

PUMP PARTS

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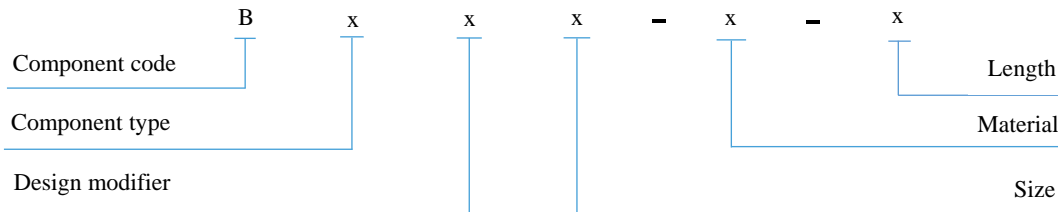
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BARRELS

Part Symbol Configurator



Component Type

11	Barrel, Thin Wall, RW, Box End
12	Barrel, Heavy Wall, RH, Pin End
13	Barrel, Heavy Wall, TH, Pin End
16	Barrel, Heavy Wall, RX, Box End

Material

3432 (API A1)	Chrome Plate on Steel
3433 (API A5)	Chrome Plate on Brass
1415 (API A3)	Chrome Plate on 4/6 Chrome Steel
3435 (API C1)	Nickel Carbide Composite on Steel
3434 (API C5)	Nickel Carbide Composite on Brass
3435 (API D1)	Heavy Nickel Carbide Composite on Steel
1416 (API J1)	Carburized Steel
1284 (API N1)	Non-Hardened Steel
1286 (API N5)	Brass
1445 (API L2)	Nitrided Low Alloy Steel

Design Modifier

-	Standard Design
A	Thicker Wall (Larger O.D.) Barrel
M	Modified O.D. and Thread Size

Length in Feet

Standard lengths are 2 ft through 40 ft in 1 ft increments.

Size (Pump Bore)

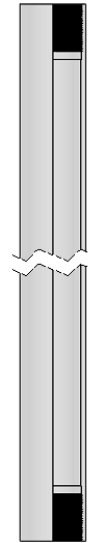
125	1-1/4 inch (1.250)
150	1-1/2 inch (1.500)
175	1-3/4 inch (1.750)
200	2 inch (2.000)
225	2-1/4 inch (2.250)
250	2-1/2 inch (2.500)
275	2-3/4 inch (2.750)
325	3-1/4 inch (3.250)
350	3-1/2 inch (3.500)
375	3-3/4 inch (3.750)
475	4-3/4 inch (4.750)

Barrel, RW, thin wall, box end – API B11

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)	O.D. Max (inches)
B11-150-XXXX-LL	1.500	1.5730-16	1.760
B11-200-XXXX-LL	2.000	2.0870-16	2.260
B11-250-XXXX-LL	2.500	2.5730-16	2.760
B11-350-XXXX-LL	3.500	3.5730-16	3.760

Notes

- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in feet. See part symbol configurator.

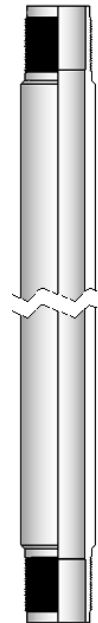


Barrel, RH, heavy wall, pin end – API B12

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)	O.D. Max (inches)
B12-125-XXXX-LL	1.250	1.5730-16	1.635
B12A125-XXXX-LL	1.250	1.5730-16	1.760
B12-150-XXXX-LL	1.500	1.8750-16	1.885
B12A150-XXXX-LL	1.500	1.8750-16	2.260
B12-175-XXXX-LL	1.750	2.0870-16	2.135
B12A175-XXXX-LL	1.750	2.0870-16	2.260
B12-225-XXXX-LL	2.250	2.5730-16	2.635
B12A225-XXXX-LL	2.250	2.5730-16	2.760

Notes

- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in feet. See part symbol configurator.

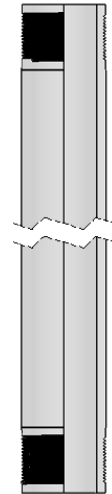


Barrel, TH, heavy wall, pin end – API B13

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)	O.D. Max (inches)
B13-175-XXXX-LL	1.750	2.2380–11-1/2	2.260
B13-225-XXXX-LL	2.250	2.7380–11-1/2	2.760
B13-275-XXXX-LL	2.750	3.2380–11-1/2	3.260
B13-375-XXXX-LL	3.750	4.2380–11-1/2	4.260

Notes

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- LL indicates length in feet. See part symbol configurator.

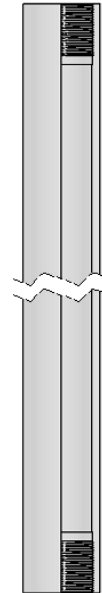


Barrel, RX, heavy wall, box end – API B16

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)	O.D. Max (inches)
B16-150-XXXX-LL	1.500	1.5730–16	1.885
B16-200-XXXX-LL	2.000	2.0870–16	2.322
B16-225-XXXX-LL	2.250	2.3755-11-1/2	2.750
B16-275-XXXX-LL	2.750	2.8750–10	3.260
B16-325-XXXX-LL	3.250	3.3825–11-1/2	3.760
B16-375-XXXX-LL	3.750	3.8750–10	4.260
B16-475-XXXX-LL	4.750	4.8750–10	5.260

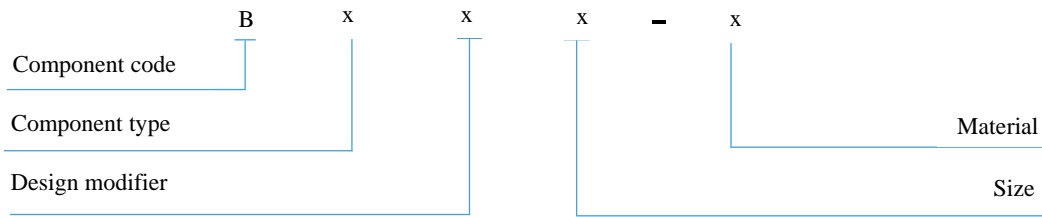
Notes

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- LL indicates length in feet. See part symbol configurator.



BUSHINGS

Part Symbol Configurator



Component Type

- 21 Bushing, Valve Rod
- 22 Bushing, Seat, Barrel Cage
- 23 Bushing, Cage to Puller
- 74 Bushing, Barrel Cage – Hold-Down, for next larger size Tubing Hold-Down
- 75 Bushing, Hollow Tube, Upper Pull Tube to Top Open Cage
- 76 Bushing, Collet Nut Style, Hollow Tube, Upper Pull Tube to Sucker Rod, 3/4 S.R. Pin

Material

- 1301 (API A1) Steel; 10XX
- 1302 (API A2, B2) Low Alloy Steel; 41XX-43XX
- 1303 (API A3) Low Alloy Steel; 8620
- 1287 (API A4) Ni/Cu Alloy
- 1304 (API A5) Brass; C36000
- 1288 (API D6) 316L Austenitic Stainless Steel
- 1293 W1.4122 Martensitic Stainless Steel

Design Modifier

- Standard Design
- M Modified (Extra Long Counterbore)
- C Collet Style Bushing
- N Collet Nut F/Collet Style Bushing

Size

For B21-B74 Bushings

- 15 1.900 O.D.
- 20 2-3/8 inch (2.375) O.D.
- 25 2-7/8 inch (2.875) O.D.
- 25-78 2-7/8 inch (2.875) O.D. x 7/8 Sucker Rod Thread
- 30 3-1/2 inch (3.500) O.D.
- 30-78 3-1/2 inch (3.500) O.D. x 7/8 Sucker Rod Thread
- 125 1-1/4 inch (1.250)
- 150 1-1/2 inch (1.500)
- 175 1-3/4 inch (1.750)
- 200 2 inch (2.000)

For B75 and B76 Hollow Tube Bushings

- 20-094 Hollow Tube Coupling, Upper for 15/16 inch (0.938) Pull Tube
- 20-113 Hollow Tube Coupling, Upper for 1-1/8 inch (1.125) Pull Tube
- 25 Hollow Tube Coupling, Upper for 1-1/2 inch (1.500) Pull Tube

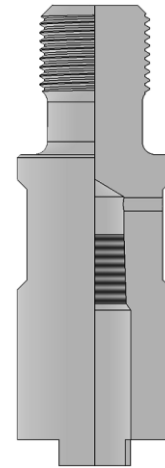
Bushing, valve rod to sucker rod – API B21

Base Part Symbol	Tubing Size (inches)	Valve Rod Size (inches)	Thread Size (inches)		O.D. Max (inches)
			Pin Upper End (API S.R.)	Box Lower End (API Mod. Line Pipe)	
B21-15-XXXX	1.900	11/16	5/8	3/8	1.255
B21M15-XXXX ¹	1.900	11/16	5/8	3/8	1.255
B21-20-XXXX	2-3/8	11/16	3/4	3/8	1.505
B21M20-XXXX ¹	2-3/8	11/16	3/4	3/8	1.505
B21-25-XXXX	2-7/8	7/8	3/4	1/2	1.630
B21M25-XXXX ¹	2-7/8	7/8	3/4	1/2	1.630
B21M25-78-XXXX ¹	2-7/8	7/8	7/8	1/2	1.630
B21-30-XXXX	3-1/2	1-1/16	3/4	3/4	1.630
B21M30-XXXX ¹	3-1/2	1-1/16	3/4	3/4	1.630
B21M30-78-XXXX ¹	3 1/2	1-1/16	7/8	3/4	1.630

Note

- XXXX indicates material designator. See part symbol configurator.

¹ Counterbore depth increased to 1.500 inches for valve rod support

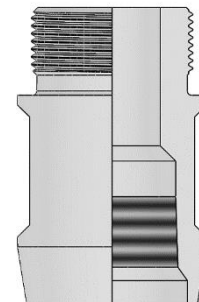


Bushing, seat, barrel cage (standing valve) – API B22

Base Part Symbol	Tubing Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Pin Upper End	Box Lower End	
B22-15-XXXX	1.900	1.2500–14	3/4 API Line Pipe	1.438
B22-20-XXXX	2-3/8	1.4704–14	1 API Line Pipe	1.725
B22-25-XXXX	2-7/8	1.8024–14	1-1/4 API Line Pipe	2.225
B22-30-XXXX	3-1/2	2.1095–11-1/2	1-1/2 API Line Pipe	2.725
B22-40-XXXX1	4-1/2	3.1715–11-1/2	2–11-1/2 EU Sharp	3.375

Note

- XXXX indicates material designator. See part symbol configurator.

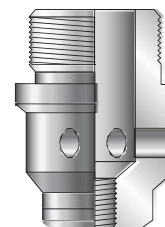


Bushing, cage to puller, perforated – API B23

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Pin Upper End	Box Lower End	
B23-40-XXXX	3-3/4	3.1715–11-1/2	2.1095–11-1/2	3.625

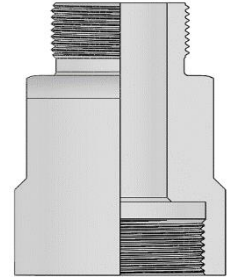
Note

- XXXX indicates material designator. See part symbol configurator.



Bushing, barrel cage to oversize hold-down

Base Part Symbol	Tubing Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Pin Upper End	Box Lower End	
B74-25-XXXX	2-7/8	1.4704-14	1.8024-14	2.193
B74-30-XXXX	3-1/2	1.8024-14	2.1095-11-1/2	2.630



Note

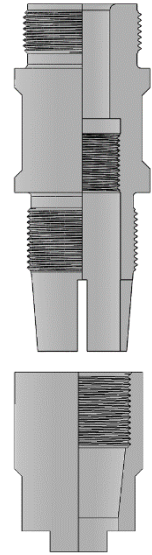
- XXXX indicates material designator. See part symbol configurator.

Bushing, upper, hollow tube with collet to top open cage

Base Part Symbol	Collet Nut	Hollow Tube O.D. (inches)	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
				Pin Upper End	Box Lower End	
B75C20-094-XXXX	B75N20-094-XXXX	0.938	1.250	1.4704-14	0.9375-16	1.695
B75C20-113-XXXX	B75N20-113-XXXX	1.125	1.500	1.4704-14	1.1250-16	1.695
B75C25-XXXX	B75N25-XXXX	1.500	1.750 2.000	1.8024-14	1.5000-16	2.195

Note

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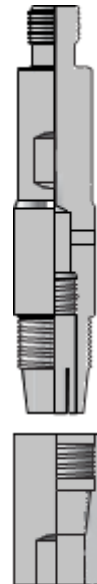


Bushing, upper, hollow tube with collet to sucker rod

Base Part Symbol	Collet Nut	Hollow Tube O.D. (inches)	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
				Pin (API S.R.)	Box	
B76C20-094-XXXX	B76N20-094-XXXX	0.938	1.250 1.500	3/4	0.9375-16	1.690
B76C20-113-XXXX	B76N20-113-XXXX	1.125	1.500	3/4	1.1250-16	1.750
B76C25-XXXX	B76N25-XXXX	1.500	1.750 2.000	3/4	1.5000-16	1.870

Note

- XXXX indicates material designator. See part symbol configurator.

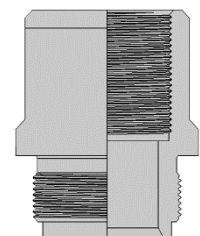


Bushing, RH, barrel to 4 pieces insert cage body, standing valve

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box Upper End	Pin Lower End	
C48-125-XXXX	1.250	1.5730-16	1.4704-14	1.755
C48-25-125-XXXX	1.250	1.5730-16	1.8024-14	2.255
C48-150-XXXX	1.500	1.8750-16	1.8024-14	2.255
C48-175-XXXX	1.750	2.0870-16	1.8024-14	2.255

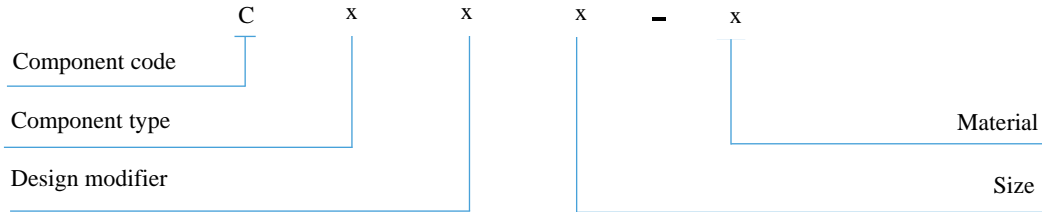
Note

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CAGES

Part Symbol Configurator



Component Type

- 11 Cage, Top Open
- 12 Cage, Top Plunger
- 13 Cage, Closed, Pin Plunger
- 14 Cage, Closed, Barrel
- 15 Cage, Closed, Box Plunger
- 16 Cage, Standing Valve
- 17 Cage, Top Plunger
- 69 Cage, Closed, Double Valve
- 94 Cage, Top Plunger with 1.500" c'bore and w/out seat

Size (cont.)

- 250 2-1/2 inch (2.500)
- 275 2-3/4 inch (2.750)
- 30-78 3-1/2 inch (3.500) O.D. with 7/8 SR Thread
- 325 3-1/2 inch (3.250)
- 375 3-3/4 inch (3.750)

Design Modifier

- Standard Design
- B Buna Rubber Inserts
- H Hivac
- M Modified (Extra Long Counterbore)
- N Collet Nut F/Collet Style Cage
- S Snubber Cage, Baird
- V Viton Rubber Inserts
- W Welded Hard Face (Hardlined)
- Y Cyclone Type, Eagle Innovations

Material

- 1301 (API A1) Steel; 10XX
- 1302 (API A2, B2) Low Alloy Steel; 41XX-43XX
- 1303 (API A3) Low Alloy Steel; 8620
- 1287 (API A4) Ni/Cu Alloy
- 1304 (API A5) Brass; C36000
- 1288 (API D6) 316L Austenitic Stainless Steel
- 1293 W1.4122 Martensitic Stainless Steel
- 1418 (API A2) Cobalt Alloy, Cast (Seat)
- 1317 (API D1) 440C Stainless Steel (Seat)
- 9501 Nitrile (Buna N) Rubber – 70 Durometer
- 3540 Nitrile (Buna N) Rubber – 90 Durometer
- 9549 Viton Rubber

Size

- 15 1.900 O.D.
- 20 2-3/8 inch (2.375) O.D.
- 20-125 2-3/8 inch (2.375) O.D. x 1.250 Bore
- 25 2-7/8 inch (2.875) O.D.
- 30 3-1/2 inch (3.500) O.D.
- 40 4-1/2 inch (4.500) O.D.
- 106 1-1/16 inch (1.062)
- 125 1-1/4 inch (1.250)
- 125-25 1-1/4 inch (1.250) x 1/2 API Mod. Line Pipe
- 150 1-1/2 inch (1.500)
- 150-20 1-1/2 inch (1.500) x 3/8 API Mod. Line Pipe
- 150-25 1-1/2 inch (1.500) x 1/2 API Mod. Line Pipe
- 175 1-3/4 inch (1.750)
- 175-30 1-3/4 inch (1.750) x 3/4 API Mod. Line Pipe
- 200 2 inch (2.000)
- 200-30 2 inch (2.000) x 3/4 API Mod. Line Pipe
- 225 2-1/4 inch (2.250)
- 225-25 2-1/4 inch (2.250) x 7/8 inch Valve Rod
- 25-78 2-7/8 inch (2.875) O.D. with 7/8 Sucker Rod Thread

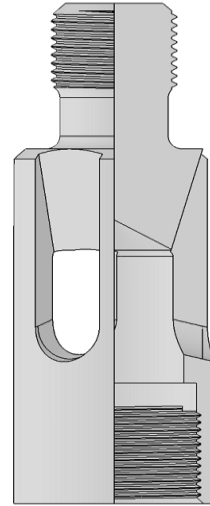
Cage, top open– API C11

Base Part Symbol	Tubing Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Pin Upper End (API S.R.)	Box Lower End	
C11-15-XXXX	1.900	5/8	1.2500–14	1.443
C11-20-XXXX	2-3/8	3/4	1.4704–14	1.693
C11W20-XXXX				
C11-25-XXXX	2-7/8	3/4	1.8024–14	2.193
C11W25-XXXX				
C11-25-78-XXXX ¹	2-7/8	7/8	1.8024–14	2.193
C11W25-78-XXXX ¹				
C11-30-XXXX	3-1/2	3/4	2.1095–11-1/2	2.630
C11W30-XXXX				
C11-30-78-XXXX ¹	3-1/2	7/8	2.1095–11-1/2	2.630
C11W30-78-XXXX ¹				

Note

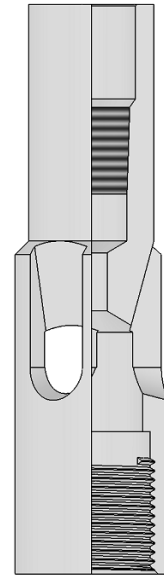
- XXXX indicates material designator. See part symbol configurator.

¹ Size not included in API 11AX



Cage, top plunger – API C12

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box Upper End	Box Lower End	
C12-106-XXXX	1.062	3/8 API Mod. Line Pipe	0.8750–14	1.041
C12-125-XXXX	1.250	3/8 API Mod. Line Pipe	1.0000–14	1.188
C12M125-XXXX ¹	1.250	3/8 API Mod. Line Pipe	1.0000–14	1.188
C12M125-25-XXXX ¹	1.250	1/2 API Mod. Line Pipe	1.0000–14	1.188
C12-150-20-XXXX	1.500	3/8 API Mod. Line Pipe	1.2500–14	1.438
C12M150-20-XXXX ¹	1.500	3/8 API Mod. Line Pipe	1.2500-14	1.438
C12-150-25-XXXX	1.500	1/2 API Mod. Line Pipe	1.2500–14	1.438
C12M150-25-XXXX ¹	1.500	1/2 API Mod. Line Pipe	1.2500-14	1.438
C12-175-XXXX	1.750	1/2 API Mod. Line Pipe	1.4704–14	1.688
C12M175-30-XXXX ¹	1.750	3/4 API Mod. Line Pipe	1.4704–14	1.688
C12-200-XXXX	2.000	1/2 API Mod. Line Pipe	1.5604–14	1.938
C12M200-30-XXXX ¹	2.000	3/4 API Mod. Line Pipe	1.5604–14	1.938
C12-225-XXXX	2.250	3/4 API Mod. Line Pipe	1.8024–14	2.188
C12-250-XXXX	2.500	3/4 API Mod. Line Pipe	2.1095–11-1/2	2.438
C12M325-XXXX ¹	3.250	7/8 API Polished Rod Thd	2.8095–11-1/2	3.188



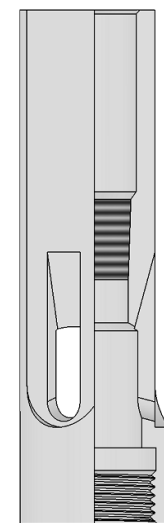
Note

- XXXX indicates material designator. See part symbol configurator.

¹ Counterbore depth increased to 1.500 inches for valve rod support

Cage, top plunger with 1.500” c’bore and w/out seat

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box Upper End	Box Lower End	
C94-106-XXXX	1.062	3/8 API Mod. Line Pipe	0.8750–14	1.041
C94-125-XXXX	1.250	3/8 API Mod. Line Pipe	1.0000–14	1.188
C94-150-20-XXXX	1.500	3/8 API Mod. Line Pipe	1.2500–14	1.438
C94-150-25-XXXX	1.500	1/2 API Mod. Line Pipe	1.2500–14	1.438
C94-175-XXXX	1.750	1/2 API Mod. Line Pipe	1.4704–14	1.688
C94-200-XXXX	2.000	1/2 API Mod. Line Pipe	1.5604–14	1.938
C94-225-XXXX	2.250	3/4 API Mod. Line Pipe	1.8024–14	2.188
C94-250-XXXX	2.500	3/4 API Mod. Line Pipe	2.1095–11-1/2	2.438
C94-325-XXXX	3.250	7/8 API Polished Rod Thd	2.8095–11-1/2	3.181

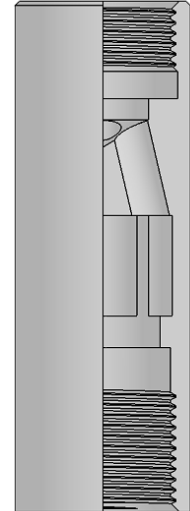


Note

- XXXX indicates material designator. See part symbol configurator.

Cage, closed, pin end plunger – API C13

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box Upper End	Box Lower End	
C13-106-XXXX	1.062	0.8750-14	0.8750-14	1.041
C13-125-XXXX	1.250	1.0000-14	1.0000-14	1.188
C13W125-XXXX				
C13-150-XXXX	1.500	1.2500-14	1.2500-14	1.438
C13W150-XXXX				
C13-175-XXXX	1.750	1.4704-14	1.4704-14	1.688
C13W175-XXXX				
C13-200-XXXX	2.000	1.5604-14	1.5604-14	1.938
C13W200-XXXX				
C13-225-XXXX	2.250	1.8024-14	1.8024-14	2.188
C13W225-XXXX				
C13-250-XXXX	2.500	2.1095-11-1/2	2.1095-11-1/2	2.438
C13W250-XXXX				
C13-275-XXXX	2.750	2.1095-11-1/2	2.1095-11-1/2	2.681
C13W275-XXXX				
C13-325-XXXX	3.250	2.8095-11-1/2	2.8095-11-1/2	3.181
C13W325-XXXX				
C13-375-XXXX	3.750	3.1715-11-1/2	3.1715-11-1/2	3.681
C13W375-XXXX				



Note

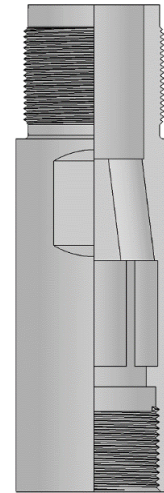
- XXXX indicates material designator. See part symbol configurator.

Cage, closed, barrel – API C14

Base Part Symbol	Tubing Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Pin Upper End	Box Lower End	
C14-15-XXXX	1.900	1.3330-16	1.2500-14	1.450
C14-20-125-XXXX	2-3/8	1.3330-16	1.4704-14	1.760
C14-20-XXXX	2-3/8	1.5730-16	1.4704-14	1.760
C14W20-XXXX				
C14-25-XXXX	2-7/8	2.0870-16	1.8024-14	2.260
C14W25-XXXX				
C14-30-XXXX	3-1/2	2.5730-16	2.1095-11-1/2	2.760
C14W30-XXXX				

Note

- XXXX indicates material designator. See part symbol configurator.

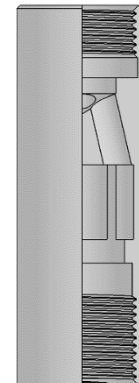


Cage, closed, box plunger – API C15

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Pin Upper End	Box Lower End	
C15-175-XXXX	1.750	1.5804-14	1.4704-14	1.705
C15-225-XXXX	2.250	1.9864-14	1.8024-14	2.205
C15-275-XXXX	2.750	2.3755-11-1/2	2.1095-11-1/2	2.655
C15-375-XXXX	3.750	3.3825-11-1/2	3.1715-11-1/2	3.655

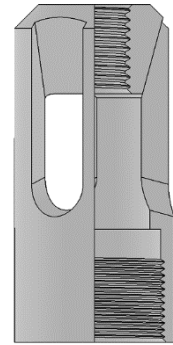
Note

- XXXX indicates material designator. See part symbol configurator.



Cage, open, standing valve TH – API C16

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box Upper End	Box Lower End	
C16-175-XXXX	1.750	0.7500–10	1.4704–14	1.683
C16W175-XXXX				
C16-225-XXXX	2.250	0.7500–10	1.8024–14	2.183
C16W225-XXXX				
C16-275-XXXX	2.750	0.7500–10	2.1095–11-1/2	2.630
C16W275-XXXX				
C16-375-XXXX	3.750	0.7500–10	3.1715–11-1/2	3.630
C16-375-XXXX				

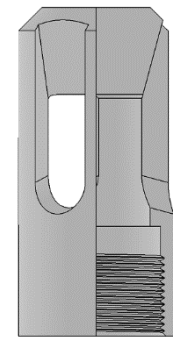


Note

- XXXX indicates material designator. See part symbol configurator.

Cage, top plunger – API C17

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)	O.D. Max (inches)
		Box Lower End	
C17-125-XXXX	1.250	1.0000–14	1.205
C17-150-XXXX	1.500	1.2500–14	1.455
C17-200-XXXX	2.000	1.5604–14	1.955
C17-250-XXXX	2.500	2.1095–11-1/2	2.455

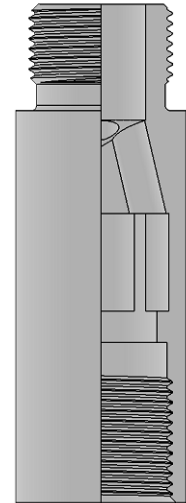


Note

- XXXX indicates material designator. See part symbol configurator.

Cage, closed, double valve

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Pin Upper End	Box Lower End	
C69-106-XXXX	1.062	0.8750-14	0.8750-14	1.041
C69-125-XXXX	1.250	1.0000-14	1.0000-14	1.188
C69W125-XXXX				
C69-150-XXXX	1.500	1.2500-14	1.2500-14	1.438
C69W150-XXXX				
C69-175-XXXX	1.750	1.4704-14	1.4704-14	1.688
C69W175-XXXX				
C69-200-XXXX	2.000	1.5604-14	1.5604-14	1.938
C69W200-XXXX				
C69-225-XXXX	2.250	1.8024-14	1.8024-14	2.188
C69W225-XXXX				
C69-250-XXXX	2.500	2.1095-11 1/2	2.1095-11 1/2	2.438
C69W250-XXXX				
C69-275-XXXX	2.750	2.1095-11 1/2	2.1095-11 1/2	2.638
C69W275-XXXX				
C69-325-XXXX	3.250	2.8095-11 1/2	2.8095-11 1/2	3.188
C69W325-XXXX				
C69-375-XXXX	3.750	3.1715-11 1/2	3.1715-11 1/2	3.688
C69W375-XXXX				

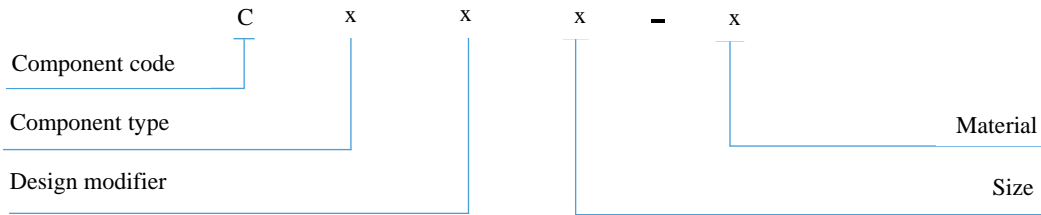


Note

- XXXX indicates material designator. See part symbol configurator.

CAGES – Insert Guided

Part Symbol Configurator



Component Type

- 43 Cage, closed, pin end plunger, insert 4 pieces
- 44 Cage, closed, barrel, insert 4 pieces
- 45 Cage, closed, box end plunger, insert 4 pieces
- 49 Cage, closed, double valve, insert 4 pieces
- 66 Positive Oversize Standing Valve Cage, Closed

Size

15	1.900 O.D.
20-125	2-3/8 inch (2.375) O.D. x 1.250 Bore
20	2-3/8 inch (2.375) O.D.
25	2-7/8 inch (2.875) O.D.
30	3-1/2 inch (3.500) O.D.
125	1-1/4 inch (1.250)
150	1-1/2 inch (1.500)
175	1-3/4 inch (1.750)
200	2 inch (2.000)
225	2-1/4 inch (2.250)
250	2-1/2 inch (2.500)
275	2-3/4 inch (2.750)

Design Modifier

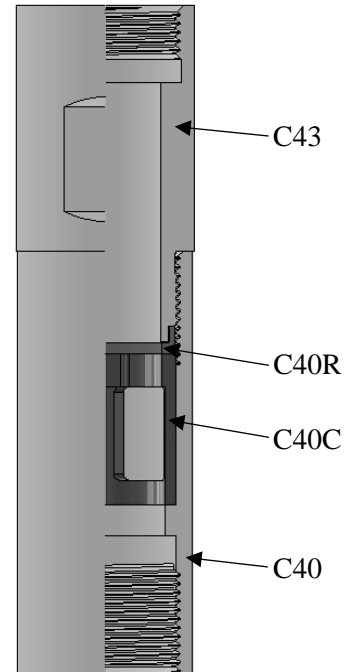
- Standard Design
- A Assembly
- B Body
- C Insert
- P Plug
- R Ring, Cushion
- S Connector

Material

1301 (API A1)	Steel; 10XX
1302 (API A2, B2)	Low Alloy Steel; 41XX-43XX
1303 (API A3)	Low Alloy Steel; 8620
1287 (API A4)	Ni/Cu Alloy
1304 (API A5)	Brass; C36000
1288 (API D6)	316L Austenitic Stainless Steel
1293	W1.4122 Martensitic Stainless Steel
1418 (API A2)	Cobalt Alloy, Cast (Seat)
1317 (API D1)	440C Stainless Steel (Seat)
9501	Nitrile (Buna N) Rubber – 70 Durometer
3540	Nitrile (Buna N) Rubber – 90 Durometer
9549	Viton Rubber

Cage, closed, pin end plunger, insert 4 pieces

Assembly Base Symbol	Pump Bore Size (inches)	Description	Part Symbol	O.D. Max (inches)	Upper Thread (inches)	Lower Thread (inches)
C43A125-XXXX	1.250	Bushing	C43-125-XXXX	1.188	1.0000-14	1.0000-14
		Ring	C40R125-XXXX			
		Insert	C40C125-XXXX			
		Body	C40-125-XXXX	1.188	1.0000-14	1.0000-14
C43A150-XXXX	1.500	Bushing	C43-150-XXXX	1.438	1.2500-14	1.2500-14
		Ring	C40R150-XXXX			
		Insert	C40C150-XXXX			
		Body	C40-150-XXXX	1.438	1.2500-14	1.2500-14
C43A175-XXXX	1.750	Bushing	C43-175-XXXX	1.688	1.4704-14	1.4704-14
		Ring	C40R175-XXXX			
		Insert	C40C175-XXXX			
		Body	C40-175-XXXX	1.688	1.4704-14	1.4704-14
C43A200-XXXX	2.000	Bushing	C43-200-XXXX	1.938	1.5604-14	1.6875-16
		Ring	C40R200-XXXX			
		Insert	C40C200-XXXX			
		Body	C40-200-XXXX	1.938	1.6875-16	1.5604-14
C43A225-XXXX	2.250	Bushing	C43-225-XXXX	2.188	1.8024-14	1.8024-14
		Ring	C40R225-XXXX			
		Insert	C40C225-XXXX			
		Body	C40-225-XXXX	2.188	1.8024-14	1.8024-14
C43A250-XXXX	2.500	Bushing	C43-250-XXXX	2.438	2.1095-11-1/2	2.2500-16
		Ring	C40R250-XXXX			
		Insert	C40C250-XXXX			
		Body	C40-250-XXXX	2.438	2.2500-16	2.1095-11-1/2
C43A275-XXXX	2.750	Bushing	C43-275-XXXX	2.688	2.1095-11-1/2	2.2500-16
		Ring	C40R250-XXXX			
		Insert	C40C250-XXXX			
		Body	C40-275-XXXX	2.688	2.2500-16	2.1095-11-1/2

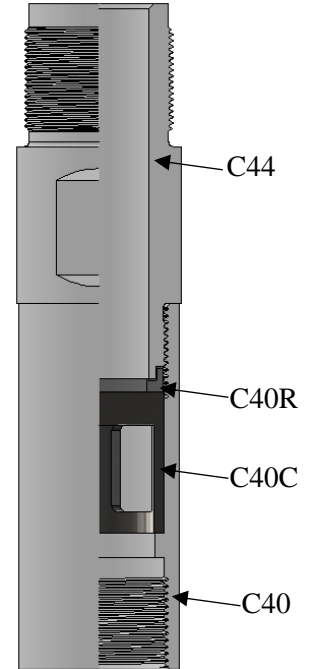


Note

- XXXX indicates material designator. See part symbol configurator.

Cage, closed, barrel, insert 4 pieces

Assembly Base Symbol	Tubing Size (inches)	Description	Part Symbol	O.D. Max (inches)	Upper Thread (inches)	Lower Thread (inches)
C44A15-XXXX	1.900	Connector	C44-15-XXXX	1.450	1.3330-16	1.2500-14
		Ring	C40R150-XXXX			
		Insert	C40C150-XXXX			
		Body	C40-150-XXXX	1.438	1.2500-14	1.2500-14
C44A20-125-XXX	2-3/8	Connector	C44-20-125-XXXX	1.760	1.3330-16	1.4704-14
		Ring	C40R175-XXXX			
		Insert	C40C175-XXXX			
		Body	C40-175-XXXX	1.688	1.4704-14	1.4704-14
C44A20-XXXX	2-3/8	Connector	C44-20-XXXX	1.760	1.5730-16	1.4704-14
		Ring	C40R175-XXXX			
		Insert	C40C175-XXXX			
		Body	C40-175-XXXX	1.688	1.4704-14	1.4704-14
C44A25-XXXX	2-7/8	Connector	C44-25-XXXX	2.260	2.0870-16	1.8024-14
		Ring	C40R225-XXXX			
		Insert	C40C225-XXXX			
		Body	C40-225-XXXX	2.188	1.8024-14	1.8024-14
C44A30-XXXX	3-1/2	Connector	C44-30-XXXX	2.760	2.5730-16	2.2500-16
		Ring	C40R250-XXXX			
		Insert	C40C250-XXXX			
		Body	C40-275-XXXX	2.688	2.2500-16	2.1095-11-1/2

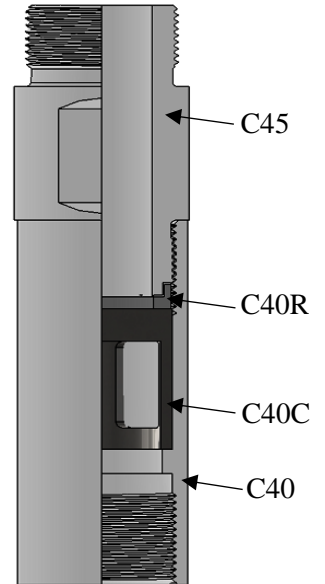


Note

- XXXX indicates material designator. See part symbol configurator.

Cage, closed, box end plunger, insert 4 pieces

Assembly Base Symbol	Pump Bore Size (inches)	Description	Part Symbol	O.D. Max (inches)	Upper Thread (inches)	Lower Thread (inches)
C45A175-XXXX	1.750	Connector	C45-175-XXXX	1.688	1.5084-14	1.4704-14
		Ring	C40R175-XXXX			
		Insert	C40C175-XXXX			
		Body	C40-175-XXXX	1.688	1.4704-14	1.4704-14
C45A225-XXXX	2.250	Connector	C45-225-XXXX	2.188	1.9864-14	1.8024-14
		Ring	C40R225-XXXX			
		Insert	C40C225-XXXX			
		Body	C40-225-XXXX	2.188	1.8024-14	1.8024-14
C45A275-XXXX	2.750	Connector	C45-275-XXXX	2.688	2.3755-11-1/2	2.2500-16
		Ring	C40R275-XXXX			
		Insert	C40C275-XXXX			
		Body	C40-275-XXXX	2.688	2.2500-16	2.1095-11-1/2

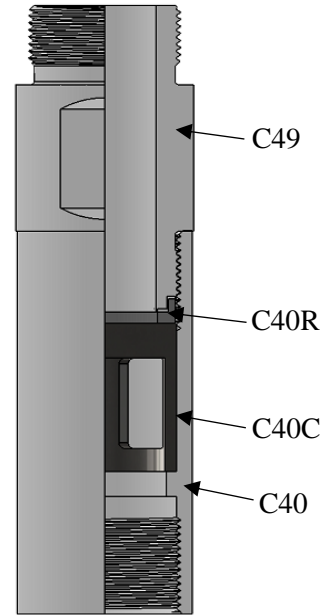


Note

- XXXX indicates material designator. See part symbol configurator.

Cage, closed, double valve, insert 4 pieces

Assembly Base Symbol	Pump Bore Size (inches)	Description	Part Symbol	O.D. Max (inches)	Upper Thread (inches)	Lower Thread (inches)
C49A125-XXXX	1.250	Connector	C49-125-XXXX	1.188	1.0000-14	1.0000-14
		Ring	C40R125-XXXX			
		Insert	C40C125-XXXX			
		Body	C40-125-XXXX	1.188	1.0000-14	1.0000-14
C49A150-XXXX	1.500	Connector	C49-150-XXXX	1.438	1.2500-14	1.2500-14
		Ring	C40R150-XXXX			
		Insert	C40C150-XXXX			
		Body	C40-150-XXXX	1.438	1.2500-14	1.2500-14
C49A175-XXXX	1.750	Connector	C49-175-XXXX	1.688	1.4704-14	1.4704-14
		Ring	C40R175-XXXX			
		Insert	C40C175-XXXX			
		Body	C40-175-XXXX	1.688	1.4704-14	1.4704-14
C49A200-XXXX	2.000	Connector	C49-200-XXXX	1.938	1.5604-14	1.6875-16
		Ring	C40R200-XXXX			
		Insert	C40C200-XXXX			
		Body	C40-200-XXXX	1.938	1.6875-16	1.5604-14
C49A225-XXXX	2.250	Connector	C49-225-XXXX	2.188	1.8024-14	1.8024-14
		Ring	C40R225-XXXX			
		Insert	C40C225-XXXX			
		Body	C40-225-XXXX	2.188	1.8024-14	1.8024-14
C49A250-XXXX	2.500	Connector	C49-250-XXXX	2.438	2.1095-11-1/2	2.2500-16
		Ring	C40R250-XXXX			
		Insert	C40C250-XXXX			
		Body	C40-250-XXXX	2.438	2.2500-16	2.1095-11-1/2
C49A275-XXXX	2.750	Connector	C49-275-XXXX	2.688	2.1095-11-1/2	2.2500-16
		Ring	C40R250-XXXX			
		Insert	C40C250-XXXX			
		Body	C40-275-XXXX	2.688	2.2500-16	2.1095-11-1/2

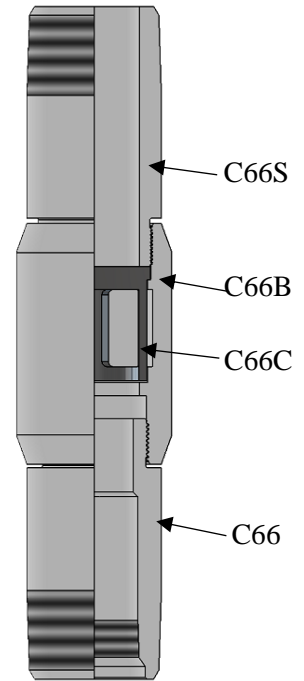


Note

- XXXX indicates material designator. See part symbol configurator.

Positive Oversize Standing Valve Cage, Closed

Assembly Base Symbol	Pump Bore Size (inches)	Description	Part Symbol	O.D. Max (inches)	Upper Thread (inches)	Lower Thread (inches)
C66A175-XXXX	1.750	Connector	C66S175-XXXX	2.594	2-3/8 EU	2.2500-16
		Body	C66B175-XXXX	3.000	2.2500-16	2.1095-11-1/2
		Insert	C66C250-XXXX			
		Plug	C66P175-XXXX	2.594	2.1095-11-1/2	2-3/8 EUx1-1/2 LP
C66A225-XXXX	2.250	Connector	C66S225-XXXX	3.094	2-7/8 EU	2.8332-11-1/2
		Body	C66B225-XXXX	3.625	2.8332-11-1/2	2.8095-11-1/2
		Insert	C66C325-XXXX			
		Plug	C66P225-XXXX	3.094	2.8095-11-1/2	2-7/8 EUx2 LP
C66A275-XXXX	2.750	Connector	C66S275-XXXX	3.750	3-1/2 EU	3.3825-11-1/2
		Body	C66B275-XXXX	4.500	3.3825-11-1/2	3.1715-11-1/2
		Insert	C66C375-XXXX			
		Plug	C66P275-XXXX	3.750	3.1715-11-1/2	3-1/2 EUx2-1/2 LP

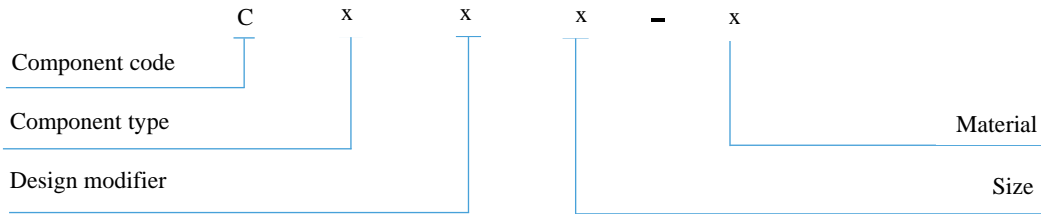


Note

- XXXX indicates material designator. See part symbol configurator.

CONNECTORS

Part Symbol Configurator



Component Type

- 21 Connector, Upper Barrel
- 22 Connector, Box Plunger

Design Modifier

- Standard Design
- M Modified Thread Size

Material

- | | |
|-------------------|-------------------------------------|
| 1301 (API A1) | Steel; 10XX |
| 1302 (API A2, B2) | Low Alloy Steel; 41XX-43XX |
| 1303 (API A3) | Low Alloy Steel; 8620 |
| 1287 (API A4) | Ni/Cu Alloy |
| 1304 (API A5) | Brass; C36000 |
| 1288 (API D6) | 316L Austenitic Stainless Steel |
| 1293 | W1.4122 Martensitic Stainless Steel |

Size

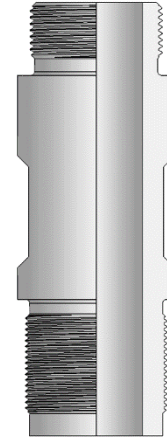
- 15 1.900 O.D.
- 20-125 2-3/8 inch (2.375) O.D. x 1.250 Bore
- 20 2-3/8 inch (2.375) O.D.
- 25 2-7/8 inch (2.875) O.D.
- 30 3-1/2 inch (3.500) O.D.
- 106 1-1/6 inch (1.062)
- 125 1-1/4 inch (1.250)
- 175 1-3/4 inch (1.750)
- 225 2-1/4 inch (2.250)
- 275 2-3/4 inch (2.750)
- 375 3-3/4 inch (3.750)

Connector, upper barrel – API C21

Base Part Symbol	Tubing Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Pin Upper End	Pin Lower End	
C21-15-XXXX	1.900	1.2500–14	1.3330–16	1.450
C21-20-125-XXXX	2-3/8	1.4704–14	1.3330–16	1.760
C21-20-XXXX	2-3/8	1.4704–14	1.5730–16	1.760
C21-25-XXXX	2-7/8	1.8024–14	2.0870–16	2.260
C21-30-XXXX	3-1/2	2.1095–11-1/2	2.5730–16	2.760

Note

- XXXX indicates material designator. See part symbol configurator.

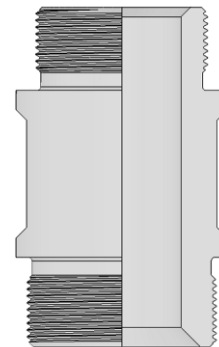


Connector, box plunger – API C22

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Pin Upper End	Pin Lower End	
C22-175-XXXX	1.750	1.4704–14	1.5084–14	1.688
C22-225-XXXX	2.250	1.8024–14	1.9864–14	2.188
C22-275-XXXX	2.750	2.1095–11-1/2	2.3755–11-1/2	2.688
C22-325-XXXX	3.250	2.8095–11-1/2	2.8332–11-1/2	3.188
C22-375-XXXX	3.750	3.1715–11-1/2	3.3825–11-1/2	3.688

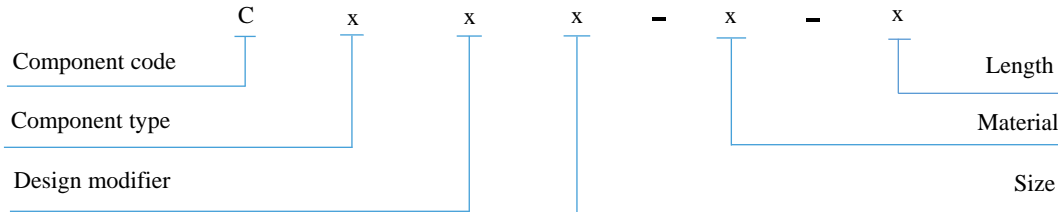
Note

- XXXX indicates material designator. See part symbol configurator.



COUPLINGS

Part Symbol Configurator



Component Type

- 31 Coupling, Extension, RH
- 32 Coupling, Pull Tube, Upper
- 33 Coupling, Pull Tube, Lower
- 34 Coupling, Tubing
- 35 Coupling, Barrel, TH
- 93 Coupling, Hollow Tube, Lower

Size

- 106 1-1/16 inch (1.062)
- 125 1-1/4 inch (1.250)
- 125-15 1.250 Pump x 1.900 inch O.D.
- 150 1-1/2 inch (1.500)
- 175 1-3/4 inch (1.750)
- 200 2 inch (2.000)
- 225 2-1/4 inch (2.250)
- 250 2-1/2 inch (2.500)
- 275 2-3/4 inch (2.750)
- 15 1.900
- 20 2-3/8 EU
- 25 2-7/8 EU
- 30 3-1/2 EU
- 40 4-1/2 EU

Design Modifier

- Standard Design
- X Extra Long Counterbore

Material

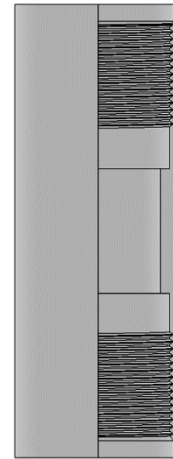
- 1284 (API N1) Steel; 10XX
- 1286 (API N5) Brass
- 1301 (API A1) Steel; 10XX
- 1302 (API A2) Low Alloy Steel; 41XX-43XX
- 1303 (API A3) Low Alloy Steel; 8620
- 1287 (API A4) Ni/Cu Alloy
- 1304 (API A5) Brass; C36000
- 1288 (API D6) 316L Austenitic Stainless Steel
- 1293 W1.4122 Martensitic Stainless Steel
- 1318 Nickel Plate on Steel

Length in inch

- 03 Inches
- 06 Inches
- 12 Inches
- 18 Inches
- 24 Inches
- 36 Inches
- 48 Inches

Coupling, extension RH – API C31

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box – Barrel End	Box – Other End	
C31-106-15-XXXX-LL	1.062	1.3125–16	1.3330–16	1.450
C31-106-XXXX-LL	1.062	1.3125–16	1.5730–16	1.760
C31-125-XXXX-LL	1.250	1.5730–16	1.5730–16	1.760
C31-150-XXXX-LL	1.500	1.8750–16	2.0870–16	2.260
C31-175-XXXX-LL	1.750	2.0870–16	2.0870–16	2.260
C31-225-XXXX-LL	2.250	2.5730–16	2.5730–16	2.760

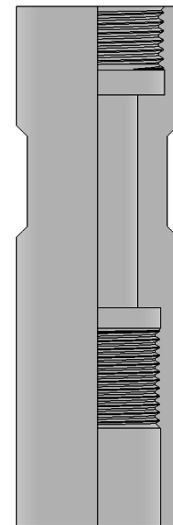


Notes

- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in inch. See part symbol configurator.

Coupling, Pull Tube, Upper – API C32

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box Upper End	Box Lower End	
C32-125-XXXX	1.250	1.0000–14	0.9375–16	1.188
C32-150-XXXX	1.500	1.2500–14	1.1250–16	1.438
C32-175-XXXX	1.750	1.4704–14	1.3125–16	1.688
C32-200-XXXX	2.000	1.5604–14	1.5000–16	1.938
C32-225-XXXX	2.250	1.8024–14	1.8750–16	2.438
C32-250-XXXX	2.500	2.1095–11-1/2	1.8750–16	2.438

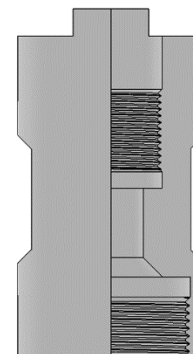


Note

- XXXX indicates material designator. See part symbol configurator.

Coupling, Pull Tube, Lower – API C33

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box Upper End	Box Lower End	
C33-125-15-XXXX	1.250	0.9375–16	1.2500–14	1.450
C33-125-XXXX	1.250	0.9375–16	1.4704–14	1.760
C33-150-20-XXXX	1.500	1.1250–16	1.4704–14	1.760
C33-150-25-XXXX	1.500	1.1250–16	1.8024–14	2.260
C33-175-XXXX	1.750	1.3125–16	1.8024–14	2.260
C33-200-XXXX	2.000	1.5000–16	1.8024–14	2.260
C33-225-XXXX	2.250	1.8750–16	2.1095–11-1/2	2.760

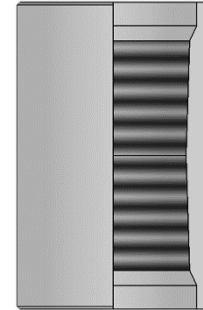


Note

- XXXX indicates material designator. See part symbol configurator.

Coupling, tubing – API C34

Base Part Symbol	Tubing Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box		
C34-15-XXXX	1.900	1.900-10 IJ		2.115
C34-20-XXXX	2-3/8	2-3/8-8 EU		3.062
C34-25-XXXX	2-7/8	2-7/8-8 EU		3.687
C34-30-XXXX	3-1/2	3-1/2-8 EU		4.562
C34-40-XXXX	4-1/2	4-1/2-8 EU		5.625

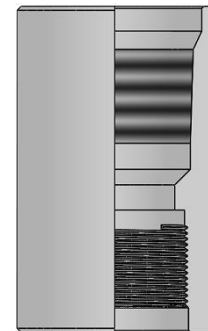


Note

- XXXX indicates material designator. See part symbol configurator.

Coupling, barrel, TH – API C35

Base Part Symbol	Tubing Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box, Tubing	Box, Barrel	
C35-20-XXXX	2-3/8	2.375-8RD EU	2.2380-11-1/2	3.062
C35-25-XXXX	2-7/8	2.875-8RD EU	2.7380-11-1/2	3.687
C35-30-XXXX	3-1/2	3.500-8RD EU	3.2380-11-1/2	4.562
C35-40-XXXX	4-1/2	4.500-8RD EU	4.2380-11-1/2	5.625

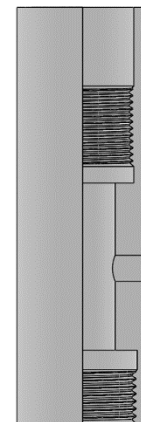


Note

- XXXX indicates material designator. See part symbol configurator.

Coupling, Hollow Tube, Lower

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)	
		Box Upper Pull Tube End	Box Lower Plunger End
C93-125-XXXX	1.250	0.9375-16	1.0000-14
C93-150-XXXX	1.500	1.1250-16	1.2500-14
C93-200-XXXX	2.000	1.5000-16	1.5604-14
C93-175-XXXX	1.750	1.5000-16	1.4704-14
C93-225-XXXX	2.250	1.8750-16	1.8024-14

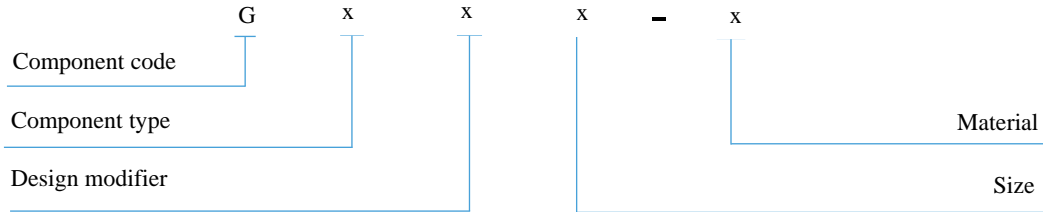


Note

- XXXX indicates material designator. See part symbol configurator.

GUIDES

Part Symbol Configurator



Component Type

- 11 Guide, Valve Rod
- 63 Guide, Hollow Tube Rod Pump

Design Modifier

- Standard Design
- N No Clutch

Material

- | | |
|-------------------|-------------------------------------|
| 1301 (API A1) | Steel; 10XX |
| 1302 (API A2, B2) | Low Alloy Steel; 41XX-43XX |
| 1303 (API A3) | Low Alloy Steel; 8620 |
| 1287 (API A4) | Ni/Cu Alloy |
| 1304 (API A5) | Brass; C36000 |
| 1288 (API D6) | 316L Austenitic Stainless Steel |
| 1293 | W1.4122 Martensitic Stainless Steel |

Size

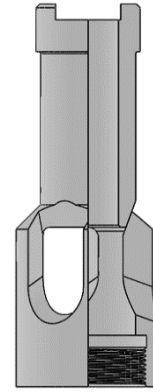
- 15 1.900 O.D.
- 20-125 2-3/8 inch (2.375) O.D. x 1.250 Bore
- 20 2-3/8 inch (2.375) O.D.
- 25 2-7/8 inch (2.875) O.D.
- 25-150 2-7/8 inch (2.875) O.D. x 1.500 Pull tube
- 30 3-1/2 inch (3.500) O.D.
- 106 1-1/6 inch (1.062)
- 125 1-1/4 inch (1.250)
- 175 1-3/4 inch (1.750)
- 225 2-1/4 inch (2.250)
- 275 2-3/4 inch (2.750)
- 375 3-3/4 inch (3.750)

Guide, valve rod – API G11

Base Part Symbol	Tubing Size (inches)	Valve Rod Size (inches)	Thread Size (inches)	O.D. Max (inches)
G11-15-XXXX	1.900	11/16	1.2500-14	1.531
G11-20-XXXX	2-3/8	11/16	1.4704-14	1.781
G11-25-XXXX	2-7/8	7/8	1.8024-14	2.281
G11-30-XXXX	3-1/2	1-1/16	2.1095-11-1/2	2.781

Note

- XXXX indicates material designator. See part symbol configurator.

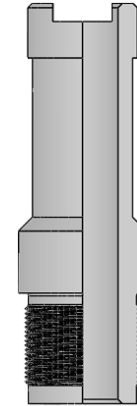


Guide, Hollow Tube Rod Pump

Base Part Symbol		Tubing Size (inches)	Tube O.D. (inches)	Thread Size (inches)	O.D. Max (inches)
With Clutch	Without Clutch				
G63-20-125-XXXX	G63N20-125-XXXX	2-3/8	0.938	1.5730-16	1.760
G63-20-XXXX	G63N20-XXXX	2-3/8	1.125	1.5730-16	1.760
G63-25-XXXX	G63N25-XXXX	2-7/8	1.500	2.0870-16	2.260
-	G63N25-150-XXXX	2-7/8	1.125	2.0870-16	2.260

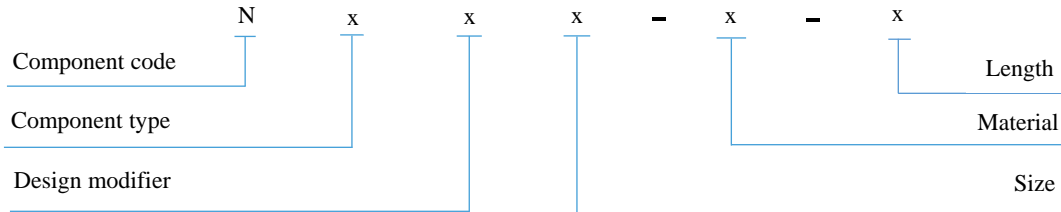
Note

- XXXX indicates material designator. See part symbol configurator.



NIPPLES

Part Symbol Configurator



Component Type

- 11 Nipple, Seating, Cup Type (Rod Pump)
- 12 Nipple, Seating, Mechanical Bottom Lock
- 13 Nipple, Seating, 2-Cup Type (Tubing Pump)
- 14 Nipple, Seating, Mechanical Top Lock
- 21 Nipple, Extension, Upper
- 22 Nipple, Extension, Lower

Size

- 15 1.900
- 20 2-3/8 EU
- 25 2-7/8 EU
- 30 3-1/2 EU
- 40 4-1/2 EU

Design Modifier

- Standard Design

Material

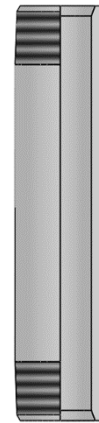
- 1284 (API N1) Steel; 10XX
- 1286 (API N5) Brass
- 1301 (API A1) Steel; 10XX
- 1302 (API A2, B2) Low Alloy Steel; 41XX-43XX
- 1303 (API A3) Low Alloy Steel; 8620
- 1287 (API A4) Ni/Cu Alloy
- 1304 (API A5) Brass; C36000
- 1288 (API D6) 316L Austenitic Stainless Steel
- 1293 W1.4122 Martensitic Stainless Steel
- 1318 Nickel Plate on Steel
- 1306 (API J55) J55 per API 5CT

Length in inch or component name

- ASM Assembly
- UPR Upper Bushing
- RNG Ring, Seating
- LWR Lower Bushing
- 06 Inches
- 12 Inches
- 24 Inches
- 36 Inches

Nipple, seating, cup type (rod pump) – API N11

Base Part Symbol	Tubing Size (inches)	I.D. Size (inches)	Thread size (inches)
N11-15-XXXX-LL	1.900	1.460	1.900 10IJ
N11-20-XXXX-LL	2-3/8	1.780	2.375-8RD EU
N11-25-XXXX-LL	2-7/8	2.280	2.875-8RD EU
N11-30-XXXX-LL	3-1/2	2.780	3.500-8RD EU



Notes

- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in inch. See part symbol configurator.

Nipple, seating, mechanical bottom lock – API N12

Base Part Symbol	Tubing Size (inches)	I.D. Size (inches)	Thread Size (inches)	
			Box	Pin
N12-15-XXXX	1.900	1.125	1 LP	1.900 10IJ
N12-20-XXXX	2-3/8	1.375	1-1/2 LP	2.375-8RD EU
N12-25-XXXX	2-7/8	1.750	2 LP	2.875-8RD EU
N12-30-XXXX	3-1/2	2.250	2-1/2 LP	3.500-8RD EU
N12-40-XXXX	4-1/2	3.000	3 LP	4.500-8RD EU



Note

- XXXX indicates material designator. See part symbol configurator.

Nipple, seating, 2-cup type (tubing pump) – API N13

Base Part Symbol	Tubing Size (inches)	I.D. Size (inches)	Thread Size (inches)	
			Box	Pin
N13-20-XXXX	2-3/8	1.710	1-1/2 LP	2.375-8RD EU
N13-25-XXXX	2-7/8	2.210	2 LP	2.875-8RD EU
N13-30-XXXX	3-1/2	2.710	2 LP	3.500-8RD EU

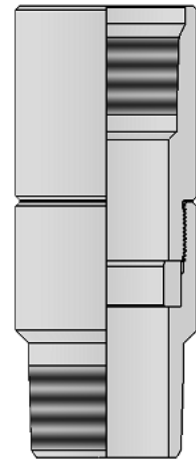


Note

- XXXX indicates material designator. See part symbol configurator.

Nipple, seating, mechanical top – API N14

Assembly Base Symbol	Component Symbol	Description	Thread Size (inches)	O.D. (inches)
N14-20-XXXX-ASM	N14-20-XXXX-UPR	Bushing, Upper	2.375-8RD EU	3.000
	N14-20-XXXX-RNG	Ring, 1.785" I.D.		
	N14-20-XXXX-LWR	Bushing, Lower		
N14-25-XXXX-ASM	N14-25-XXXX-UPR	Bushing, Upper	2.875-8RD EU	3.625
	N14-25-XXXX-RNG	Ring, 2.285" I.D.		
	N14-25-XXXX-LWR	Bushing, Lower		
N14-30-XXXX-ASM	N14-30-XXXX-UPR	Bushing, Upper	3.500-8RD EU	4.500
	N14-30-XXXX-RNG	Ring, 2.785" I.D.		
	N14-30-XXXX-LWR	Bushing, Lower		

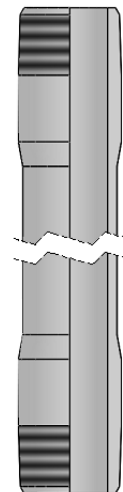


Note

- XXXX indicates material designator. See part symbol configurator.

Nipple, extension, upper – API N21

Base Part Symbol	Tubing Size (inches)	Thread Size (inches)	O.D. (inches)
N21-20-XXXX-LL	2-3/8	2.375-8RD EU	2.594
N21-25-XXXX-LL	2-7/8	2.875-8RD EU	3.094
N21-30-XXXX-LL	3-1/2	3.500-8RD EU	3.750
N21-40-XXXX-LL	4-1/2	4.500-8RD EU	4.750

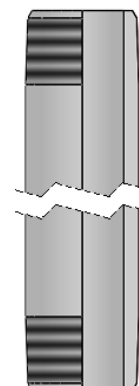


Notes

- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in inch. See part symbol configurator.

Nipple, extension, lower – API N22

Base Part Symbol	Tubing Size (inches)	Thread Size (inches)	O.D. (inches)
N22-20-XXXX-LL	2-3/8	2.375-8RD EU	2.594
N22-25-XXXX-LL	2-7/8	2.875-8RD EU	3.094
N22-30-XXXX-LL	3-1/2	3.500-8RD EU	3.750
N22-40-XXXX-LL	4-1/2	4.500-8RD EU	4.750

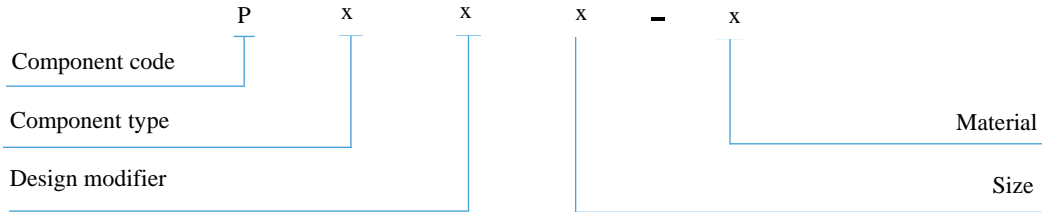


Notes

- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in inch. See part symbol configurator.

PLUGS

Part Symbol Configurator



Component Type

- 11 Plug, Pull
- 12 Plug, Seat

Design Modifier

- Standard Design
- H Hex

Material

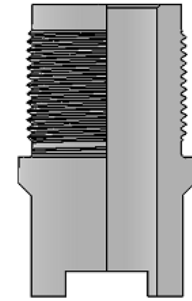
- | | |
|-------------------|-------------------------------------|
| 1301 (API A1) | Steel; 10XX |
| 1302 (API A2, B2) | Low Alloy Steel; 41XX-43XX |
| 1303 (API A3) | Low Alloy Steel; 8620 |
| 1287 (API A4) | Ni/Cu Alloy |
| 1304 (API A5) | Brass; C36000 |
| 1288 (API D6) | 316L Austenitic Stainless Steel |
| 1293 | W1.4122 Martensitic Stainless Steel |

Size

- 15 1.900 O.D.
- 20-125 2-3/8 inch (2.375) O.D. x 1.250 Bore
- 20 2-3/8 inch (2.375) O.D.
- 25 2-7/8 inch (2.875) O.D.
- 25-150 2-7/8 inch (2.875) O.D. x 1.500 Pull tube
- 30 3-1/2 inch (3.500) O.D.
- 106 1-1/6 inch (1.062)
- 125-15 1-1/4 inch (1.250) x 1.900 inch tubing
- 125 1-1/4 inch (1.250)
- 150-20 1-1/2 inch (1.500) x 2-3/8 inch tubing
- 150-25 1-1/2 inch (1.500) x 2-7/8 inch tubing
- 175 1-3/4 inch (1.750)
- 200
- 225 2-1/4 inch (2.250)
- 275 2-3/4 inch (2.750)
- 375 3-3/4 inch (3.750)

Plug, pull – API P11

Base Part Symbol	Tubing Size (inches)	Thread Size (inches)	O.D. Max (inches)
P11-125-15-XXXX	1.900	1.3330-16	1.531
P11-125-XXXX	2-3/8	1.5730-16	1.781
P11-150-20-XXXX	2-3/8	1.5730-16	1.781
P11-150-25-XXXX	2-7/8	2.0870-16	2.281
P11-175-XXXX	2-7/8	2.0870-16	2.281
P11-200-XXXX	2-7/8	2.0870-16	2.281
P11-225-XXXX	3-1/2	2.5730-16	2.781

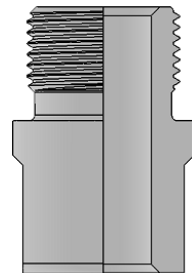


Note

- XXXX indicates material designator. See part symbol configurator.

Plug, seat – API P12

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)	O.D. Max (inches)
P12-106-XXXX	1.062	0.8750-14	1.031
P12-125-XXXX	1.250	1.0000-14	1.188
P12-150-XXXX	1.500	1.2500-14	1.438
P12-175-XXXX	1.750	1.4704-14	1.688
P12-200-XXXX	2.000	1.5604-14	1.938
P12-225-XXXX	2.250	1.8024-14	2.188
P12-250-XXXX	2.500 2.750	2.1095-14	2.438
P12-325-XXXX	3.250	2.8095-11-1/2	3.188

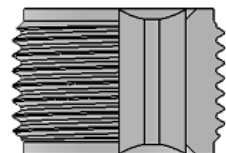


Note

- XXXX indicates material designator. See part symbol configurator.

Plug, hex seat retainer

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)	O.D. Max (inches)
P12H125-XXXX	1.250	1.0000-14	1.000
P12H150-XXXX	1.500	1.2500-14	1.125
P12H175-XXXX	1.750	1.4704-14	1.470
P12H200-XXXX	2.000	1.5604-14	1.560

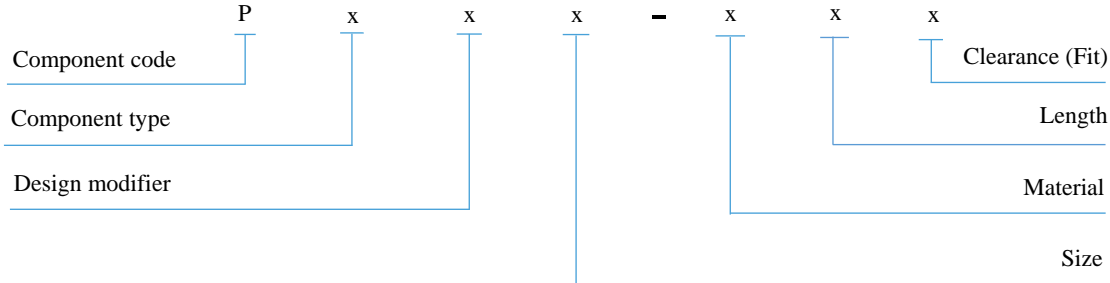


Note

- XXXX indicates material designator. See part symbol configurator.

PLUNGERS

Part Symbol Configurator



Component Type

21	Plunger, One Piece, Pin End
23	Plunger, Box End
77	Trash kit plunger

Material

1431 (API C1)	Spray Metal, Hard
1432 (API D1)	Spray Metal with Ni/Cu Alloy Ends
1433 (API F1)	Spray Metal with Nickel Plated Pins & I.D.
1442	Tungsten Spray Metal with Ni/Cu Alloy Pins
1443	Tungsten Spray Metal
2100	Nylon

Design Modifier

-	Standard Design
G	Grooved
L	Lubri-Plunger
T	10 Rings Trash Kit Plunger
P	20 Rings Trash Kit Plunger

Length in Feet

02	Feet
03	Feet
04	Feet
05	Feet
06	Feet
08	Feet

Size (Pump Bore)

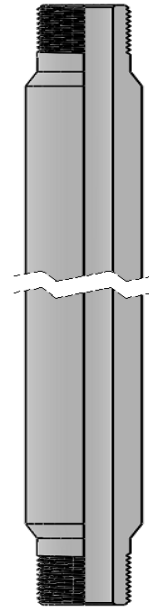
106	1-1/16 inch (1.062)
125	1-1/4 inch (1.250)
150	1-1/2 inch (1.500)
175	1-3/4 inch (1.750)
200	2 inch (2.000)
225	2-1/4 inch (2.250)
250	2-1/2 inch (2.500)
275	2-3/4 inch (2.750)
325	3-1/4 inch (3.250)
375	3-3/4 inch (3.750)

Clearance (fit)

01	-0.001 Fit
02	-0.002 Fit
03	-0.003 Fit
04	-0.004 Fit
05	-0.005 Fit
06	-0.006 Fit
07	-0.007 Fit
08	-0.008 Fit
09	-0.009 Fit
10	-0.010 Fit

Plunger, one piece, pin end – API P21

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)
P21-106-XXXXLLFF	1.062	0.8750-14
P21-125-XXXXLLFF	1.250	1.0000-14
P21-150-XXXXLLFF	1.500	1.2500-14
P21-175-XXXXLLFF	1.750	1.4704-14
P21-200-XXXXLLFF	2.000	1.5604-14
P21-225-XXXXLLFF	2.250	1.8024-14
P21-250-XXXXLLFF	2.500	2.1095-11-1/2
P21-275-XXXXLLFF	2.750	2.1095-11-1/2
P21-325-XXXXLLFF	3.250	2.8095-11-1/2
P21-375-XXXXLLFF	3.750	3.1715-11-1/2

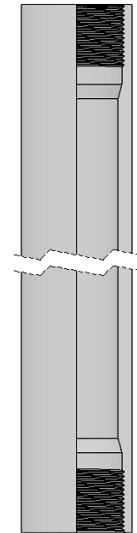


Notes

- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in feet. See part symbol configurator.
- FF indicates fit in thousandths of an inch. See part symbol configurator.

Plunger, box end – API P23

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)
P23-175-XXXXLLFF	1.750	1.5084-14
P23-225-XXXXLLFF	2.250	1.9864-14
P23-275-XXXXLLFF	2.750	2.3755-11-1/2
P23-325-XXXXLLFF	3.250	2.8332-11-1/2
P23-375-XXXXLLFF	3.750	3.3825-11-1/2



Notes

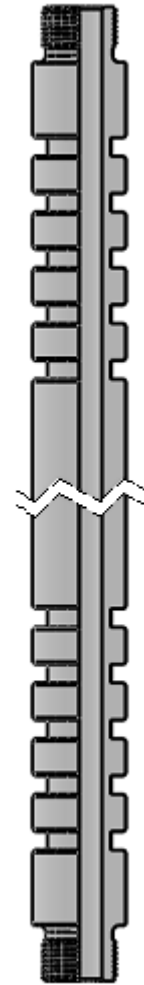
- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in feet. See part symbol configurator.
- FF indicates fit in thousandths of an inch. See part symbol configurator.

Trash kit plunger

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)
P77T125-XXXXLLFF	1.250	1.0000-14
P77P125-XXXXLLFF		
P77T150-XXXXLLFF	1.500	1.2500-14
P77P150-XXXXLLFF		
P77T175-XXXXLLFF	1.750	1.4704-14
P77P175-XXXXLLFF		
P77T200-XXXXLLFF	2.000	1.5604-14
P77P200-XXXXLLFF		
P77T225-XXXXLLFF	2.250	1.8024-14
P77P225-XXXXLLFF		
P77T250-XXXXLLFF	2.500	2.1095-11-1/2
P77P250-XXXXLLFF		
P77T275-XXXXLLFF	2.750	2.1095-11-1/2
P77P275-XXXXLLFF		

Notes

- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in feet. See part symbol configurator.
- FF indicates fit in thousandths of an inch. See part symbol configurator.



Ring, pressure actuated

Base Part Symbol	Pump Plunger Size (inches)
P21-125-XXXX	1.250
P21-150-XXXX	1.500
P21-175-XXXX	1.750
P21-200-XXXX	2.000
P21-225-XXXX	2.250
P21-250-XXXX	2.500
P21-275-XXXX	2.750

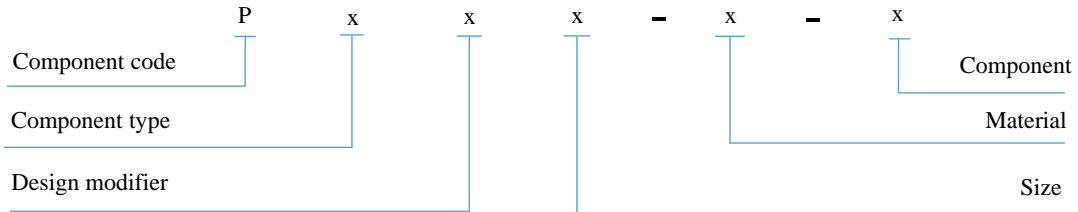
Note

- XXXX indicates material designator. See part symbol configurator.



PULLERS

Part Symbol Configurator



Component Type

- 31 Puller, Tap Type
- 36 Puller, Sure Hold

Size

- 175 1-3/4 inch (1.750)
- 225 2-1/4 inch (2.250)
- 275 2-3/4 inch (2.750)
- 375 3-3/4 inch (3.750)

Design Modifier

- Standard Design

Material

- 1301 (API A1) Steel; 10XX
- 1302 (API A2, B2) Low Alloy Steel; 41XX-43XX
- 1303 (API A3) Low Alloy Steel; 8620
- 1287 (API A4) Ni/Cu Alloy
- 1304 (API A5) Brass; C36000
- 1288 (API D6) 316L Austenitic Stainless Steel
- 1293 W1.4122 Martensitic Stainless Steel

Component

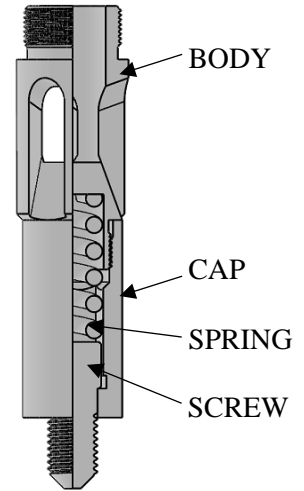
- P31 ASM Assembly
- BDY Body
- CAP Cap
- SCR Screw
- SPR Spring
- BSG Bushing¹
- P36 PLR Puller
- ASM Pin Assembly
- PIN Pin
- SLV Sleeve
- SPR Spring
- NUT Nut
- BSG Bushing¹

Note

1. Bushing required to use 2.75" pullers instead of 3.75" pullers.

Puller, tap type – API P31

Assembly Base Symbol	Pump Bore Size (inches)	Description	Part Symbol
P31-175-XXXX-ASM	1.750	Body	P31-175-XXXX-BDY
		Cap	P31-175-XXXX-CAP
		Screw	P31-175-XXXX-SCR
		Spring	P31-175-XXXX-SPR
P31-225-XXXX-ASM	2.250	Body	P31-225-XXXX-BDY
		Cap	P31-225-XXXX-CAP
		Screw	P31-225-XXXX-SCR
		Spring	P31-225-XXXX-SPR
P31-275-XXXX-ASM	2.750	Body	P31-275-XXXX-BDY
		Cap	P31-275-XXXX-CAP
		Screw	P31-275-XXXX-SCR
		Spring	P31-275-XXXX-SPR
P31-375-XXXX-ASM	3.750	Body	P31-375-XXXX-BDY
		Cap	P31-375-XXXX-CAP
		Screw	P31-375-XXXX-SCR
		Spring	P31-375-XXXX-SPR

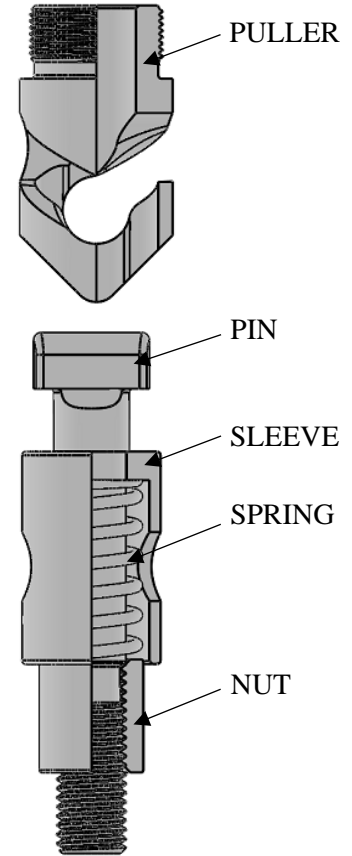


Note

- XXXX indicates material designator. See part symbol configurator.

Puller, Sure Hold

Assembly Base Symbol	Pump Bore Size (inches)	Description	Part Symbol
-	1.750	PULLER	P36-175-XXXX-PLR
P36-175-XXXX-ASM		PIN	P36-175-XXXX-PIN
		SLEEVE	P36-175-XXXX-SLV
		SPRING	P36-175-XXXX-SPR
		NUT	P36-175-XXXX-NUT
-	2.250	PULLER	P36-225-XXXX-PLR
P36-225-XXXX-ASM		PIN	P36-225-XXXX-PIN
		SLEEVE	P36-225-XXXX-SLV
		SPRING	P36-225-XXXX-SPR
		NUT	P36-225-XXXX-NUT
-	2.750	PULLER	P36-275-XXXX-PLR
P36-275-XXXX-ASM		PIN	P36-275-XXXX-PIN
		SLEEVE	P36-275-XXXX-SLV
		SPRING	P36-275-XXXX-SPR
		NUT	P36-275-XXXX-NUT
-	3.750	PULLER	P36-375-XXXX-PLR
P36-375-XXXX-ASM		PIN	P36-375-XXXX-PIN
		SLEEVE	P36-375-XXXX-SLV
		SPRING	P36-375-XXXX-SPR
		NUT	P36-375-XXXX-NUT

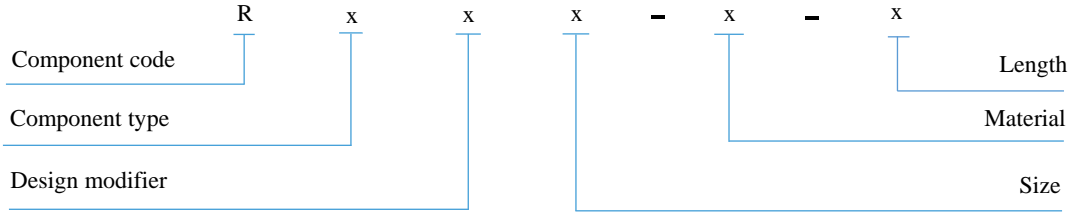


Note

- XXXX indicates material designator. See part symbol configurator.

ROD, VALVE

Part Symbol Configurator



Component Type

- 11 Rod, Valve, Finished
- 12 Rod, Valve, Shop Threaded

Size

- 20 11/16 inch Rod
- 25 7/8 inch Rod
- 30 1-1/16 inch Rod

Design Modifier

- Standard Design

Material

- 1302 (API A2) Low Alloy Steel; 41XX-43XX
- 1288 (API D6) 316L Austenitic Stainless Steel

Length

- LL Specify Length in Feet

Rod, valve, finished – API R11

Base Part Symbol	O.D. Size (inches)	Thread Size (API Mod. Line Pipe)
R11-20-XXXX-LL	0.688	3/8
R11-25-XXXX-LL	0.875	1/2
R11-30-XXXX-LL	1.062	3/4

Notes

- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in inch. See part symbol configurator.

Rod, valve, shop threaded

Base Part Symbol	O.D. Size (inches)	Thread Size (API Mod. Line Pipe)
R12-20-XXXX	0.688	3/8
R12-25-XXXX	0.875	1/2
R12-30-XXXX	1.062	3/4

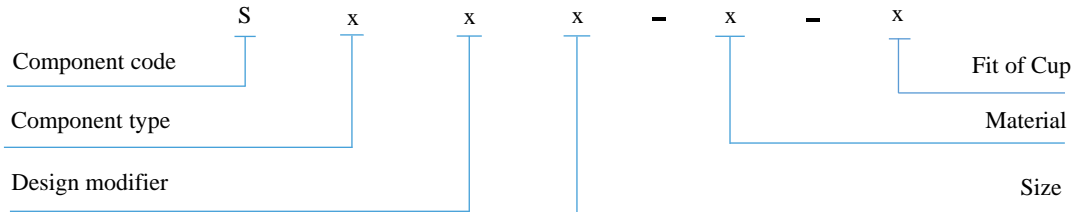
Notes

- XXXX indicates material designator. See part symbol configurator.
- Shop threaded valve rod length should be specify in feet.



SEATING, HR CUP

Part Symbol Configurator



Component Type

- 10 Seating assembly, Cup (Type HR), top or bottom
- 11 Seating Mandrel, Cup, HR, Rod Pump
- 12 Seating Cup, HR, Insert Rod Pump
- 13 Seating Cup Ring, Type HR
- 14 Seating Cup Nut, Type HR
- 15 Seating Cup Bushing, Top Anchor
- 16 Seating Coupling, Bottom Anchor
- 17 Seating Mandrel, Cup, HR, TH
- 18 Seating Cup, HR, Tubing Pump

Size

- 15 1.900 O.D.
- 20 2-3/8 inch (2.375) O.D.
- 20-125 2-3/8 inch (2.375) O.D. x 1.250 Pump
- 25 2-7/8 inch (2.875) O.D.
- 25-150 2-7/8 inch (2.875) O.D. x 1.500 Pump
- 30 3-1/2 inch (3.500) O.D.

Design Modifier

- Standard Design
- A Rod Pump, Top Cup Assembly
- B Rod Pump, Bottom Cup Assembly
- T Tubing Pump, Bottom Cup Assembly

Material

- 1301 (API A1) Steel; 10XX
- 1302 (API A2, B2) Low Alloy Steel; 41XX-43XX
- 1303 (API A3) Low Alloy Steel; 8620
- 1287 (API A4) Ni/Cu Alloy
- 1304 (API A5) Brass; C36000
- 1288 (API D6) 316L Austenitic Stainless Steel
- 1293 W1.4122 Martensitic Stainless Steel

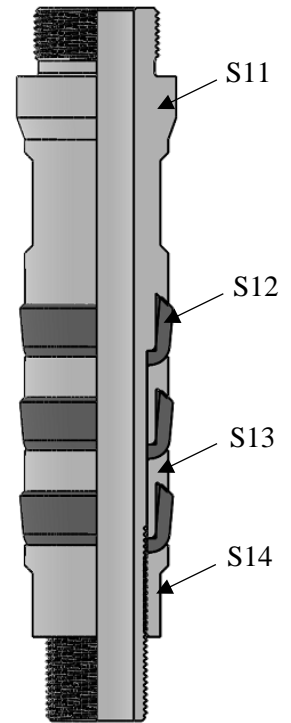
Fit of Cup

- M10 Minus 0.010
- BSC Basic
- P10 Plus 0.010
- P20 Plus 0.020
- P30 Plus 0.030
- P40 Plus 0.040
- P45 Plus 0.045
- P60 Plus 0.060
- P70 Plus 0.070
- P75 Plus 0.075
- P90 Plus 0.090

- 7860 (API A1) Nylon
- 0872 (API A2) Composition
- 0871 Plastic, High Temp

Seating assembly, 3-Cup (Type HR), insert pump - (API) (top or bottom)

Assembly Base Symbol	Tubing Size (inches)	Part Symbol	Description		O.D. No-Go max. (inches)
			Mandrel thread		
S10-20-XXXX-FFF	2-3/8	S11-20-XXXX	Top pin	1.4704-14	1.840
			Bottom pin	1.1894-14	
		S12-20-XXXX-P30	Cup Plus 0.030 (API)		
		S13-20-XXXX	Ring		
		S14-20-XXXX	Nut, Lock		
S10-25-XXXX-FFF	2-7/8	S11-25-XXXX	Top pin	1.8024-14	2.344
			Bottom pin	1.5604-14	
		S12-25-XXXX-P70	Cup Plus 0.070 (API)		
		S13-25-XXXX	Ring		
		S14-25-XXXX	Nut, Lock		
S10-30-XXXX-FFF	3-1/2	S11-30-XXXX	Top pin	2.1095-11-1/2	2.844
			Bottom pin	2.0035-11-1/2	
		S12-30-XXXX-P70	Cup Plus 0.070 (API)		
		S13-30-XXXX	Ring		
		S14-30-XXXX	Nut, Lock		

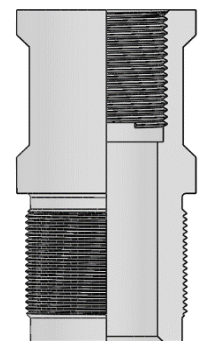


Notes

- XXXX indicates material designator. See part symbol configurator.
- FFF indicates cup fit. See part symbol configurator.

Seating Cup Bushing, Top Anchor – API S15

Base Part Symbol	Tubing Size (inches)	Bore Size and Pump Type (inches)	Thread Size (inches)		O.D. Max (inches)
			Box Upper End	Pin Lower End	
S15-20-125-XXXX	2-3/8	1.250 RW	1.1894-14	1.3330-16	1.760
S15-20-XXXX	2-3/8	1.250 RH 1.500 RW	1.1894-14	1.5730-16	1.760
S15-25-150-XXXX	2-7/8	1.250 RH 1.500 RW	1.5604-14	1.5730-16	2.260
S15-25-XXXX	2-7/8	1.500 RH 1.750 RH 2.000 RW	1.5604-14	2.0870-16	2.260
S15-30-XXXX	3-1/2	2.250 RH 2.500 RW	2.0035-11-1/2	2.5730-16	2.760

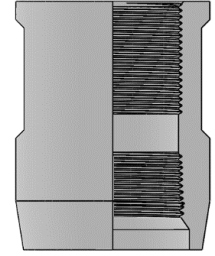


Note

- XXXX indicates material designator. See part symbol configurator.

Seating Coupling, Bottom Anchor – API S16

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)		O.D. Max (inches)
		Box Upper End	Box Lower End (API Line Pipe)	
S16-20-XXXX	1.750	1.1894–14	1	1.678
S16-25-XXXX	2.250	1.5604–14	1-1/4	2.198
S16-30-XXXX	2.750	2.0035–11-1/2	1-1/2	2.635

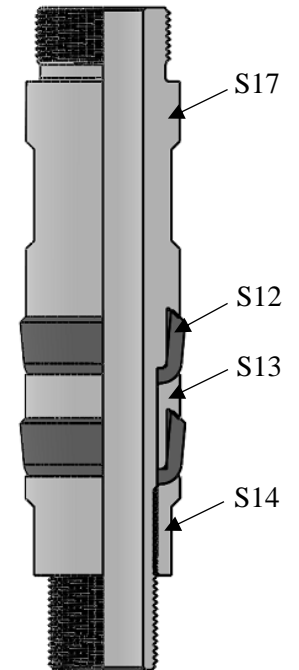


Note

- XXXX indicates material designator. See part symbol configurator.

Seating assembly, 2-Cup (Type HR), tubing pump - (API)

Assembly Base Symbol	Tubing Size (inches)	Part Symbol	Description		O.D. max. (inches)
			Mandrel thread	Pin	
S10T20-XXXX-FFF	2-3/8	S17-20-XXXX	Mandrel thread	Top pin 1.4704–14	1.688
				Bottom pin 1.1894–14	
		S18-20-XXXX-M10	Cup Minus 0.010 (API)		
		S13-20-XXXX	Ring		
		S14-20-XXXX	Nut, Lock		
S10T25-XXXX-FFF	2-7/8	S17-25-XXXX	Mandrel thread	Top pin 1.8024–14	2.188
				Bottom pin 1.5604–14	
		S18-25-XXXX-M10	Cup Minus 0.010 (API)		
		S13-25-XXXX	Ring		
		S14-25-XXXX	Nut, Lock		
S10T30-XXXX-FFF	3-1/2	S17-30-XXXX	Mandrel thread	Top pin 2.1095–11-1/2	2.688
				Bottom pin 2.0035–11-1/2	
		S18-30-XXXX-M10	Cup Minus 0.010 (API)		
		S13-30-XXXX	Ring		
		S14-30-XXXX	Nut, Lock		

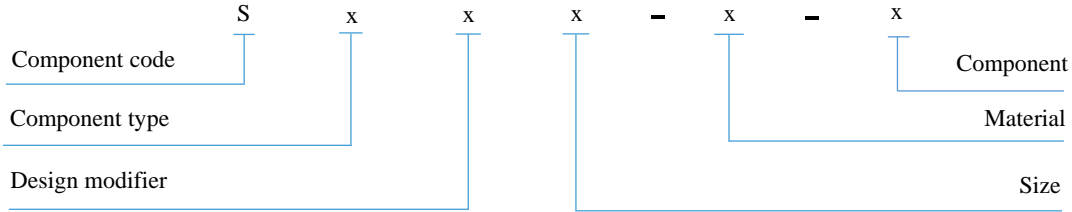


Notes

- XXXX indicates material designator. See part symbol configurator.
- FFF indicates cup fit. See part symbol configurator.

SEATING, MECHANICAL

Part Symbol Configurator



Component Type

- 21 Seating Assembly, Mechanical, Top Lock
- 22 Seating Assembly, Mechanical, Bottom Lock

Size

- 15 1.900 O.D.
- 20 2-3/8 inch (2.375) O.D.
- 25 2-7/8 inch (2.875) O.D.
- 30 3-1/2 inch (3.500) O.D.
- 40 4-1/2 inch (4.500) O.D.

Design Modifier

- Standard Design
- H Heavy Duty
- M Modified Thread for 1.250 RH or 1.500 RW

Material

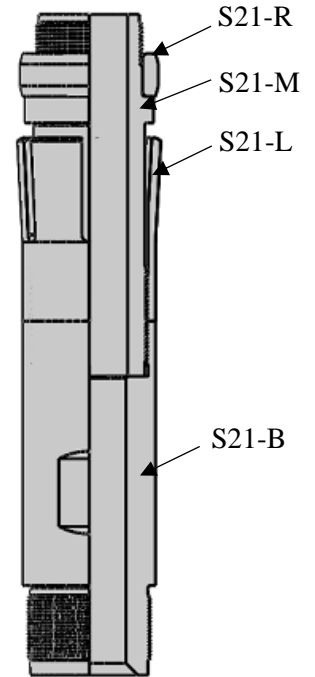
- 1301 (API A1) Steel; 10XX
- 1302 (API A2, B2) Low Alloy Steel; 41XX-43XX
- 1303 (API A3) Low Alloy Steel; 8620
- 1287 (API A4) Ni/Cu Alloy
- 1304 (API A5) Brass; C36000
- 1288 (API D6) 316L Austenitic Stainless Steel
- 1293 W1.4122 Martensitic Stainless Steel

Component

- ASM Assembly
- B Bushing
- L Lock Ring
- M Mandrel
- R Seating Ring

Seating assembly, mechanical, top lock – API S21

Assembly Base Symbol	Tubing Size (inches)	Part Symbol	Description	O.D. (inches)
S21-20-XXXX-ASM	2-3/8	S21-20-XXXX-R	Ring, Seating	1.875
		S21-20-XXXX-M	Mandrel, 1.4704–14	
		S21-20-XXXX-L	Lock	
		S21-20-XXXX-B	Bushing, 1.5730–16	
S21-25-XXXX-ASM	2-7/8	S21-25-XXXX-R	Ring, Seating	2.344
		S21-25-XXXX-M	Mandrel, 1.8024–14	
		S21-25-XXXX-L	Lock	
		S21-25-XXXX-B	Bushing, 2.0870–16	
S21-30-XXXX-ASM	3-1/2	S21-30-XXXX-R	Ring, Seating	2.844
		S21-30-XXXX-M	Mandrel, 2.1095–11-1/2	
		S21-30-XXXX-L	Lock	
		S21-30-XXXX-B	Bushing, 2.5730–16	

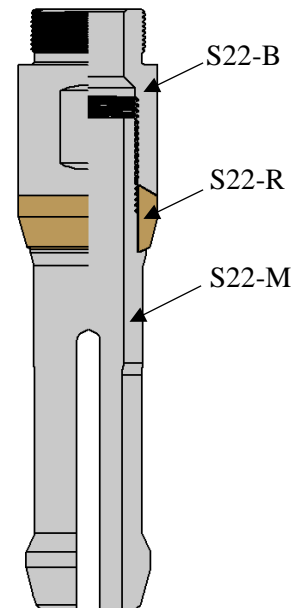


Note

- XXXX indicates material designator. See part symbol configurator.

Seating assembly, mechanical, bottom lock – API S22

Assembly Base Symbol	Tubing Size (inches)	Part Symbol	Description	O.D. (inches)
S22-20-XXXX-ASM	2-3/8	S22-20-XXXX-B	Bushing, 1.4704–14	
		S22-20-XXXX-R	Ring, Seating	1.688
		S22-20-XXXX-M	Mandrel	
S22-25-XXXX-ASM	2-7/8	S22-25-XXXX-B	Bushing, 1.8024–14	
		S22-25-XXXX-R	Ring, Seating	2.188
		S22-25-XXXX-M	Mandrel	
S22-30-XXXX-ASM	3-1/2	S22-30-XXXX-B	Bushing, 2.1095–11-1/2	
		S22-30-XXXX-R	Ring, Seating	2.688
		S22-30-XXXX-M	Mandrel	
S22-40-XXXX-ASM	4-1/2	S22-40-XXXX-B	Bushing, 3.1715–11-1/2	
		S22-40-XXXX-R	Ring, Seating	3.625
		S22-40-XXXX-M	Mandrel	

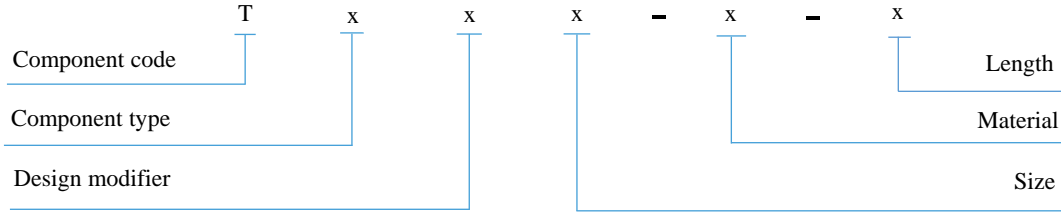


Note

- XXXX indicates material designator. See part symbol configurator.

TUBE, PULL

Part Symbol Configurator



Component Type

- 11 Tube, Pull, Finished
- 19 Tube, Pull – Machine Cut and Shop Thread

Size

- 125 1-1/4 inch (1.250)
- 150 1-1/2 inch (1.500)
- 175 1-3/4 inch (1.750)
- 200 2 inch (2.000)
- 225 2-1/4 inch (2.250)
- 325 3-1/4 inch (3.250)
- 0938 15/16 inch (0.938) O.D.
- 1125 1-1/8 inch (1.125) O.D
- 1500 1-1/2 inch (1.500) O.D. x 1-1/8 inch

Design Modifier

- Standard Design

Material

- 1284 (API N1) Steel; 10XX
- 1286 (API N2) Brass; 44300
- 1303 (API A3) Low Alloy Steel; 8620
- 1288 (API D6) 316L Austenitic Stainless Steel

Length in inch

Specify Length in Inches.

Tube, pull, finished – API T11

Base Part Symbol	Pump Bore Size (inches)	Thread Size (inches)	O.D. Max (inches)
T11-125-XXXX-LLL	1.250	0.9375-16	0.948
T11-150-XXXX-LLL	1.500	1.1250-16	1.135
T11-175-XXXX-LLL	1.750	1.3125-16	1.323
T11-200-XXXX-LLL	2.000	1.5000-16	1.510
T11-225-XXXX-LLL	2.250 2.500	1.8750-16	1.885

Notes

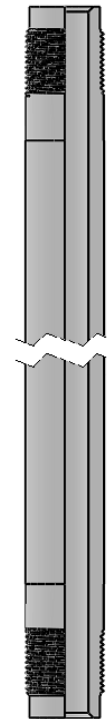
- XXXX indicates material designator. See part symbol configurator.
- LL indicates length in inch. See part symbol configurator.

Tube, pull, stock – machine cut and shop threaded

Base Part Symbol	Pump Bore Size (inches)	I.D. (inches)	O.D. Max (inches)
T19-0937-XXXX	1.250	0.625	0.948
T19-1125-XXXX	1.500	0.750	1.135
T19-1500-XXXX	1.750 2.000	1.125	1.510

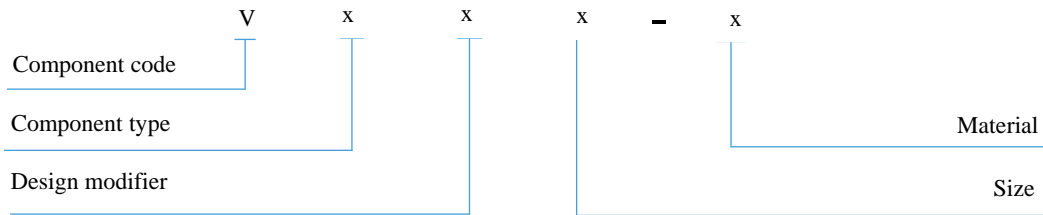
Notes

- XXXX indicates material designator. See part symbol configurator.
- Shop threaded pull tube length should be specify in feet.



VALVE, BALL AND SEAT

Part Symbol Configurator



Component Type

- 11 Valve, Assembly, Ball and Seat
- 12 Valve Ball
- 13 Valve Seat

Design Modifier

- Standard Design
- A Alternate Pattern Ball
- C Seat Lapped to Alternate Ball Size
- D Dual Lapped Seat

Size

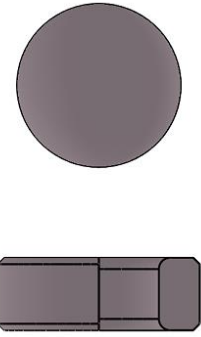
Balls and seats are available for pumps with bores of 1.062 inches through 3.750 inches.

Material

- 1307 (API D1) 440C Stainless Steel (Ball)
- 1317 (API D1) 440C Stainless Steel (Seat)
- 1417 (API A2) Cobalt Alloy, Cast (Ball)
- 1418 (API A2) Cobalt Alloy, Cast (Seat)
- 1419 (API A3) Cobalt Alloy, Powder Metal (Ball)
- 1423 (API A3) Cobalt Alloy, Powder Metal (Seat)
- 1424 (API A4) Tungsten Carbide (Ball)
- 1425 (API A4) Tungsten Carbide (Seat)
- 1426 (API A5) Nickel Carbide (Ball)
- 1427 (API A5) Nickel Carbide (Seat)
- 1428 (API A6) Titanium Carbide
- 1435 Silicon Nitride
- 1436 Ceramic

Valve, assembly, ball and seat

Base Part Symbol	Valve Size (inches)	Ball O.D. (inches)	Seat I.D. (inches)
Standard Lapped			
V11-106-XXXX	1-1/16	0.625	0.460
V11-125-XXXX	1-1/4	0.750	0.550
V11-150-XXXX	1-1/2	0.938	0.670
V11-175-XXXX	1-3/4	1.125	0.825
V11-200-XXXX	2	1.250	0.960
V11-225-XXXX	2-1/4	1.375	1.060
V11-250-XXXX	2-1/2	1.688	1.310
V11-325-XXXX	3-1/4	2.000	1.750
V11-375-XXXX	3-3/4	2.250	1.790
Alternate Lapped			
V11A106-XXXX	1-1/16	0.5625	0.460
V11A125-XXXX	1-1/4	0.6875	0.550
V11A150-XXXX	1-1/2	0.875	0.670
V11A175-XXXX	1-3/4	1.000	0.825
V11A200-XXXX	2	1.125	0.960
V11A225-XXXX	2-1/4	1.250	1.060
V11A250-XXXX	2-1/2	1.500	1.310
V11A325-XXXX	3-1/4	1.875	1.750
V11A375-XXXX	3-3/4	2.000	1.790

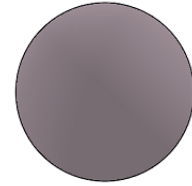


Note

- XXXX indicates material designator. See part symbol configurator.

Valve ball

Base Part Symbol	Seat Size (inches)	Ball O.D. (inches)
Standard Lapped		
V12-106-XXXX	1-1/16	0.625
V12-125-XXXX	1-1/4	0.750
V12-150-XXXX	1-1/2	0.938
V12-175-XXXX	1-3/4	1.125
V12-200-XXXX	2	1.250
V12-225-XXXX	2-1/4	1.375
V12-250-XXXX	2-1/2	1.688
V12-325-XXXX	3-1/4	2.000
V12-375-XXXX	3-3/4	2.250
Alternate Lapped		
V12A106-XXXX	1-1/16	0.5625
V12A125-XXXX	1-1/4	0.6875
V12A150-XXXX	1-1/2	0.875
V12A175-XXXX	1-3/4	1.000
V12A200-XXXX	2	1.125
V12A225-XXXX	2-1/4	1.250
V12A250-XXXX	2-1/2	1.500
V12A325-XXXX	3-1/4	1.875
V12A375-XXXX	3-3/4	2.000



Note

- XXXX indicates material designator. See part symbol configurator.

Valve seats



Base Part Symbol	Valve Size (inches)	Seat I.D. (inches)	Ball O.D. (inches)
Standard Lapped			
V13-106-XXXX	1-1/16	0.460	0.625
V13-125-XXXX	1-1/4	0.550	0.750
V13-150-XXXX	1-1/2	0.670	0.938
V13-175-XXXX	1-3/4	0.825	1.125
V13-200-XXXX	2	0.960	1.250
V13-225-XXXX	2-1/4	1.060	1.375
V13-250-XXXX	2-1/2	1.310	1.688
V13-325-XXXX	3-1/4	1.750	2.000
V13-375-XXXX	3-3/4	1.790	2.250
Alternate Lapped			
V13C106-XXXX	1-1/16	0.460	0.5625
V13C125-XXXX	1-1/4	0.550	0.6875
V13C150-XXXX	1-1/2	0.670	0.875
V13C175-XXXX	1-3/4	0.825	1.000
V13C200-XXXX	2	0.960	1.125
V13C225-XXXX	2-1/4	1.060	1.250
V13C250-XXXX	2-1/2	1.310	1.500
V13C325-XXXX	3-1/4	1.750	1.875
V13C375-XXXX	3-3/4	1.790	2.000
Dual Lapped			
V13D106-XXXX	1-1/16	0.460	0.625 / 0.5625
V13D125-XXXX	1-1/4	0.550	0.750 / 0.6875
V13D150-XXXX	1-1/2	0.670	0.938 / 0.875
V13D175-XXXX	1-3/4	0.825	1.125 / 1.000
V13D200-XXXX	2	0.960	1.250 / 1.125
V13D225-XXXX	2-1/4	1.060	1.375 / 1.250
V13D250-XXXX	2-1/2	1.310	1.688 / 1.500
V13D325-XXXX	3-1/4	1.750	2.000 / 1.875
V13D375-XXXX	3-3/4	1.790	2.250 / 2.000

Note

- XXXX indicates material designator. See part symbol configurator.

CDIOS balls and seats are manufactured from quality materials and in accordance with API Specification 11AX. The seating surfaces are precision lapped and every ball and seat assembly are vacuum tested to assure proper sealing.