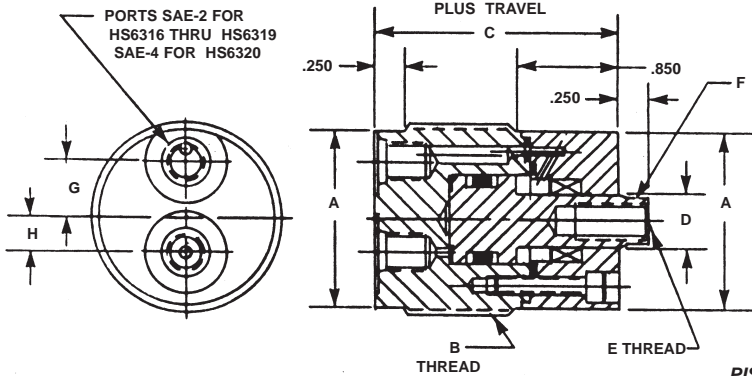
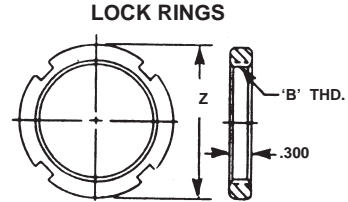
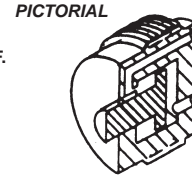


**SHORT STROKE HYDRAULIC ACTUATORS, MINI HI-ENERGY® SERIES 3000-LS-DA-SE-EP-TM**  
 Double Acting-Single Ended Piston-Cylindrical Configuration-End Ported-Thread Mounted



**SPECIFICATIONS:**  
 SERVICE: HYDRAULIC OIL  
 M.O.P.: 3000 P.S.I.  
 TEMPERATURE: -40 TO 275 deg. F.  
 MATERIALS:  
 BODY: STAINLESS STEEL  
 COVER: BEARING BRONZE  
 PISTON: STAINLESS STEEL  
 LOCK RING: STAINLESS



BASIC PART NUMBER	DIA. A	THREAD B	NOM C	NOM D	THD. E	W.F. F	NOM G	NOM H	PIST. DIA. (in.)	EXT. AREA (sq.in.)	RETR. AREA (sq.in.)
HS6316 (-) -LS	1.500	1 5/8-16	1.900	0.438	5/16-24	0.375	0.477	0.294	0.738	0.428	0.277
HS6317 (-) -LS	1.750	1 7/8-16	1.900	0.562	5/16-24	0.438	0.584	0.388	0.925	0.672	0.423
HS6318 (-) -LS	2.000	2 1/8-16	1.900	0.688	3/8-24	0.500	0.717	0.453	1.118	0.982	0.610
HS6319 (-) -LS	2.250	2 3/8-16	1.900	0.813	1/2-20	0.625	0.842	0.545	1.368	1.470	0.951
HS6320 (-) -LS	2.500	2 5/8-16	2.060	1.000	5/8-18	0.750	0.915	0.650	1.600	2.010	1.225

LOCK RING NUMBER	O.D. Z	THREAD B
6331	2.000	1 5/8-16
6332	2.250	1 7/8-16
6333	2.500	2 1/8-16
6334	2.750	2 3/8-16
6335	3.000	2 5/8-16

**FORCE(lbs) = PRESSURE (psi) times NET AREA(sq.in.)**

**HOW TO ORDER BASIC ACTUATORS:**  
 A BASIC PART NUMBER CONSISTS OF TWO LETTERS & 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 = HS6316 - 8 - LS  
 HS6316 - BASIC ACTUATOR NO.  
 8 - LIP SEAL SUFFIX INDICATES PISTON TRAVEL OF 8/10 (0.800) INCHES.  
 LS - NUMBER FROM THE TABLE.

**HOW TO ORDER ACTUATORS WITH OPTIONS:**  
 ADD OPTIONS TO THE BASIC ACTUATOR NUMBER AS SUFFIXES IN ANY ORDER.

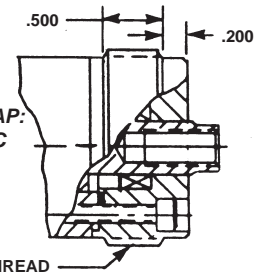
EXAMPLE = HS6316 - 8 - LS - ETW  
 HS6316 - BASIC ACTUATOR NUMBER  
 ETW - EXTERNAL ROD THREAD

**HOW TO ORDER A METRIC VERSION:**  
 A METRIC VERSION USES EXISTING INTERNAL COMPONENTS DESIGNED TO U.S. CUSTOMARY UNITS WITH A METRIC THREAD ON THE OUTER SURFACE, ON THE INSIDE SURFACE OF A LOCK RING AND ON THE ROD. A PART NUMBER FOR THE METRIC VERSION CONSISTS OF TWO LETTERS & FOUR DIGITS FROM THE TABLE WITH THE PREFIX "M" AND A SUFFIX TO INDICATE PISTON TRAVEL IN MILLIMETERS FOLLOWED BY A SUFFIX "LS" AND A FURTHER SUFFIX SPECIFYING A METRIC THREAD FOR THE OUTER SURFACE.

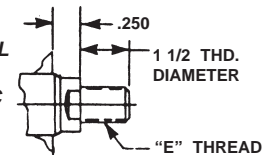
NOTE: THE MINOR DIAMETER OF A THD. MUST BE GREATER THEN "A"  
 EXAMPLE = M - HS6316 - 20mm - LS - 42mm O.D. BY 1.5mm PITCH  
 M - METRIC PREFIX  
 HS6316 - PISTON TRAVEL FROM THE TABLE  
 20mm - PISTON TRAVEL FROM THE TABLE  
 LS - LIP SEAL ON ROD  
 42mm O.D. BY 1.5mm PITCH - OUTER THREAD

**HOW TO ORDER SERVICE KITS:**  
 SPECIFY THE COMPLETE PART NUMBER FOLLOWED BY THE SUFFIX -SK  
 EXAMPLE = HS6316 - 10 - LS - SK  
 SK - Indicates Service Kit  
 HS6316 - 10 - LS - Complete Actuator No.

**OPTIONAL THREAD ON END CAP:**  
 ADD SUFFIX -TEC TO A BASIC ACTUATOR NO.  
 THERE IS NO ADDED COST.  
 (BODY IS WITHOUT THREAD)



**OPTIONAL ROD WITH EXTERNAL THREAD:**  
 ADD SUFFIX -ETW TO A BASIC ACTUATOR NO.  
 ADD 8% TO THE BASE PRICE



**SUGGESTED MOUNTING:**

