



25 WEST MILLER ROAD - IOLA, KANSAS 66749 USA (620)

365-7255 FAX (620) 365-7746

email : info@prec-int.com

**IDENTIFICATION
NUMBER**

MATERIAL

000-000-00

SIZE

**LENGTH
THREAD SPECIFICATION
SPECIAL FEATURE**

LETTERS INDICATE SIZE

**A - 1"
B - 1-1/8"
C - 1-1/4"
D - 1-1/2"
E - 1-3/4"
F - 1-25/32"
G - 2"
H - 2-1/8"
J - 2-1/4"**

**K - 2-1/2"
L - 2-3/4"
M - 3-1/4"
N - 5/8" ROD SIZE
P - 3/4" ROD SIZE
Q - 7/8" ROD SIZE
S - 1" ROD SIZE
Z - SPECIAL SIZE
X - 1/2"**

MATERIAL

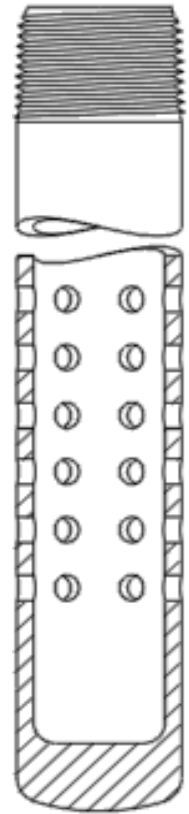
**10 - BRASS
11 - STNLS STEEL
12 - BRASS CHROME
13 - STEEL
14 - STEEL CHROME
15 - STEEL STELLITE TRIM
16 - HARDENED OR ALLOY
18 - CHRO-MO-NI
19 - STELLITE
20 - CARBIDE
22 - BRASS TBG
24 - STEEL TBG**

**21 - MONEL
23 - TITANIUM CARBIDE
61 - SPRAY METAL
62 - STNLS STELLITE TRIM
63 - BRASS NICARB
64 - STEEL NICARB
65 - 501 CHROME
66 - CADMIUM PLATED
70 - 17-4 PH STNLS STEEL
DOUBLE TEMPERED
72 - MONEL - STELLITE TRIM**

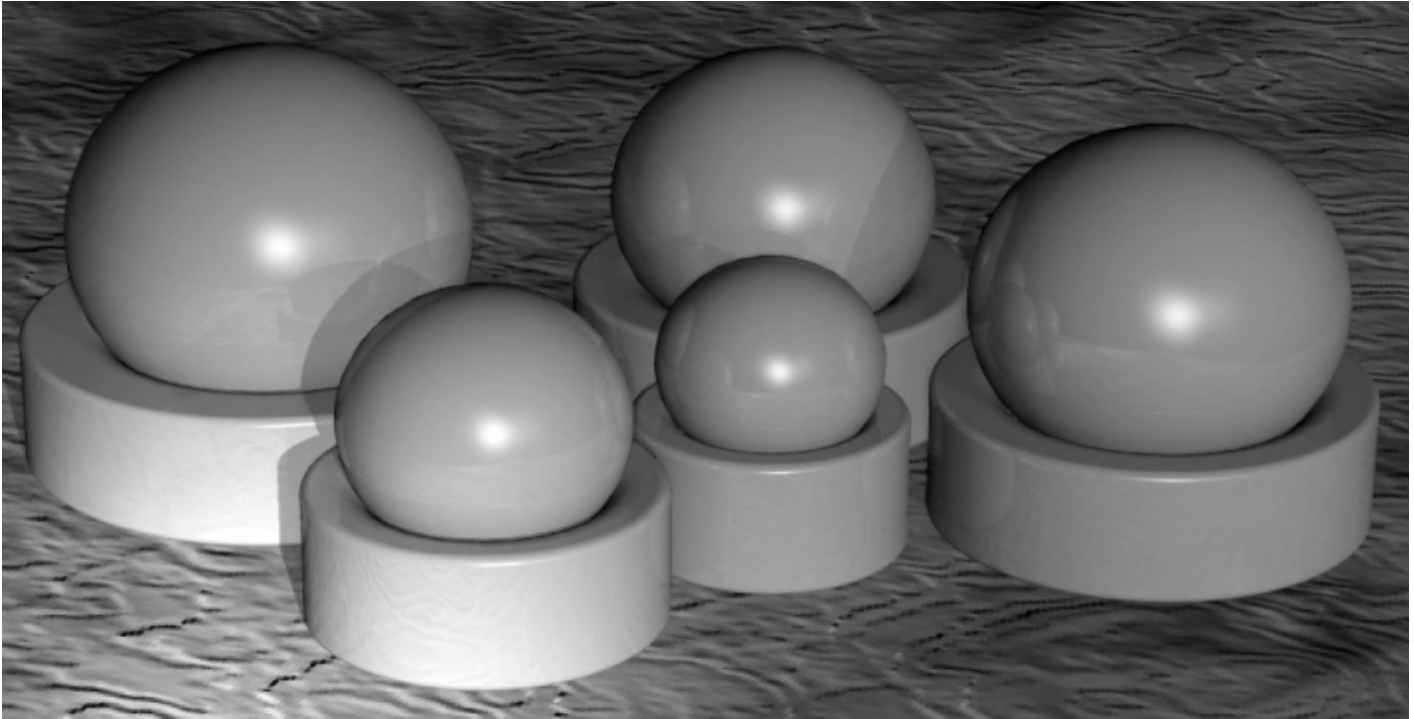
Anchor, Gas (101)

THREAD SIZE	PART NUMBER	AVAILABLE LENGTHS
1" NPT	101-A13-**	02', 03', 04', 05', 06', 07', 08', 10', 12', 14', 15', 16', 18', 20'
1-1/4" NPT	101-C13-**	02', 04', 05', 06', 07', 08', 10', 12', 14', 15', 16', 18', 20'
1/2" NPT	101-X13-**	03'
3/4" NPT	101-Z13**	04', 05', 06', 08', 10', 12'

** = LENGTH DESIRED IN FEET



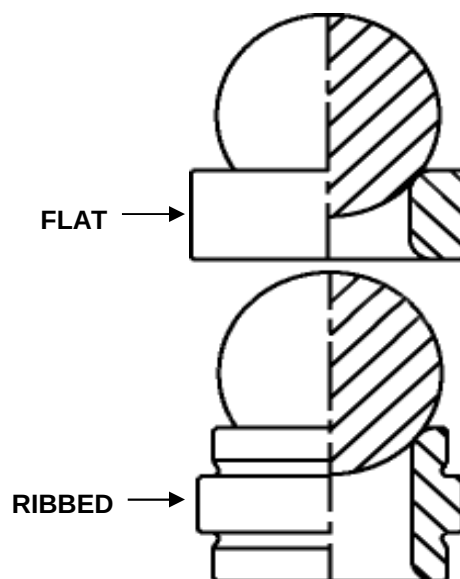
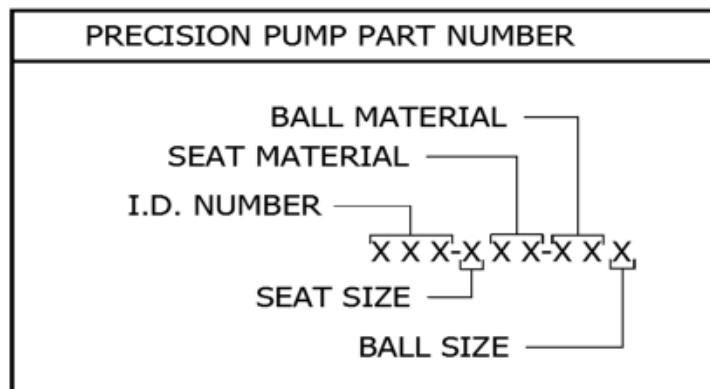
PRECISION BALL AND SEATS



**OUR BALL AND SEATS ARE MANUFACTURED WITH A NUMBER OF MATERIALS
TO ACCOMMODATE A BROAD RANGE OF PUMPING CONDITIONS**

STAINLESS -	COMMONLY USED FOR WITHSTANDING AVERAGE PUMPING CONDITIONS. STAINLESS BALLS AND SEATS ARE MADE FROM 440C STAINLESS STEEL AND ARE HEATREATED FOR MAXIMUM LIFE
CHRO-MO-NI -	EXCELLENT FOR OVERCOMING MAGNETISM, MODERATE CORROSION AND ABRASIVE CONDITIONS. THE SEAT IS MADE FROM A PRECISION EXCLUSIVE PROCESS, AND USES A NON-MAG 329SS BALL
STELLITE -	THIS MATERIAL HAS OUTSTANDING HIGH CORROSION AND ABRASION PROPERTIES, BALLS AND SEATS ARE MADE FROM A MIXTURE OF COBALT, CHROMIUM AND TUNGSTEN ALLOY.
CARBIDE -	THIS MATERIAL IS EXTREMELY HARD AND WILL PERFORM WELL IN SEVERE CORROSIVE AND ABRASIVE APPLICATIONS

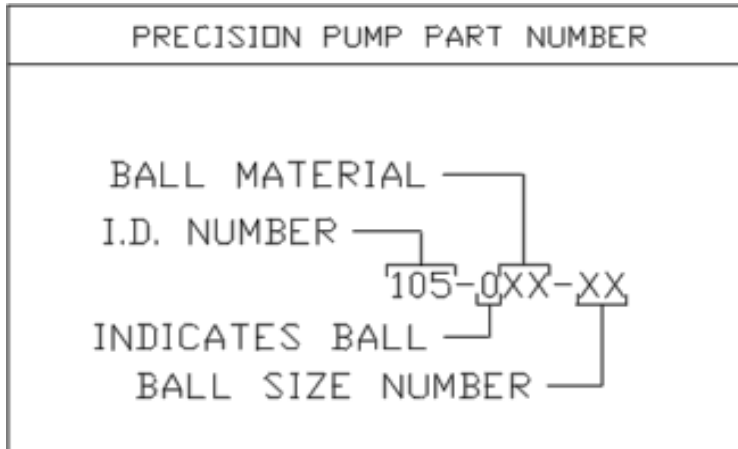
Ball and Seats, Flat (103), Ribbed (104)



FLAT SEATS						
VALVE SIZE	BALL SIZE	API NUMBER	SEAT MATERIAL & PART NUMBERS			
			STAINLESS	CHR-MO-NI	STELLITE	CARBIDE
1"	5/8"		103-A11-**-	103-A18-**-	103-A19-**-	103-A20-**-
1-1/16"	9/16"	V11-106	103-B11-**-	103-B18-**-	103-B19-**-	103-B20-**-
1-1/4"	3/4"	V11-125	103-C11-**-	103-C18-**-	103-C19-**-	103-C20-**-
	11/16"		103-C11-**-A	103-C18-**-A	103-C19-**-A	103-C20-**-A
1-1/2"	15/16"	V11-150	103-D11-**-	103-D18-**-	103-D19-**-	103-D20-**-
	7/8"		103-D11-**-A	103-D18-**-A	103-D19-**-A	103-D20-**-A
	3/4"		103-D11-**-AA	103-D18-**-AA	103-D19-**-AA	103-D20-**-AA
1-3/4"	1-1/8"	V11-175	103-E11-**-	103-E18-**-	103-E19-**-	103-E20-**-
	1"		103-E11-**-A	103-E18-**-A	103-E19-**-A	103-E20-**-A
2"	1-1/4"	V11-200	103-G11-**-	103-G18-**-	103-G19-**-	103-G20-**-
	1-1/8"		103-G11-**-A	103-G18-**-A	103-G19-**-A	103-G20-**-A
2-1/4"	1-3/8"	V11-225	103-J11-**-	103-J18-**-	103-J19-**-	103-J20-**-
	1-1/4"		103-J11-**-A	103-J18-**-A	103-J19-**-A	103-J20-**-A
2-3/4"	1-11/16"	V11-250	103-L11-**-	103-L18-**-	103-L19-**-	103-L20-**-
	1-1/2"		103-L11-**-A	103-L18-**-A	103-L19-**-A	103-L20-**-A
3-1/4"	2"		103-M11-**-	103-M18-**-	103-M19-**-	103-M20-**-
	1-7/8"		103-M11-**-A	103-M18-**-A	103-M19-**-A	103-M20-**-A
3-3/4"	2-1/4"	V11-375	103-N11-**-	103-N18-**-	103-N19-**-	103-N20-**-
RIBBED SEATS						
1-1/2"	15/16"		104-D11-**-	104-D18-**-	104-D19-**-	-
	7/8"		104-D11-**-A	104-D18-**-A	104-D19-**-A	-
1-3/4"	1-1/8"		104-E11-**-	104-E18-**-	104-E19-**-	-
	1"		104-E11-**-A	104-E18-**-A	104-E19-**-A	-
2-1/4"	1-3/8"		104-J11-**-	104-J18-**-	104-J19-**-	-
	1-1/4"		104-J11-**-A	104-J18-**-A	104-J19-**-A	-

** - BALL MATERIAL

Balls (105)



SEE PREVIOUS PAGE FOR DESCRIPTION OF MATERIALS

BALL SIZE	BALL MATERIAL & PART NUMBERS			
	STAINLESS		STELLITE	CARBIDE
5/8"	105-011-58		105-019-58	105-020-58
9/16"	105-011-96		105-019-96	105-020-96
11/16"	105-011-11		105-019-11	105-020-11
3/4"	105-011-34		105-019-34	105-020-34
7/8"	105-011-78		105-019-78	105-020-78
15/16"	105-011-15		105-019-15	105-020-15
1"	105-011-10		105-019-10	105-020-10
1-1/8"	105-011-18		105-019-18	105-020-18
1-1/4"	105-011-14		105-019-14	105-020-14
1-3/8"	105-011-38		105-019-38	105-020-38
1-1/2"	105-011-12		105-019-12	105-020-12
1-11/16"	105-011-16		105-019-16	105-020-16
2"	105-011-20		105-019-20	105-020-20
2-1/8"	105-011-28		105-019-28	105-020-28
2-1/4"	105-011-24		105-019-24	105-020-24

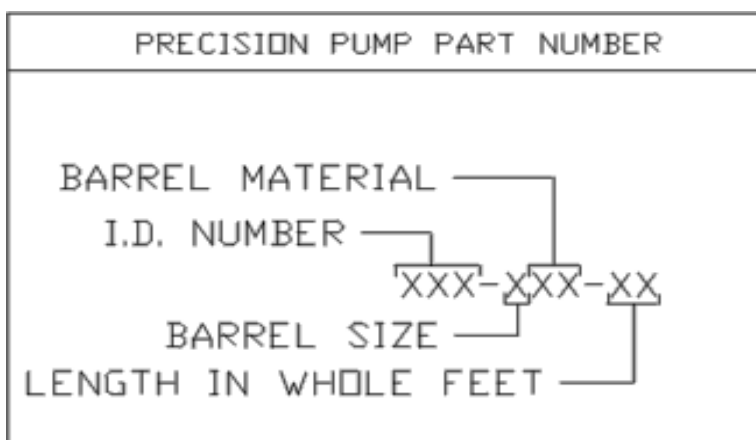
BARRELS (109 - 129)

PRECISION IS AN EXPERIENCED BARREL MANUFACTURER. ALL BARRELS ARE MANUFACTURED WITH TIME TESTED ACCURACY AND FUNCTIONALITY. ALL API STANDARDS ARE CLOSELY ADHERED TO FROM MATERIAL SELECTION TO OUR IN HOUSE HONING AND THREADING OPERATIONS TO QUALITY CONTROL.

BARRELS ARE OFFERED IN THE FOLLOWING MATERIALS:

STEEL (PLAIN)	FOR USE IN AVERAGE PUMPING CONDITIONS WHERE ABRASION AND CORROSION ARE NOT A FACTOR.
NITRO STEEL HARDENED	FOR USE IN MILD ABRASION AND CORROSION. THE ID OF THE BARREL IS HEATTREATED TO PROVIDE A HARDNESS OF Rc 65-70.
STAINLESS STEEL	MADE FROM 304SS TO WITHSTAND SEVERE CORROSION AND MEDIUM ABRASION.
BRASS	MADE FROM ARESENICAL ADMIRALTY BRASS. USED IN MODERATE CORROSION AND NON-ABRASIVE SERVICE.
CHROME PLATED	MAY BE ADDED TO PLAIN STEEL AND BRASS BARRELS WHERE SEVERE CORROSION IS AN ISSUE. HARDNESS UP TO Rc 72 WITH AN APPLIED THICKNESS OF 0.006" AFTER HONING.
PRECISION "CNM"	USEFUL FOR SEVERE ABRASIVE AND CORROSIVE WELLS. MADE BY INTRODUCING SILICONE CARBIDE PARTICLES INTO A NICKEL MATRIX AND APPLYING TO CARBON STEEL, STAINLESS STEEL, OR BRASS. THE HARDNESS YIELD EXCEEDS ALL OTHER SPECIFIED API HARDNESS LEVELS.

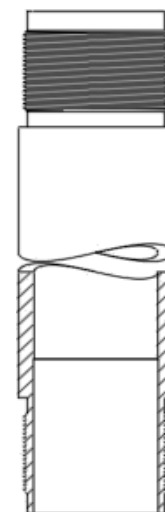
PART NUMBERING SYSTEM FOR BARRELS



Barrel, Heavy Wall, "RH", Precision (109)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
2"	109-D13-**	2'-24'	1-7/8"	1-1/2"	1.7370-18 PIN
2"	109-D14-**	2'-24'	1-7/8"	1-1/2"	1.7370-18 PIN
2"	109-D16-**	2'-24'	1-7/8"	1-1/2"	1.7370-18 PIN

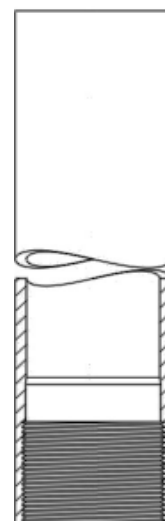
** = LENGTH DESIRED IN WHOLE FEET



Barrel, McGregor (110)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
2"	110-R10-**	4', 5'	1-7/8"	1-5/8"	1.7500-12 BOX
2"	110-R13-**	4', 5'	1-7/8"	1-5/8"	1.7500-12 BOX

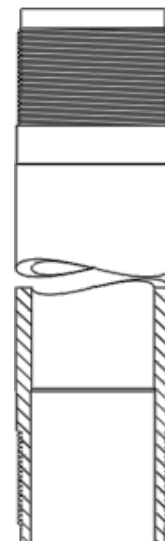
** = LENGTH DESIRED IN WHOLE FEET



Barrel, Thinwall, Precision, External Thread (111)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
1-1/2"	111-B13-**	2'-24'	1-5/16"	1-1/16"	1.3125-16 PIN
1-1/2"	111-B14-**	2'-24'	1-5/16"	1-1/16"	1.3125-16 PIN
1-1/2"	111-B16-**	2'-24'	1-5/16"	1-1/16"	1.3125-16 PIN

** = LENGTH DESIRED IN WHOLE FEET



Barrel, Thin Wall "RS" Soft-packed, 16THD (115)

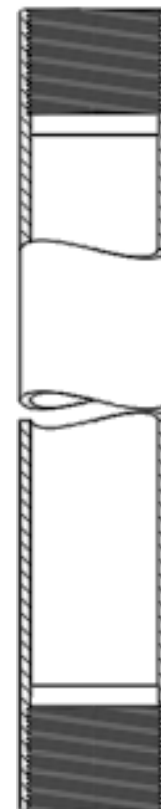
TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
1-1/2"	115-C12-**	2'-24'	1-1/2"	1-1/4"	1.3330-16 BOX
1-1/2"	115-C13-**	2'-24'	1-1/2"	1-1/4"	1.3330-16 BOX
1-1/2"	115-C14-**	2'-24'	1-1/2"	1-1/4"	1.3330-16 BOX

2"	115-D10-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	115-D11-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	115-D12-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	115-D13-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	115-D14-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	115-D16-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX

2-1/2"	115-G10-**	2'-24'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	115-G12-**	2'-24'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	115-G13-**	2'-24'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	115-G14-**	2'-24'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	115-G16-**	2'-24'	2-1/4"	2"	2.0870-16 BOX

2"	115-Z13-**	2'-24'	1-7/8"	1-5/8"	1.6644-20 BOX
----	------------	--------	--------	--------	---------------

** = LENGTH DESIRED IN WHOLE FEET



Barrel, Thin Wall "RS" Soft-packed, 14THD (120)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
2"	120-D10-**	2'-24'	1-3/4"	1-1/2"	1.5894-14 BOX
2"	120-D11-**	2'-24'	1-3/4"	1-1/2"	1.5894-14 BOX
2"	120-D12-**	2'-24'	1-3/4"	1-1/2"	1.5894-14 BOX
2"	120-D13-**	2'-24'	1-3/4"	1-1/2"	1.5894-14 BOX
2"	120-D14-**	2'-24'	1-3/4"	1-1/2"	1.5894-14 BOX

** = LENGTH DESIRED IN WHOLE FEET

Barrel, Thin Wall "RW" Precision, 16THD (122)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
1-1/2"	122-C10-**	2'-24'	1-1/2"	1-1/4"	1.3330-16 BOX
1-1/2"	122-C12-**	2'-24'	1-1/2"	1-1/4"	1.3330-16 BOX
1-1/2"	122-C13-**	2'-24'	1-1/2"	1-1/4"	1.3330-16 BOX
1-1/2"	122-C14-**	2'-24'	1-1/2"	1-1/4"	1.3330-16 BOX
1-1/2"	122-C16-**	2'-24'	1-1/2"	1-1/4"	1.3330-16 BOX
1-1/2"	122-C63-**	2'-24'	1-1/2"	1-1/4"	1.3330-16 BOX

2"	122-D10-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	122-D12-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	122-D13-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	122-D14-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	122-D16-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	122-D63-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	122-D64-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX
2"	122-D65-**	2'-24'	1-3/4"	1-1/2"	1.5730-16 BOX

API # B11-200

2-1/2"	122-G10-**	2'-24'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	122-G12-**	2'-24'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	122-G13-**	2'-24'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	122-G14-**	2'-32'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	122-G16-**	2'-24'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	122-G63-**	2'-24'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	122-G64-**	2'-26'	2-1/4"	2"	2.0870-16 BOX
2-1/2"	122-G65-**	2'-24'	2-1/4"	2"	2.0870-16 BOX

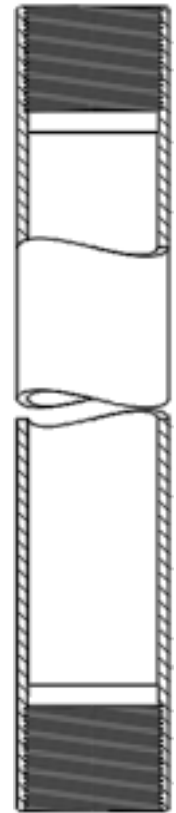
3"	122-J14-**	2'-24'	2-3/4"	2-1/4"	2.3755-11½ BX
3"	122-J16-**	2'-24'	2-3/4"	2-1/4"	2.3755-11½ BX

3"	122-L13-**	2'-24'	3-1/4"	2-3/4"	2.875-10 BOX
3"	122-L14-**	2'-24'	3-1/4"	2-3/4"	2.875-10 BOX

3"	122-M12-**	2'-24'	3-3/4"	3-1/4"	3.3825-11½ BX
3"	122-M13-**	2'-24'	3-3/4"	3-1/4"	3.3825-11½ BX
3"	122-M14-**	2'-24'	3-3/4"	3-1/4"	3.3825-11½ BX
3"	122-M16-**	2'-24'	3-3/4"	3-1/4"	3.3825-11½ BX

2"	122-Z13-**	2'-24'	1-7/8"	1-5/8"	1.6644-20 BOX
2"	122-Z14-**	2'-24'	1-7/8"	1-5/8"	1.6644-20 BOX

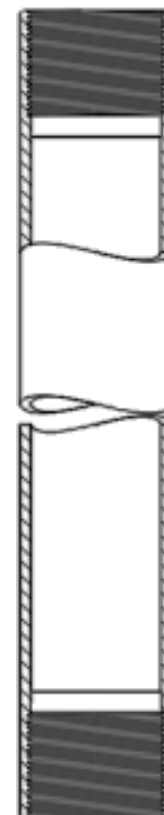
** = LENGTH DESIRED IN WHOLE FEET



Barrel, Heavy Wall "RX" Precision, 16THD INT (122)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
2"	122-C16-**H	2'-24'	1-5/8"	1-1/4"	1.3330-16 BOX
API # B16-150					
2-1/2"	122-D10-**H	2'-24'	1-7/8"	1-1/2"	1.5730-16 BOX
2-1/2"	122-D12-**H	2'-24'	1-7/8"	1-1/2"	1.5730-16 BOX
2-1/2"	122-D13-**H	2'-24'	1-7/8"	1-1/2"	1.5730-16 BOX
2-1/2"	122-D14-**H	2'-24'	1-7/8"	1-1/2"	1.5730-16 BOX
2-1/2"	122-D16-**H	2'-24'	1-7/8"	1-1/2"	1.5730-16 BOX
2-1/2"	122-D63-**H	2'-24'	1-7/8"	1-1/2"	1.5730-16 BOX
2-1/2"	122-D64-**H	2'-24'	1-7/8"	1-1/2"	1.5730-16 BOX
2-1/2"	122-D65-**H	2'-24'	1-7/8"	1-1/2"	1.5730-16 BOX
API # B16-200					
3"	122-G10-**H	2'-24'	2-5/16"	2"	2.0870-16 BOX
3"	122-G12-**H	2'-24'	2-5/16"	2"	2.0870-16 BOX
3"	122-G13-**H	2'-24'	2-5/16"	2"	2.0870-16 BOX
3"	122-G14-**H	2'-32'	2-5/16"	2"	2.0870-16 BOX
3"	122-G16-**H	2'-24'	2-5/16"	2"	2.0870-16 BOX
3"	122-G63-**H	2'-24'	2-5/16"	2"	2.0870-16 BOX
3"	122-G64-**H	2'-26'	2-5/16"	2"	2.0870-16 BOX
3"	122-G65-**H	2'-24'	2-5/16"	2"	2.0870-16 BOX

** = LENGTH DESIRED IN WHOLE FEET



Barrel, Heavywall "RH" Precision (123)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
2"	123-B13-**	2'-24'	1-7/16"	1-1/16"	1.3125-16 PIN
2	123-B14-**	2'-24'	1-7/16"	1-1/16"	1.3125-16 PIN

API # B12-125

2"	123-C10-**	2'-24'	1-5/8"	1-1/4"	1.5730-16 PIN
2"	123-C12-**	2'-30'	1-5/8"	1-1/4"	1.5730-16 PIN
2"	123-C13-**	2'-24'	1-5/8"	1-1/4"	1.5730-16 PIN
2"	123-C14-**	2'-30'	1-5/8"	1-1/4"	1.5730-16 PIN
2"	123-C16-**	2'-24'	1-5/8"	1-1/4"	1.5730-16 PIN
2"	123-C63-**	2'-24'	1-5/8"	1-1/4"	1.5730-16 PIN
2"	123-C64-**	2'-24'	1-5/8"	1-1/4"	1.5730-16 PIN
2"	123-C65-**	2'-24'	1-5/8"	1-1/4"	1.5730-16 PIN

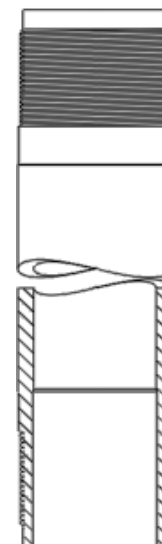
API # B12-150

2-1/2"	123-D12-**	2'-24'	1-7/8"	1-1/2"	1.8750-16 PIN
2-1/2"	123-D13-**	2'-24'	1-7/8"	1-1/2"	1.8750-16 PIN
2-1/2"	123-D14-**	2'-30'	1-7/8"	1-1/2"	1.8750-16 PIN
2-1/2"	123-D16-**	2'-24'	1-7/8"	1-1/2"	1.8750-16 PIN
2-1/2"	123-D63-**	2'-24'	1-7/8"	1-1/2"	1.8750-16 PIN
2-1/2"	123-D65-**	2'-24'	1-7/8"	1-1/2"	1.8750-16 PIN

API # B12-175

2-1/2"	123-E12-**	2'-24'	2-1/8"	1-3/4"	2.0870-16 PIN
2-1/2"	123-E13-**	2'-24'	2-1/8"	1-3/4"	2.0870-16 PIN
2-1/2"	123-E14-**	2'-30'	2-1/8"	1-3/4"	2.0870-16 PIN
2-1/2"	123-E16-**	2'-24'	2-1/8"	1-3/4"	2.0870-16 PIN
2-1/2"	123-E63-**	2'-24'	2-1/8"	1-3/4"	2.0870-16 PIN
2-1/2"	123-E64-**	2'-24'	2-1/8"	1-3/4"	2.0870-16 PIN

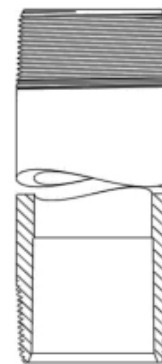
** = LENGTH DESIRED IN WHOLE FEET



Barrel, Tubing Pump, Precision with Working BBL THDS (124)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
2"	124-F10-**-	2'-24'	2-1/4"	1-25/32"	178-11½ PIN
2"	124-F12-**-	2'-24'	2-1/4"	1-25/32"	178-11½ PIN
2"	124-F13-**-	2'-24'	2-1/4"	1-25/32"	178-11½ PIN
2"	124-F14-**-	2'-24'	2-1/4"	1-25/32"	178-11½ PIN
2-1/2"	124-J10-**-	2'-24'	2-3/4"	2-1/4"	225-11½ PIN
2-1/2"	124-J12-**-	2'-24'	2-3/4"	2-1/4"	225-11½ PIN
2-1/2"	124-J13-**-	2'-24'	2-3/4"	2-1/4"	225-11½ PIN
2-1/2"	124-J14-**-	2'-24'	2-3/4"	2-1/4"	225-11½ PIN

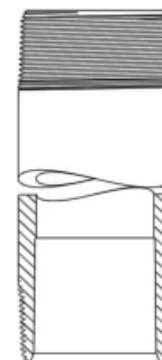
** = LENGTH DESIRED IN WHOLE FEET



Barrel, Working, 2-1/8 OD (125)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
2"	125-F10-**-	2'-24'	2-1/8"	1-25/32"	2.1250-11½ PIN
2"	125-F11-**-	2'-24'	2-1/8"	1-25/32"	2.1250-11½ PIN
2"	125-F12-**-	2'-24'	2-1/8"	1-25/32"	2.1250-11½ PIN
2"	125-F13-**-	2'-24'	2-1/8"	1-25/32"	2.1250-11½ PIN
2"	125-F14-**-	2'-24'	2-1/8"	1-25/32"	2.1250-11½ PIN

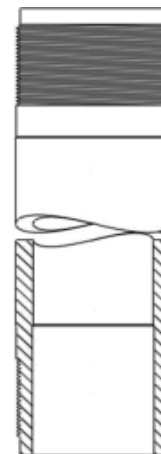
** = LENGTH DESIRED IN WHOLE FEET



Barrel, Heavy Wall, Metal Plunger, TH (126)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
API # B13-175					
2"	126-E10-**	2'-24'	2-1/4"	1-3/4"	2.2380-11½ PIN
2"	126-E12-**	2'-24'	2-1/4"	1-3/4"	2.2380-11½ PIN
2"	126-E13-**	2'-24'	2-1/4"	1-3/4"	2.2380-11½ PIN
2"	126-E14-**	2'-24'	2-1/4"	1-3/4"	2.2380-11½ PIN
2"	126-E16-**	2'-24'	2-1/4"	1-3/4"	2.2380-11½ PIN
2"	126-E63-*	2'-24'	2-1/4"	1-3/4"	2.2380-11½ PIN
2"	126-F12-**	2'-24'	2-1/4"	1-25/32"	2.2380-11½ PIN
2"	126-F13-**	2'-24'	2-1/4"	1-25/32"	2.2380-11½ PIN
2"	126-F14-**	2'-24'	2-1/4"	1-25/32"	2.2380-11½ PIN
API # B13-225					
2-1/2"	126-J10-**	2'-24'	2-3/4"	2-1/4"	2.7380-11½ PIN
2-1/2"	126-J12-**	2'-24'	2-3/4"	2-1/4"	2.7380-11½ PIN
2-1/2"	126-J13-**	2'-24'	2-3/4"	2-1/4"	2.7380-11½ PIN
2-1/2"	126-J14-**	2'-24'	2-3/4"	2-1/4"	2.7380-11½ PIN
2-1/2"	126-J16-**	2'-24'	2-3/4"	2-1/4"	2.7380-11½ PIN
2-1/2"	126-J63-**	2'-24'	2-3/4"	2-1/4"	2.7380-11½ PIN
2-1/2"	126-J64-**	2'-24'	2-3/4"	2-1/4"	2.7380-11½ PIN
3"	126-L10-**	2'-24'	3-1/4"	2-3/4"	3.2380-11½ PIN
3"	126-L12-**	2'-24'	3-1/4"	2-3/4"	3.2380-11½ PIN
3"	126-L13-**	2'-24'	3-1/4"	2-3/4"	3.2380-11½ PIN
3"	126-L14-**	2'-24'	3-1/4"	2-3/4"	3.2380-11½ PIN
3"	126-L16-**	2'-24'	3-1/4"	2-3/4"	3.2380-11½ PIN

** = LENGTH DESIRED IN WHOLE FEET



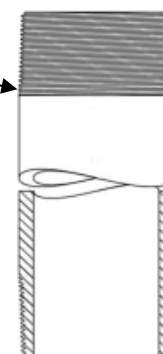
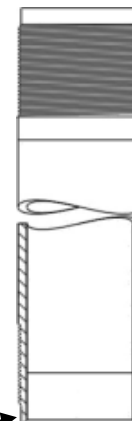
Barrel, Working, TP, Soft-packed (127)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
1-1/2"	127-D13-**-	2'-24'	1-3/4"	1-1/2"	1.7500-16 PIN
1-1/2"	127-D14-**-	2'-24'	1-3/4"	1-1/2"	1.7500-16 PIN
2"	127-F10-**-	2'-24'	2-1/4"	1-25/32"	178-12 PIN
2"	127-F12-**-	2'-24'	2-1/4"	1-25/32"	178-12 PIN
2"	127-F13-**-	2'-24'	2-1/4"	1-25/32"	178-12 PIN
2"	127-F14-**-	2'-24'	2-1/4"	1-25/32"	178-12 PIN

** = LENGTH DESIRED IN WHOLE FEET

127-D

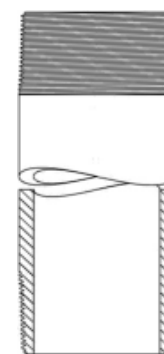
127-F



Barrel, Working, TP, Soft-packed (129)

TUBING SIZE	PRECISION PART #	AVAILABLE LENGTHS	OUTSIDE DIAMETER	INSIDE DIAMETER	THREAD SIZE
2-1/2"	129-J10-**-	2'-24'	2-3/4"	2-1/4"	225-11½ PIN
2-1/2"	129-J12-**-	2'-24'	2-3/4"	2-1/4"	225-11½ PIN
2-1/2"	129-J13-**-	2'-24'	2-3/4"	2-1/4"	225-11½ PIN
2-1/2"	129-J14-**-	2'-24'	2-3/4"	2-1/4"	225-11½ PIN
2-1/2"	129-J16-**-	2'-24'	2-3/4"	2-1/4"	225-11½ PIN
3"	129-L10-**-	2'-24'	3-1/4"	2-3/4"	275-11½ PIN
3"	129-L12-**-	2'-24'	3-1/4"	2-3/4"	275-11½ PIN
3"	129-L13-**-	2'-24'	3-1/4"	2-3/4"	275-11½ PIN
3"	129-L14-**-	2'-24'	3-1/4"	2-3/4"	275-11½ PIN

** = LENGTH DESIRED IN WHOLE FEET



Body, Plunger Cup, Pin THD (204)

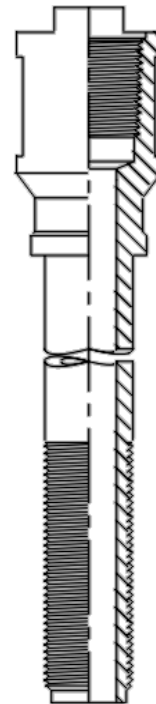
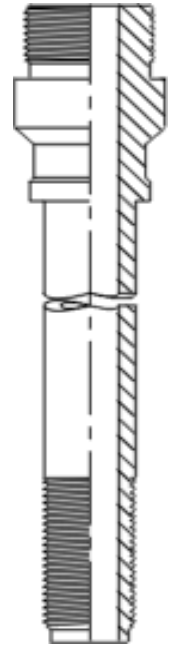
PUMP BORE	PART NUMBER	NUMBER OF CUPS	THREAD SIZE	THREAD SIZE
1-1/2"	204-D**-30	4	1.2500-14 PIN	0.8750-14 PIN
1-1/2"	204-D**-31	6	1.2500-14 PIN	0.8750-14 PIN
1-1/2"	204-D**-32	8	1.2500-14 PIN	0.8750-14 PIN

** = MATERIAL TYPE

Body, Plunger, API Cup (205)

PUMP BORE	PART NUMBER	NUMBER OF CUPS	THREAD SIZE	THREAD SIZE
1-1/2"	205-D**-30	4	3/4-14 NPT BOX	0.8750-14 PIN
1-1/2"	205-D**-31	6	3/4-14 NPT BOX	0.8750-14 PIN
1-1/2"	205-D**-32	8	3/4-14 NPT BOX	0.8750-14 PIN
1-1/2"	205-D**-33	10	3/4-14 NPT BOX	0.8750-14 PIN
1-1/2"	205-D**-34	12	3/4-14 NPT BOX	0.8750-14 PIN
1-25/32"	205-F**-30	4	1.1894-14 PIN	1.4704-14 PIN
1-25/32"	205-F**-31	6	1.1894-14 PIN	1.4704-14 PIN
1-25/32"	205-F**-32	8	1.1894-14 PIN	1.4704-14 PIN
1-25/32"	205-F**-33	10	1.1894-14 PIN	1.4704-14 PIN
2-1/4"	205-J**-30	4	1.8024-14 PIN	1.5604-14 PIN
2-1/4"	205-J**-31	6	1.8024-14 PIN	1.5604-14 PIN
2-1/4"	205-J**-32	8	1.8024-14 PIN	1.5604-14 PIN
2-1/4"	205-J**-33	10	1.8024-14 PIN	1.5604-14 PIN

** = MATERIAL TYPE



Body, Plunger Cup (206)

PUMP BORE	PART NUMBER	NUMBER OF CUPS	THREAD SIZE
1-1/2"	206-D**-04	4	0.8750-14 PIN
1-1/2"	206-D**-06	6	0.8750-14 PIN
1-1/2"	206-D**-08	8	0.8750-14 PIN
1-1/2"	206-D**-10	10	0.8750-14 PIN
1-1/2"	206-D**-12	12	0.8750-14 PIN
1-25/32"	206-F**-06	6	1.4704-14 PIN
2"	206-G**-06	6	1.3750-14 PIN
2"	206-G**-08	8	1.3750-14 PIN
2"	206-G**-10	10	1.3750-14 PIN
2-1/4"	206-J**-06	6	1.5604-14 PIN
2-1/4"	206-J**-08	8	1.5604-14 PIN
2-1/4"	206-J**-10	10	1.5604-14 PIN
1-7/8"	206-Z**-29	3	1.1894-14 PIN

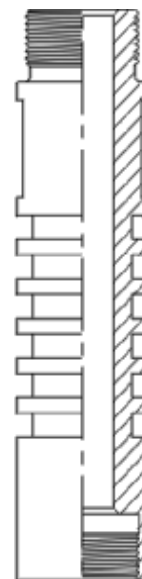
** = MATERIAL TYPE



Body, Plunger Extension, for Pressure Actuated Rings (207)

PUMP BORE	PART NUMBER	NUMBER OF RINGS	THREAD SIZE	THREAD SIZE
1-1/4"	207-C**-06	6	1.0000-14 BOX	1.0000-14 PIN
1-1/2"	207-D**-06	6	1.2500-14 BOX	1.2500-15 PIN
1-3/4"	207-E**-06	6	1.4704-14 BOX	1.4704-14 PIN
2"	207-G**-06	6	1.5604-14 BOX	1.5604-14 PIN

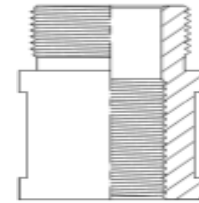
** = MATERIAL TYPE



Bushing, Plunger Tube To Cage (303)

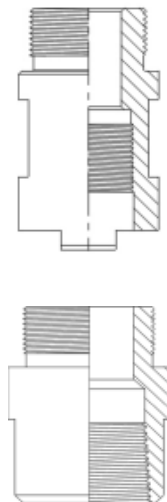
PUMP BORE	PART NUMBER	SEAT TYPE	THREAD SIZE	THREAD SIZE
1-1/4"	303-C**-45	FLAT	0.7500-16 BOX	1.0000-14 PIN
1-1/2"	303-D**-45	FLAT	0.8750-14 BOX	1.2500-14 PIN
1-1/2"	303-D**-46	RIB	0.8750-14 BOX	1.2500-14 PIN
1-3/4"	303-E**-45	FLAT	1.1894-14 BOX	1.4704-14 PIN
2"	303-G**-45	FLAT	1.3750-14 BOX	1.5604-14 PIN
2-1/4"	303-J**-45	FLAT	1.5604-14 BOX	1.8024-14 PIN
2-3/4"	303-L**-45	FLAT	2.0035-11½ BX	2.1095-11½ PN

** = MATERIAL TYPE


Bushing, Seat, Barrel Cage (305)

PUMP BORE	PART NUMBER	API NUMBER	CONNECTION TYPE	THREAD SIZE	THREAD SIZE
1-1/4"	305-C**-35	N/A	HLW VLV ROD	1.4704-14 PIN	0.9375-16 BOX
1-1/2"	305-D**-38	N/A	HLW VLV ROD	1.4704-14 PIN	1.1250-16 BOX
1-1/2"	305-E**-04	N/A	HLW VLV ROD	1.4704-14 PIN	¾-14 NPT BOX
1-1/2"	305-E**-05	B22-20	CAGE, FLAT	1.4704-14 PIN	1-11½ NPT BX
1-1/2"	305-E**-05R	N/A	CAGE, RIBBED	1.4704-14 PIN	1-11½ NPT BX
2"	305-G**-06	B22-25	CAGE, FLAT	1.8024-14 PIN	1¼-11½ NPT B
2"	305-G**-40	N/A	HLW VLV ROD	1.8024-14 PIN	1.5000-16 BOX
3-1/4"	305-M**-12	N/A	HLW VLV ROD	2.8095-11½ PN	2-11½ NPT BX

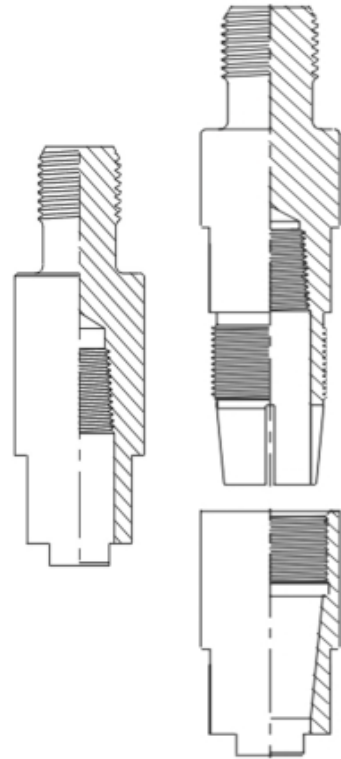
** = MATERIAL TYPE



Bushing, Valve Rod (306)

ROD SIZE	PART NUMBER	BUSHING TYPE	THREAD SIZE	THREAD SIZE
5/8"	306-N**-02		0.9375-10 PIN	3/8-18 MLP BX
5/8"	306-N**-02SH	SLIM HOLE	0.9375-10 PIN	3/8-18 MLP BX
5/8"	306-N**-03		0.9375-10 PIN	1/2-14 MLP BX
3/4"	306-P**-02		1.0625-10 PIN	3/8-18 MLP BX
3/4"	306-P**-02C	COLLET	1.0625-10 PIN	3/8-18 MLP BX
3/4"	306-P**-02SH	SLIM HOLE	1.0625-10 PIN	3/8-18 MLP BX
3/4"	306-P**-03		1.0625-10 PIN	1/2-14 MLP BX
3/4"	306-P**-03C	COLLET	1.0625-10 PIN	1/2-14 MLP BX
3/4"	306-P**-03SH	SLIM HOLE	1.0625-10 PIN	1/2-14 MLP BX
7/8"	306-Q**-02		1.1875-10 PIN	3/8-18 MLP BX
7/8"	306-Q**-03		1.1875-10 PIN	1/2-14 MLP BX
1 1/16"	306-X**-02C	NUT, COLLET		1.2500-14 P/B
7/8"	306-X**-03C	NUT, COLLET		1.2500-14 P/B

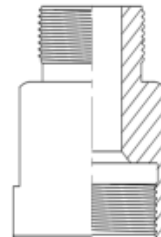
** = MATERIAL TYPE



Bushing, Adapter, Hold-Down SUB (307)

PUMP BORE	PART NUMBER	BUSHING TYPE	THREAD SIZE	THREAD SIZE
1-1/2"	307-K10-45	FLAT	1.4704-14 PIN	1.8024-14-BOX
1-1/2"	307-K10-46	RIBBED	1.4704-14 PIN	1.8024-14-BOX

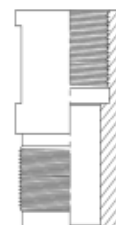
** = MATERIAL TYPE



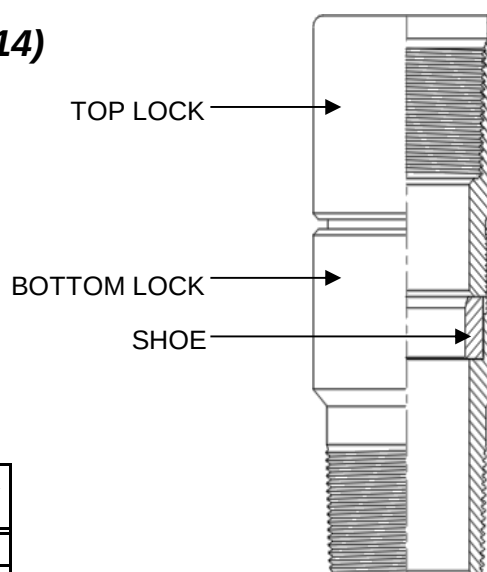
Bushing, Top Hold-Down to Barrel (309)

PUMP BORE	PART NUMBER	API NUMBER	BUSHING TYPE	THREAD SIZE	THREAD SIZE
1-1/4"	309-G**-22	S15-20-125		1.3330-16 PIN	1.1894-14 BOX
1-1/2"	309-G**-23	S15-20		1.5730-16 PIN	1.1894-14 BOX
1-1/2"	309-G**-23V	N/A	VENTED	1.5730-16 PIN	1.1894-14 BOX
2"	309-K**-23	N/A		1.5730-16 PIN	1.5604-14 BOX
2"	309-K**-23V	N/A	VENTED	1.5730-16 PIN	1.5604-14 BOX
2"	309-K**-24	S15-25		2.0870-16 PIN	1.5604-14 BOX

** = MATERIAL TYPE

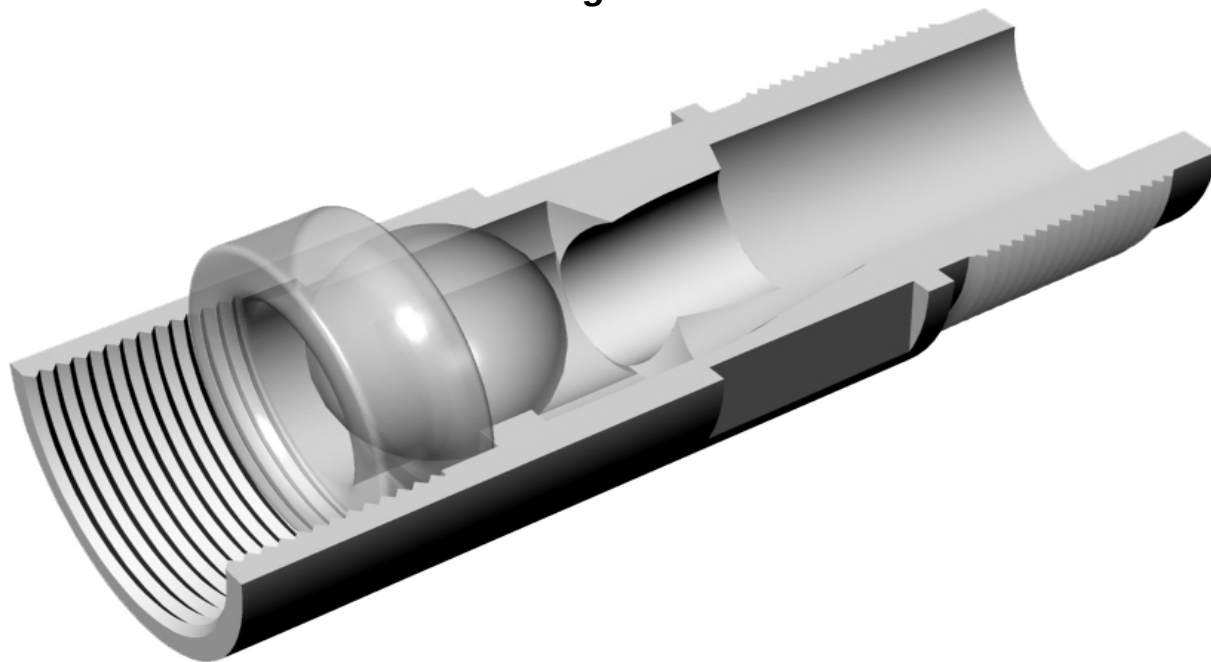

Bushing, Holddown, Top Lock, Assembly (314)

TUBING SIZE	PART NUMBER	API NUMBER
2"	314-G13-09A	N14-20
2"	314-G13-10A	N/A
2-1/2"	314-K13-09A	N14-25
2-1/2"	314-K13-10A	N/A
3"	314-L13-09A	N14-30


PARTS IN ASSEMBLIES

ASSEMBLY NUMBER	TOP LOCK NUMBER	SHOE NUMBER	BOTTOM LOCK NUMBER
314-G**-09A	314-G13-09	593-G11-00	315-G13-09
314-G**-10A	314-G13-10	593-G11-00	315-G13-10
314-K**-09A	314-K13-09	593-K11-00	315-K13-09
314-K**-10A	314-K13-10	593-K11-00	315-K13-10
314-L**-09A	314-L13-09	593-L11-00	315-L13-09

Cages



PRECISION OFFERS A MYRIAD OF CAGES TO PROVIDE A WIDE RANGE OF FUNCTION AND VERSATILITY
CAGES ARE OFFERED IN THE FOLLOWING MATERIALS:

CARBON STEEL

MADE OF LOW CARBON STEEL, FOR USE IN AVERAGE PUMPING CONDITIONS WHERE ABRASION AND CORROSION ARE NOT A FACTOR.

ALLOY STEEL

MADE OF ALLOY STEEL, FOR USE IN AVERAGE PUMPING CONDITIONS WHERE EXTENDED WEAR IS REQUIRED.

STAINLESS STEEL

ALL STAINLESS CAGES ARE MANUFACTURED FROM HIGH GRADE 316 STAINLESS STEEL. THESE CAGES ARE MADE TO WITHSTAND SEVERE CORROSION AND MEDIUM ABRASION.

BRASS

FOR USE IN MODERATE CORROSION AND NON-ABRASIVE SERVICE.

MONEL

MONEL IS A DURABLE MATERIAL AND IS USED FOR SEVERE CORROSIVE SERVICES.

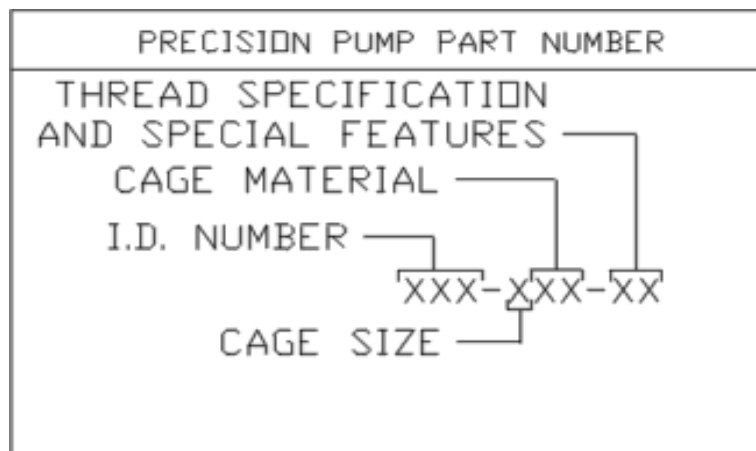
STELLITE LINED

USED AS A WELDED LINING OR AN INSERT, STELLITE IMPROVES CAGE LIFE SIGNIFICANTLY BY PROVIDING VERY HARD BALL GUIDE.

17-4 STAINLESS STEEL

EXTREMELY RESISTANT TO ABRASION AND CAN WITHSTAND SEVERE CORROSION.

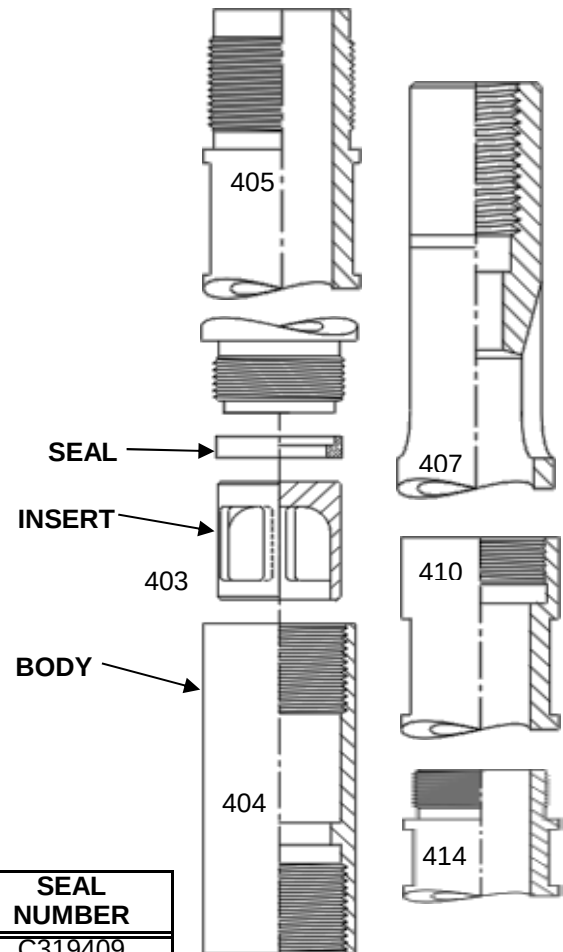
PART NUMBERING SYSTEM FOR CAGES



Cage, Insert Guided, Assembly (405; 407; 410; 414)

PUMP BORE	PART NUMBER	THREAD SIZE	THREAD SIZE
1-1/4"	405-C**-57A	1.3330-16 PIN	1.4704-14 BOX
1-1/2"	405-D**-57A	1.3330-16 PIN	1.2500-14 BOX
1-3/4"	405-E**-57A	1.5730-16 PIN	1.4704-14 BOX
2"	405-G**-57A	2.0870-16 PIN	1.8024-14 BOX
1-3/4"	407-E**-57A	0.7500-10 BOX	1.4704-14 BOX
2-1/4"	407-J**-57A	0.7500-10 BOX	1.8024-14 BOX
2-3/4"	407-L**-57A	0.7500-10 BOX	2.1095-11½ BX
1-1/4"	410-C**-57A	1.0000-14 BOX	1.0000-14 BOX
1-1/2"	410-D**-57A	1.2500-14 BOX	1.2500-14 BOX
1-3/4"	410-E**-57A	1.4704-14 BOX	1.4704-14 BOX
2"	410-G**-57A	1.5604-14 BOX	1.5604-14 BOX
2-1/4"	410-J**-57A	1.8024-14 BOX	1.8024-14 BOX
2-3/4"	410-L**-57A	2.1095-11½ BX	2.1095-11½ BX
1-1/4"	414-C**-57A	1.0000-14 PIN	1.0000-14 BOX
1-1/2"	414-D**-57A	1.2500-14 PIN	1.2500-14 BOX
1-3/4"	414-E**-57A	1.4704-14 PIN	1.4704-14 BOX
2"	414-G**-57A	1.5604-14 PIN	1.5604-14 BOX
2-1/4"	414-J**-57A	1.8024-14 PIN	1.8024-14 BOX
2-3/4"	414-L**-57A	2.1095-11½ PN	2.1095-11½ BX

** = MATERIAL TYPE



ASSEMBLY NUMBER	BUSHING NUMBER	BODY NUMBER	INSERT NUMBER	SEAL NUMBER
405-C**-57A	405-C**-57	404-E**-00	403-E19-00	C319409
405-D**-57A	405-D**-57	404-D**-00	403-D19-00	C319405
405-E**-57A	405-E**-57	404-E**-00	403-E19-00	C319409
405-G**-57A	405-G**-57	404-J**-00	403-J19-00	C319418
407-E**-57A	407-E**-57	404-E**-00	403-E19-00	C319409
407-J**-57A	407-J**-57	404-J**-00	403-J19-00	C319418
407-L**-57A	407-L**-57	404-L**-00	403-L19-00	C319423
410-C**-57A	410-C**-57	404-C**-00	403-C19-00	C319401
410-D**-57A	410-D**-57	404-D**-00	403-D19-00	C319405
410-E**-57A	410-E**-57	404-E**-00	403-E19-00	C319409
410-G**-57A	410-G**-57	404-G**-00	403-G19-00	C319414
410-J**-57A	410-J**-57	404-J**-00	403-J19-00	C319418
410-L**-57A	410-L**-57	404-L**-00	403-L19-00	C319423
414-C**-57A	414-C**-57	404-C**-00	403-C19-00	C319401
414-D**-57A	414-D**-57	404-D**-00	403-D19-00	C319405
414-E**-57A	414-E**-57	404-E**-00	403-E19-00	C319409
414-G**-57A	414-G**-57	404-G**-00	403-G19-00	C319414
414-J**-57A	414-J**-57	404-J**-00	403-J19-00	C319418
414-L**-57A	414-L**-57	404-L**-00	403-L19-00	C319423

**NOTE: THE MATERIALS FOR THE SPRING, AND FOR THE STEM ARE FIXED.
PARTS IN ASSEMBLIES**

Cage, Open Spring Loaded, Assembly (407; 423)

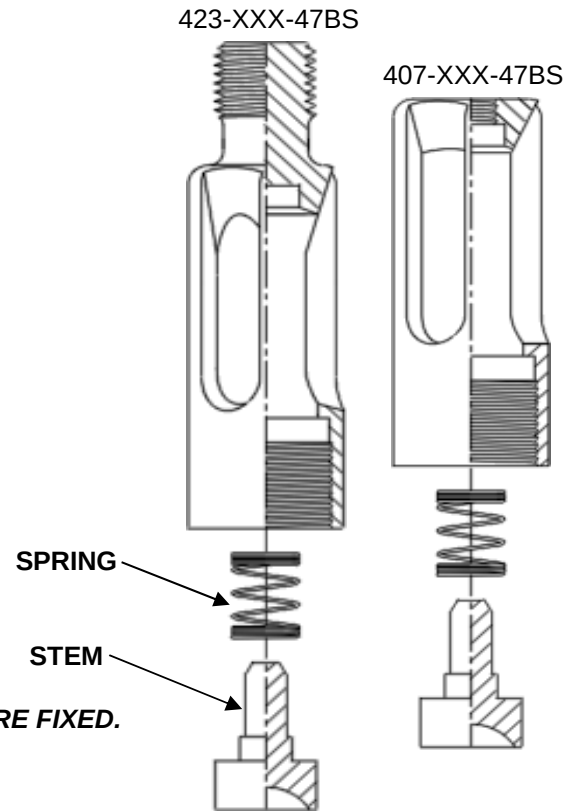
PUMP BORE	PART NUMBER	THREAD SIZE	THREAD SIZE
1-1/2"	407-D**-45A	N/A	1.2500-14 B0X
1-3/4"	407-E**-45A	0.7500-10 B0X	1.4704-14 B0X
1-3/4"	423-E**-47A	0.9375-10 PIN	1.4704-14 B0X
2-1/4"	407-J**-45A	0.7500-10 B0X	1.8024-14 B0X
2-3/4"	407-L**-45A	0.7500-10 B0X	2.1095-11½ BX

** = MATERIAL TYPE

PARTS IN ASSEMBLIES

ASSEMBLY NUMBER	CAGE NUMBER	SPRING NUMBER	STEM NUMBER
407-D**-45A	407-D**-45BS	423-D11-SP	423-D10-ST
407-E**-45A	407-E**-45BS	423-E11-SP	423-E10-ST
423-E**-47A	423-E**-47BS	423-E11-SP	423-E10-ST
407-J**-45A	407-J**-45BS	423-J11-SP	423-J10-ST
407-L**-45A	407-L**-45BS	423-L11-SP	423-L10-ST

NOTE: THE MATERIALS FOR THE SPRING, AND FOR THE STEM ARE FIXED.



Cage, Closed Spring Loaded, Assembly (405; 410; 413; 414)

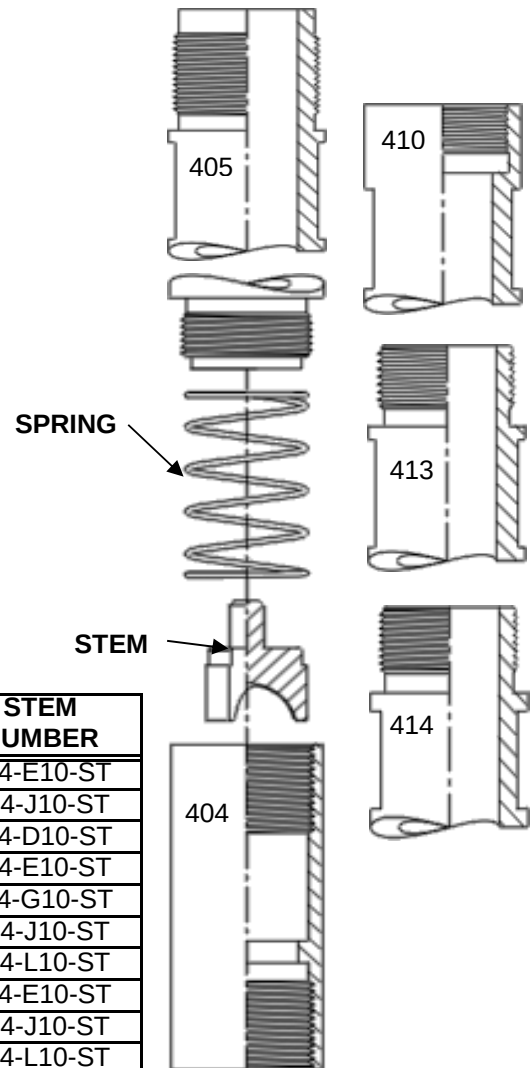
PUMP BORE	PART NUMBER	THREAD SIZE	THREAD SIZE
1-1/2"	405-E**-16A	1.5730-16 PIN	1.4704-14 BOX
2"	405-G**-16A	2.0870-16 PIN	1.8024-14 BOX
1-1/2"	410-D**-45A	1.2500-14 BOX	1.2500-14 BOX
1-3/4"	410-E**-45A	1.4704-14 BOX	1.4704-14 BOX
2"	410-G**-45A	1.5604-14 BOX	1.5604-14 BOX
2-1/4"	410-J**-45A	1.8024-14 BOX	1.8024-14 BOX
2-3/4"	410-L**-45A	2.1095-11½ BX	2.1095-11½ BX
1-3/4"	413-E**-45A	1.5084-14 PIN	1.4704-14 BOX
2-1/4"	413-J**-45A	1.9864-14 PIN	1.8024-14 BOX
2-3/4"	413-L**-45A	2.3755-11½ PN	2.1095-11½ BX
2-1/2"	414-D**-45A	1.2500-14 PIN	1.2500-14 BOX
2-3/4"	414-E**-45A	1.4704-14 PIN	1.4704-14 BOX
2"	414-G**-45A	1.5604-14 PIN	1.5604-14 BOX
2-1/4"	414-J**-45A	1.8024-14 PIN	1.8024-14 BOX
2-3/4"	414-L**-45A	2.1095-11½ PN	2.1095-11½ BX

** = MATERIAL TYPE

PARTS IN ASSEMBLIES

ASSEMBLY NUMBER	BUSHING NUMBER	BODY NUMBER	SPRING NUMBER	STEM NUMBER
405-E**-16A	405-E**-57	404-E**-00	404-E11-SP	404-E10-ST
405-G**-16A	405-G**-57	404-J**-00	404-J11-SP	404-J10-ST
410-D**-45A	410-D**-57	404-D**-00	404-D11-SP	404-D10-ST
410-E**-45A	410-E**-57	404-E**-00	404-E11-SP	404-E10-ST
410-G**-45A	410-G**-57	404-G**-00	404-G11-SP	404-G10-ST
410-J**-45A	410-J**-57	404-J**-00	404-J11-SP	404-J10-ST
410-L**-45A	410-L**-57	404-L**-00	404-L11-SP	404-L10-ST
413-E**-45A	413-E**-57	404-E**-00	404-E11-SP	404-E10-ST
413-J**-45A	413-J**-57	404-J**-00	404-J11-SP	404-J10-ST
413-L**-45A	413-L**-57	404-L**-00	404-L11-SP	404-L10-ST
414-D**-45A	414-D**-57	404-D**-00	404-D11-SP	404-D10-ST
414-E**-45A	414-E**-57	404-E**-00	404-E11-SP	404-E10-ST
414-G**-45A	414-G**-57	404-G**-00	404-G11-SP	404-G10-ST
414-J**-45A	414-J**-57	404-J**-00	404-J11-SP	404-J10-ST
414-L**-45A	414-L**-57	404-L**-00	404-L11-SP	404-L10-ST

NOTE: THE MATERIALS FOR THE SPRING, AND FOR THE STEM ARE FIXED.



Cage, Closed Barrel, Zero Extension (405)

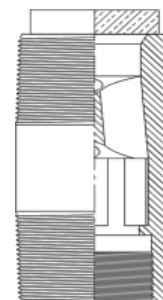
CAGE SIZE	PART NUMBER	SEAT TYPE	THREAD SIZE	THREAD SIZE
1-1/16"	405-B**-00	FLAT	1.3125-16 BOX	0.8750-14 BOX
1-1/4"	405-D**-00	FLAT	1.3330-16 BOX	1.2500-14 BOX
1-1/2"	405-E**-00	FLAT	1.5730-16 BOX	1.4704-14 BOX
2"	405-G**-00	FLAT	2.0870-16 BOX	1.8024-14 BOX

** = MATERIAL TYPE


Cage, Closed Barrel, Non-Retrievable Style (405)

PUMP BORE	PART NUMBER	SEAT TYPE	THREAD SIZE	THREAD SIZE
2-3/4"	405-L**-09	FLAT	2 7/8-8 EUE	2.1095-11½ B
2-3/4"	405-L**-09B	FLAT W/BAR	2 7/8-8 EUE	2.1095-11½ B
3-1/4"	405-M**-09	FLAT	3 1/2-8 EUE	2.8095-11½ B
3-1/4"	405-M**-09B	FLAT W/BAR	3 1/2-8 EUE	3.1715-11½ B

** = MATERIAL TYPE


Cage, Closed Barrel, 101HD (405)

CAGE SIZE	PART NUMBER	SEAT TYPE	THREAD SIZE	THREAD SIZE
2-3/4"	405-L**-10	FLAT	2.8750-10 PIN	2.8095-11½ B
2-3/4"	405-L**-10B	FLAT W/BAR	2.8750-10 PIN	2.8095-11½ B

** = MATERIAL TYPE



Cage, Closed Barrel 14THD (405)

CAGE SIZE	PART NUMBER	SEAT TYPE	THREAD SIZE	THREAD SIZE
1-1/2"	405-E**-14	FLAT	1.5984-14 PIN	1.4704-14 BOX
1-1/2"	405-E**-14R	RIBBED	1.5984-14 PIN	1.4704-14 BOX

** = MATERIAL TYPE



Cage, Closed Barrel (405)

CAGE SIZE	PART NUMBER	SEAT TYPE	API NUMBER	THREAD SIZE	THREAD SIZE
1-1/4"	405-C**-16	FLAT	C14-20-125	1.3330-16 PIN	1.4704-14 BOX
1-1/4"	405-D**-16	FLAT	N/A	1.3330-16 PIN	1.2500-14 BOX
1-1/2"	405-E**-16	FLAT	C14-20	1.5730-16 PIN	1.4704-14 BOX
1-1/2"	405-E**-16R	RIBBED	N/A	1.5730-16 PIN	1.4704-14 BOX
1-1/2"	405-E**-16S	FLAT, SHORT	N/A	1.5730-16 PIN	1.4704-14 BOX
2"	405-G**-16	FLAT	C14-25	2.0870-16 PIN	1.8024-14 BOX
2-1/4"	405-L**-16	FLAT	C14-30	2.5730-16 PIN	2.1095-11½ B
2-1/4"	405-L**-16B	FLAT W/BAR	N/A	2.5730-16 PIN	2.1095-11½ B

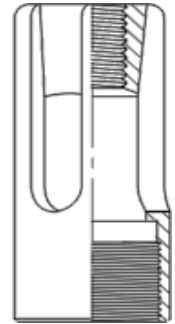
** = MATERIAL TYPE



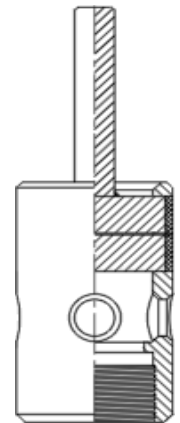
Cage, Open, Top Plunger or Standing Valve, 3-Wing (407)

PUMP BORE	PART NUMBER	SEAT TYPE	API NUMBER	THREAD SIZE	THREAD SIZE
1-1/4"	407-C**-45	FLAT	C17-125	1.0000-14 BOX	
1-1/2"	407-D**-45	FLAT	C17-150	1.2500-14 BOX	0.7500-10 BOX
1-1/2"	407-D**-46	RIBBED	N/A	1.2500-14 BOX	0.7500-10 BOX
1-3/4"	407-E**-45	FLAT	C16-175	1.4704-14 BOX	0.7500-10 BOX
1-3/4"	407-E**-45B	FLAT W/BAR	N/A	1.4704-14 BOX	
1-3/4"	407-E**-46	RIBBED	N/A	1.4704-14 BOX	0.7500-10 BOX
2"	407-G**-45	FLAT	C17-200	1.5604-14 BOX	0.7500-10 BOX
2-1/4"	407-J**-45	FLAT	C16-225	1.8024-14 BOX	0.7500-10 BOX
2-1/4"	407-J**-45B	FLAT W/BAR	N/A	1.8024-14 BOX	
2-3/4"	407-L**-45	FLAT	C16-275	2.1095-11½ BX	0.7500-10 BOX
2-3/4"	407-L**-45B	FLAT W/BAR	N/A	2.1095-11½ BX	
3 1/4"	407-M**-45	FLAT	N/A	2.8095-11½ BX	
3 1/4"	407-M**-45B	FLAT W/BAR	N/A	2.8095-11½ BX	0.7500-10 BOX
3 3/4"	407-N**-45B	FLAT W/BAR	N/A	3.1715-11½ BX	0.7500-10 BOX

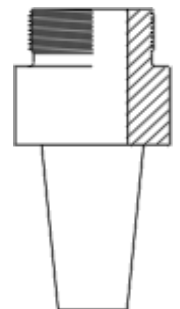
** = MATERIAL TYPE


Cage, Non-Retrieveable Standing Valve, Spoon Type (408)

CAGE SIZE	PART NUMBER	SEAT TYPE	THREAD SIZE
2-3/4"	408-L16-45	FLAT	2.1095-11½ BX
3-1/4"	408-M16-45	FLAT	2.8095-11½ BX
3-3/4"	408-N16-45	FLAT	3.1715-11½ BX


Spoon, Seat, Dump Valve (564)

NUT SIZE	PART NUMBER	PART STYLE	THREAD SIZE
2-3/4"	564-L13-45	FLAT	2.1095-11½ PIN
3-1/4"	564-M13-45	FLAT	2.8095-11½ PIN
3-3/4"	564-N13-45	FLAT	3.1715-11½ PIN



Cage, Closed, Pin-End Plunger (410)

CAGE SIZE	PART NUMBER	SEAT TYPE	API NUMBER	THREAD SIZE	THREAD SIZE
1"	410-A**-45	FLAT	N/A	1.7813-18 BOX	1.7813-18 BOX
1-1/16"	410-B**-45	FLAT	C13-106	0.8750-14 BOX	0.8750-14 BOX
1-1/4"	410-C**-45	FLAT	C13-125	1.0000-14 BOX	1.0000-14 BOX
1-1/2"	410-D**-45	FLAT	C13-150	1.2500-14 BOX	1.2500-14 BOX
1-1/2"	410-D**-46	RIBBED	N/A	1.2500-14 BOX	1.2500-14 BOX
1-3/4"	410-E**-45	FLAT	C13-175	1.4704-14 BOX	1.4704-14 BOX
2"	410-G**-45	FLAT	C13-200	1.5604-14 BOX	1.5604-14 BOX
2-1/4"	410-J**-45	FLAT	C13-225	1.8024-14 BOX	1.8024-14 BOX
2-1/2"	410-K**-45	FLAT	C13-250	2.1095-11½ BX	2.1095-11½ BX
2-3/4"	410-L**-45	FLAT	C13-275	2.1095-11½ BX	2.1095-11½ BX
3-1/4"	410-M**-45	FLAT	N/A	2.8095-11½ BX	2.8095-11½ BX

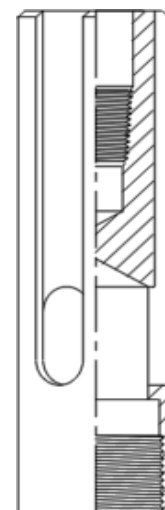
** = MATERIAL TYPE



Cage, Open, Top Plunger (411)

CAGE SIZE	PART NUMBER	SEAT TYPE	API NUMBER	THREAD SIZE	THREAD SIZE
1-1/16"	411-B**-02	FLAT	C12-106	0.8750-14 BOX	1/2-14 MLP BX
1-1/4"	411-C**-02	FLAT	C12-125	1.0000-14 BOX	1/2-14 MLP BX
1-1/4"	411-C**-03	FLAT	N/A	1.0000-14 BOX	3/8-18 MLP BX
1-1/2"	411-D**-02	FLAT	C12-150-20	1.2500-14 BOX	1/2-14 MLP BX
1-1/2"	411-D**-03	FLAT	C12-150-25	1.2500-14 BOX	3/8-18 MLP BX
1-3/4"	411-E**-03	FLAT	C12-175	1.4704-14 BOX	3/8-18 MLP BX
2"	411-G**-03	FLAT	C12-200	1.5604-14 BOX	3/8-18 MLP BX

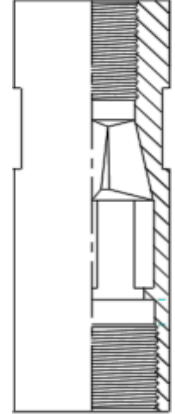
** = MATERIAL TYPE



Cage, Closed, Plunger Tube (412)

CAGE SIZE	PART NUMBER	SEAT TYPE	THREAD SIZE	THREAD SIZE
1-1/4"	412-C**-45	FLAT	1.0000-14 BOX	0.8750-14 BOX
1-1/2"	412-D**-45	FLAT	1.2500-14 BOX	0.8750-14 BOX
1-1/2"	412-D**-46	RIBBED	1.2500-14 BOX	0.8750-14 BOX
2-1/4"	412-J**-45	FLAT	1.8024-14 BOX	0.8750-14 BOX

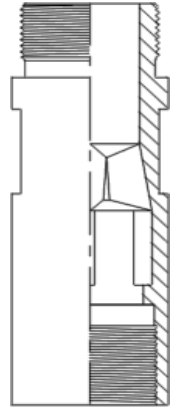
** = MATERIAL TYPE



Cage, Closed, Box End Plunger (413)

CAGE SIZE	PART NUMBER	SEAT TYPE	API NUMBER	THREAD SIZE	THREAD SIZE
1-3/4"	413-E**-45	FLAT	C15-175	1.4704-14 BOX	1.5604-14 PIN
2-1/4"	413-J**-45	FLAT	C15-225	1.8024-14 BOX	1.9864-14 PIN
2-3/4"	413-L**-45	FLAT	C15-275	2.1095-11½ BX	2.3755-11½ PIN
3-1/4"	413-M**-45	FLAT	NA	2.8095-11½ BX	2.8095-11½ PIN
3-3/4"	413-N**-45	FLAT	C15-375	3.1715-11½ BX	3.3825-11½ PIN

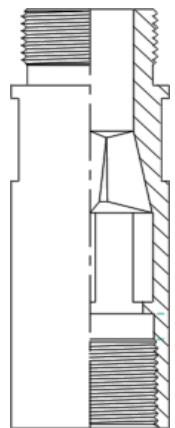
** = MATERIAL TYPE



Cage, Closed, Double Valve (414)

CAGE SIZE	PART NUMBER	SEAT TYPE	THREAD SIZE	THREAD SIZE
1-1/16"	414-B**-45	FLAT	0.8750-14 BOX	0.8750-14 PIN
1-1/4"	414-C**-45	FLAT	1.0000-14 BOX	1.0000-14 PIN
1-1/2"	414-D**-45	FLAT	1.2500-14 BOX	1.2500-14 PIN
1-1/2"	414-D**-46	RIBBED	1.2500-14 BOX	1.2500-14 PIN
1-3/4"	414-E**-45	FLAT	1.4704-14 BOX	1.4704-14 PIN
1-3/4"	414-E**-46	RIBBED	1.4704-14 BOX	1.4704-14 PIN
2"	414-G**-45	FLAT	1.5604-14 BOX	1.5604-14 PIN
2-1/4"	414-J**-45	FLAT	1.8024-14 BOX	1.8024-14 PIN
2-1/2"	414-K**-45	FLAT	2.1095-11½ BX	2.1095-11½ PIN
2-3/4"	414-L**-45	FLAT	2.1095-11½ BX	2.1095-11½ PIN
3-1/4"	414-M**-45	FLAT	2.8095-11½ BX	2.8095-11½ PIN
3-3/4"	414-N**-45	FLAT	3.1715-11½ BX	3.1715-11½ PIN

** = MATERIAL TYPE



Cage, Hold-Down Standing Valve, Blind (417)

CAGE SIZE	PART NUMBER	SEAT TYPE	THREAD SIZE	THREAD SIZE
1-3/4"	417-E10-04	FLAT	1.4704-14 B0X	3/4-14 NPT B0X
1-3/4"	417-E10-04R	RIBBED	1.4704-14 B0X	3/4-14 NPT B0X
1-3/4"	417-E10-05	FLAT	1.4704-14 B0X	1-11½ NPT B0X
1-3/4"	417-E10-05R	RIBBED	1.4704-14 B0X	1-11½ NPT B0X

** = MATERIAL TYPE


Cage, Open, Top (423)

CAGE SIZE	PART NUMBER	SEAT TYPE	THREAD SIZE	THREAD SIZE
1-1/2"	423-D**-47	FLAT	1.4704-14 B0X	0.9375-10 PIN
1-1/2"	423-D**-60	FLAT	1.4704-14 B0X	0.9375-10 PIN
1-3/4"	423-E**-47	FLAT	1.5605-14 B0X	0.9375-10 PIN
1-3/4"	423-E**-47R	RIBBED	1.5605-14 B0X	0.9375-10 PIN
1-3/4"	423-E**-48	FLAT	1.5605-14 B0X	1.0625-10 PIN
1-3/4"	423-E**-60	FLAT	1.5605-14 B0X	0.6250-10 PIN
2-1/4"	423-J**-47	FLAT	1.8024-14 B0X	0.9375-10 PIN
2-1/4"	423-J**-48	FLAT	1.8024-14 B0X	1.0625-10 PIN
2-1/4"	423-J**-49	FLAT	1.8024-14 B0X	1.1875-10 PIN
2-3/4"	423-L**-48	FLAT	2.1095-11½ BX	1.0625-10 PIN
1-1/4"	423-M**-49	FLAT	2.8095-11½ BX	1.1875-10 PIN
1-1/4"	423-M**-50	FLAT	2.8095-11½ BX	1.3750-10 PIN
1-3/4"	423-N**-50	FLAT	3.1715-11½ BX	1.3750-10 PIN
1-7/8"	423-Z**-49	FLAT	1.4704-14 B0X	1.1875-10 PIN

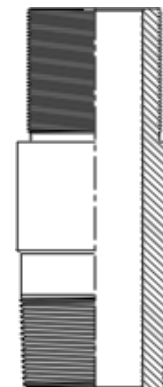
** = MATERIAL TYPE



Connector, Screw-Type (441)

CONNECTOR SIZE	PART NUMBER	THREAD SIZE	THREAD
			SIZE
2-3/4"	441-L**-09	2.8095-11½ PIN	2-7/8-8 EUE
3-1/4"	441-M**-09	3.1715-11½ PIN	3-1/2-8 EUE

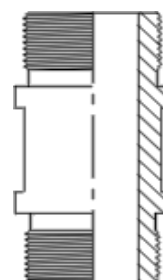
** = MATERIAL TYPE



Connector, Box End Plunger (442)

CONNECTOR SIZE	PART NUMBER	API NUMBER	THREAD SIZE	THREAD SIZE
1-3/4"	442-E**-45	C22-175	1.4704-14 PIN	1.5084-14 PIN
2-1/4"	442-J**-45	C22-225	1.8024-14 PIN	1.9864-14 PIN
2-3/4"	442-L**-45	C22-275	2.1095-11½ PIN	2.3755-11½ PIN

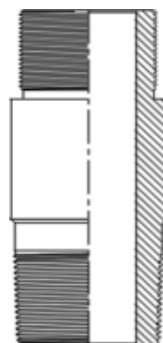
** = MATERIAL TYPE



Connector, Upper Barrel, Oversize Tubing Pump (443)

CONNECTOR SIZE	PART NUMBER	THREAD SIZE	THREAD SIZE
2-1/4"	443-J**-09	1.4704-14 PIN	2-3/8-8 EUE
2-3/4"	443-L**-09	2.8750-10 PIN	2-7/8-8 EUE
3-1/4"	443-M**-09	3.3825-11½ PIN	2-7/8 -8 EUE
3-3/4"	443-N**-09	3.8750-10 PIN	3-1/2 -8 EUE

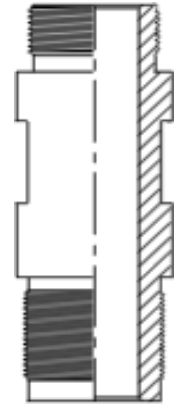
** = MATERIAL TYPE



Connector, Upper Barrel (445)

CONNECTOR SIZE	PART NUMBER	API NUMBER	CONNECTOR STYLE	THREAD SIZE	THREAD SIZE
1-1/4"	445-C**-16	N/A	PLAIN	1.3330-16 PIN	1.4704-14 PIN
1-1/4"	445-C**-16SH	C21-15	SLIM HOLE	1.3330-16 PIN	1.2500-14 PIN
1-1/2"	445-D**-14	N/A	PLAIN	1.5894-14 PIN	1.4704-14 PIN
1-1/2"	445-D**-14R	N/A	RIBBED	1.5894-14 PIN	1.4704-14 PIN
1-1/2"	445-D**-16	C21-20	PLAIN	1.5730-16 PIN	1.4704-14 PIN
1-1/2"	445-D**-16BH	N/A	BIG HOLE	1.5730-16 PIN	1.4704-14 PIN
1-1/2"	445-D**-178	N/A	1-7/8 O.D.	1.5730-16 PIN	1.4704-14 PIN
2"	445-G**-16	445-G21-16	PLAIN	2.0870-16 PIN	1.8024-14 PIN

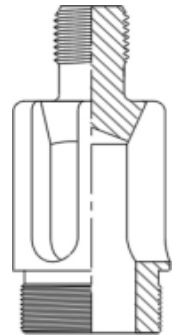
** = MATERIAL TYPE



Connector, Sucker Rod to Box End Plunger (446)

CONNECTOR SIZE	PART NUMBER	CONNECTOR STYLE	THREAD SIZE	THREAD SIZE
1-3/4"	446-E**-48	PLAIN	1.5084-14 PIN	1.0625-10 PIN
2-1/4"	446-J**-48	PLAIN	1.9864-14 PIN	1.0625-10 PIN
2-1/4"	446-J**-48S	PLAIN	1.9864-14 PIN	1.0625-10 PIN
2-3/4"	446-L**-48	PLAIN	2.3755-11½ BX	1.0625-10 PIN
2-3/4"	446-L**-48S	PLAIN	2.3755-11½ BX	1.0625-10 PIN
3-1/4"	446-M**-48	PLAIN	2.8095-11½ BX	1.0625-10 PIN
3-1/4"	446-M**-49	PLAIN	2.8095-11½ BX	1.1875-10 PIN
3-3/4"	446-N**-49	PLAIN	3.3825-11½ BX	1.1875-10 PIN

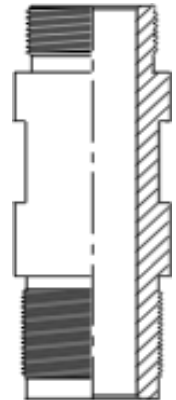
** = MATERIAL TYPE



Connector, Slider Valve, Gas (447)

CONNECTOR SIZE	PART NUMBER	THREAD SIZE	THREAD SIZE
1-1/2"	447-D**-16	1.5730-16 PIN	1.4704-14 PIN

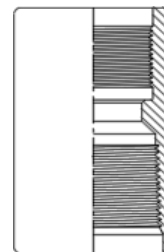
** = MATERIAL TYPE



Coupling, Barrel Heavy Wall, TH, API (449)

CONNECTOR SIZE	PART NUMBER	API NUMBER		PART STYLE	THREAD SIZE	THREAD SIZE
1-1/4"	449-C**-10	N/A		PLAIN	1.5730-16 BOX	1.900-10 NUE
1-1/4"	449-C**-NO	N/A		LOWER	1.5730-16 BOX	1.900-10 EUE
1-3/4"	449-E**-09	C35-20		PLAIN	2.2380-11½ BX	2-3/8-8 EUE
1-3/4"	449-E**-10	N/A		PLAIN	2.2380-11½ BX	2-3/8-10 NUE
1-3/4"	449-E**-NO	N/A		LOWER	2.2380-11½ BX	2-3/8-8 EUE
1-3/4"	449-E**-RH	N/A		PLAIN	2.0870-16 BX	2-3/8-8 EUE
2-1/4"	449-J**-09	C35-25		PLAIN	2.7380-11½	2-7/8-8 EUE
2-1/4"	449-J**-10	N/A		PLAIN	2.7380-11½	2-7/8-10 NUE
2-1/4"	449-J**-12	N/A		PLAIN	2.7380-11½	2-7/8-11½ NUE
2-1/4"	449-J**-NO	N/A		LOWER	2.7380-11½	2-7/8-8 EUE
2-3/4"	449-L**-09	C35-30		PLAIN	3.2380-11½	3-1/2-8 EUE
2-3/4"	449-L**-10	N/A		PLAIN	3.2380-11½	3-1/2-10 NUE

** = MATERIAL TYPE



w/o No-Go

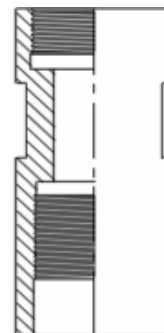


With No-Go

Coupling, Pin-End Plunger to Pull Tube (450)

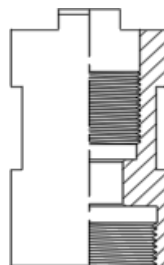
CONNECTOR SIZE	PART NUMBER	API NUMBER		PART STYLE	THREAD SIZE	THREAD SIZE
1-1/4"	450-C**-35	C32-125		PLAIN	1.0000-14 PIN	0.9375-16 PIN
1-1/4"	450-C**-35V	N/A		VENTED	1.0000-14 PIN	0.9375-16 PIN
1-1/2"	450-D**-04	N/A		PLAIN	1.2500-14 PIN	3/4-14 NPT
1-1/2"	450-D**-04C	N/A		PLAIN	1.2500-14 PIN	3/4-14 NPT
1-1/2"	450-D**-38	450-D10-38		PLAIN	1.2500-14 PIN	1.1250-16 PIN
1-1/2"	450-D**-38V	N/A		VENTED	1.2500-14 PIN	1.1250-16 PIN
1-3/4"	450-E**-40	N/A		PLAIN	1.4704-16 PIN	1.5000-16 PIN
1-3/4"	450-E**-40V	N/A		VENTED	1.4704-16 PIN	1.5000-16 PIN
2"	450-G**-40	450-G11-40		PLAIN	1.5604-14 PIN	1.5000-16 PIN
2"	450-G**-40V	N/A		VENTED	1.5604-14 PIN	1.5000-16 PIN

** = MATERIAL TYPE


Coupling, Pull Tube to Holddown (451)

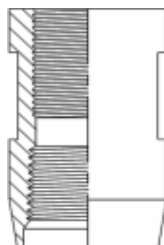
CONNECTOR SIZE	PART NUMBER	API NUMBER		PART STYLE	THREAD SIZE	THREAD SIZE
1-1/4"	451-C**-35	C33-125		PLAIN	1.4704-14 PIN	0.9375-16 PIN
1-1/4"	451-C**-35SH	C33-125-15		SLIM HOLE	1.2500-14 PIN	0.9375-16 PIN
1-3/4"	451-E**-04	N/A		PLAIN	1.4704-14 PIN	3/4-14 NPT PIN
1-3/4"	451-E**-38	C33-150-20		PLAIN	1.4704-14 PIN	1.1250-16 PIN
2"	451-G**-40	C33-200		PLAIN	1.8024-14 PIN	1.5000-16 PIN

** = MATERIAL TYPE


Coupling, Seating Cup, Bottom Anchor (452)

CONNECTOR SIZE	PART NUMBER	API NUMBER		PART STYLE	THREAD SIZE	THREAD SIZE
1-1/16"	452-B**-02	N/A		FACED	0.7500-16 PIN	3/4-14 NPT
1-1/4"	452-C**-03C	N/A		CUPPED	0.7500-16 PIN	1/2-14 NPT
1-1/2"	452-D**-04	S16-15		FACED	0.8750-14 PIN	3/4-14 NPT
1-1/2"	452-D**-04C	N/A		CUPPED	0.8750-14 PIN	3/4-14 NPT
2"	452-G**-04	N/A		FACED	1.1894-14 PIN	3/4-14 NPT
2"	452-G**-04C	N/A		CUPPED	1.1894-14 PIN	3/4-14 NPT
2"	452-G**-05	S16-20		FACED	1.1894-14 PIN	1-11½ NPT
2"	452-G**-05C	N/A		CUPPED	1.1894-14 PIN	1-11½ NPT
2-1/4"	452-K**-06	S16-25		FACED	1.5604-14 PIN	1-1/4-11½ NPT
2-1/4"	452-K**-06C	N/A		CUPPED	1.5604-14 PIN	1-1/4-11½ NPT
2-3/4"	452-L**-07	S16-30		FACED	2.0035-11½ BX	1-1/2-11½ NPT
2-3/4"	452-L**-07C	N/A		CUPPED	2.0035-11½ BX	1-1/2-11½ NPT
1-3/8"	452-Z**-03	N/A		FACED	0.7500-16 PIN	1/2-14 NPT

** = MATERIAL TYPE



Coupling, Valve Rod to Pin-End Plunger (453)

CONNECTOR SIZE	PART NUMBER	THREAD SIZE		THREAD SIZE
1-1/16"	453-B**-02	0.8750-16 PIN		3/8-18 MLP BX
1-1/4"	453-C**-02	1.0000-14 PIN		3/8-18 MLP BX
1-1/4"	453-C**-03	1.0000-14 PIN		1/2-14 MLP BX
1-1/2"	453-D**-02	1.2500-14 PIN		3/8-18 MLP BX
1-1/2"	453-D**-03	1.2500-14 PIN		1/2-14 MLP BX
1-3/4"	453-E**-03	1.4704-14 PIN		1/2-14 MLP BX
2"	453-G**-03	1.5604-14 PIN		1/2-14 MLP BX

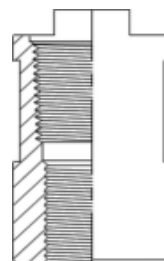
** = MATERIAL TYPE



Coupling, Pull Tube to Plunger Tube (454)

CONNECTOR SIZE	PART NUMBER	PART STYLE		THREAD SIZE	THREAD SIZE
1-1/2"	454-D**-04C	CLUTCHED		0.8750-14 P	3/4-14 NPT

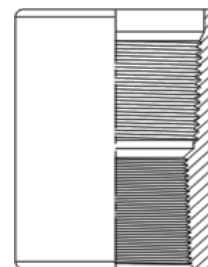
** = MATERIAL TYPE



Coupling, Working Barrel, Upper 2-1/8 OD (455)

CONNECTOR SIZE	PART NUMBER	THREAD SIZE		THREAD SIZE
1-25/32"	455-F**-09	2-3/8-8 EUE		2.125-11½ PIN
1-25/32"	455-F**-10	2-3/8-10 NUE		2.125-11½ PIN
1-25/32"	455-F**-12	2-11½ LP		2.125-11½ PIN

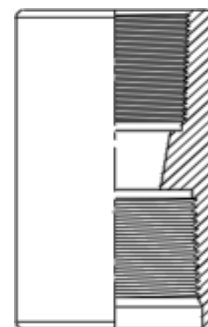
** = MATERIAL TYPE



Coupling, Working Barrel, Lower 2-1/8 OD (456)

CONNECTOR SIZE	PART NUMBER	THREAD SIZE		THREAD SIZE
1-25/32"	456-F**-09	2-3/8-8 EUE		2.125-11½ PIN
1-25/32"	456-F**-10	2-3/8-10 NUE		2.125-11½ PIN
1-25/32"	456-F**-12	2-11½ LP		2.125-11½ PIN

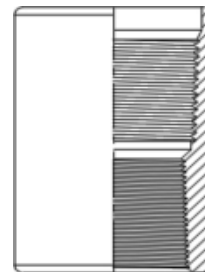
** = MATERIAL TYPE



Coupling, Working Barrel, Upper (457)

CONNECTOR SIZE	PART NUMBER	API NUMBER		THREAD SIZE	THREAD SIZE
1-1/2"	457-D**-10	N/A		1.7500-16 P	1.900-10 NUE
1-25/32"	457-F**-09	C37-20		178-11½ PI	2-3/8-8 EUE
1-25/32"	457-F**-10	N/A		178-11½ PI	2-3/8-10 NUE
1-25/32"	457-F**-11	N/A		178-11½ PI	2-3/8-10V EUE
1-25/32"	457-F**-12	N/A		178-11½ PI	2-11½ LP
2-1/4"	457-J**-08	N/A		225-11½ PI	2-7/8-8 EUE
2-1/4"	457-J**-09	C37-25		225-11½ PI	2-7/8-8 EUE
2-1/4"	457-J**-10	N/A		225-11½ PI	2-7/8-10 NUE
2-1/4"	457-J**-11	N/A		225-11½ PI	2-7/8-10V EUE

** = MATERIAL TYPE



Coupling, Working Barrel, Lower (458)

CONNECTOR SIZE	PART NUMBER	API NUMBER		THREAD SIZE	THREAD SIZE
1-1/2"	458-D**-10	N/A		1.7500-16 PIN	1.900-10 NUE
1-25/32"	458-F**-09	C36-20		178-11½ PIN	2-3/8-8 EUE
1-25/32"	458-F**-10	N/A		178-11½ PIN	2-3/8-10 NUE
1-25/32"	458-F**-11	N/A		178-11½ PIN	2-3/8-10V EUE
1-25/32"	458-F**-12	N/A		178-11½ PIN	2-11½ LP
2-1/4"	458-J**-09	C36-25		225-11½ PIN	2-7/8-8 EUE
2-1/4"	458-J**-10	N/A		225-11½ PIN	2-7/8-10 NUE
2-1/4"	458-J**-11	N/A		225-11½ PIN	2-7/8-10V EUE

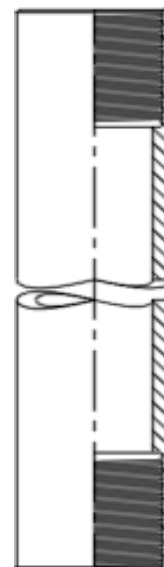
** = MATERIAL TYPE



Coupling, Extension Barrel, API Type (459)

CONNECTOR SIZE	PART NUMBER	AVAILABLE LENGTHS		API NUMBER	THREAD SIZE	THREAD SIZE
1-1/4"	459-C10-**	3"-168"		C31-125	1.5730-16 PIN	1.5730-16 PIN
1-1/4"	459-C13-**	3"-60"		C31-125	1.5730-16 PIN	1.5730-16 PIN
1-1/2"	459-D10-**	3"-60"		C31-150	2.0870-16 PIN	1.8750-16 PIN
1-1/2"	459-D13-**	3"-60"		C31-150	2.0870-16 PIN	1.8750-16 PIN
1-3/4"	459-E10-**	3"-60"		C31-175	2.0870-16 PIN	2.0870-16 PIN
1-3/4"	459-E13-**	3"-60"		C31-175	2.0870-16 PIN	2.0870-16 PIN
1-1/2"	459-Z10-**	3"-48"		N/A	1.7370-16 PIN	1.5730-16 PIN
1-1/2"	459-Z13-**	3"-48"		N/A	1.7370-16 PIN	1.5730-16 PIN

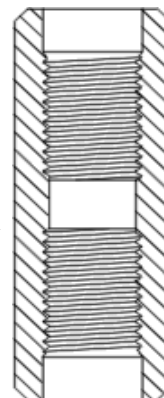
** = LENGTH DESIRED



Coupling, Rod, Box X Box (460)

ROD SIZE	PART NUMBER	PART TYPE	CLASS	PART STYLE	THREAD SIZE	THREAD SIZE
5/8"	2263379-01	FULLSIZE	T	API	0.9375-10 PIN	0.9375-10 PIN
5/8"	2263380-01	FULLSIZE	SM	API	0.9375-10 PIN	0.9375-10 PIN
5/8"	9C-3170022004	SLIM HOLE	T	API	0.9375-10 PIN	0.9375-10 PIN
5/8"	3F-460-Z**-43	FULLSIZE	T	NON-API	0.9375-10 PIN	BARBER SUB
5/8"	3F-460-Z**-47	FULLSIZE	T	NON-API	0.9375-10 PIN	5/8 NON API BX
3/4"	2263380-03	FULL SIZE	SM	API	1.0625-10 PIN	1.0625-10 PIN
3/4"	9C-0240243	FULLSIZE	T	API	1.0625-10 PIN	1.0625-10 PIN
3/4"	2263380-02	SLIM HOLE	SM	API	1.0625-10 PIN	1.0625-10 PIN
3/4"	2263379-02	SLIM HOLE	T	API	1.0625-10 PIN	1.0625-10 PIN
3/4" X 5/8"	9C-0240711	SUBCOUPLING, FS	T	API	1.0625-10 PIN	0.9375-10 PIN
3/4" X 5/8"	2263379-09	SUBCOUPLING, SH	T	API	1.0625-10 PIN	0.9375-10 PIN
3/4" X 7/8"	2263379-10	SUBCOUPLING, SH	T	API	1.0625-10 PIN	1.1875-10 PIN
7/8"	2263379-03	FULLSIZE	T	API	1.1875-10 PIN	1.1875-10 PIN
7/8"	2263380-05	FULLSIZE	SM	API	1.1875-10 PIN	1.1875-10 PIN
7/8"	2263379-04	SLIM HOLE	T	API	1.1875-10 PIN	1.1875-10 PIN
7/8"	2263380-04	SLIM HOLE	SM	API	1.1875-10 PIN	1.1875-10 PIN
1"	9C-0240448	FULLSIZE	T	API	1.375-10 PIN	1.375-10 PIN
1"	2263380-07	FULLSIZE	SM	API	1.375-10 PIN	1.375-10 PIN
1"	2263379-05	SLIM HOLE	T	API	1.375-10 PIN	1.375-10 PIN
1"	2263380-06	SLIM HOLE	SM	API	1.375-10 PIN	1.375-10 PIN
1-1/8"	2263379-06	FULLSIZE	T	API	1.562-10 PIN	1.562-10 PIN
1-1/8"	2263380-08	FULLSIZE	SM	API	1.562-10 PIN	1.562-10 PIN
1-1/8"	2263379-07	SLIM HOLE	T	API	1.562-10 PIN	1.562-10 PIN

** = MATERIAL TYPE



ROD SIZE	PART NUMBER	PART TYPE		PART STYLE	THREAD SIZE	THREAD SIZE
5/8"	462-N**-00	FULLSIZE		NON-API	0.9375-10 PIN	5/8 NON API BX
5/8"	462-N**-43	FULLSIZE		NON-API	0.9375-10 PIN	BARBER SUB
5/8" X 3/4"	462-N**-48	CHANGE OVER		API	0.9375-10 PIN	1.0625-10 PIN
5/8" X 3/4"	462-N**-48SH	CHANGE OVER		API, SLIM HO	0.9375-10 PIN	1.0625-10 PIN
3/4" X 5/8"	462-P**-47	CHANGE OVER		API	1.0625-10 PIN	0.9375-10 PIN
3/4" X 5/8"	462-P**-47SH	CHANGE OVER		API, SLIM HO	1.0625-10 PIN	0.9375-10 PIN
3/4"	462-P**-48	FULLSIZE		API	1.0625-10 PIN	1.0625-10 PIN
7/8"	462-Q**-49SH	FULLSIZE		API, SLIM HO	1.1875-10 PIN	1.1875-10 PIN
5/8"	462-Z**-43	FULLSIZE		NON-API	5/8 NON API P	BARBER SUB
5/8"	462-Z**-47	FULLSIZE		NON-API	5/8 NON API P	0.9375-10 PIN

** = MATERIAL TYPE



Guide, Ring Valve, Assembly (463)

2-1/2" VALVE, SPOOL VALVE				
1	2-1/2"	463-J**-72	1	BODY
2	2-1/4"	463-J**-78	1	RING
3	1-1/2"	445-G**-16	1	CONNECTOR

** = MATERIAL TYPE

Guide, Hollow Valve Rod (464)

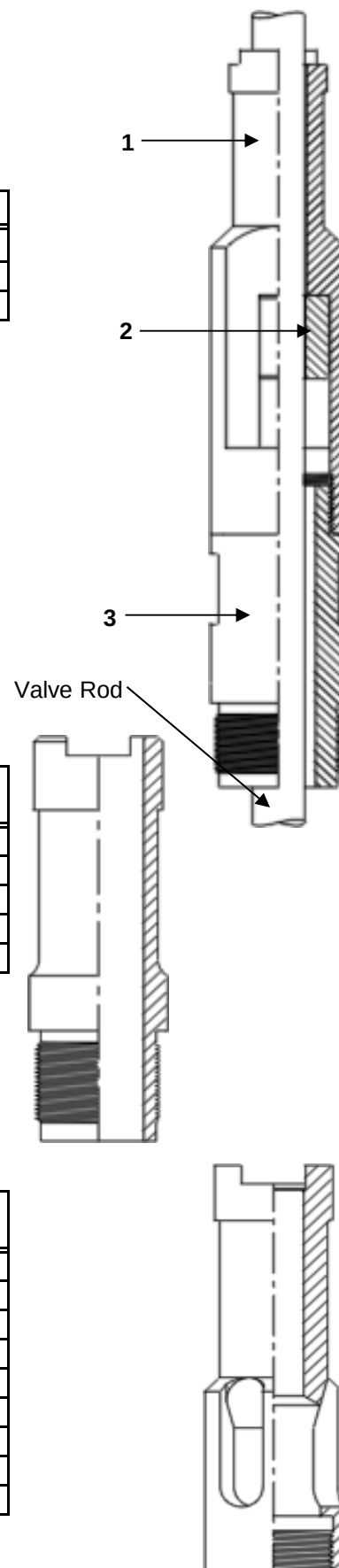
GUIDE SIZE	PART NUMBER	PART TYPE	ROD SIZE	THREAD SIZE
1-1/4"	464-C**-35	PIN	2"	1.3330-16 PIN
2"	464-G**-35	PIN	2"	1.5730-16 PIN
2"	464-G**-38	PIN	2"	1.5730-16 PIN
2-1/4"	464-J**-38BX	BOX	2-1/2"	1.8024-14 PIN
2-1/4"	464-J**-40	PIN	2-1/2"	2.0870-16 PIN

** = MATERIAL TYPE

Guide, Valve Rod, Box Type (465)

GUIDE SIZE	PART NUMBER	PART STYLE	ROD SIZE	THREAD SIZE
1-1/16"	465-B**-71	PLAIN	11/16"	0.8750-16 BOX
1-1/2"	465-D**-71	PLAIN	11/16"	1.2500-14 BOX
2"	465-G**-71	PLAIN	11/16"	1.4704-14 BOX
2"	465-G**-71V	VENTED	11/16"	1.4704-14 BOX
2"	465-G**-72	PLAIN	7/8"	1.4704-14 BOX
2"	465-G**-72V	VENTED	7/8"	1.4704-14 BOX
2-1/4"	465-J**-71	PLAIN	11/16"	1.8024-14 BOX
2-1/4"	465-J**-72	PLAIN	7/8"	1.8024-14 BOX
2-1/4"	465-J**-72V	VENTED	7/8"	1.8024-14 BOX

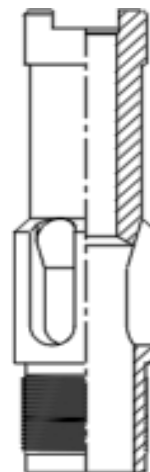
** = MATERIAL TYPE



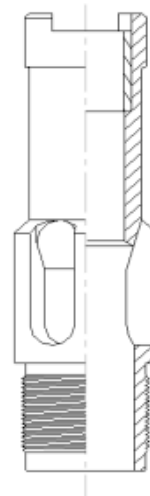
Guide, Valve Rod, Pin Type (466)

GUIDE SIZE	PART NUMBER	PART STYLE	ROD SIZE	THREAD SIZE
1-1/4"	466-C**-71	PLAIN	11/16"	1.3330-16 PIN
1-1/2"	466-D**-71	PLAIN	11/16"	1.2500-14 PIN
2"	466-G**-71	PLAIN	11/16"	1.5730-16 PIN
2"	466-G**-71V	VENTED	11/16"	1.5730-16 PIN
2"	466-G**-72	PLAIN	7/8"	1.5730-16 PIN
2"	466-G**-72V	VENTED	7/8"	1.5730-16 PIN
2-1/4"	466-J**-71	PLAIN	11/16"	2.0870-16 PIN
2-1/4"	466-J**-72	PLAIN	7/8"	2.0870-16 PIN
2-1/4"	466-J**-72V	VENTED	7/8"	2.0870-16 PIN

** = MATERIAL TYPE


**Guide, Valve Rod, Pin Type (467)
With Stellite Insert**

GUIDE SIZE	PART NUMBER	PART STYLE	ROD SIZE	THREAD SIZE
2"	467-G11-72	PLAIN	7/8"	1.5730-16 PIN
2-1/4"	467-J11-72	PLAIN	7/8"	2.0870-16 PIN

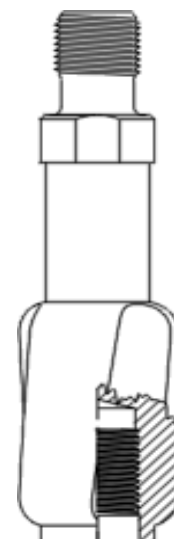

Guide, Barrel (468)

GUIDE SIZE	PART NUMBER	PART STYLE
2-1/2"	468-K**-00	PLAIN
2-1/2"	468-K**-OS	OVER SIZE

** = MATERIAL TYPE


Guide, Spiral Rod (468)

GUIDE SIZE	PART NUMBER	THREAD SIZE	THREAD SIZE
2"	468-G61-48	1.0625-10 PIN	1.0625-10 BOX
2"	468-G61-49	1.1875-10 PIN	1.1875-10 BOX
2-1/2"	468-K61-48	1.0625-10 PIN	1.0625-10 BOX
2-1/2"	468-K61-49	1.1875-10 PIN	1.1875-10 BOX
3-1/4"	468-M61-48	1.0625-10 PIN	1.0625-10 BOX
3-1/4"	468-M61-49	1.1875-10 PIN	1.1875-10 BOX
3-1/4"	468-M61-50	1.375-10 PIN	1.375-10 BOX



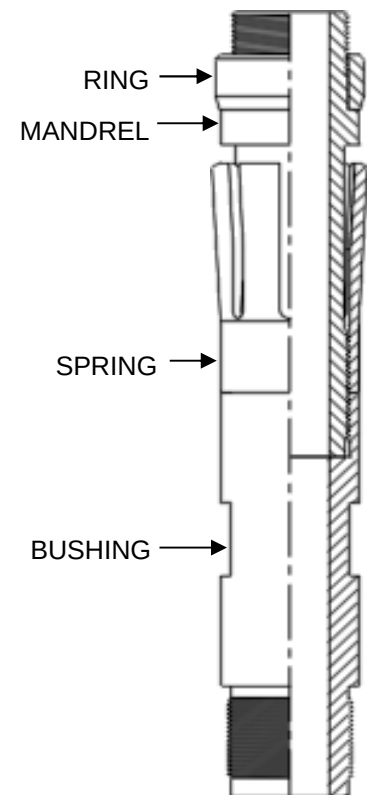
Holddown, API-Mech, Top Lock, Assembly (471)

ASSEMBLY SIZE	ASSEMBLY NUMBER	API NUMBER	THREAD SIZE	THREAD SIZE
2"	471-G13-00A	S21-20	1.4704-14 PIN	1.5730-16 PIN
2-1/2"	471-K13-00A	S21-25	1.8024-14 PIN	2.0870-16 PIN

PARTS IN ASSEMBLIES

ASSEMBLY NUMBER	MANDREL NUMBER	RING NUMBER	SPRING NUMBER	BUSHING NUMBER
471-G13-00A	471-G13-00	594-G11-00	616-G16-00	308-G13-22
471-K13-00A	471-K13-00	594-K11-00	616-K16-00	308-K13-24

NOTE: THE MATERIALS LISTED ARE WHAT IS COMMONLY USED

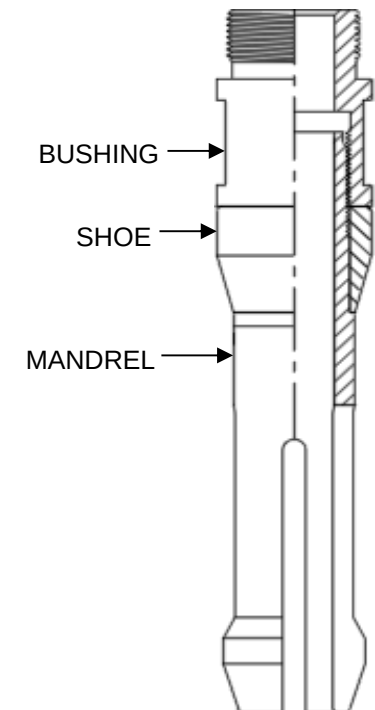

Holddown, Bottom Lock, Assembly (472)

ASSEMBLY SIZE	ASSEMBLY NUMBER	API NUMBER	THREAD SIZE
2"	472-G16-00A	S22-20	1.4704-14 PIN
2-1/2"	472-K16-00A	S22-25	1.8024-14 PIN
2-3/4"	472-L16-00A	S22-30	2.1095-11½ PIN

PARTS IN ASSEMBLIES

ASSEMBLY NUMBER	MANDREL NUMBER	SHOE NUMBER	BUSHING NUMBER
472-G16-00A	472-G16-00	595-G10-00	316-G13-45
472-K16-00A	472-K16-00	595-K10-00	316-K13-45
472-L16-00A	472-L16-00	595-L10-00	316-L13-45

NOTE: THE MATERIALS LISTED ARE WHAT IS COMMONLY USED

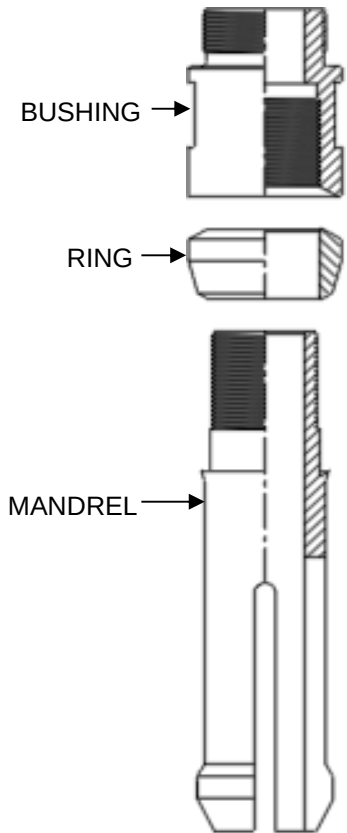


Holddown, Bottom Lock, Mechanical, Axelson Style

PART SIZE	PART NUMBER	PART STYLE
2"	C111446-0046	RING, BRASS
2"	C111446-0052	RING, STAINLESS
2"	C111415	MANDREL, STEEL
2"	C111419	BUSHING, STEEL

PART SIZE	PART NUMBER	PART STYLE
2-1/2"	C111413-0046	RING, BRASS
2-1/2"	C111413-0052	RING, STAINLESS
2-1/2"	C111416	MANDREL, STEEL
2-1/2"	C111420	BUSHING, STEEL

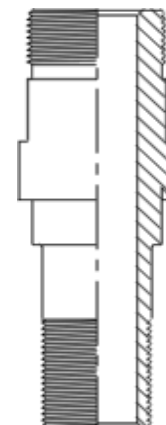
PART SIZE	PART NUMBER	PART STYLE
3-1/4"	C111477-0046	RING, BRASS
3-1/4"	C111477-0052	RING, STAINLESS
3-1/4"	C111417	MANDREL, STEEL
3-1/4"	C111421	BUSHING, STEEL



Mandrel, 2-Cup Standing Valve, "HR" Type (473)

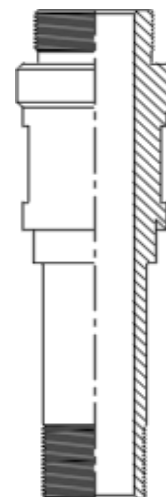
MANDREL SIZE	PART NUMBER	THREAD SIZE	THREAD SIZE
1-1/4"	473-C**-28	1.2500-14 PIN	0.8750-14 PIN
1-3/4"	473-E**-28	1.4704-14 PIN	1.1894-14 PIN
2-1/4"	473-J**-28	1.8024-14 PIN	1.5604-14 PIN
2-3/4"	473-L**-28	2.1095-11 1/2 PIN	2.0035-11 1/2 PIN

** = MATERIAL TYPE


Mandrel, Cup Holddown "HR" Type (474)

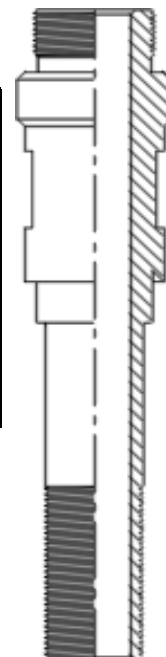
MANDREL SIZE	PART NUMBER	PART STYLE	THREAD SIZE	THREAD SIZE
2"	474-G**-29	PLAIN	1.4704-14 PIN	1.1894-14 PIN
2"	474-G**-29V	VENTED	1.4704-14 PIN	1.1894-14 PIN
2-1/2"	474-K**-29	PLAIN	1.8024-14 PIN	1.5604-14 PIN
2-1/2"	474-K**-29V	VENTED	1.8024-14 PIN	1.5604-14 PIN

** = MATERIAL TYPE


Mandrel, Cup Holddown "HR" API (475)

MANDREL SIZE	PART NUMBER	API NUMBER	PART STYLE	THREAD SIZE	THREAD SIZE
1-1/2"	475-D**-29	N/A	PLAIN	1.2500-14 PIN	0.8750-14 PIN
1-1/2"	475-D**-29SH	N/A	SLIM HOLE	1.2500-14 PIN	0.8750-14 PIN
2"	475-G**-29	S11-20	PLAIN	1.4704-14 PIN	1.1894-14 PIN
2"	475-G**-31	N/A	PLAIN	1.4704-14 PIN	1.1894-14 PIN
2"	475-G**-OS	N/A	OVERSIZE	1.4704-14 PIN	1.1894-14 PIN
2-1/2"	475-K**-29	S11-25	PLAIN	1.8024-14 PIN	1.5604-14 PIN
2-3/4"	475-L**-29	S11-30	PLAIN	2.1095-11½ PIN	2.0035-11½ PIN
1-3/8"	475-Z**-29	N/A	PLAIN	1.2500-14 PIN	0.7500-16 PIN

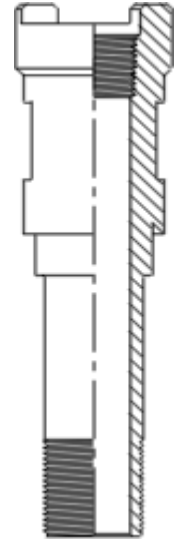
** = MATERIAL TYPE



Mandrel, Cup Holddown with Pull Tube Threads (476)

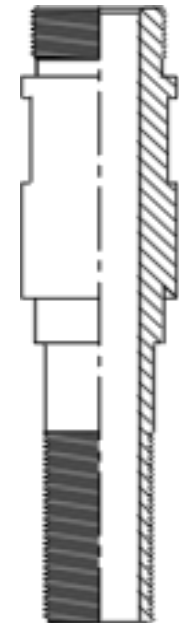
MANDREL SIZE	PART NUMBER	THREAD SIZE	THREAD SIZE
2"	476-G**-04	1.1894-14 PIN	3/4-14 NPT BOX
2"	476-G**-38	1.1894-14 PIN	1.1250-16 BOX

** = MATERIAL TYPE


Mandrel, Standing Valve Cup, API (477)

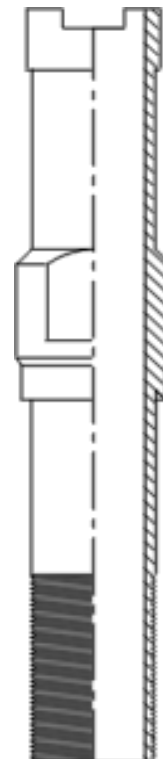
MANDREL SIZE	PART NUMBER	THREAD SIZE	THREAD SIZE
1-3/4"	477-E**-28	1.4704-14 PIN	1.1894-14 PIN
2-1/4"	477-J**-28	1.8024-14 PIN	1.5604-14 PIN
2-3/4"	477-L**-28	2.1095-11½ PIN	2.0035-11½ PIN

** = MATERIAL TYPE


Mandrel, Top, Holddown Type "O" (479)

MANDREL SIZE	PART NUMBER	THREAD SIZE
2"	479-G**-29	1.5084-14 PIN

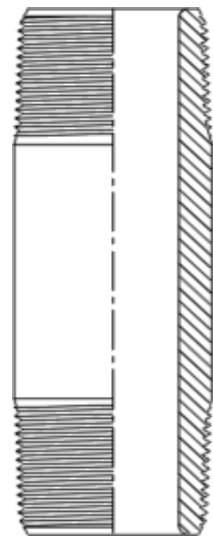
** = MATERIAL TYPE



Nipple, Seating, Cup-Type, with Tubing Threads (481)

NIPPLE SIZE	PART NUMBER	PART LENGTH	PART ID	THREAD SIZE
1-1/2"	481-D**-11	8"	1.500"	1.900-10 EUE
1-1/2"	481-D**-12	12"	1.500"	1.900-10 EUE
1-1/2"	481-D**-21	8"	1.500"	1.900-10 NUE
1-1/2"	481-D**-22	12"	1.500"	1.900-10 NUE
1-1/2"	481-D**-23	12"	1.375"	1.900-10 EUE
1-1/2"	481-D**-24	12"	1.375"	1.900-10 NUE
1-1/2"	481-D**-31	8"	1.375"	1.900-10 EUE
1-1/2"	481-D**-32	12"	1.375"	1.900-10 EUE
1-1/2"	481-D**-41	8"	1.375"	1.900-10 NUE
1-1/2"	481-D**-42	12"	1.460"	1.900-10 EUE
1-1/2"	481-D**-52	12"	1.460"	1.900-10 NUE
2"	481-G**-11	8"	1.780"	2-3/8-8 EUE
2"	481-G**-12	12"	1.780"	2-3/8-8 EUE
2"	481-G**-18	18"	1.780"	2-3/8-8 EUE
2"	481-G**-21	8"	1.780"	2-3/8-10 REG
2"	481-G**-22	12"	1.780"	2-3/8-10 REG
2"	481-G**-31	8"	1.780"	2-11½ REG
2"	481-G**-32	12"	1.780"	2-11½ REG
2"	481-G**-61	6"	1.780"	2-10 REG
2"	481-G**-62	6"	1.780"	2-11½ REG
2-1/4"	481-K**-11	8"	2.280"	2-7/8-8 EUE
2-1/4"	481-K**-12	12"	2.280"	2-7/8-8 EUE
2-1/4"	481-K**-22	12"	2.280"	2-7/8-10 REG
2-1/4"	481-K**-36	36"	2.280"	2-7/8-8 EUE
2-1/4"	481-K**-60	60"	2.280"	2-7/8-8 EUE
2"	481-Z**-11	8"	1.875"	2-3/8-8 EUE
2"	481-Z**-12	12"	1.875"	2-3/8-8 EUE

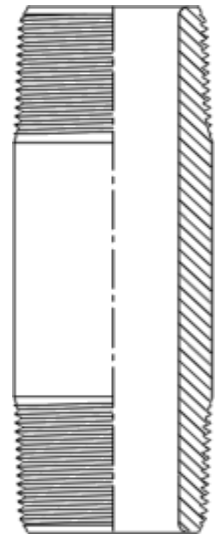
** = MATERIAL TYPE



Nipple, Seating, Cup-Type, with Tubing Threads (482)

NIPPLE SIZE	PART NUMBER	PART LENGTH	PART ID	THREAD SIZE
2-1/2"	482-K**-11	8"	2.250"	2-7/8-8 EUE
2-1/2"	482-K**-12	12"	2.250"	2-7/8-8 EUE
2-1/2"	482-K**-22	12"	2.250"	2-7/8-10 EUE

** = MATERIAL TYPE



Nipple, Strainer (483)

NIPPLE SIZE	PART NUMBER	PART LENGTH	THREAD SIZE
1"	483-A**-06	8"	1-NPT
1"	483-A**-12	12"	1-NPT
1"	483-A**-18	18"	1-NPT
1-1/4"	483-C**-06	6"	1-1/4 NPT
1-1/4"	483-C**-12	12"	1-1/4 NPT
1-1/4"	483-C**-18	18"	1-1/4 NPT
1-1/2"	483-D**-06	6"	1-1/2 NPT
3/4"	483-Z**-06	6"	3/4 NPT
3/4"	483-Z**-12	12"	3/4 NPT
3/4"	483-Z**-18	18"	3/4 NPT

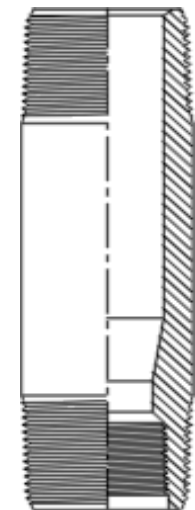
** = MATERIAL TYPE



Nipple, Seating Shoe, 2-Cup Tubing Pump (484)

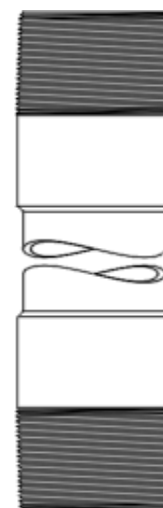
NIPPLE SIZE	PART NUMBER	API NUMBER	THREAD SIZE	THREAD SIZE
2"	484-G**-09	N13-20	2-3/8-8 EUE	1-1/2-11½ NPT
2"	484-G**-10	N/A	2-3/8-10 NUE	1-1/2-11½ NPT
2-1/2"	484-K**-09	N13-25	2-7/8-8 EUE	2-11½ NPT
3"	484-L**-09	N13-30	3-8 EUE	2-11½ NPT

** = MATERIAL TYPE

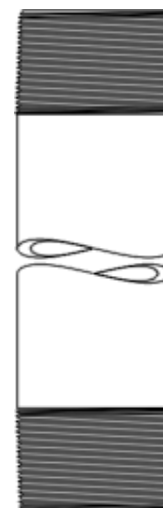


Nipple, Lift (485)

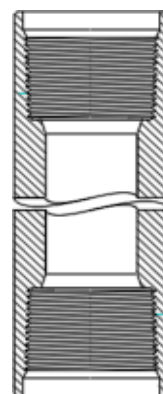
NIPPLE SIZE	PART NUMBER	PART LENGTH	THREAD SIZE
1-3/4"	485-E13-24	24"	2-3/8-8 EUE
1-3/4"	485-E13-36	36"	2-3/8-8 EUE
1-3/4"	485-E13-48	48"	2-3/8-8 EUE
2-1/4"	485-J13-24	24"	2-7/8-8 EUE
2-1/4"	485-J13-36	36"	2-7/8-8 EUE
2-1/4"	485-J13-48	48"	2-7/8-8 EUE
2-1/4"	485-J13-72	72"	2-7/8-8 EUE
2-3/4"	485-L13-24	24"	3-1/2-8 EUE


Nipple, Extension (486)

NIPPLE SIZE	PART NUMBER	PART LENGTH	THREAD SIZE
1-3/4"	486-E13-12	12"	2-3/8-8 EUE
1-3/4"	486-E13-24	24"	2-3/8-8 EUE
1-3/4"	486-E13-36	36"	2-3/8-8 EUE
2-1/4"	486-E13-48	48"	2-3/8-8 EUE
2-1/4"	486-E13-96	96"	2-7/8-8 EUE
2-1/4"	486-J13-12	12"	2-7/8-8 EUE
2-1/4"	486-J13-144	144"	2-7/8-8 EUE
2-3/4"	486-J13-168	168"	2-7/8-8 EUE
2-3/4"	486-J13-180	180"	2-7/8-8 EUE
2-3/4"	486-J13-216	216"	2-7/8-8 EUE
2-3/4"	486-J13-24	24"	2-7/8-8 EUE
2-3/4"	486-J13-36	36"	2-7/8-8 EUE
2-3/4"	486-J13-48	48"	3-1/2-8 EUE
2-3/4"	486-L13-168	168"	3-1/2-8 EUE
2-3/4"	486-L13-180	180"	3-1/2-8 EUE
2-3/4"	486-L13-24	24"	3-1/2-8 EUE
2-3/4"	486-L13-48	48"	3-1/2-8 EUE


Shoe, Seating with ID Threads (487)

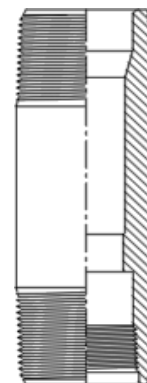
NIPPLE SIZE	PART NUMBER	PART LENGTH	PART ID	THREAD SIZE
2"	487-G13-09	9-1/4"	1.780"	2-3/8-8 EUE
2"	487-G13-10	9-1/4"	1.780"	2-3/8-10 NUE
2"	487-G13-12	9-1/4"	1.780"	2-11½ NPT



Nipple, Mechanical, Bottom Lock (489)

NIPPLE SIZE	PART NUMBER	API NUMBER	THREAD SIZE	THREAD SIZE
2"	489-G**-09	N12-20	2-3/8-8 EUE	1-1/2-11½ NPT
2"	489-G**-12	N/A	2-11½ NPT	1-1/2-11½ NPT
2-1/4"	489-K**-09	N12-25	2-7/8-8 EUE	2-11½ NPT
2-1/4"	489-K**-10	N/A	2-7/8-10 NUE	2-11½ NPT
2-1/4"	489-K**-12	N/A	2-1/2-11½ NPT	2-11½ NPT
2-3/4"	489-L**-09	N12-30	3-1/2-8 EUE	2-1/2-11½ NPT

** = MATERIAL TYPE

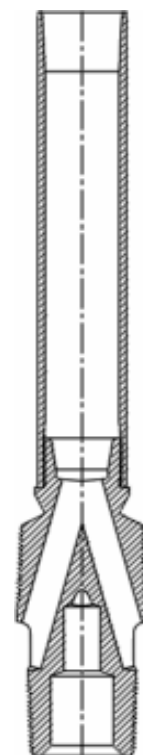

Nipple, Slim Hole, Dump Valve (491)

NIPPLE SIZE	PART NUMBER	THREAD SIZE	THREAD SIZE	THREAD SIZE
2-3/4"	491-L**-16	2.1095-11½ PIN	2.8095-16 PIN	2-7/8-8 EUE
3-1/4"	491-M**-11	2.8095-11½ PIN	3.3825-11½ PIN	2-7/8-8 EUE
3-3/4"	491-N**-10	3.875-10 PIN	3.1715-11½ PIN	3-1/2-8 EUE


Nipple, Injection (495)

NIPPLE SIZE	PART NUMBER	PART LENGTH	THREAD SIZE	THREAD SIZE	THREAD SIZE
1-25/32"	495-G**-12	12"	1.8750-16 BOX	N/A	N/A
2-1/4"	495-K**-12	8"	2-7/8-8 EUE	2-3/8-8 EUE	1.8750-16 PIN

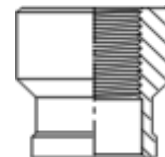
** = MATERIAL TYPE



Nut, Plunger Cup (501)

NUT SIZE	PART NUMBER	THREAD SIZE
2-1/2"	501-D**-00	0.8750-14 BOX

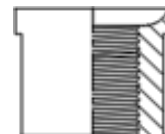
** = MATERIAL TYPE



Nut, Cup Face (502)

NUT SIZE	PART NUMBER	THREAD SIZE
2-1/2"	502-D**-00	0.8750-14 BOX

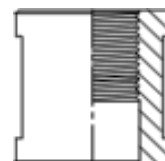
** = MATERIAL TYPE



Nut, Lock (503)

NUT SIZE	PART NUMBER	THREAD SIZE
1-1/4"	503-C**-00	0.7500-16 BOX
1-1/2"	503-D**-00	0.8750-14 BOX
1-3/4"	503-E**-00	1.1894-14 BOX
2"	503-G**-00	1.3750-14 BOX
2-1/4"	503-J**-00	1.5604-14 PIN
2-3/4"	503-L**-00	2.0035-11½ PIN

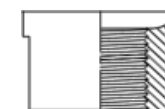
** = MATERIAL TYPE



Nut, Seating Cup (504)

NUT SIZE	PART NUMBER	THREAD SIZE
1-1/4"	504-D**-00	0.8750-14 BOX
2"	504-G**-00	1.1894-14 BOX
2"	504-G**-OS	1.1894-14 BOX
2-1/4"	504-K**-00	1.5604-14 PIN
2-3/4"	504-L**-00	2.0035-11½ PIN
1-3/8"	504-Z**-00	0.7500-16 BOX

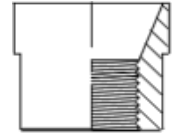
** = MATERIAL TYPE



Nut, Lock, Plunger, Repack (506)

NUT SIZE	PART NUMBER	THREAD SIZE
1-1/4"	506-D**-00	0.8750-14 BOX

** = MATERIAL TYPE



Nut, Lock, Barrel Cage (510)

NUT SIZE	PART NUMBER	THREAD SIZE
1-1/4"	510-L**-00	2.8095-11½ BOX
2-1/4"	510-M**-00	3.1715-11½ BOX

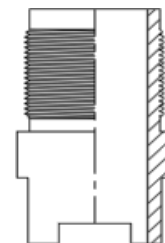
** = MATERIAL TYPE



Plug, Pull (560)

PLUG SIZE	PART NUMBER	API NUMBER	PART STYLE	THREAD SIZE
1-1/4"	560-C**-16	N/A	CLUCHED	1.3330-16 PIN
1-1/4"	560-C**-16BH	N/A	CL, BIG HOLE	1.3330-16 PIN
1-1/4"	560-C**-RH	P11-125	RIGH HAND	1.3330-16 PIN
1-1/2"	560-D**-14	N/A	CLUCHED	1.5894-14 PIN
1-1/2"	560-D**-16	P11-150-20	CLUCHED	1.5730-16 PIN
1-1/2"	560-D**-16BH	N/A	CL, BIG HOLE	1.5730-16 PIN
1-1/2"	560-D**-178	N/A	PLAIN	1.5730-16 PIN
2"	560-G**-16	P11-200	CLUCHED	2.0870-16 PIN

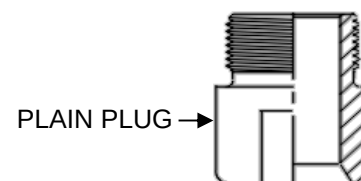
** = MATERIAL TYPE



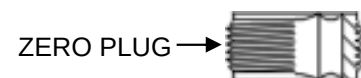
Plug, Seat (563)

NUT SIZE	PART NUMBER	API NUMBER	PART STYLE	THREAD SIZE
1-1/16"	563-B**-45	P12-106	FLAT	0.8750-14 PIN
1-1/4"	563-C**-00	N/A	FLAT, ZR0 PLG	1.0000-14 PIN
1-1/4"	563-C**-45	P12-125	FLAT	1.0000-14 PIN
1-1/2"	563-D**-00	N/A	FLAT, ZR0 PLG	1.2500-14 PIN
1-1/2"	563-D**-45	P12-150	FLAT	1.2500-14 PIN
1-1/2"	563-D**-46	N/A	RIBBED	1.2500-14 PIN
1-3/4"	563-E**-00	N/A	FLAT, ZR0 PLG	1.4704-14 PIN
1-3/4"	563-E**-45	P12-175	FLAT	1.4704-14 PIN
1-3/4"	563-E**-45C	N/A	FLAT, CLCHD	1.4704-14 PIN
2"	563-G**-00	N/A	FLAT, ZR0 PLG	1.5604-14 PIN
2"	563-G**-45	P12-200	FLAT	1.5604-14 PIN
2-1/4"	563-J**-45	P12-225	FLAT	1.8024-14 PIN
2-1/4"	563-J**-45C	N/A	FLAT, CLCHD	1.8024-14 PIN
2-1/2"	563-K**-45	P12-250	FLAT	2.1095-11½ PIN
2-3/4"	563-L**-45	N/A	FLAT	2.1095-11½ PIN
2-3/4"	563-L**-45C	N/A	FLAT, CLCHD	2.1095-11½ PIN
3-1/4"	563-M**-45C	N/A	FLAT, CLCHD	2.8095-11½ PIN

** = MATERIAL TYPE



PLAIN PLUG →



ZERO PLUG →



PLUNGERS (565 - 580)

PRECISION CARRIES A COMPLETE LINE OF PLUNGER STYLES AND ACCESSORIES.

PLUNGERS ARE OFFERED IN THE FOLLOWING MATERIALS:

SPRAY METAL

FOR USE IN MEDIUM TO SEVERE PUMPING CONDITIONS. MADE BY SPRAYING AN ALLOY POWDER AT HIGH TEMPERATURE ON A STEEL TUBE. THIS MAKES THE PLUNGER VERY RESISTANT TO CORROSION AND ABRASION

CHROME PLATED

FOR USE IN SEVERE ABRASIVE CONDITIONS WHERE CORROSION IS MINIMAL. CHROME PLATING IS APPLIED TO THE OD GIVING THE PLUNGER AN EXTREMELY HARD SURFACE.

MONEL PINS

A SPRAY METAL PLUNGER WITH MONEL PINS. THE MONEL PINS GIVE THE PLUNGER BETTER CORROSION RESISTING PROPERTIES, AND PIN STRENGTH.

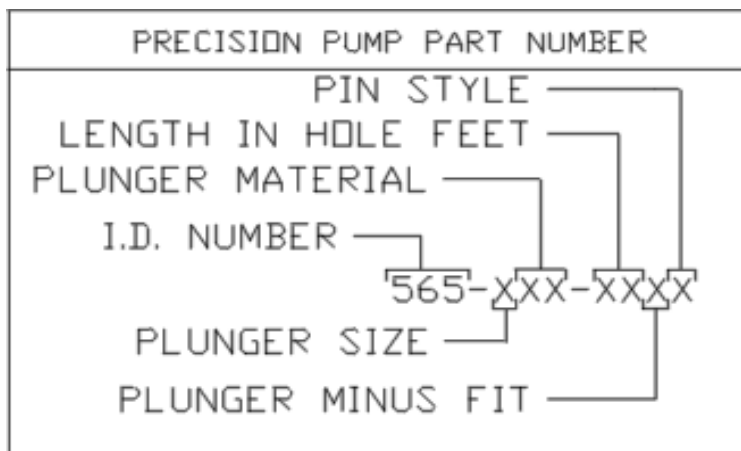
NICKEL PINS

A SPRAY METAL PLUNGER WITH NICKEL PLATED PINS. THE NICKEL PINS GIVE THE PLUNGER BETTER CORROSION RESISTING PROPERTIES

STAINLESS STEEL

FOR USE WITH PA AND SPLIT RING PLUNGERS. STAINLESS STEEL IS A GOOD CORROSION AND ABRASION RESISTANT MATERIAL PERFECT FOR HOUSING RINGS

PART NUMBERING SYSTEM FOR PLUNGERS



CL. FIT CHART	
XXX-XXX-XXA	= -0.001
XXX-XXX-XXB	= -0.002
XXX-XXX-XXC	= -0.003
XXX-XXX-XXD	= -0.004
XXX-XXX-XXE	= -0.005
XXX-XXX-XXF	= -0.006
XXX-XXX-XXG	= -0.007
XXX-XXX-XXH	= -0.008

Plunger, Spray Metal (565)

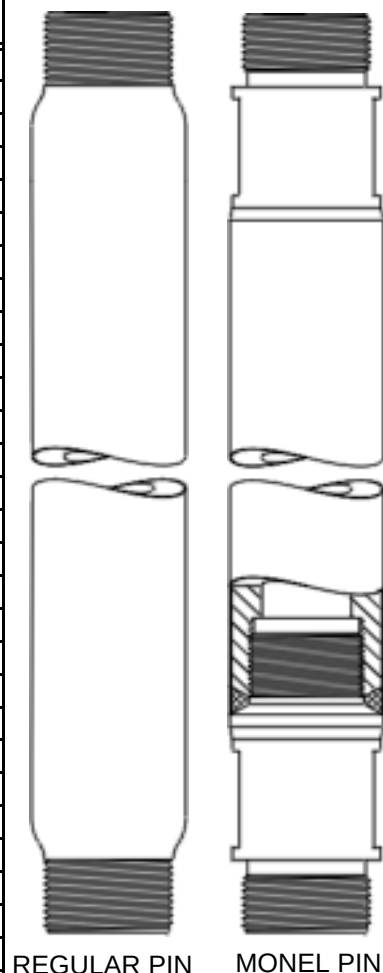
PLUNGER SIZE	API NUMBER	PART NUMBER	AVAILABLE LENGTHS	THREAD SIZE
1-1/16"	P21-106	565-B61-***	1'-24'	0.8750-14 PIN
1-1/16"	P21-106	565-B14-***	1'-24'	0.8750-14 PIN
1-1/16"	P22-106	565-B61-***M	1'-24'	0.8750-14 PIN
1-1/16"	P22-106	565-B14-***M	1'-24'	0.8750-14 PIN
1-1/4"	P21-125	565-C61-***	1'-24'	1.0000-14 PIN
1-1/4"	P21-125	565-C14-***	1'-24'	1.0000-14 PIN
1-1/4"	P22-125	565-C61-***M	1'-24'	1.0000-14 PIN
1-1/4"	P22-125	565-C14-***M	1'-24'	1.0000-14 PIN
1-1/4"	P22-125	565-C61-***N	1'-24'	1.0000-14 PIN
1-1/4"	P22-125	565-C14-***N	1'-24'	1.0000-14 PIN
1-1/2"	P21-150	565-D61-***	1'-24'	1.2500-14 PIN
1-1/2"	P21-150	565-D14-***	1'-24'	1.2500-14 PIN
1-1/2"	P22-150	565-D61-***M	1'-24'	1.2500-14 PIN
1-1/2"	P22-150	565-D14-***M	1'-24'	1.2500-14 PIN
1-1/2"	P22-150	565-D61-***N	1'-24'	1.2500-14 PIN
1-1/2"	P22-150	565-D14-***N	1'-24'	1.2500-14 PIN
1-3/4"	P21-175	565-E61-***	1'-24'	1.4704-14 PIN
1-3/4"	P21-175	565-E14-***	1'-24'	1.4704-14 PIN
1-3/4"	P22-175	565-E61-***M	1'-24'	1.4704-14 PIN
1-3/4"	P22-175	565-E14-***M	1'-24'	1.4704-14 PIN
1-3/4"	P22-175	565-E61-***N	1'-24'	1.4704-14 PIN
1-3/4"	P22-175	565-E14-***N	1'-24'	1.4704-14 PIN
1-25/32"	N/A	565-F61-***	1'-24'	1.4704-14 PIN
1-25/32"	N/A	565-F14-***	1'-24'	1.4704-14 PIN
2"	P21-200	565-G61-***	1'-24'	1.5604-14 PIN
2"	P21-200	565-G14-***	1'-24'	1.5604-14 PIN
2"	P22-200	565-G61-***M	1'-24'	1.5604-14 PIN
2"	P22-200	565-G14-***M	1'-24'	1.5604-14 PIN
2"	P22-200	565-G61-***N	1'-24'	1.5604-14 PIN
2"	P22-200	565-G14-***N	1'-24'	1.5604-14 PIN
2-1/4"	P21-225	565-J61-***	1'-24'	1.8024-14 PIN
2-1/4"	P21-225	565-J14-***	1'-24'	1.8024-14 PIN
2-1/4"	P22-225	565-J61-***M	1'-24'	1.8024-14 PIN
2-1/4"	P22-225	565-J14-***M	1'-24'	1.8024-14 PIN
2-1/4"	P22-225	565-J61-***N	1'-24'	1.8024-14 PIN
2-1/4"	P22-225	565-J14-***N	1'-24'	1.8024-14 PIN
2-1/2"	P21-250	565-K61-***	1'-24'	1.8024-14 PIN
2-1/2"	P21-250	565-K14-***	1'-24'	1.8024-14 PIN

*** = LENGTH DESIRED IN WHOLE FEET AND MINUS / CLEARANCE FIT

M = MONEL END PLUNGER

N = NICKEL END PLUNGER

CONTINUE...



...Plunger, Spray Metal (565) CONTINUED

PLUNGER SIZE	API NUMBER	PART NUMBER	AVAILABLE LENGTHS	THREAD SIZE
2-3/4"	P21-275	565-L61-***	1'-24'	2.1905-11½
2-3/4"	P21-275	565-L14-***	1'-24'	2.1905-11½
2-3/4"	P22-275	565-L61-***N	1'-24'	2.1905-11½
2-3/4"	P22-275	565-L14-***N	1'-24'	2.1905-11½
3-1/4"	N/A	565-M61-***	1'-24'	2.8095-11½
3-1/4"	N/A	565-M14-***	1'-24'	2.8095-11½
3-1/4"	N/A	565-M61-***N	1'-24'	2.8095-11½
3-1/4"	N/A	565-M14-***N	1'-24'	2.8095-11½

*** = LENGTH DESIRED IN WHOLE FEET AND MINUS / CLEARANCE FIT

M = MONEL END PLUNGER

N = NICKEL END PLUNGER

Plunger, Spray Metal, Grooved (568 / 573)

TO ADD GROOVES TO PIN END PLUNGERS SIMPLY CHANGE THE ID NUMBER...

TO ADD 3 GROOVES CHANGE 565 TO 568

TO ADD 4 GROOVES CHANGE 565 TO 569

TO ADD 5 GROOVES CHANGE 565 TO 570

TO ADD 6 GROOVES CHANGE 565 TO 571

TO ADD 7 GROOVES CHANGE 565 TO 572

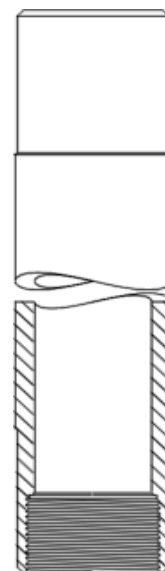
TO ADD 8 GROOVES CHANGE 565 TO 573



Plunger, Spray Metal, Box End (566)

PLUNGER SIZE	API NUMBER	PART NUMBER	AVAILABLE LENGTHS	THREAD SIZE
1-3/4"	P23-175	566-E61-***	1'-24'	1.5084-14 BOX
2-1/4"	P23-225	566-J61-***	1'-24'	1.9864-14 BOX
2-3/4"	P23-275	566-L61-***	1'-24'	2.3755-11½ BX

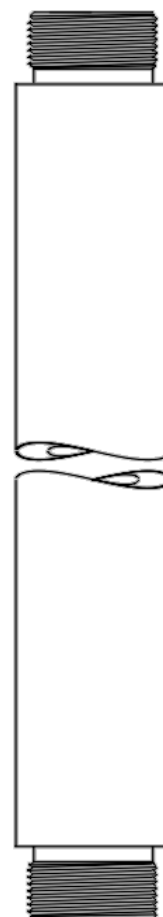
*** = LENGTH DESIRED IN WHOLE FEET AND MINUS / CLEARANCE FIT



Plunger, Spray Metal, Square Shoulders (575)

PLUNGER SIZE	API NUMBER	PART NUMBER	AVAILABLE LENGTHS	THREAD SIZE
1-1/4"	N/A	575-C61-***	1'-24'	1.0000-14 PIN
1-1/4"	N/A	575-C14-***	1'-24'	1.0000-14 PIN
1-1/2"	N/A	575-D61-***	1'-24'	1.2500-14 PIN
1-1/2"	N/A	575-D14-***	1'-24'	1.2500-14 PIN
1-3/4"	N/A	575-E61-***	1'-24'	1.4704-14 PIN
1-3/4"	N/A	575-E14-***	1'-24'	1.4704-14 PIN
1-25/32"	N/A	575-F61-***	1'-24'	1.4704-14 PIN
1-25/32"	N/A	575-F14-***	1'-24'	1.4704-14 PIN
2"	N/A	575-G61-***	1'-24'	1.5604-14 PIN
2"	N/A	575-G14-***	1'-24'	1.5604-14 PIN
2-1/4"	N/A	575-J61-***	1'-24'	1.8024-14 PIN
2-1/4"	N/A	575-J14-***	1'-24'	1.8024-14 PIN
2-1/2"	N/A	575-K61-***	1'-24'	1.8024-14 PIN
2-1/2"	N/A	575-K14-***	1'-24'	1.8024-14 PIN
2-3/4"	N/A	575-L61-***	1'-24'	2.1905-11½
2-3/4"	N/A	575-L14-***	1'-24'	2.1905-11½
3-1/4"	N/A	575-M61-***	1'-24'	2.8095-11½
3-1/4"	N/A	575-M14-***	1'-24'	2.8095-11½
3-3/4"	N/A	575-M61-***	1'-24'	3.1715-11½
3-3/4"	N/A	575-M14-***	1'-24'	3.1715-11½

*** = LENGTH DESIRED IN WHOLE FEET AND MINUS / CLEARANCE FIT



Plunger, Spray Metal, Square Shoulders, Grooved (578 / 580)

TO ADD GROOVES TO PIN END PLUNGERS SIMPLY CHANGE THE ID NUMBER...	
TO ADD 3 GROOVES CHANGE 575 TO 578	
TO ADD 4 GROOVES CHANGE 575 TO 579	
TO ADD 5 GROOVES CHANGE 575 TO 580	



Plunger, Pressure Actuated

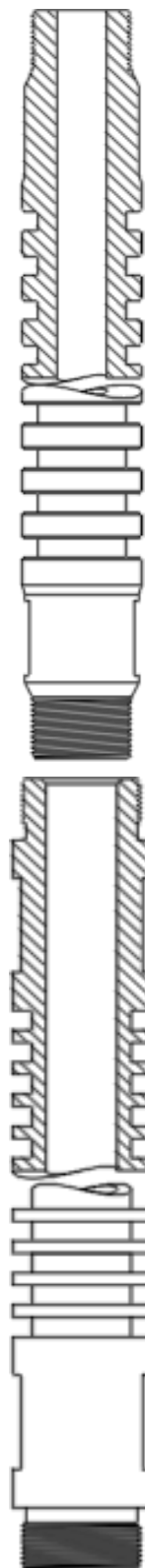
PART SIZE	PART NUMBER	AVAILABLE # RINGS	PART DESCRIPTION	THREAD SIZE
1-1/4"	PA125-**	10,20,40,60.	WITHOUT RINGS	1.0000-14 PIN
1-1/4"	PA125-**R	10,20,40,60.	WITH RED RINGS	1.0000-14 PIN
1-1/2"	PA125-**SS	10,20,40,60.	WITHOUT RINGS, STAINLESS	1.2500-14 PIN
1-1/2"	PA150-**	10,20,40,60.	WITHOUT RINGS	1.2500-14 PIN
1-1/2"	PA150-**-3/4	10,20,40,60.	WITH 3/4 NPT ONE END	1.2500-14 PIN
1-1/2"	PA150-**-3/4B	10,20,40,60.	WITH 3/4 NPT ONE END, BRASS	1.2500-14 PIN
1-1/2"	PA150-**HGR	10,20,40,60.	WITH HIGH GLASS RINGS	1.2500-14 PIN
1-1/2"	PA150-**R	10,20,40,60.	WITH RED RINGS	1.2500-14 PIN
1-1/2"	PA150-**SS	10,20,40,60.	WITHOUT RINGS, STAINLESS	1.2500-14 PIN
1-3/4"	PA175-**	10,20,40,60.	WITHOUT RINGS	1.4704-14 PIN
1-3/4"	PA175-**R	10,20,40,60.	WITH RED RINGS	1.4704-14 PIN
1-25/32"	PA178-**R	10,20,40,60.	WITH RED RINGS	1.4704-14 PIN
2"	PA200-**	10,20,40,60.	WITHOUT RINGS	1.5604-14 PIN
2"	PA200-**R	10,20,40,60.	WITH RED RINGS	1.5604-14 PIN
2-1/4"	PA225-**	10,20,40,60.	WITHOUT RINGS	1.8024-14 PIN
2-1/4"	PA225-**R	10,20,40,60.	WITH RED RINGS	1.8024-14 PIN
2-3/4"	PA275-**	10,20,40,60.	WITHOUT RINGS	2.1095-11½ PIN
2-3/4"	PA275-**R	10,20,40,60.	WITH RED RINGS	2.1095-11½ PIN
3-1/4"	PA325-**	10,20,40,60.	WITHOUT RINGS	2.8095-11½ PIN
3-1/4"	PA325-**R	10,20,40,60.	WITH RED RINGS	2.8095-11½ PIN

** = NUMBER OF RINGS DESIRED

Plunger, Split Ring

PART SIZE	PART NUMBER	AVAILABLE # RINGS	PART DESCRIPTION
2-1/4"	SRP225-**P	30,42	STAINLESS PIN X PIN

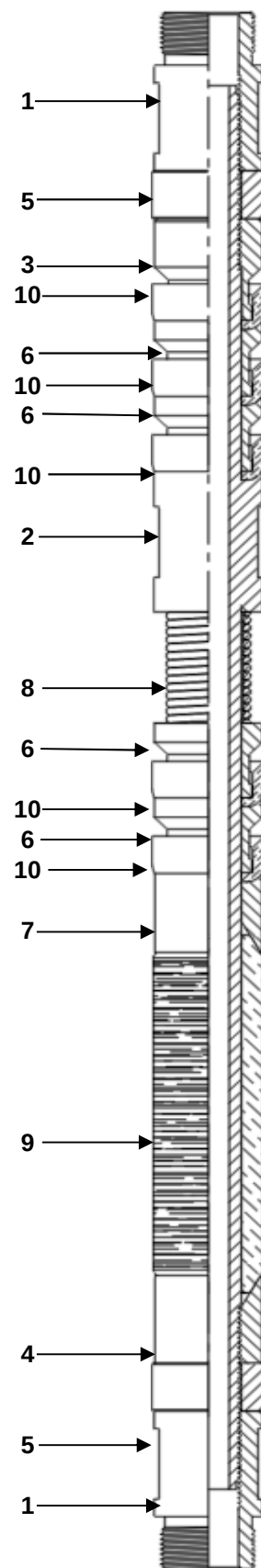
** = NUMBER OF RINGS DESIRED



Plunger, Soft Packed (5-Cup & Pack)

PARTS IN SOFT PACKED PLUNGER				
INDEX #	SIZE	PART NUMBER	QTY	DESCRIPTION
1	1-1/2"	303-D**-45	2	BUSHING
2	1-1/2"	478-D**-00	1	MANDREL
3	1-1/2"	501-D**-00	1	NUT
4	1-1/2"	506-D**-00	1	LOCK NUT
5	1-1/2"	590-D10-00	2	WEAR RING
6	1-1/2"	601-D**-00	4	SPACER
7	1-1/2"	610-D**-00	1	SPACER
8	1-1/2"	615-D11-00	1	SPRING
9	1-1/2"	RP150	1	PACKING
10	1-1/2"	VCCM1490	5	VALVE CUP

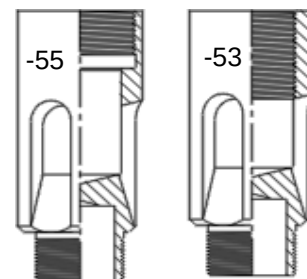
** = MATERIAL TYPE, BRASS OR STEEL AVAILABLE



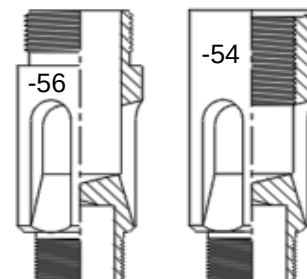
Puller, Standing Valve (585)

ASSEMBLY SIZE	ASSEMBLY NUMBER	API NUMBER	ASSEMBLY STYLE	THREAD SIZE
1-3/4"	585-E**-53A	N/A	FLAT FACE	1.1894-14 B0X
1-3/4"	585-E**-54A	N/A	CUP FACE	1.1894-14 B0X
1-3/4"	585-E**-55A	N/A	BOX	1.4704-14 B0X
1-3/4"	585-E**-56A	P31-175	PIN	1.4704-14 PIN
2-1/4"	585-J**-53A	N/A	FLAT FACE	1.5604-14 B0X
2-1/4"	585-J**-54A	N/A	CUP FACE	1.5604-14 B0X
2-1/4"	585-J**-55A	N/A	BOX	1.8024-14 B0X
2-1/4"	585-J**-56A	P31-225	PIN	1.8024-14 B0X

** = MATERIAL TYPE

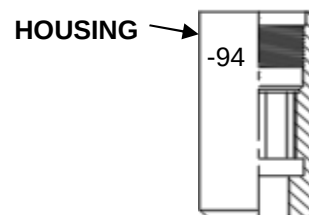
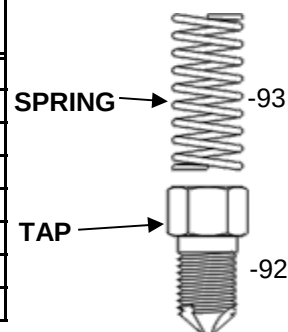


BODIES



PARTS IN ASSEMBLIES

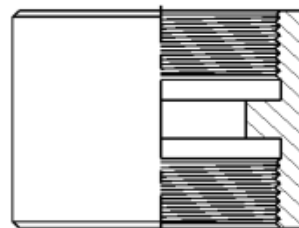
ASSEMBLY NUMBER	BODY NUMBER	HOUSING NUMBER	SPRING NUMBER	TAP NUMBER
585-E**-53A	585-E**-53	585-E**-94	585-E**-93	585-E**-92
585-E**-54A	585-E**-54	585-E**-94	585-E**-93	585-E**-92
585-E**-55A	585-E**-55	585-E**-94	585-E**-93	585-E**-92
585-E**-56A	585-E**-56	585-E**-94	585-E**-93	585-E**-92
585-J**-53A	585-J**-53	585-E**-94	585-E**-93	585-E**-92
585-J**-54A	585-J**-54	585-E**-94	585-E**-93	585-E**-92
585-J**-55A	585-J**-55	585-E**-94	585-E**-93	585-E**-92
585-J**-56A	585-J**-56	585-E**-94	585-E**-93	585-E**-92



Coupling, Steel (585)

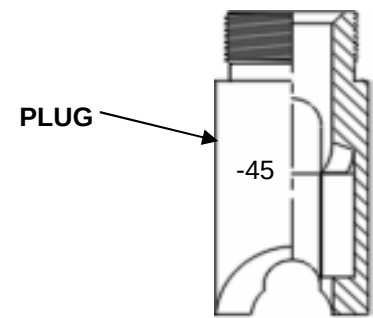
USED TO ATTACH A 2 3/4" PIN TYPE PULLER TO A 2 3/4" PIN END PLUNGER

PLUNGER SIZE	PART NUMBER	THREAD SIZE	THREAD SIZE
2-3/4"	585-L13-00	2.1905-11½	2.1905-11½



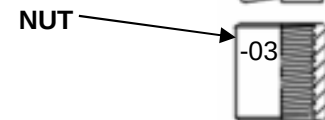
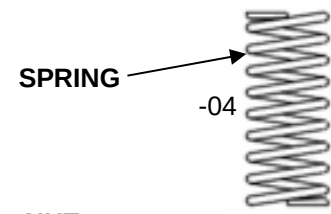
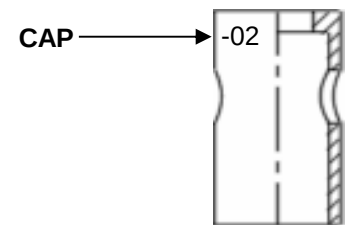
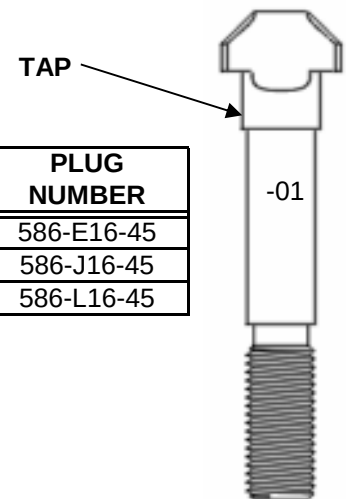
Puller, Shur-Hold (586)

ASSEMBLY SIZE	ASSEMBLY NUMBER	ASSEMBLY STYLE	THREAD SIZE	THREAD SIZE
1-3/4"	586-E16-01A	FLAT	1.4704-14 PIN	0.7500-10 PIN
2-1/4"	586-J16-01A	FLAT	1.8024-14 PIN	0.7500-10 PIN
2-3/4"	586-L16-01A	FLAT	2.1095-11½ PIN	0.7500-10 PIN



PARTS IN ASSEMBLIES					
ASSEMBLY NUMBER	SPRING NUMBER	NUT NUMBER	CAP NUMBER	TAP NUMBER	PLUG NUMBER
586-E16-01A	586-E11-04	586-E13-03	586-E13-02	586-E16-01	586-E16-45
586-J16-01A	586-J11-04	586-J13-03	586-J13-02	586-J16-01	586-J16-45
586-L16-01A	586-L11-04	586-L13-03	586-L13-02	586-L16-01	586-L16-45

NOTE: THE MATERIALS ARE FIXED.

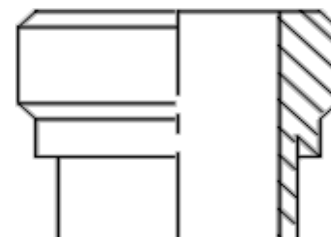


Ring, Wear (590)

NUT SIZE	PART NUMBER
1-1/4"	590-C10-00
1-1/2"	590-D10-00
1-25/32"	590-F10-00
2"	590-G10-00
2-1/4"	590-J10-00
2-3/4"	590-L10-00


Ring, No-Go (592)

NUT SIZE	PART NUMBER
1-7/8"	592-Z13-00

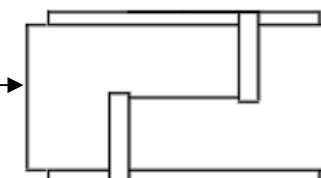

Rings, Flexible-Seal (614)

RING SIZE	PART NUMBER	PART STYLE
1-1/4"	614-C00-00	WIDE
1-1/4"	614-C00-01	NARROW
1-1/2"	614-D00-00	WIDE
1-1/2"	614-D00-01	NARROW
1-3/4"	614-E00-00	WIDE
1-3/4"	614-E00-01	NARROW
1-25/32"	614-F00-00	WIDE
1-25/32"	614-F00-01	NARROW
2"	614-G00-00	WIDE
2"	614-G00-01	NARROW
2-1/4"	614-J00-00	WIDE
2-1/4"	614-J00-01	NARROW
2-3/4"	614-L00-00	WIDE
2-3/4"	614-L00-01	NARROW
3-1/4"	614-M00-00	WIDE
3-1/4"	614-M00-01	NARROW
3-3/4"	614-N00-00	WIDE
3-3/4"	614-N00-01	NARROW
1-5/8"	614-Z00-00	WIDE
1-5/8"	614-Z00-01	NARROW

NARROW →



WIDE →


NOTE: FLEX SEAL RING MADE FROM RESITEN

Ring, Composition

RING SIZE	PART NUMBER	MATERIAL TYPE
1-1/4"	RNGFT1250453	#45,3ply
1-1/4"	RNGFT1250455	#45,5ply
1-1/2"	RNGFT1500-45	#45
1-1/2"	RNGFT1500-60	#60
1-1/2"	RNGFT1500-R	resistoil
1-25/32"	RNGFT1770-45	#45
1-25/32"	RNGFT1770-R	resistoil
2"	RNGFT2000-45	#45
2"	RNGFT2000-60	#60
2-1/4"	RNGFT2250-45	#45
2-3/4"	RNGFT2750-45	#45

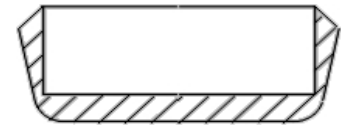

Ring, Plunger, Pressure Actuated

PART SIZE	PART NUMBER	PART STYLE
1-1/4"	PA125	RED
1-1/2"	PA150	RED
1-1/2"	PA150B	BLACK
1-1/2"	PA150P	PURPLE
1-3/4"	PA175	RED
1-25/32"	PA178	RED
2"	PA200	RED
2-1/4"	PA225	RED
2-3/4"	PA275	RED
2-3/4"	PA275B	BLACK
3-1/4"	PA325	RED
1-1/2"	MPA150	YELLOW



Cup, Seat

PART SIZE	PART NUMBER	PART STYLE
1-1/4"	SCPH1270	+30, PLASTIC
1-3/8"	SCPH1405	+30, PLASTIC
1-1/2"	SCCH1500	COMPOSITION
1-1/2"	SCCH1515	+15 COMPOSITION
1-1/2"	SCCH1520	+30 COMPOSITION
1-1/2"	SCCH1480	-10 COMPOSITION
1-1/2"	SCPH1500	PLASTIC
1-1/2"	SCPH1480	-10 PLASTIC
1-3/4"	SCCH1730	-10 COMPOSITION
1-3/4"	SCCH1740	COMPOSITION
1-25/32"	SCCH1770	COMPOSITION
1-25/32"	SCCH1785	+15 COMPOSITION
1-25/32"	SCPH1785	+15 PLASTIC
1-25/32"	SCCH1800	+30 COMPOSITION
1-25/32"	SCCH1840	+70 COMPOSITION
1-25/32"	SRCH1800	+30 TYPE O
1-25/32"	SCPH1800	+30 PLASTIC
2-1/4"	SCCH2255	+15 COMPOSITION
2-1/4"	SCCH2240	COMPOSITION
2-1/4"	SCCH2270	+30 COMPOSITION
2-1/4"	SCCH2310	+70 COMPOSITION
2-1/4"	SCCH2230	-10 COMPOSITION
2-1/4"	SCPH2230	-10 PLASTIC
2-1/4"	SCPH2270	+30 PLASTIC
2-3/4"	SCCH2730	-10 COMPOSITION
2-3/4"	SCCH2770	+30 COMPOSITION
2-3/4"	SCCH2810	+70 COMPOSITION



Rod, Polished (598)

ROD SIZE	PART NUMBER	PART LENGTH	PART STYLE	THREAD SIZE
1-1/8"	598-B13-08N	8"	PIN	5/8"
1-1/8"	598-B13-08P	8"	PIN	3/4"
1-1/8"	598-B13-11N	11"	PIN	5/8"
1-1/8"	598-B13-11P	11"	PIN	3/4"
1-1/8"	598-B13-11TP	11"	DUAL PIN	3/4"
1-1/8"	598-B13-11Z	11"	NON-API PIN	5/8"
1-1/8"	598-B13-16N	16"	PIN	5/8"
1-1/8"	598-B13-16P	16"	PIN	3/4"
1-1/8"	598-B61-11N	11"	HARD CENTR	5/8"
1-1/4"	598-C13-11N	11"	PIN	5/8"
1-1/4"	598-C13-11P	11"	PIN	3/4"
1-1/4"	598-C13-11Q	11"	PIN	7/8"
1-1/4"	598-C13-11TP	11"	DUAL PIN	3/4"
1-1/4"	598-C13-16N	16"	PIN	5/8"
1-1/4"	598-C13-16P	16"	PIN	3/4"
1-1/4"	598-C13-16Q	16"	PIN	7/8"
1-1/4"	598-C13-16TP	16"	DUAL PIN	3/4"
1-1/4"	598-C13-22P	22"	PIN	3/4"
1-1/4"	598-C13-22Q	22"	PIN	7/8"
1-1/4"	598-C13-26P	26"	PIN	3/4"
1-1/4"	598-C13-26Q	26"	PIN	7/8"
1-1/4"	598-C61-16Q	16"	HARD CENTR	7/8"
1-1/4"	598-C61-22Q	22"	HARD CENTR	7/8"



Rod, Valve (599)

ROD SIZE	PART NUMBER	AVAILABLE LENGTHS	THREAD SIZE
11/16"	599-D**-***	1-30'	3/8-18 MLP PIN
7/8"	599-G**-***	1-30'	1/2-14 MLP PIN

** = MATERIAL TYPE

*** = PART LENGTH

Spacer, Valve Cup, API (601)

SPACER SIZE	PART NUMBER	PART STYLE
1-1/4"	601-C**-00	CUP
1-1/4"	601-C**-53	FLAT
1-1/2"	601-D**-00	CUP
1-1/2"	601-D**-53	FLAT
1-25/32"	601-F**-00	CUP
1-25/32"	601-F**-53	FLAT
2"	601-G**-00	CUP
2"	601-G**-53	FLAT
2-1/4"	601-J**-00	CUP
2-1/4"	601-J**-53	FLAT
2-3/4"	601-L**-00	CUP
2-3/4"	601-L**-53	FLAT

** = MATERIAL TYPE



FLAT



CUP

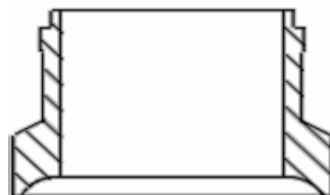
Spacer, Valve Cup, Lip-Type (602)

SPACER SIZE	PART NUMBER	PART STYLE
1-1/2"	602-D**-00	CUP
1-1/2"	602-D**-53	FLAT
1-25/32"	602-F**-00	CUP
1-25/32"	602-F**-53	FLAT
2"	602-G**-00	CUP
2"	602-G**-53	FLAT
2-1/4"	602-J**-00	CUP
2-1/4"	602-J**-53	FLAT
2-3/4"	602-L**-00	CUP

** = MATERIAL TYPE



FLAT

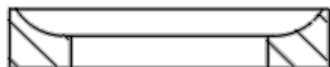


CUP

Spacer, End, Valve Cup (604)

SPACER SIZE	PART NUMBER
1-1/4"	604-C**-00
1-1/2"	604-D**-00
1-3/4"	604-E**-00
1-25/32"	604-F**-00
2"	604-G**-00
2-1/4"	604-J**-00

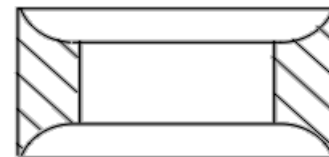
** = MATERIAL TYPE



Spacer, Double, Valve Cup (605)

SPACER SIZE	PART NUMBER
1-1/2"	605-D**-00
2"	605-G**-00

** = MATERIAL TYPE

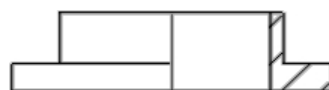

Spacer, Composition Ring (606)

SPACER SIZE	PART NUMBER	PART STYLE
1-1/4"	606-C**-03	3 PLY
1-1/4"	606-C**-05	5 PLY
1-1/2"	606-D**-00	PLAIN
1-1/2"	606-D**-OB	O'BANNON
1-25/32"	606-F**-00	PLAIN
1-25/32"	606-F**-OB	O'BANNON
2"	606-G**-00	PLAIN
2"	606-G**-OB	O'BANNON
2-1/4"	606-J**-00	PLAIN
2-1/4"	606-J**-OB	O'BANNON

** = MATERIAL TYPE



PLAIN

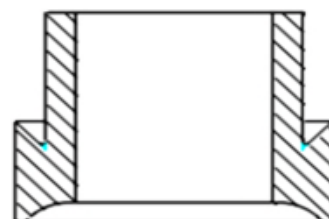


O'BANNON

Spacer, Seating Cup, Type "HR" (607)

SPACER SIZE	PART NUMBER	PART STYLE
1-1/2"	607-D**-00	PLAIN
2"	607-G**-00	PLAIN
2"	607-G**-OS	O STYLE
2-1/4"	607-K**-00	PLAIN
2-3/4"	607-L**-00	PLAIN
1-3/8"	607-Z**-00	PLAIN

** = MATERIAL TYPE


Spacer, Flex-Seal, Wide (611)

SPACER SIZE	PART NUMBER
1-1/4"	611-C**-00
1-1/2"	611-D**-00
1-3/4"	611-E**-00
2"	611-G**-00
2-1/4"	611-J**-00
2-3/4"	611-L**-00

** = MATERIAL TYPE



Spacer, Flex-Seal, Narrow (612)

SPACER SIZE	PART NUMBER
1-1/4"	612-C**-00
1-1/2"	612-D**-00
1-3/4"	612-E**-00
2"	612-G**-00
2-1/4"	612-J**-00
2-3/4"	612-L**-00

** = MATERIAL TYPE


Spacer, Flex-Seal, End Spacer (613)

SPACER SIZE	PART NUMBER
1-1/4"	613-C**-00
1-1/2"	613-D**-00
1-3/4"	613-E**-00
2"	613-G**-00
2-1/4"	613-J**-00
2-3/4"	613-L**-00

** = MATERIAL TYPE



Tube, Pull w/3/4" LP Threads (621)

TUBE SIZE	PART NUMBER	AVAILABLE LENGTHS	THREAD SIZE
1-1/2"	621-D**-***	1-280"	3/4-14 NPT PIN

** = MATERIAL TYPE

*** = PART LENGTH

Tube, Pull w/API Threads (622)

TUBE SIZE	PART NUMBER	AVAILABLE LENGTHS	THREAD SIZE
1-1/4"	622-C**-***	1-280"	0.9375-16 PIN
1-1/2"	622-D**-***	1-280"	1.1250-16 PIN
2"	622-G**-***	1-280"	1.5000-16 PIN
2-1/2"	622-K**-***	1-280"	1.8750-16 PIN

** = MATERIAL TYPE

*** = PART LENGTH

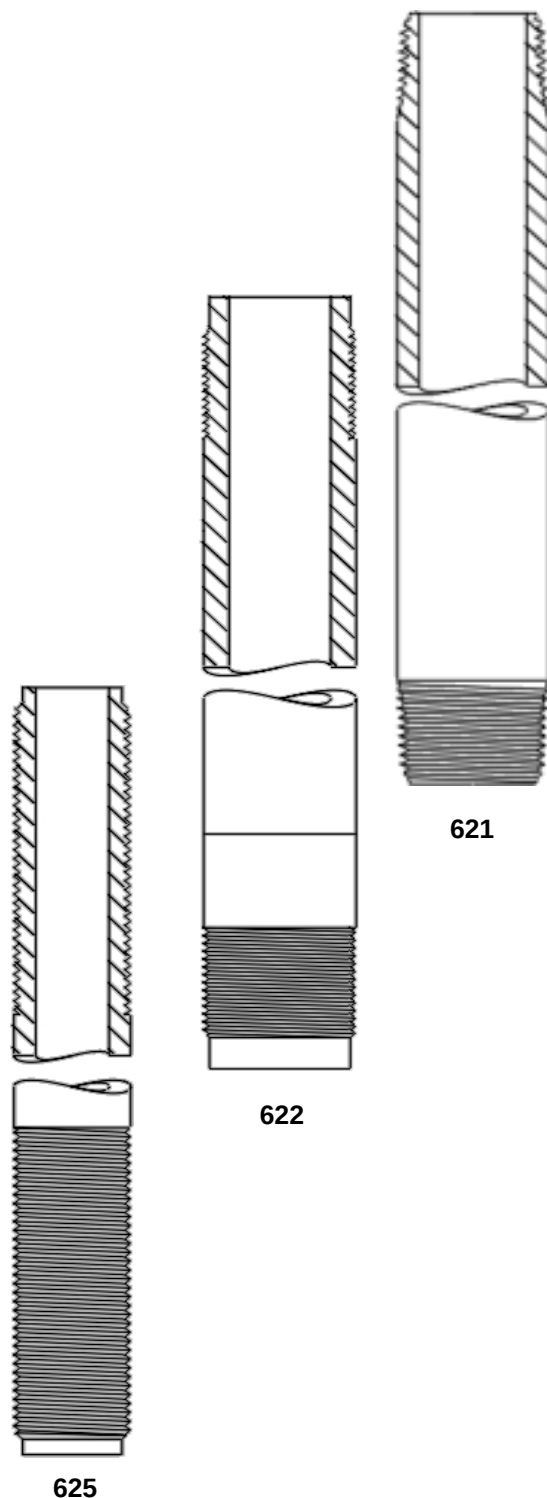
Tube, Composition Ring (625)

TUBE SIZE	PART NUMBER	THREAD SIZE
1-1/4"	625-C**-***	0.7500-16 PIN
1-1/2"	625-D**-***	0.8750-14 PIN
1-3/4"	625-E**-***	1.1894-14 PIN
2"	625-G**-***	1.3750-14 PIN
2-1/4"	625-J**-***	1.5604-14 PIN
2-3/4"	625-L**-***	1.9864-14 PIN

** = MATERIAL TYPE

*** = PART LENGTH (SEE BELOW)

NUMBER OF RINGS PER LENGTH IN INCHES		
# OF RINGS	LENGTH"	ADD - PART #
20	17"	-17
30	22"	-22
40	27"	-27
50	33"	-33
60	37"	-37
80	48"	-48

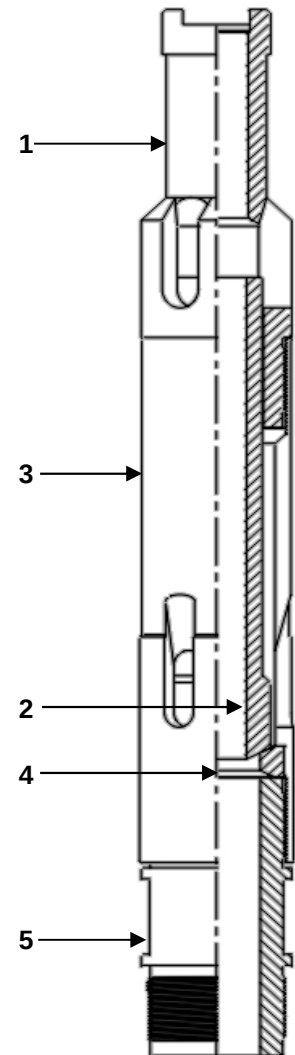


Valve, Slider, Assembly, H-F Style

INDEX #	SIZE	PART NUMBER	QTY	DESCRIPTION
2" VALVE, SLIDER, BOTTOM HOLDDOWN				
1	2"	466-G13-71	1	ROD GUIDE
2	2"	677-G10-00	1	VALVE
3	2"	448-G13-16	1	EXTENSION
5	1-1/2"	440-D16-16	1	CONNECTOR

2" VALVE, SLIDER, BOTTOM HOLDDOWN, FOR 7/8" ROD				
1	2"	466-G13-72	1	ROD GUIDE
2	2"	677-G10-72	1	VALVE
3	2"	448-G13-16	1	EXTENSION
5	1-1/2"	440-D16-16	1	CONNECTOR

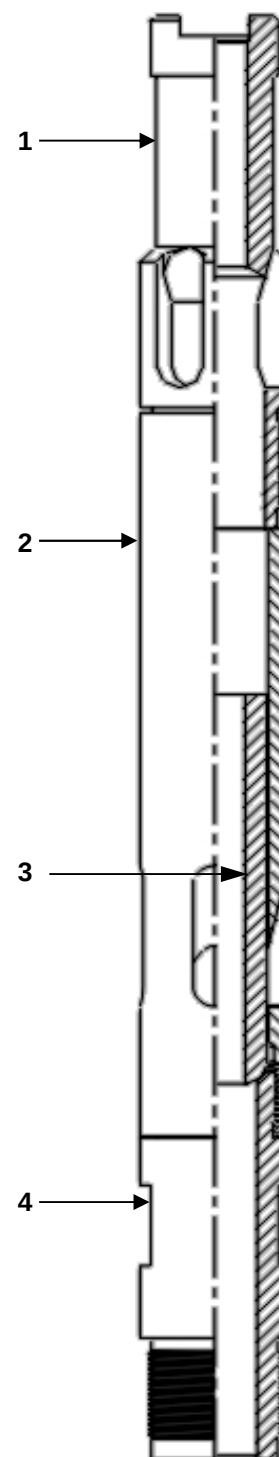
2-1/2" VALVE, SLIDER, BOTTOM HOLDDOWN				
1	2-1/4"	466-J13-72	1	ROD GUIDE
2	2-1/2"	677-K10-00	1	VALVE
3	2-1/2"	448-K13-16	1	EXTENSION
4	2-1/2"	676-K11-00	1	SEAT
5	2-1/2"	440-K13-16	1	CONNECTOR



Valve, Slider, Assembly

INDEX #	SIZE	PART NUMBER	QTY	DESCRIPTION
2" VALVE, SLIDER, BOTTOM HOLDDOWN				
1	2"	466-G13-71	1	ROD GUIDE
2	2"	448-C13-00	1	EXTENSION
3	2"	675-C11-02	1	VALVE
4	1-1/2"	447-D13-16	1	CONNECTOR

2" VALVE, SLIDER, BOTTOM HOLDDOWN, FOR 7/8" ROD				
1	2"	466-G13-72	1	ROD GUIDE
2	2"	448-C13-00	1	EXTENSION
3	2"	675-C11-03	1	VALVE
4	1-1/2"	447-D13-16	1	CONNECTOR

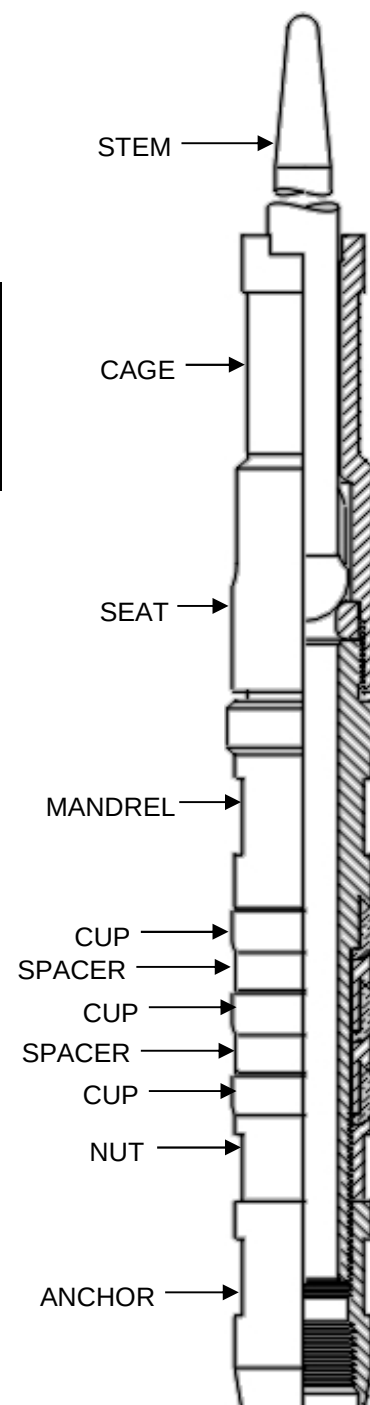


Valve, Drop, Assembly

ASSEMBLY SIZE	ASSEMBLY NUMBER	THREAD SIZE
2"	8010A	1"-11½ NPT

PARTS IN ASSEMBLIES

ASSEMBLY NUMBER	STEM NUMBER	CAGE NUMBER	SEAT NUMBER	MANDREL NUMBER
8010A	8011	8010	103-E11-XX	475-G13-29
ASSEMBLY NUMBER	CUP NUMBER	SPACER NUMBER	NUT NUMBER	ANCHOR NUMBER
8010A	SCCH1800	607-G13-00	504-G13-00	452-G13-05

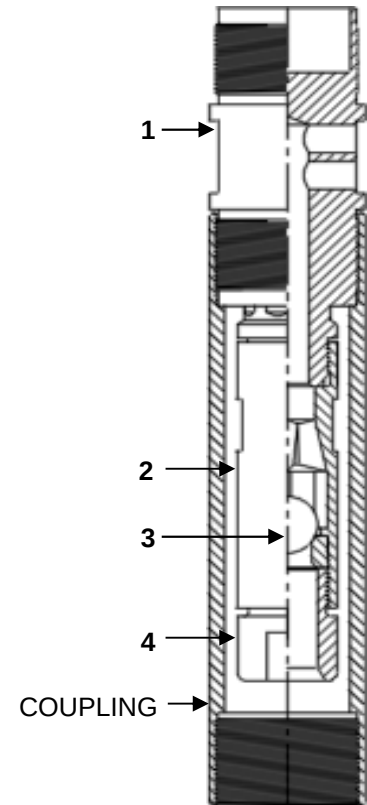


Valve, bottom discharge, Assembly

INDEX #	SIZE	PART NUMBER	QTY	DESCRIPTION
2" VALVE, BOTTOM DISCHARGE				
1	2"	208-G**-16	1	BODY
2	2"	410-C**-45	1	CAGE
3	2"	103-C**-34	1	BALL & SEAT
4	1-1/2"	563-C**-45	1	PLUG

2-1/2" VALVE, BOTTOM DISCHARGE				
1	2-1/4"	208-K**-16	1	BODY
2	1-1/2"	410-D**-45	1	CAGE
3	1-1/2"	103-D**-**	1	BALL & SEAT
4	1-1/2"	563-D**-45	1	PLUG

** = MATERIAL TYPE

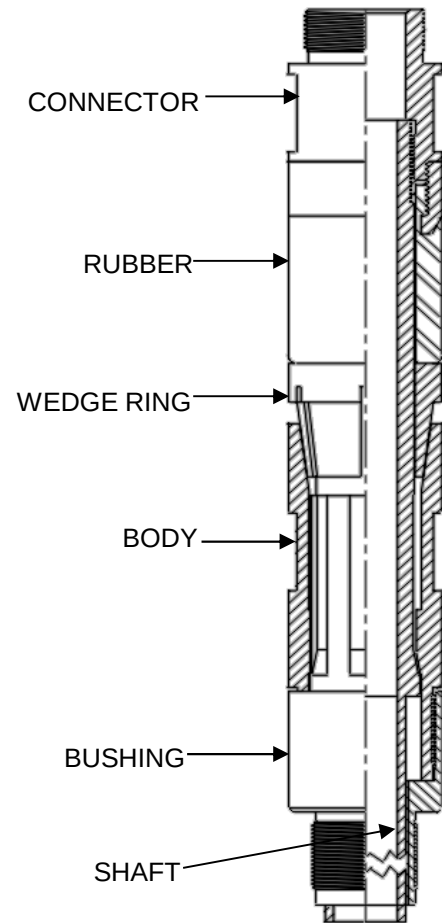


Top Seal, Assembly (C143)

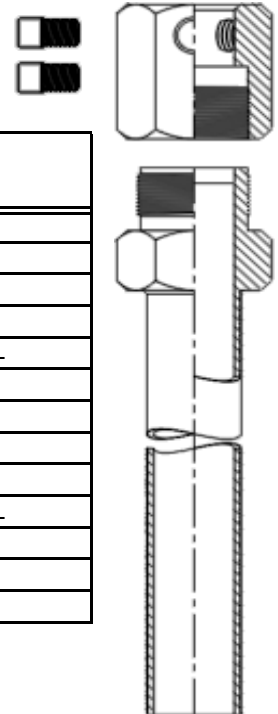
ASSEMBLY SIZE	ASSEMBLY NUMBER	THREAD SIZE
1-3/4"	C143827	1.4704-14 PIN
2"	C143833	1.8024-14 PIN
2-7/8"	C143818	1.8024-14 PIN

PARTS IN ASSEMBLIES

ASSEMBLY NUMBER	CONNECTOR NUMBER	RUBBER NUMBER	RING, WEDGE NUMBER
C143827	C143828	C143829	C143830
C143833	C143819	C143820	C143821
C143818	C143819	C143820	C143821
ASSEMBLY NUMBER	BODY NUMBER	SHAFT NUMBER	BUSHING NUMBER
C143827	C143831	C143832	N/A
C143833	C143823	C143834	C143835
C143818	C143823	C143822	N/A



Liner, Polished Rod



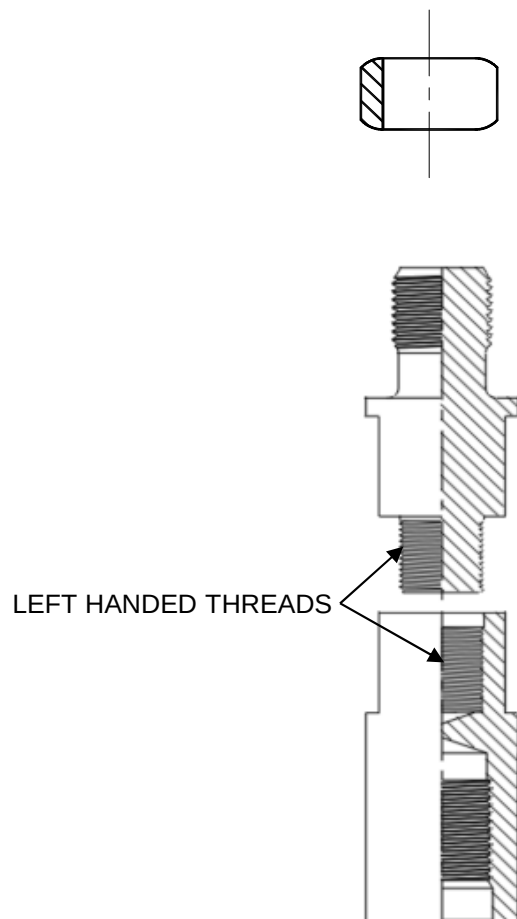
PART SIZE	PART NUMBER	AVAILABLE LENGTHS	PART DESCRIPTION
1-1/2 x 1-5/16	L112**BH	4'-6'	WITH HEAD, BRASS
1-1/4 x 1-1/2	L114**BH	4'-14'	WITH HEAD, BRASS
1-1/4 x 1-1/2	L114**BT	4'-14'	WITHOUT HEAD, BRASS
1-1/4 x 1-1/2	L114**SH	4'-18'	WITH HEAD, HARD SURFACE STEEL
1-1/4 x 1-1/2	L114**ST	5'-8'	WITHOUT HEAD, HARD SURFACE STEEL
1-1/2 x 1-3/4	L134**SH	12'-16'	WITH HEAD, HARD SURFACE STEEL
1-1/8 x 1-3/8	L138**BH	4'-8'	WITH HEAD, BRASS
1-1/8 x 1-3/8	L138**BT	4'-8'	WITHOUT HEAD, BRASS
1-1/8 x 1-3/8	L138**SH	5'-8'	WITH HEAD, HARD SURFACE STEEL
1-1/8 x 1-3/8	L138**ST	4'-8'	WITHOUT HEAD, HARD SURFACE STEEL
1-1/8 x 1-5/16	L156**BH	4'-7'	WITH HEAD, BRASS
1-1/8 x 1-5/16	L156**BT	4'-7'	WITHOUT HEAD, BRASS
1-1/8 x 1-5/16	L156**SH	4'-6'	WITH HEAD, HARD SURFACE STEEL

** = LENGTH DESIRED IN WHOLE FEET

Device, Anti-Strip

PART NUMBER	PART DESCRIPTION
8013	SAND CHECK 2D1-11/16 VALVE ROD, STEEL
8013SS	SAND CHECK 11/16 ROD, STAINLESS
8014	SAND CHECK 2D1-7/8 VALVE ROD, STEEL
8014-78	SAND CHECK 2-1/2D1-7/8 VALVE ROD, STEEL
8014SS	SAND CHECK 7/8 VALVE ROD, STAINLESS

8015P	3/4 PIN X 3/4 BOX WITH BRONZE SHIELD
8015N	5/8 PIN X 5/8 BOX WITH BRONZE SHIELD
8015Q	7/8 PIN X 7/8 BOX WITH BRONZE SHIELD
8016	3/4 PIN X 3/8 MODIFIED LINE PIPE BOX, STEEL
8017	3/4 PIN X 1/2 MODIFIED LINE PIPE BOX, STEEL



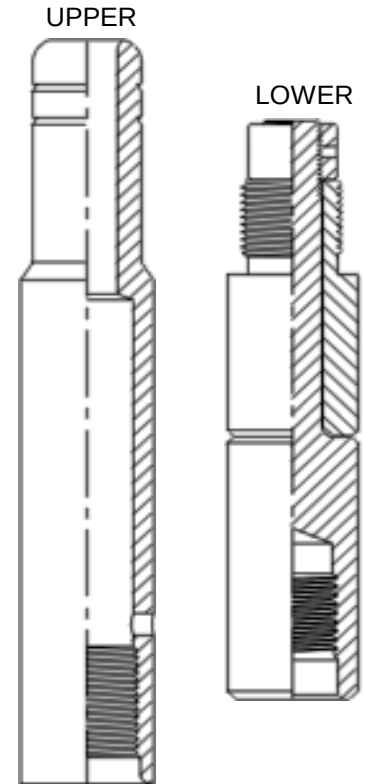
Shield, Bronze

PART NUMBER	PART DESCRIPTION
8018	3/4 PIN X 3/4 BOX, BRASS
8019	7/8 PIN X 7/8 BOX, BRASS



Socket, Rope, 9/16"

PART SIZE	PART NUMBER	PART STYLE	THREAD SIZE
1-3/8"	RS002-1	UPPER	N/A
1-3/8"	RS002-2	LOWER	0.9375-10 BOX



Tool, On/Off

PART SIZE	PART NUMBER	PART O.D.	PART STYLE
1-1/16	T100LH3/4	1.812 OD	LEFT HAND RELEASE
1-3/16	T100LH7/8	1.812 OD	LEFT HAND RELEASE
1-1/16	T100RH3/4	1.812 OD	RIGHT HAND RELEASE
1-3/16	T100RH7/8	1.812 OD	RIGHT HAND RELEASE
1-3/8	T110LH1	2.150 OD	LEFT HAND RELEASE
1-1/16	T110LH3/4	2.150 OD	LEFT HAND RELEASE
1-3/16	T110LH7/8	2.150 OD	LEFT HAND RELEASE
1-3/8	T110RH1	2.150 OD	RIGHT HAND RELEASE
1-1/16	T110RH3/4	2.150 OD	RIGHT HAND RELEASE
1-3/16	T110RH7/8	2.150 OD	RIGHT HAND RELEASE
1-3/8	T120LH1	2.312 OD	LEFT HAND RELEASE
1-1/16	T120LH3/4	2.312 OD	LEFT HAND RELEASE
1-3/16	T120LH7/8	2.312 OD	LEFT HAND RELEASE
1-3/8	T120RH1	2.312 OD	RIGHT HAND RELEASE
1-1/16	T120RH3/4	2.312 OD	RIGHT HAND RELEASE
1-3/16	T120RH7/8	2.312 OD	RIGHT HAND RELEASE
1-3/16	T130LH7/8	2.750 OD	LEFT HAND RELEASE
1-1/16	T90LH3/4	1.625 OD	LEFT HAND RELEASE
1-3/16	T90LH7/8	1.625 OD	LEFT HAND RELEASE
1-1/16	T90RH3/4	1.625 OD	RIGHT HAND RELEASE
1-3/16	T90RH7/8	1.625 OD	RIGHT HAND RELEASE



Insert Pump, McGregor Type (All Brass Parts)

PART NUMBER	PART DESCRIPTION
110-R10-04	BARREL 1-7/8 x 1-5/8 x 4
110-R10-05	BARREL 1-7/8 x 1-5/8 x 5
205-R10-00	BODY, PLUNGER PIN THREAD 1-5/8 x 4 CUP
306-R10-47	BUSHING, VALVE RID 2" x 5/8" PIN
407-R10-00	CAGE, OPEN STANDING VALVE 1-5/8
411-R10-00	CAGE OPEN WORKING VALVE 1-5/8
479-R10-00	MANDREL, SEATING 4 CUP
501-R10-00	NUT, PLUNGER CUP 1-5/8"
504-R10-00	NUT, SEATING CUP 1-5/8"
599-R10-04	ROD, VALVE 4 FEET
601-R10-00	SPAVER, VALVE CUP
701-R10-01	TOP CHECK, PERFORATED, 3 PIECES

Cage, Bird

PART SIZE	PART NUMBER	PART STYLE
2"	BC-200	STEEL
2-1/2"	BC-250	STEEL

PARTS NEEDED FOR BIRD CAGE		
2"		2-1/2"
1. BX-200		1. BC-250
2. 312-G**-03		2. 312-K**-05
3. 481-G13-08		3. 481-K13-08
4. 8060		4. 8070
5. 1/2" LP X 14" TUBE		5. 1" LP X 14" TUBE
6. 2" TUBING		6. 2-1/2" TUBING

