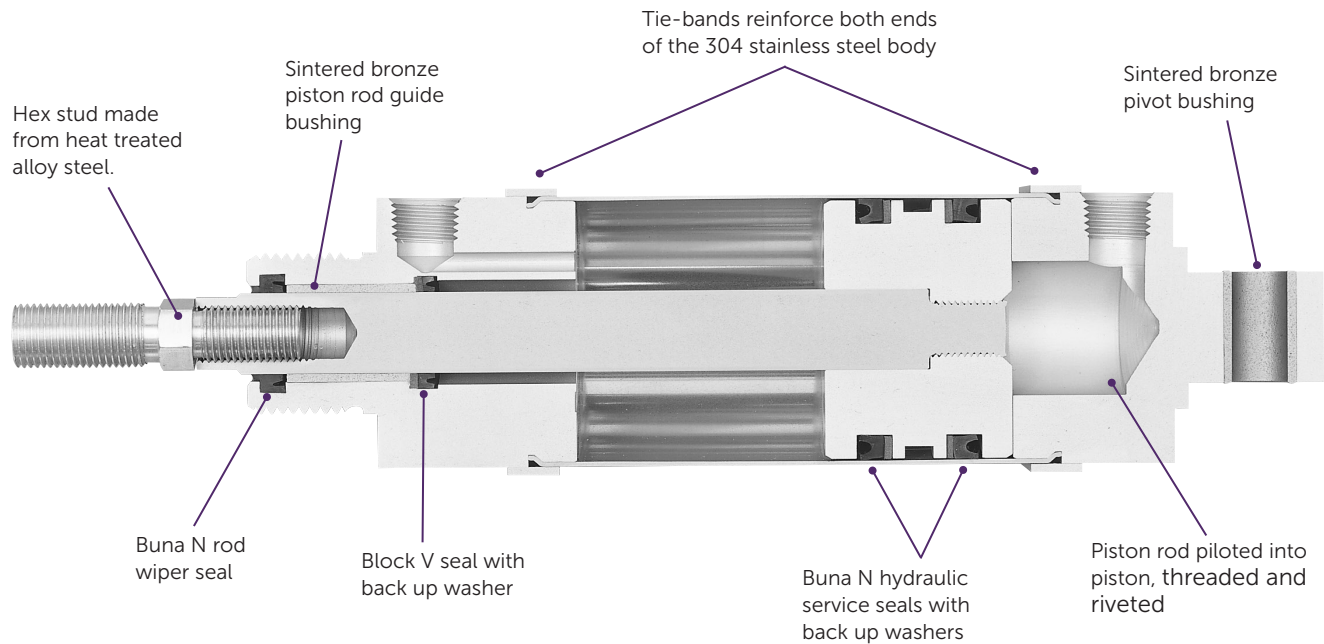


500 Series Light Pressure Hydraulics



Materials of Construction

- Hex stud made from heat treated alloy steel. In case of failure due to overload, the hexagon portion will remain in the rod and can be easily removed
- Tie-bands reinforce both ends of type 304 stainless steel body rolled in a groove on the periphery of each end cap doubling joint strength
- Buna N rod wiper seal assures dry drip free piston rod
- Piston rod is hard chrome plated
- High strength aluminum alloy end caps and piston
- Filled PTFE bearing
- Sintered bronze piston rod guide bushing

Operating Pressure

500 PSI HYD

Bore Sizes

1-1/16", 1-1/2", 2"

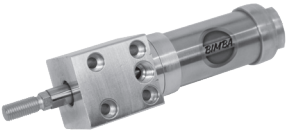
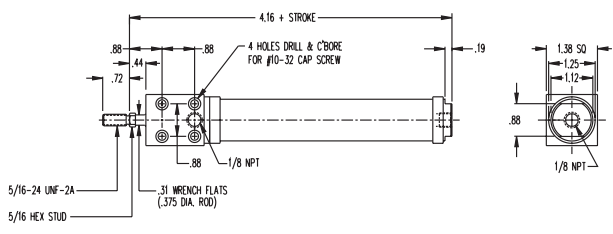
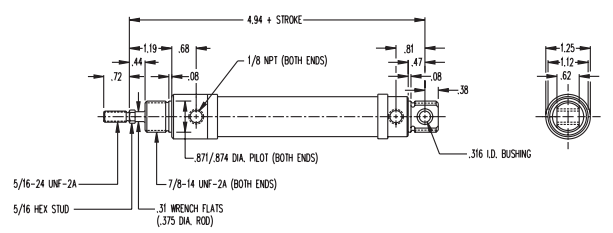
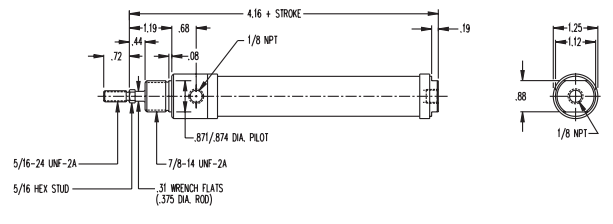
Performance Options

- Extra extension (EE), per inch of extension:
- Ports rotated 90° (K) (no charge)
- Magnet (prefix M) Example: HM-096-DZ
 - 4" stroke or greater required
 - Overall length increases by 0.25"
- Fluoroelastomer seals (V)
 - Specify for compatibility

1-1/16" Bore Hydraulic Cylinders

Push Force = .886 x PSI Pull Force = .776 x PSI

☐ Enter Stroke Length as 3rd Digit

Model	Description/Weight (Lbs)	Dimensions
H-09 ☐ -DBZ	 Front Block Mount Standard Stroke Lengths: 1", 2", 3", 4", 5", 6" Maximum Stroke – 12" Base Weight: .57 Adder Per Inch of Stroke: .06	
H-09 ☐ -DUZ	 Universal Mount – Double End or Rear Pivot Standard Stroke Lengths: 1", 2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12" Maximum Stroke – 32" Optional Accessories: D-8316 Mounting Bracket D-8322-A Pivot Bracket D-8309-A Clevis Base Weight: .50 Adder Per Inch of Stroke: .06	
H-09 ☐ -DZ	 Nose Mount Standard Stroke Lengths: 1", 2", 3", 4", 5", 6", 7" Maximum Stroke – 12" Optional Accessory: D-8316 Mounting Bracket Base Weight: .43 Adder Per Inch of Stroke: .06	

1-1/2" Bore Hydraulic Cylinders

Push Force = 1.77 x PSI Pull Force = 1.57 x PSI

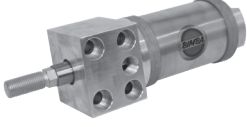
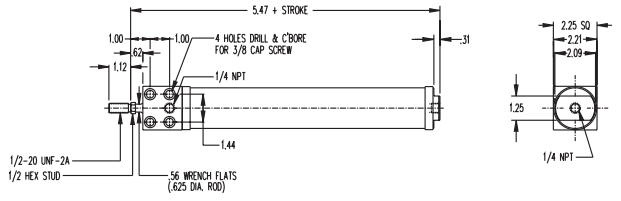
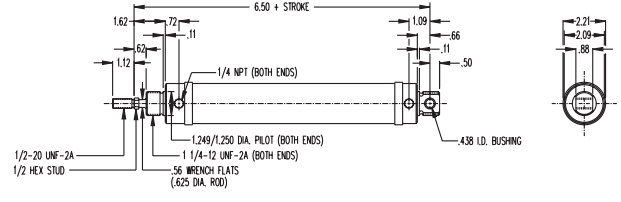
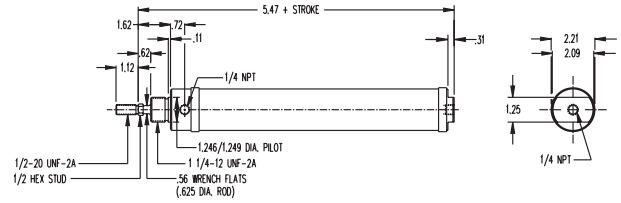
☐ Enter Stroke Length as 3rd Digit

Model	Description/Weight (Lbs)	Dimensions
H-17 □ -DBZ	Front Block Mount Standard Stroke Lengths: 1", 2", 3", 4", 5", 6" Maximum Stroke – 12" Base Weight: 1.00 Adder Per Inch of Stroke: .10	Technical drawing of the H-17 □ -DBZ cylinder. The front view shows a 1/4 NPT port and a 44 WRENCH FLATS (.500 DIA. ROD) feature. The side view shows a 7/16-20 UNF-2A port and a 7/16 HEX STUD. The end view shows a 1/4 NPT port and a 1.75 SQ. feature. Dimensions include 1.72, .97, .59, 1.03, 4.47 + STROKE, .25, 1.25, .88, 1.75 SQ, 1.58, and 1/4 NPT.
H-17 □ -DUZ	Universal Mount – Double End or Rear Pivot Standard Stroke Lengths: 1", 2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12" Maximum Stroke – 32" Optional Accessories: D-8318 Mounting Bracket D-8324-A Pivot Bracket D-8311-A Clevis Base Weight: .95 Adder Per Inch of Stroke: .10	Technical drawing of the H-17 □ -DUZ cylinder. The front view shows a 1/4 NPT (BOTH ENDS) port and a 44 WRENCH FLATS (.500 DIA. ROD) feature. The side view shows a 7/16-20 UNF-2A port and a 7/16 HEX STUD. The end view shows a 1/4 NPT (BOTH ENDS) port and a 1.71 feature. Dimensions include 1.41, .59, .09, 1.03, 5.41 + STROKE, .94, .56, .09, .43, 1.71, 1.58, .75, 1/4 NPT, .379 I.D. BUSHING, 1/8-12 UNF-2A (BOTH ENDS), and 1/121/1/124 DIA. PILOT (BOTH ENDS).
H-17 □ -DZ	Nose Mount Standard Stroke Lengths: 1", 2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12" Maximum Stroke – 12" Optional Accessory: D-8318 Mounting Bracket Base Weight: .84 Adder Per Inch of Stroke: .10	Technical drawing of the H-17 □ -DZ cylinder. The front view shows a 1/4 NPT port and a 44 WRENCH FLATS (.500 DIA. ROD) feature. The side view shows a 7/16-20 UNF-2A port and a 7/16 HEX STUD. The end view shows a 1/4 NPT port and a 1.71 feature. Dimensions include 1.41, .59, .09, 1.03, 4.47 + STROKE, .25, 1.25, .88, 1.71, 1.58, .75, 1/4 NPT, .379 I.D. BUSHING, 1/8-12 UNF-2A (BOTH ENDS), and 1/121/1/124 DIA. PILOT (BOTH ENDS).

2" Bore Hydraulic Cylinders

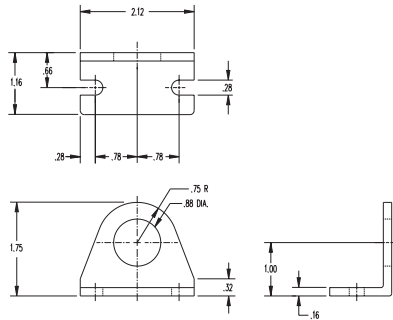
Push Force = 3.14 x PSI Pull Force = 2.83 x PSI

☐ Enter Stroke Length as 3rd Digit

Model	Description/Weight (Lbs)	Dimensions
H-31 ☐ -DBZ	 Front Block Mount Standard Stroke Lengths: 1", 2", 3", 4", 5", 6" Maximum Stroke – 12" Base Weight: 1.90 Adder Per Inch of Stroke: .24	 5.47 + STROKE 1.00 .62 1.12 4 HOLES DRILL & C'BORE FOR 3/8 CAP SCREW 1/4 NPT 1.44 1/2-20 UNF-2A 1/2 HEX STUD .56 WRENCH FLATS (.625 DIA. ROD) 2.25 SQ 2.21 2.09 1.25 1/4 NPT
H-31 ☐ -DUZ	 Universal Mount – Double End or Rear Pivot Standard Stroke Lengths: 1", 2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12" Maximum Stroke – 32" Optional Accessories: D-8319 Mounting Bracket D-8325-A Pivot Bracket D-8313-A Clevis Base Weight: 1.75 Adder Per Inch of Stroke: .24	 6.50 + STROKE 1.62 .72 .11 1.12 1/4 NPT (BOTH ENDS) 1.249/1.250 DIA. PILOT (BOTH ENDS) 1 1/4-12 UNF-2A (BOTH ENDS) .56 WRENCH FLATS (.625 DIA. ROD) 1.09 .66 .11 .50 438 I.D. BUSHING 2.21 2.09 .68 1
H-31 ☐ -DZ	 Nose Mount Standard Stroke Lengths: 1", 2", 3", 4", 5", 6" Maximum Stroke – 12" Optional Accessory: D-8319 Mounting Bracket Base Weight: 1.63 Adder Per Inch of Stroke: .24	 5.47 + STROKE 1.62 .72 .11 1.12 1/4 NPT 1.246/1.249 DIA. PILOT 1 1/4-12 UNF-2A .56 WRENCH FLATS (.625 DIA. ROD) 1/2-20 UNF-2A 1/2 HEX STUD 2.21 2.09 1.25 1/4 NPT

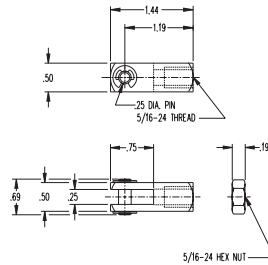
1-1/16" Bore Accessories

D-8316



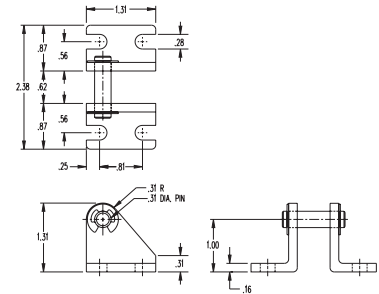
Mounting Bracket

D-8309-A



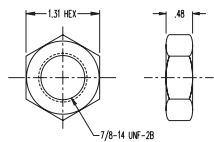
Rod Clevis

D-8322-A



Pivot Brackets

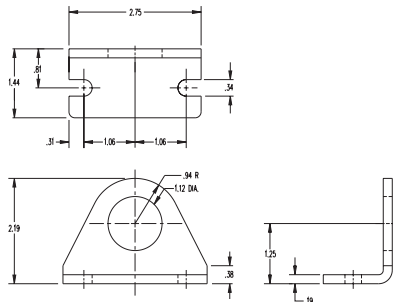
D-2545



Mounting Nut

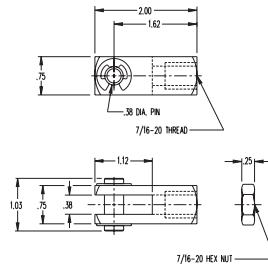
1-1/2" Bore Accessories

D-8318



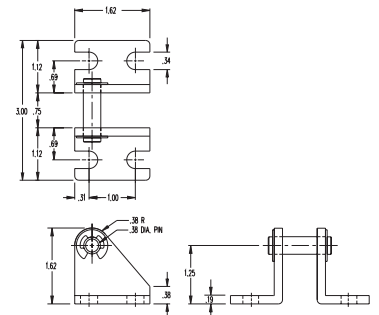
Mounting Bracket

D-8311-A



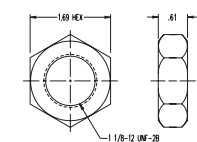
Rod Clevis

D-8324-A



Pivot Brackets

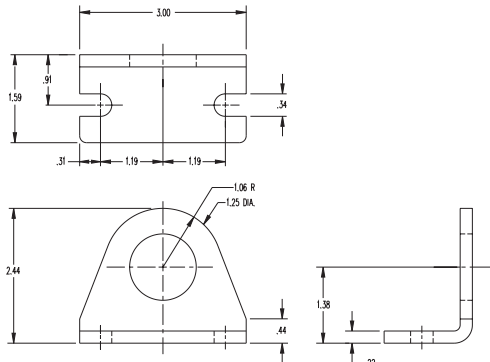
D-8484



Mounting Nut

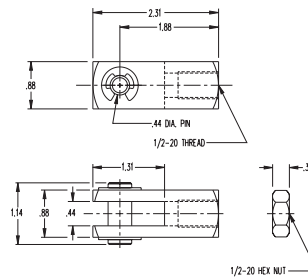
2" Bore Accessories

D-8319



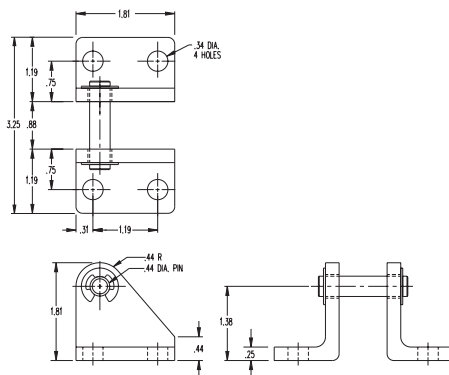
Mounting Bracket

D-8313-A



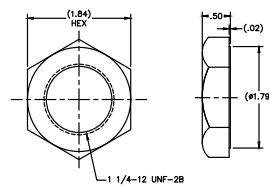
Rod Clevis

D-8325-A



Pivot Brackets

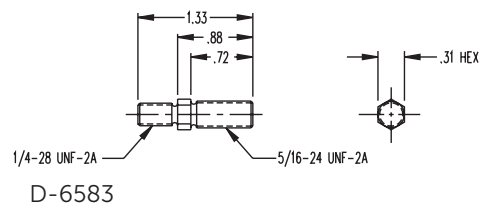
D-508



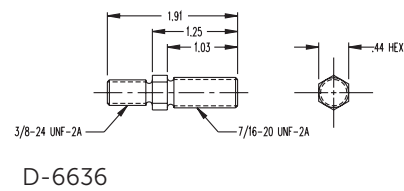
Mounting Nut

Hex Stud Accessory

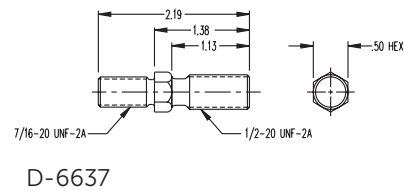
1-1/16" Bore



1-1/2" Bore

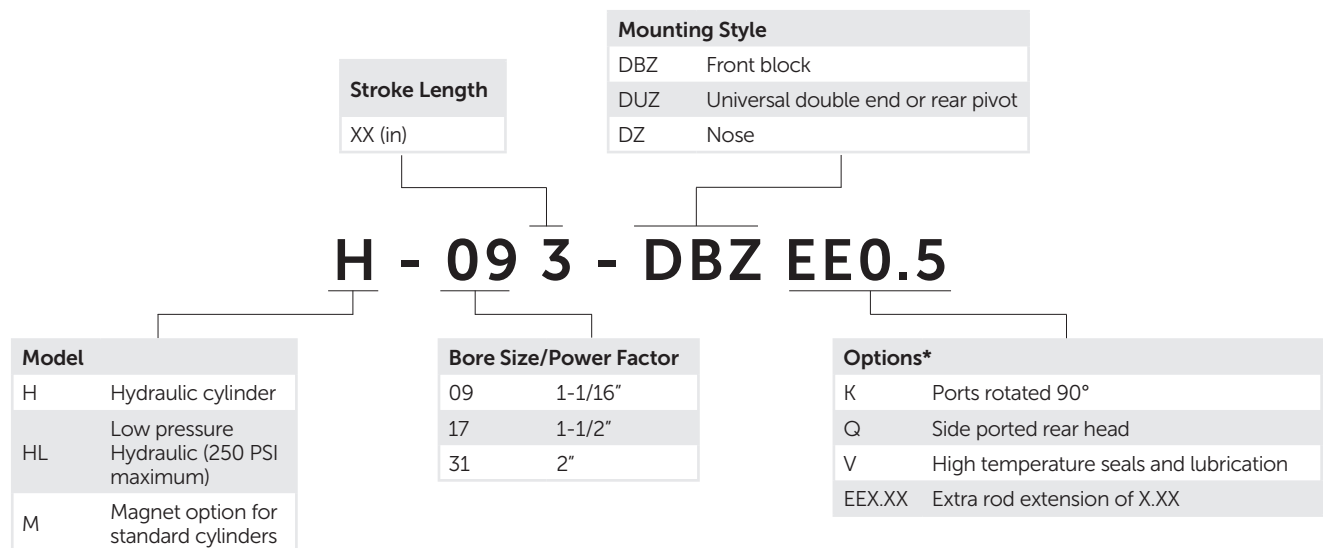


2" Bore



The model number of all Original Line hydraulic actuators consists of an alphanumeric cluster designating product type, bore size, stroke length, mounting styles, and other optional components that together make up the complete part number to use when ordering. Use the ordering information below to build a valid part number.

An example of a double-acting 500 Series hydraulic unit with a front block, 1-1/16" bore, 3" stroke, and additional options is shown below.



Approximate Power Factors		
1-1/16"	=	0.90
1-1/2"	=	1.7
2"	=	3.10

IMI Bimba has made sizing a cylinder as easy as knowing the model number. Each base model number is developed by calculating the area of the cylinder bore. This area, or Power Factor, will provide the force the cylinder will exert when multiplied by the airline pressure.

FORCE = Airline Pressure x Piston Area

PISTON AREA = IMI Bimba Power Factor

FORCE = Airline Pressure x IMI Bimba Power Factor