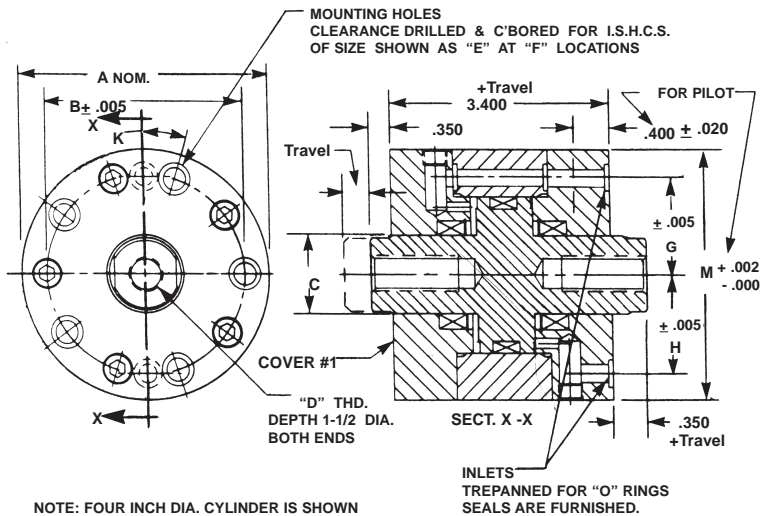


SHORT STROKE HYDRAULIC CYLINDERS - HI-ENERGY® SERIES 1500-LS-ET-PM

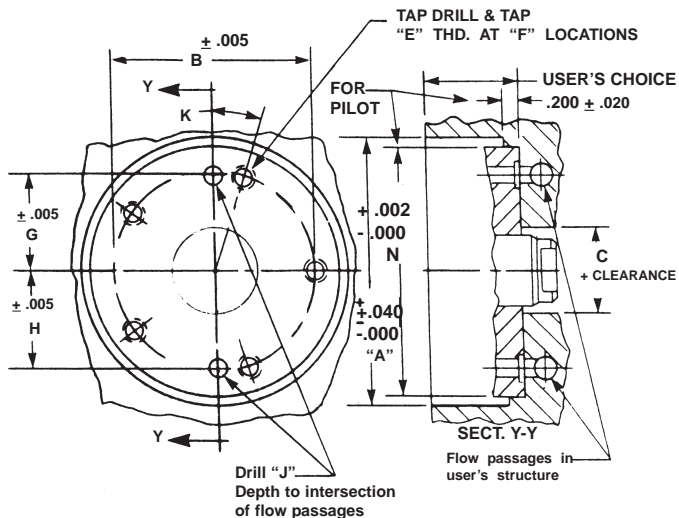
Double Acting-Double Ended Pistons With Threaded Ends-End Trepan Ported-Pocket Mounted™

PRODUCT DETAILS:



NOTE: FOUR INCH DIA. CYLINDER IS SHOWN
SEE TABLE FOR BOLT PATTERNS AND
RELATED DETAILS FOR OTHER SIZES

SUGGESTED MOUNTING DETAILS:



SPECIFICATIONS:

SERVICE, HYDRAULIC OIL
M.O.P., 1500 PSI
TEMPERATURE, -40 TO +200 deg. F
MATERIALS;
BODY, STAINLESS STEEL
GUIDE COVERS, BEARING BRONZE
PISTONS, STAINLESS STEEL
FASTENERS, ALLOY STEEL, I.S.H.C.S.
ROD SEAL, LIP STYLE
PISTON HEAD SEAL, "O" RING

BASIC PART NUMBER	O.D. A	B.C. B	ROD DIA. C	BOSS DIA. D	THD. E	NO. F	OFF SET G	OFF SET H	DRILL J	DEG. K	WF L	CYL. PILOT M	POCKET PILOT N	PISTON DIA. P	NET PISTON AREA (SQ.IN.)
S6176 (-)LS	3.000	2.375	0.875	1/2-20	1/4-28	4	1.148	1.148	0.188	22-1/2	0.688	2.974	2.976	1.750	1.804
S6177 (-)LS	4.000	3.188	1.250	5/8-18	5/16-24	5	1.571	1.571	0.281	18	1.000	3.974	3.976	2.500	3.681
S6178 (-)LS	5.000	4.188	1.500	3/4-16	3/8-24	6	2.070	2.070	0.281	15	1.250	4.974	4.976	3.500	7.854
S6179 (-)LS	6.000	5.188	2.000	1-14	3/8-24	8	2.571	2.571	0.281	11-1/4	1.625	5.974	5.976	4.500	12.762

Nom. Force (lbs) = Pressure (psi) times Area (sq.in.)

Ordering Information:

HOW TO ORDER BASIC CYLINDERS:

A BASIC PART NUMBER consists of the letter "S" and four digits followed by a dash number to indicate piston travel in increments of 1/10 (0.100) inch followed by the suffix -LS. Travel to -40 (4.000) is standard.

EXAMPLE = S6176 - 8 - LS
 BASIC PART NUMBER
 Lip Seal Suffix
 Indicates Piston Travel
 Letter & Four digits from the table.

HOW TO ORDER CYLINDERS WITH OPTIONS:

Add options to the BASIC PART NUMBER as suffixes in any order.

EXAMPLE = S6176 - 8 - LS - ETW
 Ext. Rod Thd. Option.
 BASIC PART NUMBER.

HOW TO ORDER METRIC VERSIONS:

A BASIC PART NUMBER FOR METRIC CYLINDERS consists of the letter "M" and a four digit number from the table with a prefix "M" followed by a dash number to indicate travel in millimeters and the suffix -LS. Please see inside rear cover for metric thread and travel conversions. There is no added cost.

EXAMPLE = M-S6176 - 20 - LS
 Suffix
 Travel in Millimeters.
 From the table
 Metric Prefix

HOW TO ORDER ALL STAINLESS STEEL CYLINDERS:

Add another letter "S" as a prefix to a BASIC PART NO.
 Add 20% to the BASE PRICE
 EXAMPLE = S-S6176 - 8 - LS

BASIC PART NUMBER
 All Stainless Steel Prefix

HOW TO ORDER CYLINDERS WITH SEALS FOR TEMPERATURES TO 275 DEGREES.

Add the letter "H" as a prefix to a BASIC PART NO.
 Add 10% to the BASE PRICE.

EXAMPLE = H-S6176 - 8 - LS
 BASIC PART NUMBER
 High Temperature Seals

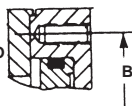
HOW TO ORDER SERVICE KITS.

Specify the complete part number followed by the suffix "SK".

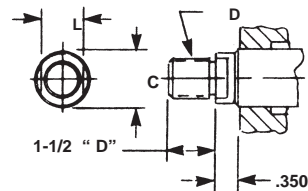
EXAMPLE = S6176 - 8 - LS - SK
 INDICATES SERVICE KIT
 Complete Part Number

Mounting Option:

"E" INTERNALLY THREADED HOLES AT "F" LOCATIONS IN THE REAR MOUNTING FACE. ADD SUFFIX -R TO THE BASIC PART NUMBER. THERE IS NO ADDED COST. INTENDED AS AN OPTION WHERE ATTACHMENT FROM THE REAR IS PREFERRED.

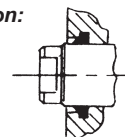


Rod End Option:



ROD END WITH EXTERNAL THREAD AND WRENCH FLATS EXTENDING FROM COVER #1.
 OPPOSITE END HAS AN INTERNAL THREAD OF SIZE SHOWN AS "D"
 ADD SUFFIX -ETW TO THE BASIC PART NUMBER.
 ADD 8% TO THE BASE PRICE.

Wiper Option:



ROD WIPERS ARE OPTIONAL AND ARE INSTALLED ON BOTH ENDS.
 ADD SUFFIX -W TO THE BASIC PART NO.
 ADD 4% TO THE BASE PRICE.

NOTES:

DIMENSIONS ARE NOMINAL IN U.S. CUSTOMARY UNITS.
 METRIC CYLINDERS ARE DIMENSIONALLY EQUIVALENT EXCEPT FOR CONVERSION IN MOUNTING DETAILS WHERE THREADS, FASTENERS, CLEARANCE HOLES & COUNTER-BORES ARE TO METRIC STANDARDS.
 SEE INSIDE REAR COVER FOR A TABLE OF METRIC FASTENER CONVERSION.
 THERE IS NO ADDED COST FOR THIS METRIC MODIFICATION.