BALL SCREW JACKS

Joyce/Dayton offers Ball Screw Jacks in several designs including:

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

A guide for ordering is on pages 82 and 83.

BALL SCREW JACKS ORDERING INFORMATION

Instructions: Select a model number from this chart.

1-Ton Standard	2-Ton Standard	2-Ton Reverse Base Standard	5-Ton Standard	10-Ton Standard	10-Ton Heavy Duty	20-Ton Standard	30-Ton Standard	50-Ton Standard
WBL51 WBL201	WB62 WB122 WB242	RWB62 RWB122 RWB242	WB65 WB125 WB245	WBL810 WBL2410	WB810 WB2410	WB820 WB2420	WB1130 WB3230	WB1150 WB3250
1-Ton Heavy Duty	**2-Ton High Lead**	**2-Ton Reverse Base High Lead**	**5-Ton High Lead**	**10-Ton Standard High Lead**	**10-Ton Heavy Duty High Lead**			**50-Ton Reverse Base**
WB51 WB201	HWB62 HWB122 HWB242	RHWB62 RHWB122 RHWB242	HWB65 HWB125 HWB245	HWBL810 HWBL2410	HWB810 HWB2410			RWB1150 RWB3250

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

H: indicates High lead (2-ton, 5-ton and 10-ton only).

R: Reverse Base Jack (2-ton and 50-ton only).

Sample Part Number: WB65U4S-6.0-STDX-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

For optional shaft codes, see page 83.

Right Side Shaft Code
(see below)

XXXX=Remove
STDX=Standard

For optional shaft codes, see page 83.

Ball Screw Jack Rise

Rise is travel expressed in inches and not the actual screw length.

Additional Options

X=Standard Jack, no additional options

S=Additional Specification Required (comment as necessary)

Protective Boots pp. 170-172
B=Protective Boot
D=Dual Protective Boot

Finishes p. 179
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

Grease/Seals
H1=High Temperature Operation
H2=Food Grade

Screw Stops
ST0=Extending

• Specify as many options as needed

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 173)

**Keyed for non-rotation is not a standard option. Contact Joyce/Dayton with your requirements.

BALL SCREW JACKS 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 jack.

Screw Stops (p. 10) and Boots (pp. 170-172)

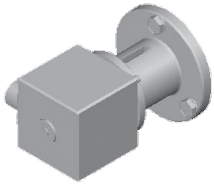
Screw stops are optional on ball screw jacks. When specified the closed height of the jack and the protection tube length may be increased.
When boots are added to ball screw jacks, the closed height of the jack may be increased.

Geared Potentiometers (p. 176)

POTA=0-10V (IP65)
POTB=4-20MA (IP65)
POTC=0-10V w/2 switches*
POTD=4-20MA w/2 switches*
*Optional IP65 rating available.

Encoders and Electronic Limit Switches

ENCX=Encoder (p. 178)
ELS2=2 Position Electronic Switch
ELS4=4 Position Electronic Switch
ELS6=6 Position Electronic Switch



Motors for Systems and Direct Drive (p. 185)

- All standard motors are 3-phase, 208-230/460 VAC or 230/460 VAC. Other motor options are available. Specify the appropriate motor size from the chart on the right.
- Refer to the "Additional Options" chart on the preceding page as needed.
- Brake motors (M2) are required for ball screw jacks.
- If the motor frequency will be varied to provide a "soft" start, an inverter duty brake motor may be required.

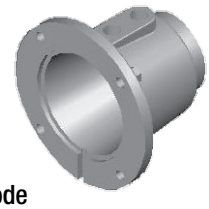
Motors

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

Motor Mounts (p. 185)

Ordering Example:

MMA A



MMA=56C
MMB=140TC
MMC=180TC
MMD=210TC

Motor code from chart at left

Standard motor adapters are aluminum.

Mechanical Limit Switches (pp. 174-175)

Ordering Example: LA13

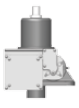
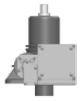
Models

Model	Code
LS7-402	LI
LS8-402	LA
LS8-404	LB
LS9-502	LC
LS9-503	LD
LS9-504	LE
LS9-505	LF
LS9-506	LG
LS9-507	LH

Number of DPDT Switches (see p. 175)

NOTE: Will always be 0 for LS7 models

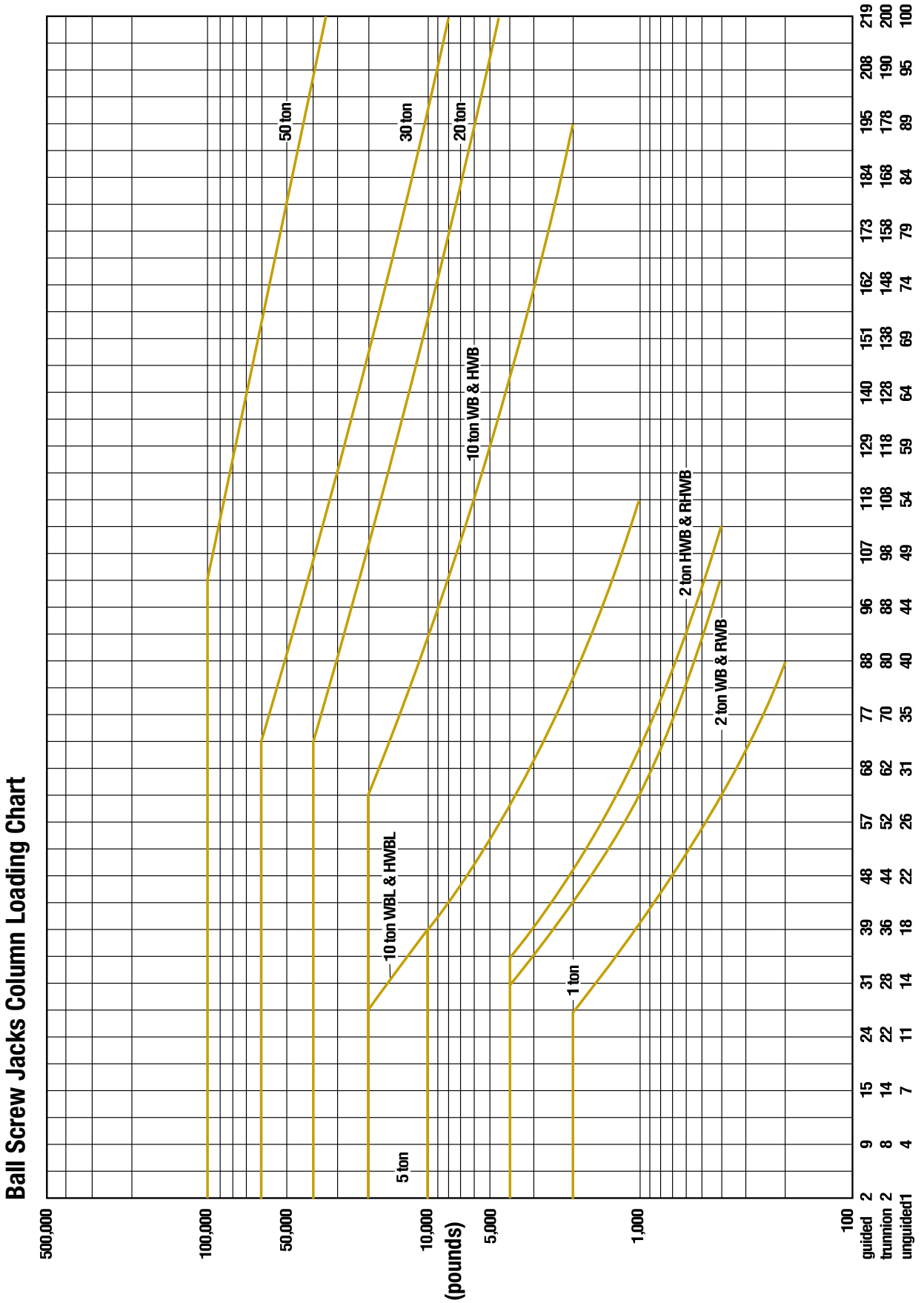
Available Positions

	1	2*	3	4	5	6*	7	8
Left Side Shaft Options								
Right Side Shaft Options								

- 2, 5, 10, 15, and 20 Ton ball screw jacks are available with positions #1, #3, and #5.
- 30-ton and 50-ton ball screw jacks are available with positions #1, #4, #7 and #8.

*These positions are not standard. Contact Joyce/Dayton with your requirements.

BALL SCREW JACKS COLUMN LOADING



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.

BALL SCREW JACKS SPECIFICATIONS

Model	Capacity	Screw Diameter (Inches)	Thread Pitch/Lead	Worm Gear Ratio	Worm Shaft Turns for 1" Travel	Tare Torque (Inch Lbs.)	Starting Torque (Inch Lbs.)	Operating Torque (Inch Lbs.)	Efficiency Rating % Approx	Screw Torque (Inch Lbs.)	Worm Holding Torque	Ball Nut Life at Rated Load (Inch Screw Travel x 1000)	Basic Jack Weight (Lbs.)	Jack Weight per Inch Travel (Lbs.)
WBL51	1 ton	3/4	0.2	5:1	25	3	.014W*	.012W* @ 500 RPM	51.7	.035W*	.006W*	108	8	0.25
WBL201				20:1	100		.005W*	.004W* @ 500 RPM	38.5		.002W*			
WB51				5:1	25		.014W*	.012W* @ 500 RPM	51.7		.006W*	858		
WB201				20:1	100		.005W*	.004W* @ 500 RPM	38.5		.002W*			
(R)WB62	2 ton	1	0.25	6:1	24	4	.015W*	.013W* @ 500 RPM	52.1	.044W*	.007W*	642	18	0.4
(R)WB122				12:1	48		.009W*	.007W* @ 500 RPM	47.2		.004W*			
(R)WB242				24:1	96		.006W*	.004W* @ 500 RPM	39.3		.002W*			
(R)HWB62			1.0	6:1	6		.064W*	.051W* @ 500 RPM	52.1	.177W*	.033W*	190		
(R)HWB122				12:1	12		.039W*	.028W* @ 500 RPM	47.2		.020W*			
(R)HWB242				24:1	24		.028W*	.017W* @ 500 RPM	39.3		.014W*			
WB65	5 ton	1 1/2	0.474	6:1	12.66	10	.030W*	.025W* @ 300 RPM	51.1	.084W*	.013W*	1015	42	0.7
WB125				12:1	25.33		.019W*	.014W* @ 300 RPM	45.7		.007W*			
WB245				24:1	50.66		.013W*	.008W* @ 300 RPM	37.2		.004W*			
HWB65			1.0	6:1	6		.065W*	.052W* @ 300 RPM	51.1	0.177W*	.033W*	512		
HWB125				12:1	12		.041W*	.029W* @ 300 RPM	45.7		.020W*			
HWB245				24:1	24		.029W*	.018W* @ 300 RPM	37.2		.014W*			
WBL810	10 ton	1 1/2	0.474	8:1	16.88	20	.022W*	.019W* @ 200 RPM	50.7	.084W*	.010W*	127	58	0.9
WBL2410				24:1	50.66		.010W*	.008W* @ 200 RPM	40.3		.004W*			
HWBL810			1.0	8:1	8		.047W*	.039W* @ 200 RPM	50.7	.177W*	.024W*	64		
HWBL2410				24:1	24		.024W*	.016W* @ 200 RPM	40.3		.012W*			
WB810	10 ton	2	0.5	8:1	16	20	.023W*	.019W* @ 200 RPM	50.7	.088W*	.009W*	729	62	1.4
WB2410				24:1	48		.011W*	.008W* @ 200 RPM	40.3		.003W*			
HWB810			1.0	8:1	8		.047W*	.039W* @ 200 RPM	50.7	.177W*	.018W*	1423		
HWB2410				24:1	24		.023W*	.016W* @ 200 RPM	40.3		.006W*			
WB820	20 ton	2 1/4	0.5	8:1	16	40	.024W*	.020W* @ 200 RPM	47.4	.088W*	.009W*	121	105	2.6
WB2420				24:1	48		.012W*	.009W* @ 200 RPM	35		.003W*			
WB1130	30 ton	3	0.66	11:1	16.67	60	.027W*	.020W* @ 200 RPM	48	.117W*	.009W*	343	220	3.2
WB3230				32:1	48.48		.016W*	.009W* @ 200 RPM	35		.003W*			
(R)WB1150	50 ton	4	1.0	11:1	11	100	.038W*	.029W* @ 200 RPM	49.3	.177W*	.013W*	614	460	4.8
(R)WB3250				32:1	32		.020W*	.012W* @ 200 RPM	37.5		.005W*			

Important Note: Ball Screw Jacks are not self-locking. Brake motors or external locking systems are required.

(R): Reverse Base Jack.

***W:** Load in pounds.

Tare Torque: Initial torque to overcome seal and normal assembly drag. This value must be added to starting torque or operating torque values.

Starting Torque: Torque value required to start moving a given load (dissipates to operating torque values once the load begins moving).

Operating Torque: Torque required to continuously raise a given load at the input RPM listed.

Note: If your actual input RPM is 20% higher or lower than the listed RPM, please refer to our JAX® program to determine actual torque values at your RPM.

Screw Torque: Torque required to resist screw rotation (Translating Design Jacks) and traveling nut rotation (Keyed for Traveling Nut Design Jacks).

Worm Holding Torque: Torque required to prevent input shaft (worm) from backdriving.

Lead: The distance traveled axially in one rotation of the lifting screw.

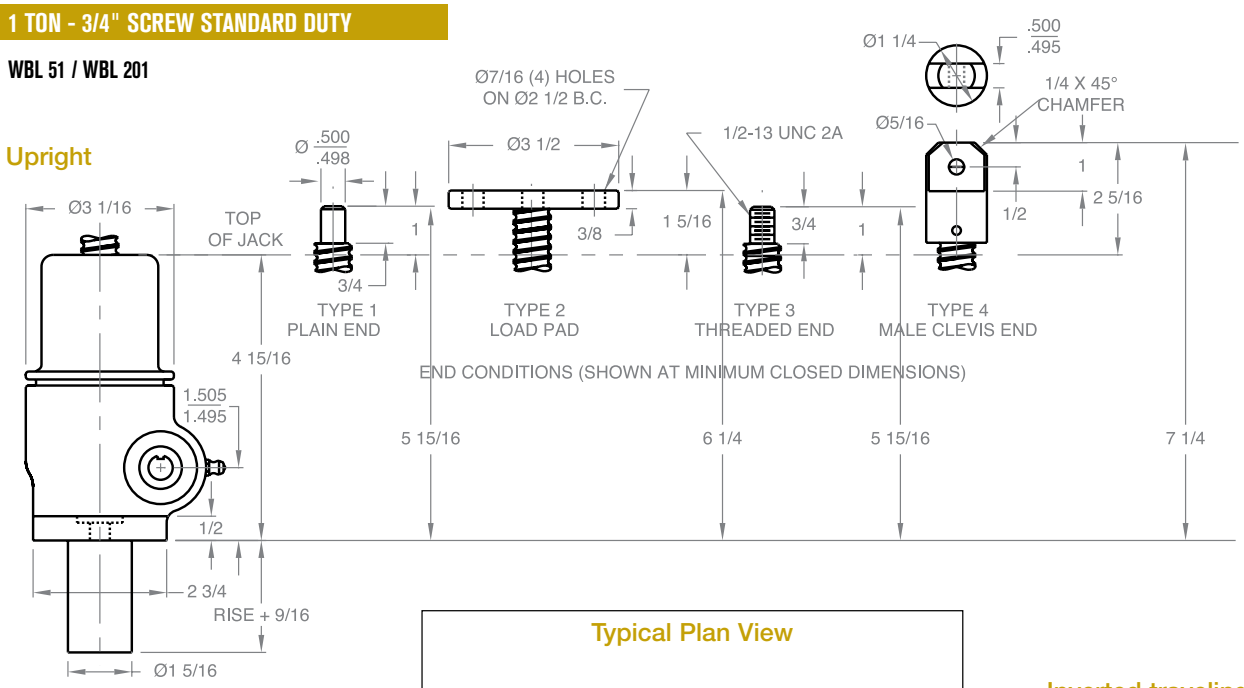
Pitch: The distance from a point on a screw thread to a corresponding point on the next thread, measured axially.

BALL SCREW JACKS

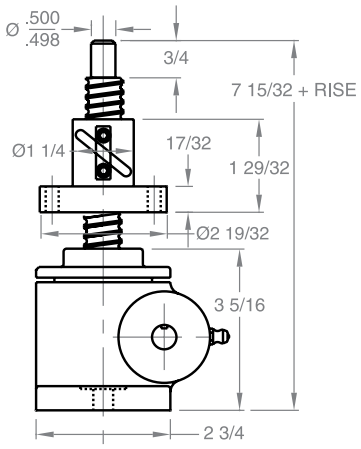
1 TON - 3/4" SCREW STANDARD DUTY

WBL 51 / WBL 201

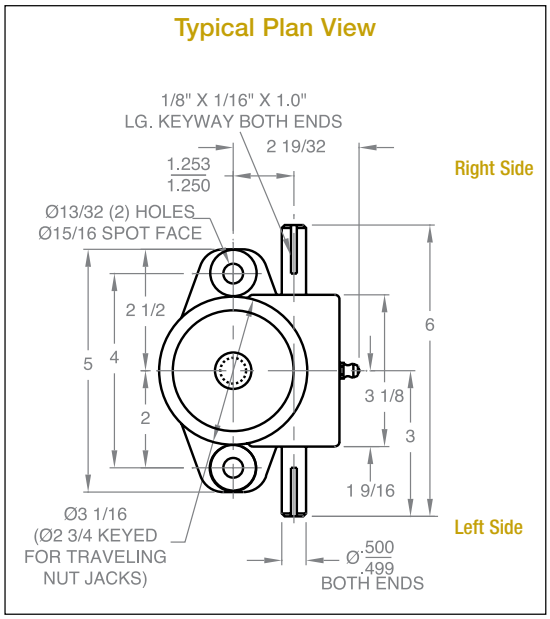
Upright



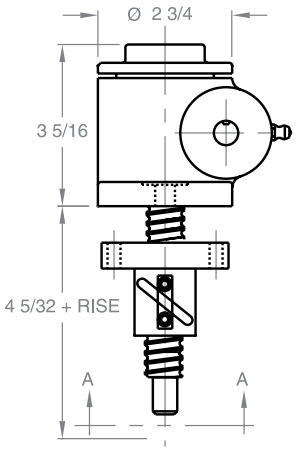
Upright traveling nut



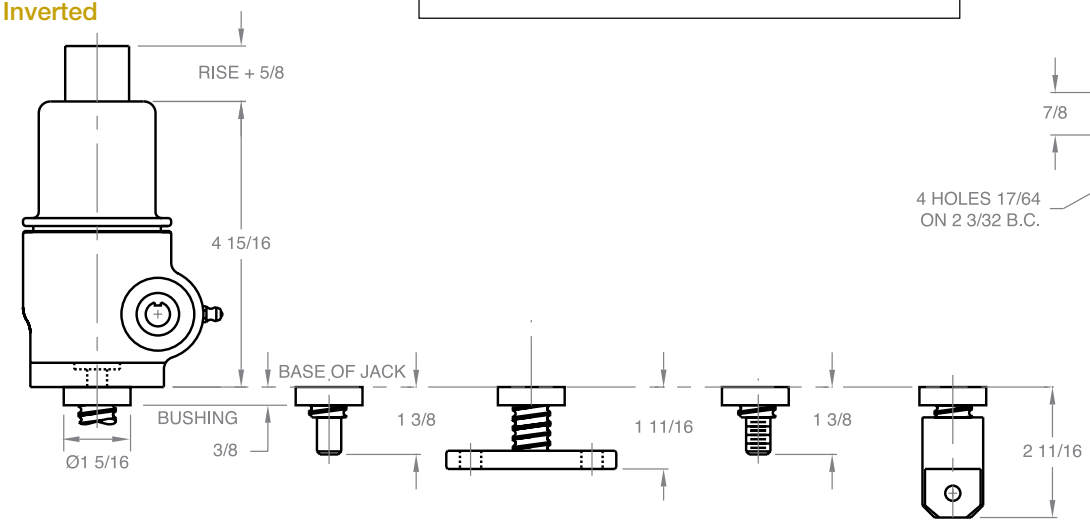
Typical Plan View

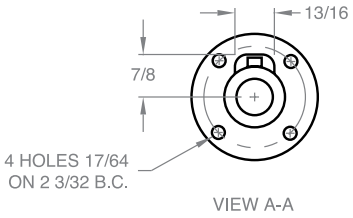


Inverted traveling nut



Inverted





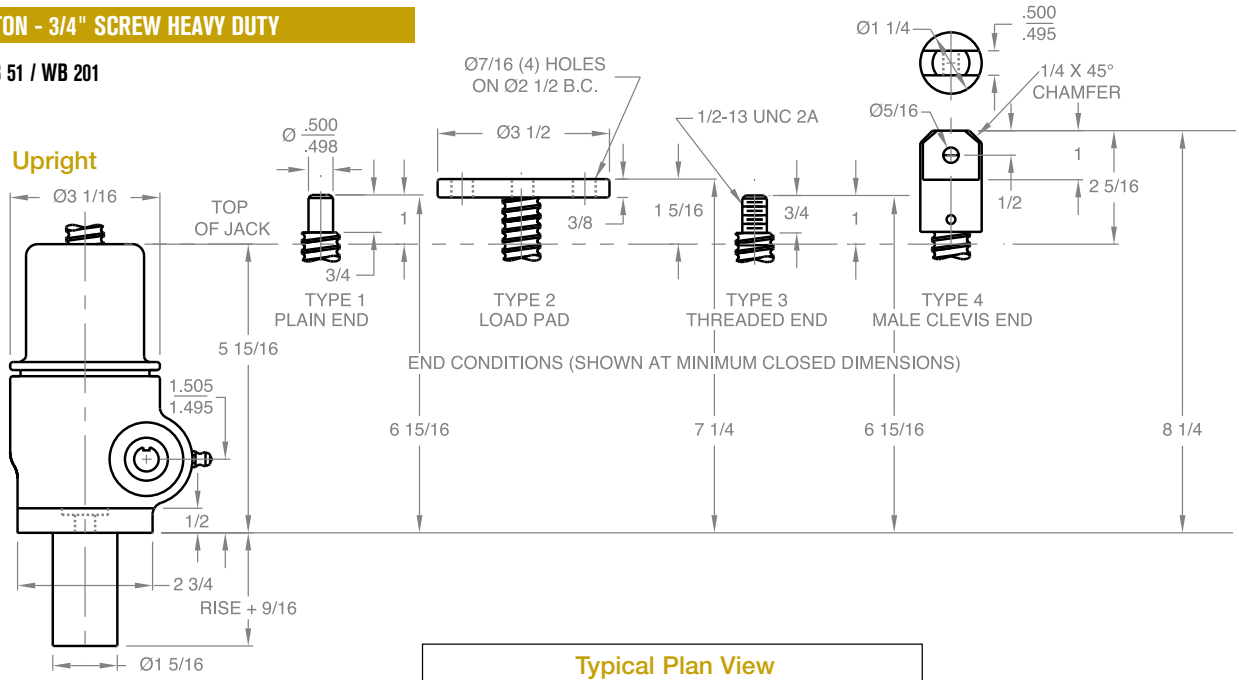
Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

BALL SCREW JACKS

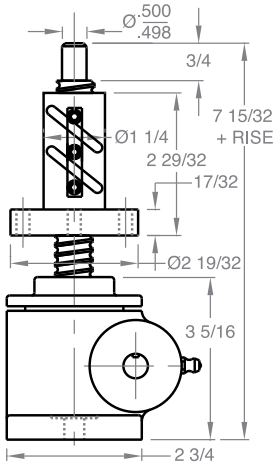
1 TON - 3/4" SCREW HEAVY DUTY

WB 51 / WB 201

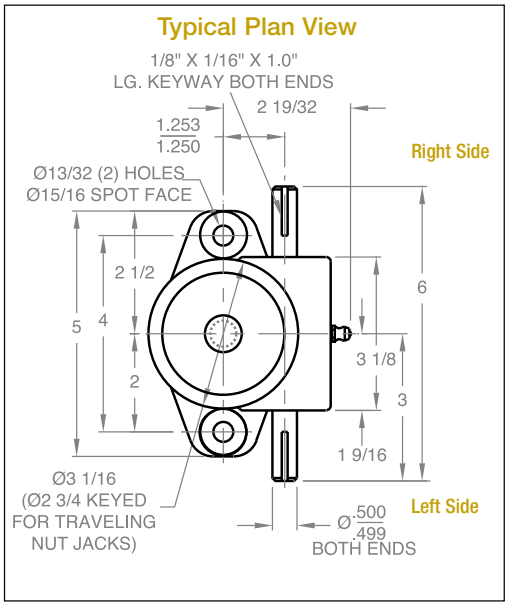
Upright



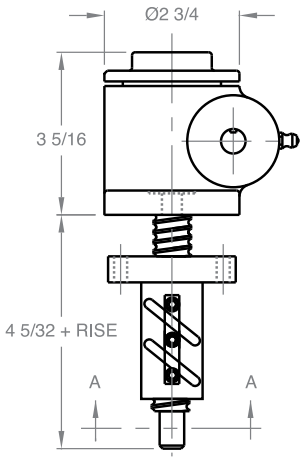
Upright traveling nut



Typical Plan View



Inverted traveling nut



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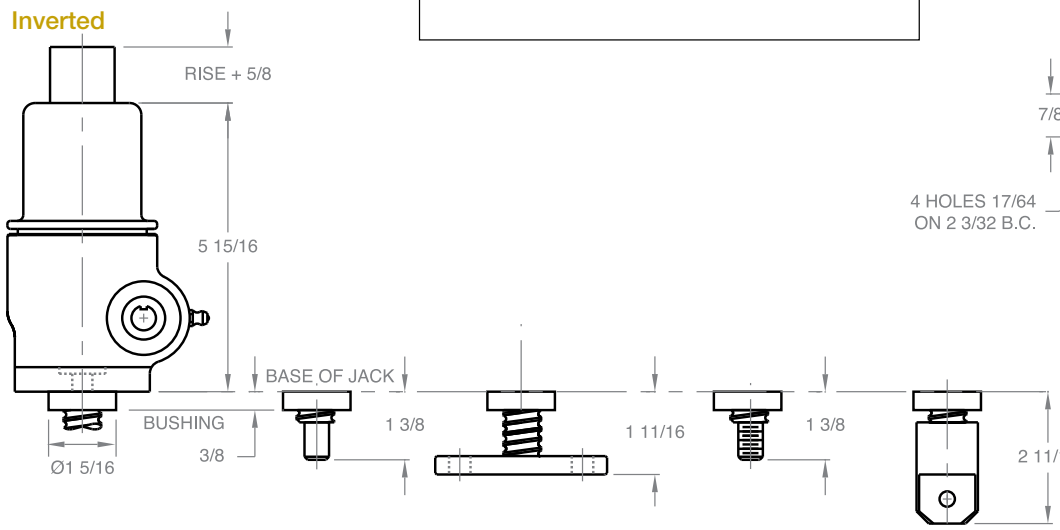

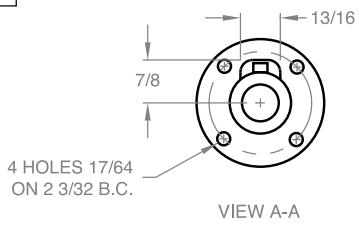

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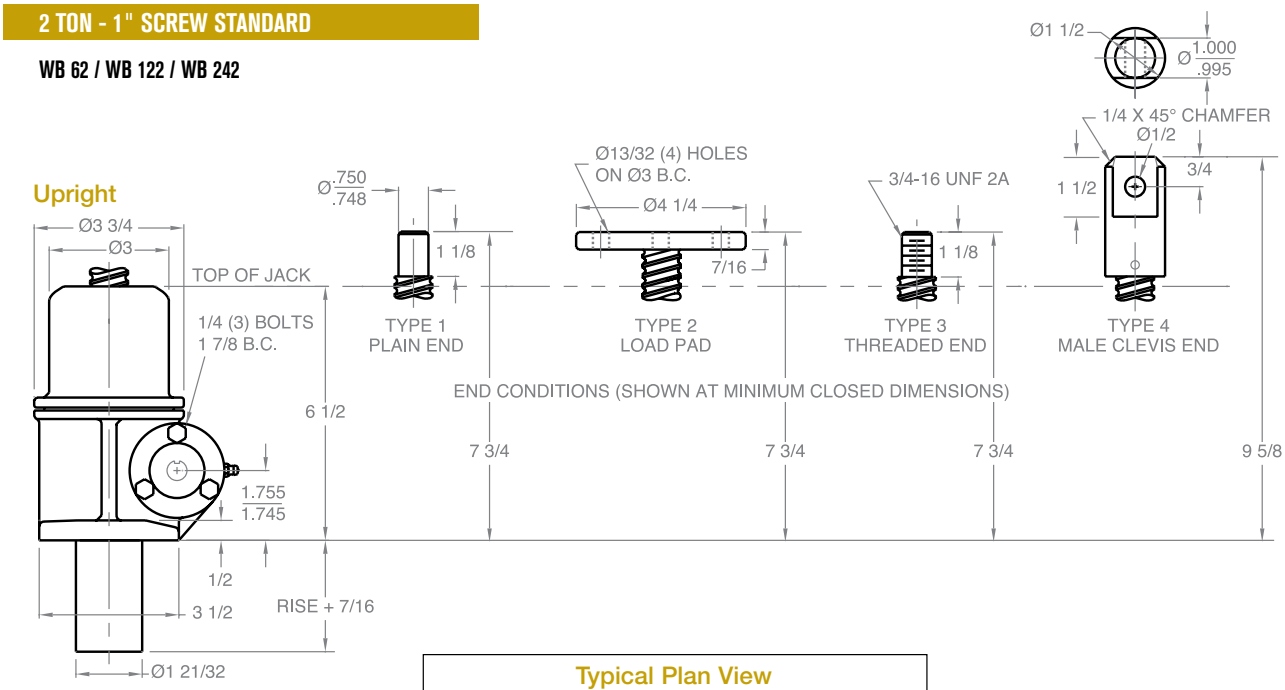
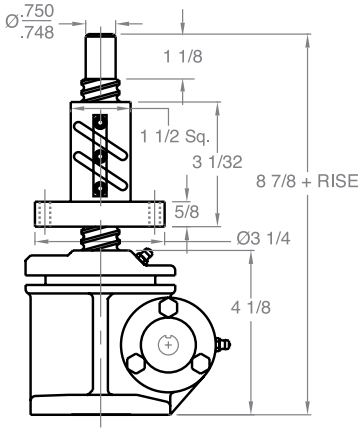
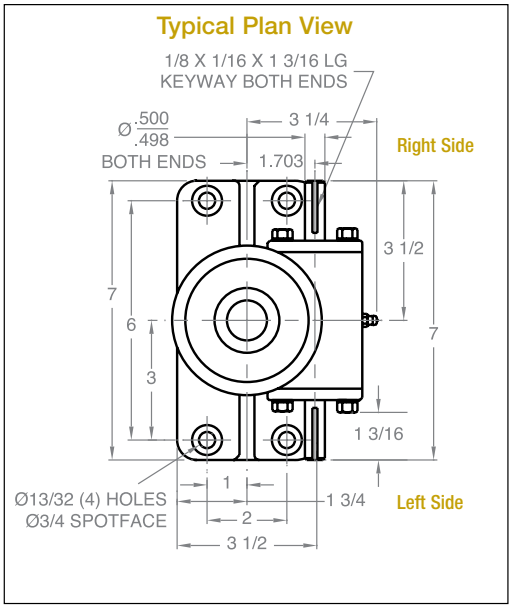
BALL SCREW JACKS

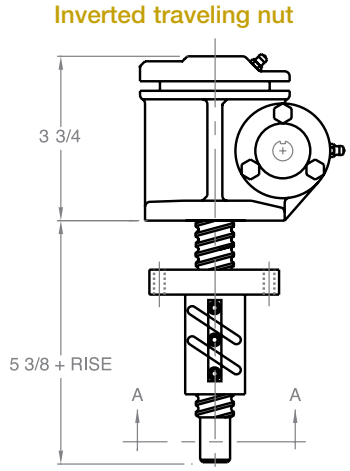
2 TON - 1" SCREW STANDARD

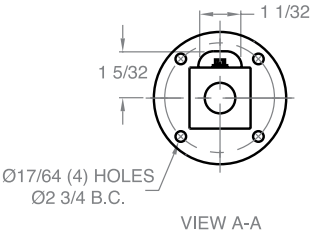
WB 62 / WB 122 / WB 242











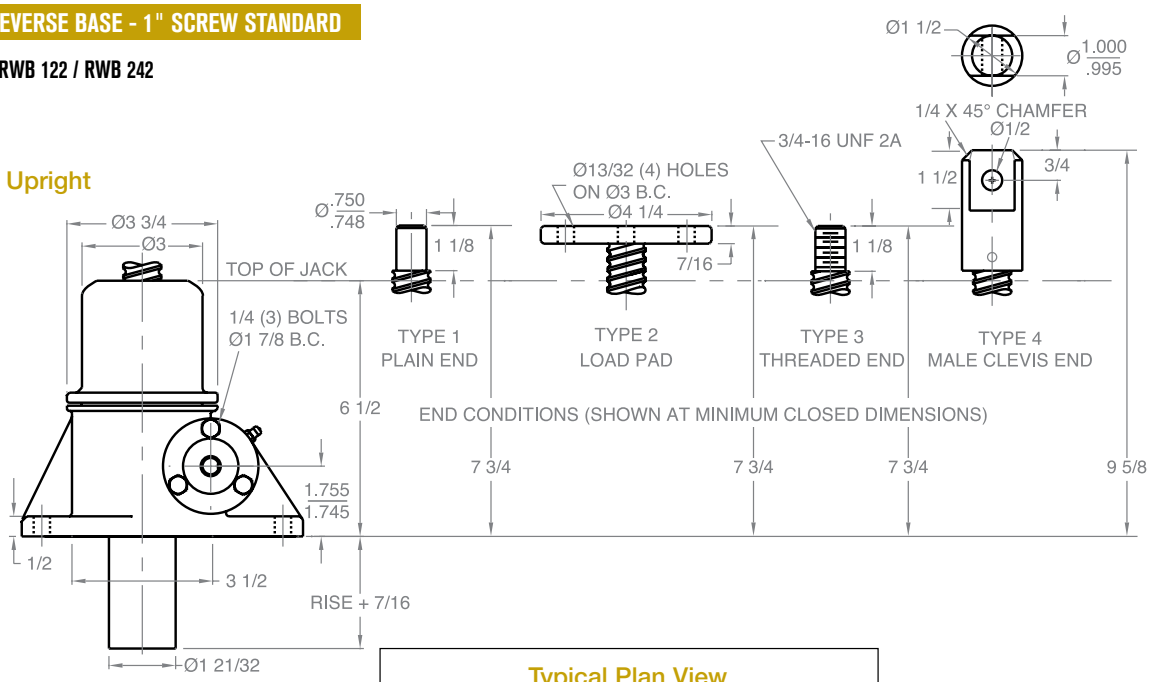
FOR DOUBLE CLEVIS DESIGN
CONTACT JOYCE/DAYTON

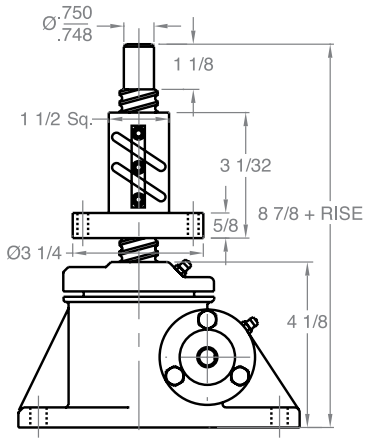
Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

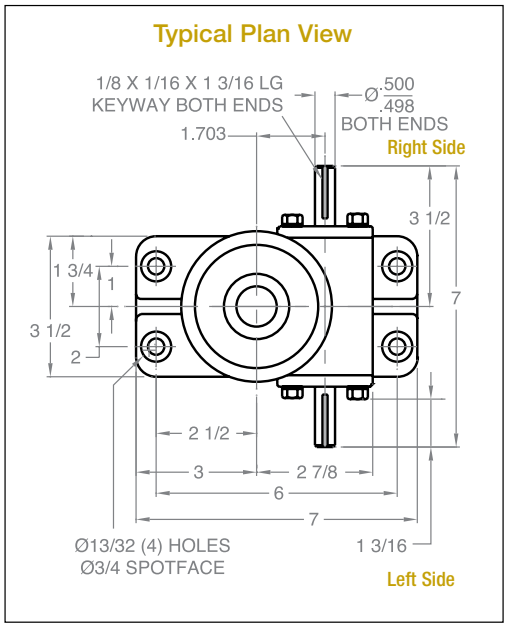
BALL SCREW JACKS

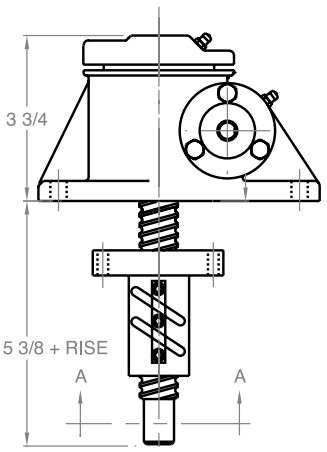
2 TON REVERSE BASE - 1" SCREW STANDARD

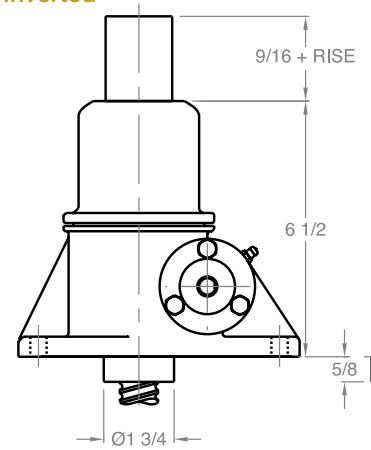
RWB 62 / RWB 122 / RWB 242



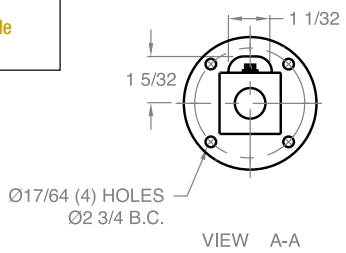


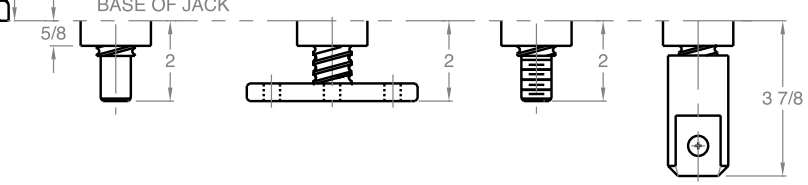






FOR DOUBLE CLEVIS DESIGN
CONTACT JOYCE/DAYTON





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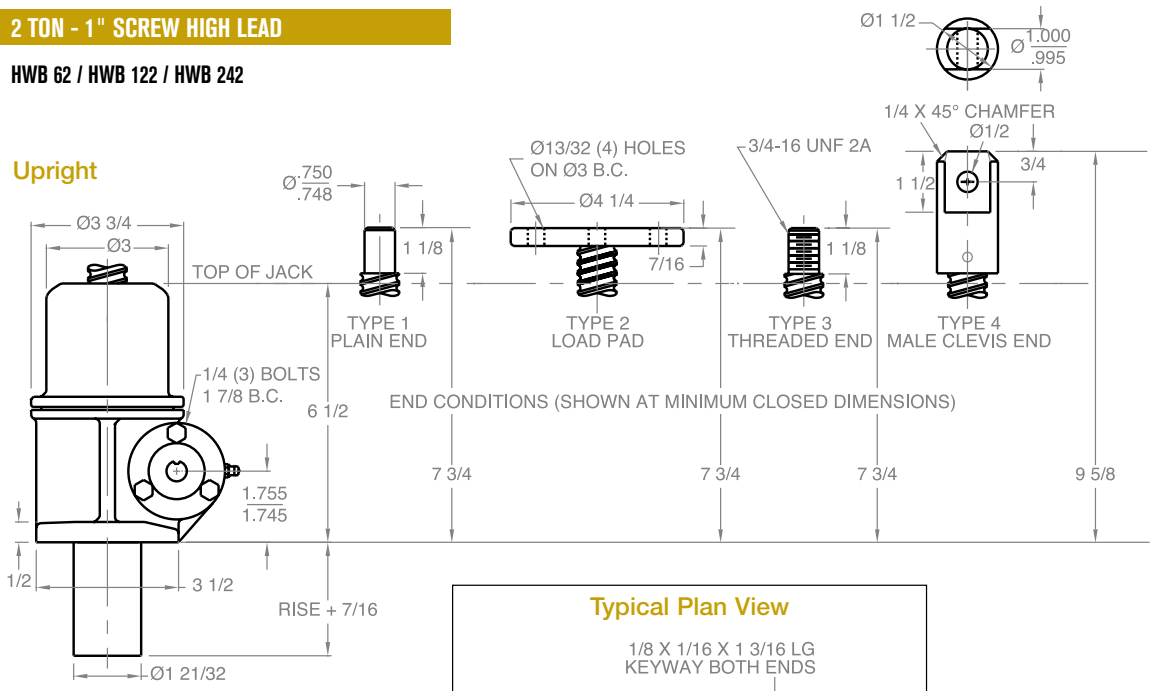
BALL SCREW JACKS

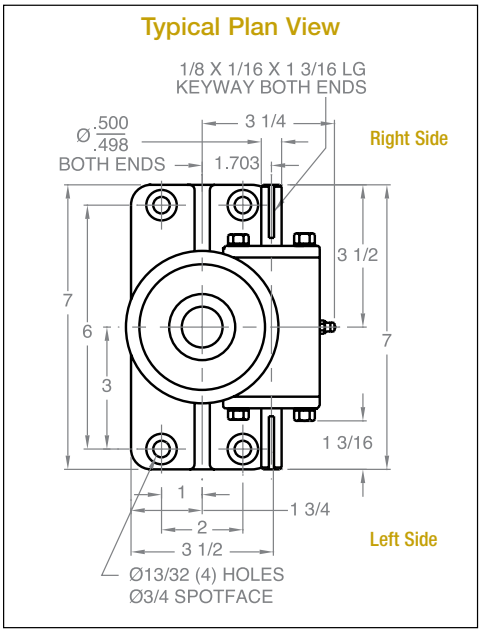
2 TON - 1" SCREW HIGH LEAD

HWB 62 / HWB 122 / HWB 242

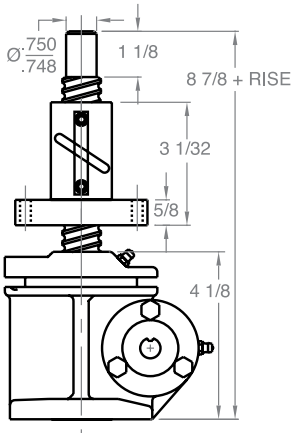
Upright



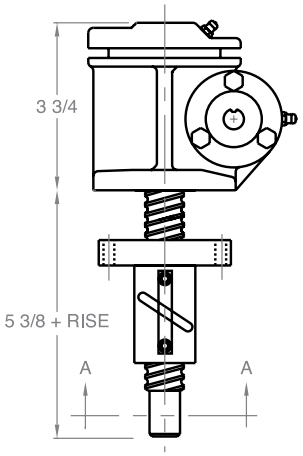
Typical Plan View



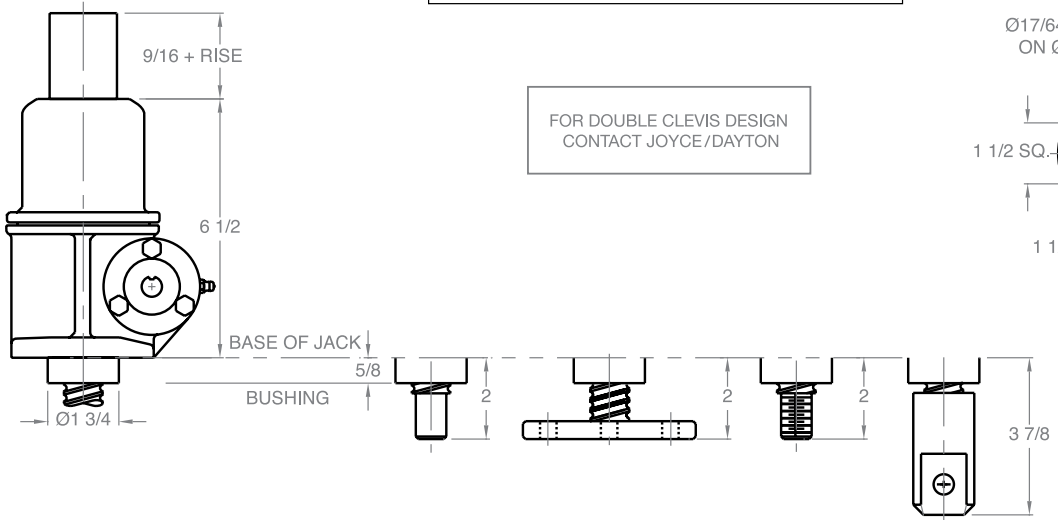
Upright traveling nut



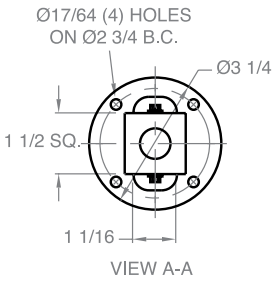
Inverted traveling nut



Inverted



FOR DOUBLE CLEVIS DESIGN CONTACT JOYCE/DAYTON



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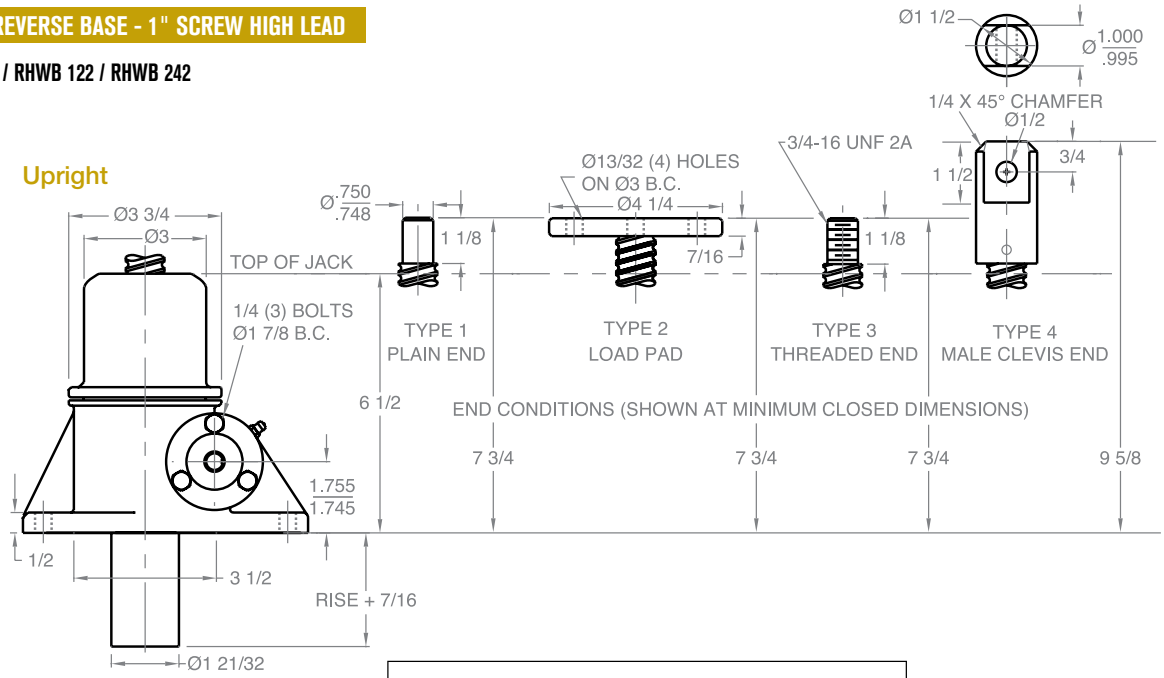
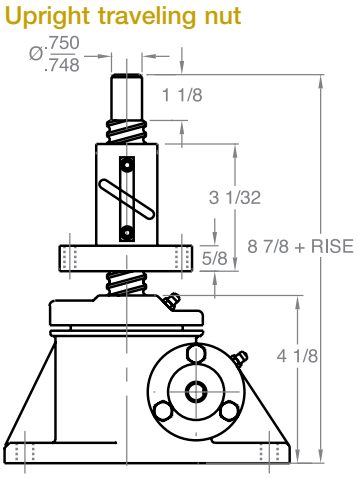
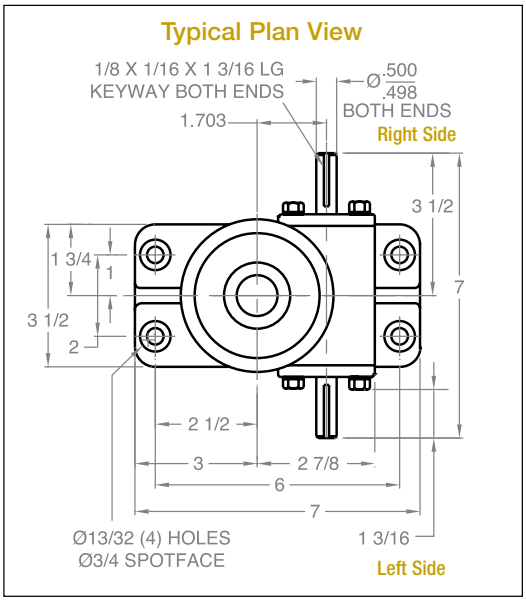
BALL SCREW JACKS

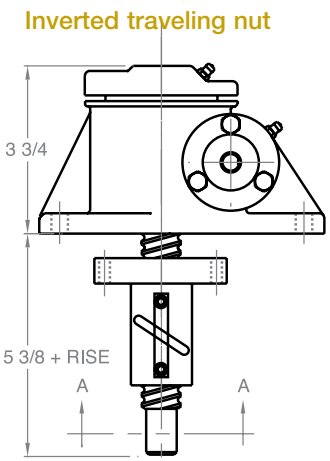
2 TON REVERSE BASE - 1" SCREW HIGH LEAD

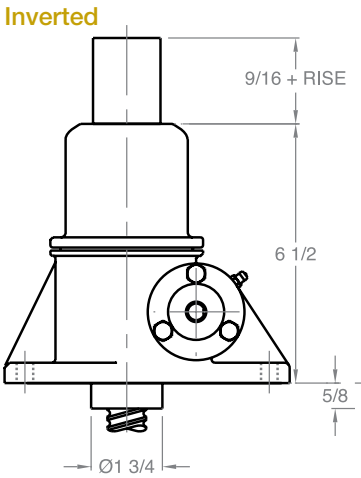
RHWB 62 / RHWB 122 / RHWB 242



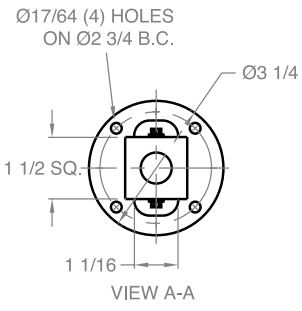


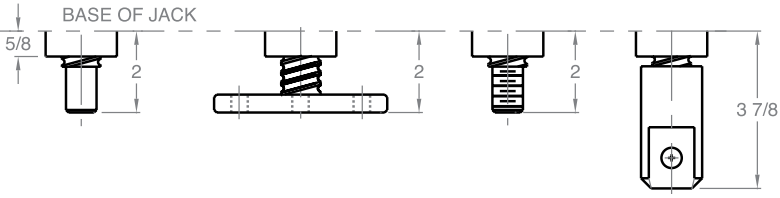






FOR DOUBLE CLEVIS DESIGN
CONTACT JOYCE/DAYTON





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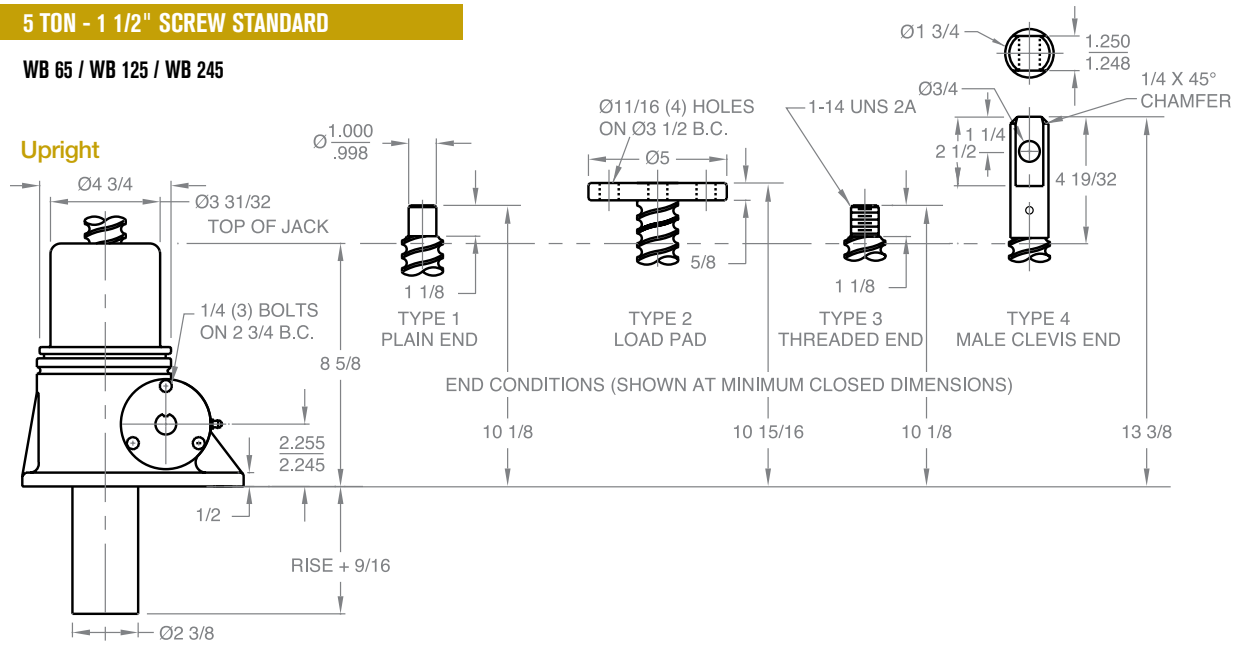
BALL SCREW JACKS

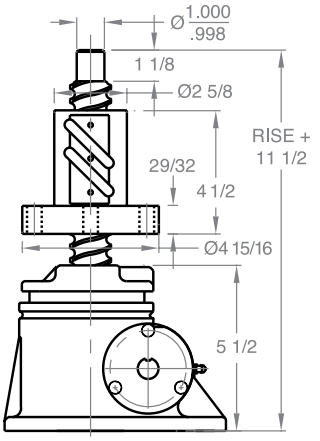
5 TON - 1 1/2" SCREW STANDARD

WB 65 / WB 125 / WB 245

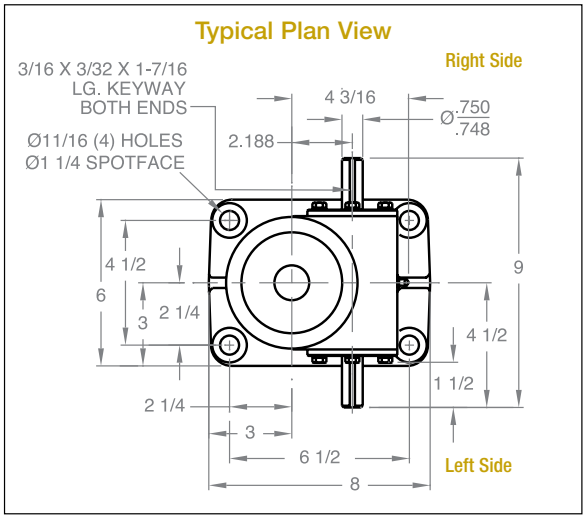
Upright



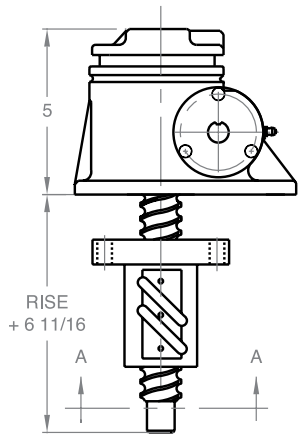
Upright traveling nut



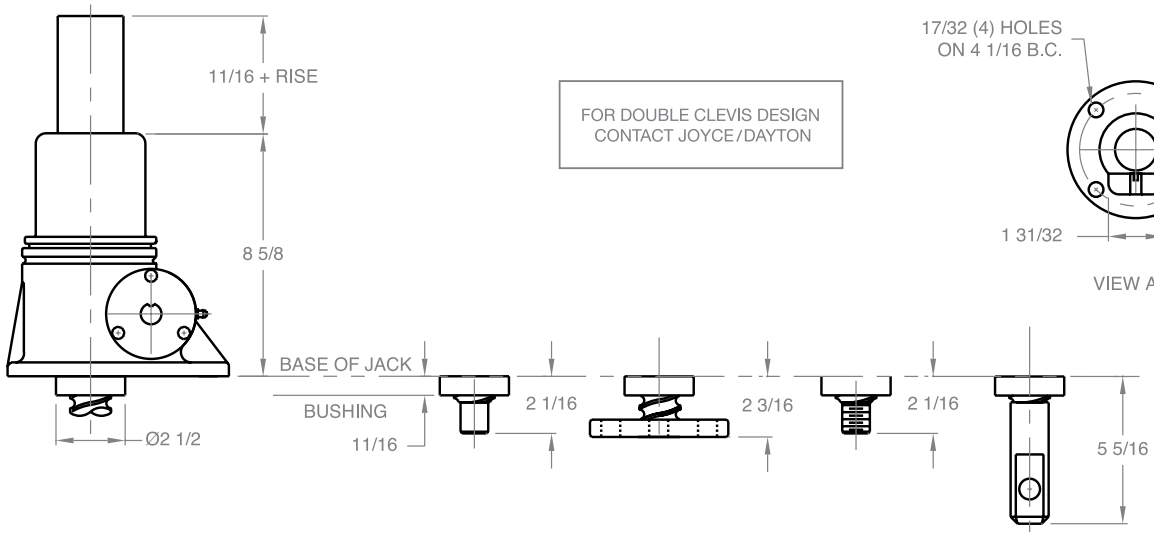
Typical Plan View



Inverted traveling nut



Inverted



FOR DOUBLE CLEVIS DESIGN
CONTACT JOYCE/DAYTON

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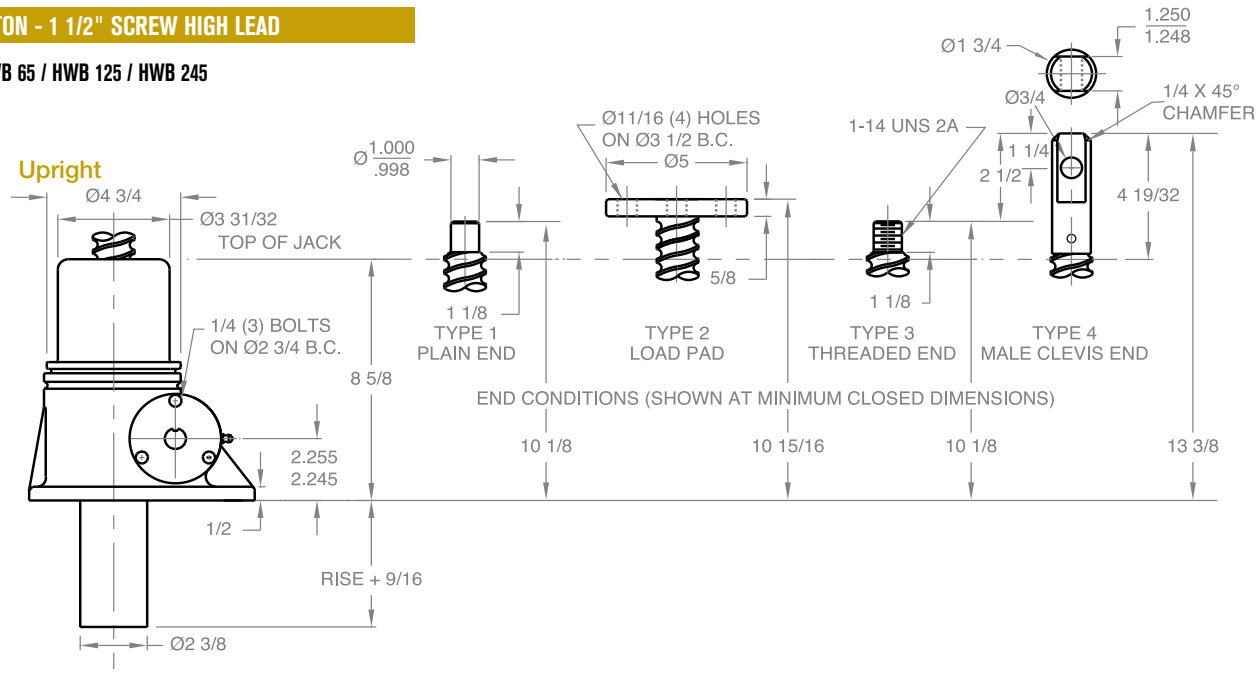
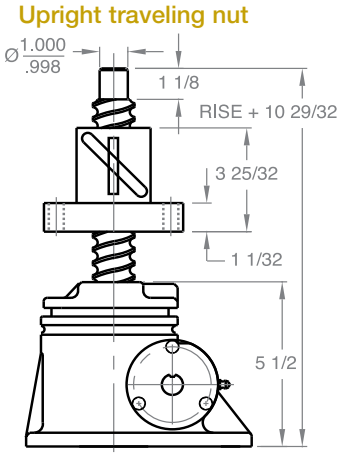
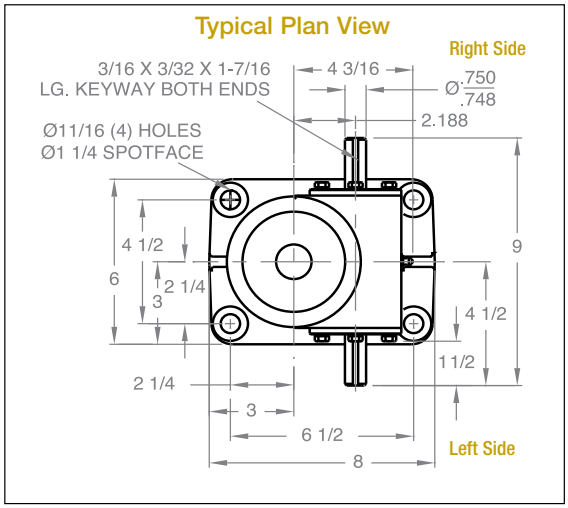
BALL SCREW JACKS

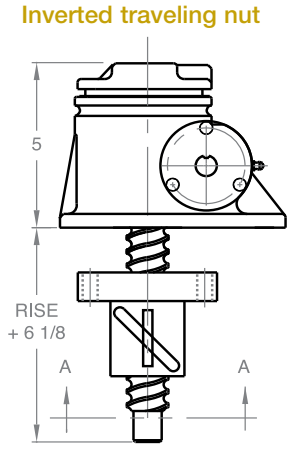
5 TON - 1 1/2" SCREW HIGH LEAD

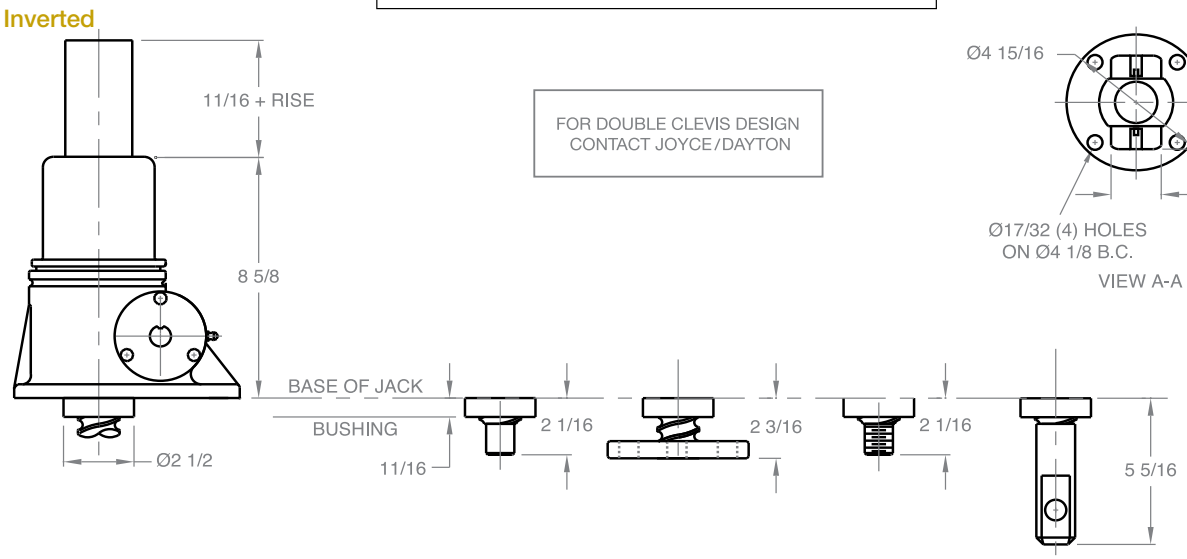
HWB 65 / HWB 125 / HWB 245











FOR DOUBLE CLEVIS DESIGN
CONTACT JOYCE/DAYTON

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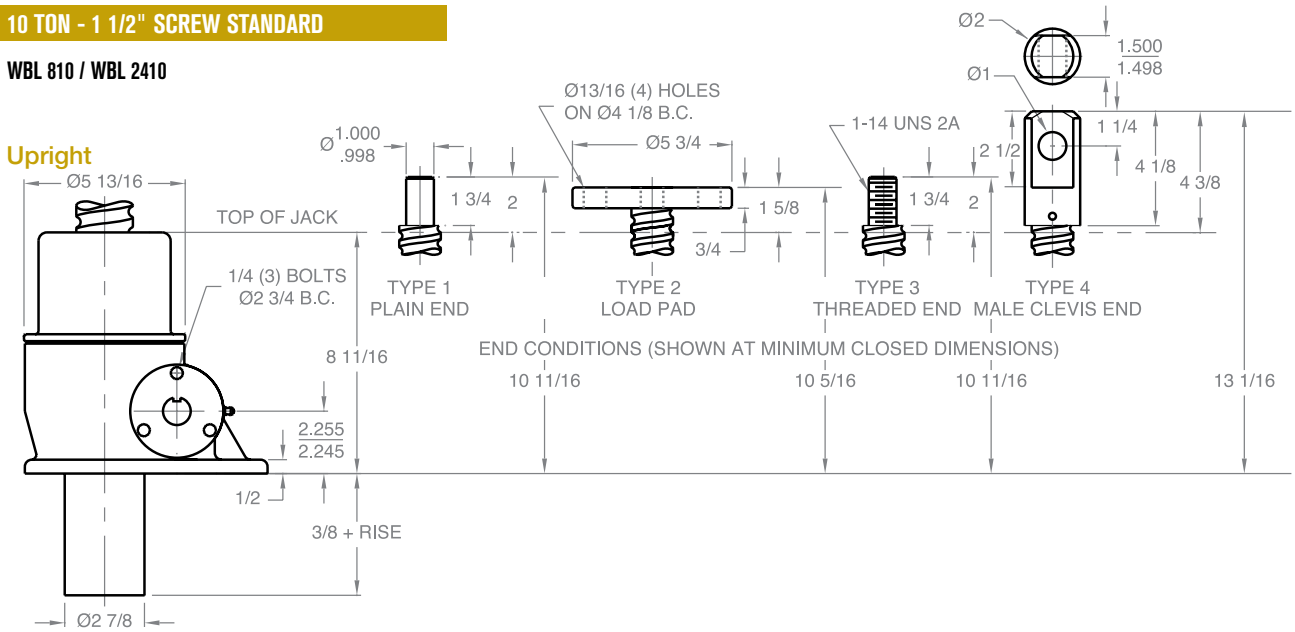
BALL SCREW JACKS

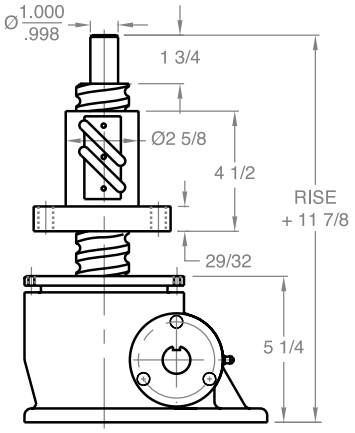
10 TON - 1 1/2" SCREW STANDARD

WBL 810 / WBL 2410

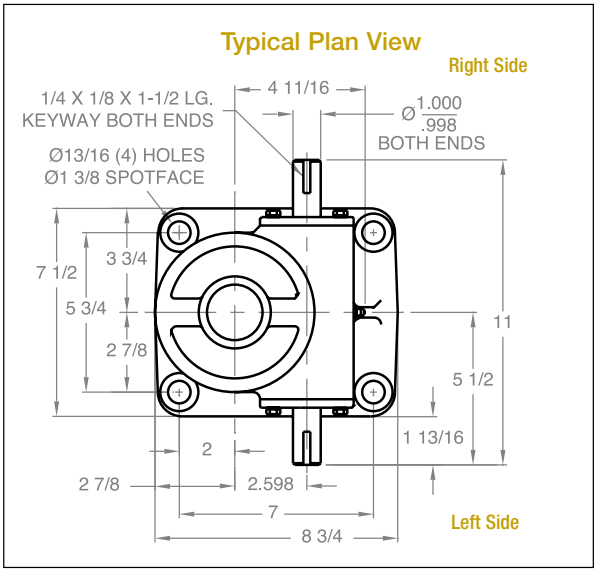
Upright



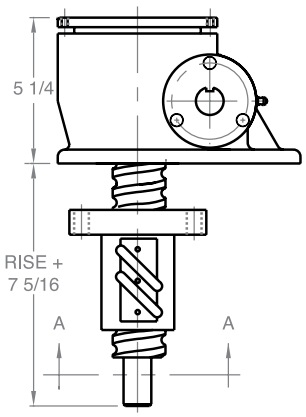
Upright traveling nut

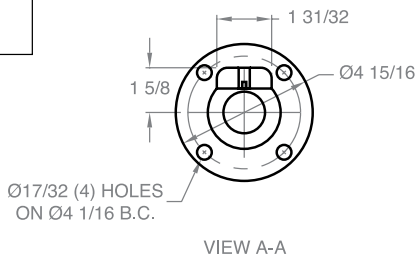


Typical Plan View



Inverted traveling nut





Inverted

FOR DOUBLE CLEVIS DESIGN
CONTACT JOYCE/DAYTON

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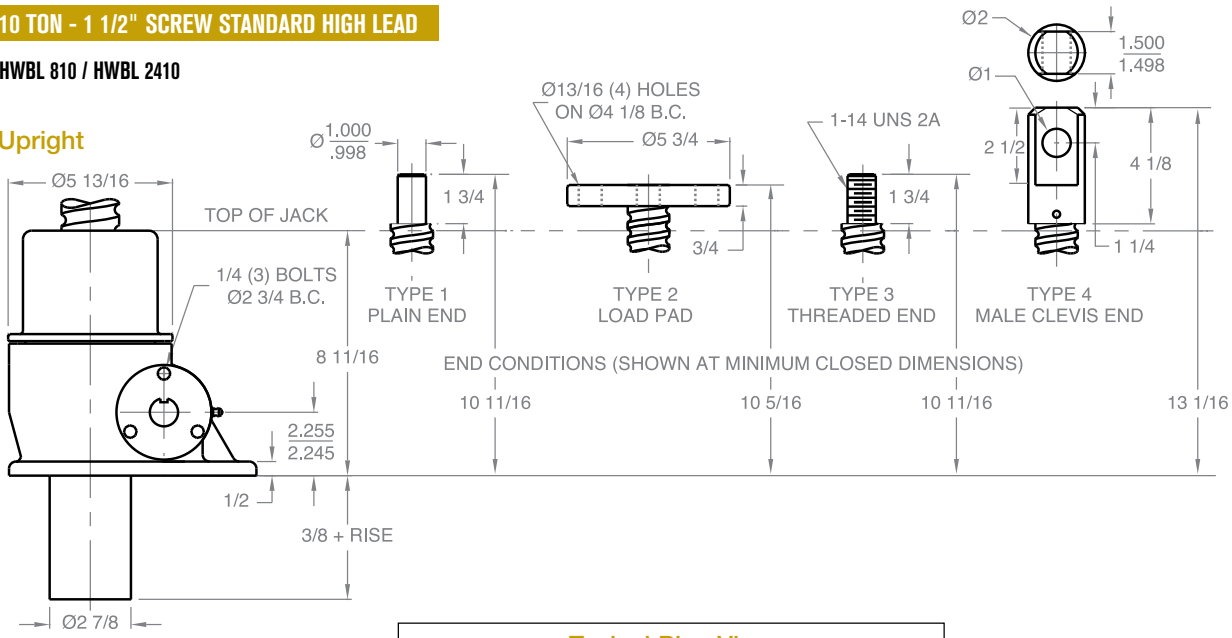
BALL SCREW JACKS

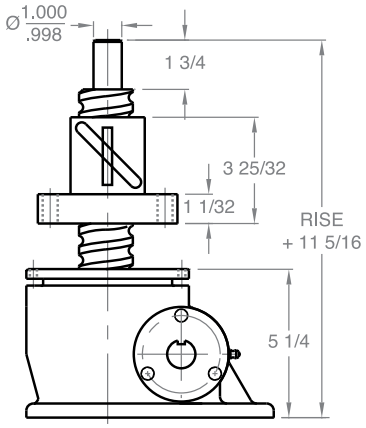
10 TON - 1 1/2" SCREW STANDARD HIGH LEAD

HWBL 810 / HWBL 2410

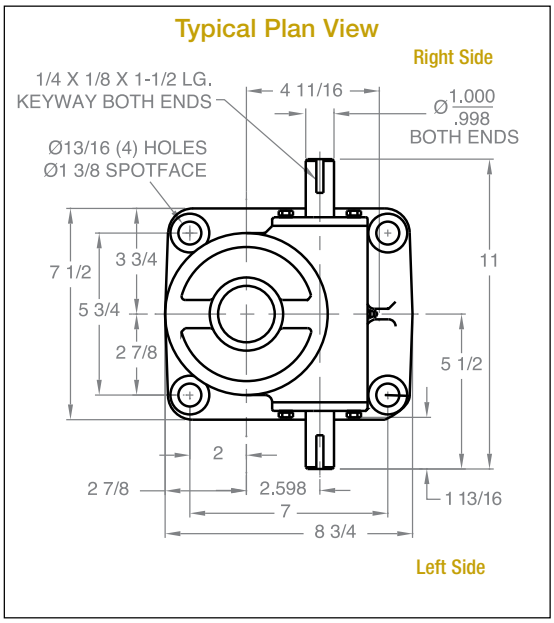
Upright



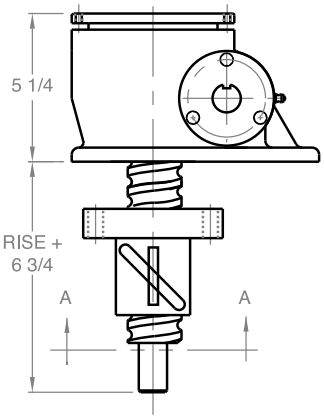
Upright traveling nut



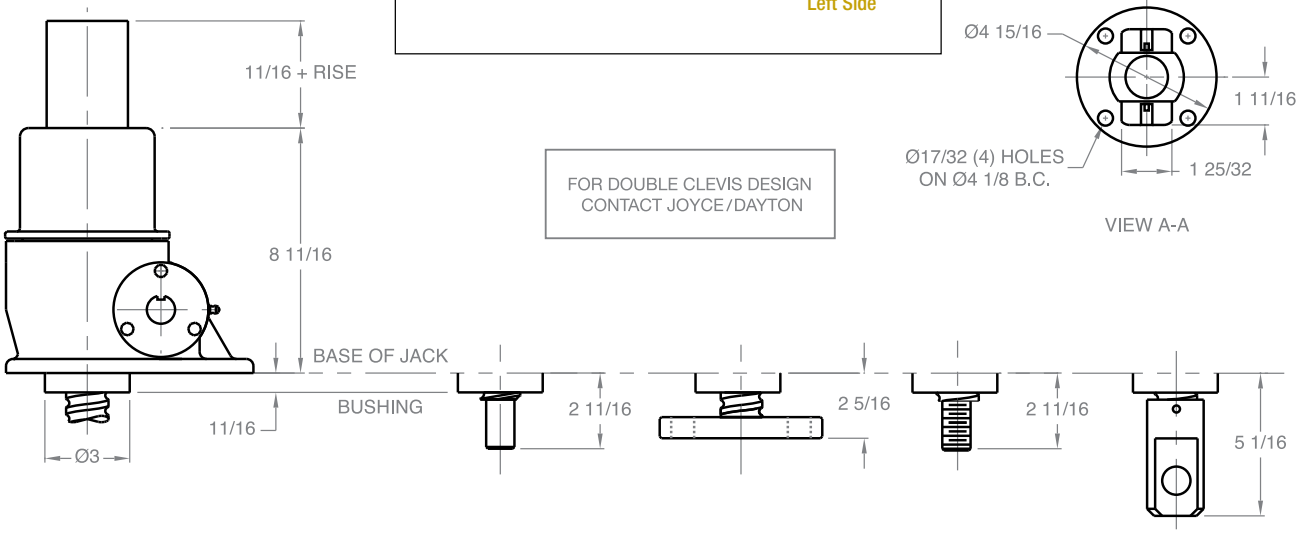
Typical Plan View



Inverted traveling nut



Inverted



FOR DOUBLE CLEVIS DESIGN
CONTACT JOYCE/DAYTON

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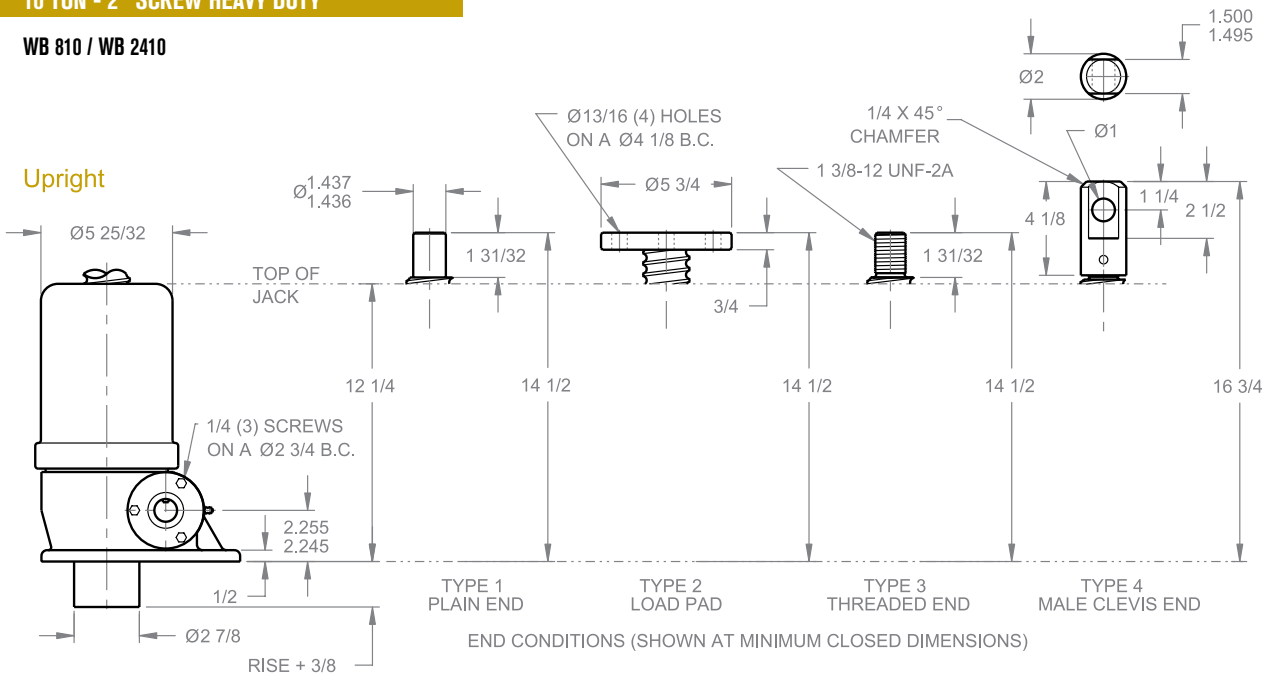
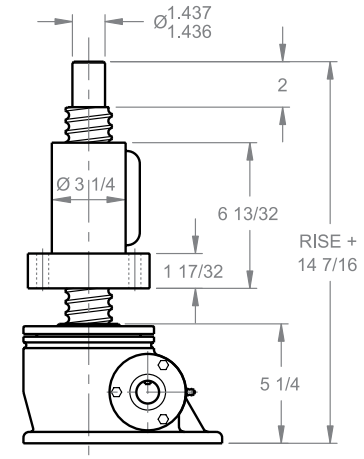
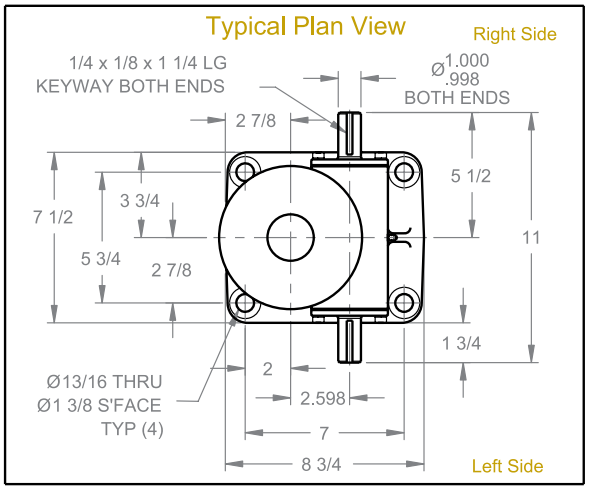
BALL SCREW JACKS

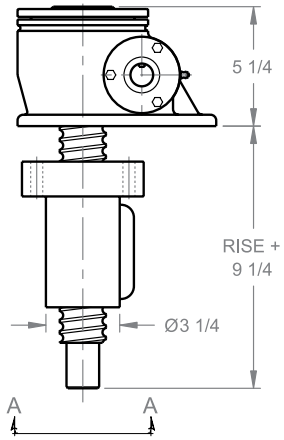
10 TON - 2" SCREW HEAVY DUTY

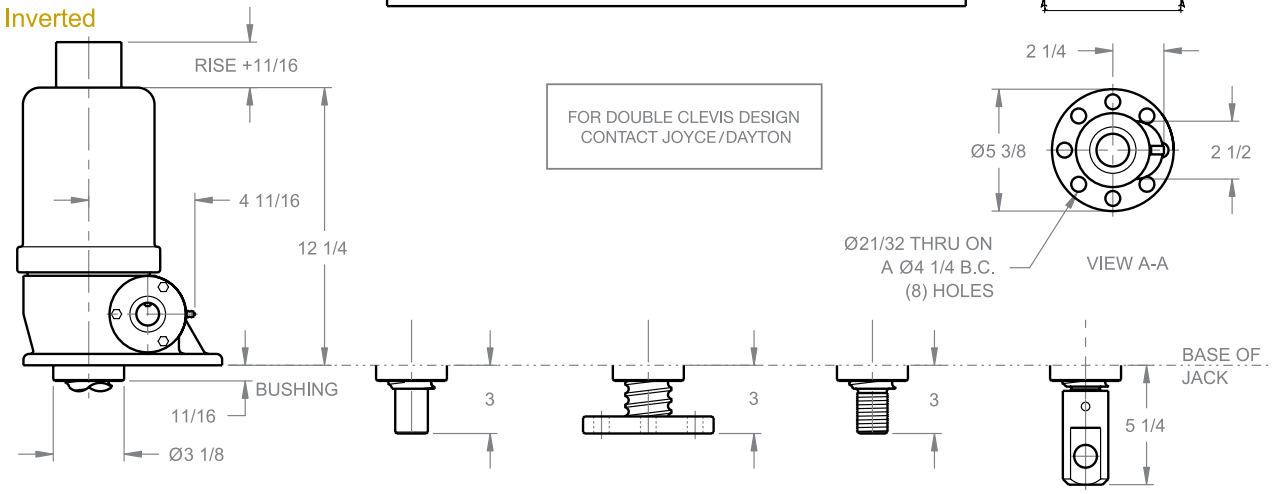
WB 810 / WB 2410











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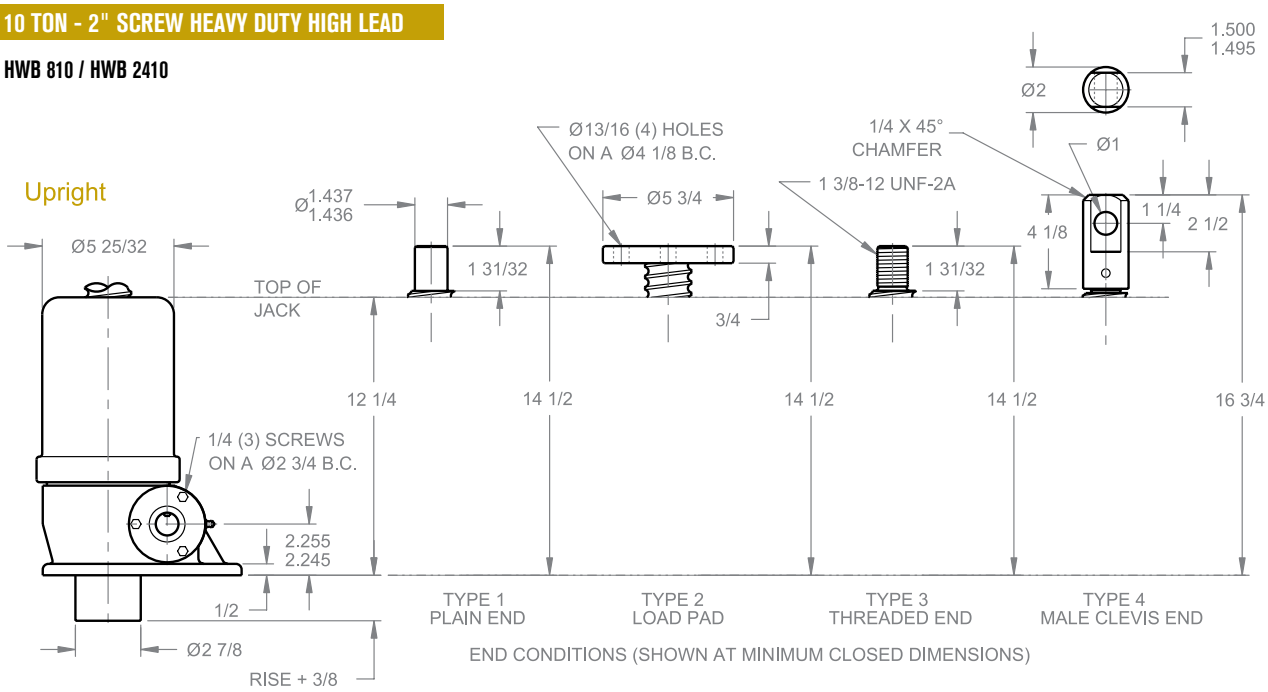
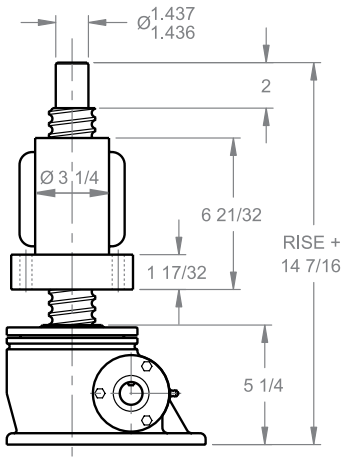
BALL SCREW JACKS

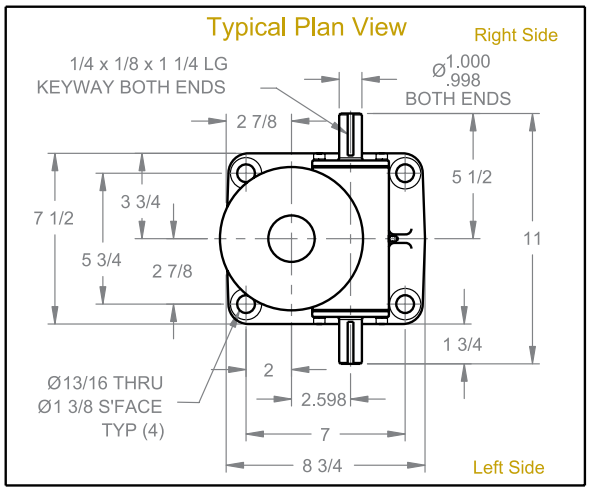
10 TON - 2" SCREW HEAVY DUTY HIGH LEAD

HWB 810 / HWB 2410

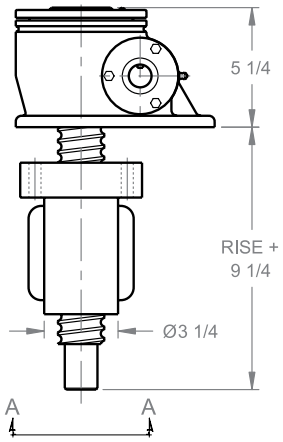


Upright traveling nut

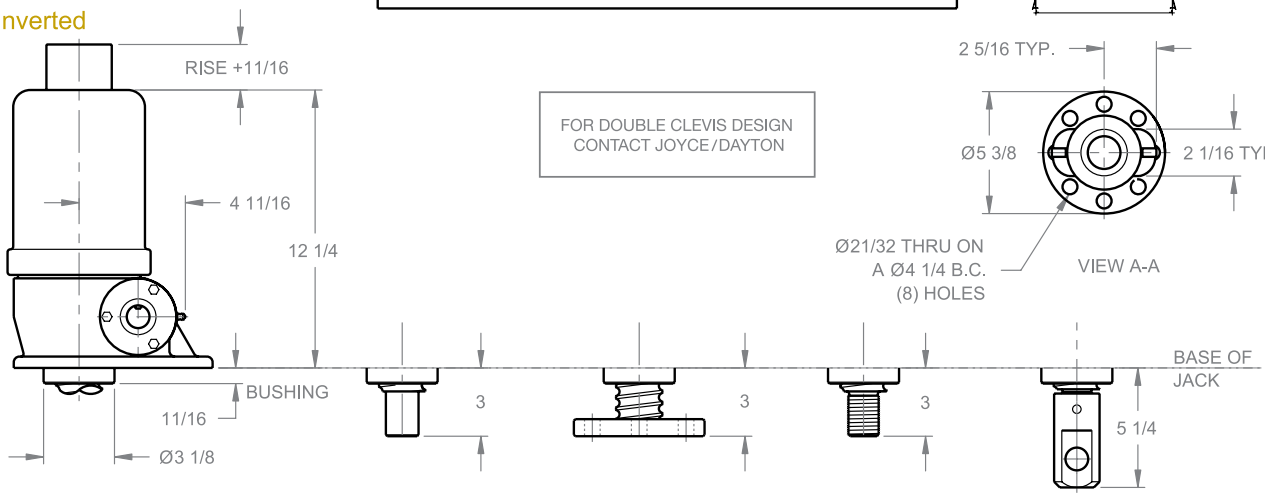




Inverted traveling nut



Inverted



FOR DOUBLE CLEVIS DESIGN
CONTACT JOYCE/DAYTON

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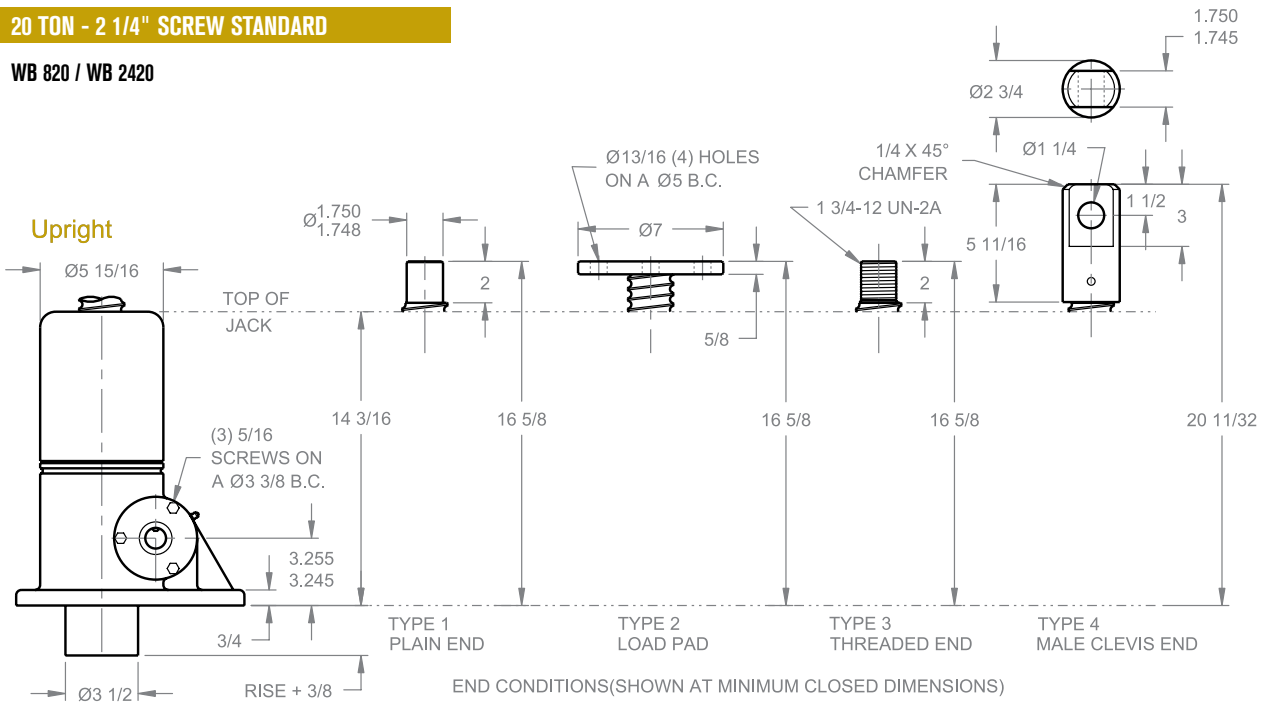
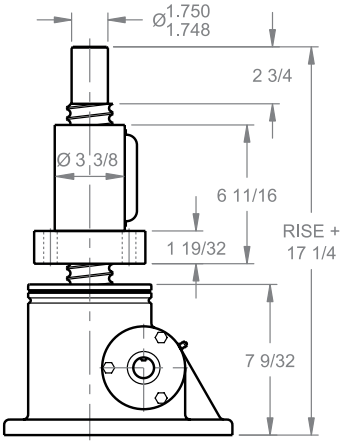
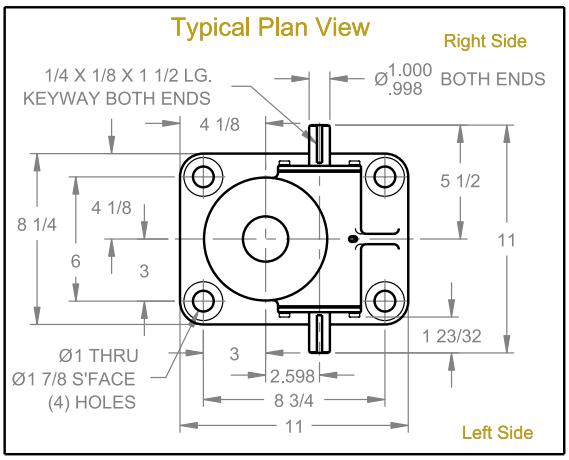
BALL SCREW JACKS

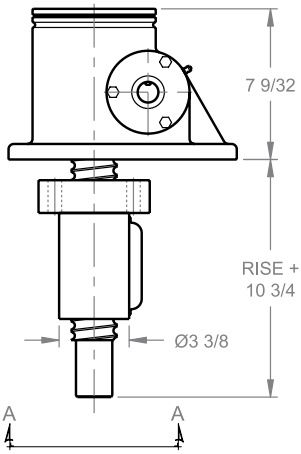
20 TON - 2 1/4" SCREW STANDARD

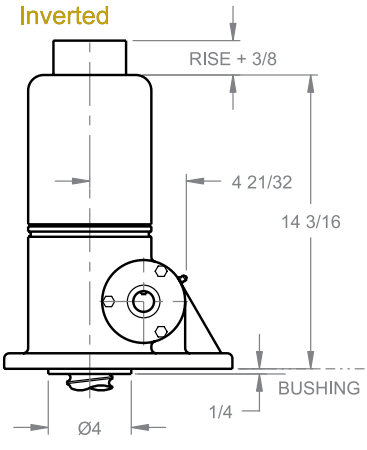
WB 820 / WB 2420



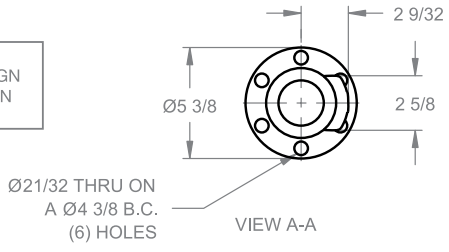


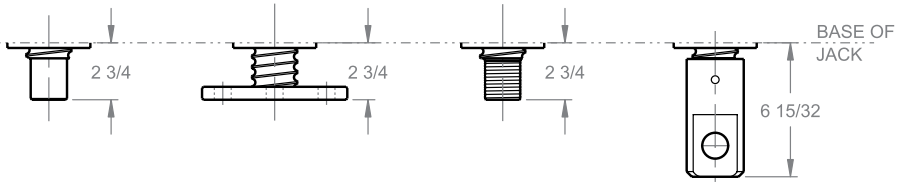






FOR DOUBLE CLEVIS DESIGN CONTACT JOYCE/DAYTON





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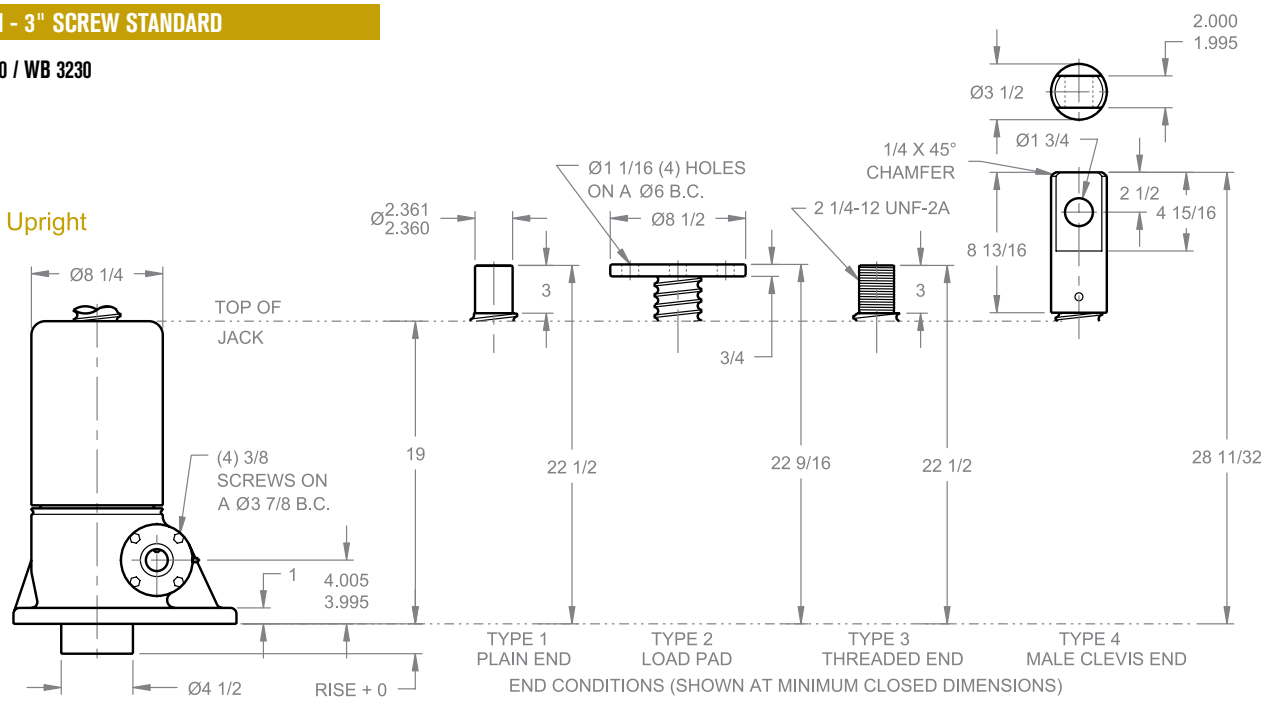
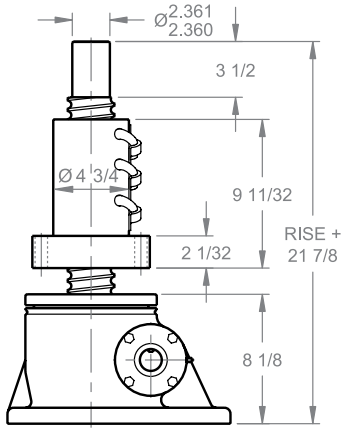
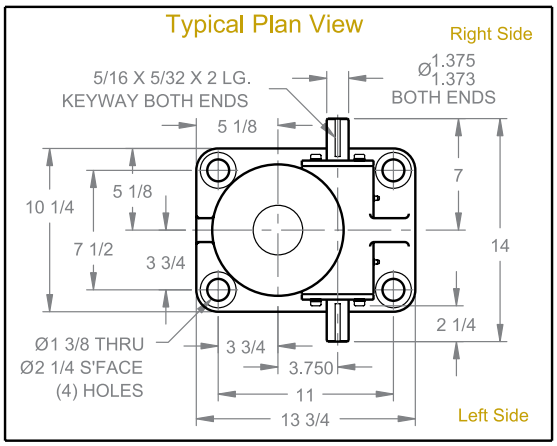
BALL SCREW JACKS

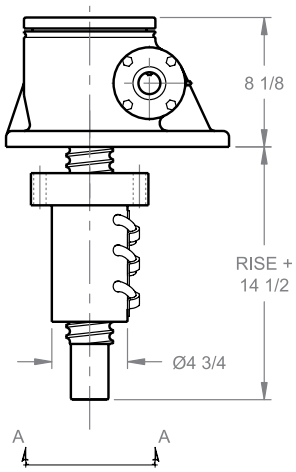
30 TON - 3" SCREW STANDARD

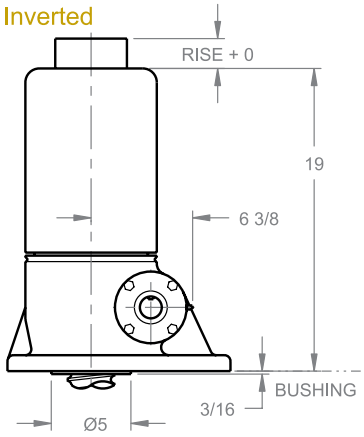
WB 1130 / WB 3230



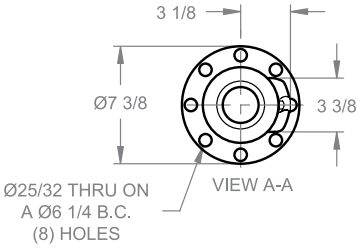


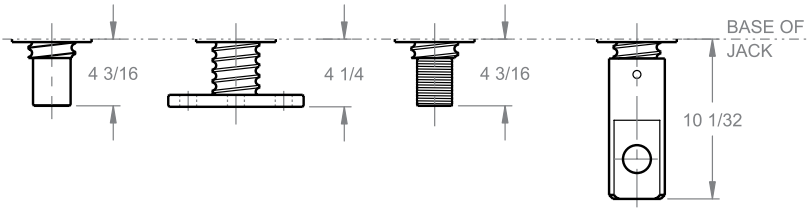






FOR DOUBLE CLEVIS DESIGN CONTACT JOYCE/DAYTON





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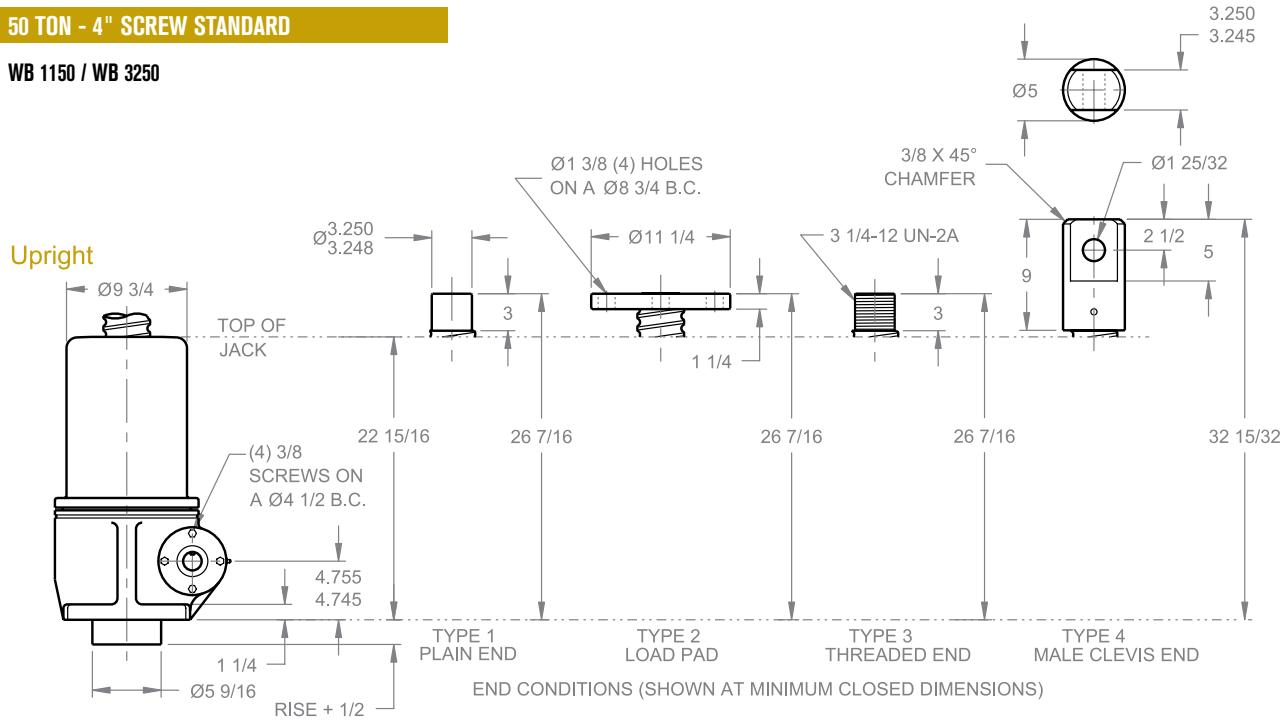
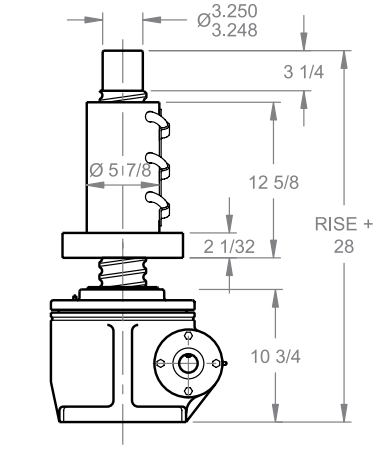
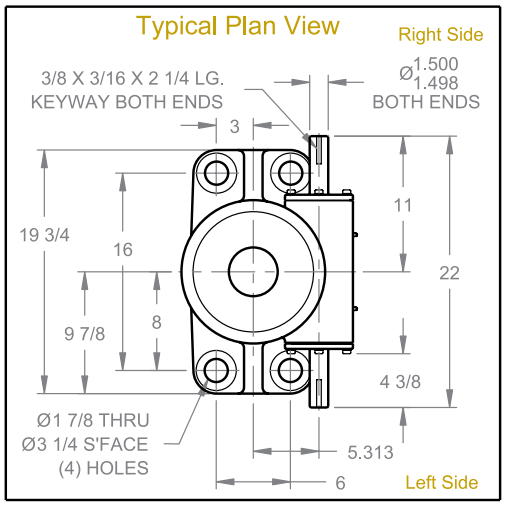
BALL SCREW JACKS

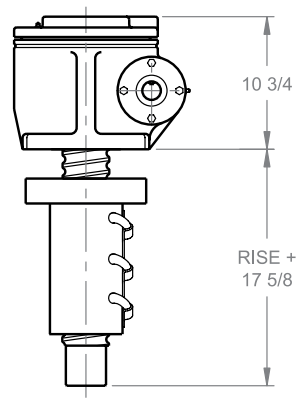
50 TON - 4" SCREW STANDARD

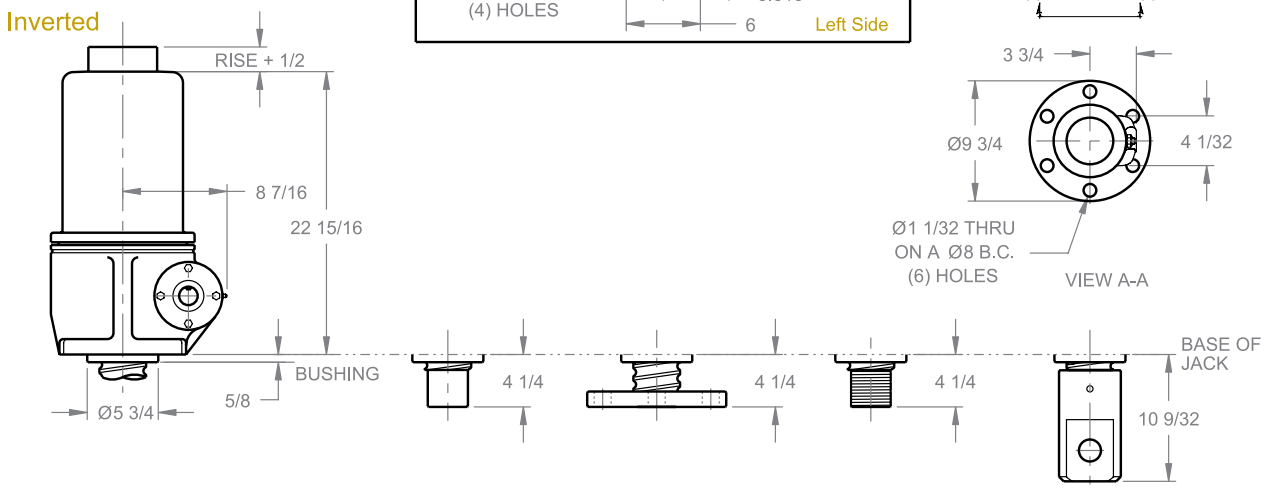
WB 1150 / WB 3250









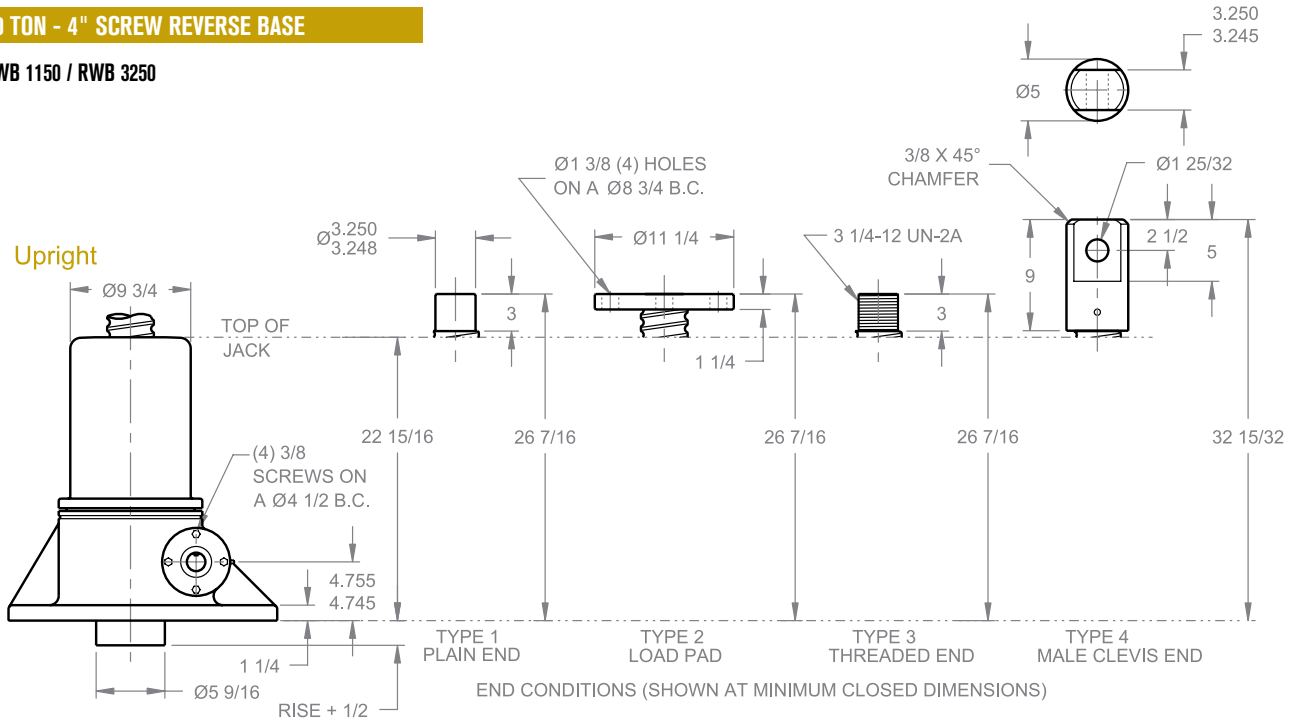


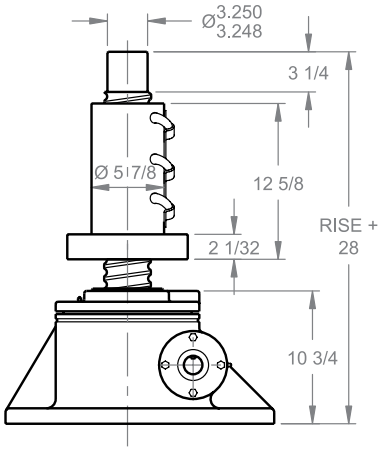
Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

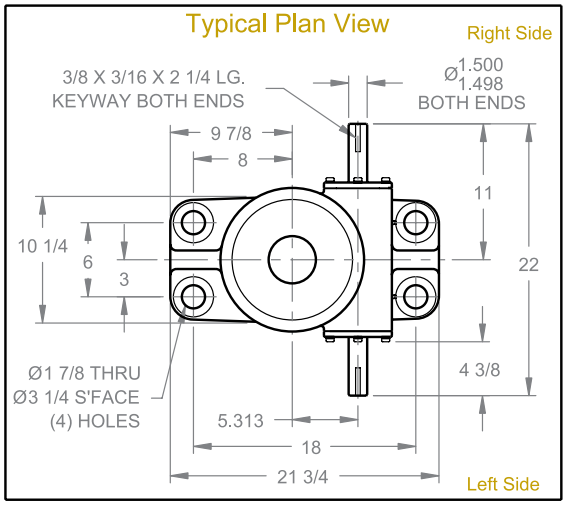
BALL SCREW JACKS

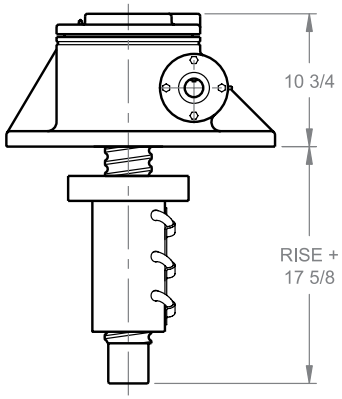
50 TON - 4" SCREW REVERSE BASE

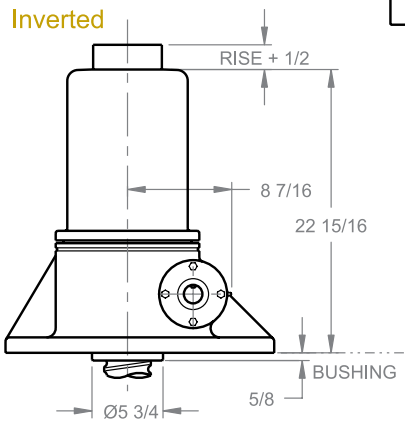
RWB 1150 / RWB 3250

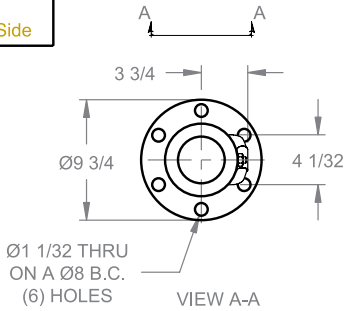


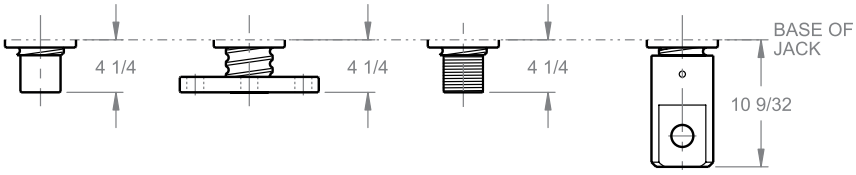












Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

Joyce ball screw ComDRIVEs® combine a ball screw jack, motor and gear reducer into a single compact unit. Ball screw ComDRIVEs are available in 2-ton through 30-ton capacities. They provide travel speeds up to 55.5 inches per minute. Ball screw ComDRIVEs require up to two-thirds less input torque to move the load than a similarly sized machine screw ComDRIVE. They require a brake motor or external locking device to hold position.

Four standard end conditions are available and ball screw ComDRIVEs can be fitted with protective boots. Limit switches, oversized ball bearings and other options are also available.

Ball Screw ComDRIVE Benefits:

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

Ball screw ComDRIVEs can be specified without the motor and the reducer flange accepts standard NEMA motor frame sizes.

Joyce/Dayton can customize ball screw ComDRIVEs to meet your specifications. Ask about larger size ComDRIVEs.

Joyce/Dayton offers Ball Screw ComDRIVEs in several designs including:

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

A guide for ordering is on pages 104 and 105.

BALL SCREW ComDRIVEs®

BALL SCREW ComDRIVEs® ORDERING INFORMATION

Instructions: Select a model number from this chart.

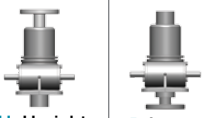
2-Ton Standard	5-Ton Standard	10-Ton Standard	10-Ton Heavy Duty	20-Ton Standard	30-Ton Standard
CDB62 CDB122 CDB242	CDB65 CDB125 CDB245	CDBL810 CDBL2410	CDB810 CDB2410	CDB820 CDB2420	CDB1130 CDB3230
2-Ton High Lead	**5-Ton High Lead**	**10-Ton Standard High Lead**	**10-Ton Heavy Duty High Lead**		
CDHB62 CDHB122 CDHB242	CDHB65 CDHB125 CDHB245	CDHBL810 CDHBL2410	CDHB810 CDHB2410		

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

H: High lead (2-ton, 5-ton and 10-ton only).

Sample Part Number: CDHB65U1N-18.50-STDX-P3AE-M2

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

For optional shaft codes, see page 105.

Right Side Shaft Code
(see below)

XXXX=Remove
STDX=Standard

For optional shaft codes, see page 105.

Additional Options

X=Standard Jack, no additional options

S=Additional Specification Required (comment as necessary)

Protective Boots pp. 170-172
B=Protective Boot
D=Dual Protective Boot

Finishes p. 179
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

Grease/Seals
H1=High Temperature Operation
H2=Food Grade

Screw Stops
ST0=Extending Stop is standard on ball screw ComDRIVE

• Specify as many options as needed

Ball Screw ComDRIVE® Rise

Rise is travel expressed in inches and not the actual screw length.

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 173)

**Keyed for non-rotation is not a standard option. Contact Joyce/Dayton.

BALL 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. 170-172)

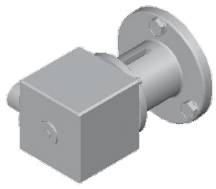
Extending screw stops are standard on ball screw ComDRIVEs and they are not adjustable.
When boots are added to ball screw ComDRIVEs, the closed height of the jack may be increased.

Geared Potentiometers (p. 176)

POTA=0-10V (IP65)
POTB=4-20MA (IP65)
POTC=0-10V w/2 switches*
POTD=4-20MA w/2 switches*
*Optional IP65 rating available.

Encoders and Electronic Limit Switches

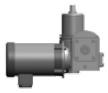
ENCX=Encoder (p. 178)
ELS2=2 Position Electronic Switch
ELS4=4 Position Electronic Switch
ELS6=6 Position Electronic Switch



ComDrive Reducers (pp. 107-117)

Ordering Example: P2AC — Motor code from chart at right

Mounting Positions

Code	P1	P2	P3	P4
Left Side Shaft Positions				
Right Side Shaft Positions				

Ratio

5:1 Code A
7.5:1 Code B
10:1 Code C

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

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/Dayton for other options.

Mechanical Limit Switches (pp. 174-175)

Ordering Example: LA13

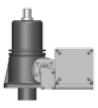
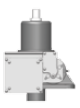
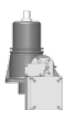
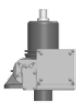
Models

Model	Code
LS7-402	LI
LS8-402	LA
LS8-404	LB
LS9-502	LC
LS9-503	LD
LS9-504	LE
LS9-505	LF
LS9-506	LG
LS9-507	LH

Number of DPDT Switches (see p. 175)

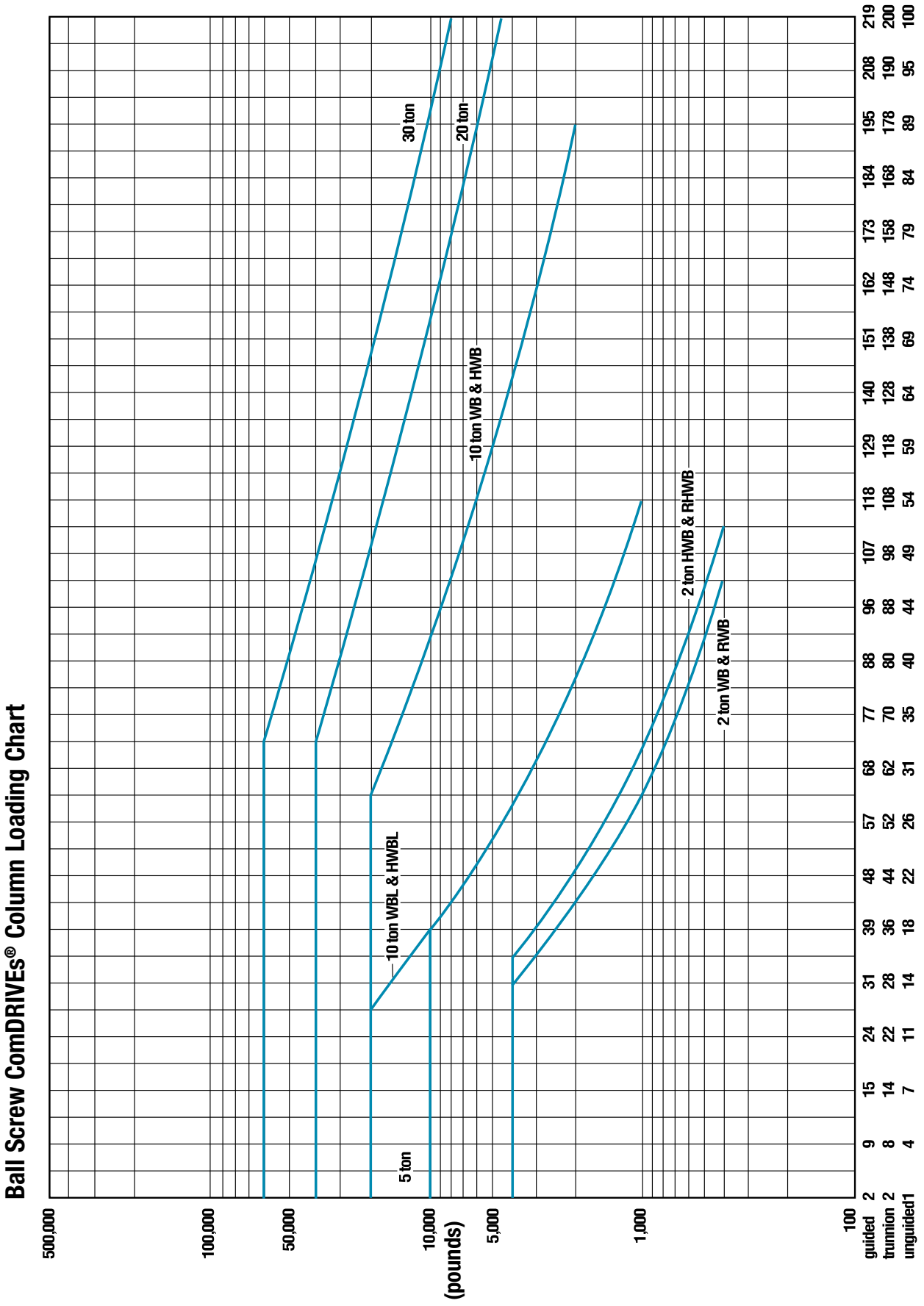
NOTE: Will always be 0 for LS7 models

Available Positions

	1	2*	3	4	5	6*	7	8
Left Side Shaft Options								
Right Side Shaft Options								

- 2, 5, 10, and 20 -ton ball screw ComDRIVEs are available with positions #1, #3, and #5.
- 30-ton ball screw ComDRIVEs are available with positions #1, #4, #7 and #8.

* These positions are not standard. Contact Joyce/Dayton with your requirements.



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.

BALL SCREW ComDRIVEs® SPECIFICATIONS

2-Ton Model Number		CDB62			CDB122		CDB242			CDHB62			CDHB122	CDHB242		
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	55.50	38.00	28.16	19.00	13.88	9.50	7.04
Lifting Capacity, Lbs.	1/3 HP	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	1,025	1,455	1,925	2,595	3,015	4,000	4,000
	1/2 HP									1,580	2,220	2,925	3,955	4,000		
	3/4 HP									2,400	3,375		4,000			

5-Ton Model Number		CDB65		CDB125	CDB245	CDHB65		CDHB125	CDHB245
Reducer Ratio		5	10	10	10	5	10	10	10
Travel Speed IPM		26.29	13.34	6.67	3.34	55.50	28.16	14.08	7.04
Lifting Capacity, Lbs.	1 HP	6,770	10,000	10,000	10,000	3,200	5,950	10,000	10,000
	1 1/2 HP	10,000				4,900			
	2 HP					6,600			

10-Ton Model Number		CDBL810		CDBL2410		CDHBL810		CDHBL2410	
Reducer Ratio		5	10	5	10	5	10	5	10
Travel Speed IPM		19.72	10.00	6.57	3.34	41.63	21.13	13.88	7.04
Lifting Capacity, Lbs.	1 HP	8,555	16,425	20,000	20,000	4,050	7,780	9,910	18,445
	1 1/2 HP	13,390				6,340		15,500	
	2 HP	18,210				8,625		20,000	
	3 HP	20,000	20,000			13,370	20,000		
	5 HP					20,000			

10-Ton Model Number		CDB810		CDB2410		CDHB810		CDHB2410	
Reducer Ratio		5	10	5	10	5	10	5	10
Travel Speed IPM		20.81	10.56	6.94	3.52	41.63	21.13	13.88	7.04
Lifting Capacity, Lbs.	1 HP	8,100	15,560	19,820	20,000	4,050	7,780	9,910	18,445
	1 1/2 HP	12,685		20,000		6,340		15,500	
	2 HP	17,255				8,625		20,000	
	3 HP	20,000	20,000			13,370	20,000		
	5 HP					20,000			

20-Ton Model Number		CDB820		CDB2420	
Reducer Ratio		5	10	5	10
Travel Speed IPM		20.81	10.56	6.94	3.52
Lifting Capacity, Lbs.	1 HP	6,965	14,285	16,720	33,120
	1 1/2 HP	11,480		27,550	
	2 HP	15,980		38,360	
	3 HP	25,330	40,000	40,000	40,000
	5 HP	40,000			

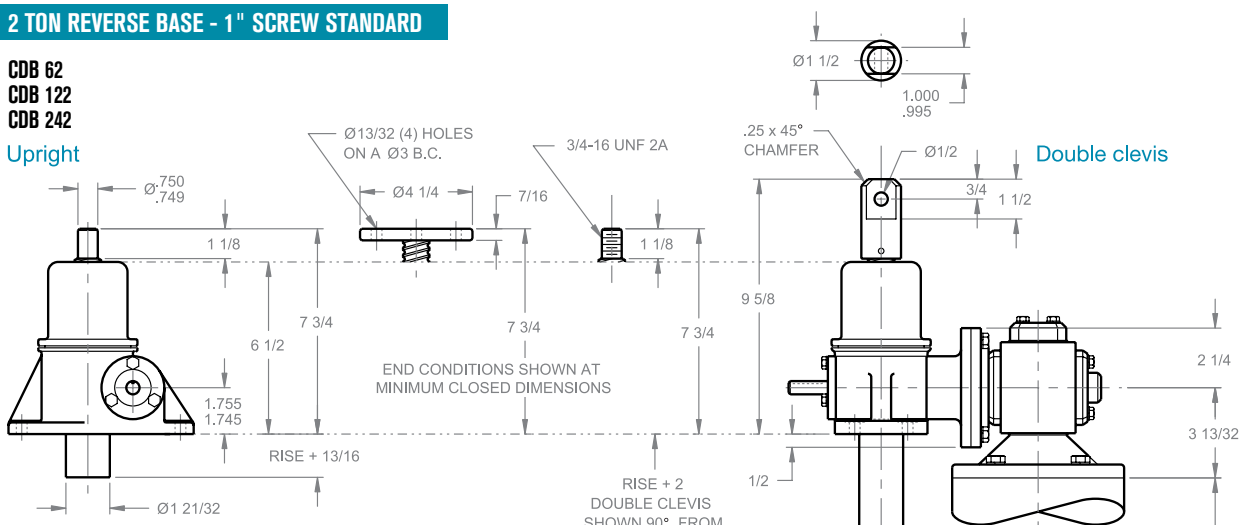
30-Ton Model Number		CDB1130		CDB3230	
Reducer Ratio		5	10	5	10
Travel Speed IPM		20.60	10.46	6.87	3.49
Lifting Capacity, Lbs.	3 HP	24,295	46,080	54,745	60,000
	5 HP	42,165	60,000	60,000	
	7 1/2 HP	60,000			

Important Note: Ball Screw ComDRIVEs are not self-locking. Brake motors or external locking systems are required.

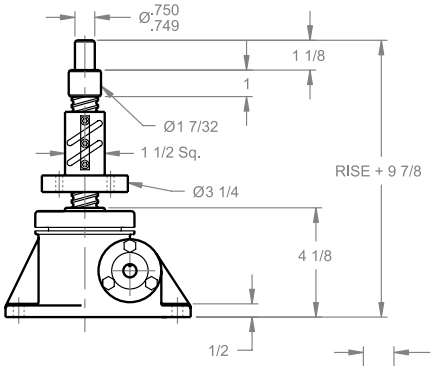
2 TON REVERSE BASE - 1" SCREW STANDARD

CDB 62
CDB 122
CDB 242

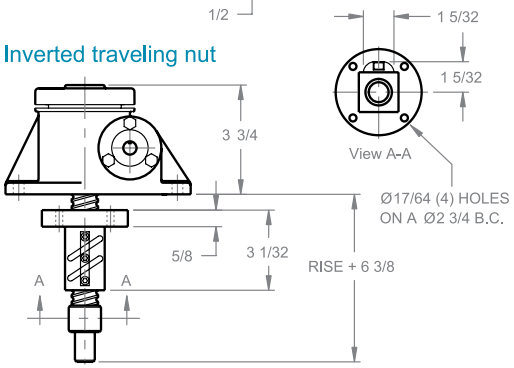
Upright



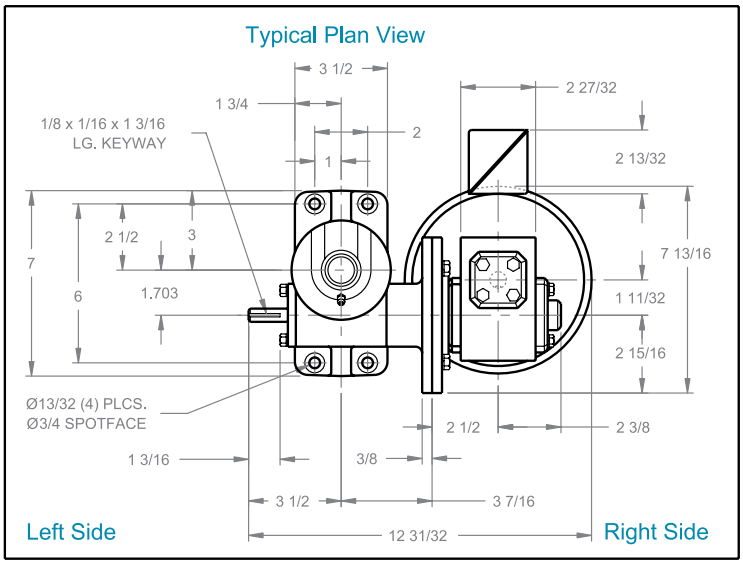
Upright traveling nut



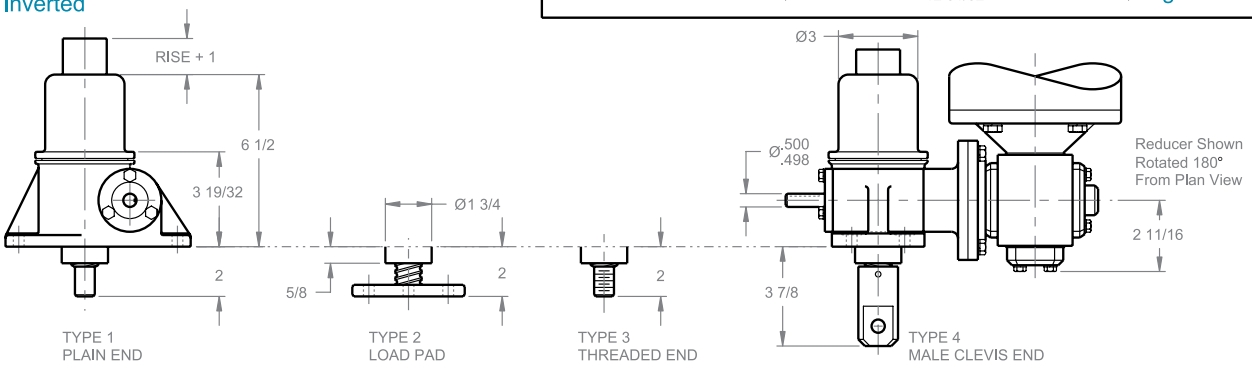
Inverted traveling nut



Typical Plan View



Inverted

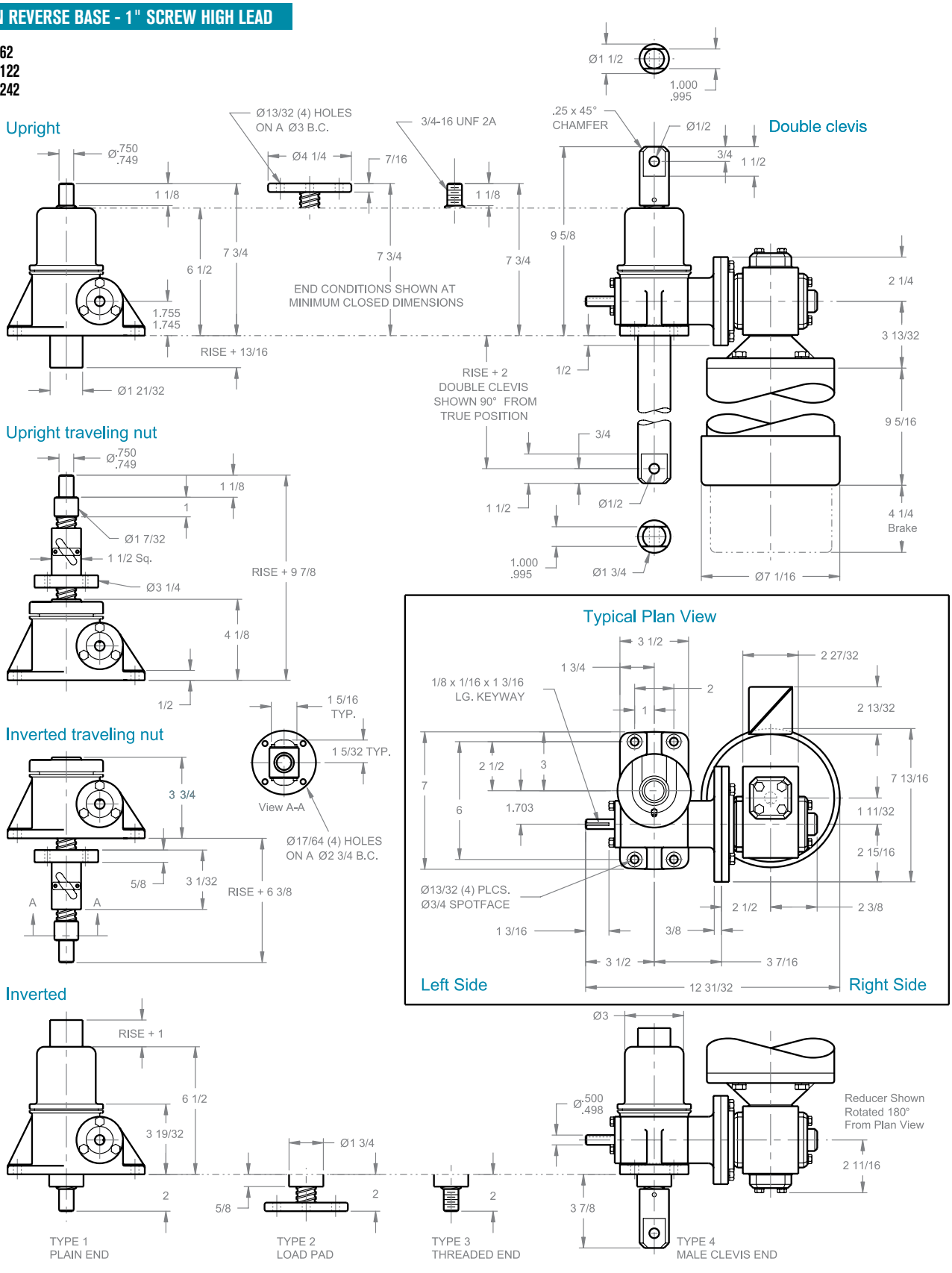


NOTE: FOR LIFTING CAPACITIES SEE PAGE 107.

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

2 TON REVERSE BASE - 1" SCREW HIGH LEAD

CDHB 62
CDHB 122
CDHB 242



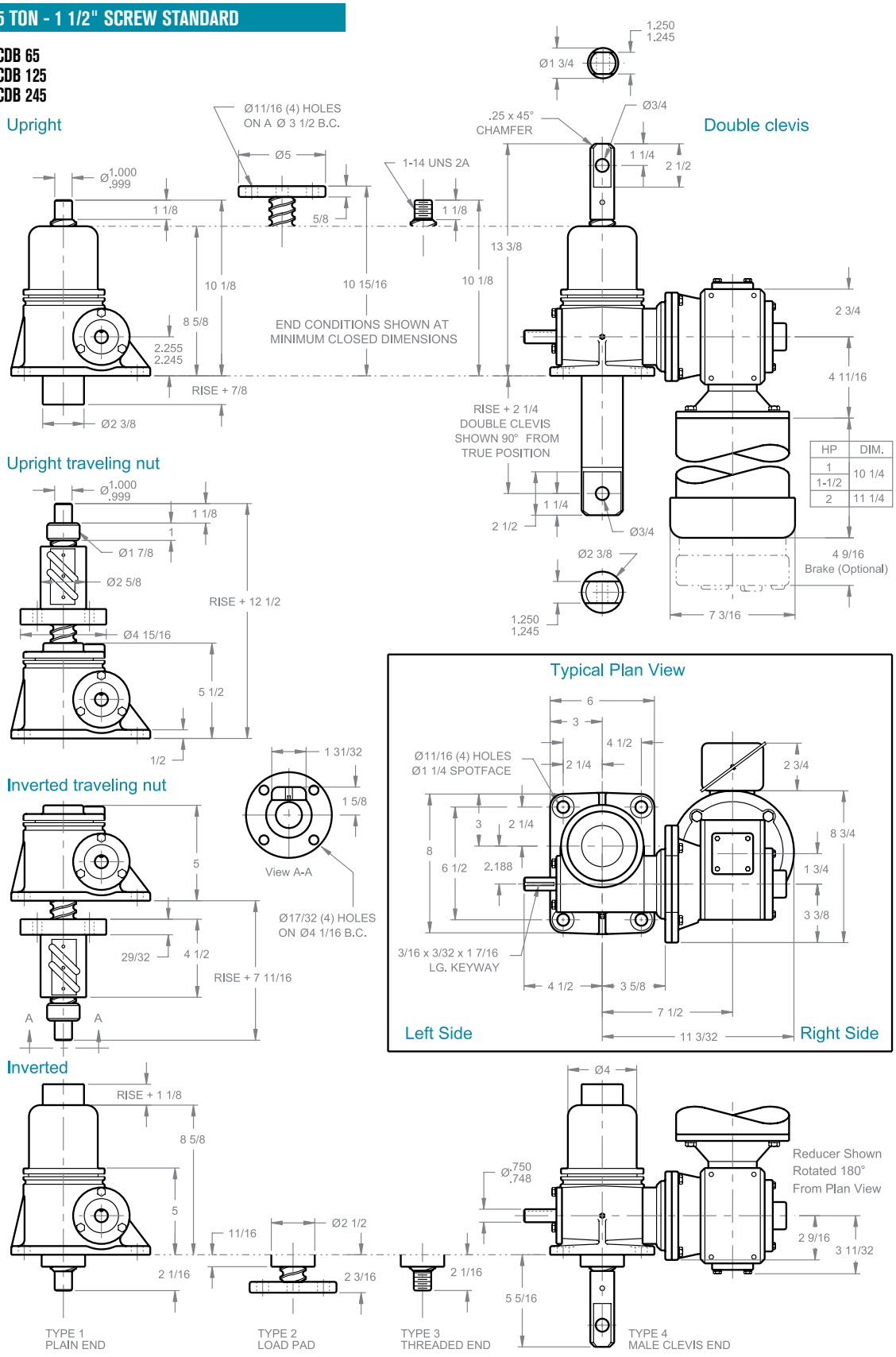
NOTE: FOR LIFTING CAPACITIES SEE PAGE 107.

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

BALL SCREW ComDRIVEs®

5 TON - 1 1/2" SCREW STANDARD

CDB 65
CDB 125
CDB 245

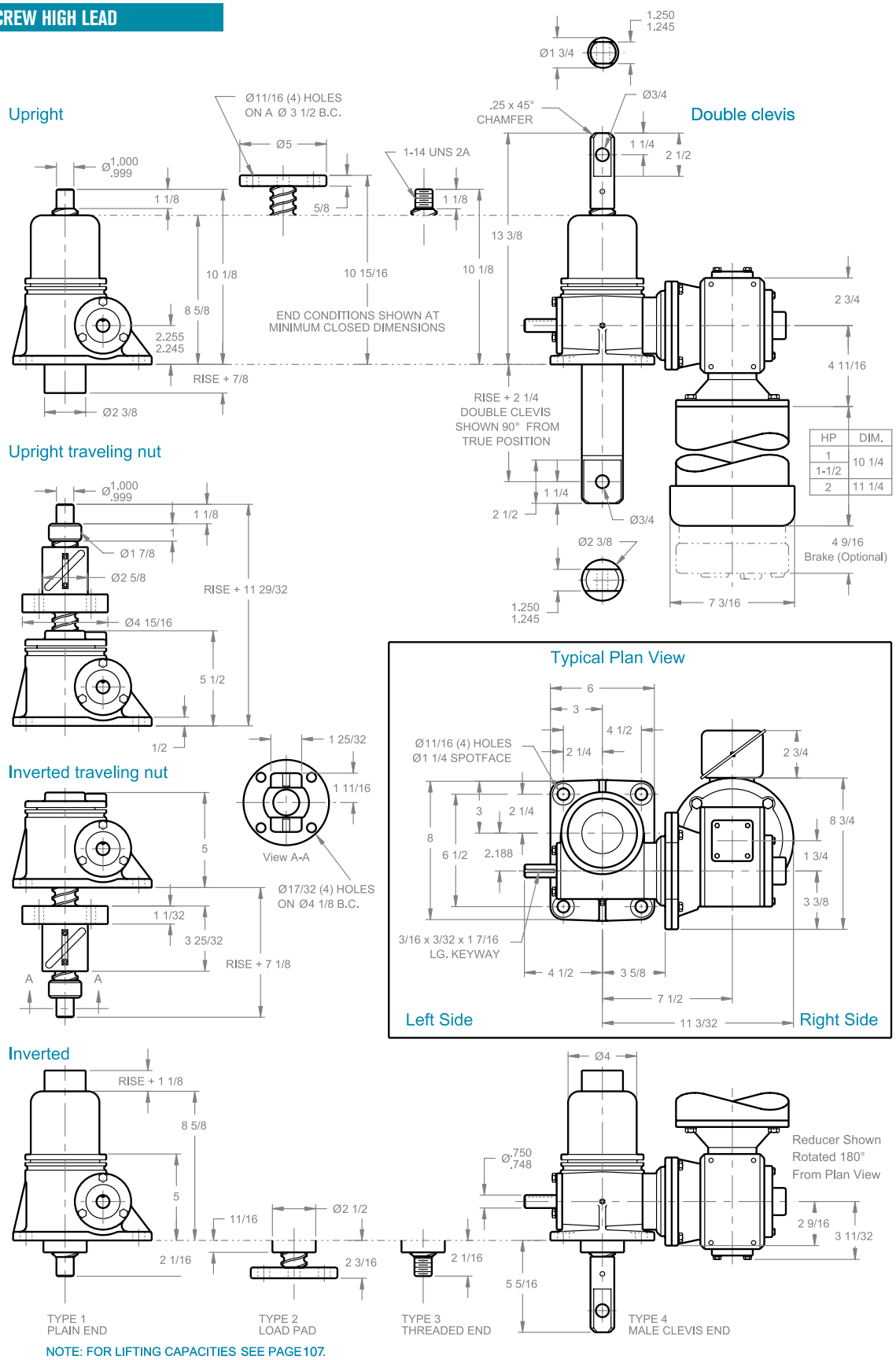


NOTE: FOR LIFTING CAPACITIES SEE PAGE 107.

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

5 TON - 1 1/2" SCREW HIGH LEAD

CDHB 65
CDHB 125
CDHB 245



NOTE: FOR LIFTING CAPACITIES SEE PAGE 107.

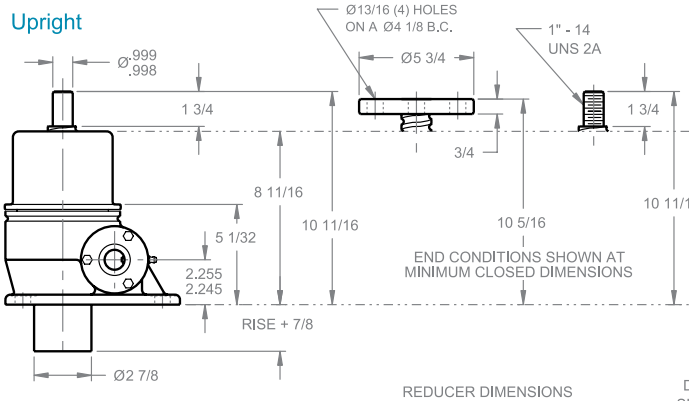
Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

BALL SCREW ComDRIVEs®

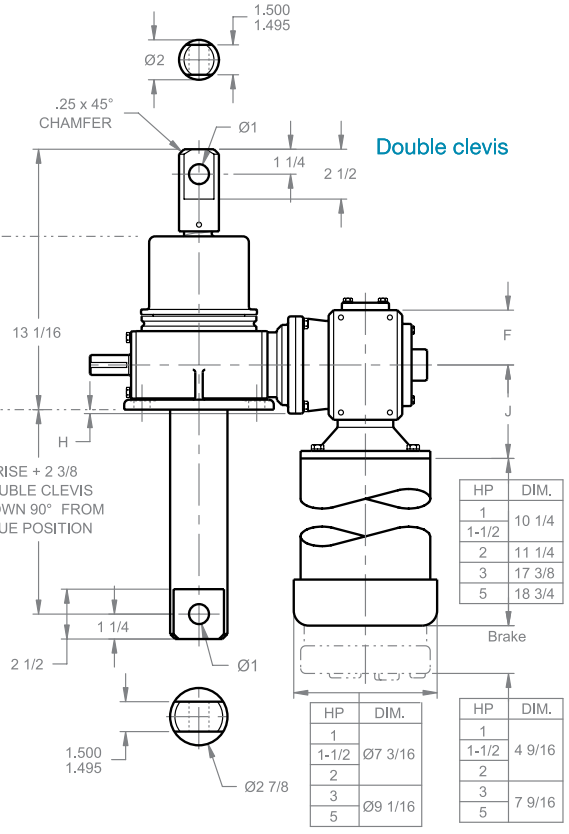
10 TON - 1 1/2" SCREW STANDARD

CDBL 810
CDBL 2410

Upright



Double clevis

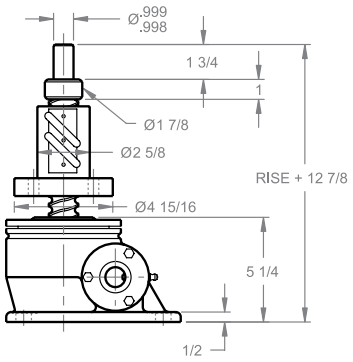


HP	DIM.
1	10 1/4
1-1/2	
2	11 1/4
3	17 3/8
5	18 3/4

HP	DIM.
1	Ø7 3/16
1-1/2	
2	
3	Ø9 1/16
5	

HP	DIM.
1	4 9/16
1-1/2	
2	
3	7 9/16
5	

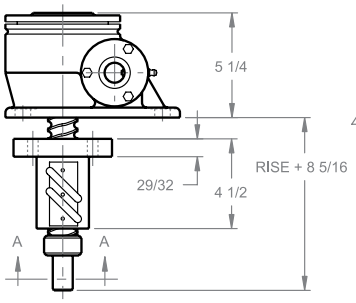
Upright traveling nut

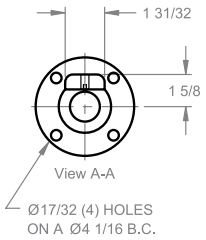


REDUCER DIMENSIONS

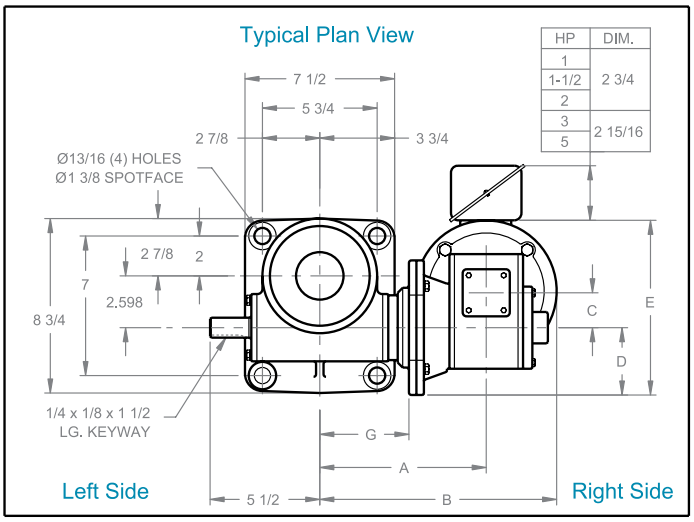
HP	1, 1 1/2, 2	3, 5
A	8 11/32	8 29/32
B	11 21/32	13 17/32
C	1 3/4	2 5/8
D	3 3/8	4 7/16
E	8 7/16	11 11/16
F	2 3/4	3 7/8
G	4 15/32	4 15/32
H	0	1 1/8
J	4 11/16	5 3/4
K	3 11/32	4 5/16

Inverted traveling nut



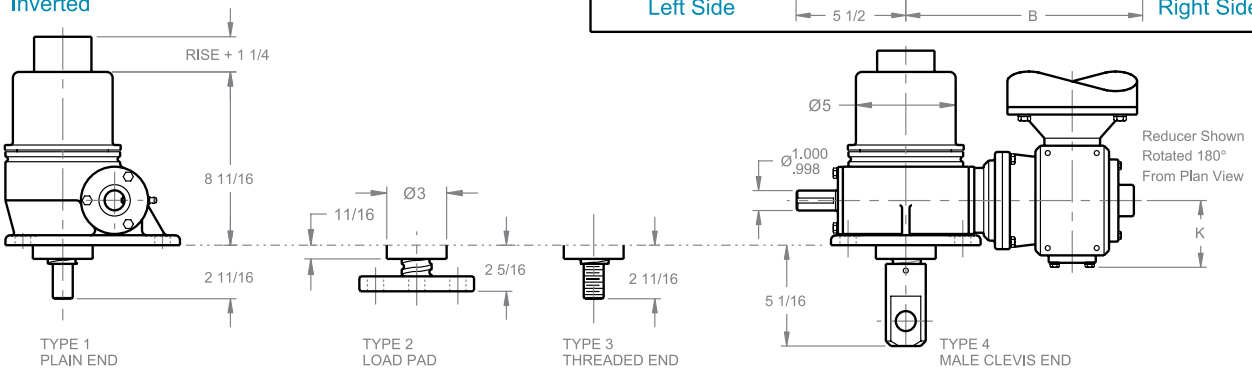


Typical Plan View



HP	DIM.
1	2 3/4
1-1/2	
2	
3	2 15/16
5	

Inverted

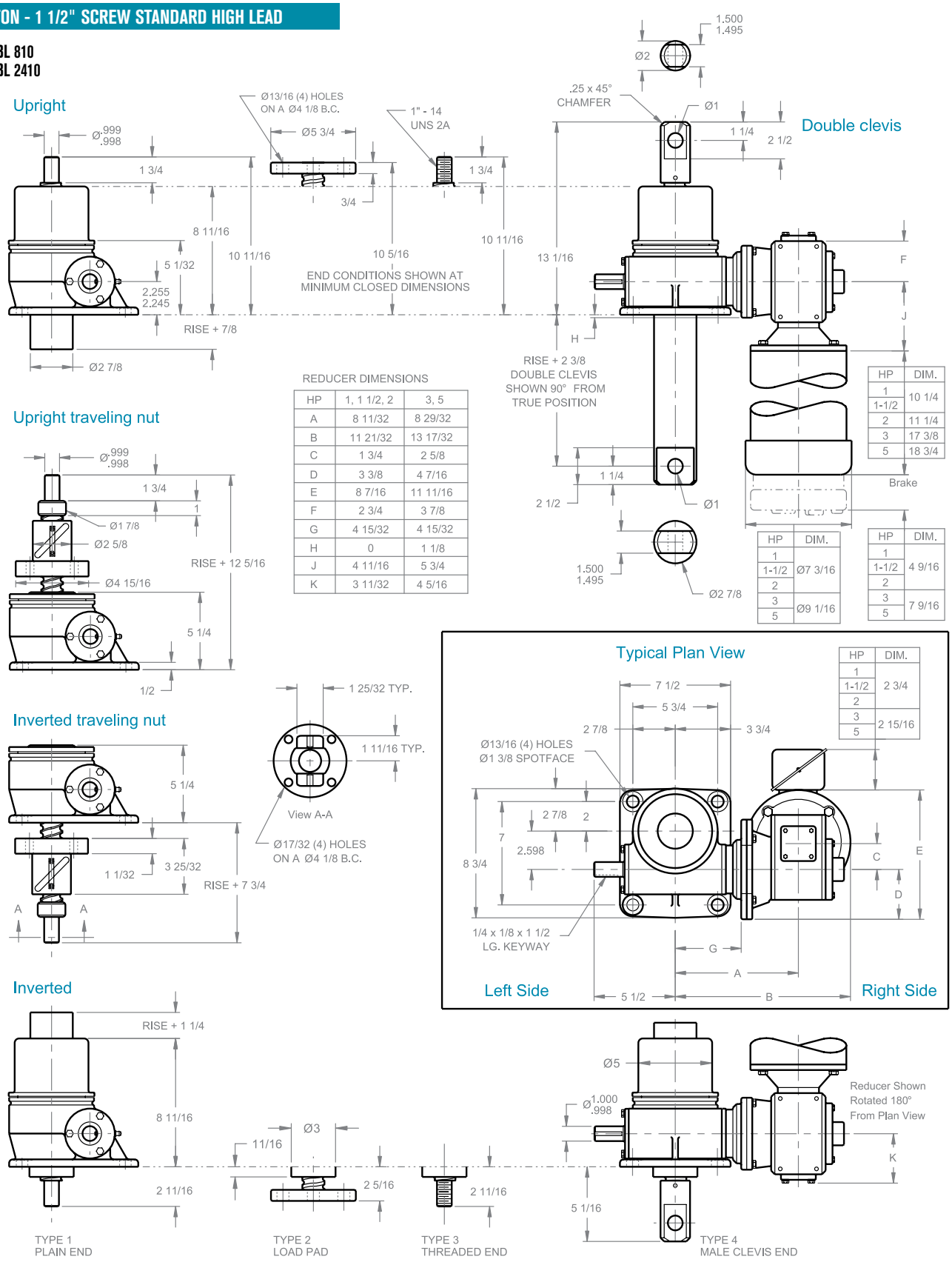


NOTE: FOR LIFTING CAPACITIES SEE PAGE107.

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

10 TON - 1 1/2" SCREW STANDARD HIGH LEAD

CDHBL 810
CDHBL 2410



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

HP	DIM.
1	10 1/4
1-1/2	
2	11 1/4
3	17 3/8
5	18 3/4

HP	DIM.
1	Ø7 3/16
1-1/2	
2	
3	Ø9 1/16
5	

HP	DIM.
1	4 9/16
1-1/2	
2	
3	7 9/16
5	

HP	DIM.
1	2 3/4
1-1/2	
2	
3	2 15/16
5	

NOTE: FOR LIFTING CAPACITIES SEE PAGE 107.

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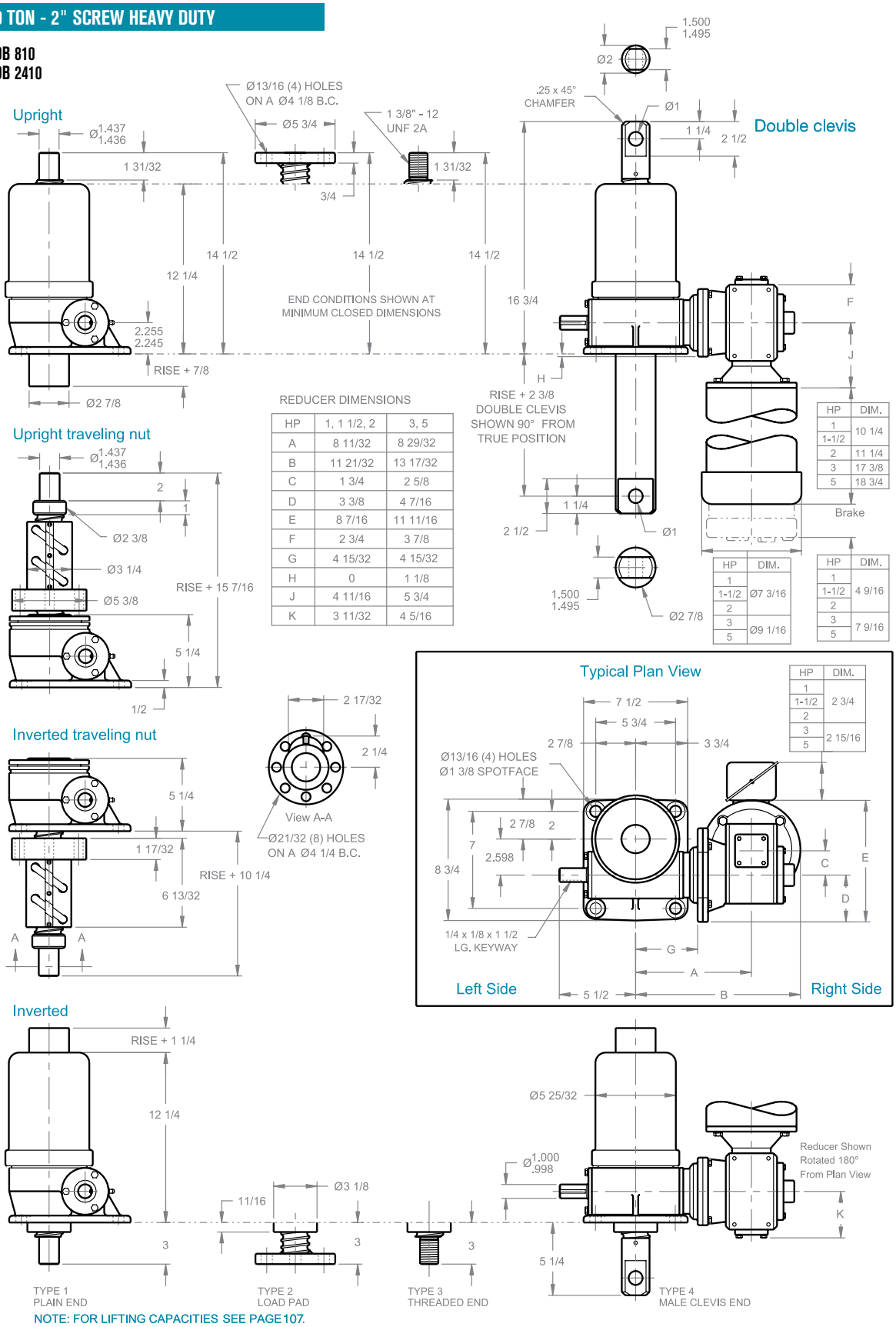
BALL SCREW ComDRIVEs®

10 TON - 2" SCREW HEAVY DUTY

CDB 810
CDB 2410



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

HP	DIM.
1	10 1/4
1-1/2	
2	11 1/4
3	17 3/8
5	18 3/4

HP	DIM.
1	
1-1/2	Ø7 3/16
2	
3	Ø9 1/16
5	

HP	DIM.
1	
1-1/2	4 9/16
2	
3	7 9/16
5	

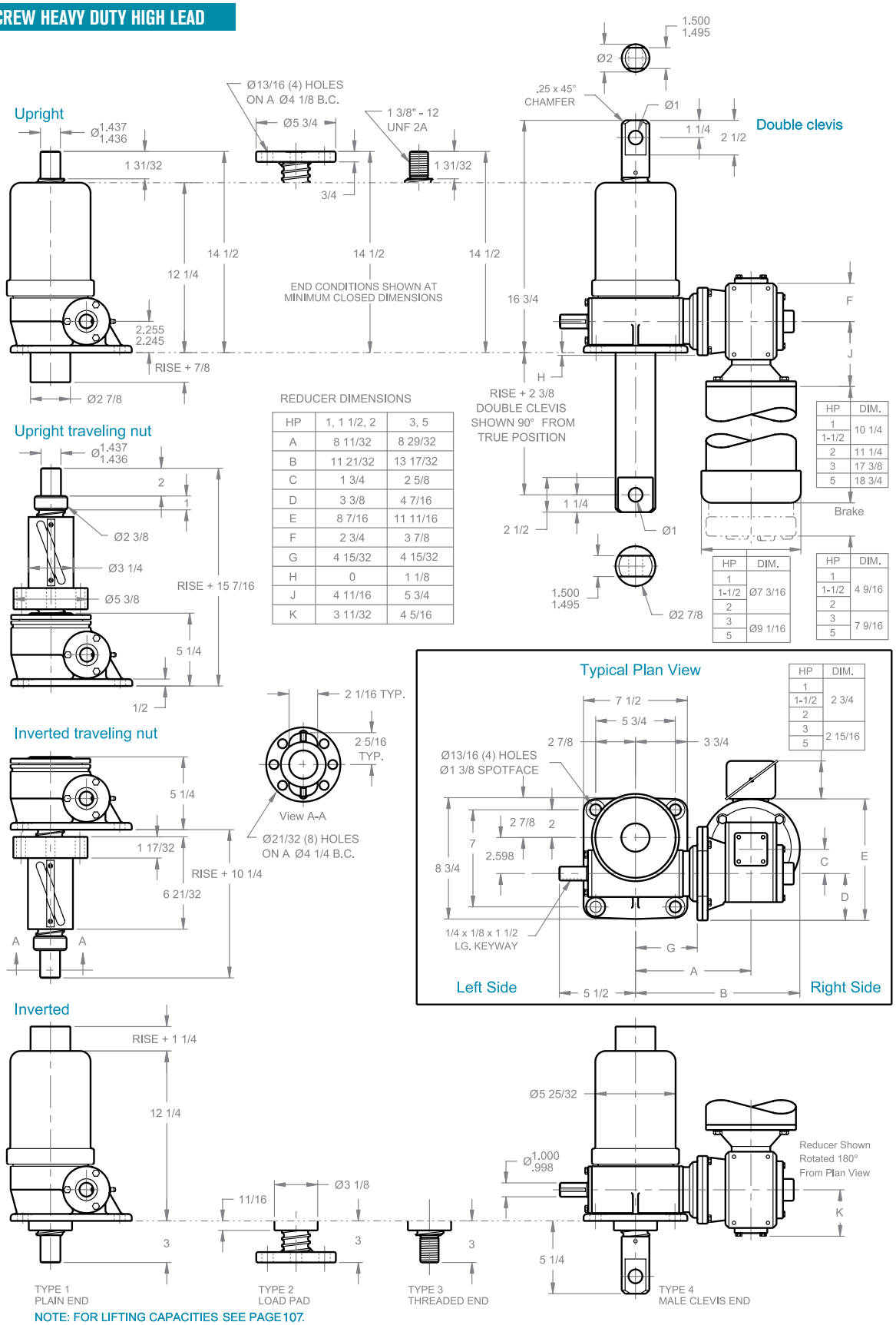
HP	DIM.
1	
1-1/2	2 3/4
2	
3	2 15/16
5	

NOTE: FOR LIFTING CAPACITIES SEE PAGE 107.

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

10 TON - 2" SCREW HEAVY DUTY HIGH LEAD

CDHB 810
CDHB 2410



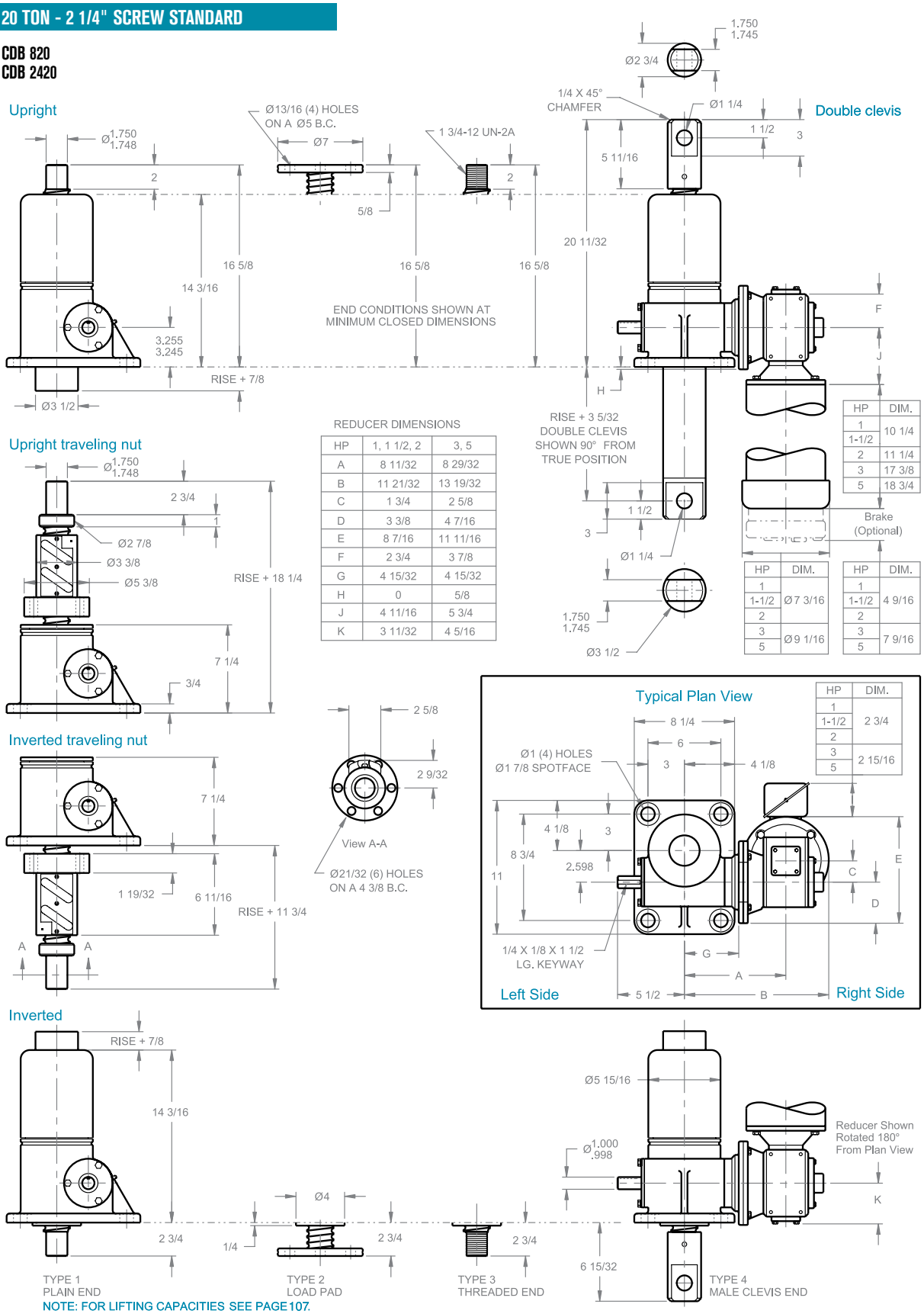
NOTE: FOR LIFTING CAPACITIES SEE PAGE 107.

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

BALL SCREW ComDRIVEs®

20 TON - 2 1/4" SCREW STANDARD

CDB 820
CDB 2420



REDUCER DIMENSIONS

HP	1, 1 1/2, 2	3, 5
A	8 11/32	8 29/32
B	11 21/32	13 19/32
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	5/8
J	4 11/16	5 3/4
K	3 11/32	4 5/16

HP	DIM.
1	10 1/4
1-1/2	
2	11 1/4
3	17 3/8
5	18 3/4

HP	DIM.
1	
1-1/2	Ø7 3/16
2	
3	Ø9 1/16
5	

HP	DIM.
1	
1-1/2	4 9/16
2	
3	7 9/16
5	

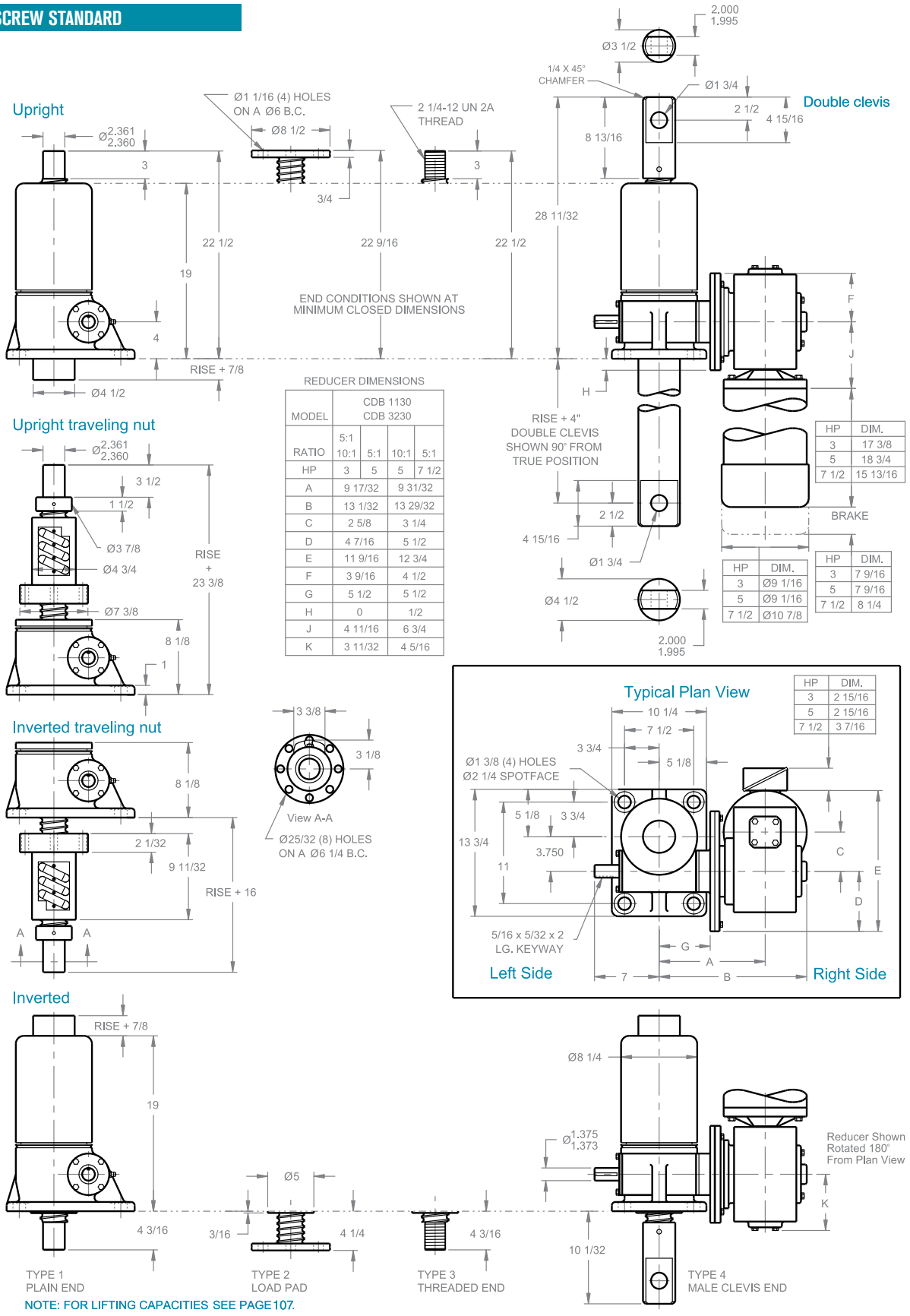
HP	DIM.
1	
1-1/2	2 3/4
2	
3	2 15/16
5	

NOTE: FOR LIFTING CAPACITIES SEE PAGE 107.

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

30 TON - 3" SCREW STANDARD

CDB 1130
CDB 3230



REDUCER DIMENSIONS

MODEL	CDB 1130 CDB 3230			
RATIO	5:1 10:1	5:1	10:1	5:1
HP	3	5	5	7 1/2
A	9 17/32		9 31/32	
B	13 1/32		13 29/32	
C	2 5/8		3 1/4	
D	4 7/16		5 1/2	
E	11 9/16		12 3/4	
F	3 9/16		4 1/2	
G	5 1/2		5 1/2	
H	0		1/2	
J	4 11/16		6 3/4	
K	3 11/32		4 5/16	

HP	DIM.
3	17 3/8
5	18 3/4
7 1/2	15 13/16

HP	DIM.
3	Ø9 1/16
5	Ø9 1/16
7 1/2	Ø10 7/8

HP	DIM.
3	7 9/16
5	7 9/16
7 1/2	8 1/4

HP	DIM.
3	2 15/16
5	2 15/16
7 1/2	3 7/16

NOTE: FOR LIFTING CAPACITIES SEE PAGE 107.

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