CD 1125 / DCD 1125
CD 3225 / DCD 3225

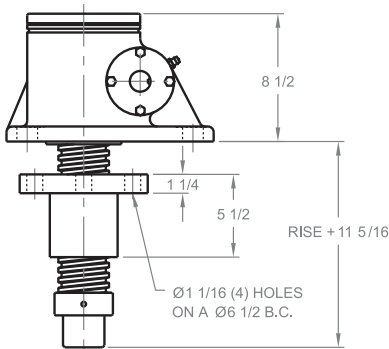
Upright



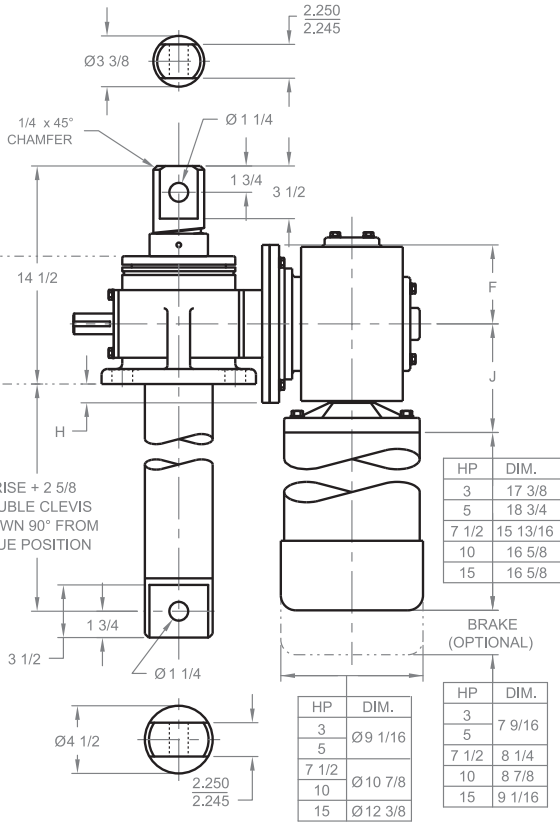
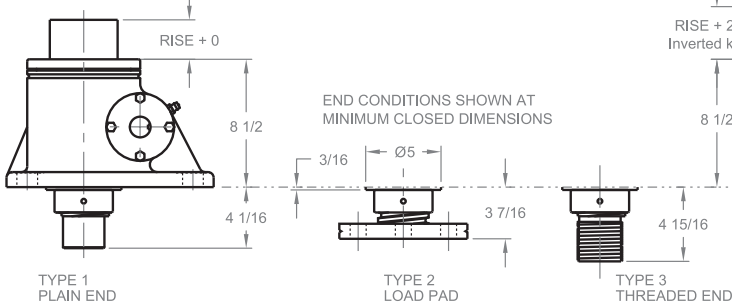
Upright traveling nut



Inverted traveling nut

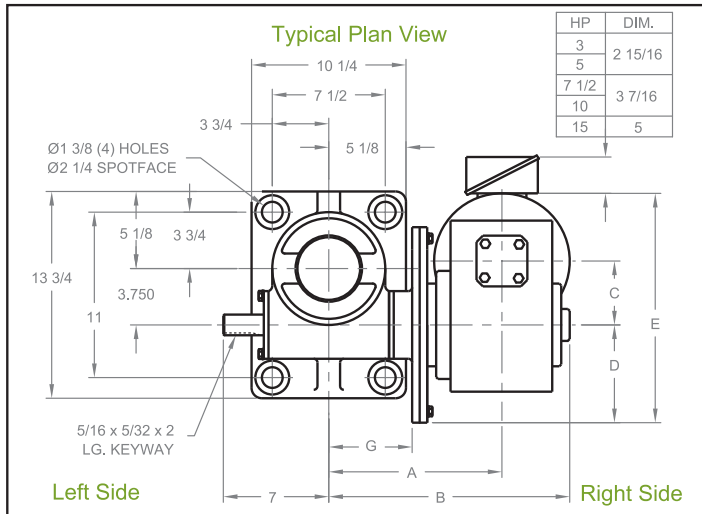


Inverted



MODEL	REDUCER DIMENSIONS					
	CD/DCD 1125 CD/DCD 3225			CD/DCD 1125		
RATIO	5:1	10:1	5:1	10:1	5:1	10:1
HP	3	5	5	7 1/2	7 1/2	15
A	9 17/32	9 31/32	9 31/32	11 19/32	11 19/32	11 19/32
B	13 1/32	13 29/32	13 29/32	16 3/32	16 3/32	16 3/32
C	2 5/8	3 1/4	3 1/4	4 1/4	4 1/4	4 1/4
D	4 7/16	5 1/2	5 1/2	6 1/2	6 1/2	6 1/2
E	11 9/16	12 3/4	12 3/4	15 1/4	15 1/4	15 1/4
F	3 9/16	4 1/2	4 1/2	5 1/4	5 1/4	5 1/4
G	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
H	0	1/2	1/2	1 1/4	1 1/4	1 1/4
J	4 11/16	6 3/4	6 3/4	7 1/4	7 1/4	7 1/4
K	3 11/32	4 5/16	4 5/16	6 1/8	6 1/8	6 1/8

Typical Plan View



Left Side

Right Side

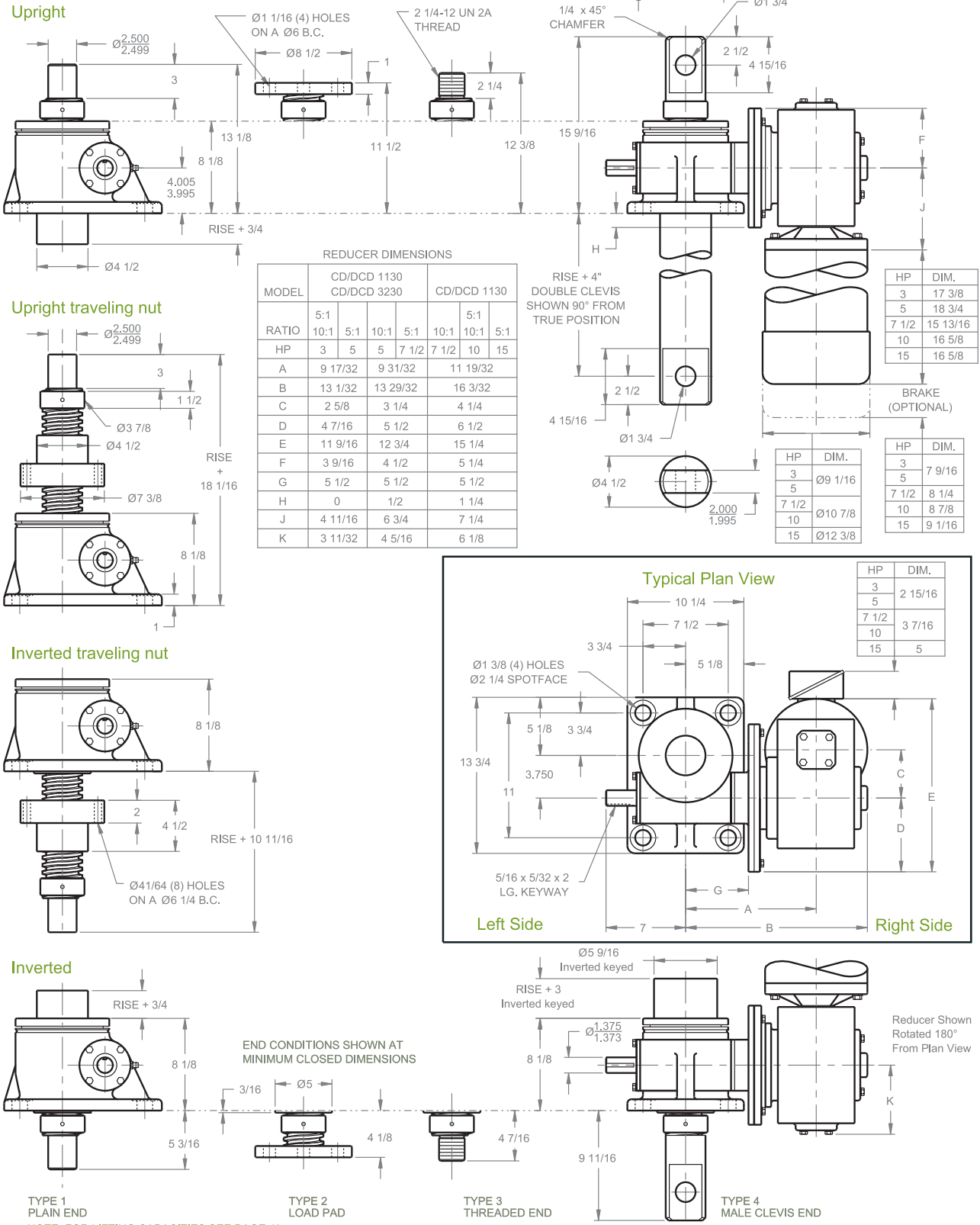
Reducer Shown Rotated 180° From Plan View

Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

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