▼ Shown from left to right: **CLSG-1506, CLSG-2006, CLSG-506**

The Single-Acting Heavy Lifting Solution with Integral Stop Ring

- **Integral stop ring provides piston blow-out protection**
- **Baked enamel outside finish and plated pistons provide superior corrosion protection**
- **Base mounting holes standard on all models**
- **Plunger wiper reduces contamination, extending cylinder life**
- **Single-acting load return**

▼ *Eight CLSG-2506 cylinders equipped with tilting saddles lifted the planking of the bridge as the pier heads were being rebuilt.*

Saddles

All CLSG-Series cylinders are equipped with bolt-on removable grooved saddles. For information on optional tilt saddles, see selection chart.

Page: 39

Gauges

Minimize the risk of overloading and ensure long, dependable service from your equipment. Refer to the System Components section for a fullrange of gauges.

Page: 122

Optimum Performance

Enerpac's range of *Z-Class* electric pumps, fitted with manual or solenoid operated 3-way valves, offer optimum combinations with CLSG cylinders.

Page: 78

Low Height - High Tonnage

When low height with high force is required, pancake cylinders with lock nut offer the solution to lift the first few inches.

Page: 20

CLSG Series

Capacity:
50-1,000 tons

Stroke:
1.97-11.81 inches

Maximum Operating Pressure:
10,000 psi

▼ QUICK SELECTION CHART

For complete technical information see next page.

Cylinder Capacity (tons) [maximum]	Stroke (in)	Model Number	Cylinder Effective Area (in^2)	Oil Capacity (in^3)	Collapsed Height (in)	Weight (lbs)
50 [59.1]	1.97	CLSG-502	11.81	23.25	6.38	37
	3.94	CLSG-504	11.81	46.50	8.35	44
	5.91	CLSG-506	11.81	69.75	10.31	51
	7.87	CLSG-508	11.81	93.00	12.28	60
	9.84	CLSG-5010	11.81	116.25	14.25	68
	11.81	CLSG-5012	11.81	139.50	16.22	75
100 [102.9]	1.97	CLSG-1002	20.57	40.50	7.16	42
	3.94	CLSG-1004	20.57	81.00	9.13	64
	5.91	CLSG-1006	20.57	121.50	11.09	88
	7.87	CLSG-1008	20.57	162.00	13.06	110
	9.84	CLSG-10010	20.57	202.50	15.03	134
	11.81	CLSG-10012	20.57	242.99	17.00	157
150 [153.9]	1.97	CLSG-1502	30.78	60.58	7.72	86
	3.94	CLSG-1504	30.78	121.17	9.69	115
	5.91	CLSG-1506	30.78	181.75	11.65	143
	7.87	CLSG-1508	30.78	242.33	13.62	172
	9.84	CLSG-15010	30.78	302.92	15.59	203
	11.81	CLSG-15012	30.78	363.50	17.56	231
200 [206.1]	1.97	CLSG-2002	41.22	81.13	8.50	121
	5.91	CLSG-2006	41.22	243.40	12.44	201
	11.81	CLSG-20012	41.22	486.79	18.35	322
250 [284.0]	1.97	CLSG-2502	56.80	111.81	9.25	196
	5.91	CLSG-2506	56.80	335.42	13.19	300
	11.81	CLSG-25012	56.80	670.84	19.09	456
300 [353.6]	1.97	CLSG-3002	70.71	139.19	12.28	406
	5.91	CLSG-3006	70.71	417.56	16.22	511
	11.81	CLSG-30012	70.71	835.11	22.13	668
400 [433.9]	1.97	CLSG-4002	86.78	170.84	14.74	595
	5.91	CLSG-4006	86.78	512.51	18.68	728
	11.81	CLSG-40012	86.78	1025.02	24.59	928
500 [566.3]	1.97	CLSG-5002	113.25	222.92	16.50	884
	5.91	CLSG-5006	113.25	668.77	20.43	1058
	11.81	CLSG-50012	113.25	1337.55	26.34	1321
600 [662.9]	1.97	CLSG-6002	132.57	260.97	16.89	1045
	5.91	CLSG-6006	132.57	782.90	20.83	1246
	11.81	CLSG-60012	132.57	1565.81	26.73	1545
800 [911.6]	1.97	CLSG-8002	182.32	358.91	18.66	1634
	5.91	CLSG-8006	182.32	10776.72	22.60	1941
	11.81	CLSG-80012	182.32	2153.44	28.50	2332
1000 [1136]	1.97	CLSG-10002	227.19	447.23	22.20	2341
	5.91	CLSG-10006	227.19	1341.68	26.14	2674
	11.81	CLSG-100012	227.19	2683.35	32.05	3172

Standard Features

- Interchangeable, hardened grooved saddles
- CR-400 Coupler and dust cap
- Top and side mount lifting eye capability
- All cylinders meet ASME B-30.1 and ISO 10100 Standards

Additional Stroke Lengths

Models above 150 tons are also available with standard stroke lengths of 4, 8 and 10 inches. Please contact Enerpac for ordering information and dimensional details.

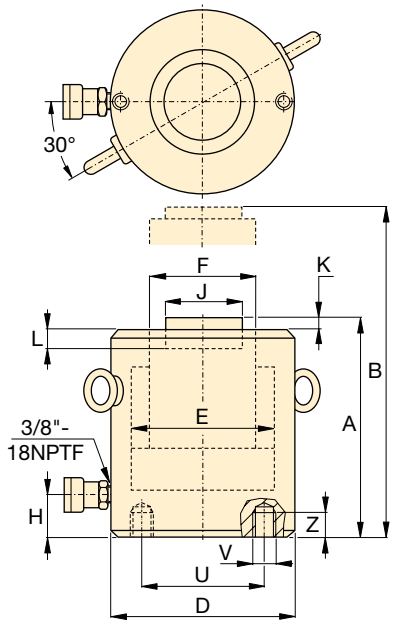
Lifting an Unbalanced Load

When lifting an unbalanced load **Enerpac Synchronous Lift Systems** can be the solution with multiple lift point capabilities from 4 to 64 points. See our "Yellow Pages" for multi-cylinder set-ups.

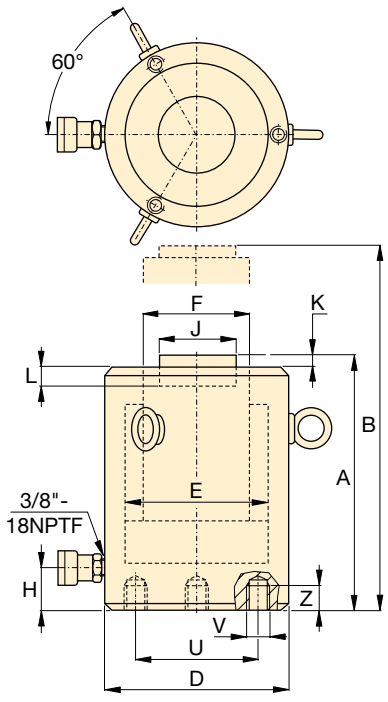
Page: 48

Mounting Hole Orientation

Top mounting hole orientation is maintained to port location. Base mounting hole orientation is not maintained to port location.



CLSG-50 to CLSG-150 models

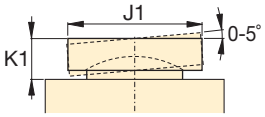


CLSG-200 to CLSG-1000 models

◀ For full features see page 36.

Cylinder Capacity (tons) [maximum]	Stroke (in)	Model Number	Cylinder Effective Area (in^2)	Oil Capacity (in^3)	Collapsed Height A (in)	Extended Height B (in)	Outside Diam. D (in)
50 [59.1]	1.97	CLSG-502	11.81	23.25	6.38	8.35	5.12
	3.94	CLSG-504	11.81	46.50	8.35	12.28	5.12
	5.91	CLSG-506	11.81	69.75	10.31	16.22	5.12
	7.87	CLSG-508	11.81	93.00	12.28	20.16	5.12
	9.84	CLSG-5010	11.81	116.25	14.25	24.09	5.12
	11.81	CLSG-5012	11.81	139.50	16.22	28.03	5.12
100 [102.9]	1.97	CLSG-1002	20.57	40.50	7.16	9.13	6.50
	3.94	CLSG-1004	20.57	81.00	9.13	13.06	6.50
	5.91	CLSG-1006	20.57	121.50	11.09	17.00	6.50
	7.87	CLSG-1008	20.57	162.00	13.06	20.94	6.50
	9.84	CLSG-10010	20.57	202.50	15.03	24.87	6.50
	11.81	CLSG-10012	20.57	242.99	17.00	28.81	6.50
150 [153.9]	1.97	CLSG-1502	30.78	60.58	7.72	9.69	8.07
	3.94	CLSG-1504	30.78	121.17	9.69	13.62	8.07
	5.91	CLSG-1506	30.78	181.75	11.65	17.56	8.07
	7.87	CLSG-1508	30.78	242.33	13.62	21.50	8.07
	9.84	CLSG-15010	30.78	302.92	15.59	25.43	8.07
	11.81	CLSG-15012	30.78	363.50	17.56	29.37	8.07
200 [206.1]	1.97	CLSG-2002	41.22	81.13	8.50	10.47	9.25
	5.91	CLSG-2006	41.22	243.40	12.44	18.35	9.25
	11.81	CLSG-20012	41.22	486.79	18.35	30.16	9.25
250 [284.0]	1.97	CLSG-2502	56.80	111.81	9.25	11.22	10.83
	5.91	CLSG-2506	56.80	335.42	13.19	19.09	10.83
	11.81	CLSG-25012	56.80	670.84	19.09	30.91	10.83
300 [353.6]	1.97	CLSG-3002	70.71	139.19	12.28	14.25	12.20
	5.91	CLSG-3006	70.71	417.56	16.22	22.13	12.20
	11.81	CLSG-30012	70.71	835.11	22.13	33.94	12.20
400 [433.9]	1.97	CLSG-4002	86.78	170.84	14.74	16.71	13.78
	5.91	CLSG-4006	86.78	512.51	18.68	24.59	13.78
	11.81	CLSG-40012	86.78	1025.02	24.59	36.40	13.78
500 [566.3]	1.97	CLSG-5002	113.25	222.92	16.50	18.46	15.75
	5.91	CLSG-5006	113.25	668.77	20.43	26.34	15.75
	11.81	CLSG-50012	113.25	1337.55	26.34	38.15	15.75
600 [662.9]	1.97	CLSG-6002	132.57	260.97	16.89	18.86	16.93
	5.91	CLSG-6006	132.57	782.90	20.83	26.73	16.93
	11.81	CLSG-60012	132.57	1565.81	26.73	38.54	16.93
800 [911.6]	1.97	CLSG-8002	182.32	358.91	18.66	20.63	19.88
	5.91	CLSG-8006	182.32	1076.72	22.60	28.50	19.88
	11.81	CLSG-80012	182.32	2153.44	28.50	40.31	19.88
1000 [1136]	1.97	CLSG-10002	227.19	447.23	22.20	24.17	22.05
	5.91	CLSG-10006	227.19	1341.68	26.14	32.05	22.05
	11.81	CLSG-100012	227.19	2683.35	32.05	43.86	22.05

Optional Tilt Saddle *



Capacity:
50-1,000 tons

Stroke:
1.97-11.81 inches

Maximum Operating Pressure:
10,000 psi

CLSG Series

Cylinder Bore Diam. E (in)	Plunger Diam. F (in)	Base to Advance Port H (in)	Standard Saddle Diam. J (in)	Saddle Protrusion from Plngr. K (in)	Depth of Plunger Hole L (in)	Base Mounting Holes			Weight (lbs)	Model Number	* Optional Tilt Saddle		
						Bolt Cir. Diam. U (in)	Thread V (mm)	Thread Depth Z (in)			Diam. J1 (in)	Height K1 (in)	Model Number
3.88	2.76	2.05	1.97	.04	.75	2.56	M12	.87	37	CLSG-502	1.97	1.69	CATG-50
3.88	2.76	2.05	1.97	.04	.75	2.56	M12	.87	44	CLSG-504	1.97	1.69	CATG-50
3.88	2.76	2.05	1.97	.04	.75	2.56	M12	.87	51	CLSG-506	1.97	1.69	CATG-50
3.88	2.76	2.05	1.97	.04	.75	2.56	M12	.87	60	CLSG-508	1.97	1.69	CATG-50
3.88	2.76	2.05	1.97	.04	.75	2.56	M12	.87	68	CLSG-5010	1.97	1.69	CATG-50
3.88	2.76	2.05	1.97	.04	.75	2.56	M12	.87	75	CLSG-5012	1.97	1.69	CATG-50
5.12	3.74	2.13	2.95	.04	.75	3.74	M12	.87	42	CLSG-1002	2.95	1.89	CATG-100
5.12	3.74	2.13	2.95	.04	.75	3.74	M12	.87	64	CLSG-1004	2.95	1.89	CATG-100
5.12	3.74	2.13	2.95	.04	.75	3.74	M12	.87	88	CLSG-1006	2.95	1.89	CATG-100
5.12	3.74	2.13	2.95	.04	.75	3.74	M12	.87	110	CLSG-1008	2.95	1.89	CATG-100
5.12	3.74	2.13	2.95	.04	.75	3.74	M12	.87	134	CLSG-10010	2.95	1.89	CATG-100
5.12	3.74	2.13	2.95	.04	.75	3.74	M12	.87	157	CLSG-10012	2.95	1.89	CATG-100
6.26	4.49	2.40	3.70	.04	.75	5.12	M12	.87	86	CLSG-1502	3.70	1.96	CATG-150
6.26	4.49	2.40	3.70	.04	.75	5.12	M12	.87	115	CLSG-1504	3.70	1.96	CATG-150
6.26	4.49	2.40	3.70	.04	.75	5.12	M12	.87	143	CLSG-1506	3.70	1.96	CATG-150
6.26	4.49	2.40	3.70	.04	.75	5.12	M12	.87	172	CLSG-1508	3.70	1.96	CATG-150
6.26	4.49	2.40	3.70	.04	.75	5.12	M12	.87	203	CLSG-15010	3.70	1.96	CATG-150
6.26	4.49	2.40	3.70	.04	.75	5.12	M12	.87	231	CLSG-15012	3.70	1.96	CATG-150
7.24	5.24	2.62	4.45	.04	.94	6.50	M12	.87	121	CLSG-2002	4.45	2.31	CATG-200
7.24	5.24	2.62	4.45	.04	.94	6.50	M12	.87	201	CLSG-2006	4.45	2.31	CATG-200
7.24	5.24	2.62	4.45	.04	.94	6.50	M12	.87	322	CLSG-20012	4.45	2.31	CATG-200
8.50	6.50	2.87	5.71	.04	.94	7.48	M12	.87	196	CLSG-2502	5.71	2.75	CATG-250
8.50	6.50	2.87	5.71	.04	.94	7.48	M12	.87	300	CLSG-2506	5.71	2.75	CATG-250
8.50	6.50	2.87	5.71	.04	.94	7.48	M12	.87	456	CLSG-25012	5.71	2.75	CATG-250
9.49	7.76	3.98	6.97	.04	.75	7.09	M16	1.42	406	CLSG-3002	6.97	3.17	CATG-300
9.49	7.76	3.98	6.97	.04	.75	7.09	M16	1.42	511	CLSG-3006	6.97	3.17	CATG-300
9.49	7.76	3.98	6.97	.04	.75	7.09	M16	1.42	668	CLSG-30012	6.97	3.17	CATG-300
10.51	8.50	4.49	7.72	.12	1.06	8.07	M16	1.42	595	CLSG-4002	7.72	3.06	CATG-400
10.51	8.50	4.49	7.72	.12	1.06	8.07	M16	1.42	728	CLSG-4006	7.72	3.06	CATG-400
10.51	8.50	4.49	7.72	.12	1.06	8.07	M16	1.42	928	CLSG-40012	7.72	3.06	CATG-400
12.01	9.76	4.49	8.98	.12	1.06	9.84	M24	1.50	884	CLSG-5002	8.98	3.54	CATG-500
12.01	9.76	4.49	8.98	.12	1.06	9.84	M24	1.50	1058	CLSG-5006	8.98	3.54	CATG-500
12.01	9.76	4.49	8.98	.12	1.06	9.84	M24	1.50	1321	CLSG-50012	8.98	3.54	CATG-500
12.99	10.51	4.49	9.72	.12	1.06	10.83	M24	1.50	1045	CLSG-6002	9.72	4.05	CATG-600
12.99	10.51	4.49	9.72	.12	1.06	10.83	M24	1.50	1246	CLSG-6006	9.72	4.05	CATG-600
12.99	10.51	4.49	9.72	.12	1.06	10.83	M24	1.50	1545	CLSG-60012	9.72	4.05	CATG-600
15.24	12.48	5.87	11.69	.12	1.06	12.99	M24	1.50	1634	CLSG-8002	11.69	4.00	CATG-800
15.24	12.48	5.87	11.69	.12	1.06	12.99	M24	1.50	1914	CLSG-8006	11.69	4.00	CATG-800
15.24	12.48	5.87	11.69	.12	1.06	12.99	M24	1.50	2332	CLSG-80012	11.69	4.00	CATG-800
17.01	13.50	6.85	12.72	.12	1.06	14.76	M24	1.50	2341	CLSG-10002	12.72	4.71	CATG-1000
17.01	13.50	6.85	12.72	.12	1.06	14.76	M24	1.50	2674	CLSG-10006	12.72	4.71	CATG-1000
17.01	13.50	6.85	12.72	.12	1.06	14.76	M24	1.50	3172	CLSG-100012	12.72	4.71	CATG-1000

▼ Shown from left to right: **CLRG-506, CLRG-2006, CLRG-1506**

Double-Acting Power Lifters

- **Integral stop ring provides piston blow-out protection**
- **Double-acting for positive retraction**
- **Baked enamel outside finish and plated pistons provide superior corrosion resistance**
- **Safety valve in retract side of cylinder helps to prevent damage in case of accidental over-pressurization**
- **Interchangeable, hardened grooved saddles are standard**
- **Plunger wiper reduces contamination, extending cylinder life**

Saddles

All CLRG cylinders are equipped with bolt-on removable grooved saddles. For information on optional tilt saddles, see selection chart.

Page: **43**

Safety Device

A pilot-operated check valve **(V-42)** can be inserted between cylinder ports. This valve provides a safety lock on the cylinder under load at any position and remote control for unlocking.

Page: **136**

Optimum Performance

Enerpac's range of Z-Class electric pumps, fitted with manual or solenoid operated 4-way valves, offer optimum combinations with CLRG cylinders.

Page: **78**

▼ *CLRG-Series cylinders supported and positioned these automobile deck elements.*

▼ *Replacing adjustment rolls under a fly-over with CLRG cylinders, for controlled lifting and lowering.*

CLRG Series

Capacity:
50-1,000 tons

Stroke:
1.97-11.81 inches

Maximum Operating Pressure:
10,000 psi

▼ QUICK SELECTION CHART

For complete technical information see next page.

Cylinder Capacity (tons)	Stroke (in)	Model Number	Cylinder Effective Area (in²) Push	Cylinder Effective Area (in²) Pull	Oil Capacity (in³) Push	Oil Capacity (in³) Pull	Collapsed Height (in)
50	1.97	CLRG-502	11.81	5.85	23.25	11.51	6.38
	3.94	CLRG-504	11.81	5.85	46.50	23.02	8.35
	5.91	CLRG-506	11.81	5.85	69.75	34.52	10.31
	7.87	CLRG-508	11.81	5.85	93.00	46.03	12.28
	9.84	CLRG-5010	11.81	5.85	116.25	57.54	14.25
	11.81	CLRG-5012	11.81	5.85	139.50	69.05	16.22
100	1.97	CLRG-1002	20.57	9.59	40.50	18.87	7.16
	3.94	CLRG-1004	20.57	9.59	81.00	37.74	9.13
	5.91	CLRG-1006	20.57	9.59	121.50	56.61	11.09
	7.87	CLRG-1008	20.57	9.59	162.00	75.49	13.06
	9.84	CLRG-10010	20.57	9.59	202.50	94.36	15.03
	11.81	CLRG-10012	20.57	9.59	242.99	113.23	17.00
150	1.97	CLRG-1502	30.78	14.96	60.58	29.44	7.72
	3.94	CLRG-1504	30.78	14.96	121.17	58.88	9.69
	5.91	CLRG-1506	30.78	14.96	181.75	88.32	11.65
	7.87	CLRG-1508	30.78	14.96	242.33	117.76	13.62
	9.84	CLRG-15010	30.78	14.96	302.92	147.20	15.59
	11.81	CLRG-15012	30.78	14.96	363.50	176.64	17.56
200	1.97	CLRG-2002	41.22	19.68	81.13	38.74	8.50
	5.91	CLRG-2006	41.22	19.68	243.40	116.23	12.44
	11.81	CLRG-20012	41.22	19.68	486.79	232.46	18.35
250	1.97	CLRG-2502	56.80	23.65	111.81	46.56	9.25
	5.91	CLRG-2506	56.80	23.65	335.42	139.69	13.19
	11.81	CLRG-25012	56.80	23.65	670.84	279.39	19.09
300	1.97	CLRG-3002	70.71	23.46	139.19	46.18	12.28
	5.91	CLRG-3006	70.71	23.46	417.56	138.55	16.22
	11.81	CLRG-30012	70.71	23.46	835.11	277.10	22.13
400	1.97	CLRG-4002	86.79	29.99	170.84	59.03	14.74
	5.91	CLRG-4006	86.79	29.99	512.51	177.09	18.68
	11.81	CLRG-40012	86.79	29.99	1,025	354.18	24.59
500	1.97	CLRG-5002	113.25	38.37	222.92	75.54	16.50
	5.91	CLRG-5006	113.25	38.37	668.77	226.61	20.43
	11.81	CLRG-50012	113.25	38.37	1,338	453.22	26.34
600	1.97	CLRG-6002	132.57	45.79	260.97	90.13	16.89
	5.91	CLRG-6006	132.57	45.79	782.90	270.39	20.83
	11.81	CLRG-60012	132.57	45.79	1,566	540.79	26.73
800	1.97	CLRG-8002	182.32	59.99	358.91	118.09	18.66
	5.91	CLRG-8006	182.32	59.99	1,077	354.28	22.60
	11.81	CLRG-80012	182.32	59.99	2,153	708.57	28.50
1000	1.97	CLRG-10002	227.19	83.97	447.23	165.29	22.20
	5.91	CLRG-10006	227.19	83.97	1,342	495.87	26.14
	11.81	CLRG-100012	227.19	83.97	2,683	991.75	32.05

Standard Features

- Interchangeable, hardened grooved saddles
- CR-400 Coupler and dust cap
- Top and side mount lifting eye capability
- All cylinders meet ASME B-30.1 and ISO 10100 Standards

Pump Selection

A double-acting cylinder must be powered by a pump with a 4-way valve.

Page: 109

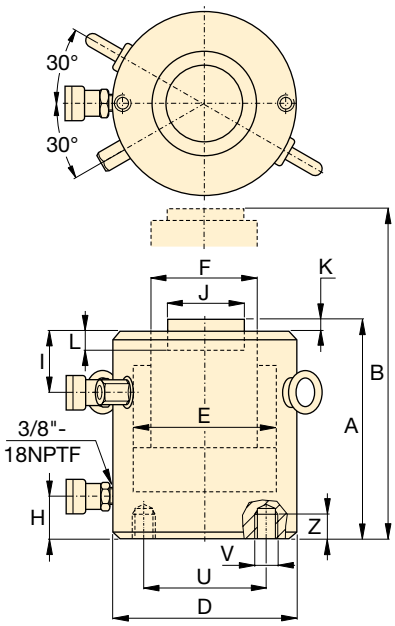
RR-Series

For higher cycle applications, Enerpac RR cylinders are a good alternative.

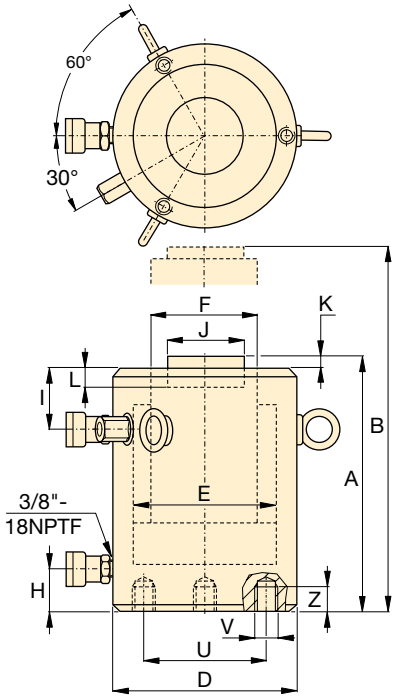
Page: 32

Additional Stroke Lengths

Models above 150 tons are also available with standard stroke lengths of 4, 8 and 10 inches. Please contact Enerpac for ordering information.



CLRG-50 to CLRG-150 models



CLRG-200 to CLRG-1000 models

Mounting Hole Orientation

Top mounting hole orientation is maintained to port location. Base mounting hole orientation is not maintained to port location.

◀ For full features see page 40.

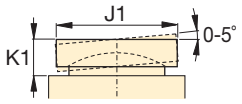
Cylinder Capacity (tons)	Stroke (in)	Model Number	Maximum Cylinder Capacity (tons)		Cylinder Effective Area (in^2)		Oil Capacity (in^3)	
			Push	Pull	Push	Pull	Push	Pull
50	1.97	CLRG-502	59.1	29	11.81	5.85	23.25	11.51
	3.94	CLRG-504	59.1	29	11.81	5.85	46.50	23.02
	5.91	CLRG-506	59.1	29	11.81	5.85	69.75	34.52
	7.87	CLRG-508	59.1	29	11.81	5.85	93.00	46.03
	9.84	CLRG-5010	59.1	29	11.81	5.85	116.25	57.54
	11.81	CLRG-5012	59.1	29	11.81	5.85	139.50	69.05
100	1.97	CLRG-1002	102.9	48	20.57	9.59	40.50	18.87
	3.94	CLRG-1004	102.9	48	20.57	9.59	81.00	37.74
	5.91	CLRG-1006	102.9	48	20.57	9.59	121.50	56.61
	7.87	CLRG-1008	102.9	48	20.57	9.59	162.00	75.49
	9.84	CLRG-10010	102.9	48	20.57	9.59	202.50	94.36
	11.81	CLRG-10012	102.9	48	20.57	9.59	242.99	113.23
150	1.97	CLRG-1502	153.9	75	30.78	14.96	60.58	29.44
	3.94	CLRG-1504	153.9	75	30.78	14.96	121.17	58.88
	5.91	CLRG-1506	153.9	75	30.78	14.96	181.75	88.32
	7.87	CLRG-1508	153.9	75	30.78	14.96	242.33	117.76
	9.84	CLRG-15010	153.9	75	30.78	14.96	302.92	147.20
	11.81	CLRG-15012	153.9	75	30.78	14.96	363.50	176.64
200	1.97	CLRG-2002	206.1	98	41.22	19.68	81.13	38.74
	5.91	CLRG-2006	206.1	98	41.22	19.68	243.40	116.23
	11.81	CLRG-20012	206.1	98	41.22	19.68	486.79	232.46
250	1.97	CLRG-2502	284.0	118	56.80	23.65	111.81	46.56
	5.91	CLRG-2506	284.0	118	56.80	23.65	335.42	139.69
	11.81	CLRG-25012	284.0	118	56.80	23.65	670.84	279.39
300	1.97	CLRG-3002	353.6	117	70.71	23.46	139.19	46.18
	5.91	CLRG-3006	353.6	117	70.71	23.46	417.56	138.55
	11.81	CLRG-30012	353.6	117	70.71	23.46	835.11	277.10
400	1.97	CLRG-4002	433.9	150	86.79	29.99	170.84	59.03
	5.91	CLRG-4006	433.9	150	86.79	29.99	512.51	177.09
	11.81	CLRG-40012	433.9	150	86.79	29.99	1,025	354.18
500	1.97	CLRG-5002	566.3	192	113.25	38.37	222.92	75.54
	5.91	CLRG-5006	566.3	192	113.25	38.37	668.77	226.61
	11.81	CLRG-50012	566.3	192	113.25	38.37	1,338	453.22
600	1.97	CLRG-6002	662.9	229	132.57	45.79	260.97	90.13
	5.91	CLRG-6006	662.9	229	132.57	45.79	782.90	270.39
	11.81	CLRG-60012	662.9	229	132.57	45.79	1,566	540.79
800	1.97	CLRG-8002	911.6	300	182.32	59.99	358.91	118.09
	5.91	CLRG-8006	911.6	300	182.32	59.99	1,077	354.28
	11.81	CLRG-80012	911.6	300	182.32	59.99	2,153	708.57
1000	1.97	CLRG-10002	1136	420	227.19	83.97	447.23	165.29
	5.91	CLRG-10006	1136	420	227.19	83.97	1,342	495.87
	11.81	CLRG-100012	1136	420	227.19	83.97	2,683	991.75

Base Mounting Hole Dimensions (in)

Model / Capacity ton	Bolt Circle U	Thread Size V (mm)	Minimum Thread Depth Z
CLRG-50	2.56	M12	.87
CLRG-100	3.74	M12	.87
CLRG-150	5.12	M12	.87
CLRG-200	6.50	M12	.87
CLRG-250	7.48	M12	.87
CLRG-300	7.09	M16	1.42
CLRG-400	8.07	M16	1.42
CLRG-500	9.84	M24	1.50
CLRG-600	10.83	M24	1.50
CLRG-800	12.99	M24	1.50
CLRG-1000	14.76	M24	1.50

Double-Acting, High Tonnage Cylinders

*** Optional Tilt Saddle**



Capacity:
50-1,000 tons

Stroke:
1.97-11.81 inches

Maximum Operating Pressure:
10,000 psi

CLRG Series

Collap. Height A (in)	Ext. Height B (in)	Outside Diam. D (in)	Cyl. Bore Diam. E (in)	Plunger Diam. F (in)	Base to Advance Port H (in)	Top to Retract Port I (in)	Standard Saddle Diam. J (in)	Saddle Protrusion from Plngr. K (in)	Depth of Plunger Hole L (in)	Weight (lbs)	Model Number	*Optional Tilt Saddle Diam. J1 (in)	*Optional Tilt Saddle Height K1 (in)	*Optional Tilt Saddle Model Number
6.38	8.35	5.12	3.88	2.76	1.65	1.29	1.97	.04	.75	37	CLRG-502	1.97	1.69	CATG-50
8.35	12.28	5.12	3.88	2.76	1.65	1.29	1.97	.04	.75	44	CLRG-504	1.97	1.69	CATG-50
10.31	16.22	5.12	3.88	2.76	1.65	1.29	1.97	.04	.75	51	CLRG-506	1.97	1.69	CATG-50
12.28	20.16	5.12	3.88	2.76	1.65	1.29	1.97	.04	.75	60	CLRG-508	1.97	1.69	CATG-50
14.25	24.09	5.12	3.88	2.76	1.65	1.29	1.97	.04	.75	68	CLRG-5010	1.97	1.69	CATG-50
16.22	28.03	5.12	3.88	2.76	1.65	1.29	1.97	.04	.75	75	CLRG-5012	1.97	1.69	CATG-50
7.16	9.13	6.50	5.12	3.74	2.13	1.89	2.95	.04	.75	42	CLRG-1002	2.95	1.89	CATG-100
9.13	13.06	6.50	5.12	3.74	2.13	1.89	2.95	.04	.75	64	CLRG-1004	2.95	1.89	CATG-100
11.09	17.00	6.50	5.12	3.74	2.13	1.89	2.95	.04	.75	88	CLRG-1006	2.95	1.89	CATG-100
13.06	20.94	6.50	5.12	3.74	2.13	1.89	2.95	.04	.75	110	CLRG-1008	2.95	1.89	CATG-100
15.03	24.87	6.50	5.12	3.74	2.13	1.89	2.95	.04	.75	134	CLRG-10010	2.95	1.89	CATG-100
17.00	28.81	6.50	5.12	3.74	2.13	1.89	2.95	.04	.75	157	CLRG-10012	2.95	1.89	CATG-100
7.72	9.69	8.07	6.26	4.49	2.40	2.22	3.70	.04	.75	86	CLRG-1502	3.70	1.96	CATG-150
9.69	13.62	8.07	6.26	4.49	2.40	2.22	3.70	.04	.75	115	CLRG-1504	3.70	1.96	CATG-150
11.65	17.56	8.07	6.26	4.49	2.40	2.22	3.70	.04	.75	143	CLRG-1506	3.70	1.96	CATG-150
13.62	21.50	8.07	6.26	4.49	2.40	2.22	3.70	.04	.75	172	CLRG-1508	3.70	1.96	CATG-150
15.59	25.43	8.07	6.26	4.49	2.40	2.22	3.70	.04	.75	203	CLRG-15010	3.70	1.96	CATG-150
17.56	29.37	8.07	6.26	4.49	2.40	2.22	3.70	.04	.75	231	CLRG-15012	3.70	1.96	CATG-150
8.50	10.47	9.25	7.24	5.24	2.62	2.22	4.45	.04	.94	121	CLRG-2002	4.45	2.31	CATG-200
12.44	18.35	9.25	7.24	5.24	2.62	2.22	4.45	.04	.94	201	CLRG-2006	4.45	2.31	CATG-200
18.35	30.16	9.25	7.24	5.24	2.62	2.22	4.45	.04	.94	322	CLRG-20012	4.45	2.31	CATG-200
9.25	11.22	10.83	8.50	6.50	2.87	3.07	5.71	.04	.94	196	CLRG-2502	5.71	2.75	CATG-250
13.19	19.09	10.83	8.50	6.50	2.87	3.07	5.71	.04	.94	300	CLRG-2506	5.71	2.75	CATG-250
19.09	30.91	10.83	8.50	6.50	2.87	3.07	5.71	.04	.94	456	CLRG-25012	5.71	2.75	CATG-250
12.28	14.25	12.20	9.49	7.76	3.98	2.95	6.97	.04	.75	406	CLRG-3002	6.97	3.17	CATG-300
16.22	22.13	12.20	9.49	7.76	3.98	2.95	6.97	.04	.75	511	CLRG-3006	6.97	3.17	CATG-300
22.13	33.94	12.20	9.49	7.76	3.98	2.95	6.97	.04	.75	668	CLRG-30012	6.97	3.17	CATG-300
14.74	16.71	13.78	10.51	8.50	4.49	4.13	7.72	.12	1.06	595	CLRG-4002	7.72	3.06	CATG-400
18.68	24.59	13.78	10.51	8.50	4.49	4.13	7.72	.12	1.06	728	CLRG-4006	7.72	3.06	CATG-400
24.59	36.40	13.78	10.51	8.50	4.49	4.13	7.72	.12	1.06	928	CLRG-40012	7.72	3.06	CATG-400
16.50	18.46	15.75	12.01	9.76	4.49	5.31	8.98	.12	1.06	884	CLRG-5002	8.98	3.54	CATG-500
20.43	26.34	15.75	12.01	9.76	4.49	5.31	8.98	.12	1.06	1058	CLRG-5006	8.98	3.54	CATG-500
26.34	38.15	15.75	12.01	9.76	4.49	5.31	8.98	.12	1.06	1321	CLRG-50012	8.98	3.54	CATG-500
16.89	18.86	16.93	12.99	10.51	4.49	5.31	9.72	.12	1.06	1045	CLRG-6002	9.72	4.05	CATG-600
20.83	26.73	16.93	12.99	10.51	4.49	5.31	9.72	.12	1.06	1246	CLRG-6006	9.72	4.05	CATG-600
26.73	38.54	16.93	12.99	10.51	4.49	5.31	9.72	.12	1.06	1545	CLRG-60012	9.72	4.05	CATG-600
18.66	20.63	19.88	15.24	12.48	5.87	5.31	11.69	.12	1.06	1634	CLRG-8002	11.69	4.00	CATG-800
22.60	28.50	19.88	15.24	12.48	5.87	5.31	11.69	.12	1.06	1914	CLRG-8006	11.69	4.00	CATG-800
28.50	40.31	19.88	15.24	12.48	5.87	5.31	11.69	.12	1.06	2332	CLRG-80012	11.69	4.00	CATG-800
22.20	24.17	22.05	17.01	13.50	6.85	6.69	12.72	.12	1.06	2341	CLRG-10002	12.72	4.71	CATG-1000
26.14	32.05	22.05	17.01	13.50	6.85	6.69	12.72	.12	1.06	2674	CLRG-10006	12.72	4.71	CATG-1000
32.05	43.86	22.05	17.01	13.50	6.85	6.69	12.72	.12	1.06	3172	CLRG-100012	12.72	4.71	CATG-1000

▼ Shown from left to right: **CLL-1006, CLL-2506, CLL-1506, CLL-506**

To Secure Loads Mechanically

- **Safety Lock Nut for mechanical load holding**
- **Baked enamel outside finish and plated pistons provide superior corrosion resistance**
- **Overflow port functions as a stroke limiter**
- **Interchangeable, hardened grooved saddles are standard**
- **CR-400 coupler and dust cap included on all models**
- **Single-acting load return**

Saddles

All CLL cylinders are equipped with bolt-on removable grooved saddles. For information on optional tilt saddles, see the selection chart.

Page: 47

Gauges

Minimize the risk of overloading and ensure long, dependable service from your equipment. Refer to the System Components section for a full range of gauges.

Page: 122

Low Height - High Tonnage

When low height with high force is required, pancake cylinders with lock nut offer the solution to lift the first few inches.

Page: 20

▼ *For this curved bridge, CLL-Series cylinders were used to support the concrete beams to level the pierhead and to place 4000 ton slide bearings between pier and pierhead.*

▼ *CLL cylinder, mechanically locked, after positioning the curved bridge.*

CLL Series

Capacity:
50-1,000 tons

Stroke:
1.97-11.81 inches

Maximum Operating Pressure:
10,000 psi

▼ QUICK SELECTION CHART

For complete technical information see next page.

Cylinder Capacity (tons) [maximum]	Stroke (in)	Model Number	Cylinder Effective Area (in^2)	Oil Capacity (in^3)	Collapsed Height (in)	Weight (lbs)
50 [59.1]	1.97	CLL-502	10.99	21.63	6.46	35
	3.94	CLL-504	10.99	43.25	8.43	46
	5.91	CLL-506	10.99	64.88	10.39	57
	7.87	CLL-508	10.99	86.51	12.36	68
	9.84	CLL-5010	10.99	108.14	14.33	79
	11.81	CLL-5012	10.99	129.76	16.30	90
100 [102.9]	1.97	CLL-1002	20.57	40.50	7.36	68
	3.94	CLL-1004	20.57	81.00	9.33	87
	5.91	CLL-1006	20.57	121.50	11.30	106
	7.87	CLL-1008	20.57	162.00	13.27	125
	9.84	CLL-10010	20.57	202.50	15.24	143
	11.81	CLL-10012	20.57	242.99	17.20	162
150 [153.9]	1.97	CLL-1502	30.78	60.58	8.23	117
	3.94	CLL-1504	30.78	121.17	10.20	146
	5.91	CLL-1506	30.78	181.75	12.17	174
	7.87	CLL-1508	30.78	242.33	14.13	203
	9.84	CLL-15010	30.78	302.92	16.10	231
	11.81	CLL-15012	30.78	363.50	18.07	260
200 [206.1]	1.97	CLL-2002	41.17	81.04	9.57	183
	5.91	CLL-2006	41.17	243.13	13.50	260
	11.81	CLL-20012	41.17	486.27	19.41	376
250 [284.0]	1.97	CLL-2502	56.75	111.70	9.80	256
	5.91	CLL-2506	56.75	335.11	13.74	359
	11.81	CLL-25012	56.75	670.22	19.65	515
300 [353.6]	1.97	CLL-3002	70.71	139.19	11.61	382
	5.91	CLL-3006	70.71	417.56	15.55	514
	11.81	CLL-30012	70.71	835.11	21.46	712
400 [433.9]	1.97	CLL-4002	86.79	170.84	13.19	553
	5.91	CLL-4006	86.79	512.51	17.13	721
	11.81	CLL-40012	86.79	1025.02	23.03	972
500 [566.3]	1.97	CLL-5002	113.25	222.99	14.76	809
	5.91	CLL-5006	113.25	668.77	18.70	1029
	11.81	CLL-50012	113.25	1337.55	24.61	1360
600 [662.9]	1.97	CLL-6002	132.57	260.97	15.55	985
	5.91	CLL-6006	132.57	782.90	19.49	1241
	11.81	CLL-60012	132.57	1565.81	25.39	1625
800 [911.6]	1.97	CLL-8002	182.42	359.09	17.91	1565
	5.91	CLL-8006	182.42	1077.27	21.85	1918
	11.81	CLL-80012	182.42	2154.55	27.76	2446
1000 [1136]	1.97	CLL-10002	227.30	447.43	19.49	2094
	5.91	CLL-10006	227.30	1342.30	23.43	2517
	11.81	CLL-100012	227.30	2684.59	29.33	3151

Additional Stroke Lengths

Models above 150 tons are also available with standard stroke lengths of 4, 8 and 10 inches. Please contact Enerpac for ordering information and dimensional details.

Lifting an Unbalanced Load?

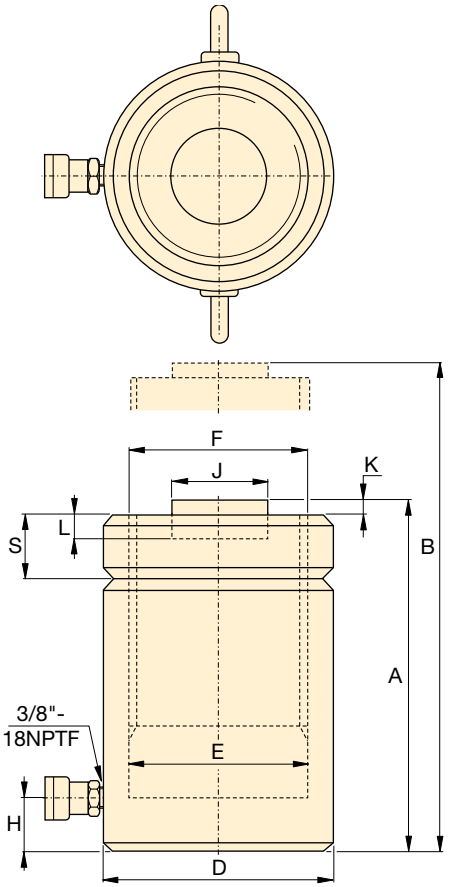
See our "Yellow Pages" for multi-cylinder set ups.

Page: 108

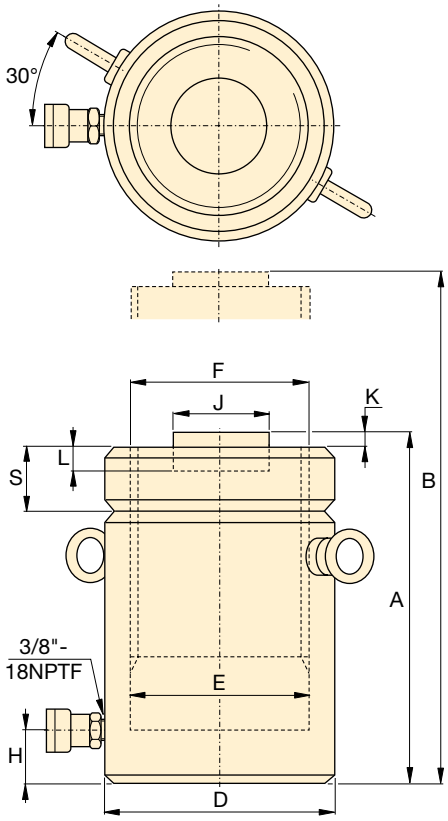
Speed Chart

See the Enerpac Cylinder Speed Chart in our "Yellow Pages" section.

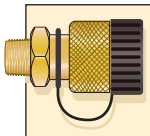
Page: 113



CLL-50 to CLL-250 models



CLL-300 to CLL-1000 models



Coupler Included!

CR-400 coupler included on all models.

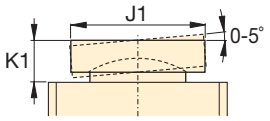
Fits all HC-Series hoses.

◀ For full features see page 44.

Cylinder Capacity (tons) [maximum]	Stroke (in)	Model Number	Cylinder Effective Area (in^2)	Oil Capacity (in^3)
50 [59.1]	1.97	CLL-502	10.99	21.63
	3.94	CLL-504	10.99	43.25
	5.91	CLL-506	10.99	64.88
	7.87	CLL-508	10.99	86.51
	9.84	CLL-5010	10.99	108.14
	11.81	CLL-5012	10.99	129.76
100 [102.9]	1.97	CLL-1002	20.57	40.50
	3.94	CLL-1004	20.57	81.00
	5.91	CLL-1006	20.57	121.50
	7.87	CLL-1008	20.57	162.00
	9.84	CLL-10010	20.57	202.50
	11.81	CLL-10012	20.57	242.99
150 [153.9]	1.97	CLL-1502	30.78	60.58
	3.94	CLL-1504	30.78	121.17
	5.91	CLL-1506	30.78	181.75
	7.87	CLL-1508	30.78	242.33
	9.84	CLL-15010	30.78	302.92
	11.81	CLL-15012	30.78	363.50
200 [206.1]	1.97	CLL-2002	41.17	81.04
	5.91	CLL-2006	41.17	243.13
	11.81	CLL-20012	41.17	486.27
250 [284.0]	1.97	CLL-2502	56.75	111.70
	5.91	CLL-2506	56.75	335.11
	11.81	CLL-25012	56.75	670.22
300 [353.6]	1.97	CLL-3002	70.71	139.19
	5.91	CLL-3006	70.71	417.56
	11.81	CLL-30012	70.71	835.11
400 [433.9]	1.97	CLL-4002	86.79	170.84
	5.91	CLL-4006	86.79	512.51
	11.81	CLL-40012	86.79	1025.02
500 [566.3]	1.97	CLL-5002	113.25	222.99
	5.91	CLL-5006	113.25	668.77
	11.81	CLL-50012	113.25	1337.55
600 [662.9]	1.97	CLL-6002	132.57	260.97
	5.91	CLL-6006	132.57	782.90
	11.81	CLL-60012	132.57	1565.81
800 [911.6]	1.97	CLL-8002	182.42	359.09
	5.91	CLL-8006	182.42	1077.27
	11.81	CLL-80012	182.42	2154.55
1000 [1136]	1.97	CLL-10002	227.30	447.43
	5.91	CLL-10006	227.30	1342.30
	11.81	CLL-100012	227.30	2684.59

Single-Acting, Lock Nut Cylinders

***Optional Tilt Saddle**



Capacity:
50-1,000 tons

Stroke:
1.97-11.81 inches

Maximum Operating Pressure:
10,000 psi

CLL Series

Collap. Height A (in)	Ext. Height B (in)	Outside Diam. D (in)	Cyl. Bore Diam. E (in)	Plunger Diameter (threaded) F (mm)	Base to Advance Port H (in)	Stand. Saddle Diam. J (in)	Saddle Protrusion from Plgr. K (in)	Depth of Plunger Hole L (in)	Lock Nut Height S (in)	Weight (lbs)	Model Number	* Optional Tilt Saddle Diam. J1 (in)	* Optional Tilt Saddle Height K1 (in)	* Optional Tilt Saddle Model Number
6.46	8.43	4.92	3.74	Tr 95 x 4	1.18	2.80	.08	.51	1.42	35	**CLL-502**	2.80	.94	**CAT-100**
8.43	12.36	4.92	3.74	Tr 95 x 4	1.18	2.80	.08	.51	1.42	46	**CLL-504**	2.80	.94	**CAT-100**
10.39	16.30	4.92	3.74	Tr 95 x 4	1.18	2.80	.08	.51	1.42	57	**CLL-506**	2.80	.94	**CAT-100**
12.36	20.24	4.92	3.74	Tr 95 x 4	1.18	2.80	.08	.51	1.42	68	**CLL-508**	2.80	.94	**CAT-100**
14.33	24.17	4.92	3.74	Tr 95 x 4	1.18	2.80	.08	.51	1.42	79	**CLL-5010**	2.80	.94	**CAT-100**
16.30	28.11	4.92	3.74	Tr 95 x 4	1.18	2.80	.08	.51	1.42	90	**CLL-5012**	2.80	.94	**CAT-100**
7.36	9.33	6.50	5.12	Tr 130 x 6	1.18	2.80	.08	.51	1.73	68	**CLL-1002**	2.80	.94	**CAT-100**
9.33	13.27	6.50	5.12	Tr 130 x 6	1.18	2.80	.08	.51	1.73	87	**CLL-1004**	2.80	.94	**CAT-100**
11.30	17.20	6.50	5.12	Tr 130 x 6	1.18	2.80	.08	.51	1.73	106	**CLL-1006**	2.80	.94	**CAT-100**
13.27	21.14	6.50	5.12	Tr 130 x 6	1.18	2.80	.08	.51	1.73	125	**CLL-1008**	2.80	.94	**CAT-100**
15.24	25.08	6.50	5.12	Tr 130 x 6	1.18	2.80	.08	.51	1.73	143	**CLL-10010**	2.80	.94	**CAT-100**
17.20	29.02	6.50	5.12	Tr 130 x 6	1.18	2.80	.08	.51	1.73	162	**CLL-10012**	2.80	.94	**CAT-100**
8.23	10.20	8.07	6.26	Tr 159 x 6	1.54	5.12	.08	.98	1.73	117	**CLL-1502**	5.12	.79	**CAT-200**
10.20	14.13	8.07	6.26	Tr 159 x 6	1.54	5.12	.08	.98	1.73	146	**CLL-1504**	5.12	.79	**CAT-200**
12.17	18.07	8.07	6.26	Tr 159 x 6	1.54	5.12	.08	.98	1.73	174	**CLL-1506**	5.12	.79	**CAT-200**
14.13	22.01	8.07	6.26	Tr 159 x 6	1.54	5.12	.08	.98	1.73	203	**CLL-1508**	5.12	.79	**CAT-200**
16.10	25.94	8.07	6.26	Tr 159 x 6	1.54	5.12	.08	.98	1.73	231	**CLL-15010**	5.12	.79	**CAT-200**
18.07	29.88	8.07	6.26	Tr 159 x 6	1.54	5.12	.08	.98	1.73	260	**CLL-15012**	5.12	.79	**CAT-200**
9.57	11.54	9.25	7.24	Tr 184 x 6	1.97	5.12	.08	.98	1.97	183	**CLL-2002**	5.12	.79	**CAT-200**
13.50	19.41	9.25	7.24	Tr 184 x 6	1.97	5.12	.08	.98	1.97	260	**CLL-2006**	5.12	.79	**CAT-200**
19.41	31.22	9.25	7.24	Tr 184 x 6	1.97	5.12	.08	.98	1.97	376	**CLL-20012**	5.12	.79	**CAT-200**
9.80	11.77	10.83	8.50	Tr 216 x 6	1.97	5.91	.08	.98	2.20	256	**CLL-2502**	5.91	.83	**CAT-250**
13.74	19.65	10.83	8.50	Tr 216 x 6	1.97	5.91	.08	.98	2.20	359	**CLL-2506**	5.91	.83	**CAT-250**
19.65	31.46	10.83	8.50	Tr 216 x 6	1.97	5.91	.08	.98	2.20	515	**CLL-25012**	5.91	.83	**CAT-250**
11.61	13.58	12.20	9.49	Tr 241 x 6	2.32	5.47	.20	.98	2.36	382	**CLL-3002**	7.68	2.95	**CAT-300**
15.55	21.46	12.20	9.49	Tr 241 x 6	2.32	5.47	.20	.98	2.36	514	**CLL-3006**	7.68	2.95	**CAT-300**
21.46	33.27	12.20	9.49	Tr 241 x 6	2.32	5.47	.20	.98	2.36	712	**CLL-30012**	7.68	2.95	**CAT-300**
13.19	15.16	13.78	10.51	Tr 266 x 6	2.76	6.26	.20	.98	2.76	553	**CLL-4002**	8.86	3.35	**CAT-400**
17.13	23.03	13.78	10.51	Tr 266 x 6	2.76	6.26	.20	.98	2.76	721	**CLL-4006**	8.86	3.35	**CAT-400**
23.03	34.84	13.78	10.51	Tr 266 x 6	2.76	6.26	.20	.98	2.76	972	**CLL-40012**	8.86	3.35	**CAT-400**
14.76	16.73	15.75	12.01	Tr 305 x 6	3.15	7.05	.20	.98	3.15	809	**CLL-5002**	9.84	3.58	**CAT-500**
18.70	24.61	15.75	12.01	Tr 305 x 6	3.15	7.05	.20	.98	3.15	1029	**CLL-5006**	9.84	3.58	**CAT-500**
24.61	36.42	15.75	12.01	Tr 305 x 6	3.15	7.05	.20	.98	3.15	1360	**CLL-50012**	9.84	3.58	**CAT-500**
15.55	17.52	16.93	12.99	Tr 330 x 6	3.35	7.64	.20	.98	3.35	985	**CLL-6002**	10.83	3.78	**CAT-600**
19.49	25.39	16.93	12.99	Tr 330 x 6	3.35	7.64	.20	.98	3.35	1241	**CLL-6006**	10.83	3.78	**CAT-600**
25.39	37.20	16.93	12.99	Tr 330 x 6	3.35	7.64	.20	.98	3.35	1625	**CLL-60012**	10.83	3.78	**CAT-600**
17.91	19.88	19.88	15.24	Tr 387 x 6	3.94	8.82	.20	.98	3.94	1565	**CLL-8002**	12.60	4.84	**CAT-800**
21.85	27.76	19.88	15.24	Tr 387 x 6	3.94	8.82	.20	.98	3.94	1918	**CLL-8006**	12.60	4.84	**CAT-800**
27.76	39.57	19.88	15.24	Tr 387 x 6	3.94	8.82	.20	.98	3.94	2446	**CLL-80012**	12.60	4.84	**CAT-800**
19.49	21.46	22.05	17.01	Tr 432 x 6	4.33	9.80	.20	.98	4.33	2094	**CLL-10002**	14.17	5.35	**CAT-1000**
23.43	29.33	22.05	17.01	Tr 432 x 6	4.33	9.80	.20	.98	4.33	2517	**CLL-10006**	14.17	5.35	**CAT-1000**
29.33	41.14	22.05	17.01	Tr 432 x 6	4.33	9.80	.20	.98	4.33	3151	**CLL-100012**	14.17	5.35	**CAT-1000**