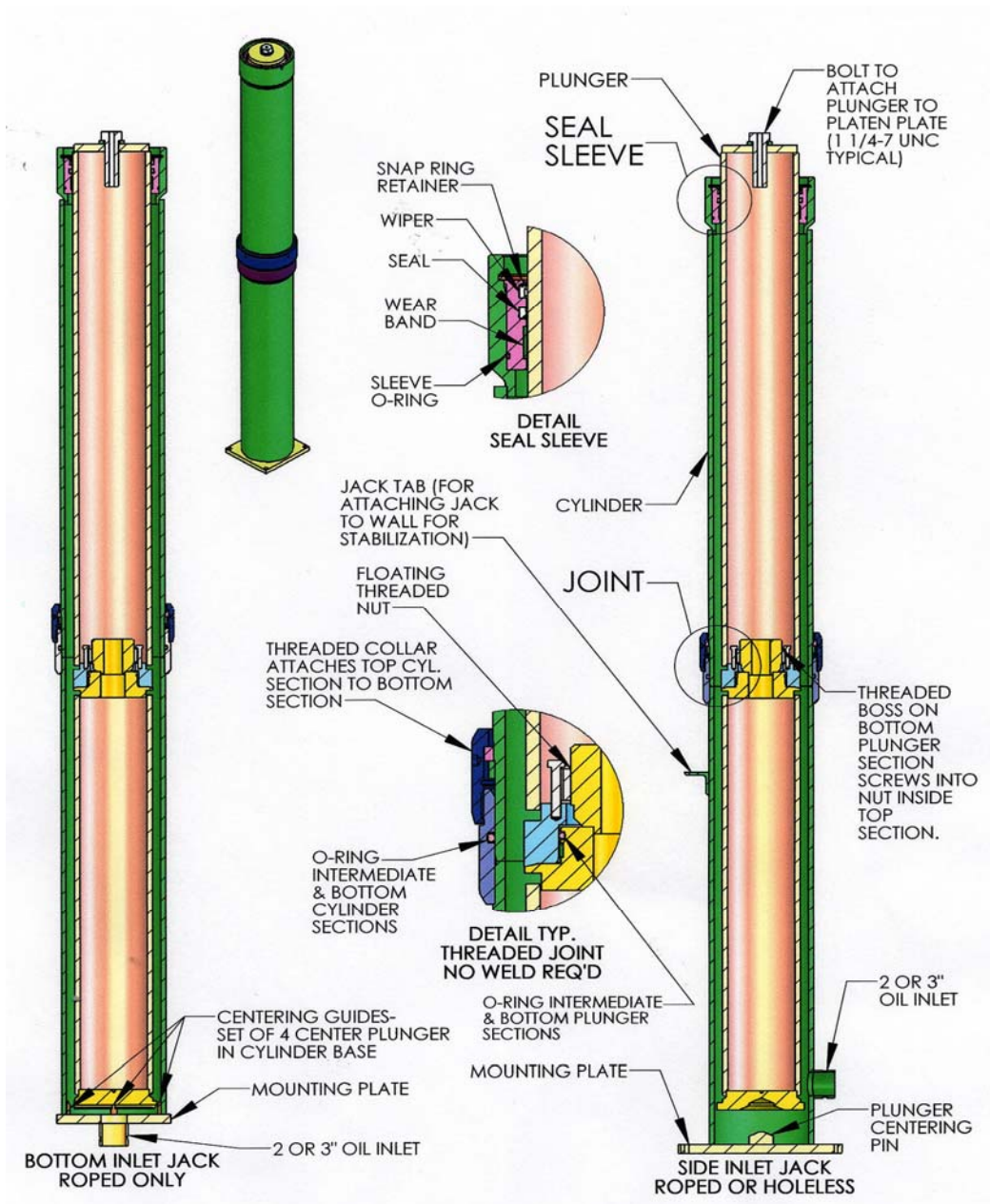


# HOLELESS AND ROPED JACKS

Holeless and roped jacks can be manufactured as a single piece or in multiple sections. A multi-piece jack has cylinder and plunger sections that couple together using threaded couplings and an o-ring seal. This joint design eliminates the time and expense of field welding the sections together. Below on the right is a sectional view of a two section holeless or roped jack. On the left is a similar section of a bottom inlet roped jack. The internal arrangement is the same except the centering pin has been removed and replaced with four guides spaced around the sides of the barrel as shown.



Holeless jacks are mounted directly to the car and normally used in a twin configuration to lift both heavy and light car loads. These jacks are mounted to the pit floor and usually used in 1 or 2 stop arrangements but they can sometimes reach as far as 4 stops.

Roped jacks are used in both single cantilevered and twin jack configurations. Cables used in conjunction with the jack achieve a 1 to 2 lift ratio, meaning for every 1 foot the plunger rises out of the cylinder the car will rise 2 feet. Cantilever designs are typically used for lighter elevator car weights and capacities while twin jacks are used for heavier loads. Roped jack units are offered in both side inlet (mounted to the pit floor) and bottom inlet (mounted on a jack stand) configurations.

Below are charts listing all roped and holeless jack sizes.

<b>HOLELESS JACKS</b>								
NOMINAL PLUNGER O.D.	MACHINED PLUNGER O.D.	PLG. WALL THICKNESS	CYLINDER O.D.	COUPLING O.D.	BASEPLATE DIMENSIONS	MAX WORKING PRESSURE (PSI)	SEAL FRICTION PRESSURE (PSI)	HEAD O.D.
2.95	2.972	0.182	4.50	N/A	5.75" x 10.00"	611	12	5.25
3.50	3.484	0.218	5.63	N/A	7.0" x 11.25"	611	12	6.50
3.75	3.732	0.375	5.63	N/A	7.0" x 11.25"	611	12	6.50
4.00	3.984	0.219	6.63	N/A	8" x 12.25"	614	12	6.75
4.00	3.984	0.312	6.63	N/A	8" x 12.25"	614	12	6.75
4.50	4.482	0.237	6.63	N/A	8" x 12.25"	614	11	7.50
4.50	4.482	0.337	6.63	N/A	8" x 12.25"	614	11	7.50
4.50	4.482	0.460	6.63	N/A	8" x 12.25"	614	11	7.50
5.00	4.982	0.312	8.63	N/A	10.0 x 14.25"	611	10	9.00
5.50	5.480	0.343	8.63	N/A	10.0 x 14.25"	611	9	9.00
6.00	5.966	0.360	8.63	N/A	10.0 x 14.25"	611	8	9.00
6.00	5.966	0.500	8.63	N/A	10.0 x 14.25"	611	8	9.00
6.50	6.466	0.375	8.63	N/A	10.0 x 14.25"	611	8	9.00
6.50	6.466	0.534	8.63	N/A	10.0 x 14.25"	611	8	9.00

<b>HOLELESS JACKS, SEAMLESS MATERIAL</b>								
NOMINAL PLUNGER O.D.	MACHINED PLUNGER O.D.	PLG. WALL THICKNESS	CYLINDER O.D.	COUPLING O.D.	BASEPLATE DIMENSIONS	MAX WORKING PRESSURE (PSI)	SEAL FRICTION PRESSURE (PSI)	HEAD O.D.
2.95	3.453	0.216	5.63	N/A	7.00" x 11.25"	611	12	6.50
3.75	3.706	0.500	5.63	N/A	7.00" x 11.25"	611	12	6.50
4.00	3.953	0.226	6.63	N/A	8.00" x 12.25"	614	12	6.75
4.00	3.953	0.500	6.63	N/A	8.00" x 12.25"	614	12	6.75
4.50	4.451	0.237	6.63	N/A	8.00" x 12.25"	614	11	7.50
4.50	4.451	0.337	6.63	N/A	8.00" x 12.25"	614	11	7.50
4.50	4.451	0.500	6.63	N/A	8.00" x 12.25"	614	11	7.50
5.00	4.951	0.500	8.63	N/A	10.00" x 14.25"	611	10	9.00
5.50	5.449	0.500	8.63	N/A	10.00" x 14.25"	611	9	9.00
6.00	5.940	0.500	8.63	N/A	10.00" x 14.25"	611	8	9.00
6.50	6.440	0.500	8.63	N/A	10.00" x 14.25"	611	8	9.00

<b>ROPED JACKS</b>									
<b>NOMINAL PLUNGER O.D.</b>	<b>MACHINED PLUNGER O.D.</b>	<b>PLG. WALL THICKNESS</b>	<b>CYLINDER O.D.</b>	<b>CYLINDER COUPLING O.D.</b>	<b>BASEPLATE DIMENSIONS</b>	<b>MAX WORKING PRESSURE, ONE PC. (PSI)</b>	<b>MAX WORKING PRESSURE, MULTI-PC. (PSI)</b>	<b>SEAL FRICTION PRESSURE (PSI)</b>	<b>HEAD O.D.</b>
4.00	3.984	0.219	6.63	8.00	8" x 8"	614	581	12	6.75
4.00	3.984	0.312	6.63	8.00	8" x 8"	614	581	12	6.75
4.50	4.482	0.237	6.63	8.00	8" x 8"	614	581	11	7.50
4.50	4.482	0.337	6.63	8.00	8" x 8"	614	581	11	7.50
4.50	4.482	0.460	6.63	8.00	8" x 8"	614	581	11	7.50
5.00	4.982	0.312	8.63	10.00	9.38" x 10"	611	678	10	9.00
5.50	5.480	0.343	8.63	10.00	9.38" x 10"	611	678	9	9.00
6.00	5.966	0.360	8.63	10.00	9.38" x 10"	611	678	8	9.00
6.00	5.966	0.500	8.63	10.00	9.38" x 10"	611	678	8	9.00
6.50	6.466	0.375	8.63	10.00	9.38" x 10"	611	678	8	9.00
6.50	6.466	0.534	8.63	10.00	9.38" x 10"	611	678	8	9.00
7.00	6.966	0.625	10.75	12.19	11.50" x 12"	600	600	8	11.00
7.50	7.466	0.500	10.75	12.19	11.50" x 12"	600	600	8	11.00
8.00	7.966	0.500	10.75	12.19	11.50" x 12"	600	600	8	11.00

<b>ROPED JACKS, SEAMLESS MATERIAL</b>									
<b>NOMINAL PLUNGER O.D.</b>	<b>MACHINED PLUNGER O.D.</b>	<b>PLG. WALL THICKNESS</b>	<b>CYLINDER O.D.</b>	<b>COUPLING O.D.</b>	<b>BASEPLATE DIMENSIONS</b>	<b>MAX WORKING PRESSURE, ONE PC. (PSI)</b>	<b>MAX WORKING PRESSURE, MULTI-PC. (PSI)</b>	<b>SEAL FRICTION PRESSURE (PSI)</b>	<b>HEAD O.D.</b>
4.00	3.953	0.226	6.63	8.00	8" x 8"	614	581	12	6.75
4.00	3.953	0.500	6.63	8.00	8" x 8"	614	581	12	6.75
4.50	4.451	0.237	6.63	8.00	8" x 8"	614	581	11	7.50
4.50	4.451	0.337	6.63	8.00	8" x 8"	614	581	11	7.50
4.50	4.451	0.500	6.63	8.00	8" x 8"	614	581	11	7.50
5.00	4.951	0.500	8.63	10.00	9.38" x 10"	611	678	10	9.00
5.50	5.449	0.500	8.63	10.00	9.38" x 10"	611	678	9	9.00
6.00	5.940	0.500	8.63	10.00	9.38" x 10"	611	678	8	9.00
6.50	6.440	0.500	8.63	10.00	9.38" x 10"	611	678	8	9.00
7.00	6.940	0.625	10.75	12.19	11.50" x 12"	600	600	8	11.00
7.50	7.453	0.500	10.75	12.19	11.50" x 12"	600	600	8	11.00
8.00	7.935	0.500	10.75	12.19	11.50" x 12"	600	600	8	11.00

Holeless jacks are only available in one-piece construction. Roped jacks are offered in both single and multi-piece options. Both types of jacks are offered with a seamless material option to meet customer or code requirements for non-welded material. A seamless plunger and regular cylinder or both seamless plunger and cylinder can be ordered.

## **Requesting a Quote/Placing an Order**

Filling out one easy to understand form is all you will need to request a quote and place an order. Begin the quote process by using the "Quote Request/Order Worksheet" provided on page 5. Fill out as much information on your desired jack unit as you can and fax it to D. L. Martin.

In most cases, if your quote request is received by 3 p.m. EST you will be faxed a formal quote by the end of the day. If you have any questions while filling out the form don't hesitate to call.

If you are ready to place an order just provide a completed "Quote Request/Order Worksheet" along with a purchase order number. Once your jack unit has been engineered an approval form will be faxed to you. All of the jack layout dimensions will be provided on the form for you to make sure the jack meets your specifications. Once you have verified the dimensions are correct sign and date the form and fax it back. This form is D. L. Martin's go-ahead to begin production on your jack unit.



# D. L. MARTIN CO.

25 E. Harbaugh Drive, Mercersburg, Pennsylvania 17236  
Phone (717) 328-2141 / FAX (717) 328-5919

DLM# \_\_\_\_\_

## ROPED AND HOLELESS JACK QUOTE/ORDER WORKSHEET

### QUOTE INFO:

FORM COMPLETED BY: \_\_\_\_\_ DATE \_\_\_/\_\_\_/\_\_\_

PHONE \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ FAX \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

EXISTING JACK SIZE (If replacement jack order): (plunger dia.) \_\_\_\_\_ X (wall thk.) \_\_\_\_\_

TOTAL STROKE (Floor to Floor Travel + Top Runby + Bottom Undertravel): \_\_\_\_\_

Bottom Undertravel= Bottom Runby + Buffer Stroke + Tolerance Needed

\*CAR WEIGHT: \_\_\_\_\_ CAR CAPACITY: \_\_\_\_\_

HOLELESS JACK

ROPED JACK

ROPED OR HOLELESS JACK OPTIONS (check if required):

- Dual Jack Configuration
- Seamless Plunger
- Seamless Plunger and Cylinder
- Stop Sleeve/Ring (Current Travel with Sleeve \_\_\_\_\_)

ROPED JACK INLET: (check one if ROPED JACK specified)

- Side Inlet
- Bottom Inlet

ROPED JACK ONLY - # OF SECTIONS: \_\_\_\_\_

\*Car weight can be estimated for quoting purposes. However, the customer is responsible for verifying the actual car weight does not exceed the estimate. Failure to make sure the car weight figure is adequate can result in an insufficient jack being purchased for the job.

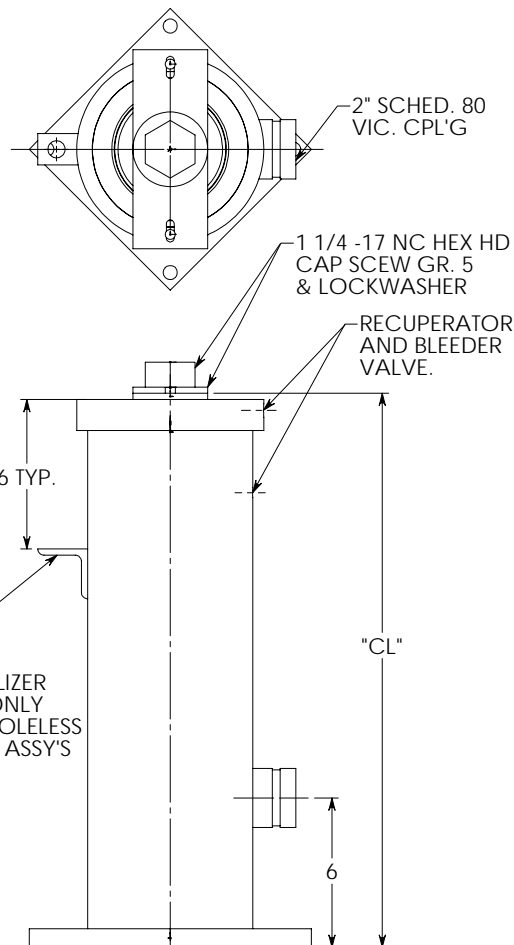
SHIP TO: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

BILL TO: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Fax completed form to: 717-328-5919



**TYP. SIDE INLET HOLELESS JACK SHOWN**

CL = TOTAL STROKE + 5.89" FOR ALL HOLELESS JACKS  
 CL = TOTAL STROKE + 5.46" FOR 4.50" ROPED JACKS  
 CL = TOTAL STROKE + 5.89" FOR 4.0" & 5.0"-8.0" ROPED JACKS

**NOTICE:** Failure to provide all requested information could result in delays, once the jack order is placed. A final jack layout approval sheet will be faxed to the person completing this form before the jack goes into production. If the order is for a replacement jack please provide any drawings or documentation, from the original jack, that may be useful.