

ARTIFICIAL LIFT CATALOG



 Don-Nan

don-nan.com

1-800-348-7742



Don-Nan Pump & Supply Company was founded in 1962. From the beginning, the philosophic foundation of the business has been a commitment to excellence in service, quality, integrity and innovation. With locations in the Permian Basin, Texas/Oklahoma Panhandles, and Southeastern New Mexico, this philosophy lead us to become one of the largest and premier API 11 AX manufacturers and pump repair facilities in the United States.

From our meager beginning as a two-man pump repair facility in Midland, Texas, our commitment to provide quality and value to our customers has been the cornerstone of our growth. Our manufacturing division was established in 1981 to continually provide quality service while reducing customer operating costs. Building on the success of the pump repair shop, supply sales were added in the early 80s. By 1994, we acquired our API 11 AX license and became a full line manufacturer of subsurface pump products.

With philosophically sound business roots to grow from, Don-Nan's productive expansion was inevitable with new locations sprouting from Odessa and Stinnett, Texas by 1991. With an increased demand in the region for committed excellence to service, quality, integrity, and innovation, additional stores were erected in Hobbs, New Mexico (1995), Kermit (1997), Big Spring, (2002) and Andrews, Texas (2011).

As Don-Nan continued to grow, the company saw a need to expand into the wholesale market in the Rocky Mountains. Consequently, Don-Nan opened up in Grand Junction, Colorado (2003), followed by Gillette, Wyoming (2004) and Poplar, Montana (2006).

Back home, the manufacturing facility added the barrel hone shop and valve rod facility in 2003. The main manufacturing plant moved into a new 40,000 square ft. building (2006) that just recently doubled in size (2011). Manufacturing now houses over 140,000 square feet.

Don-Nan's unwavering commitment to quality extends beyond manufacturing to all aspects of business such as sales, finance, service, support, planning and others. With inventory and field sales support in strategic locations, we are ready to respond in a timely professional manner 24 hours a day. Our technical staff is ready to provide assistance in pump selection and design, as well as offer pump schools and field training as requested. After pump installations, your pump repairs can be tracked with Don-Nan's custom designed Tracking System.

As we continually grow, our commitment remains in providing service, quality, integrity and innovation. Whatever your needs, Don-Nan is here to serve you.

At Don-Nan we put our customers first. Don-Nan is committed to providing our customers with quality service while meeting or exceeding their requirements in a safe, cost effective manner, *the first time*, every time!

We conduct our business in a safe, environmentally sound and socially responsible manner while maintaining the highest levels of ethics. We provide a work environment that encourages total participation and development of employees through full utilization of their skills, creativity and innovation. In order to provide the highest levels of service, we strive for continuous improvement in all facets of our business.

Don-Nan's goal is to create and maintain long-term prosperous relationships with our customers built on the utmost honesty and integrity. Your success is our success.



Don-Nan uses the latest technology available to insure our commitment to provide products of the highest quality.

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Don-Nan Machine & Manufacturing

Computer numerically controlled (CNC) turning centers and machining centers, featuring Mori-Seiki and Hitachi-Seiki equipment, permit processing to exact tolerances, including the most complex shapes and sizes. In addition, Don-Nan has a complete Quality Control Department to ensure production conformance, and a CODE welding shop for ANSI 31.1 and API 11AX certified products.



Machine Shop

The Don-Nan Machine Shop is capable of manufacturing a full line of pumps from top to bottom along with tubing anchors. Outside of balls, seats and seating cups, every part of your Don-Nan pump is designed and created from within the corporate headquarters located in Midland, Texas. Raw material doesn't qualify for entry into the Don-Nan Machine shop unless Material Test Reports of the raw material conform with API 11AX specifications.



Metrology Department

Don-Nan's "TOTAL QUALITY MANAGEMENT" extends beyond manufacturing to all aspects of business, but none more so than Don-Nan's Manufacturing Machine Shop's Metrology Department. The majority of instrumental testing equipping used from manufacturing to pump repair shops of Don-Nan are calibrated by the Metrology Department to standards traceable to the National Institute of Standards and Technology (NIST). Any instruments outsourced are sent to verified and accredited agencies.



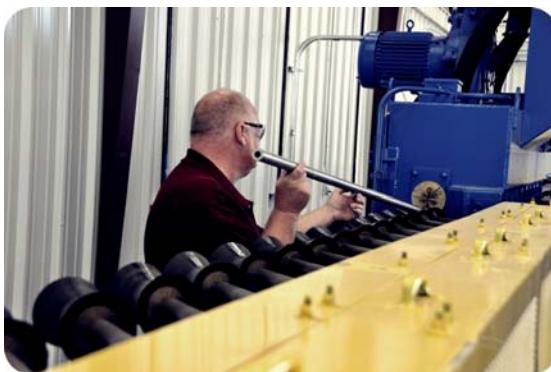
Hone Shop

Using only the most up-to-date state-of-the-art machines, the Don-Nan Hone Shop takes in raw material and outputs fine barrels that have been inspected to pass API standard requirements. Under the managerial supervision of 33 years of experience in honing barrels, the Don-Nan Hone Shop hones barrels to pre-plated specifications or precision measurements of 10 thousandths of an inch every foot. Once the pre-plated have been plated, they are re-honed to precision and all barrels receive a unique serial number, vendor code, and date for any tracing purposes.



Plunger Shop

With fine state-of-the-art machines, the Don-Nan Plunger Shop filters in raw material through a 12-15 point-process in manufacturing high-grade precision plungers from scratch. Along the diligent point-process, every operative point must be within finely specific API tolerances. After multiple straightening jobs to multiple grinding jobs and the nickel-based spray-fusion process are complete, each precision plunger is dressed with a unique identification part number and date.





Warehouses

With two warehouses and barrel storage in our Barrel Hone shop at the Don-Nan Corporate Headquarters, a wholesale warehouse in Colorado, Montana, and Wyoming each, Don-Nan warehouses account for over 85,000 square feet of shelving product. This figure doesn't take into account the shelving storage that each of the Don-Nan Pump & Supply shops carry for normal day-to-day operations. With constantly-expanding high-volume warehouse capacity, Don-Nan is capable of maintaining an extremely high fill percentage with quick turnarounds to anywhere in the world.



Pump Shop

With experienced pump shop managers at all Don-Nan Pump & Supply repair shops, customers receive unrivaled service from Don-Nan's 24-hour service, 7 days a week, and free delivery. Our Pump Tracking system provides individual pump history that is logged by customer lease and well. This information coupled with foreign matter that is collected for customer analysis allows for more accurate recommendations in minimizing customer pump failure.

**Supply Store & Anchor Land**

Any and all supplies needed for your site from cement, fence wire, and tank gages to valves and fittings can be found in our supply shops. Tank battery hook-ups can also be serviced by Don-Nan Pump & Supply shops. And from within every Don-Nan Pump & Supply shop, tubing anchors (TACs) are built, repaired and sold on a daily basis.



Don-Nan Machine & Manufacturing**Don-Nan**

Product Warranty

Products manufacturing by Don-Nan Pump & Supply Co.. Inc. are guaranteed against defects in workmanship or material for a period of one (1) year from the date of shipment. This guarantee covers normal use and does not include misuse or use for a purpose other than originally intended for. This guarantee is limited to repair or replacement without charge, of parts found defective for workmanship or material defects. This guarantee does not cover labor, expenses or other losses such as incidental or consequential damages. This guarantee does not cover corrosion, erosion, abrasion or other conditions caused by well conditions.

All other warranties , implied or otherwise, are hereby excluded except for the above listed warranties of workmanship or material.



RHAC Rod Pumps

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/4" (1)	1-1/2" (2)	1-3/4" (3)

Barrel Assembly

A	Bushing, Hold-Down Adapter	1	46	BH102	BH212	
B	Coupling, Extension	2	87	EN214	EN314	
C	Barrel, Heavy Wall, RH	1	39	BT0416	BT0716	
D	Cage, Closed Barrel	1	57	CF42	CF62	
E	Valve, Ball and Seat	1	36			
	Ball			B07	B09	
	Seat			S04	S06	
F	Bushing, Seat, Barrel Cage	1	52	BS2	BS3	

Plunger Assembly

G	Bushing Valve Rod	1	50					
	11/16"			BR1	-			
	7/8"			BR2				
H	Rod, Valve	1	170					
	11/16"			VR1	-			
	7/8"			VR2				
I	Coupling, Plunger Adapter	1	91					
	11/16"			PA21				
	7/8"			PA32		PA42		
J	Plunger	1	135	P2	4	-Δ		
K	Cage, Closed Plunger	1	57	CF21	CF31			
L	Valve, Ball and Seat	1	36					
	Ball			B03	B05	B07		
	Seat			S02	S05	S04		
M	Plug, Seat (External)	1	131	PS21	PS31	PS41		

Hold-Down Assembly

N	Guide, Valve Rod	1	95	GR211	GR321	
O	Mandrel, Hold-Down	1	103	HM41	HM51	
P	Cup, Seating	3	150	SC064	-HR	
Q	Ring, Hold-Down Spacer	2	106	HS41	HS51	
R	Nut, Hold-Down Lock Nut	1	117	HL41	HL51	

These are typical RHAC pumps using 4' plungers and 16' barrels with 2' extension couplings. Other standard length plungers, barrels, and extension couplings are available. Valve rod length will have to be recalculated to each plunger or barrel length you make. Other ball and seat combinations are available. Fittings are steel, other materials available. API mechanical type hold-downs are also available.

(1) API 20 -125-RHAC -16-4-4

(2) API 25 -150-RHAC -16-4-4

(3) API 25 -175-RHAC -16-4-4

Select Material

Select Configuration

Select Length

Select Barrel Coating

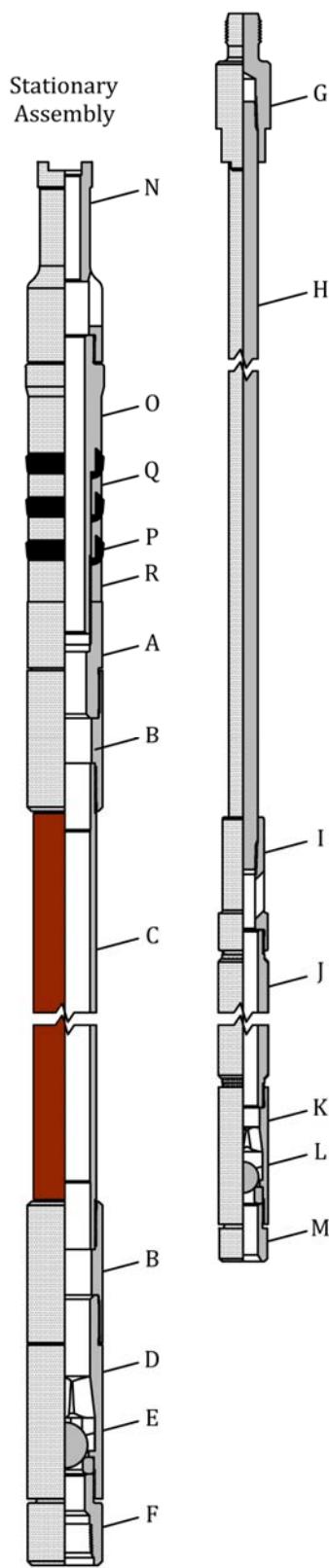
Select Plunger Fit

Select Plunger End

Select Pin Size

Select Size

Traveling
Assembly



RHBC Rod Pumps

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/4" (1)	1-1/2" (2)	1-3/4" (3)
Barrel Assembly						
A	Guide, Valve Rod	1	95			
	11/16"			GR211		
	7/8"			GR221	GR321	
B	Connector, Upper Barrel	1	74	C222	C332	
C	Coupling, Extension	2	87	EN214	EN314	EN414
D	Barrel, Heavy Wall RH	1	39	BT0416	BT0716	BT0816
E	Cage, Closed Barrel	1	57	CF42	CF62	
F	Valve, Ball and Seat	1	36			
	Ball			B07	B09	
	Seat			S04	S06	

Plunger Assembly

G	Bushing, Valve Rod	1	50						
	11/16"			BR1	-⊗				
	7/8"			BR2	-⊗				
H	Rod, Valve	1	170						
	11/16"			VR1	-⊕				
	7/8"			VR2	-⊕				
I	Coupling, Plunger Adapter	1	91						
	11/16"			PA21					
	7/8"			PA22		PA42			
J	Plunger	1	135	P2	4■-Δ	P3	4■-Δ	P4	4■-Δ
K	Cage, Closed Plunger	1	57	CF21		CF31		CF41	
L	Valve, Ball and Seat	1	36						
	Ball			B03		B05		B07	
	Seat			S02		S03		S04	
M	Plug, Seat (External)	1	131	PS21		PS31		PS41	

Hold-Down Assembly

N	Mandrel, Hold-Down	1	103	HM41	HM51
O	Cup, Seating	3	150	SC064	-HR
P	Ring, Hold-Down Spacer	2	106	HS41	HS51
Q	Nut, Hold-Down Lock Nut	1	117	HL41	HL51
R	Coupling, Hold-Down	1	89	HB41	-3
				HB51	-4

These are typical RHBC pumps using 4' plungers and 16' barrels with 2' extension couplings. Other standard length plungers, barrels, and extension couplings are available. Valve rod length will have to be recalculated to each plunger or barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other materials available. API mechanical type hold-downs are also available.

(1) API 20 -125-RHBC -16-4-4

(2) API 25 -150-RHBC -16-4-4

(3) API 25 -175-RHBC -16-4-4

Select Material

Select Configuration

Select Length

Select Barrel Coating

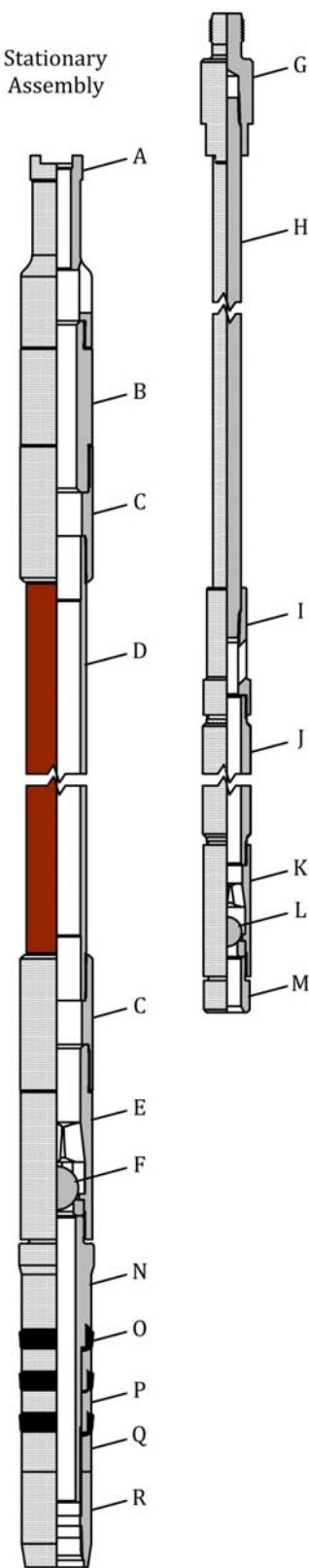
Select Plunger Fit

Select Plunger End

Select Pin Size

Select Size

Traveling Assembly
Stationary Assembly



RHTC Rod Pumps

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/4" (1)	1-1/2" (2)	1-3/4" (3)

Barrel Assembly

A	Cage, Top Open	1	57	CF44□-⊗	CF64□-⊗	
B	Valve, Ball and Seat	1	36			
	Ball			B07□	B09□	
	Seat			S04□	S06□	
C	Connector, Upper Barrel	1	74	C222□	C332□	
D	Coupling, Extension	2	87	EN214□	EN314□	EN414□
E	Barrel, Heavy Wall RH	1	39	BT0416□▼	BT0716□▼	BT0816□▼
F	Plug, Pull	1	129	PP21□	PP32□	PP33□

Plunger Assembly

G	Cage, Top Open	1	57	CF25□	CF35□	CF45□
H	Valve, Ball and Seat	1	36			
	Ball			B03□	B05□	B07□
	Seat			S02□	S03□	S04□
I	Plunger	1	135	P2△4■-Δ	P3△4■-Δ	P4△4■-Δ
J	Coupling, Upper Pull Tube	1	85	CT121□	CT222□	CT423□
K	Tube, Pull	1	144			
	15/16"			PT1□-*		
	1-1/8"			PT2□-*		
	1-1/2"					PT3□-*
L	Coupling, Lower Pull Tube	1	85	CT135□	CT235□	CT436□

Hold-Down Assembly

M	Mandrel, Hold-Down	1	103	HM41□	HM51□	
N	Cup, Seating	3	150	SC064□-HR	SC087□-HR	
O	Ring, Hold-Down Spacer	2	106	HS41□	HS51□	
P	Nut, Hold-Down Lock Nut	1	117	HL41□	HL51□	
Q	Coupling, Hold-Down	1	89	HB41□-3	HB51□-4	

These are typical RHTC pumps using 4' plungers and 16' barrels with 2' extension couplings. Other standard length plungers, barrels, and extension couplings are available. Pull tube length will have to be recalculated to each plunger or barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other material available. API mechanical Type hold-downs are also available.

(1) API 20 -125-RHTC -16-4-4

(2) API 25 -150-RHTC -16-4-4

(3) API 25 -175-RHTC -16-4-4

Select Material

Select Configuration

Select Length

Select Barrel Coating

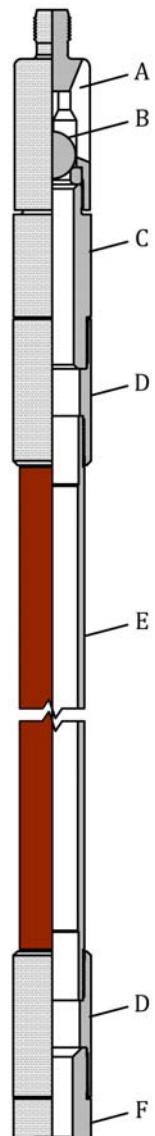
Select Plunger Fit

Select Plunger End

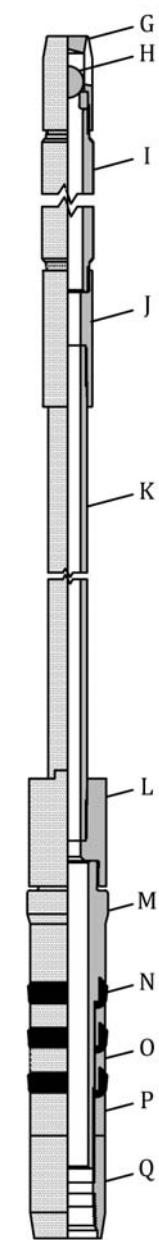
Select Pin Size

Select Size

Traveling Assembly



Stationary Assembly



RHAM Rod Pumps

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/2" (1)	1-3/4" (2)	2" (3)

Barrel Assembly

A	Bushing, Top Hold-Down	1	108	MH325	MH425	
B	Coupling, Extension	2	87	EN214	EN314	EN414
C	Barrel, Heavy Wall RH	1	39	BT0716	BT0816	BT1416
D	Cage, Closed Barrel	1	57	CF62		CF82
E	Valve, Ball and Seat	1	36			
	Ball			B09	B11	
	Seat			S06	S08	
F	Bushing, Seat, Barrel Cage	1	52	BS3-4		BS4-5

Plunger Assembly

G	Bushing, Valve Rod	1	50				
	7/8"			BR2	-⊗		
	1-1/16"					BR3	-⊗
H	Rod, Valve	1	170				
	7/8"			VR2	-⊗		
	1-1/16"					VR3	-⊗
I	Coupling, Plunger Adapter	1	91				
	7/8"			PA32	PA42		
	1-1/16"			PA43	PA63		
J	Plunger	1	135	P3△4■-Δ	P4△⊗■-Δ	P7△⊗■-Δ	
K	Cage, Closed Plunger	1	57	CF31	CF41	CF61	
L	Valve, Ball and Seat	1	36				
	Ball			B05	B07	B09	
	Seat			S03	S04	S06	
M	Plug, Seat (External)	1	131	PS31	PS41	PS61	

Hold-Down Assembly

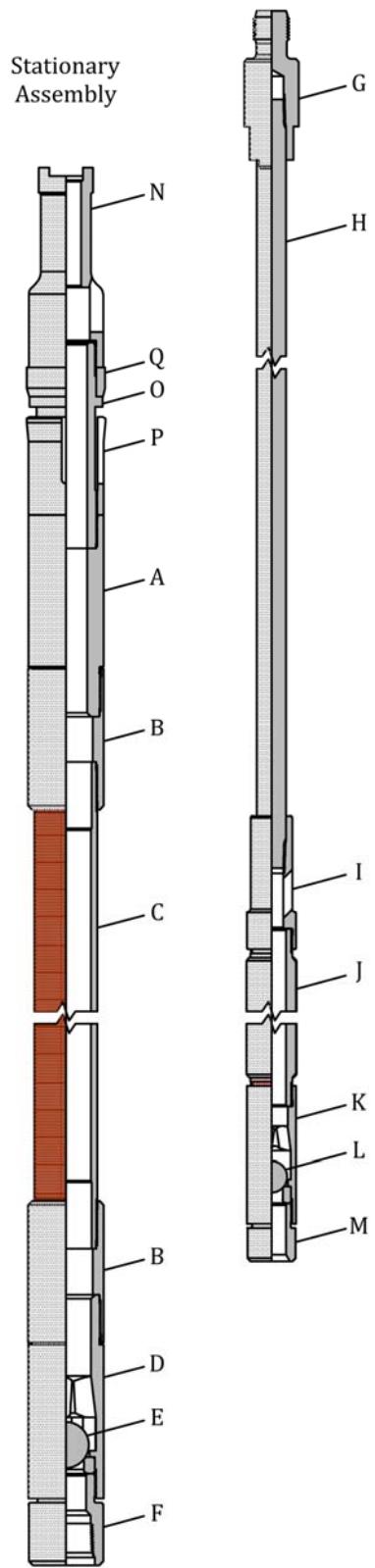
N	Guide, Valve Rod	1	95			
	7/8"			GR321		
	1-1/16"			GR331	GR431	
O	Mandrel, Top Mechanical	1	108	MH324	MH424	
P	Lock	1	108	MH323	MH423	
Q	Ring, Seating	1	108	MH3221	MH4221	

These are typical RHAM pumps using 4' plungers and 16' barrels with 2' extension couplings. Other standard length plungers and barrels are available. Valve rod length will have to be recalculated to each plunger or barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other materials available. API cup type hold-downs are also available.

- (1) API 25 -150-RHAM -16-4-4
- (2) API 25 -175-RHAM -16-4-4
- (3) API 30 -225-RHAM -16-4-4

- | | |
|---|--|
| <input type="checkbox"/> Select Material | <input type="checkbox"/> Select Configuration |
| <input checked="" type="checkbox"/> Select Length | <input type="checkbox"/> Select Barrel Coating |
| <input type="checkbox"/> Select Plunger Fit | <input type="checkbox"/> Select Plunger End |
| <input type="checkbox"/> Select Pin Size | <input type="checkbox"/> Select Size |

Traveling Assembly



RHBM Rod Pumps

Pump Assemblies

Bore Size

Item	Description	Qty.	Key Pg.	1-1/2" (1)	1-1/2" (2)	1-3/4" (3)
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Barrel Assembly

A	Guide, Valve Rod	1	95			
	11/16"			GR211		
	7/8"			GR221	GR321	
B	Connector, Upper Barrel	1	74	C222	C332	
C	Coupling Extension	2	87	EN214	EN314	EN414
D	Barrel, Heavy Wall RH	1	39	BT0416	BT0716	BT0816
E	Cage, Closed Barrel	1	57	CF42	CF62	
F	Valve, Ball and Seat	1	36			
	Ball			B07	B09	
	Seat			S04	S06	

Plunger Assembly

G	Bushing, Valve Rod	1	50						
	11/16"			BR1	-⊗				
	7/8"			BR2					
H	Rod, Valve	1	170						
	11/16"			VR1	-⊗				
	7/8"			VR2					
I	Coupling, Plunger Adapter	1	91						
	11/16"			PA21					
	7/8"			PA22	PS32	PA42			
J	Plunger	1	135	P2	4■-Δ	P3	4■-Δ	P4	4■-Δ
K	Cage, Closed Plunger	1	57	CF21	CF31	CF41			
L	Valve, Ball and Seat	1	36						
	Ball			B03	B05	B07			
	Seat			S02	S03	S04			
M	Plug, Seat (External)	1	131	PS21	PS31	PA41			

Hold-Down Assembly

N	Lock	1	108	MH213	MH313
O	Bushing, Bottom Mechanical	1	108	MH211	MH311
P	Ring, Seating	1	108	MH2121	MH3121

These are typical RHBM pumps using 4' plungers and 16' barrels with 2' extension couplings. Other standard length plungers, barrels, and extension couplings are available. Valve rod length will have to be recalculated to each plunger or barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other materials available.

(1) API 20 -125-RHBM -16-4-4

(2) API 25 -150-RHBM -16-4-4

(3) API 25 -175-RHBM -16-4-4

Select Material

Select Configuration

Select Length

Select Barrel Coating

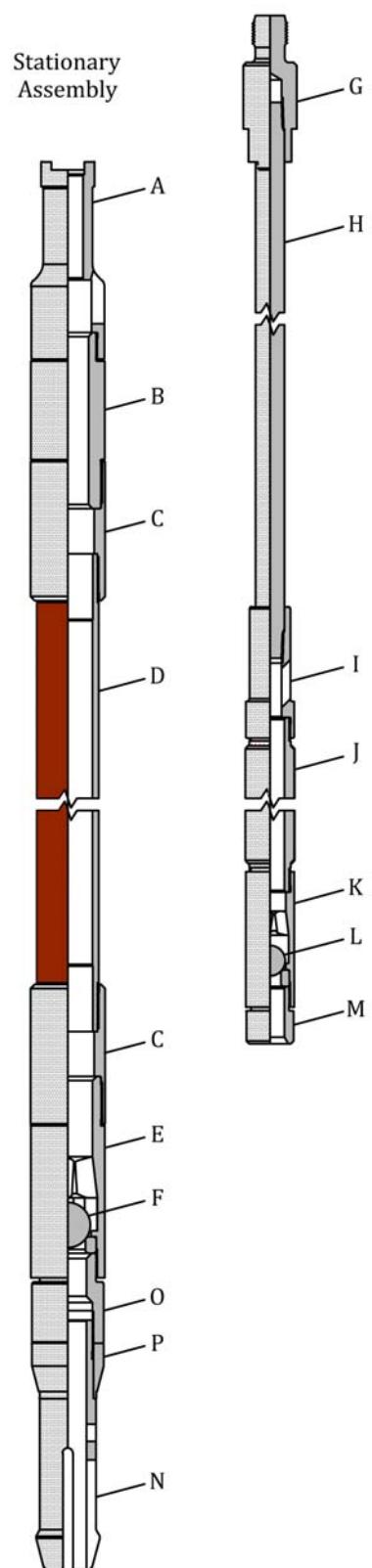
Select Plunger Fit

Select Plunger End

Select Pin Size

Select Size

Traveling Assembly



RWAC Rod Pumps

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/4" (1)	1-1/2" (2)	2" (3)

Barrel Assembly

A	Bushing, Hold-Down Adapter	1	46	BH002□	BH102□	BH212□
B	Barrel, Thin Wall RW	1	39	BT0316□▼	BT0516□▼	BT1216□▼
C	Cage, Closed Barrel	1	57	CF48□	CF42□	CF62□
D	Valve, Ball and Seat	1	36			
	Ball			B07□		B09□
	Seat			S04□		S06□
E	Bushing, Seat, Barrel Cage	1	52	BS2□-3		BS3□-4

Plunger Assembly

F	Bushing, Valve Rod	1	50			
	11/16"			BR1□-⊗		
	7/8"			BR2□-⊗		
G	Rod, Valve	1	170			
	11/16"			VR1□-⊗		
	7/8"			VR2□-⊗		
H	Coupling, Plunger Adapter	1	91			
	11/16"			PA21□		
	7/8"			PA32□		PA52□
I	Plunger	1	135	P2△4■-Δ	P3△4■-Δ	P6△4■-Δ
J	Cage, Closed Plunger	1	57	CF21□	CF31□	CF51□
K	Valve, Ball and Seat	1	36			
	Ball			B03□	B05□	B09□ S06□
	Seat			S02□	S03□	S06□
L	Plug, Seat (External)	1	131	PS21□	PS31□	PS51□

Hold-Down Assembly

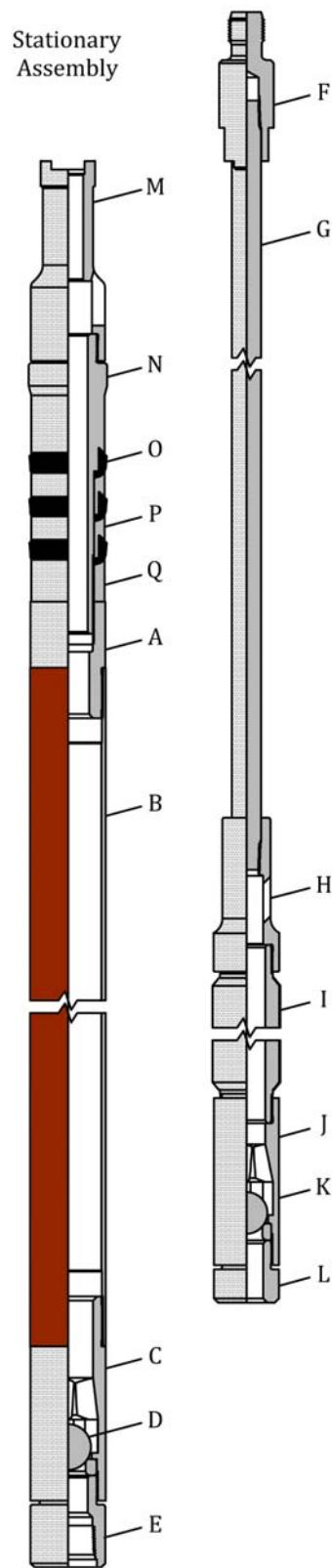
M	Guide, Valve Rod	1	95	GR211□	GR221□	GR321□
N	Mandrel, Hold-Down	1	103	HM41□		HM51□
O	Cup, Seating	3	150	SC064□-HR		SC087□-HR
P	Ring, Hold-Down Spacer	2	106	HS41□		HS51□
Q	Nut, Hold-Down Lock Nut	1	117	HL41□		HL51□

These are typical RWAC pumps using 4' plungers and 16' barrels. Other standard length plungers, barrels, and extension couplings are available. Valve rod length will have to be recalculated to each plunger or barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other material available. API mechanical type hold-downs are also available.

- (1) API 20 -125-RWAC -16-4
- (2) API 20 -150-RWAC -16-4
- (3) API 25 -200-RWAC -16-4

- | | |
|---|--|
| <input type="checkbox"/> Select Material | <input type="checkbox"/> Select Configuration |
| <input checked="" type="checkbox"/> Select Length | <input type="checkbox"/> Select Barrel Coating |
| <input type="checkbox"/> Select Plunger Fit | <input type="checkbox"/> Select Plunger End |
| <input type="checkbox"/> Select Pin Size | <input type="checkbox"/> Select Size |

Traveling Assembly



RWBC Rod Pumps

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/4" (1)	1-1/2" (2)	2" (3)
Barrel Assembly						
A	Guide, Valve Rod	1	95			
	11/16"			GR211		
	7/8"			GR221	GR321	
B	Connector, Upper Barrel	1	74	C201	C222	C332
C	Barrel, Thin Wall RW	1	39	BT0316	BT0516	BT1216
D	Cage, Closed Barrel	1	57	CF48	CF42	CF62
E	Valve, Ball and Seat	1	36			
	Ball			B07	B09	
	Seat			S04	S06	

Plunger Assembly

F	Bushing, Valve Rod	1	50						
	11/16"			BR1	-⊗				
	7/8"			BR2	-⊗				
G									
G	Rod, Valve	1	170						
	11/16"			VR1	-⊗				
	7/8"			VR2	-⊗				
H									
H	Coupling, Plunger Adapter	1	91						
	11/16"			PA21					
	7/8"			PA32		PA52			
I	Plunger	1	135	P2	4■-Δ	P3	4■-Δ	P6	4■-Δ
J	Cage, Closed Plunger	1	57	CF21		CF31		CF51	
K	Valve, Ball and Seat	1	36						
	Ball			B03	B05	B08			
	Seat			S02	S03	S05			
L	Plug, Seat (External)	1	131	PS21	PS31	PS51			

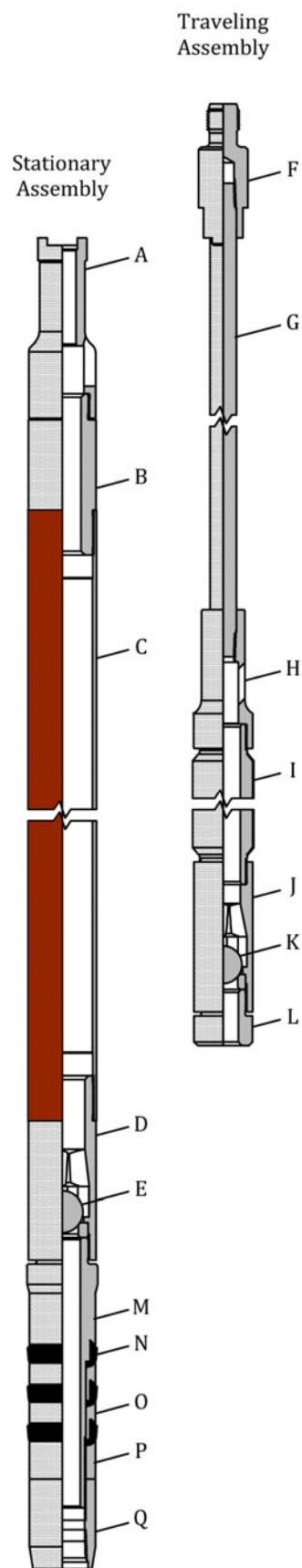
Hold-Down Assembly

M	Mandrel, Hold-Down	1	103	HM41	HM51
N	Cup, Seating	3	150	SC064	-HR
O	Ring, Hold-Down Spacer	2	106	HS41	HS51
P	Nut, Hold-Down Lock Nut	1	117	HL41	HL51
Q	Coupling, Hold-Down	1	89	HB41	-3
				HB51	-4

These are typical RWBC pumps using 4' plungers and 16' barrels. Other standard length plungers and barrels are available. Valve rod length will have to be recalculated to each plunger or barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other materials available. API mechanical type hold-downs are also available.

- (1) API 20 -125-RWBC -16-4
- (2) API 20 -150-RWBC -16-4
- (3) API 25 -200-RWBC -16-4

- | | |
|--|--|
| <input type="checkbox"/> Select Material | <input type="checkbox"/> Select Configuration |
| <input checked="" type="radio"/> Select Length | <input type="checkbox"/> Select Barrel Coating |
| <input type="checkbox"/> Select Plunger Fit | <input type="checkbox"/> Select Plunger End |
| <input type="checkbox"/> Select Pin Size | <input type="checkbox"/> Select Size |



RWTC Rod Pumps

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/4" (1)	1-1/2" (2)	2" (3)

Barrel Assembly

A	Cage, Top Open	1	57	CF44□-⊗	CF64□-⊗	
B	Valve, Ball and Seat	1	36			
	Ball			B07□	B09□	
	Seat			S04□	S06□	
C	Connector, Upper Barrel	1	74	C201□	C222□	C332□
D	Barrel, Thin Wall RW	1	39	BT0316□▼	BT0516□▼	BT1216□▼
E	Plug, Pull	1	129	PP11□	PP22□	PP33□

Plunger Assembly

F	Cage, Top Open	1	57	CF25□	CF35□	CF55□
G	Valve, Ball and Seat	1	36			
	Ball			B03□	B05□	B08□
	Seat			S02□	S03□	S05□
H	Plunger	1	135	P2△4■-Δ	P3△4■-Δ	P6△4■-Δ
I	Coupling, Upper Pull Tube	1	85	CT121□	CT222□	CT424□
J	Tube, Pull	1	144			
	15/16"			PT1□-⊗		
	1-1/8"			PT2□-⊗		
	1-1/2"				PT3□-⊗	
K	Coupling, Lower Pull Tube	1	85	CT135□	CT235□	CT436□

Hold-Down Assembly

L	Mandrel, Hold-Down	1	103	HM41□	HM51□	
M	Cup, Seating	3	150	SC064□-HR	SC087□-HR	
N	Ring, Hold-Down Spacer	2	106	HS41□	HS51□	
O	Nut, Hold-Down Lock Nut	1	117	HL41□	HL51□	
P	Coupling, Hold-Down	1	89	HB41□-3	HB51□-4	

These are typical RWTC pumps using 4' plungers and 16' barrels. Other standard length plungers, barrels, and extension couplings are available. Pull tube length will have to be recalculated to each plunger or barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other materials available. API mechanical type hold-downs are also available.

(1) API 20 -125-RWTC -16-4

(2) API 20 -150-RWTC -16-4

(3) API 25 -200-RWTC -16-4

Select Material

Select Configuration

Select Length

Select Barrel Coating

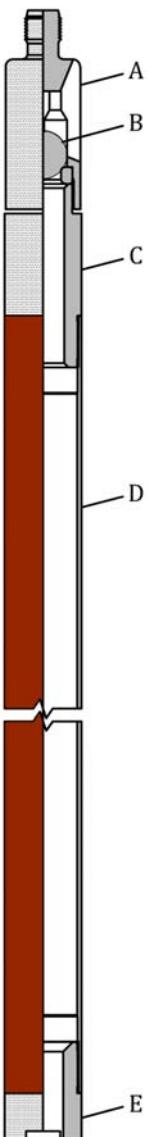
Select Plunger Fit

Select Plunger End

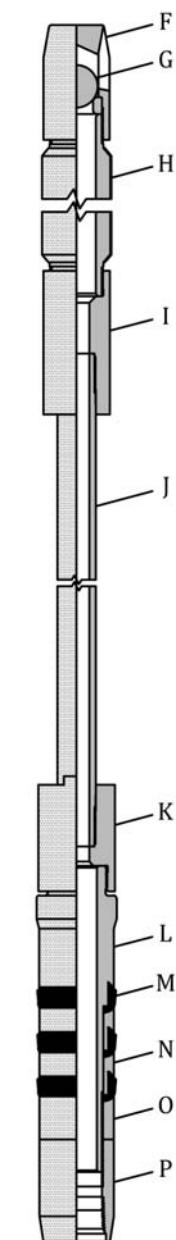
Select Pin Size

Select Size

Traveling Assembly



Stationary Assembly



RWAM Rod Pumps

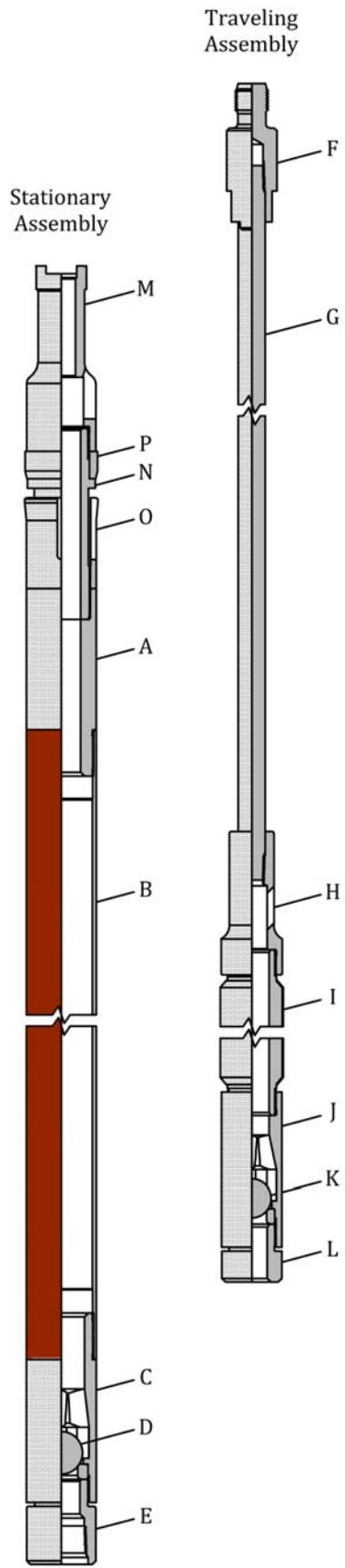
Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/2" (1)	2" (2)	2-1/2" (3)
Barrel Assembly						
A	Bushing, Top Hold-Down	1	108	MH225□	MH325□	MH425□
B	Barrel, Thin Wall RW	1	39	BT0516□▼	BT1216□▼	BT1616□▼
C	Cage, Closed Barrel	1	57	CF42□	CF62□	CF82□
D	Valve, Ball and Seat	1	36			
	Ball			B07□	B09□	B11□
	Seat			S04□	S06□	S08□
E	Bushing, Seat, Barrel Cage	1	52	BS2□-3	BS3□-4	BS4□-5
Plunger Assembly						
F	Bushing, Valve Rod	1	50			
	11/16"			BR1□-⊗		
	7/8"				BR2□-⊗	
	1-1/16"					BR3□-⊗
G	Rod, Valve	1	170			
	11/16"			VR1□-⊕		
	7/8"				VR2□-⊕	
	1-1/16"					VR3□-⊕
H	Coupling, Top Plunger	1	91			
	11/16"			PA31□		
	7/8"				PA52□	
	1-1/16"					PA73□
I	Plunger	1	135	P3△4■-Δ	P6△4■-Δ	P8△4■-Δ
J	Cage, Closed Plunger	1	57	CF31□	CF51□	CF81□
K	Valve, Ball and Seat	1	36			
	Ball			B05□	B08□	B11□
	Seat			S03□	S05□	S08□
L	Plug, Seat (External)	1	131	PS31□	PS51□	PS71□
Hold-Down Assembly						
M	Guide, Valve Rod	1	95			
	11/16"			GR211□		
	7/8"			GR221□	GR321□	
	1-1/16"				GR331□	GR431□
N	Mandrel, Top Mechanical	1	108	MH224□	MH324□	MH424□
O	Sleeve	1	108	MH223□	MH323□	MH423□
P	Ring, Seating	1	108	MH2221□	MH3221□	MH4221□

These are typical RWAM pumps using 4' plungers and 16' barrels. Other standard length plungers and barrels are available. Valve rod length will have to be recalculated to each plunger or barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other materials available. API cup type hold-downs are also available.

- (1) API 20 -150-RWAM -16-4
- (2) API 25 -200-RWAM -16-4
- (3) API 30 -250-RWAM -16-4

- | | |
|----------------------|-------------------------|
| □ Select Material | △ Select Configuration |
| ○ Select Length | ▼ Select Barrel Coating |
| Δ Select Plunger Fit | ■ Select Plunger End |
| ⊗ Select Pin Size | ◆ Select Size |



RWBM Rod Pumps

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/4" (1)	1-1/2" (2)	2" (3)

Barrel Assembly

A	Guide, Valve Rod	1	95			
	11/16"			GR211 <input type="checkbox"/>		
	7/8"			GR221 <input type="checkbox"/>		
	1-1/16"			GR331 <input type="checkbox"/>		
B	Connector, Upper Barrel	1	74	C201 <input type="checkbox"/>	C222 <input type="checkbox"/>	C332 <input type="checkbox"/>
C	Barrel, Thin Wall RW	1	39	BT0316 <input type="checkbox"/> ▼	BT0516 <input type="checkbox"/> ▼	BT1216 <input type="checkbox"/> ▼
D	Cage, Closed Barrel	1	57	CF48 <input type="checkbox"/>	CF42 <input type="checkbox"/>	CF62 <input type="checkbox"/>
E	Valve, Ball and Seat	1	36			
	Ball			B07 <input type="checkbox"/>		B09 <input type="checkbox"/>
	Seat			S04 <input type="checkbox"/>		S06 <input type="checkbox"/>

Plunger Assembly

F	Bushing, Valve Rod	1	50			
	11/16"			BR1 <input type="checkbox"/> -⊗		
	7/8"			BR2 <input type="checkbox"/> -⊗		
G	Rod, Valve	1	170			
	11/16"			VR1 <input type="checkbox"/> -⊕		
	7/8"			VR2 <input type="checkbox"/> -⊕		
	1-1/16"			VR3 <input type="checkbox"/> -⊕		
H	Coupling, Plunger Adapter	1	91			
	11/16"			PA21 <input type="checkbox"/>	PA31 <input type="checkbox"/>	
	7/8"			PA22 <input type="checkbox"/>	PA32 <input type="checkbox"/>	PA52 <input type="checkbox"/>
	1-1/16"					PA53 <input type="checkbox"/>
I	Plunger	1	135	P2 <input type="checkbox"/> 4■-Δ	P3 <input type="checkbox"/> 4■-Δ	P6 <input type="checkbox"/> 4■-Δ
J	Cage, Closed Plunger	1	57	CF21 <input type="checkbox"/>	CF31 <input type="checkbox"/>	CF51 <input type="checkbox"/>
K	Valve, Ball and Seat	1	36			
	Ball			B03 <input type="checkbox"/>	B05 <input type="checkbox"/>	B08 <input type="checkbox"/>
	Seat			S02 <input type="checkbox"/>	S03 <input type="checkbox"/>	S05 <input type="checkbox"/>
L	Plug, Seat (External)	1	131	PS21 <input type="checkbox"/>	PS31 <input type="checkbox"/>	PS51 <input type="checkbox"/>

Hold-Down Assembly

M	Lock	1	108	MH213 <input type="checkbox"/>	MH313 <input type="checkbox"/>
N	Bushing, Valve Rod	1	108	MH211 <input type="checkbox"/>	MH311 <input type="checkbox"/>
O	Ring, Seating	1	108	MH2121 <input type="checkbox"/>	MH3121 <input type="checkbox"/>

These are typical RWBM pumps using 4' plungers and 16' barrels. Other standard length plungers and barrels are available. Valve rod length will have to be recalculated to each plunger or barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other materials available.

(1) API 20 -125-RWBM -16-4

(2) API 20 -150-RWBM -16-4

(3) API 25 -200-RWBM -16-4

Select Material

Select Configuration

Select Length

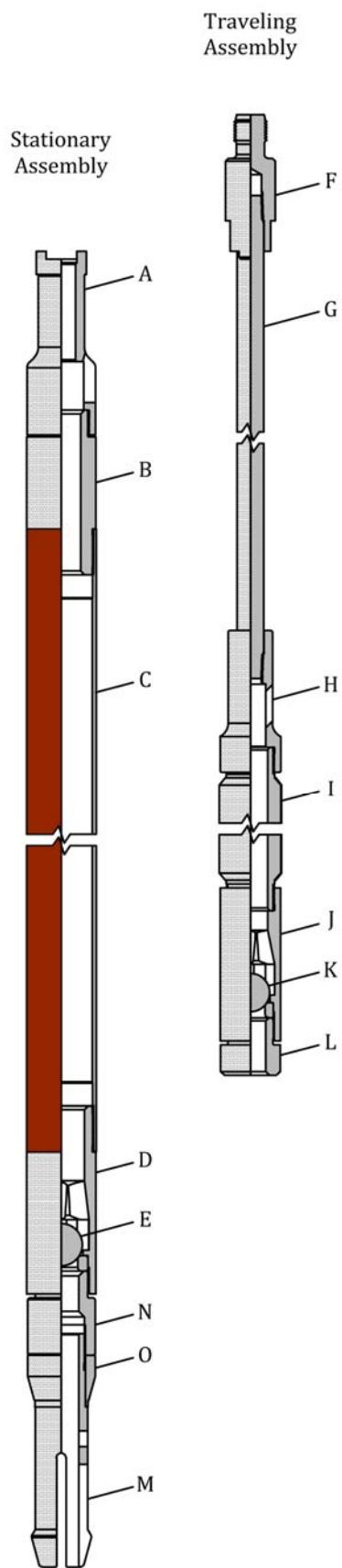
Select Barrel Coating

Select Plunger Fit

Select Plunger End

Select Pin Size

Select Size



THC Tubing Pumps

Pump Assemblies

Bore Size						
Item	Description	Qty.	Key Pg.	2-3/8" x 1-3/4" (1)	2-7/8" x 2-1/4" (2)	3-1/2" x 2-3/4" (3)

Barrel Assembly

A	Coupling, Tubing 8RD	2		05B20	05B21	05B22
B	Nipple, Upper Extension TH	1	110	NE212□	NE312□	NE412□
C	Coupling, Barrel	2	82	CB11□	CB21□	CB31□
D	Barrel, Heavy Wall TH	1	39	BT1016□▼	BT1516□▼	BT1716□▼
E	Nipple, Lower Extension TH	1	110	NE222□	NE322□	NE422□
F	Nipple, Seating (2-Cup)	1	112	SN5107-T	SN6112-T	SN7115-T

Plunger Assembly

G	Cage, Top Open	1	57	CF44□-⊗	CF64□-⊗	CF84□-⊗
H	Plunger	1	135	P4△4■-Δ	P7△4■-Δ	P9△4■-Δ
I	Cage, Closed Plunger	1	57	CF41□	CF61□	CF81□
J	Valve, Ball and Seat	1	36			
	Ball			B07□	B09□	B11□
	Seat			S04□	S06□	S08□
K	Puller, Standing Valve (Pin End)	1	146	SP20□	SP30□	SP40□

Standing Valve Assembly

L	Cage, Open Standing Valve		57	CF45□	CF65□	CF85□
M	Valve, Ball and Seat	1	36			
	Ball			B07□	B09□	B11□
	Seat			S04□	S06□	S08□
N	Mandrel, Hold-Down (2-Cup)	1	103	HM43□	HM53□	HM63□
O	Cup, Seating	2	150	SC052□-HR	SC082□-HR	SC092□-HR
P	Ring, Hold-Down Spacer	1	106	HS41□	HS51□	HS61□
Q	Nut, Hold-Down Lock Nut	1	117	HL41□	HL51□	HL61□
R	Coupling, Hold-Down	1	89	HB41□-3	HB51□-4	HB61□-5

These are typical THC tubing pumps using 4' plungers and 16' barrels with 2' extension sub nipples at each end. Other standard length plungers, barrels and extension sub nipples are available. Other ball and seat combinations are available. Pullers and Fittings are steel, other materials available. API mechanical type hold-downs are also available.

(1) API 20 -175-THC -16-4-4

(2) API 25 -225-THC -16-4-4

(3) API 30 -275-THC -16-4-4

Select Material

Select Configuration

Select Length

Select Barrel Coating

Select Plunger Fit

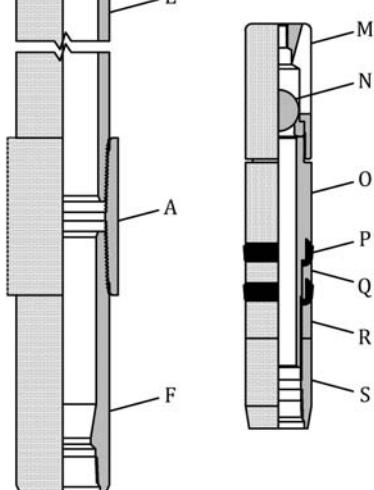
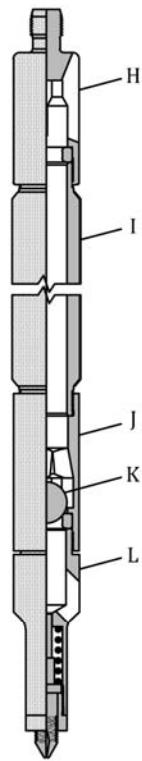
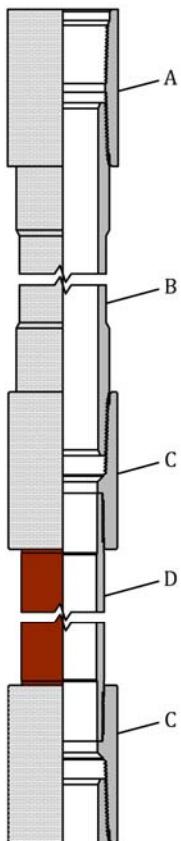
Select Plunger End

Select Pin Size

Select Size

Stationary Assembly

Traveling Assembly



THM Tubing Pumps Box-End Plunger

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				2-3/8"x1-3/4" (1)	2-7/8"x2-1/4" (2)	3-1/2"x2-3/4" (3)

Barrel Assembly

A	Coupling, Tubing 8RD	2		05B20	05B21	05B22
B	Nipple, Upper Extension TH	1	110	NE212	NE312	NE412
C	Coupling, Barrel	2	82	CB11	CB21	CB31
D	Barrel, Heavy Wall TH	1	39	BT1016	BT1516	BT1716
E	Nipple, Lower Extension TH	1	110	NE222	NE322	NE422
F	Nipple, Mechanical	1	112	SN51-M	SN61-M	SN71-M

Plunger Assembly

G	Connector, Sucker Rod to Plunger	1	80	PR3	PR4	PR5
H	Plunger	1	135	P4	P7	P9
I	Connector, Box End Plunger	1	76	CP04	CP07	CP09
J	Cage, Closed Plunger	1	57	CF41	CF61	CF81
K	Valve, Ball and Seat	1	36			
	Ball			B07	B09	B11
	Seat			S04	S06	S08
L	Puller Plug	1	148	SKP111	SPK221	SPK331

Hold-Down Assembly

M	Assembly, Puller Key	1	148	SPK116	SPK226	SPK336
N	Cage, Open Standing Valve		57	CF45	CF62	CF85
O	Valve, Ball and Seat	1	36			
P	Ball			B07	B09	B11
	Seat			S04	S06	S08
Q	Lock	1	108	MH213	MH313	MH413
R	Bushing	1	108	MH211	MH311	MH411
S	Ring, Seating	1	108	MH212	MH312	MH412

These are typical THM tubing pumps using 4' plungers and 16' barrels with 2' extension sub nipples at each end. Other standard length plungers, barrels and extension sub nipples are available. Other ball and seat combinations are available. Pullers and fittings are steel, other materials available. API: cup type hold-downs are also available. Example is Lock and Key type Puller, Tap type also available. Pin-End Plungers also available.

(1) API 20 -175-THM -16-4-4

(2) API 25 -225-THM -16-4-4

(3) API 30 -275-THM -16-4-4

Select Material Select Configuration

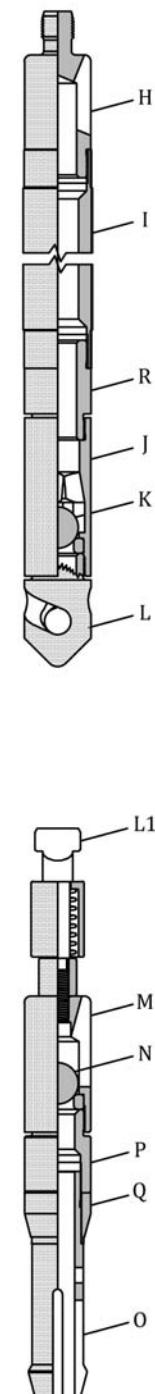
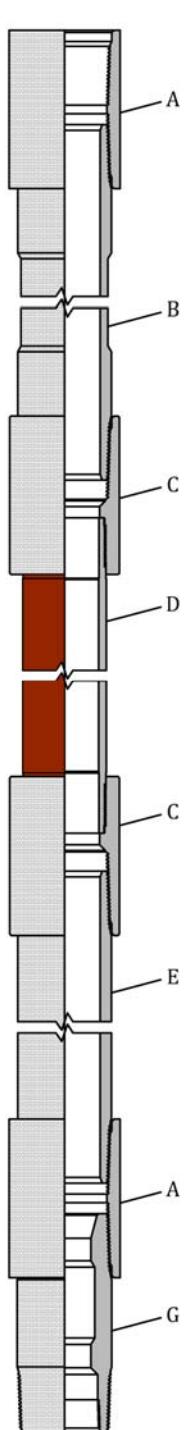
Select Length Select Barrel Coating

Select Plunger Fit Select Plunger End

Select Pin Size Select Size

Stationary Assembly

Traveling Assembly



TPC Non-Precision Tubing Pumps

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size	
				2-3/8" x 1-25/32" (1)	2-7/8" x 2-1/4" (2)

Barrel Assembly

A	Coupling, Upper Barrel	1	82	CB12 <input type="checkbox"/>	CB22 <input type="checkbox"/>
B	Barrel, Heavy Wall TP	1	39	BT1116 <input type="checkbox"/> ▼	BT1516 <input type="checkbox"/> ▼
C	Coupling, Lower Barrel	1	82	CB14 <input type="checkbox"/>	CB24 <input type="checkbox"/>

Plunger Assembly

D	Cage, Top Open	1	57	CF44 <input type="checkbox"/> -⊗	CF64 <input type="checkbox"/> -⊗
E	Valve, Ball and Seat	1	36		
	Ball			B07 <input type="checkbox"/>	B09 <input type="checkbox"/>
	Seat			S04 <input type="checkbox"/>	S06 <input type="checkbox"/>
F	Plunger	1	135		
	Phenolic Ring			PM410-60N	PM610-60N
	Composition Ring			PC410-60F	PC610-60F
	Pressure Actuated Ring			PG516C	PG716C
G	Cage, Closed Plunger	1	57	CF41 <input type="checkbox"/>	CF61 <input type="checkbox"/>
H	Puller, Standing Valve (Pin End)	1	146	SP20 <input type="checkbox"/>	SP30 <input type="checkbox"/>

Hold-Down Assembly

I	Cage, Open Standing Valve	1	57	CF45 <input type="checkbox"/>	CF65 <input type="checkbox"/>
J	Valve, Ball and Seat	1	36		
	Ball			B07 <input type="checkbox"/>	B09 <input type="checkbox"/>
	Seat			S04 <input type="checkbox"/>	S06 <input type="checkbox"/>
K	Mandrel, Hold-Down (2-Cup)	1	103	HM43 <input type="checkbox"/>	HM53 <input type="checkbox"/>
L	Cup, Seating	2	150	SC052 <input type="checkbox"/> -HR	SC082 <input type="checkbox"/> -HR
M	Ring, Hold-Down Spacer	1	106	HS41 <input type="checkbox"/>	HS51 <input type="checkbox"/>
N	Nut, Hold-Down Lock Nut	1	117	HL41 <input type="checkbox"/>	HL51 <input type="checkbox"/>
O	Coupling, Hold-Down	1	89	HB41 <input type="checkbox"/> -3	HB51 <input type="checkbox"/> -4

These are typical API "TP" tubing pumps using 3' plungers and 16' barrels with non-precision barrels for "soft" (flex-ring, composition ring or pressure actuated ring plungers). Other standard length plungers and barrels are available. Other ball and seat combinations are available. Pullers and Fittings are steel, other materials available. API mechanical type hold-downs are also available.

(1) API 20 -178-TPC -16-3

(2) API 25 -225-TPC -16-3

Select Material

Select Configuration

Select Length

Select Barrel Coating

Select Plunger Fit

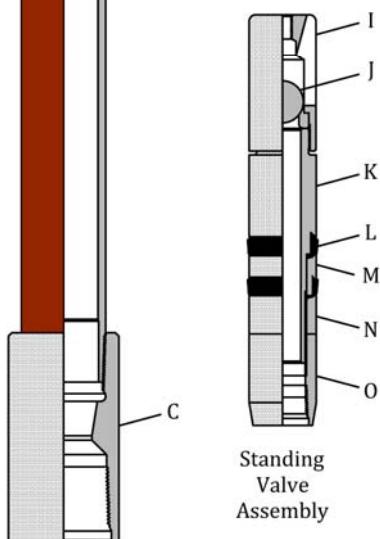
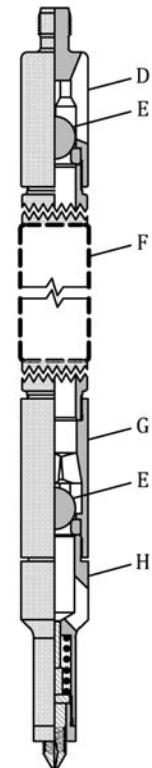
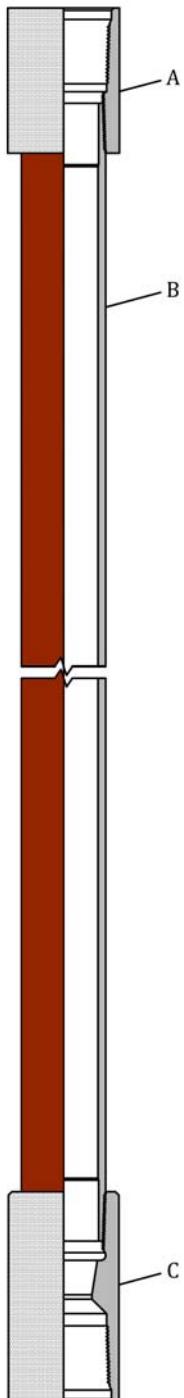
Select Plunger End

Select Pin Size

Select Size

Stationary
Assembly

Traveling
Assembly



Standing
Valve
Assembly

Tubing Pump (Oversize)

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size	
				3-1/2" x 3-1/4" (1)	3-1/2" x 3-3/4" (2)

Plunger Assembly

A	On and Off Tool	1	121	81F1053	
B	Rod, Polished 1-1/4"	1		33A0163	
C	Coupling, Polished Rod	1		0720	
D	Cage, Top Open	1	57	CF94□-⊗	CF104□-⊗
E	Connector, Box End Plunger	1	76	CP10□	CP11□
F	Plunger, Box End	1	135	P10△⊕■-Δ	P11△⊕■-Δ
G	Cage, Closed Plunger	1	57	CF91BX	CF101BX
H	Valve, Ball and Seat	1	36		
	Ball			B12□	B14□
	Seat			S08□	S10□
I	Plug, Seat (with Clutch)	1	131	PS91□	PS101□

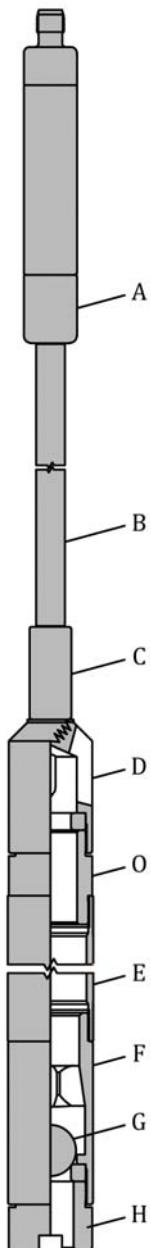
Tubing Assembly

J	Connector, Top (8 RD EUE)		72	BN331□	BN341□
K	Barrel, Heavy Wall	1	39	BT18⊕□▼IT	BT19⊕□▼IT
L	Cage, Closed Barrel	1	57	CF1065□	CF106□-4.25
M	Valve, Ball and Seat	1	36		
	Ball			B14□	
	Seat			S10□	
N	Lock Nut	1	72		BN033□
O	Connector, Bottom (EUE 8 RD)	1	72		BN3322□

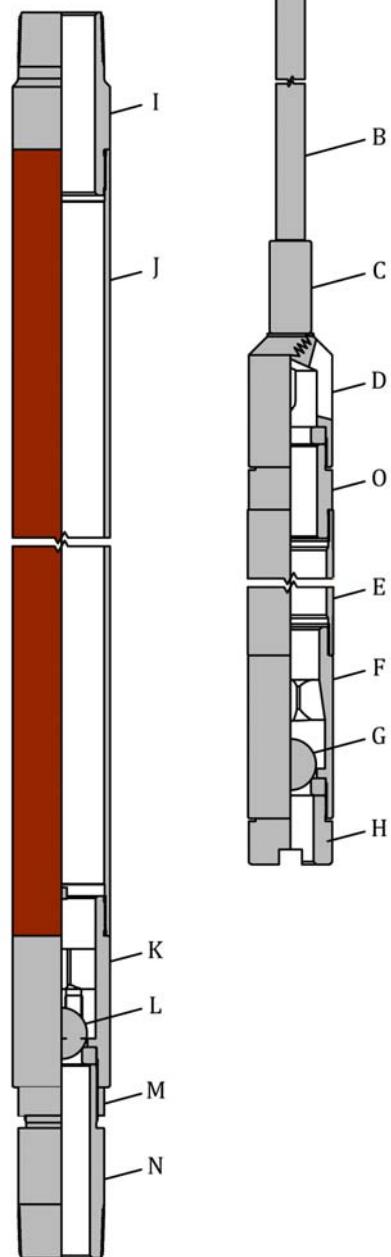
The oversize tubing pump was designed for the maximum size pump in a given size casing. The internally threaded barrel has flush-type end fittings and can be connected directly to the tubing string. The top fitting is normally swaged down to a tubing size that is smaller than the pump bore. The complete pump is run into the well on the tubing string. The sucker rods are run into the well in the conventional manner and attached to the pump by means of an (on-off) tool. If pin type plungers are needed, we offer (plain pin) or (monel pin) plungers with required fittings.

- Select Material Select Configuration
- Select Length Select Barrel Coating
- Select Plunger Fit Select Plunger End
- Select Pin Size Select Size

Traveling Assembly



Stationary Assembly



3-Tube Assembly, Traveling Barrel Rod Pump

Pump Assemblies

Bore Size					
Item	Description	Qty.	Key Pg.	2-3/8" x 1-1/4" (1)	2-7/8" x 1-3/4" (2)

Traveling Assembly

A	Cage, Top Open	1	57	CF44□-⊗	CF64□-⊗
B	Valve, Ball and Seat	1	36		
	Ball			B07□	B09□
	Seat			S04□	S06□
C	Connector, Upper Barrel	1	78	FS1110□	FS2210□
D	Tube, Outer	1	78	FS213□-*	FS223□-*
E	Tube, Pull, Standard Stroke	1	78	FS117□-*	FS227□-*
F	Plug, Pull (for 3-Tube Pump)	1	78	FS115□	FS225□
G	Tube, Inner Standard Stroke (Plunger)	1	78	FS216□-*	FS226□-*
H	Cage, Closed Plunger	1	57, 78	CF23□	FS228□
I	Valve, Ball and Seat	1	36		
	Ball			B03□	B07□
	Seat			S02□	S04□
J	Plug, Seat	1	131	PS22□	PS42□

Stationary Assembly

K	Tube, Standing	1	78	FS214□-*	FS224□-*
L	Cage, Closed Standing Valve	1	78	FS112□	FS222□
M	Valve, Ball and Seat	1	36		
	Ball			B07□	B09□
	Seat			S04□	S06□

Hold-Down Assembly

N	Mandrel, Hold-Down	1	103	HM41□	HM51□
O	Cup, Seating	3	150	SC064□-HR	SC087□-HR
P	Ring, Hold-Down Spacer	2	106	HS41□	HS51□
Q	Nut, Hold-Down Lock Nut	1	117	HL41□	HL51□
R	Coupling, Hold-Down	1	89	HB41□-3	HB51□-4

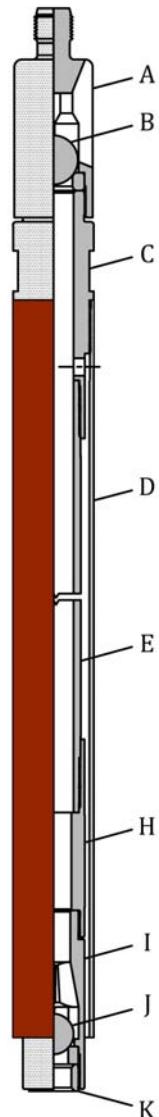
The (3) Tube Pump design originated when it was found that there was a need for a pump that could pump sand or dirty fluid without the plunger becoming stuck in the barrel. When the fit is kept close, chances of sticking become great; however, when the plunger fit is loosened up, more sand or mud can slip by without seizing the plunger.

Recommended applications for the (three-tube) are:

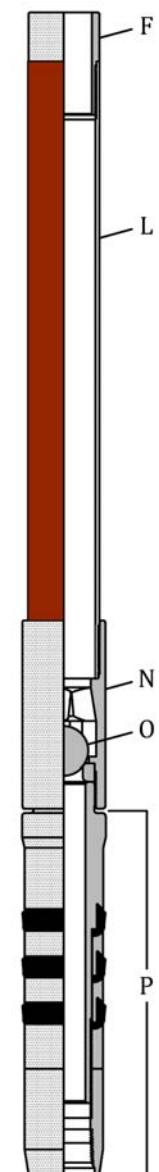
1. In new wells where drilling muds or fluids are left in the well.
2. In sandy wells where formation sand or decomposed shales tend to cause a conventional metal-to-metal pump to stick.

- | | |
|---|--|
| <input type="checkbox"/> Select Material | <input type="checkbox"/> Select Configuration |
| <input checked="" type="checkbox"/> Select Length | <input type="checkbox"/> Select Barrel Coating |
| <input type="checkbox"/> Select Plunger Fit | <input type="checkbox"/> Select Plunger End |
| <input type="checkbox"/> Select Pin Size | <input type="checkbox"/> Select Size |

Traveling Assembly



Stationary Assembly



RHB (Mercury) Precision Rod Pump

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				2-3/8" x 1-1/4" (1)	2-7/8" x 1-1/2" (2)	2-7/8" x 1-3/4" (3)

Barrel Assembly

A	Guide, Mercury, Pin End	1	99	GT13□	GT25□	GT26□
B	Coupling, Extension	1	87	EN21◎□	EN31◎□	EN41◎□
C	Barrel, Heavy Wall RH	1	39	BT04*□▼	BT07*□▼	BT08*□▼
D	Bushing, Barrel	1	42	BB2□	BB3□	BB4□
E	Barrel, Extension (Jacket)	1	39	BT05*□▼	BT12◎□▼	
F	Cage, Closed	1	57	CF42□		CF62□
G	Valve, Ball and Seat	1	36			
	Ball			B07□		B09□
	Seat			S04□		S06□

Plunger Assembly

H	Cage, Top Open	1	57	CF44□-⊗	CF64□-⊗	
I	Valve, Ball and Seat	1	36			
	Ball			B07□		B09□
	Seat					S06□
J	Bushing, HVR to Cage	1	44	BC3□	BC6□	BC7□
K	Plunger	1	135			
	Mercury 20'			P26*■-Δ	P36*■-Δ	P46*■-Δ
L	Cage, Closed Plunger	1	57	CF21□	CF31□	CF41□
M	Valve, Ball and Seat	1	36			
	Ball			B03□	B05□	B07□
	Seat			S02□	S03□	S04□
N	Plug, Seat (External)	1	131	PS21□	PS31□	PS41□

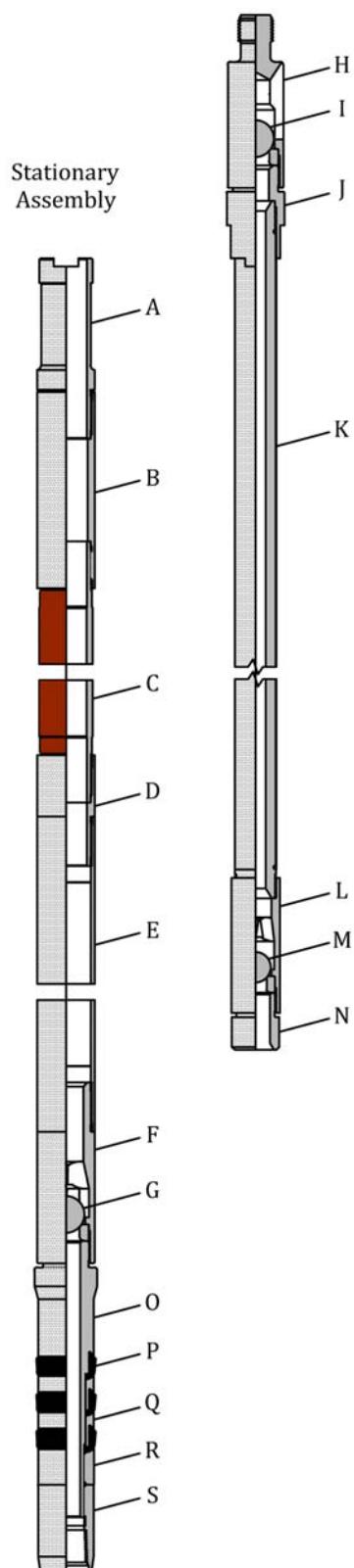
Hold-Down Assembly

O	Mandrel, Hold-Down	1	103	HM41□	HM51□	
P	Cup, Seating	3	150	SC064□-HR	SC087□-HR	
Q	Ring, Hold-Down Spacer	2	106	HS41□	HS51□	
R	Nut, Hold-Down Lock Nut	1	117	HL41□	HL51□	
S	Coupling, Hold-Down	1	89	HB41□-3	HB51□-4	

The Mercury pump is a traveling-plunger-type pump arranged to prevent sand or foreign material from settling on top or around the plunger and sticking it in the barrel. The Mercury pump has a long smooth plunger that extends through a relatively short stroke through barrel. Due to the length of the plunger, the ends do not enter the barrel section at either the top or bottom of the stroke. The plunger is wiped clean on each stroke, and foreign material (trapped sand, etc.) is not carried into the barrel. When the pump is shut down, the traveling valve on top of the pump closes and prevents sand in the tubing string from settling inside the pump. A (Don-Nan) pump technician will size the correct "Mercury" pump for you.

- Select Material Select Configuration
- Select Length Select Barrel Coating
- Select Plunger Fit Select Plunger End
- Select Pin Size Select Size

Traveling Assembly



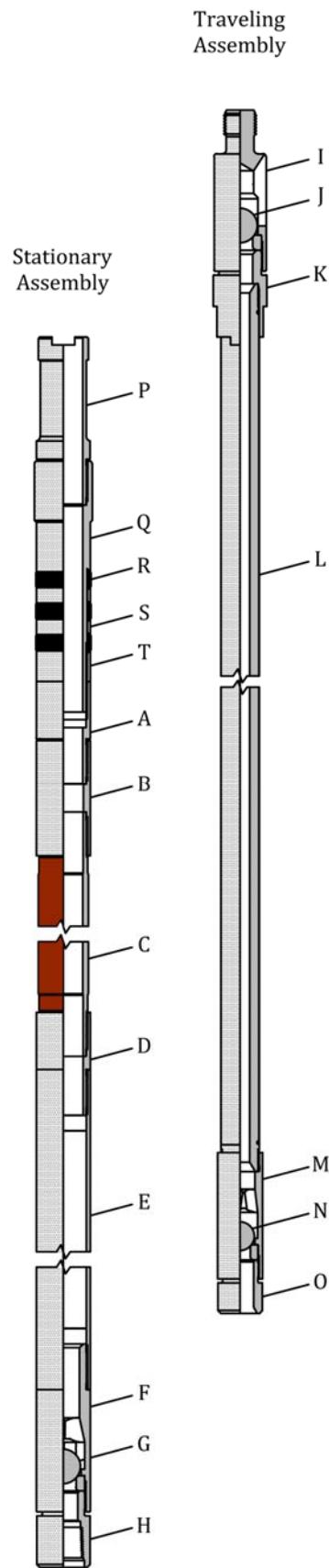
RHA (Mercury) Precision Rod Pump

Pump Assemblies

Bore Size					
Item	Description	Qty.	Key Pg.	2-3/8" x 1-1/16" (1)	2-3/8" x 1-1/4" (2)
Barrel Assembly					
A	Bushing, Hold-Down Adapter	1	46	BH103	
B	Coupling, Extansion	1	87	EN21	
C	Barrel, Heavy Wall RH	1	39	BT01	BT04
D	Bushing, Barrel	1	42	BB2	
E	Barrel, Extension (Jacket)	1	39	BT05	
F	Cage, Closed Barrel	1	57	CF42	
G	Valve, Ball and Seat	1	36		
	Ball			B07	
	Seat			S04	
H	Bushing, Seat, Barrel Cage	1	52	BS2	-3
Plunger Assembly					
I	Cage, Top Open	1	57	CF44	-⊗
J	Valve, Ball and Seat	1	36		
	Ball			B07	
	Seat			S04	
K	Bushing, HVR to Cage	1	44	BC3	
L	Plunger	1	135		
	Mercury 20'			P16⊗■-Δ	P26⊗■-Δ
M	Cage, Closed Plunger	1	57	CF11	CF21
N	Valve, Ball and Seat	1	36		
	Ball			B01	B03
	Seat			S01	S02
O	Plug, Seat (External)	1	131	PS11	PS21
Hold-Down Assembly					
P	Guide, Pull Tube	1	99	GT15	(Special)
Q	Mandrel, Hold-Down	1	103	HM22	(special)
R	Cup, Seating	3	150	SC064	-O
S	Ring, Hold-Down Spacer	2	106	HS42	(special)
T	Nut, Hold-Down Lock Nut	1	117	HL42	(special)

The Mercury pump is a traveling-plunger-type pump arranged to prevent sand or foreign material from settling on top or around the plunger and sticking it in the barrel. The Mercury pump has a long smooth plunger that extends through a relatively short stroke through barrel. Due to the length of the plunger, the ends do not enter the barrel section at either the top or the bottom of the stroke. The plunger is wiped clean on each stroke, and foreign material (trapped sand, etc.) is not carried into the barrel. When the pump is shut down, the traveling valve on top of the pump closes and prevents sand in the tubing string from settling inside the pump. A (Don-Nan) pump technician will size the correct "Mercury" pump for you.

- Select Material Select Configuration
- Select Length Select Barrel Coating
- Select Plunger Fit Select Plunger End
- Select Pin Size Select Size



TH Mercury III Precision Tubing Pump

Pump Assemblies

Bore Size				
Item	Description	Qty.	Key Pg.	2-3/8" x 1-3/4" (1) 2-7/8" x 2-1/4" (2)

Barrel Assembly

A	Coupling, Barrel	2	82	CB11 <input type="checkbox"/> CB21 <input type="checkbox"/>
B	Barrel, Heavy Wall	1	39	BT10 <input type="checkbox"/> <input type="checkbox"/> BT15 <input type="checkbox"/> <input type="checkbox"/>
C	Nipple, Lower Extension	1	110	NE22 <input type="checkbox"/> <input type="checkbox"/> NE32 <input type="checkbox"/> <input type="checkbox"/>
D	Coupling, Tubing	1		05B20
E	Nipple, Seating	1	112	80SN3
				80SN4

Plunger Assembly

F	Cage, Top Open	1	57	CF44 <input type="checkbox"/> - <input type="checkbox"/>
G	Connector, Plunger	1	138	PC1 <input type="checkbox"/> PC2 <input type="checkbox"/>
H	Plunger			
	Mercury, Box End	1	135	P46 <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>
I	Cage, Closed Plunger		57	CF41 <input type="checkbox"/> CF61 <input type="checkbox"/>
J	Valve, Ball and Seat	1	36	
	Ball			B01 <input type="checkbox"/> B03 <input type="checkbox"/>
	Seat			S01 <input type="checkbox"/> S02 <input type="checkbox"/>
K	Puller, Standing Valve	1	146	SP20 <input type="checkbox"/> SP30 <input type="checkbox"/>

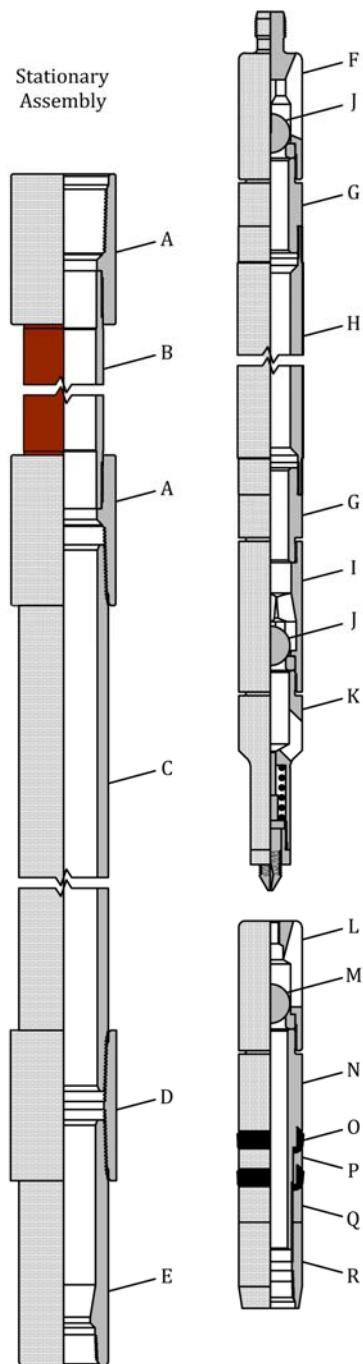
Hold-Down Assembly

L	Cage, Open Standing	1	57	CF45 <input type="checkbox"/> CF65 <input type="checkbox"/>
M	Valve, Ball and Seat	1	36	
	Ball			B01 <input type="checkbox"/> B03 <input type="checkbox"/>
	Seat			S01 <input type="checkbox"/> S02 <input type="checkbox"/>
N	Mandrel, Hold-Down	1	103	HM43 <input type="checkbox"/> HM53 <input type="checkbox"/>
O	Cup, Seating	2	150	SC052 <input type="checkbox"/> SC082 <input type="checkbox"/>
P	Ring, Hold-Down Spacer	1	103	HS41 <input type="checkbox"/> HS51 <input type="checkbox"/>
Q	Nut, Hold-Down Lock Nut	1	117	HL41 <input type="checkbox"/> HL51 <input type="checkbox"/>
R	Coupling, Hold-Down	1	89	HB41 <input type="checkbox"/> -3 HB51 <input type="checkbox"/> -4

The Mercury pump is a traveling-plunger pump arranged to prevent sand and foreign material from settling on top or around the plunger and sticking it in the barrel. The Mercury pump has a long smooth plunger that extends through a relatively short stroke through barrel. Due to the length of the plunger, the ends do not enter the barrel section at either the top or the bottom of the stroke. The plunger is wiped clean on each stroke, and foreign material (trapped sand, etc.) is not carried into the barrel. When the pump is shut down, the traveling valve on top (optional) of the pump closes and prevents sand in the tubing string from settling inside the pump. A (Don-Nan) pump technician will size the correct "Mercury" pump for you.

- | | |
|---|--|
| <input type="checkbox"/> Select Material | <input type="checkbox"/> Select Configuration |
| <input type="checkbox"/> Select Length | <input type="checkbox"/> Select Barrel Coating |
| <input type="checkbox"/> Select Plunger Fit | <input type="checkbox"/> Select Plunger End |
| <input type="checkbox"/> Select Pin Size | <input type="checkbox"/> Select Size |

Traveling Assembly



RH Rod Pumps (Hollow Pull Tube)

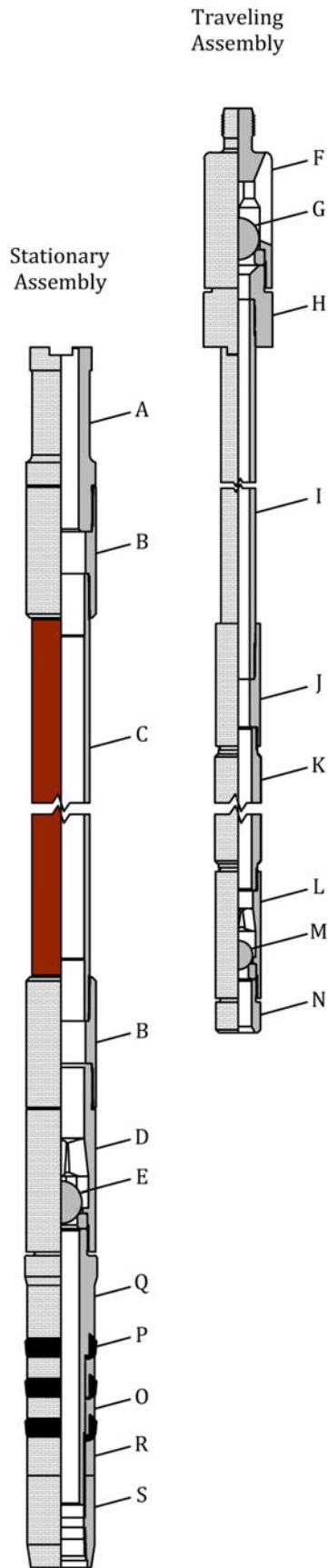
Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/4" (1)	1-1/2" (2)	1-3/4" (3)
Barrel Assembly						
A	Guide, Pull Tube	1	99			
	15/16"			GT11		
	1-1/8"				GT22	
	1-1/2"					GT24
B	Coupling, Extension	2	87	EN214□	EN314□	EN414□
C	Barrel, Heavy Wall RH	1	39	BT0416□▼	BT0716□▼	BT0816□▼
D	Cage, Closed Barrel	1	57	CF42□	CF62□	
E	Valve, Ball and Seat	1	36			
	Ball			B07□	B09□	
	Seat			S04□	S06□	
Plunger Assembly						
F	Cage, Top Open	1	57	CF44□-⊗		CF64□-⊗
G	Valve, Ball and Seat	1	36			
	Ball			B07□	B09□	
	Seat			S04□	S06□	
H	Bushing, HVR to Cage	1	44	BC1□	BC2□	BC4□
I	Tube, Pull	1	144			
	15/16"			PT1□-⊗		
	1-1/8"				PT2□-⊗	
	1-1/2"					PT3□-⊗
J	Coupling, HVR to Plunger	1	85			
	15/16"			CT111□		
	1-1/8"				CT212□	CT213□
	1-1/2"					CT413□
K	Plunger	1	135	P2△4■-Δ	P3△4■-Δ	P4△4■-Δ
L	Cage, Closed Plunger	1	57	CF21□	CF31□	CF41□
M	Valve, Ball and Seat	1	36			
	Ball			B03□	B05□	B07□
	Seat			S02□	S03□	S04□
N	Plug, Seat (External)	1	131	PS21□	PS31□	PS41□
Hold-Down Assembly						
O	Mandrel, Hold-Down	1	103	HM41□	HM51□	
P	Cup, Seating	3	150	SC064□-HR	SC087□-HR	
Q	Ring, Hold-Down Spacer	2	106	HS41□	HS51□	
R	Nut, Hold-Down Lock Nut	1	117	HL41□	HL51□	
S	Coupling, Hold-Down	1	89	HB41□-3	HB51□-4	

These are typical RHBC pumps using 4' plungers and 16' barrels with 2' extension couplings. Pull Tube instead of the standard valve rod. Other standard length plungers, barrels, and extension couplings available. Pull Tube length will have to be recalculated to each plunger or barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other materials are available. API mechanical type hold-downs are also available.

- (1) API 20 -125-RHBC-16-4-4
- (2) API 25 -150-RHBC-16-4-4
- (3) API 25 -175-RHBC-16-4-4

- | | |
|--|--|
| <input type="checkbox"/> Select Material | <input type="checkbox"/> Select Configuration |
| <input checked="" type="radio"/> Select Length | <input type="checkbox"/> Select Barrel Coating |
| <input type="checkbox"/> Select Plunger Fit | <input type="checkbox"/> Select Plunger End |
| <input type="checkbox"/> Select Pin Size | <input type="checkbox"/> Select Size |



RW Rod Pumps (Hollow Pull Tube)

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size	
				1-1/2" (1)	2" (2)

Barrel Assembly

A	Guide, Pull Tube	1	99	GT12□	GT24□
B	Barrel, Heavy Wall RH	1	39	BT0516□▼	BT1216□▼
C	Cage, Closed Barrel	1	57	CF42□	CF62□
D	Valve, Ball and Seat	1	36		
	Ball			B07□	B09□
	Seat			S04□	S06□

Plunger Assembly

E	Cage, Top Open	1	57	CF44□-⊗	CF64□-⊗
F	Valve, Ball and Seat	1	36		
	Ball			B07□	B09□
	Seat			S04□	S06□
G	Bushing, HVR to Cage	1	44	BC2□	BC4□
H	Tube, Pull	1	144		
	1-1/8"			PT2□-*	
	1-1/2"				PT3□-*
I	Coupling, HVR Top Plunger	1	85	CT212□	CT414□
J	Plunger	1	135	P3△4■-Δ	P4△4■-Δ
K	Cage, Closed Plunger	1	57	CF31□	CF51□
L	Valve, Ball and Seat	1	36		
	Ball			B05□	B08□
	Seat			S03□	S05□
M	Plug, Pull (External)	1	131	PS31□	PS51□

Hold-Down Assembly

N	Mandrel, Hold-Down	1	103	HM41□	HM51□
O	Cup, Seating	3	150	SC064□-HR	SC087□-HR
P	Ring, Hold-Down Spacer	2	106	HS41□	HS51□
Q	Nut, Hold-Down Lock Nut	1	117	HL41□	HL51□
R	Coupling, Hold-Down	1	89	HB41□-3	HB51□-4

These are typical RWBC pumps using 4' plungers and 16' barrels. **Pull Tube** instead of the standard valve rod. Other standard length plungers and barrels are available. Pull Tube length will have to be recalculated to each plunger and barrel length change you make. Other ball and seat combinations are available. Fittings are steel, other material available. API mechanical type hold-downs are also available.

(1) API 20 -150-RWBC -16-4

(2) API 25 -200-RWBC -16-4

Select Material

Select Configuration

Select Length

Select Barrel Coating

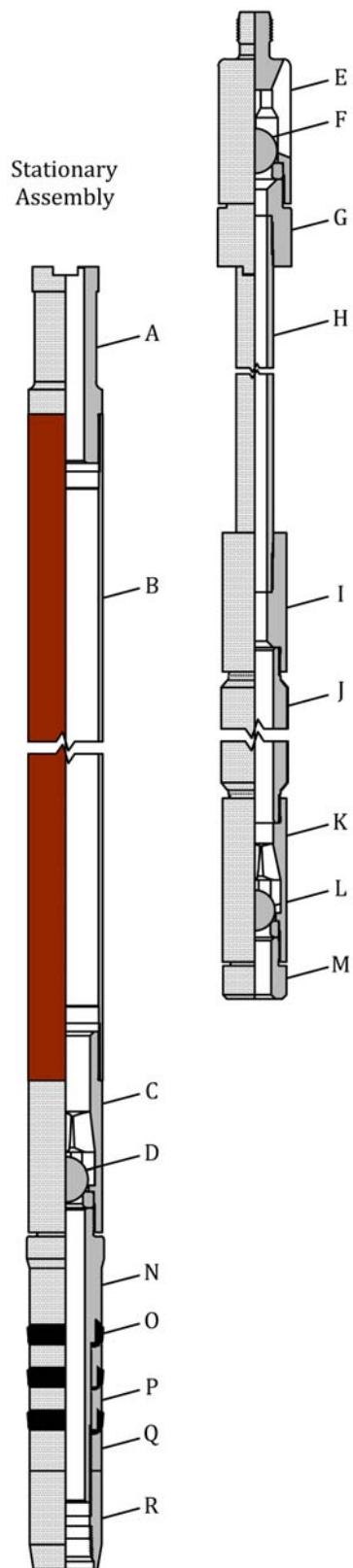
Select Plunger Fit

Select Plunger End

Select Pin Size

Select Size

Traveling Assembly
Stationary Assembly



RSBC (Soft-Packed) Thin Wall Rod Pumps

Pump Assemblies

Item	Description	Qty.	Key Pg.	Bore Size		
				1-1/4" (1)	1-1/2" (2)	2" (3)

Barrel Assembly

A	Guide, Valve Rod	1	95			
	11/16"			GR211 <input type="checkbox"/>		
	7/8"			GR221 <input type="checkbox"/>		
B	Connector, Upper Barrel	1	74	C201 <input type="checkbox"/>	C222 <input type="checkbox"/>	C332 <input type="checkbox"/>
C	Barrel, Heavy Wall, RH	1	39	BT0316 <input type="checkbox"/> ▼	BT0516 <input type="checkbox"/> ▼	BT1216 <input type="checkbox"/> ▼
D	Cage, Closed Barrel	1	57	CF48 <input type="checkbox"/>	CF42 <input type="checkbox"/>	CF62 <input type="checkbox"/>
E	Valve, Ball and Seat	1	36			
	Ball			B07 <input type="checkbox"/>		B09 <input type="checkbox"/>
	Seat			S04 <input type="checkbox"/>		S06 <input type="checkbox"/>

Plunger Assembly

F	Bushing, Valve Rod	1	50			
	11/16"			BR1 <input type="checkbox"/> -⊗		
	7/8"			BR2 <input type="checkbox"/> -⊗		
G	Rod, Valve	1	170			
	11/16"			VR1 <input type="checkbox"/> -⊗		
	7/8"			VR2 <input type="checkbox"/> -⊗		
H	Coupling, Top Plunger	1	91			
	11/16"			PA21 <input type="checkbox"/>	PA31 <input type="checkbox"/>	
	7/8"			PA32 <input type="checkbox"/>	PA52 <input type="checkbox"/>	
I	Plunger	1	135			
	Phenolic Ring			PM110-60N	PM210-60N	PM510-60N
	Composition Ring			PC110-60F	PC210-60F	PC510-60F
	Pressure Actuated Ring			PG216C	PG316C	PG616C
J	Cage Closed Plunger	1	57	CF21 <input type="checkbox"/>	CF31 <input type="checkbox"/>	CF51 <input type="checkbox"/>
K	Valve, Ball and Seat	1	36			
	Ball			B03 <input type="checkbox"/>	B05 <input type="checkbox"/>	B08 <input type="checkbox"/>
	Seat			S02 <input type="checkbox"/>	S03 <input type="checkbox"/>	S05 <input type="checkbox"/>
L	Plug, Seat (External)			PS21 <input type="checkbox"/>	PS31 <input type="checkbox"/>	PS51 <input type="checkbox"/>

Hold-Down Assembly

M	Mandrel, Hold-Down	1	103	HM41 <input type="checkbox"/>	HM51 <input type="checkbox"/>	
N	Cup, Seating	3	150	SC064 <input type="checkbox"/> -HR		SC087 <input type="checkbox"/> -HR
O	Ring, Hold-Down Spacer	2	106	HS41 <input type="checkbox"/>		HS51 <input type="checkbox"/>
P	Nut, Hold-Down Lock Nut	1	117	HL41 <input type="checkbox"/>		HL51 <input type="checkbox"/>
Q	Coupling, Hold-Down	1	89	HB41 <input type="checkbox"/> -3		HB51 <input type="checkbox"/> -4

The Soft-Pack Pump is basically the same as the API "RW" pump except that a soft-packed plunger is used instead of metal and the finished inside diameter of the barrel has a larger tolerance. Plungers in these pumps can be flex-rings, split and flange composition rings, and pressure actuated ring plungers. The Soft-Pack Pump can be economically used in shallow to moderate depth wells where sand, mud, or other abrasives are of no major concern.

(1) API 20 -125-RSBC-16-3

(2) API 20 -150-RSBC-16-3

(3) API 25 -200-RSBC-16-3

Select Material

Select Configuration

Select Length

Select Barrel Coating

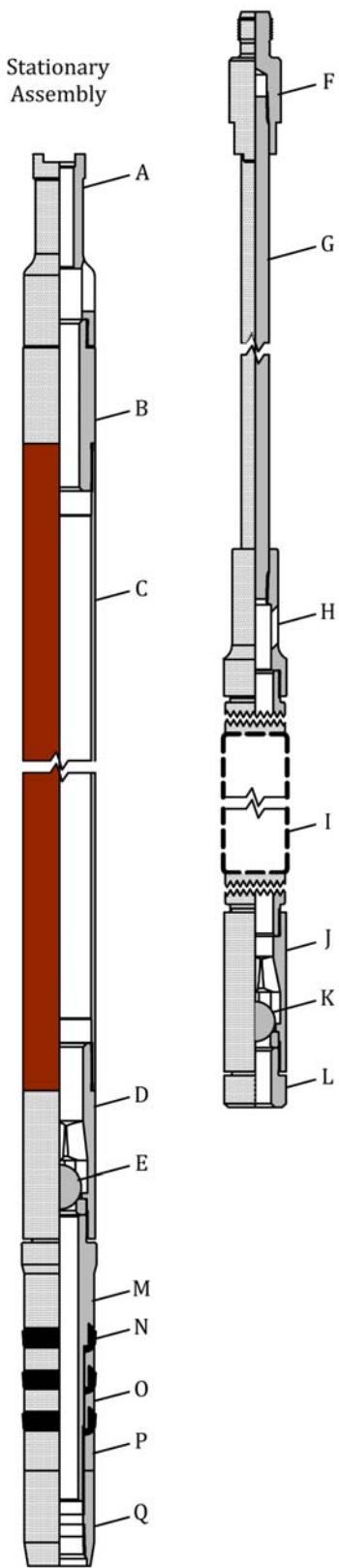
Select Plunger Fit

Select Plunger End

Select Pin Size

Select Size

Traveling Assembly
Stationary Assembly



Materials Available For Balls And Seats

Stainless Steel- Ball and seat are made from a series 400C stainless steel and are oil quenched and tempered to develop good abrasion and moderate corrosion resistant properties.

Alloy- Non-ferrous, non-magnetic cobalt-chromium tungsten alloy in which very hard, microscopic carbides are uniformly distributed in a tough, shock resistant matrix. The result is a ball and seal with exceptional resistance to both abrasion and corrosion.

Titanium Carbide- A powdered metal material, not a cast material as found in alloy, this ball is homogenous throughout, the outside skin is the same as its core, one of the reasons it earns a Rockwell hardness rating of 90. Titanium has more abrasion resistance, will not deform, and has better pitting resistance than alloy.

Tungsten Carbide- Excellent abrasion and corrosion resistant properties, carbide balls and seats are recommended for the most abrasive fluids.

Silicon Nitride (Durable)- Si_3N_4 is light, hard and has low thermal expansion coefficient. It has high mechanical strength, fracture toughness, and it is resistant to deformation. Particularly resistant to corrosion and abrasion.

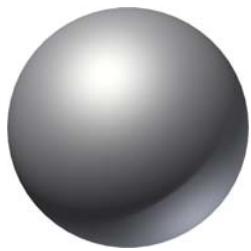
Nickel Carbide- Nickel binder material is advantageous when both corrosion and wear resistance are required. This material suited for more impact when compared to other Nickel grades.

B- Balls Only

Balls

B- Balls Only

Size (in)	9/16	5/8	11/16	3/4	7/8	15/16	1	1-1/8	1-1/4	1-3/8	1-1/2	1-11/16	2	2-1/8	2-1/4
Stainless Steel	01B120	01B121	01B122	01B123	01B124	01B125	01B126	01B127	01B128	01B129	01B131	01B130	01B132	01B133	01B134
Alloy	01B020	01B021	01B022	01B023	01B024	01B025	01B026	01B027	01B028	01B029	01B030	01B031	01B032	01B033	01B034
Titanium	01B040	01B041	01B042	01B043	01B044	01B045	01B046	01B047	01B048	01B049	01B050	01B051	01B052	01B053	01B054
Tungsten Carbide	01B000	01B001	01B002	01B003	01B004	01B005	01B006	01B007	01B008	01B009	01B010	01B011	01B012	01B013	01B014
Nickel Carbide	01B060	01B061	01B062	01B063	01B064	01B065	01B066	01B067	01B068	01B069	01B070	01B071	01B072	01B073	01B074
Silicon	01B100	01B101	01B102	01B103	01B104	01B105	01B106	01B107	01B108	01B109	01B107	01B110	01B110A	01B110B	01B110C



S- Seats Only (Flat Type)

Seats

S- Seats Only (Flat Type)

Size (in)	1-1/16	1-1/4	1-1/2	1-3/4	2	2-1/4	2-1/2 2-3/4	3-1/4	3-3/4
Stainless Steel	S41	S42	S43	S44	S45	S46	S47	S48	S49
Alloy	S11	S12	S13	S14	S15	S16	S17	S18	S19
Titanium	S21	S22	S23	S24	S25	S26	S27	S28	S29
Tungsten Carbide	S014	S024	S034	S044	S054	S064	S084	S094	S104
Nickel Carbide	S01	S02	S03	S04	S05	S06	S07	S08	S09

Suffix (optional):

E = Exchange Parts, Available in Tungsten Carbide

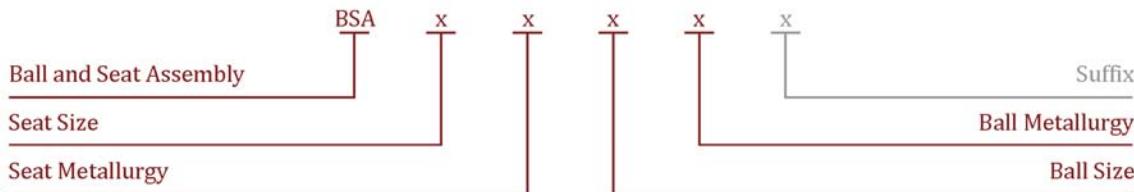
TP = Texas Pattern

AE = Alternate Exchange

R = Reconditioned

A = Alternate



Key**BSA- Ball and Seat Assembly****Seat Size (in):**

01 = 1-1/16	06 = 2-1/4
02 = 1-1/4	07 = 2-1/2
03 = 1-1/2	08 = 2-3/4
04 = 1-3/4	09 = 3-1/4
05 = 2	10 = 3-3/4

Seat Metallurgy:

1 = Stainless Steel
2 = Alloy
3 = Titanium
4 = Tungsten Carbide
5 = Nickel Carbide
6 = Ceramic

Ball Size (in):

00 = 9/16	08 = 1-1/4
01 = 5/8	09 = 1-3/8
02 = 11/16	10 = 1-1/2
03 = 3/4	11 = 1-11/16
04 = 7/8	12 = 2
05 = 15/16	13 = 2-1/8
06 = 1	14 = 2-1/4
07 = 1-1/8	

Ball Metallurgy:

1 = Stainless Steel
2 = Alloy
3 = Titanium
4 = Tungsten Carbide
5 = Nickel Carbide
6 = Zirconia
7 = Silicon Nitrate
8 = Ceramic

Suffix (optional):

E = Exchange Balls and Seats
TP = Texas Pattern Balls and Seats
ALT = Alternate Pattern Balls and Seats
R = Reconditioned Balls and Seats

The possible combination of balls and seats that can be assembled is not limited to the options on this BSA page.

BSA- Ball and Seat (Flat Type)

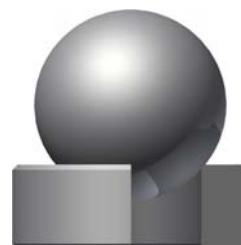
Ball and Seat Assemblies

BSA- Ball and Seat (Flat Type)

Size		Part No.					
Seat (in)	Ball (in)	API No.	Stainless Steel	Alloy	Titanium	Tungsten Carbide	Nickel Carbide
1-1/16	9/16	—	BSA011001	BSA012002	BSA013003	BSA014004	BSA015005
	5/8	V11-106	BSA011011	BSA012012	BSA013013	BSA014014	BSA015015
1-1/4	11/16	—	BSA021021	BSA022022	BSA023023	BSA024024	BSA025025
	3/4	V11-125	BSA021031	BSA022032	BSA023033	BSA024034	BSA025035
1-1/2	7/8	—	BSA031041	BSA032042	BSA033043	BSA034044	BSA035045
	15/16	V11-150	BSA031051	BSA032052	BSA033053	BSA034054	BSA035055
1-3/4	1	—	BSA041061	BSA042062	BSA043063	BSA044064	BSA045065
	1-1/8	V11-175	BSA041071	BSA042072	BSA043073	BSA044074	BSA045075
2	1-1/8	—	BSA051071	BSA052072	BSA053073	BSA054074	BSA055075
	1-1/4	V11-200	BSA051081	BSA052082	BSA053083	BSA054084	BSA055085
2-1/4	1-1/4	—	BSA061081	BSA062082	BSA063083	BSA064084	BSA065085
	1-3/8	V11-225	BSA061091	BSA062092	BSA063093	BSA064094	BSA065095
2-1/2 & 2-3/4	1-1/2	—	BSA081101	BSA082102	BSA083103	BSA084104	BSA085105
	1-11/16	V11-250	BSA081111	BSA082112	BSA083113	BSA084114	BSA085115
3-1/4	2	—	BSA091121	BSA092122	BSA093123	BSA094124	BSA095125
	2-1/8	N/A	BSA091131	BSA091132	BSA093133	BSA094134	BSA095135
3-3/4	2	—	BSA101121	BSA102122	BSA103123	BSA104124	BSA105125
	2-1/4	V11-375	BSA101141	BSA102142	BSA103143	BSA104144	BSA105145

Sample Material

• Example: BSA034054 = 1-1/2" Tungsten Carbide Seat, 15/16" Tungsten Carbide Ball



Available Materials

Barrels

Materials Available For Barrels

Steel- High carbon steel used for barrels and most connecting parts. Steel barrels are recommended for mild to average pumping conditions where abrasion and corrosion are not a problem.

Steel Ni-Carb- Carbide particles in nickel matrix deposited on carbon steel used for barrel. The deposited material is applied to a thickness of 0.001" to 0.0015", producing an extremely hard smooth opaque finish to reduce friction and improve pump life in severe abrasive and corrosive well conditions.

Steel Chrome- Chrome plating on carbon steel produces an extremely hard, mirror like finish on the interior surface of barrels. Reduces friction and improves pump life in average to severe abrasive and corrosive well conditions.

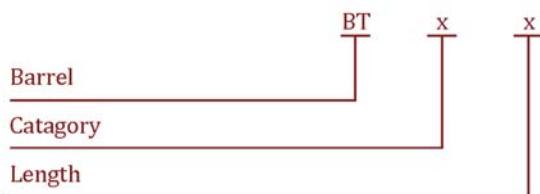
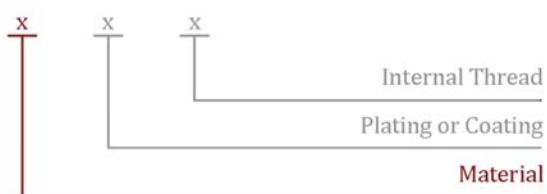
Hardened & Honed- I.D. of carbon steel used for barrels is hardened to Rc 58 minimum while retaining a ductile center to resist splitting and breaking. Recommended for average to severe corrosion.

Brass- Admiralty brass used for many connection parts, cages and barrels. Recommended for mild abrasion and average to severe corrosion.

Brass Nicarb- Carbide particles in nickel matrix deposited on admiralty brass produce extremely hard smooth opaque finish to reduce friction and improve abrasion and corrosion resistance.

Brass Chrome- Admiralty brass with surface of hard chromium plate applied to produce an Rc 70 hard, mirror like finish. Reduces friction and improve abrasion and corrosion resistance.

501 Stainless- An AISI 501, 4/6% chrome alloy steel with a HRC 60, this barrel is recommended for severe abrasion, mild hydrogen sulfide and moderate CO₂ environment.

Key**BT- Barrel****Category (in):**

0 = 1-5/16 O.D.	1-1/16 I.D.	RH
00 = 1-7/16 O.D.	1-1/16 I.D.	RH
01 = 1-5/8 O.D.	1-1/16 I.D.	RH
02 = 1-3/4 O.D.	1-1/16 I.D.	RH
03 = 1-1/2 O.D.	1-1/4 I.D.	RW
04 = 1-5/8 O.D.	1-1/4 I.D.	RH
05 = 1-3/4 O.D.	1-1/2 I.D.	RW
06 = 1-7/8 O.D.	1-1/2 I.D.	RX
07 = 1-7/8 O.D.	1-1/2 I.D.	RH
08 = 2-1/8 O.D.	1-3/4 I.D.	RH
09 = 2-1/4 O.D.	1-3/4 I.D.	RH
10 = 2-1/4 O.D.	1-3/4 I.D.	TH/WB
11 = 2-1/4 O.D.	1-25/32 I.D.	TH/WB
12 = 2-1/4 O.D.	2 I.D.	RW
13 = 2-5/16 O.D.	2 I.D.	RX
14 = 2-3/4 O.D.	2-1/4 I.D.	RH
15 = 2-3/4 O.D.	2-1/4 I.D.	TH
16 = 2-3/4 O.D.	2-1/2 I.D.	RW
17 = 3-1/4 O.D.	2-3/4 I.D.	TH/WB
18 = 3-3/4 O.D.	3-1/4 I.D.	TH
19 = 4-1/4 O.D.	3-3/4 I.D.	TH

Material:

No Designator = Carbon Steel

3 = Brass

7 = 501 Stainless Steel

Coating (optional):

No Designator = No Coating

C = Chrome

N = Nickel Carbide

H = Hardened and Honed

NP = Non-Precision

Suffix (optional):

IT = Internal Thread

RH = Rod/ Heavy Wall (External Threads)

RW = Rod/ Thin Wall (Internal Threads)

RX = Rod/ Heavy Wall with Thin Wall Thread Configuration (Internal Threads)

TH = Tubing/ Heavy (Tubing Threads)

WB = Tubing/ Heavy Wall (External Working Barrel Threads)

IT = Tubing Pump (Internal Thread)

BT- Barrel, Thin Wall, Box End

Barrels

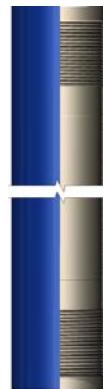
BT- Barrel, Thin Wall, Box End

Part No.	Thread Spec's (in)	Tubing Size (in)	Pump Bore Size (in)	O.D. (in)	API No.
BT03①□▼	1.3330-16	1.900, 2-1/16	1.250	1-1/2	B11-125
BT05①□▼	1.5730-16	2-3/8	1.500	1-3/4	B11-150
BT12①□▼	2.0870-16	2-7/8	2.000	2-1/4	B11-200
BT16①□▼	2.5730-16	3-1/2	2.500	2-3/4	B11-250

① Length in Feet

 Select Material Select Coating

• Example: BT05163N = 1-3/4" x 1-1/2" x 16' RW Barrel, Brass Nickel Carbide



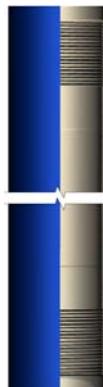
BT- Barrel, Heavy Wall, Box End (RX)

Part No.	Thread Spec's (in)	Tubing Size (in)	Pump Bore Size (in)	O.D. (in)	API No.
BT04①□▼IT	1.3330-16	2-3/8	1.250	1-5/8	B16-125
BT06①□▼	1.5730-16	2-7/8	1.500	1-7/8	B16-150
BT13①□▼	2.0875-16	2-7/8	2.000	2-5/16	B16-200

① Length in Feet

 Select Material Select Coating

• Example: BT1320H = 2-5/16" x 2" x 20' RX Barrel, Hardened and Honed



BT- Barrel, Heavy Wall, Pin End

Barrels

BT- Barrel, Heavy Wall, Pin End (RH)

Part No.	Thread Spec's (in)	Tubing Size (in)	Pump Bore Size (in)	O.D. (in)	API No.
BT0①□▼	1.3125-16	1.900, 2-1/16	1.062	1-5/16	B12-106
BT00①□▼	1.3125-16	1.900, 2-1/16	1.062	1-7/16	B12-106
BT01①□▼	1.5730-16	2-3/8	1.062	1-5/8	N/A
BT02①□▼	1.5730-16	2-3/8	1.062	1-3/4	N/A
BT04①□▼	1.5730-16	2-3/8	1.250	1-5/8	B12-125
BT07①□▼	1.8750-16	2-7/8	1.500	1-7/8	B12-150
BT08①□▼	2.0870-16	2-7/8	1.750	2-1/8	B12-175
BT09①□▼	2.0870-16	2-7/8	1.750	2-1/4	B12-175
BT14①□▼	2.5730-16	3-1/2	2.250	2-3/4	B12-225



① Length in Feet

□ Select Material

▼ Select Coating

- Example: BT07243C = 1-7/8" x 1-1/2" x 24' RH Barrel, Brass Chrome

BT- Barrel, Heavy Wall, Pin End (Tubing Pump) (TH)

Part No.	Thread Spec's (in)	Tubing Size (in)	Pump Bore Size (in)	O.D. (in)	API No.
BT10①□▼	2.2380-11-1/2	2-3/8	1.750	2-1/4	B13-175
BT11①□▼	178-11-1/2 B	2-3/8	1.781	2-1/4	N/A
BT15①□▼	2.7380-11-1/2	2-7/8	2.250	2-3/4	B13-225
BT17①□▼	3.2380-11-1/2	3-1/2	2.750	3-1/4	B13-275
BT18①□▼	3.7380-11-1/2	Variable	3.250	3-3/4	N/A
BT19①□▼	4.2380-11-1/2	4-1/2	3.750	4-1/4	B13-375



① Length in Feet

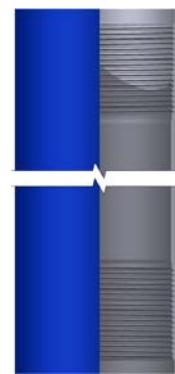
□ Select Material

▼ Select Coating

- Example: BT1520C = 2-3/4" x 2-1/4" x 20' TH Barrel, Steel Chrome

BT- Barrel, Heavy Wall, Box End (Tubing Pump) (IT)

Part No.	Thread Spec's (in)	Tubing Size (in)	Pump Bore Size (in)	O.D. (in)	API No.
BT15①□▼IT	2.3755-11-1/2	Variable	2.250	2-3/4	N/A
BT17①□▼IT	2.8750-10	Variable	2.750	3-1/4	N/A
BT18①□▼IT	3.3750-11-1/2	Variable	3.250	3-3/4	N/A
BT19①□▼IT	3.8750-10	Variable	3.750	4-1/4	N/A

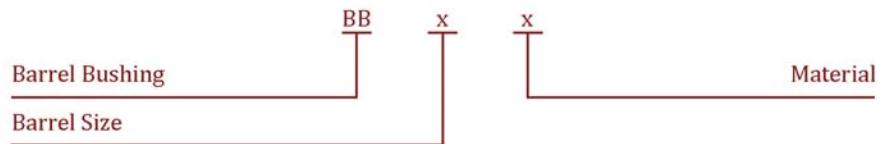


① Length in Feet

□ Select Material

▼ Select Coating

- Example: BT1720CIT = 3-1/4" x 2-3/4" x 20' TH Barrel, Steel Chrome, Internal Thread

Key**BB- Bushing, Barrel****Barrel Size (in):**

- 1 = 1.062 x 1.250
- 2 = 1.250 x 1.500
- 3 = 1.500 x 2.000
- 4 = 1.750 x 2.000

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel

BB- Bushing, Barrel

Bushings

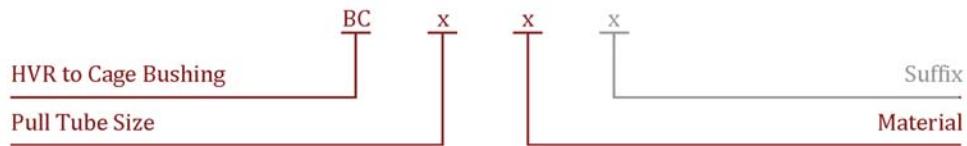
BB- Bushing, Barrel

Part No.	Thread Spec's (in)	Tubing Size (in)	Pump Bore Size (in)	Terminal Thread	API No.
BB1 <input checked="" type="checkbox"/>	1.330-16	2-3/8	1.062 x 1.250	1.3300-16	N/A
BB2 <input checked="" type="checkbox"/>	1.5730-16	2-3/8	1.250 x 1.500	1.5730-16	N/A
BB3 <input checked="" type="checkbox"/>	1.8750-16	2-7/8	1.500 x 2.000	2.0870-16	N/A
BB4 <input checked="" type="checkbox"/>	2.0870-16	2-7/8	1.750 x 2.000	2.0870-16	N/A

Select Material

- Example: BB21 = 1.250" x 1.500" Barrel, Bushing, Stainless Steel



Key**BC- Bushing, HVR To Cage****Pull Tube Size (in):**

- 1 = 15/16
- 2 = 1-1/8
- 3 = 1-1/4
- 4 = 1-1/2
- 5 = 1-1/4 Plunger x 2-1/4 Cage
- 6 = 1-1/2 Plunger x 2-1/4 Cage
- 7 = 1-3/4 Plunger x 2-1/4 Cage

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel
- 9 = 4140 Heat Treat

Suffix (optional):

- C = Collet Type

BC- Bushing, HVR To Cage

Bushings

BC- Bushing, HVR To Cage

Part No.	Pull Tube Thread (in)	Cage Thread (in)	Pump Size (in)	API No.
BC1□	0.9375-16	1.4704-14	2-3/8 x 1.250	N/A
BC2□	1.1250-16	1.4704-14	2-3/8 x 1.500	N/A
BC3□	1.2500-14	1.4704-14	2-3/8 x 1.500	N/A
BC4□	1.5000-16	1.8024-14	2-7/8 x 1.750, 2.000	N/A
BC5□	1.2500-14	1.8024-14	2-7/8 x 1.750, 2.000	N/A
BC6□				
BC7□				

 Select Material

- Example: BC22 = 1.1250" Pull Tube to Cage Adapter, 316 Stainless Steel
- Improved Hollow Pull Tube (1-1/4" Plunger)



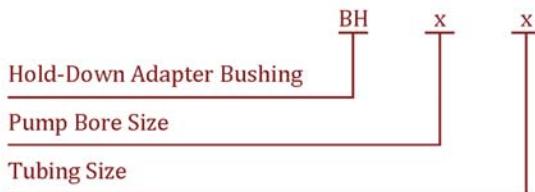
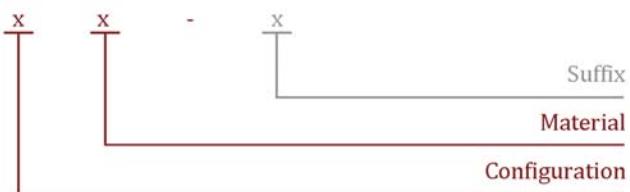
BC- Bushing, HVR, Collet Type

Part No.	Pull Tube Thread (in)	Cage Thread (in)	Collet Thread (in)	Pump Size (in)	API No.
BC1□C	0.9375-16	1.4704-14	1.4704-14	2-3/8 x 1.250, 1.500	N/A
BC2□C	1.1250-16	1.4704-14	1.4704-14	2-3/8 x 1.500, 2.000	N/A
BC4□C	1.500-16	1.8024-14	2.000-16	2-7/8 x 1.750, 2.000	N/A

 Select Material

- Example: BC22C = 1.1250" Pull Tube to Cage Adapter, 316 Stainless Steel



Key**BH- Bushing, Hold-Down Adapter****Pump Bore Size (in):**

- 0 = 1.250 RW
- 1 = 1.062, 1.250 RH, 1.500 RW
- 2 = 1.750 RH, 2.000 RW
- 3 = 2.500 RW, 2.250 RH

Configuration:

- 1 = Bottom Hold-Down
- 2 = Top Hold-Down
- 3 = "O" Top Hold-Down
- 4 = 2-1/2" x 2"

Tubing Size (in):

- 0 = 2-3/8
- 1 = 2-7/8
- 2 = 3-1/2
- 3 = 2-1/16

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel

Suffix (optional):

OS = Oversized Barrel Cage

BH- Bushing, Bottom Hold-Down Adapter

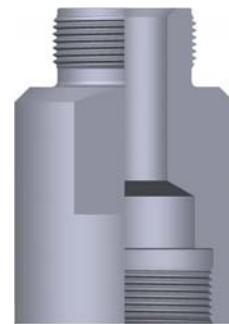
Bushings

BH- Bushing, Bottom Hold-Down Adapter

Part No.	Box Thread (in)	Tubing Size (in)	Cage Thread (in)	O.D. (in)	API No.
BH111□	1.8024-14	2-7/8	1.4704-14	2.250	N/A
BH111□-OS	1.8024-14	2-7/8	1.5604-14	2.250	N/A
BH121□	2.1095-11-1/2	3-1/2	1.4704-14	2.750	N/A
BH221□	2.1095-11-1/2	3-1/2	1.8024-14	2.750	N/A
BH214□	1.4704-14	2-7/8	1.8024-14	2.250	N/A

 Sample Material

- Example: BH1112 = 2" To 2-1/2" Bottom Hold-Down Adapter, 316 Stainless Steel



BH- Seating Cup Bushing, Top Anchor

Part No.	Box Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Barrel Thread (in)	API No.
BH002□	1.1894-14	2-3/8	1.250	1.3330-16	S15-20-125
BH012□	1.5604-14	2-7/8	1.250	1.3330-14	N/A
BH102□	1.1894-14	2-3/8	1.500	1.5730-16	S15-20
BH112□	1.5604-14	2-7/8	1.500	1.5730-16	N/A
BH122□	2.0035-11-1/2	3-1/2	1.500	1.5730-16	N/A
BH212□	1.5604-14	2-7/8	2.000	2.0870-16	S15-25
BH222□	2.0035-11-1/2	3-1/2	2.000	2.0870-16	N/A
BH322□	2.0035-11-1/2	3-1/2	2.500	2.5730-16	S15-30

 Select Material

- Example: BH1022 = 2" Top Hold-Down Adapter, 316 Stainless Steel



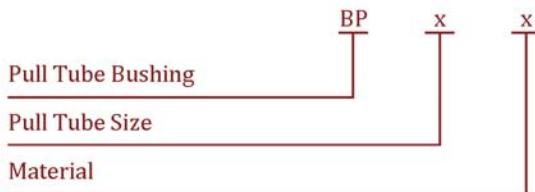
BH- Bushing, "O" Top Hold-Down Adapter

Part No.	Box Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Barrel Thread (in)	API No.
BH033□	1.1894-14	1.900, 2-1/16	1.250	1.3330-16	N/A
BH103□	1.385-14	2-3/8	1.250 or 1.500 RW	1.5730-16	N/A
BH213□	1.9536-16	2-7/8	2.000	2.0870-16	N/A

 Select Material

- Example: BH1032 = 2" "O" Top Hold-Down Adapter, 316 Stainless Steel



Key**BP- Bushing, Pull Tube To Sucker Rod****Pull Tube Size (in):**

1 = 15/16	4 = 1-1/2
2 = 1-1/8	5 = 1-7/8
3 = 1-5/16	

Pin Size (in):

0 = 15/16 (5/8)	2 = 1-3/16 (7/8)
1 = 1-1/16 (3/4)	3 = 1-3/8 (1)

Material:

No Designator = Carbon Steel
 0 = Alloy
 1 = Stainless Steel
 2 = 316 Stainless Steel
 3 = Brass
 4 = Monel

Suffix (optional):

HB = Hard Band

BP- Bushing, Pull Tube To Sucker Rod

Bushings

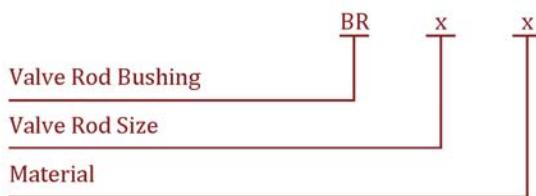
BP- Bushing, Pull Tube To Sucker Rod

Part No.	Pull Tube Thread (in)	Sucker Rod Size (in)	API No.
BP1□-1	0.9375-16	1-1/16	N/A
BP2□-1	1.1250-16	1-1/16	N/A
BP3□-1	1.3125-16	1-1/16	N/A
BP4□-1	1.5000-16	1-1/16	N/A
BP5□-1	1.8750-16	1-1/16	N/A

 Select Material Select Pin Size

- Example: BP22-1 = 1-1/8" Pull Tube x 1-1/16" Sucker Rod Pin,
316 Stainless Steel



Key**BR- Bushing, Valve Rod****Valve Rod Size (in):**

- 0 = 11/16 Slim Hole Bushing
- 1 = 11/16
- 2 = 7/8
- 3 = 1-1/16

Pin Size (in):

- 0 = 15/16 (5/8)
- 1 = 1-1/16 (3/4)
- 2 = 1-3/16 (7/8)
- 3 = 1-3/8 (1)

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel

Suffix (optional):

- C = Collet Type
- D = Drilled Hole
- NC = No Clutch

BR- Bushing, Valve Rod

Bushings

BR- Bushing, Valve Rod

Part No.	Valve Rod Thread (in)	Valve Rod Size (in)	Sucker Rod Size (in)	Tubing Size (in)	O.D. (in)	API No.
BR0□-0	3/8-18 Mod. LP	11/16	5/8	1.900, 2-1/16	1.250	B21-15
BR1□-0	3/8-18 Mod. LP	11/16	5/8	2-3/8	1.500	N/A
BR1□-1	3/8-18 Mod. LP	11/16	3/4	2-3/8	1.500	B21-20
BR2□-1	1/2-14 Mod. LP	7/8	3/4	2-7/8	1.625	B21-25
BR2□-2	1/2-14 Mod. LP	7/8	7/8	2-7/8	1.625	N/A
BR3□-1	3/4-14 Mod. LP	1-1/16	3/4	3-1/2	1.625	B21-30
BR3□-2	3/4-14 Mod. LP	1-1/16	7/8	3-1/2	2.000	N/A

 Select Material Select Pin Size

- Example: BR22-2 = 7/8" Valve Rod x 7/8" Sucker Rod Pin, Stainless Steel



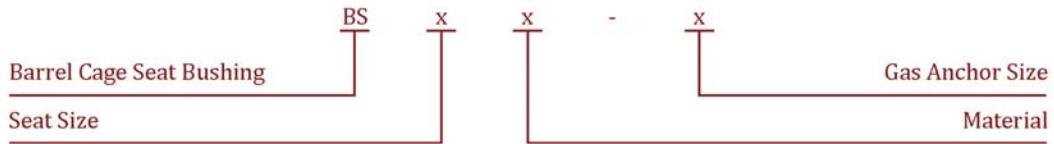
BR- Bushing, Valve Rod, Collet Type

Part No.	Valve Rod Thread (in)	Valve Rod Size (in)	Sucker Rod Size (in)	Tubing Size (in)	O.D. (in)	Collet Nut
BR1□-1C	3/8-18 Mod. LP	11/16	3/4	2-3/8	1.500	NC11
BR2□-1C	1/2-14 Mod. LP	7/8	3/4	2-3/8	1.500	NC11
BR2□-2C	1/2-14 Mod. LP	7/8	7/8	2-7/8	1.625	NC11
BR3□-1C	3/4-14 Mod. LP	1-1/16	3/4	3-1/2	1.625	NC11-1.062
BR3□-2C	3/4-14 Mod. LP	1-1/16	7/8	3-1/2	1.875	NC11-1.062

 Select Material Select Pin Size

- Example: BR11-1C = 11/16" Valve Rod x 1-1/16" Sucker Rod Pin, Stainless Steel



Key**BS- Bushing, Seat, Barrel Cage****Seat Size (in):**

0 = 1-1/2	3 = 2-1/4
2 = 1-3/4	4 = 2-1/2, 2-3/4

Gas Anchor Size (in):

2 = 3/4
3 = 1
4 = 1-1/4
5 = 1-1/2

Material:

No Designator = Carbon Steel

0 = Alloy

1 = Stainless Steel

2 = 316 Stainless Steel

3 = Brass

4 = Monel

BS- Bushing, Seat, Barrel Cage

Bushings

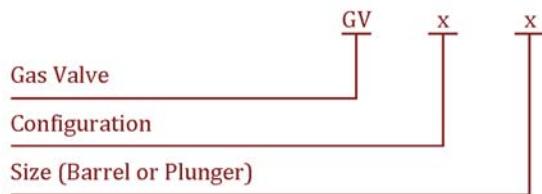
BS- Bushing, Seat, Barrel Cage

Part No.	Pin Thread (in)	Tubing Size (in)	GAC Size (in)	O.D. (in)	API No.
BS0□-2	1.2500-14	1.900, 2-1/16	3/4 LP	1.437	B22-15
BS2□-2	1.4704-14	2-3/8	3/4 LP	1.730	N/A
BS2□-3	1.4704-14	2-3/8	1 LP	1.730	B22-20
BS3□-4	1.8024-14	2-7/8	1-1/4 LP	2.188	B22-25
BS4□-4-2.25	2.1095-11-1/2	2-7/8	1-1/4 LP	2.250	N/A
BS4□-5	2.1095-11-1/2	3-1/2	1-1/2 LP	2.750	B22-30
BS4□-5-2.25	2.1095-11-1/2	2-7/8	1-1/2 LP	2.250	N/A

Select Material

- Example: BS22-3 = 1-3/4" Seat Size For 2" Barrel Cage w/ 1" GAC, 316 Stainless Steel



Key**GV- Gas Valve****Configuration:**

1 = Barrel Mount

2 = Plunger Mount

Size dependent on configuration:**Barrel (in)**

1 = 1-1/4 RH, 1-1/2 RW, 1-1/2 RX

2 = 1-1/2 RH, 1-3/4 RH, 2 RW

3 = 2-1/4 RH, 2-1/2 RW

Plunger (in)

02 = 1.250 05 = 2.000

03 = 1.500 06 = 2.250

04 = 1.750 07 = 2.500, 2.750

08 = 2.750

Material:

2 = 316 Stainless Steel

Oversize O.D. (in):**For use with Barrel Mount; Not To Be Used With RHA, RWA*

1 = 1.850

2 = 2.312

3 = 2.812

GV- Barrel Mount

Gas Valve

GV- Barrel Mount

Part No.	Barrel Pin Thread (in)	Barrel Box Thread (in)	Pump Bore (in)	API No.
GV112-1	1.5730-16	1.5730-16	1.500	N/A
GV122-2	2.0870-16	2.0870-16	2.000	N/A
GV132-3	2.5730-16	2.5730-16	2.500	N/A

Suffix: 1 = 1.850", 2 = 2.312", 3 = 2.812" Oversize O.D. Not to be used with RHA, RWA

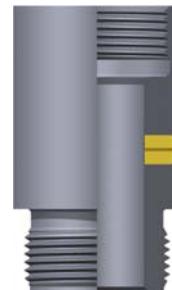
- Example: GV112-1, Gas Valve Barrel Mount, 1-1/4" RH, 1-1/2" RW, 1-1/2" RX 316 Stainless Steel, 1.850" O.D.



GV- Plunger Mount

Part No.	Plunger Box Thread (in)	Plunger Pin Thread (in)	Pump Bore (in)	API No.
GV2022	1.000-14	1.000-14	1.250	N/A
GV2032	1.2500-14	1.2500-14	1.500	N/A
GV2042	1.4704-14	1.4704-14	1.750	N/A
GV2052	1.5604-14	1.5604-14	2.000	N/A
GV2062	1.8024-14	1.8024-14	2.250	N/A
GV2072	2.1095-11-1/2	2.1095-11-1/2	2.500, 2.750	N/A
GV2082	2.1095-11-1/2	2.1095-11-1/2	2.750	N/A

- Example: GV2032, Gas Valve Plunger Mount, 1.500" Plunger Pin End, 1-1/2" Plunger Cage, 316 Stainless Steel



Key

CF- Cage

Materials Available For Cages And Fittings

Steel- Carbon steel material for most cages and connecting parts. Recommended for mild to average pumping conditions where abrasion and corrosion are not a problem.

Stainless- 304-recommended for corrosive environments

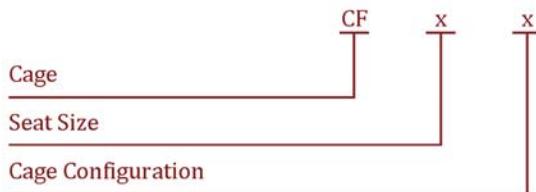
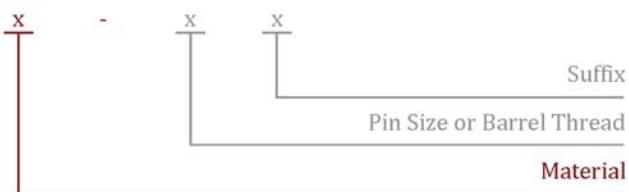
Stainless- 316-higher grade stainless with better corrosion resistance than 304

Monel- for extreme corrosion and heavy deep well applications

Brass- Admiralty brass recommended for mild abrasion and average to severe corrosion.

Alloy- Special high strength alloy steel parts made upon request for special applications.

Hardlined- For increased cage life, cages are available with a #6 genuine Stellite lining on ball guides. Available in steel, stainless, and monel.

Key**CF- Cage****Seat Size (in):**

1 = 1-1/16	6 = 2-1/4
2 = 1-1/4	7 = 2-1/2
3 = 1-1/2	8 = 2-3/4
4 = 1-3/4	9 = 3-1/4
5 = 2	10 = 3-3/4

Cage Configuration:

0 = Barrel, Closed, Female	
1 = Plunger, Closed	
2 = Barrel, Closed	
3 = Double Valve, Closed	
4 = Open, Pin End (<i>must specify "Pin Size" suffix</i>)	
5 = Open	
6 = Barrel, Closed, Bottleneck	
7 = Barrel, Closed Female, Oversized (<i>must specify "Special Female Barrel Thread" suffix</i>)	

8 = Barrel, 1-1/4" RW

9 = Double Valve, Oversized

10 = Barrel, Closed, Oversized

Material:

No Designator = Carbon Steel
0 = Alloy
1 = Stainless Steel
2 = 316 Stainless Steel
3 = Brass
4 = Monel
5 = 8620, Stellite
6 = 316 Stainless Steel, Stellite
8 = 303 Stainless Steel, Stellite

Pin Sizes (in):

0 = 15/16 (5/8)
1 = 1-1/16 (3/4)
2 = 1-3/16 (7/8)
3 = 1-3/8 (1)

Special Female Barrel Thread:

1 = 1.5730-16
2 = 1.8750-16
3 = 2.0870-16

Suffix (optional):

ALT = Alternate Ball Size Cages

BX = Closed Cage for Box End Plungers

S = Special O.D.

CF- Cage, Closed

Cages

CF- Cage, Plunger, Closed

Part No.	Thread Spec's (in)	Plunger Thread (in)	Pump Bore Size (in)	Seat Size (in)	API No.
CF11	0.8750-14	.8750-14	1.062	1-1/16	C13-106
CF21	1.0000-14	1.0000-14	1.250	1-1/4	C13-125
CF21-1.06	0.8750-14	1.0000-14	1.250	1-1/16	N/A
CF31	1.2500-14	1.2500-14	1.500	1-1/2	C13-150
CF41	1.4704-14	1.4704-14	1.750	1-3/4	C13-175
CF51	1.5604-14	1.5604-14	2.000	2	C13-200
CF61	1.8024-14	1.8024-14	2.250	2-1/4	C13-225
CF71	2.1095-11-1/2	2.1095-11-1/2	2.500	2-1/2	C13-250
CF81	2.1095-11-1/2	2.1095-11-1/2	2.750	2-3/4	C13-275
CF91	2.8095-11-1/2	2.8095-11-1/2	3.250	3-1/4	N/A
CF101	3.1715-11-1/2	3.1715-11-1/2	3.750	3-3/4	C13-175



Select Material

- Example: CF312 = 1.500" Closed Plunger, Cage, 316 Stainless Steel
- CF610BX = 2.250" Closed Cage For Box End Plunger, Alloy Steel

CF- Cage, Closed Barrel, Flat Type

Part No.	Pin Thread (in)	Tubing Size (in)	Seat Size (in)	Box Thread (in)	API No.
CF32	1.3330-16	1.900, 2-1/16	1-1/2	1.2500-14	C14-15
CF48	1.3330-16	2-3/8	1-3/4	1.4704-14	C14-20-125
CF42	1.5730-16	2-3/8	1-3/4	1.4704-14	C14-20
CF52	1.5730-16	2-3/8	2	1.5604-14	N/A
CF62	2.0870-16	2-7/8	2-1/4	1.8024-14	C14-25
CF82	2.5730-16	3-1/2	2-3/4	2.1095-11-1/2	C14-30



Select Material

- Example: CF42 = 1-3/4" Closed Barrel Cage, Steel

CF- Cage, Closed Barrel, Bottleneck

Part No.	Thread Spec's (in)	Pump Bore Size (in)	Seat Size (in)	Box Thread (in)	API No.
CF86	2.3755-11-1/2	2.250	2-3/4	2.1095-11-1/2	N/A
CF96	2.8750-10	2.750	3-1/4	2.8095-11-1/2	N/A
CF106	3.3750-11-1/2	3.250	3-3/4	3.1715-11-1/2	N/A
CF106-4.25	3.8750-10	3.750	3-3/4	3.1715-11-1/2	N/A



Select Material

- Example: CF865 = 2-3/4" Barrel, Closed, Bottleneck Cage, 8620 Stellite

CF- Cage, Double Valve, Open

Cages

CF- Cage, Double Valve

Part No.	Thread Spec's (in)	Box Thread (in)	Cage Size (in)	Seat Size (in)	API No.
CF13□	0.8710-14	0.8710-14	1-1/16	1-1/16	N/A
CF23□	1.0000-14	1.0000-14	1-1/4	1-1/4	N/A
CF23□-1.06	0.8750-14	1.0000-14	1-1/4	1-1/16	N/A
CF33□	1.2500-14	1.2500-14	1-1/2	1-1/2	N/A
CF43□	1.4704-14	1.4704-14	1-3/4	1-3/4	N/A
CF53□	1.5604-14	1.5604-14	2	2	N/A
CF63□	1.8024-14	1.8024-14	2-1/4	2-1/4	N/A
CF83□	2.1095-11-1/2	2.1095-11-1/2	2-3/4	2-3/4	N/A
CF93□	2.8095-11-1/2	2.8095-11-1/2	3-1/4	3-1/4	N/A
CF103□	3.1715-11-1/2	3.1715-11-1/2	3-3/4	3-3/4	N/A

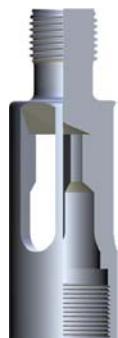
- Example: CF432 = 1-3/4" Double Valve Cage, 316 Stainless Steel Hard-lined



CF- Cage, Open, Pin End

Part No.	Thread Spec's (in)	Tubing Size (in)	Seat Size (in)	API No.
CF44□-⊗	1.4704-14	2-3/8	1-3/4	C11-20
CF64□-⊗	1.8024-14	2-7/8	2-1/4	C11-25
CF84□-⊗	2-1095-11-1/2	Variable	2-3/4	C11-30
CF94□-⊗	2.8095-14	Variable	3-1/4	N/A
CF104□-⊗	3.1715-11-1/2	Variable	3-3/4	N/A

- Select Material
- ⊗ Select Pin Size
- Example: CF44-1 = 1-3/4" Top Open Cage w/ 1-1/16" Pin, Steel



CF- Cage, Open, Top Plunger

Part No.	Thread Spec's (in)	Pump Bore Size (in)	Seat Size (in)	API No.
CF25□	1.0000-14	1.250	1-1/4	C17-125
CF35□	1.2500-14	1.500	1-1/2	C17-150
CF55□	1.5604-14	2.000	2	C17-200

- Select Material
- Example: CF253 = 1-1/4" Top Open Plunger Cage, Brass



CF- Cage, Open Standing Valve, Closed Female Barrel

Cages

CF- Cage, Open, Standing Valve

Part No.	Thread Spec's (in)	Puller Thread (in)	Seat Size (in)	API No.
CF45□	1.4704-14	3/4 10 NC	1-3/4	C16-175
CF65□	1.8024-14	3/4 10 NC	2-1/4	C16-225
CF85□	2.1095-11-1/2	3/4 10 NC	2-3/4	C16-275

Select Material

- Example: CF452 = 1-3/4" Standing Valve Cage, 316 Stainless Steel



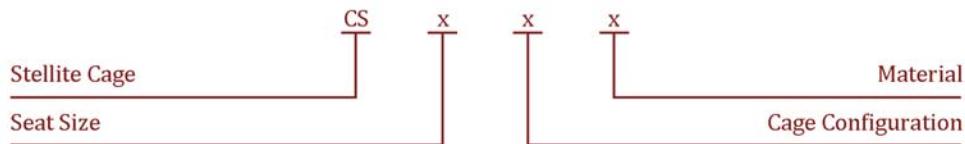
CF- Cage, Closed, Barrel, Female

Part No.	Thread Spec's (in)	Pump Bore Size (in)	Seat Size (in)	Box Thread (in)	API No.
CF40□	1.5730-16	1.250, 1.062	1-3/4	1.4704-14	N/A
CF47□	1.5730-16	1.250, 1.062	1-3/4	1.4704-14	N/A
CF67□-1	1.5730-16	1.250, 1.062	2-1/4	1.8024-14	N/A
CF67□-2	1.8750-16	1.500	2-1/4	1.8024-14	N/A
CF67□-3	2.0870-16	1.750	2-1/4	1.8024-14	N/A

Select Material

- Example: CF472 = 1-3/4" Cage, Closed Barrel Female, 316 Stainless Steel



Key**CS- Cage, One Piece Insert Guided****Seat Size (in):**

1 = 1-1/16	5 = 2
2 = 1-1/4	6 = 2-1/4
3 = 1-1/2	7 = 2-1/2
4 = 1-3/4	8 = 2-3/4

Material:

4 = Monel
5 = 8620 Steel, Stellite Insert
6 = 316 Stainless Steel, Stellite Insert

Cage Configuration:

0 = Barrel, Closed Female
1 = Plunger, Closed
2 = Barrel, Closed
3 = Double Valve, Closed
4 = Open, Pin End
5 = Open
6 = Barrel, Closed, Bottleneck
7 = Barrel, Closed, Female, Oversized
8 = Barrel, 1-1/4" RW
9 = Double Valve, Closed, Oversized
10 = Barrel, Closed, Oversized

CS- Cage, Insert Guided

Cages

CS- Cage, Pin-End Plunger Adapter

Part No.	Thread Spec's (in)	Cage Thread (in)	Pump Bore Size (in)	API No.
CS11 <input type="checkbox"/>	0.8750-14	0.8750-14	1-1/16	N/A
CS21 <input type="checkbox"/>	1.000-14	1.000-14	1-1/4	N/A
CS31 <input type="checkbox"/>	1.2500-14	1.2500-14	1-1/2	N/A
CS41 <input type="checkbox"/>	1.4704-14	1.4704-14	1-3/4	N/A
CS51 <input type="checkbox"/>	1.5604-14	1.5604-14	2	N/A
CS61 <input type="checkbox"/>	1.8024-14	1.8024-14	2-1/4	N/A
CS71 <input type="checkbox"/>	2.1095-11-1/2	2.1095-11-1/2	2-1/2	N/A
CS81 <input type="checkbox"/>	3.1715-11-1/2	3.1715-11-1/2	2-3/4	N/A



Select Material

• Example: CS215 = 1-1/4" Closed Plunger Cage, Steel Stellite Insert

CS- Cage, Barrel, Closed

Part No.	Barrel Spec's (in)	Cage Thread (in)	Pump Bore Size (in)	API No.
CS42 <input type="checkbox"/>	1.5730-16	1.4704-14	2	N/A
CS62 <input type="checkbox"/>	2.0870-16	1.8024-14	2-1/2	N/A



Select Material

• Example: CS426 = 1-3/4" Closed Barrel Cage, 316 Stainless Steel Stellite Insert

CS- Cage, Double Valve, Closed

Part No.	Thread Spec's (in)	Cage Thread (in)	Pump Bore Size (in)	API No.
CS13 <input type="checkbox"/>	0.8750-14	0.8750-14	1-1/16	N/A
CS23 <input type="checkbox"/>	1.000-14	1.000-14	1-1/4	N/A
CS33 <input type="checkbox"/>	1.2500-14	1.2500-14	1-1/2	N/A
CS43 <input type="checkbox"/>	1.4704-14	1.4704-14	1-3/4	N/A
CS53 <input type="checkbox"/>	1.5604-14	1.5604-14	2	N/A
CS63 <input type="checkbox"/>	1.8024-14	1.8024-14	2-1/4	N/A
CS73 <input type="checkbox"/>	2.1095-11-1/2	2.1095-11-1/2	2-1/2	N/A
CS83 <input type="checkbox"/>	3.1715-11-1/2	3.1715-11-1/2	2-3/4	N/A



Select Material

• Example: CS636 = 2-1/4" Closed Double Valve Cage, 316 Stainless Steel Stellite Insert

CS- Cage, Insert Guided

Cages

CS- Cage, Barrel, Closed, Female, Oversized

Part No.	Barrel Thread (in)	Cage Thread (in)	Pump Bore Size (in)	API No.
CS47 <input type="checkbox"/>	1.5730-16	1.4704-14	1-1/4 or 1-1/16	N/A

 Select Material

- Example: CS476 = 1-3/4" Barrel, Closed, Female, Oversized Cage, 316 Stainless Steel Stellite Insert



CS- Cage, Double Valve, Closed, Oversized

Part No.	Thread Spec's	Cage Thread	Pump Bore	API No.
CS49 <input type="checkbox"/>	1.4704-14	1.4704-14	1-3/4	N/A

 Select Material

- Example: CS496 = 1-3/4" Double Valve, Closed, Oversized Cage, 316 Stainless Steel Stellite Insert



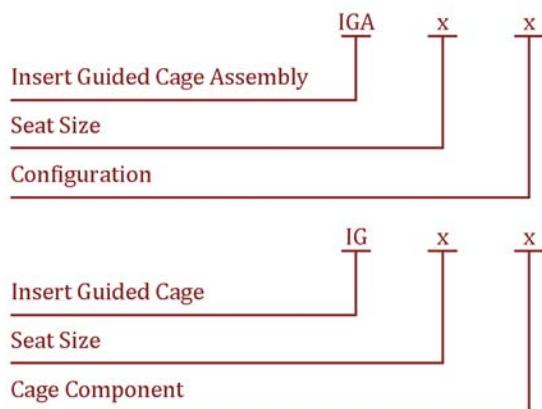
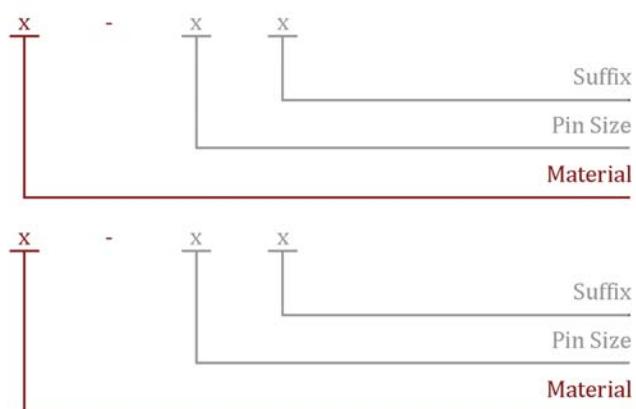
CS- Cage, Barrel, Closed, Oversized

Part No.	Barrel Thread (in)	Cage Thread (in)	Pump Bore Size (in)	API No.
CS410 <input type="checkbox"/>	1.5730-16	1.4704-14	1-1/4 or 1-1/16	N/A

 Select Material

- Example: CS4106 = 1-3/4" Barrel, Closed, Oversized Cage, 316 Stainless Steel Stelite Insert



Key**IG- Cage, Insert Guided****Seat Size (in):**

0 = 1-1/16	5 = 2-1/4
1 = 1-1/4	6 = 2-1/2
2 = 1-1/2	7 = 2-3/4
3 = 1-3/4	8 = 3-1/4
4 = 2	9 = 3-3/4

Material:

No Designator	= Carbon Steel
0 = Alloy	
1 = Stainless Steel	
2 = 316 Stainless Steel	
3 = Brass	
4 = Monel	
T = Teflon	

IG — Cage Component:

00 = Box-End Plunger Connector
01 = Pin-End Plunger Adapter (<i>specify "Pin Size" suffix</i>)
02 = Barrel Adapter
03 = Double Valve Adapter
04 = Barrel Adapter, Female
05 = Body
06 = Insert
07 = Gasket
08 = Open Cage Adapter, Pin-End (<i>specify "Pin Size" suffix</i>)
09 = Open Cage Adapter

Pin Size (in):

0 = 15/16 (5/8" SR)
1 = 1-1/16 (3/4" SR)
2 = 1-3/16 (7/8" SR)
3 = 1-3/8 (1" SR)

IGA — Assembly Configuration:

01 = Closed Plunger Cage
02 = Closed Barrel Cage
03 = Double Valve Cage
04 = Closed Barrel Female Cage
08 = Top Open Pin End (<i>specify "Pin Size" suffix</i>)
09 = Open Cage

Suffix (optional):

1.850 = Special O.D.
875 = 0.875 VR
P = Sucker Rod Pin Size
D = Special O.D.

IGA- Cage Assembly, IG - Adapter

Cages

IGA- Insert Guided Cage Assembly

Part No.	Description	Adapter	Body	Insert	Gasket
IGA♦ 01□	Closed Plg. Cage	IG♦ 01□	IG♦ 05□	IG♦ 06	IG♦ 07□
IGA♦ 02□	Closed Barrel Cage	IG♦02□	IG♦ 05□	IG♦ 06	IG♦ 07□
IGA♦ 03□	Double Valve Cage	IG♦ 3□	IG♦ 05□	IG♦ 06	IG♦ 07□
IGA♦ 04□	Closed Barrel Cage, Female	IG♦04□	IG♦ 05□	IG♦ 06	IG♦ 07□
IGA♦ 08□-P-D	Pin End Open Cage	IG♦08□-P-D	IG♦ 05□	IG♦ 06	IG♦ 07□
IGA♦ 09□	Open Cage	IG♦ 09□	IG♦ 05□	IG♦ 06	IG♦ 07□

 Select Size Select Material

"P" Sucker Rod Pin Size; "D" Special O.D.

- Example: IGA1012 = 1-1/4" Closed Plunger Cage, 316 Stainless Steel

IG- Cage, Open Pin End Adapter

Part No.	Sucker Rod Thread (in)	Cage Thread (in)	Valve Size (in)	API No.
IG308□-1-D	1-1/16-10	1.4704-14	3/4	N/A
IG308□-2-D	1-3/16-10	1.4704-14	3/4	N/A
IG508□-1-D	1-1/16-10	1.8024-14	2-1/4	N/A

 Select Material Select Pin Size

"D" Special O.D.

- Example: IG3082-1-1.850 = 1-3/4" Top Open Cage Pin End Adapter, 3/4" Sucker Rod Thread, 1850" O.D., 316 Stainless Steel



IG- Cage, Top Plunger Bushing

Part No.	Valve Rod Thread (in)	Cage Thread (in)	Valve Size (in)	API No.
IG208□-875	1/2-14 MOD.2P	1.2500-14	1-1/2	N/A

 Select Material

- Example: IG2082-875 = 1-1/2" Top Open Cage Bushing, 0.875 Valve Rod, 316 Stainless Steel



IG- Cage, Adapter

Cages

IG- Cage, Pin-End Plunger Adapter

Part No.	Thread Spec's (in)	Cage Thread (in)	Valve Size (in)	API No.
IG101	1.000-14	1.000-14	1-1/4	N/A
IG201	1.2500-14	1.2500-14	1-1/2	N/A
IG301	1.4704-14	1.4704-14	1-3/4	N/A
IG401	1.5604-14	1.5604-14	2	N/A
IG501	1.8024-14	1.8024-14	2-1/4	N/A

 Select Material

- Example: IG3014 = 1-3/4" Pin End Plunger Adapter, Monel



IG- Cage, Barrel Adapter

Part No.	Thread Spec's (in)	Cage Thread (in)	Valve Size (in)	API No.
IG202	1.3330-16	1.2500-14	1-1/2	N/A
IG302	1.5730-16	1.4704-14	1-3/4	N/A
IG502	2.0870-16	1.8024-14	2-1/4	N/A

 Select Material

- Example: IG3022 = 1-3/4" Cage Barrel Adapter, 316 Stainless Steel



IG- Cage, Double Valve Adapter

Part No.	Thread Spec's (in)	Cage Thread (in)	Valve Size (in)	API No.
IG103	1.000-14	1.000-14	1-1/4	N/A
IG203	1.2500-14	1.2500-14	1-1/2	N/A
IG303	1.4704-14	1.4704-14	1-3/4	N/A
IG403	1.5604-14	1.5604-14	2	N/A
IG503	1.8024-14	1.8024-14	2-1/4	N/A

 Select Material

- Example: IG1034 = 1-1/4" Double Valve Adapter, Monel



IG- Cage, Adapter, Body, Insert, Gasket

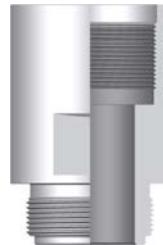
Cages

IG- Cage, Barrel Adapter, Female

Part No.	Thread Spec's (in)	Cage Thread (in)	Valve Size (in)	API No.
IG304□	1.5730-16	1.4704-14	1-3/4	N/A
IG504□	2.0870-16	2.1095-14	2-1/4	N/A

 Select Material

- Example: IG3042 = 1-3/4" Cage Adapter, 316 Stainless Steel, For 1-5/8" x 1-1/4" I.D. RH Barrel



IG- Cage, Cage Body

Part No.	Thread Spec's (in)	Cage Thread (in)	Valve Size (in)	API No.
IG105□	1.000-14	1.000-14	1-1/4	N/A
IG205□	1.2500-14	1.2500-14	1-1/2	N/A
IG305□	1.4704-14	1.4704-14	1-3/4	N/A
IG405□	1.5604-14	1.5604-14	2	N/A
IG505□	1.8024-14	1.8024-14	2-1/4	N/A

 Select Material

- Example: IG5052 = 2-1/4" Cage Body, 316 Stainless Steel



IG- Cage, Insert

Part No.	Pump Bore Size (in)	API No.
IG106	1-1/4	N/A
IG206	1-1/2	N/A
IG306	1-3/4	N/A
IG406	2	N/A
IG506	2-1/4	N/A

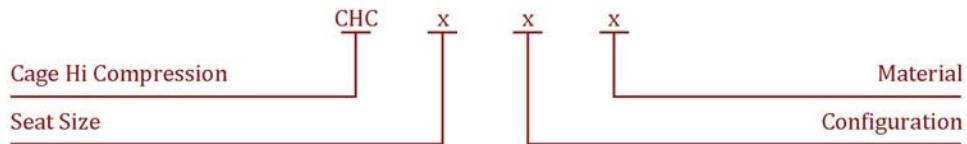
- Example: IG106 = 1-1/4" Insert



IG- Gasket Ring

Part No.	Valve Size (in)	API No.
IG107	1-1/4	N/A
IG107-T	1-1/4	N/A
IG207	1-1/2	N/A
IG207-T	1-1/2	N/A
IG307	1-3/4	N/A
IG307-T	1-3/4	N/A
IG407	2	N/A
IG407-T	2	N/A
IG507	2-1/4	N/A
IG507-T	2-1/4	N/A



Key**CHC- Cage Hi Compression****Seat Size (in):**

4 = 1-3/4

6 = 2-1/4

Configuration:

2 = Closed Barrel

Material:

No Designator = Carbon Steel

0 = 8620

1 = 304 Stainless Steel

2 = 316 Stainless Steel

4 = Monel

CHC- Cage Hi Compression

Cages

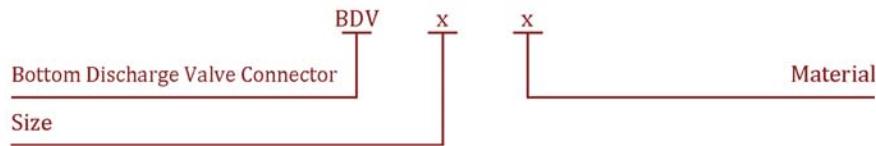
CHC- Cage High Compression

Part No.	Barrel Thread	Cage Thread	Pump Size	API No.
CHC42	1.5730-16	1.4704-14	2	N/A
CHC62	2.0870-16	1.8024-14	2-1/2	N/A

 Select Material

- Example: CHC422, Closed Barrel High Compression Cage for 1-3/4", 316 Stainless Steel



Key**BDV- Connector, Bottom Discharge Valve****Size (in):**

1 = 2

2 = 2-1/2

Material:

No Designator = Carbon Steel

1 = Stainless Steel

2 = 316 Stainless Steel

3 = Brass

4 = Monel

BDV- Connector, Bottom Discharge Valve

Connectors

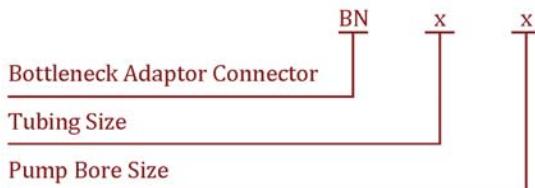
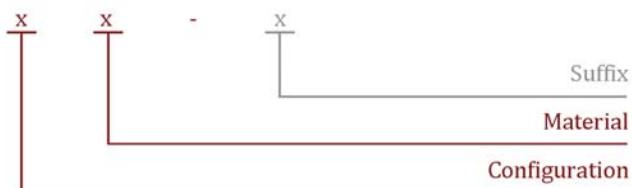
BDV- Connector, Bottom Discharge Valve

Part No.	Barrel Pin Thread (in)	Cage Pin Thread (in)	API No.
BDV1□	1.5730-16	0.8750-14	N/A
BDV2□	2.0870-16	1.000-14	N/A

 Select Material

- Example: BDV22 = 2-1/2" Bottom Discharge Valve, 316 Stainless Steel



Key**BN- Connector, Bottleneck Adapter****Tubing Size (in):**

- 0 = No Tubing Size Required
- 1 = 2-3/8
- 2 = 2-7/8
- 3 = 3-1/2

Pump Bore Size (in):

- 1 = 2.250
- 2 = 2.750
- 3 = 3.250
- 4 = 3.750

Configuration:

- 1 = Upper Bottleneck Adapter
- 2 = Lower Bottleneck Adapter
- 3 = Lock Nut for Lower Bottleneck Adapter
- 4 = Bottleneck Cage Adapter

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel

Suffix (optional):

SP = Special

BN- Connector, Bottleneck Adapter, Lock Nut

Connectors

BN- Connector, Bottleneck Adapter, Upper

Part No.	Terminal Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Barrel Thread (in)	API No.
BN111 [□]	2-3/8-8 RD EUE	2-3/8	2.250	2.3755-11-1/2	N/A
BN111 [□] -2.573	2-3/8-8 RD EUE	2-3/8	2.500	2.5730-16	N/A
BN111 [□] -SP	2-3/8-8 RD EUE	2-3/8	2.000	2.0870-16	N/A
BN121 [□]	2-3/8-8 RD EUE	2-3/8	2.750	2.8750-10	N/A
BN221 [□]	2-7/8-8 RD EUE	2-7/8	2.750	2.8750-10	N/A
BN241 [□]	2-7/8-8 RD EUE	2-7/8	3.750	3.875-10	N/A
BN231 [□]	2-7/8-8 RD EUE	2-7/8	3.250	3.3825-11.5 NS	N/A
BN331 [□]	3-1/2-8 RD EUE	3-1/2	3.250	3.3825-11.5 NS	N/A
BN341 [□]	3-1/2-8 RD EUE	3-1/2	3.750	3.8750-10	N/A



Select Material

- Example: BN2212 = 2-7/8" x 2.750" Upper Bottleneck Adapter, 316 Stainless Steel

BN- Connector, Bottleneck Adapter, Lower

Part No.	Terminal Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Cage Size (in)	Cage Thread (in)
BN112 [□]	2-3/8-8 RD EUE	2-3/8	2.250	2-3/4	2.1095-11-1/2
BN122 [□]	2-3/8-8 RD EUE	2-3/8	2.750	3-3/4	2.8095-11-1/2
BN222 [□]	2-7/8-8 RD EUE	2-7/8	2.750	3-1/4	2.8095-11-1/2
BN232 [□]	2-7/8-8 RD EUE	2-7/8	3.250	3-3/4	3.1715-11-1/2
BN242 [□]	2-7/8-8 RD EUE	2-7/8	3.750	3-3/4	3.1715-11-1/2
BN332 [□]	3-1/2-8 RD EUE	3-1/2	3.250	3-3/4	3.1715-11-1/2
BN342 [□]	3-1/2-8 RD EUE	3-1/2	3.750	4-1/4	3.1715-11-1/2



Select Material

- Example: BN122 = 2-3/8" x 2.750" Lower Bottleneck Adapter, Steel

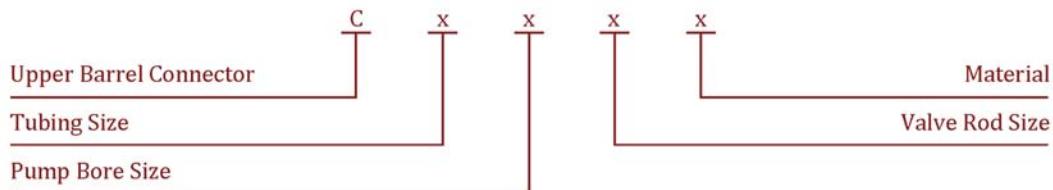
BN- Connector, Lower Bottleneck Adapter Locknut

Part No.	Thread Spec's (in)	Pump Bore Size (in)	API No.
BN013 [□]	2.1095-11-1/2	2.250	N/A
BN023 [□]	2.8095-11-1/2	2.750	N/A
BN033 [□]	3.1715-11-1/2	3.250	N/A



Select Material

- Example: BN023 = 2.750" Lower Bottleneck Adapter Locknut, 316 Stainless Steel

Key**C- Connector, Upper Barrel****Tubing Size (in):**

- 1 = 1.900, 2-1/16
- 2 = 2-3/8
- 3 = 2-7/8
- 4 = 3-1/2

Valve Rod Size (in):

- 1 = 11/16
- 2 = 11/16 or 7/8
- 3 = 1-1/16

Pump Bore Size (in):

- 0 = 1.250 RW
- 1 = 1.062 RH
- 2 = 1.250, 1.500
- 3 = 1.750, 2.000
- 4 = 2.500

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel
- 9 = Alloy

C- Connector, Upper Barrel

Connectors

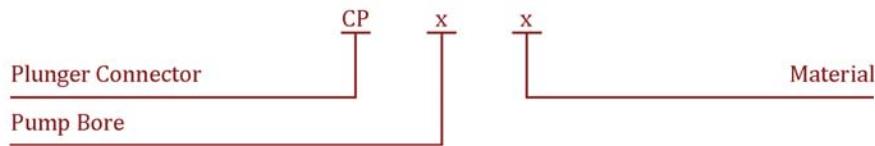
C- Connector, Upper Barrel

Part No.	Barrel Pin Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Valve Rod Size (in)	Cage Thread (in)	API No.
C101 <input checked="" type="checkbox"/>	1.3330-16	1.900, 2-1/16	1.250	11/16	1.2500-14	C21-15
C201 <input checked="" type="checkbox"/>	1.3330-16	2-3/8	1.250	11/16	1.4704-14	C21-20-125
C211 <input checked="" type="checkbox"/>	1.5730-16	2-3/8	1.062	11/16	1.4704-14	N/A
C222 <input checked="" type="checkbox"/>	1.5730-16	2-3/8	1.500	11/16, 7/8	1.4704-14	C21-20
C322 <input checked="" type="checkbox"/>	1.5730-16	2-7/8	1.250, 1.500	11/16, 7/8	1.8024-14	N/A
C332 <input checked="" type="checkbox"/>	2.0870-16	2-7/8	2.000	11/16, 7/8	1.8024-14	C21-25
C333 <input checked="" type="checkbox"/>	2.0870-16	2-7/8	2.000	1-1/16	1.8024-14	N/A
C443 <input checked="" type="checkbox"/>	2.5730-16	3-1/2	2.500	1-1/16	2.1095-11-1/2	C21-30

Select Material

- Example: C2222 = 2" Upper Barrel Connector, 316 Stainless Steel
- Bored out for 1-1/16" Plunger Adapter
- Bored out for 1-1/16" Valve Rod



Key**CP- Tubing Pump Box End Plunger Connector****Pump Bore Size (in):**

01 = 1.062	06 = 2.000
02 = 1.250	07 = 2.250
03 = 1.500	08 = 2.500
04 = 1.750	09 = 2.750
05 = 1.781	10 = 3.250
	11 = 3.750

Material:

No Designator = Carbon Steel
0 = Alloy
1 = 303 Stainless Steel
2 = 316 Stainless Steel
3 = Brass
4 = Monel

CP- Tubing Pump Box End Plunger Connector

Connectors

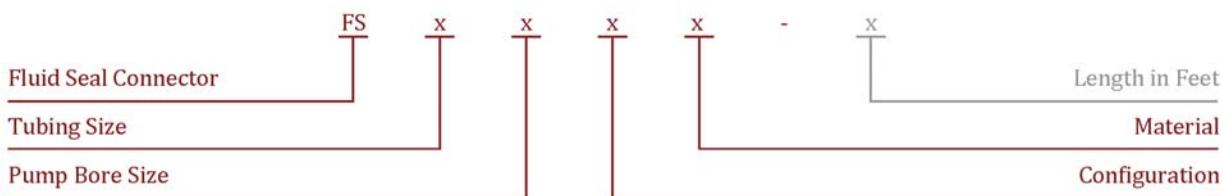
CP- Tubing Pump Box End Plunger Connector

Part No.	Pump Bore (in)	Plunger Pin Thread (in)	Box Plunger Thread (in)	API No.
CP01 <input checked="" type="checkbox"/>	1.062	0.8750-14	—	N/A
CP02 <input checked="" type="checkbox"/>	1.250	1.0000-14	—	N/A
CP03 <input checked="" type="checkbox"/>	1.500	1.2500-14	—	N/A
CP04 <input checked="" type="checkbox"/>	1.750	1.4704-14	1.5084-14	C22-175
CP05 <input checked="" type="checkbox"/>	1.781	1.4704-14	—	N/A
CP06 <input checked="" type="checkbox"/>	2.000	1.5604-14	—	N/A
CP07 <input checked="" type="checkbox"/>	2.250	1.8024-14	1.9864-14	C22-225
CP08 <input checked="" type="checkbox"/>	2.500	2.1095-11-1/2	—	N/A
CP09 <input checked="" type="checkbox"/>	2.750	2.1095-11-1/2	2.3755-11-1/2	C22-275
CP10 <input checked="" type="checkbox"/>	3.250	2.8095-11-1/2	—	N/A
CP11 <input checked="" type="checkbox"/>	3.750	3.1715-11-1/2	3.3825-11-1/2	C22-375

 Select Material

- Example: CP042 = 1.750" Connector For Box Plunger, 316 Stainless Steel



Key**FS- Connector, Fluid Seal****Tubing Size (in):**

1 = 2-3/8

2 = 2-7/8

Pump Bore Size (in):

1 = 1.250

2 = 1.750

Configuration:

1 = Connector, Outer Barrel

2 = Cage, Standing Tube

3 = Outer Tube (*specify "Length" suffix*)4 = Standing Tube (*specify "Length" suffix*)

5 = Standing Tube Guide

6 = Plunger (*specify "Length" suffix*)7 = Pull Tube (*specify "Length" suffix*)

8 = Plunger Cage

Material:

No Designator = Carbon Steel

0 = Alloy

1 = Stainless Steel

2 = 316 Stainless Steel

Length in Feet:

1 = 1 5 = 5 9 = 9

2 = 2 6 = 6 10 = 10

3 = 3 7 = 7 11 = 11

4 = 4 8 = 8 12 = 12

FS- Connector

Connectors

FS- Connector, Outer Barrel

Part No.	Barrel Pin Thread (in)	Cage Thread (in)	Pump Bore Size (in)	Pull Tube Thread (in)	API No.
FS111 <input checked="" type="checkbox"/>	1.5730-16	1.4704-14	1.250	1.000-16	N/A
FS221 <input checked="" type="checkbox"/>	2.0870-16	1.8024-14	1.750	1.500-16	N/A

 Select Material

- Example: FS1110 = 2-3/8" Outer Barrel Connector, 1-1/4" Bore, Heat Treated



FS- Connector, Cage, Standing Tube

Part No.	Pull Tube Thread (in)	Cage Thread (in)	Pump Bore Size (in)	API No.
FS112 <input checked="" type="checkbox"/>	1.5000-16	1.4704-14	1.250	N/A
FS222 <input checked="" type="checkbox"/>	2.0000-16	1.8024-14	1.750	N/A

 Select Material

- Example: FS112 = 2-3/8" Standing Tube Cage, 1-1/4" Bore, Carbon Steel



FS- Plug, Standing Tube Guide

Part No.	Barrel Thread (in)	Pump Bore Size (in)	API No.
FS115 <input checked="" type="checkbox"/>	1.3330-16	1.250	N/A
FS225 <input checked="" type="checkbox"/>	1.822-16	1.750	N/A

 Select Material

- Example: FS1152 = 2-3/8" Pull Plug Standing Tube Guide, 1-1/4" Bore, 316 Stainless Steel



FS- Connector, Pull Tube

Part No.	Pull Tube Thread (in)	Pump Bore Size (in)	API No.
FS117 <input checked="" type="checkbox"/> -*	1.000-16	1.250	N/A

 Select Material Length in Feet

- Example: FS1172 = Pull Tube For 2-3/8" x 1-1/4" Pump, 316 Stainless Steel



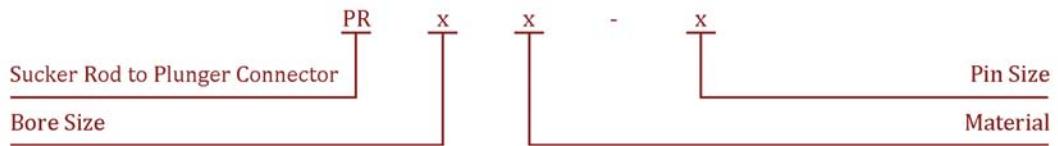
FS- Plunger

Part No.	Pull Tube Thread (in)	Cage Thread	Pump Bore Size (in)	API No.
FS226-*	1.500-16	1.4704-14	1.750	N/A

 Length in Feet

- Example: FS226-16 = 1-3/4" x 16' Plunger



Key**PR- Connector, Sucker Rod To Plunger****Bore Size (in):**

4 = 2.250	6 = 3.250
5 = 2.750	7 = 3.750

Pin Size (in):

0 = 5/8
1 = 3/4
2 = 7/8
3 = 1
4 = 1-1/8

Material:

No Designator = Carbon Steel
 0 = Alloy
 1 = Stainless Steel
 2 = 316 Stainless Steel
 3 = Brass
 4 = Monel

PR- Connector, Sucker Rod To Plunger

Connectors

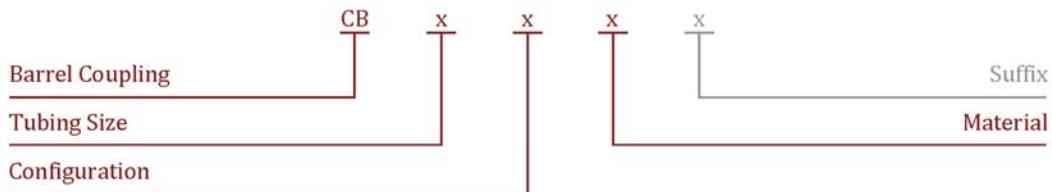
PR- Connector, Sucker Rod To Plunger

Part No.	Box End Plunger Thread (in)	Bore Size (in)	Pin Size (in)	API No.
PR4□-⊗	1.9864-14	2.250	7/8	N/A
PR5□-⊗	2.3755-11-1/2	2.750	3/4, 7/8	N/A
PR6□-⊗	2.7385-11-1/2	3.250	7/8, 1	N/A
PR7□-⊗	3.3825-11-1/2	3.750	7/8, 1	N/A

 Select Material Select Pin Size

- Example: PR52-2 = Connector, 2-3/4" Plunger to 7/8" Sucker Rod, 316 Stainless Steel



Key**CB- Coupling, Barrel, Tubing Pump****Tubing Size (in):**

- 0 = 1.900-10 RD EUE
- 1 = 2-3/8-8 RD EUE
- 2 = 2-7/8-8 RD EUE
- 3 = 3-1/2-8 RD EUE
- 4 = 4-1/2-8 RD EUE
- 5 = 2.7380-11-1/2 Straight Thread
- 6 = 3.2380-11-1/2 Straight Thread
- 7 = 3.7380-11-1/2 Straight Thread
- 8 = 4.2380-11-1/2 Straight Thread

Configuration:

- 1 = Tubing Pump Coupling
- 2 = Working Barrel Coupling, Top
- 3 = Barrel Coupler
- 4 = Shoe, Working Barrel Coupling, Lower
- 5 = Shoe, TH Barrel Coupling, Lower

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel

Suffix (optional):

NP = Nickel Plated

CB- Coupling, Barrel, Tubing Pump

Couplings

CB- Coupling, Barrel, Tubing Pump

Part No.	Tubing Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Barrel Thread (in)	API No.
CB01 <input type="checkbox"/>	1.900-10 RD EUE	1.900	1.500 RH	1.8750-16	N/A
CB11 <input type="checkbox"/>	2-3/8-8 RD EUE	2-3/8	1.750	2.2380-11-1/2	C35-20
CB21 <input type="checkbox"/>	2-7/8-8 RD EUE	2-7/8	2.250	2.7380-11-1/2	C35-25
CB21 <input type="checkbox"/> -2.750	2-7/8-8 RD EUE	2-7/8	2.750	3.238-11-1/2	N/A
CB31 <input type="checkbox"/>	3-1/2-8 RD EUE	3-1/2	2.750	3.2380-11-1/2	C35-30
CB41 <input type="checkbox"/>	4-1/2-8 RD EUE	4-1/2	3.750	4.2380-11-1/2	N/A

 Select Material

• Example: CB21 = 2-1/4" Coupling, Barrel, Tubing Pump, Steel



CB- Coupling, Barrel To Barrel, Tubing Pump

Part No.	Barrel Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Barrel Thread (in)	API No.
CB53 <input type="checkbox"/>	2.7380-11-1/2	—	2.250	2.7380-11-1/2	N/A
CB63 <input type="checkbox"/>	3.2380-11-1/2	—	2.750	3.2380-11-1/2	N/A
CB73 <input type="checkbox"/>	3.7380-11-1/2	—	3.250	3.7380-11-1/2	N/A
CB83 <input type="checkbox"/>	4.2380-11-1/2	—	3.750	4.238-11-1/2	N/A

 Select Material

• Example: CB53 = 2-1/4" Coupling, Barrel To Barrel, Tubing Pump, Steel



CB- Coupling, Barrel, Working Barrel

Part No.	Tubing Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Tapered Thread (in)	API No.
CB12 <input type="checkbox"/>	2-3/8-8 RD EUE	2-3/8	1.781	178-11-1/2	C37-20
CB22 <input type="checkbox"/>	2-7/8-8 RD EUE	2-7/8	2.250	225-11-1/2	C37-25
CB32 <input type="checkbox"/>	3-1/2-8 RD EUE	3-1/2	2.750	275-11-1/2	C37-30

 Select Material

• Example: CB12 = 2-3/8" Coupling, Working Barrel, Steel



CB- Coupling, Barrel, Tubing Pump

Couplings

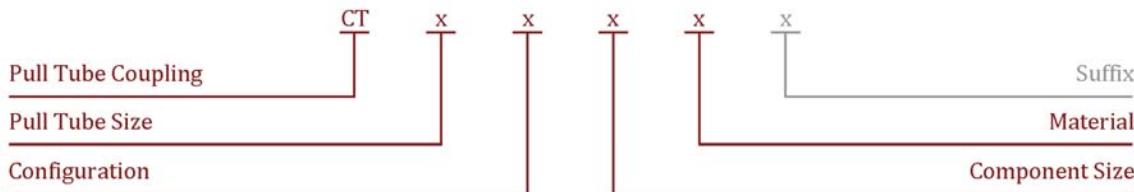
CB- Coupling, Shoe, TH Barrel, Lower

Part No.	Tubing Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Barrel Thread (in)	API No.
CB25□	2-7/8-8 RD EUE	2-7/8	2.250	2.7380-11-1/2	N/A
CB35□	3-1/2-8 RD EUE	3-1/2	2.750	3.238-11-1/2	N/A

Select Material

- Example: CB252 = 2-7/8" Coupling For Tubing Pump with Seating Mandrel Stop



Key**CT- Coupling, Pull Tube****Pull Tube Size (in):**

- | | |
|-----------|-----------|
| 1 = 15/16 | 4 = 1-1/2 |
| 2 = 1-1/8 | 5 = 1-7/8 |
| 3 = 1-1/4 | 6 = 1 |

Configuration:

- 1 = HVR Plunger Adapter
- 2 = Pull Tube, Upper Coupling
- 3 = Pull Tube, Lower Coupling

Component Size (in):

- 1 = 1-1/4 Plunger
- 2 = 1-1/2 Plunger
- 3 = 1-3/4 Plunger
- 4 = 2 Plunger
- 5 = 2 Hold-Down
- 6 = 2-1/2 Hold-Down
- 7 = 1-1/2 Hold-Down
- 8 = 2-1/4 Plunger

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel

Suffix (optional):

- C = Collet Type

CT- Coupling, Pull Tube

Couplings

CT- Coupling, HVR Plunger Adapted (Ported)

Part No.	Pull Tube Thread (in)	Plunger Thread (in)	Pump Bore Size (in)	API No.
CT111□	0.9375-16	1.0000-14	1.250	N/A
CT112□	0.9375-16	1.2500-14	1.500	N/A
CT212□	1.1250-16	1.2500-14	1.500	N/A
CT213□	1.1250-16	1.4704-14	1.750	N/A
CT312□	1.2500-14	1.2500-14	1.500	N/A
CT413□	1.5000-16	1.4704-14	1.750	N/A
CT414□	1.5000-16	1.5604-14	2.000	N/A
CT518□	1.875-16	1.8024-14	2.250	N/A



Select Material

- Example: CT212 = 1-1/2" HVR Plunger Adapter, Steel
- Improved Hollow Pull Tube (1-1/4" Plunger)

CT- Coupling, Upper Pull Tube

Part No.	Pull Tube Thread (in)	Plunger Thread (in)	Pump Bore Size (in)	API No.
CT121□	0.9375-16	1.0000-14	1.250	C32-125
CT222□	1.1250-16	1.2500-14	1.500	C32-150
CT423□	1.5000-16	1.4704-14	1.750	C32-175
CT424□	1.5000-16	1.5604-14	2.000	C32-200
CT621□	1.0000-16	1.0000-14	1.250	N/A



Select Material

- Example: CT2222 = 1-1/8" PT x 1-1/2" Plunger, Upper Pull Tube Coupling, 316 Stainless Steel

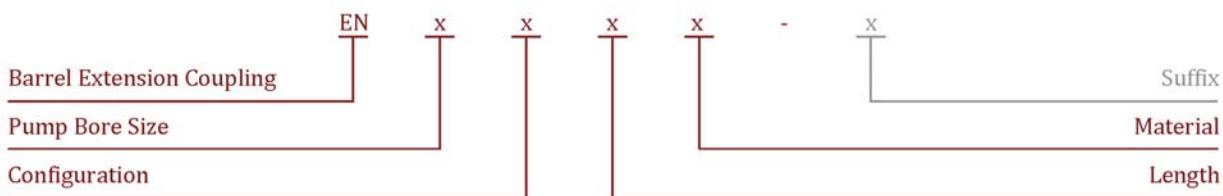
CT- Coupling, Lower Pull Tube

Part No.	Pull Tube Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Mandrel Thread (in)	API No.
CT137□	0.9375-16	1-1/2	1.250	1.2500-14	C33-125-15
CT135□	0.9375-16	2	1.250	1.4704-14	C33-125
CT235□	1.1250-16	2	1.500	1.4704-14	C33-150-20
CT236□	1.1250-16	2-1/2	1.500	1.8024-14	C33-150-25
CT335□	1.2500-14	2-3/8	1.250, 1.500	1.4704-14	N/A
CT436□	1.5000-16	2-1/2	1.750, 2.000	1.8024-14	C33-200
CT635□	1.0000-16	2	1.750, 2.000	1.4704-14	N/A



Select Material

- Example: CT2353 = 1-1/8" PT x 2" HD, Lower Pull Tube Coupling, Brass

Key**EN- Coupling, Extension****Pump Bore Size (in):**

0 = 1.062 x 1.438 O.D.	3 = 1.500
1 = 1.062 x 1.625 O.D.	4 = 1.750
2 = 1.250	5 = 2.250

Length (in):

1 = 0	5 = 36
2 = 6	6 = 48
3 = 12	7 = 60
4 = 24	

Configuration:

1 = Insert Pump	
2 = Mercury Pump Heavy Wall	
3 = Mercury Pump Light Wall	

Material:

No Designator = Carbon Steel
0 = Alloy
1 = Stainless Steel
3 = Brass
4 = Monel
7 = 501 Stainless Steel

Mercury Pump Configuration Only (in):

1 = 6	4 = 12
2 = 8	5 = 14
3 = 10	6 = 16

Suffix (optional):

S = Oversize
NP = Nickel Plated

EN- Coupling, Barrel Extension

Couplings

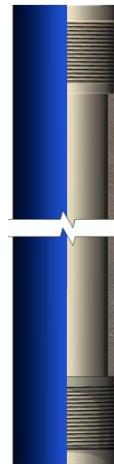
EN- Coupling, Barrel Extension

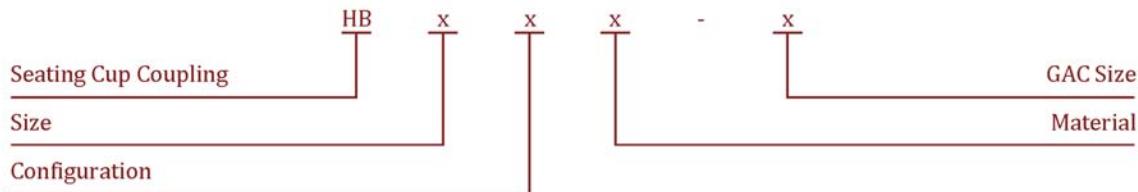
Part No.	Barrel Thread (in)	Tubing Size (in)	Pump Bore Size (in)	Barrel Thread (in)	API No.
EN01①□	1.3330-16	1.900, 2-1/16	1.062	1.3125-16	C31-106-15
EN11①□	1.5730-16	2-3/8	1.062	1.5730-16	N/A
EN11①□-1.42	1.4200-16	2-3/8	1.062	1.5730-16	N/A
EN21①□	1.5730-16	2-3/8	1.250	1.5730-16	C31-125
EN21①□-2.50	1.5730-16	2-7/8	1.250	2.0870-16	N/A
EN22①□	1.5730-16	2-3/8	1.500	1.5730-16	N/A
EN31①□	1.8750-16	2-7/8	1.500	2.0870-16	C31-150
EN31①□-S	1.8750-16	2-7/8	1.500	2.0870-16	N/A
EN41①□	2.0870-16	2-7/8	1.750	2.0870-16	C31-175
EN511①□	2.5730-16	3-1/2	2.250	2.5730-16	C37-225

① Select Length

□ Select Material

• Example: EN2133 = 1-1/4" x 12" Insert Pump Barrel Extension, Brass



Key**HB- Coupling, Seating Cup, Bottom Hold-Down****Size (in):**

1 = 1-1/4	4 = 2
2 = 1-3/8	5 = 2-1/2
3 = 1-1/2	6 = 3

Configuration:

1 = Type "HR"
2 = Type "O"
3 = Oversize
4 = Type "HR" Beveled

Material:

No Designator = Carbon Steel
0 = Alloy
1 = Stainless Steel
2 = 316 Stainless Steel
3 = Brass
4 = Monel

GAC Size (in):

1 = 1/2	4 = 1-1/4
2 = 3/4	5 = 1-1/2
3 = 1	

HB- Coupling, Seating Cup, Bottom HD

Couplings

HB- Coupling, Seating Cup, Bottom HD, Type "HR"

Part No.	Mandrel Thread (in)	Tubing Size (in)	G.A.C. Size (in)	API No.
HB21□-1	0.7500-16	1.900, 2-1/16	1/2 LP	N/A
HB31□-2	0.8750-14	1.900, 2-1/16	3/4 LP	N/A
HB31□-3	0.8750-14	1.900, 2-1/16	1 LP	N/A
HB41□-2	1.1894-14	2-3/8	3/4 LP	S16-15
HB41□-3	1.1894-14	2-3/8	1 LP	S16-20
HB51□-4	1.5604-14	2-7/8	1-1/4 LP	S16-25
HB61□-4	2.0035-11-1/2	3-1/2	1-1/4 LP	N/A
HB61□-5	2.0035-11-1/2	3-1/2	1-1/2 LP	S16-30

 Select Material

- Example: HB411-2 = 2" Bottom Nut, Stainless Steel, 3/4" GAC



HB- Coupling, Seating Cup, Bottom HD, Type "O"

Part No.	Mandrel Thread (in)	Tubing Size (in)	G.A.C. Size (in)	API No.
HB22□-1	1.000-14	1.900, 2-1/16	1/2 LP	N/A
HB32□-2	1.1894-14	1.900, 2-1/16	3/4 LP	N/A
HB42□-3	1.3850-14	2-3/8	1 LP	N/A
HB52□-4	1.5604-14	2-7/8	1-1/4 LP	N/A

 Select Material

- Example: HB421-3 = 2" Bottom Nut for Oversize Mandrel, Stainless Steel, 1" GAC



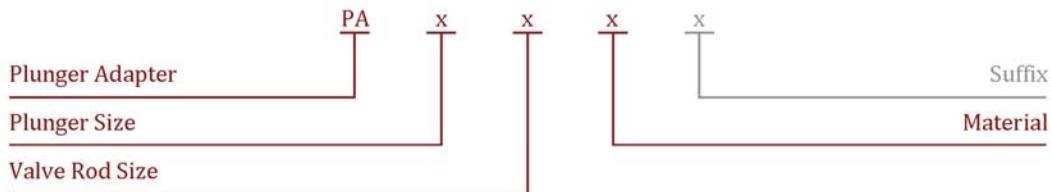
HB- Coupling, Seating Cup, Bottom HD, Type "HR" Beveled

Part No.	Mandrel Thread (in)	Tubing Size (in)	G.A.C. Size (in)	API No.
HB44□-3	1.1894-14	2-3/8	1 LP	N/A
HB54□-4	1.5604	2-7/8	1-1/4 LP	N/A

 Select Material

- Example: HB442-3 = 2" Seating Cup Coupling, Type "HR" Beveled, for 1" GAC, 316 Stainless Steel



Key**PA- Coupling, Plunger Adapter****Plunger Size (in):**

1 = 1-1/16	5 = 2
2 = 1-1/4	6 = 2-1/4
3 = 1-1/2	7 = 2-1/2
4 = 1-3/4	8 = 2-3/4

Material:

No Designator = Carbon Steel
0 = Alloy
1 = Stainless Steel
2 = 316 Stainless Steel
3 = Brass
4 = Monel

Valve Rod Size (in):

1 = 11/16
2 = 7/8
3 = 1-1/16

9 = 4140 Heat Treat**Suffix (optional):**

C = Collet Type
TS = Top Seal
SP = Sand Pump Plunger
G = Grooved

PA-SW Plunger Adapter Sand Wiper

Couplings

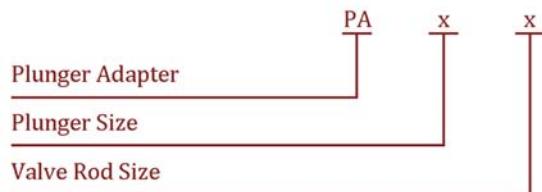
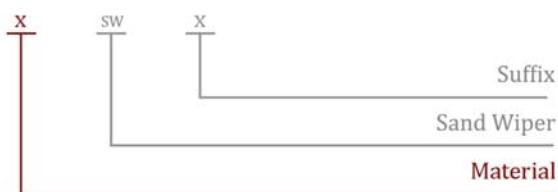
PA-SW-BX Plunger Adapter Sand Wiper, Box End Undercut Monel Pin Plungers

Part No.	Plunger Thread (in)	Pump Bore Size (in)	Valve Rod Size (in)	API No.
PA11□-SW-BX	0.7500-16 NF	1.062	11/16	N/A
PA21□-SW-BX	0.8750-14 NS	1.250	11/16	N/A
PA22□-SW-BX	0.8750-14 NS	1.250	7/8	N/A
PA31□-SW-BX	1.1250-16 NS	1.500	11/16	N/A
PA32□-SW-BX	1.1250-16 NS	1.500	7/8	N/A
PA42□-SW-BX	1.3330-16 NS	1.750	7/8	N/A
PA43□-SW-BX	1.3330-16 NS	1.750	1-1/16	N/A
PA62□-SW-BX	1.5730-16 NS	2.00	7/8	N/A
PA63□-SW-BX	1.5730-16 NS	2.00	1-1/16	N/A
PA73□-SW-BX	N/A	2.250	1-1/16	N/A
PA83□-SW-BX	N/A	2.250	1-1/16	N/A

 Select Material

- Example: PA324-SW-BX = 1-1/2" x 7/8 UR x Plunger Adapter Sand Wiper for Undercut Monel Pin Plunger, Monel.

- Patent Pending

Key**PA-SW- Plunger Adapter Sand Wiper****Plunger Size (in):**

1 = 1-1/16	6 = 2
2 = 1-1/4	7 = 2-1/4
3 = 1-1/2	8 = 2-1/2
4 = 1-3/4	9 = 2-3/4
5 = 1-25/32	

Valve Rod Size (in):

1 = 11/16
2 = 7/8
3 = 1-1/16

Material:

No Designator = Carbon Steel
0 = Alloy
1 = 303/304 Stainless Steel
2 = 316 Stainless Steel
3 = Brass
4 = Monel
9 = 4140 Heat Treat

Sand Wiper (optional):

SW = Sand Wiper

Suffix (either one optional):

BX = For Box End Undercut Monel Pin Plunger
PE = For Pin End Plunger

PA- Coupling, Plunger Adapter

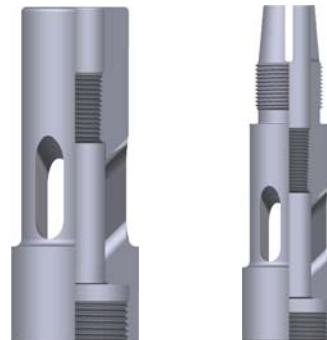
Couplings

PA- Coupling, Plunger Adapter

Part No.	Plunger Thread (in)	Pump Bore Size (in)	Valve Rod Size (in)	API No.	Nut For Collet Type
PA11□	0.8750-14	1.062	11/16	N/A	—
PA21□	1.0000-14	1.250	11/16	N/A	NC12□
PA22□	1.0000-14	1.250	7/8	N/A	—
PA31□	1.2500-14	1.500	11/16	N/A	NC22□
PA32□	1.2500-14	1.500	7/8	N/A	—
PA42□	1.4704-14	1.750	7/8	N/A	NC32□
PA43□	1.4704-14	1.750	1-1/16	N/A	—
PA52□	1.5604-14	2.000	7/8	N/A	NC32□
PA53□	1.5604-14	2.000	1-1/16	N/A	NC82□-200
PA63□	1.8024-14	2.250	1-1/16	N/A	—
PA73□	2.1095-11-1/2	2.500	1-1/16	N/A	NC82□

 Select Material

- Example: PA322 = 1-1/2" x 7/8" Plunger Adapter, 316 Stainless Steel

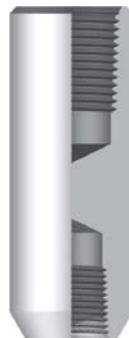


PA- Coupling, Plunger Adapter For Sand Pump

Part No.	Valve Rod 1 (in)	Valve Rod 2 (in)	Pump Bore Size (in)	API No.
PA22□-SP	11/16	7/8	1.250, 1.500	N/A
PA22□-SP-687	11/16	11/16	1.250, 1.500	N/A

 Select Material

- Example: PA222-SP = 1-1/4" x 11/16", 7/8" Plunger Adapter, 316 Stainless Steel



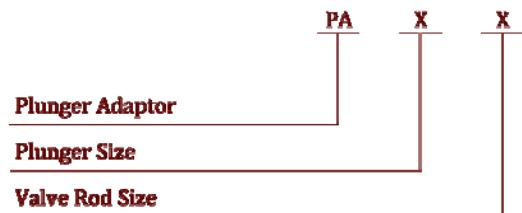
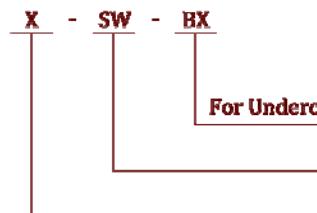
PA- Coupling, Top Seal Plunger Adapter

Part No.	Plunger Thread (in)	Pump Bore Size (in)	Valve Rod (in)
PA21□-TS	1.0000-14	1.250	11/16
PA22□-TS	1.0000-14	1.250	7/8
PA31□-TS	1.2500-14	1.500	11/16
PA32□-TS	1.2500-14	1.500	7/8
PA42□-TS	1.4704-14	1.750	7/8

 Select Material

- Example: PA212- TS = 1-1/4" x 11/16" Top Seal Plunger Adapter, 316 Stainless Steel



Key**PA-SW-BX - Plunger Adapter Sand Wiper****Plunger Size (in):**

2 = 1-1/4

3 = 1-1/2

4 = 1-3/4

6 = 2

Material:

4 = Monel

Valve Rod Size (in):

1 = 11/16

2 = 7/8

3 = 1-1/16

Fit:

Nominal: -0.002 to .0025

Patented Sand Diverter**OD is Spray Metal**

PA-SW-BX Plunger Adapter Sand Wiper

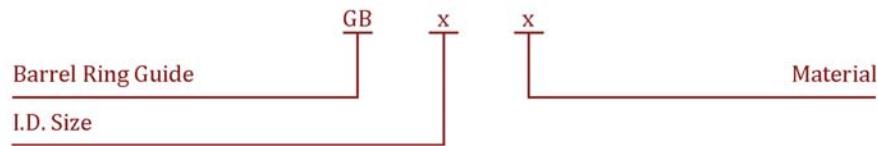
Couplings

PA-SW-BX Coupling, Plunger Adapter Sand Wiper

Part No.	Plunger Thread (in)	Pump Bore Size (in)	Valve Rod Size (in)	API No.
PA21□-SW-BX	0.8750-14 NS	1.250	11/16	N/A
PA22□-SW-BX	0.8750-14 NS	1.250	7/8	N/A
PA31□-SW-BX	1.1250-16 NS	1.500	11/16	N/A
PA32□-SW-BX	1.1250-16 NS	1.500	7/8	N/A
PA42□-SW-BX	1.3330-16 NS	1.750	7/8	N/A
PA43□-SW-BX	1.3330-16 NS	1.750	1-1/16	N/A
PA62□-SW-BX	1.5730-16 NS	2.000	7/8	N/A
PA63□-SW-BX	1.5730-16 NS	2.000	1-1/16	N/A

Select Material

- Example: PA324 = 1-1/2" x 7/8" Plunger Adapter Sand Wiper, Monel.
- Patent Pending

Key**GB- Guide, Barrel Ring****I.D. Size (in):**

1 = 1.760 I.D.

2 = 1.885 I.D.

Material:

No Designator = Carbon Steel

0 = Alloy

1 = Stainless Steel

2 = 316 Stainless Steel

3 = Brass

4 = Monel

GB- Guide, Barrel Ring

Guides

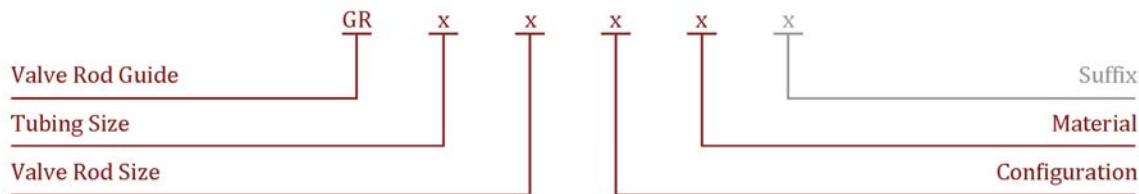
GB- Guide, Barrel Ring

Part No.	Tubing Size (in)	Ring I.D. (in)	API No.
GB1 <input type="checkbox"/>	2-7/8	1.760	N/A
GB2 <input type="checkbox"/>	2-7/8	1.885	N/A

Select Material

• Example: GB21 = 2-1/2" Barrel Guide Ring, 1.885" I.D., Stainless Steel



Key**GR- Guide, Valve Rod****Tubing Size (in):**

- 1 = 1.900, 2-1/16
 2 = 2-3/8
 3 = 2-7/8
 4 = 3-1/2

Configuration:

- 1 = Female, Fluted
 2 = Female, Vertical Discharge
 3 = Male, Fluted
 4 = Male, Vertical Discharge

Valve Rod Size (in):

- 1 = 11/16
 2 = 7/8
 3 = 1-1/16

Material:

- No Designator = Carbon Steel
 0 = Alloy (Carburized By Default)
 1 = Stainless Steel
 2 = 316 Stainless Steel
 3 = Brass
 4 = Monel

Suffix (optional):

- 17-4 = 17-4 Stainless Steel
 T = Stainless Heat Treated
 SC = Sand Check
 NC = No Clutch

GR- Guide, Valve Rod

Guides

GR- Guide, Valve Rod, Box End, Fluted

Part No.	Cage Thread (in)	Tubing Size (in)	Valve Rod Size (in)	API No.
GR111□	1.2500-14	1.900, 2-1/16	11/16	G11-15
GR211□	1.4704-14	2-3/8	11/16	G11-20
GR221□	1.4704-14	2-3/8	7/8	N/A
GR311□	1.8024-14	2-7/8	11/16	N/A
GR321□	1.8024-14	2-7/8	7/8	G11-25
GR331□, GR331□-1.625*	1.8024-14	2-7/8	1-1/16	N/A
GR431□	2.1095-11-1/2	3-1/2	1-1/16	G11-30



Select Material

• Example: GR3211 = 2-1/2" Guide, 7/8" Valve Rod, Female Fluted, Stainless Steel

* "1.625" = Fishing Neck Diameter

GR- Guide, Valve Rod, Box End, Vertical Discharge

Part No.	Cage Thread (in)	Tubing Size (in)	Valve Rod Size (in)	API No.
GR112□	1.2500-14	1.900, 2-1/16	11/16	N/A
GR212□	1.4704-14	2-3/8	11/16	N/A
GR222□	1.4704-14	2-3/8	7/8	N/A
GR312□	1.8024-14	2-7/8	11/16	N/A
GR322□	1.8024-14	2-7/8	7/8	N/A
GR332□, GR332□-1.625*	1.8024-14	2-7/8	1-1/16	N/A
GR432□	2.1095-11-1/2	3-1/2	1-1/16	N/A



Select Material

• Example: GR3221 = 2-1/2" Guide, 7/8" Valve Rod, Female Vertical Discharge, Stainless Steel

* "1.625" = Fishing Neck Diameter

GR- Guide, Valve Rod, Pin End, Fluted

Part No.	Barrel Thread (in)	Tubing Size (in)	Valve Rod Size (in)	API No.
GR113□	1.3330-16	1.900, 2-1/16	11/16	N/A
GR211□		2-3/8	11-16	N/A
GR213□	1.5730-16	2-3/8	11/16	N/A
GR311□		2-7/8	11/16	N/A
GR223□	1.5730-16	2-3/8	7/8	N/A
GR323□	2.0870-16	2-7/8	7/8	N/A
GR333□	2.0870-16	2-7/8	1-1/16	N/A
GR433□	2.5730-16	3-1/2	1-1/16	N/A

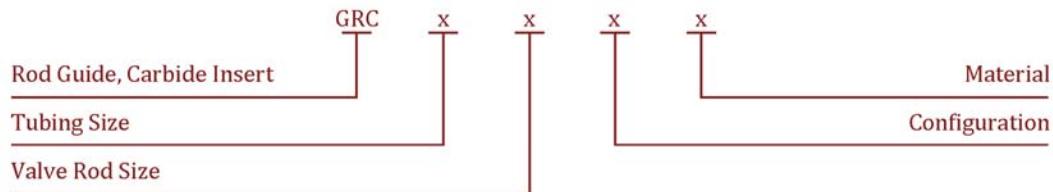


Select Material

• Example: GR2232 = 2" Guide, 7/8" Valve Rod, Male Fluted, 316 Stainless Steel

Key

GRC- Guide, Carbide Insert, Valve Rod



Tubing Size (in):

$$\begin{array}{ll} 1 = 1-1/2 & 3 = 2-1/2 \\ 2 = 2 & 4 = 3 \end{array}$$

Material:

No Designator = Carbon Steel
0 = Alloy
1 = Stainless Steel
2 = 316 Stainless Steel
6 = 316 Stainless Steel, Stellite
8 = 304 Stainless Steel, Stellite
9 = 8620 Alloy Steel
N = Nitronic 50

Valve Rod Size (in.):

$$\begin{aligned}1 &= 11/16 \\2 &= 7/8 \\3 &= 1-1/16\end{aligned}$$

Configuration:

- 1 = Female, Fluted, Assembly
- 2 = Female, Vertical Discharge, Assembly
- 3 = Clutch
- 4 = Fluted Body
- 5 = Vertical Discharge Body
- 6 = Carbide Insert

GRC- Guide, Carbide Insert, Valve Rod

Guides

GRC- Guide, Carbide Insert, Valve Rod, Box End, Fluted

Part No.	Cage Thread (in)	Tubing Size (in)	Valve Rod Size (in)	Body No.	Clutch No.	Insert No.
GRC111 <input type="checkbox"/>	1.2500-14	1.900, 2-1/16	11/16	—	—	—
GRC211 <input type="checkbox"/>	1.4704-14	2-3/8	11/16	GRC224 <input type="checkbox"/>	GRC223 <input type="checkbox"/>	GRC216 <input type="checkbox"/>
GRC221 <input type="checkbox"/>	1.4704-14	2-3/8	7/8	GRC224 <input type="checkbox"/>	GRC223 <input type="checkbox"/>	GRC326 <input type="checkbox"/>
GRC311 <input type="checkbox"/>	1.8024-14	2-7/8	11/16	GRC324 <input type="checkbox"/>	GRC323 <input type="checkbox"/>	GRC216 <input type="checkbox"/>
GRC321 <input type="checkbox"/>	1.8024-14	2-7/8	7/8	GRC324 <input type="checkbox"/>	GRC323 <input type="checkbox"/>	GRC326 <input type="checkbox"/>
GRC331 <input type="checkbox"/>	1.8024-14	2-7/8	1-1/16	—	—	—
GRC431 <input type="checkbox"/>	2.1095-11-1/2	3-1/2	1-1/16	—	—	—

 Select Material

- Example: GRC3211 = 2-1/2" Guide, 7/8" Valve Rod, Female Fluted, Stainless Steel



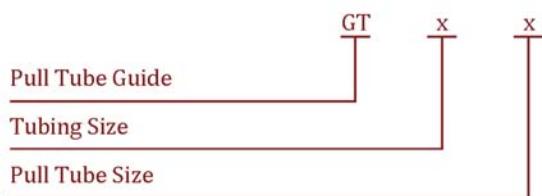
GRC- Guide, Carbide Insert, Valve Rod, Box End, Vertical Discharge

Part No.	Thread Spec's (in)	Tubing Size (in)	Valve Rod Size (in)	Body No.	Clutch No.	Insert No.
GRC112 <input type="checkbox"/>	1.2500-14	1.900, 2-1/16	11/16	—	—	—
GRC212 <input type="checkbox"/>	1.4704-14	2-3/8	11/16	GRC225 <input type="checkbox"/>	GRC223 <input type="checkbox"/>	GRC216 <input type="checkbox"/>
GRC222 <input type="checkbox"/>	1.4704-14	2-3/8	7/8	GRC225 <input type="checkbox"/>	GRC223 <input type="checkbox"/>	GRC326 <input type="checkbox"/>
GRC312 <input type="checkbox"/>	1.802-14	2-7/8	11/16	GRC325 <input type="checkbox"/>	GRC323 <input type="checkbox"/>	GRC216 <input type="checkbox"/>
GRC322 <input type="checkbox"/>	1.8024-14	2-7/8	7/8	GRC325 <input type="checkbox"/>	GRC323 <input type="checkbox"/>	GRC326 <input type="checkbox"/>
GRC332 <input type="checkbox"/>	1.8024-14	2-7/8	1-1/16	—	—	—
GRC432 <input type="checkbox"/>	2.1095-11-1/2	3-1/2	1-1/16	—	—	—

 Select Material

- Example: GRC3221 = 2-1/2" Guide, 7/8" Valve Rod, Female Vertical Discharge, Stainless Steel



Key**GT- Guide, Pull Tube****Tubing Size (in):**

1 = 2-3/8

2 = 2-7/8

Pull Tube Size (in):

1 = 15/16

2 = 1-1/8

3 = 1-1/4

4 = 1-1/2

5 = 1-1/2 Plunger

6 = 1-3/4 Plunger

* Improved Pull Tube (1-1/4", 1-1/2", 1-3/4" Plungers)

Material:

No Designator = Carbon Steel

0 = Alloy

1 = Stainless Steel

2 = 316 Stainless Steel

3 = Brass

4 = Monel

9 = 8620 Carburized

Suffix (optional):

F = Box Thread

HT = Hollow Tube Type "O"

GT- Guide, Pull Tube

Guides

GT- Guide, Pull Tube, Pin End

Part No.	Barrel Thread (in)	Tubing Size (in)	Pull Tube Size (in)	API No.
GT11□	1.5730-16	2-3/8	15/16	N/A
GT12□	1.5730-16	2-3/8	1-1/8	N/A
GT13□	1.5730-16	2-3/8	1-1/4 *	N/A
GT22□	2.0870-16	2-7/8	1-1/8	N/A
GT24□	2.0870-16	2-7/8	1-1/2	N/A

 Select Material

- Example: GT12 = 2" Pull Tube Guide 1-1/8" Pull Tube, Carbon Steel
- Improved Pull Tube (Plunger)



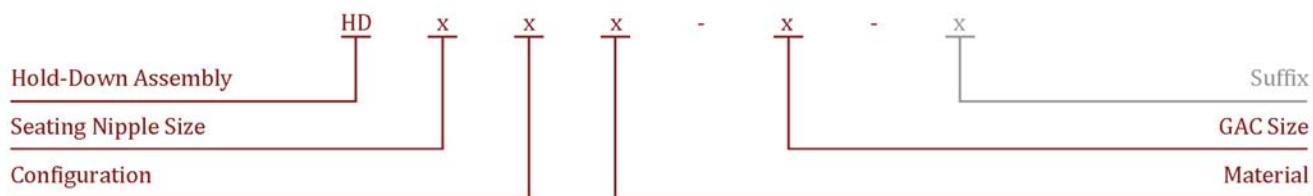
GT- Guide, Pull Tube, Box End

Part No.	Cage Thread (in)	Tubing Size (in)	Pull Tube Size (in)	API No.
GT11□-F	1.4704-14	2-3/8	15/16	N/A
GT12□-F	1.4704-14	2-3/8	1-1/8	N/A
GT21□-F	1.8024-14	2-7/8	15/16	N/A
GT22□-F	1.8024-14	2-7/8	1-1/8	N/A
GT24□-F	1.8024-14	2-7/8	1-1/2	N/A
GT24□-HT	1.9864-14	2-7/8	1-1/2	N/A

 Select Material

- Example: GT242-F = 2-7/8" Pull Tube Guide for 1-1/2" Pull Tube, 316 Stainless Steel, Box Thread



Key**HD- Hold-Down Assembly****Seating Nipple Size (in):**

- | | |
|-----------|-----------|
| 1 = 1-1/4 | 4 = 2 |
| 2 = 1-3/8 | 5 = 2-1/2 |
| 3 = 1-1/2 | 6 = 3 |

Configuration:

- 1 = Type "HR"
- 2 = Type "O"
- 3 = Type "TH"
- 4 = Type "HR", No Lock Nut
- 5 = Oversize
- 6 = Type "O" Special I.D.
- 7 = HR Hold-Down To Pull Tube

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel

GAC Size (in):

- | | |
|---------|-----------|
| 1 = 1/2 | 4 = 1-1/4 |
| 2 = 3/4 | 5 = 1-1/2 |
| 3 = 1 | |

Suffix (optional):

- * Please Note: All Hold-Down Assemblies come with Plastic Cups.
- C = Composition Cups
- HT = High Temperature Plastic Cup
- SP = Special No-Go Mandrel

Look Into "SC-Seating Cup" Section For Available Fits

HD- Hold-Down Assemblies

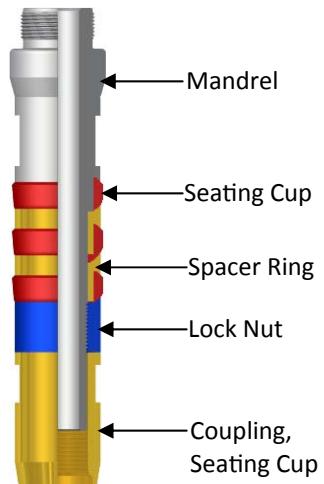
Hold-Down Fittings

HD- Hold-Down Assemblies, Type "HR"

Part No.	Cage Thread (in)	Tubing Size (in)	Seating Nipple Size (in)	Body Thread (in)	API No.
HD21□-1	1.2500-14	1.900, 2-1/16	1.375	0.7500-16	N/A
HD31□-2	1.2500-14	1.900, 2-1/16	1.500	0.8750-14	N/A
HD31□-3	1.2500-14	1.900, 2-1/16	1.500	0.8750-14	N/A
HD41□-2	1.4704-14	2-3/8	1.781	1.1894-14	N/A
HD41□-3	1.4704-14	2-3/8	1.781	1.1894-14	N/A
HD51□-4	1.8024-14	2-7/8	2.250	1.5604-14	N/A
HD61□-4	2.1095-11-1/2	3-1/2	2.750	2.0035-11-1/2	N/A
HD61□-5	2.1095-11-1/2	3-1/2	2.750	2.0035-11-1/2	N/A

 Select Material

- Example: HD411-3 = 2-3/8" Type "HR" Hold-Down Assembly For 1" GAC, Stainless Steel



HD- Hold-Down Assemblies, Type "O"

Part No.	Cage Thread (in)	Tubing Size (in)	Seating Nipple Size (in)	Body Thread (in)	API No.
HD32□-2	1.2500-14	1.900, 2-1/16	1.500	1.1894-14	N/A
HD42□-3	1.4704-14	2-3/8	1.781	1.385-14	N/A

 Select Material

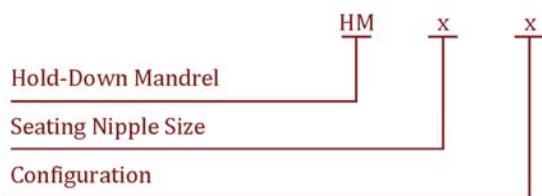
- Example: HD422-3 = 2-3/8" Type "O" Hold-Down Assembly For 1" GAC, 316 Stainless Steel

HD- Hold-Down Assemblies, Type "HR", No Locknut

Part No.	Cage Thread (in)	Tubing Size (in)	Seating Nipple Size (in)	Body Thread (in)	API No.
HD44□-3	1.4704-14	2-3/8	1.781	1.1894-14	N/A

 Select Material

- Example: HD44-3 = 2-3/8" Type "HR" No Lock Nut Hold-Down Assembly For 1" GAC, Carbon Steel

Key**HM- Hold-Down Mandrel****Seating Nipple Size (in):**

1 = 1-1/4	4 = 2
2 = 1-3/8	5 = 2-1/2
3 = 1-1/2	6 = 3

Material:

No Designator	= Carbon Steel
0	= Alloy
1	= Stainless Steel
2	= 316 Stainless Steel
3	= Brass
4	= Monel

Configuration:

1 = Type "HR"
2 = Type "O"
3 = Type "TH"
4 = Type "HR", No Lock Nut
5 = Oversize
6 = Type "O" Special I.D.
7 = HR Hold-Down To Pull Tube
8 = Type "TH", No Lock Nut

Suffix (optional):

SP	= Special (Eq: 5 Cup Mandrel)
ING	= Inverted No-Go

HM- Hold-Down Fitting, Mandrel

Hold-Down Fittings

HM- Hold-Down Fitting, Mandrel, 3 Cup For Lock Nut (API) Type "HR"

Part No.	Cage Thread (in)	Tubing Size (in)	Seating Nipple Size (in)	Body Thread (in)	API No.
HM21□	1.2500-14	1.900, 2-1/16	1.375	0.7500-16	N/A
HM31□	1.2500-14	1.900, 2-1/16	1.500	0.8750-14	N/A
HM41□*	1.4704-14	2-3/8	1.781	1.1894-14	S11-20
HM51□*	1.8024-14	2-7/8	2.250	1.5604-14	S11-25
HM61□	2.1095-11-1/2	3-1/2	2.750	2.0035-11-1/2	S11-30

 Select Material

- Example: HM412 = 2" Hold-Down Mandrel, Type "HR", 316 Stainless Steel

* Available in Special No-Go Diameters



HM- Hold-Down Fitting, Mandrel, 3 Rings For Lock Nut, Type "O"

Part No.	Cage Thread (in)	Tubing Size (in)	Seating Nipple Size (in)	Body Thread (in)	API No.
HM22□	1.2500-14	1.900, 2-1/16	1.375	1.0000-14	N/A
HM32□*	1.2500-14	1.900, 2-1/16	1.250	1.1894-14	N/A
HM42□*	1.4704-14	2-3/8	1.781	1.385-14	N/A

 Select Material

- Example: HM222 = 1-1/2" Seating Mandrel Type "O" For 1-3/8" I.D. Seating Nipple, 316 Stainless Steel

* Available in Oversize Configuration



HM- Hold-Down Fitting, Mandrel, 2 Cup For Lock Nut (Tubing Pump), Type "TH"

Part No.	Cage Thread (in)	Tubing Size (in)	Seating Nipple Size (in)	Body Thread (in)	API No.
HM43□	1.4704-14	2-3/8	1.750	1.1894-14	S17-20
HM53□	1.8024-14	2-7/8	2.250	1.5604-14	S17-25
HM63□	2.1095-11-1/2	3-1/2	2.750	2.0035-11-1/2	S17-30

 Select Material

- Example: HM531 = 2-1/2" Hold-Down Mandrel, Type "TH", Stainless Steel



HM- Hold-Down Fitting, Mandrel

Hold-Down Fittings

HM- Hold-Down Fitting, Mandrel, 3 Cup No Lock Nut (NON- API) Type "HR"

Part No.	Cage Thread (in)	Tubing Size (in)	Seating Nipple Size (in)	Body Thread (in)	API No.
HM44□	1.4704-14	2-3/8	1.781	1.1894-14	N/A
HM54□	1.8024-14	2-7/8	2.250	1.5604-14	N/A
HM64□	2.1095-11-1/2	3-1/2	2.750	2.0035-11-1/2	N/A

 Select Material

- Example: HM44 = 2" Hold-Down Mandrel, Type "HR", No Lock Nut, Carbon Steel



HM- Hold-Down Fitting, Mandrel, 3 Rings For Lock Nut Type "O" Special I.D.

Part No.	Cage Thread (in)	Tubing Size (in)	Seating Nipple Size (in)	Body Thread (in)	I.D. (in)	API No.
HM46□	1.4704-14	2-3/8	1.781	1.3850-14	1	N/A
HM46□-1.140	1.4704-14	2-3/8	1.781	1.3850-14	1.140	N/A
HM46-1-1.5604□	1.5604-14	2-3/8	1.781	1.3850-14	1	N/A
HM56□	1.9864-14	2-7/8	2.25	1.9736-16	1.625	N/A
HM56□-1.540*	1.9864-14	2-7/8	2.25	1.9736-16	1.540	N/A

 Select Material

- Example: HM462 = 2" Seating Mandrel Type "O" For 1.781" I.D. Seating Nipple Special I.D., 316 Stainless Steel

* Available In Box Thread For Top Hold-Down



HM- Hold-Down Fitting, Mandrel, Type "HR" To Pull Tube

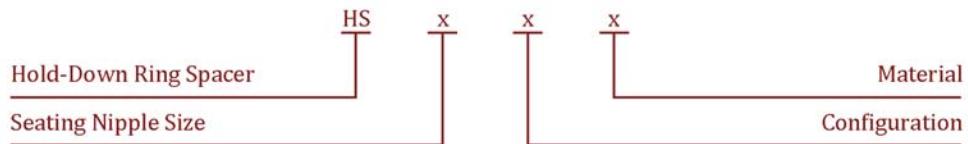
Part No.	Pull Tube Thread (in)	Tubing Size (in)	Seating Nipple Size (in)	Body Thread (in)	API No.
HM47□*	1.1250-16	2-3/8	1.781	1.1894-14	N/A

 Select Material

- Example: HM472 = 2" Hold-down Mandrel For 1.781" Seating Nipple, For 1-1/8" Pull Tube, 316 Stainless Steel

* Available In Special No-Go Diameter



Key**HS- Hold-Down Spacer Ring****Seating Nipple Size (in):**

1 = 1-1/4	4 = 2
2 = 1-3/8	5 = 2-1/2
3 = 1-1/2	6 = 3

Material:

No Designator = Carbon Steel
0 = Alloy
1 = Stainless Steel
2 = 316 Stainless Steel
3 = Brass
4 = Monel

Configuration:

1 = Type "HR"
2 = Type "O"

HS- Hold-Down Fitting, Hold-Down Spacer Ring

Hold-Down Fittings

HS- Hold-Down Fitting, Hold-Down Spacer Ring, Type "HR"

Part No.	Hole Size (in)	Tubing Size (in)	O.D. (in)	API No.
HS21 <input type="checkbox"/>	0.752	1.900, 2-1/16	1.312	N/A
HS31 <input type="checkbox"/>	0.877	1.900, 2-1/16	1.438	N/A
HS41 <input type="checkbox"/>	1.192	2-3/8	1.688	S13-20
HS51 <input type="checkbox"/>	1.567	2-7/8	2.188	S13-25
HS61 <input type="checkbox"/>	2.002	3-1/2	2.688	S13-30

 Select Material

- Example: HS412 = 2" Hold-Down Spacer Ring, Type "HR", 316 Stainless Steel



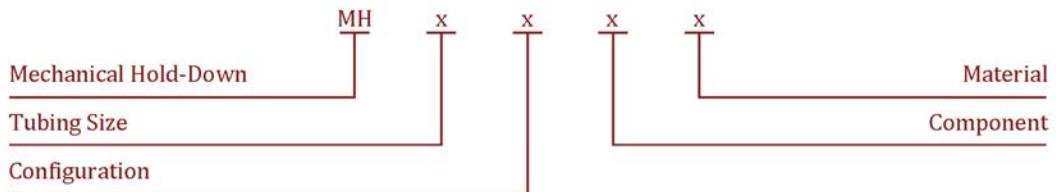
HS- Hold-Down Fitting, Hold-Down Spacer Ring, Type "O"

Part No.	Hole Size (in)	Tubing Size (in)	O.D. (in)	API No.
HS22 <input type="checkbox"/>	1.010	1.900, 2-1/16	1.300	N/A
HS32 <input type="checkbox"/>	1.195	1.900, 2-1/16	1.437	N/A
HS42 <input type="checkbox"/>	1.437	2-3/8	1.750	N/A
HS52 <input type="checkbox"/>	1.985	2-7/8	2.190	N/A

 Select Material

- Example: HS421 = 2" Hold-Down Spacer Ring, Type "O", Stainless Steel



Key**MH- Mechanical Hold-Down****Tubing Size (in):**

- | | |
|------------|-----------|
| 1 = 2-1/16 | 4 = 3-1/2 |
| 2 = 2-3/8 | 5 = 4-1/2 |
| 3 = 2-7/8 | |

Material:

- | |
|------------------------------|
| No Designator = Carbon Steel |
| 0 = Alloy |
| 1 = Stainless Steel |
| 2 = 316 Stainless Steel |
| 3 = Brass |
| 4 = Monel |

Configuration:

- 1 = Bottom Hold-Down
2 = Top Hold-Down

Component:

- 1 = Bushing (A- In The Drawing)
2 = Seating Ring (B- In The Drawing)
3 = Lock (C- In The Drawing)
4 = Mandrel (Top HD) (D- In The Drawing)
5 = Connector (Top HD) (E- In The Drawing)

MH- Mechanical Hold-Down

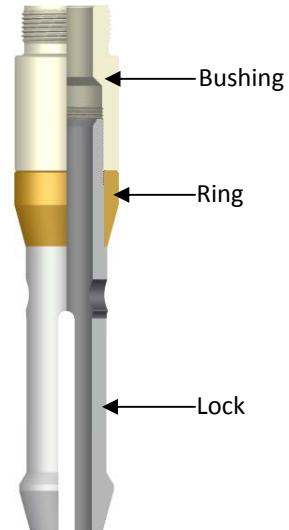
Mechanical Hold-Downs

MH- Mechanical Hold-Down, Bottom Lock

Item	Description	Tubing Size (in)	Part No.	API No.
A	BUSHING	2-1/16	MH111 <input type="checkbox"/>	S22-15
A	BUSHING	2-3/8	MH211 <input type="checkbox"/>	S22-20
A	BUSHING	2-7/8	MH311 <input type="checkbox"/>	S22-25
A	BUSHING	3-1/2	MH411 <input type="checkbox"/>	S22-30
A	BUSHING	4-1/2	MH511 <input type="checkbox"/>	S22-40
B	RING	2-1/16	MH112 <input type="checkbox"/>	N/A
B	RING	2-3/8	MH212 <input type="checkbox"/>	N/A
B	RING	2-7/8	MH312 <input type="checkbox"/>	N/A
B	RING	3-1/2	MH412 <input type="checkbox"/>	N/A
B	RING	4-1/2	MH512 <input type="checkbox"/>	N/A
C	LOCK	2-1/16	MH113 <input type="checkbox"/>	N/A
C	LOCK	2-3/8	MH213 <input type="checkbox"/>	N/A
C	LOCK	2-7/8	MH313 <input type="checkbox"/>	N/A
C	LOCK	3-1/2	MH413 <input type="checkbox"/>	N/A
C	LOCK	4-1/2	MH513 <input type="checkbox"/>	N/A

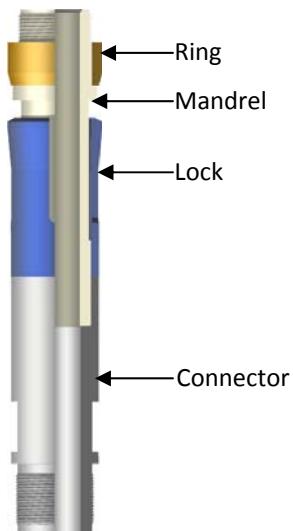
 Select Material

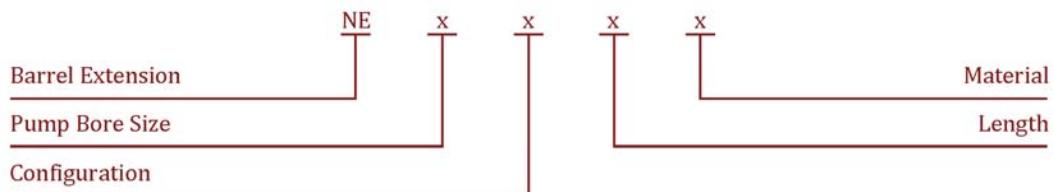
- Note: Lock threads differ from manufacturer to manufacturer,
Trico interchanges with Fluid Packed Pumps,
HF interchanges with Highland Pump Co.



MH- Mechanical Hold-Down, Top Lock

Item	Description	Tubing Size (in)	Part No.	API No.
A/D	MANDREL	2-3/8	MH224 <input type="checkbox"/>	S21-20
		2-7/8	MH324 <input type="checkbox"/>	S21-25
		3-1/2	MH424 <input type="checkbox"/>	S21-30
B	RING	2-3/8	MH2221 <input type="checkbox"/>	
		2-7/8	MH3221 <input type="checkbox"/>	
		3-1/2	MH422 <input type="checkbox"/>	
C	LOCK	2-3/8	MH223 <input type="checkbox"/>	
		2-7/8	MH323 <input type="checkbox"/>	
		3-1/2	MH4239 <input type="checkbox"/>	
E	CONNECTOR	2-3/8	MH225 <input type="checkbox"/>	
		2-7/8	MH325 <input type="checkbox"/>	
		3-1/2	MH425 <input type="checkbox"/>	

 Select Material

Key**NE- Nipple, Extension, Tubing Pump****Pump Bore Size (in):**

1 = 1.500	4 = 2.750
2 = 1.750, 1.781	5 = 3.250
3 = 2.250	6 = 3.750

Length (ft) :

1 = 1	5 = 12
2 = 2	6 = 16
3 = 3	7 = 18
4 = 4	

Configuration:

1 = Upper Extension Nipple	Material:
2 = Lower Extension Nipple	

No Designator = Carbon Steel
0 = Alloy
1 = Stainless Steel

NE- Nipple, Extension, Tubing Pump

Nipples

NE- Nipple, Extension Nipple, Upper Tubing Pump

Part No.	Thread Spec's (in)	Tubing Size (in)	Pump Bore Size (in)	API No.
NE21 [*] <input type="checkbox"/>	2-3/8 - 8RD-EUE	2-3/8	1.750	N21-20
NE31 [*] <input type="checkbox"/>	2-7/8 - 8RD-EUE	2-7/8	2.250	N21-25
NE41 [*] <input type="checkbox"/>	3-1/2 - 8RD-EUE	3-1/2	2.750	N21-30
NE61 [*] <input type="checkbox"/>	4-1/2 - 8RD-EUE	4-1/2	3.750	N21-40

^{*} Select Length Select Material

- Example: NE3114 = 2.250" x 48" Tubing Pump Upper Extension, Stainless Steel

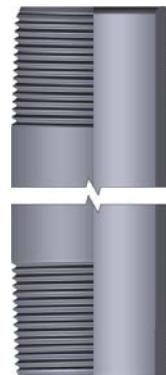


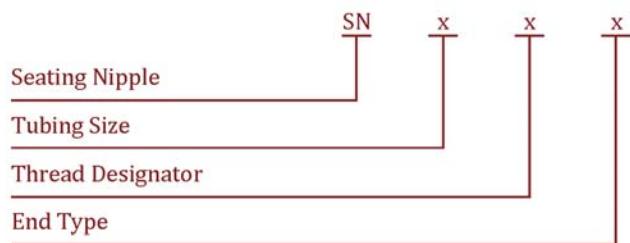
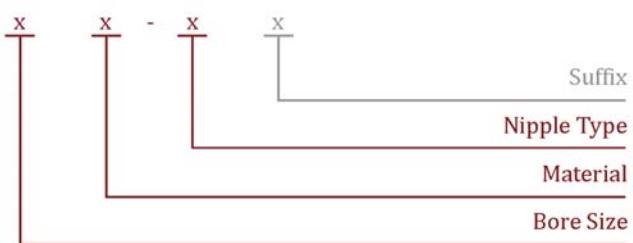
NE- Nipple, Extension Nipple, Lower Tubing Pump

Part No.	Tubing Thread (in)	Tubing Size (in)	Pump Bore Size (in)	API No.
NE22 [*] <input type="checkbox"/>	2-3/8 - 8RD-EUE	2-3/8	1.750	N22-20
NE32 [*] <input type="checkbox"/>	2-7/8 - 8RD-EUE	2-7/8	2.250	N22-25
NE42 [*] <input type="checkbox"/>	3-1/2 - 8RD-EUE	3-1/2	2.750	N22-30
NE62 [*] <input type="checkbox"/>	4-1/2 - 8RD-EUE	4-1/2	3.750	N22-40

^{*} Select Length Select Material

- Example: NE324 = 2.250" x 48" Tubing Pump Lower Extension, Carbon Steel



Key**Nipples****Tubing Size O.D. (in):**

1 = 1.660	5 = 2-3/8
2 = 1.900	6 = 2-7/8
3 = 2.000	7 = 3-1/2
4 = 2-1/16	8 = 4-1/2

Thread Designator (in):

1 = 8 RD EU	5 = 11-1/2 V
2 = 10 RD EU	6 = 11-1/2 LP
3 = 10 RD NUE-IJ	7 = 8 LP
4 = 10 V	8 = 1.875-16 TH

End Type:

No Designator = Pin End
BP = Box Pin
BB = Box Box

Bore Size (in):

* No Bore Size Designator Needed For Mechanical Seating Nipple	
01 = 1.0062	11 = 1.880
02 = 1.250	12 = 2.210
03 = 1.375	13 = 2.250
04 = 1.460	14 = 2.280
05 = 1.500	15 = 2.710
06 = 1.535	16 = 2.750
07 = 1.710	17 = 2.780
09 = 1.771	18 = 3.710
08 = 1.750	19 = 3.750
10 = 1.781	20 = 1.470

Suffix (optional):

NP = Nickel Plated
P = Plastic Coated I.D.
PP = Plastic Coated I.D./O.D.
Chrome = Chrome Plated
I.D. Call Out = Special I.D.

Material:

No Designator = Carbon Steel
0 = Alloy
1 = 304 Stainless Steel
2 = 316 Stainless Steel

Nipple Type:

R = Rod Pump, Seating Nipple, Cup Type
T = Tubing Pump, Seating Nipple, Cup Type
M = Bottom Mechanical, Seating Nipple, Ring Type
S = Slotted

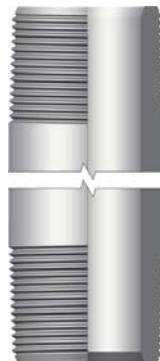
SN- Nipple, Seating

Nipples

SN- Nipple, Seating (Rod Pump)

New Part No.	Old Part No.	Tubing Size (in)	Tubing Thread (in)	Bore Size (in)	Type	API No.
SN2303□-R	80SN	1.900	10 RD NUE-IJ	1.375	R	N/A
SN23BP03□-R	—	1.900	10 RD NUE-IJ	1.375	R	N/A
SN23BP04□-R	SN22-IJ	1.900	10 RD NUE-IJ	1.460	R	N/A
SN2204□-R	—	1.900	10 RD EUE	1.460	R	N/A
SN2205□-R	SN22	1.900	10 RD EUE	1.500	R	N/A
SN2305□-R	—	1.900	10 RD EUE	1.500	R	N/A
SN5105□-R	80SN12	2-3/8	8 RD EUE	1.500	R	N/A
SN22BP05□-R	—	1.900	10 RD EUE	1.500	R	N/A
SN22BP06□-R	SN22-IJ-1.535	1.900	10 RD EUE	1.535	R	N/A
SN5109□-S	80SN1-S-1.750	2-3/8	8 RD EUE	1.771	S	N/A
SN5110□-R	80SN1	2-3/8	8 RD EUE	1.780	R	N11-20
SN3610□-R	80SN1-C	2-3/8	11-1/2 LP	1.780	R	N/A
SN3611□-R	80SN1-D	2-3/8	11-1/2 LP	1.875	R	N/A
SN5111□-S	80SN1-S	2-3/8	8 RD EUE	1.880	S	N/A
SN6113□-R	SN451	2-7/8	8 RD EUE	2.250	R	N/A
SN6114□-R	80SN2	2-7/8	8 RD EUE	2.280	R	N11-25
SN6114□-S	80SN2-S	2-7/8	8 RD EUE	2.280	S	N/A
SN7117□-R	80SN2A	3-1/2	8 RD EUE	2.780	R	N11-30

- Select Material
- Example: SN6114-R = 2-7/8" - 8 RD EUE, 2.280" I.D. Rod Pump Seating Nipple, Cup Type, Carbon Steel



SN- Seating Nipples (Tubing Pump)

New Part No.	Old Part No.	Tubing Size (in)	Tubing Thread (in)	Bore Size (in)	Type	GAC Thread (in)	API No.
SN28BP20□-T	—	1.900	10 RD EUE	1.470	T	N/A	N/A
SN22BP05□-T	—	1.900	10 RD EUE	1.500	T	N/A	N/A
SN5107□-T	80SN3	2-3/8	8 RD EUE	1.710	T	1-1/2LP	N13-20
SN6112□-T	80SN4	2-7/8	8 RD EUE	2.210	T	2LP	N13-25
SN7115□-T	80SN5	3-1/2	8 RD EUE	2.710	T	2LP	N13-30

- Select Material
- Example: SN5107-T = 2-3/8" - 8 RD EUE, 1.710" I.D. Tubing Pump Seating Nipple, Cup Type, Carbon Steel



SN- Nipple, Mechanical, Bottom Lock

Nipples

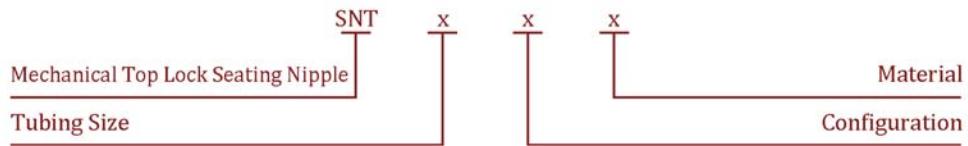
SN- Nipple, Mechanical, Bottom Lock

Print #	New Part No.	Old Part No.	Tubing Size (in)	Tubing Thread (in)	Type	GAC Thread (in)	API No.
80SN13	SN23□-M	—	1.900	10 RD NUE Pin - Pin	M	1 LP	N12-15
80SN10	SN51□-M	80SN10	2-3/8	8 RD EUE	M	1-1/2 LP	N12-20 W/ LP THD
80SN11	SN61□-M	80SN11	2-7/8	8 RD EUE	M	2 LP	N12-25 W/ LP
80SN14	SN22□-M	—	1.900	10 RD EUE B&P	M	—	N/A
80SN13 Current	SN71□-M	80SN13	3-1/2	8 RD-EUE	M	2-1/2 LP	N12-30
80SN6	SN81□-M	80SN14	4-1/2	8 RD -EUE	M	3 LP	N12-40

Select Material

- Example: SN51-M = 2-3/8" - 8 RD EUE Bottom Mechanical Seating Nipple, Ring Type, Carbon Steel



Key**SNT - Seating Nipple, Mechanical Top Lock****Tubing Size (in):**

- 1 = 2-3/8-8 RD EUE
- 2 = 2-7/8-8 RD EUE
- 3 = 3-1/2-8 RD EUE

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel

Configuration:

- 1 = Mechanical Top Lock (1 Pc)
- 2 = Mechanical Top Lock (3 Pc)
- 3 = Upper Bushing
- 4 = Lower Bushing
- 5 = Seating Ring, 440C

SNT- Nipple, Seating Nipple, Mechanical Top Lock

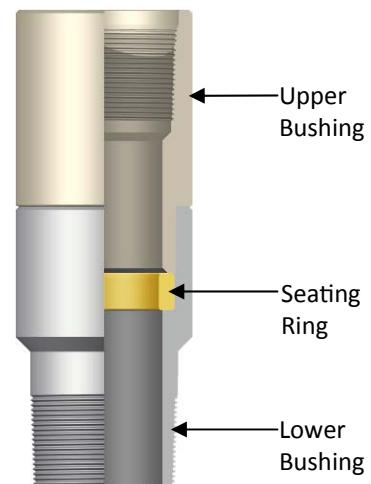
Nipples

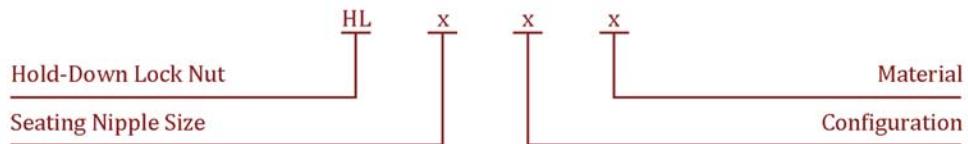
SNT- Nipple, Seating Nipple, Mechanical Top Lock

Part No.	Tubing Size (in)	Configuration	API No.
SNT11 <input checked="" type="checkbox"/>	2-3/8	1 Piece	N/A
SNT21 <input checked="" type="checkbox"/>	2-7/8	1 Piece	N/A
SNT31 <input checked="" type="checkbox"/>	3-1/2	1 Piece	N/A
SNT12 <input checked="" type="checkbox"/>	2-3/8	3 Piece Consisting of SNT13 <input checked="" type="checkbox"/> , SNT14 <input checked="" type="checkbox"/> , SNT15 <input checked="" type="checkbox"/>	N14-20
SNT22 <input checked="" type="checkbox"/>	2-7/8	3 Piece Consisting of SNT23 <input checked="" type="checkbox"/> , SNT24 <input checked="" type="checkbox"/> , SNT25 <input checked="" type="checkbox"/>	N14-25
SNT32 <input checked="" type="checkbox"/>	3-1/2	3 Piece Consisting of SNT33 <input checked="" type="checkbox"/> , SNT34 <input checked="" type="checkbox"/> , SNT35 <input checked="" type="checkbox"/>	N14-30
SNT13 <input checked="" type="checkbox"/>	2-3/8	Upper Bushing (A)	N/A
SNT14 <input checked="" type="checkbox"/>	2-3/8	Lower Bushing (C)	N/A
SNT15 <input checked="" type="checkbox"/>	2-3/8	Seating Ring (B)	N/A
SNT23 <input checked="" type="checkbox"/>	2-7/8	Upper Bushing	N/A
SNT24 <input checked="" type="checkbox"/>	2-7/8	Seating Ring	N/A
SNT25 <input checked="" type="checkbox"/>	2-7/8	Lower Bushing	N/A
SNT33 <input checked="" type="checkbox"/>	3-1/2	Upper Bushing	N/A
SNT34 <input checked="" type="checkbox"/>	3-1/2	Seating Ring	N/A
SNT35 <input checked="" type="checkbox"/>	3-1/2	Lower Bushing	N/A

Select Material

- Example: SNT24 = 2-7/8" 8 RD EUE Mechanical Top Lock, Lower Bushing, Carbon Steel



Key**HL- Nut, Hold-Down Lock Nut****Seating Nipple Size (in):**

1 = 1-1/4	4 = 2
2 = 1-3/8	5 = 2-1/2
3 = 1-1/2	6 = 3

Material:

No Designator = Carbon Steel
0 = Alloy
1 = Stainless Steel
2 = 316 Stainless Steel
3 = Brass
4 = Monel

Configuration:

1 = Type "HR"
2 = Type "O"

HL- Nut, Hold-Down Lock Nut

Nuts

HL- Nut, Hold-Down Lock Nut, Type "HR"

Part No.	Hold-Down Mandrel Thread (in)	Tubing Size (in)	Pump Bore Size (in)	API No.
HL21	0.7500-16	1.900, 2-1/16	1.062	N/A
HL31	0.8750-14	1.900, 2-1/16	1.250	N/A
HL41	1.1894-14	2-3/8	1.500	S14-20
HL51	1.5604-14	2-7/8	2.000	S14-25
HL61	2.0035-11-1/2	3-1/2	2.500	S14-30

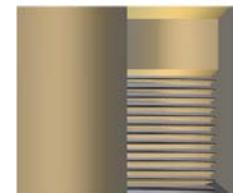


Select Material

- Example: HL412 = 2" Hold-Down Lock Nut, Type "HR", 316 Stainless Steel

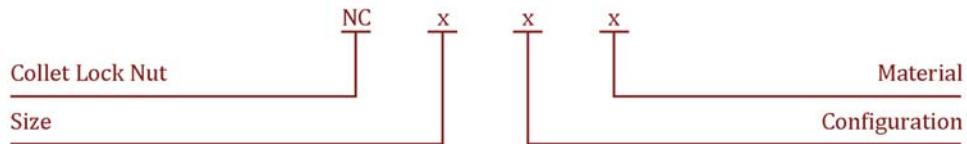
HL- Nut, Hold-Down Lock Nut, Type "O"

Part No.	Hold-Down Mandrel Thread (in)	Tubing Size (in)	Pump Bore Size (in)	API No.
HL22	1.000-14	1.900, 2-1/16	1.062	N/A
HL32	1.1894-14	1.900, 2-1/16	1.062, 1.250	S34-15
HL42	1.385-14	2-3/8	1.250, 1.500	N/A
HL52	1.9736-16	2-7/8	1.500, 1.750	N/A



Select Material

- Example: HL421 = 2" Hold-Down Lock Nut, Type "O", Stainless Steel

Key**NC- Nut, Collet Lock Nut****Size (in):**

- | | |
|--------------------------|------------------------------------|
| 1 = 11/16, 7/8 Valve Rod | 5 = 15/16 Pull Tube |
| 2 = 1-1/2 Plunger | 6 = 1-1/8 Pull Tube |
| 3 = 1-3/4 Plunger | 7 = 1-1/2 Pull Tube |
| 4 = 2 Plunger | 8 = 2-1/2 Plunger
With 1.06" VR |

Material:

- | |
|------------------------------|
| No Designator = Carbon Steel |
| 0 = Alloy |
| 1 = Stainless Steel |
| 2 = 316 Stainless Steel |
| 3 = Brass |
| 4 = Monel |

Configuration:

- 1 = Collet Lock Nut, Valve Rod Bushing
- 2 = Collet Lock Nut, Plunger Adapter (Valve Rod)
- 3 = Collet Lock Nut, (Pull Tube)
- 4 = Collet Lock Nut, HVR to Cage Bushing (Pull Tube)

NC- Nut, Collet Lock Nut

Nuts

NC- Nut, Collet Bushing Lock Nut

Part No.	Collet Thread (in)	Pump Bore Size (in)	Valve Rod Size (in)	O.D. (in)	API No.
NC11□	1.2500-14	Variable	11/16, 7/8	1.500	N/A
NC11□-1.062	1.4704-14	Variable	1-1/16	1.625	N/A

- Select Material
 • Example: NC11 = 2" Valve Rod Bushing Collet Lock Nut, Carbon Steel



NC- Nut, Collet Lock Nut, Plunger Adapter

Part No.	Collet Thread (in)	Pump Bore Size (in)	Valve Rod Size (in)	O.D. (in)	API No.
NC12□	0.9375-16	1.250	11/16	1.100	N/A
NC22□	1.062-16	1.500	11/16	1.250	N/A
NC32□	1.2500-14	1.750	11/16, 7/8	1.500	N/A
NC82□	1.4704-14	2.500	11/16; 7/8; 1-1/16	1.875	N/A
NC82□-200	1.4704-14	2.000	11/16; 7/8; 1-1/16	1.735	N/A

- Select Material
 • Example: NC32 = 1-3/4" Plunger Adapter Collet Lock Nut, 316 Stainless Steel



NC- Nut, Collet Lock Nut, Pull Tube To Sucker Rod

Part No.	Collet Thread (in)	Pump Bore Size (in)	Pull Tube Size (in)	O.D. (in)	API No.
NC23□	1.375-16	1.500	1-1/8	1.450	N/A
NC43□	1.750-16	1.375	1-1/2	1-937	N/A

- Select Material
 • Example: NC432 = Collet, Pull Tube For 2" Plunger, 316 Stainless Steel



NC- Nut, Collet Lock Nut, HVR to Cage Bushing (Pull Tube)

Part No.	Collet Thread (in)	Pull Tube Size (in)	Pump Bore Size (in)	O.D. (in)	API No.
NC54□	1.4704-14	15/16	1.750	1.718	N/A
NC64□	1.4704-14	1-1/8	1.750	1.718	N/A
NC74□	2.000-16	1-1/2	2.500	2.25	N/A

- Select Material
 • Example: NC54 = 1-3/4" HVR to Cage Bushing, Carbon Steel



Tubing, Tool Sizing Chart

On-Off Tool

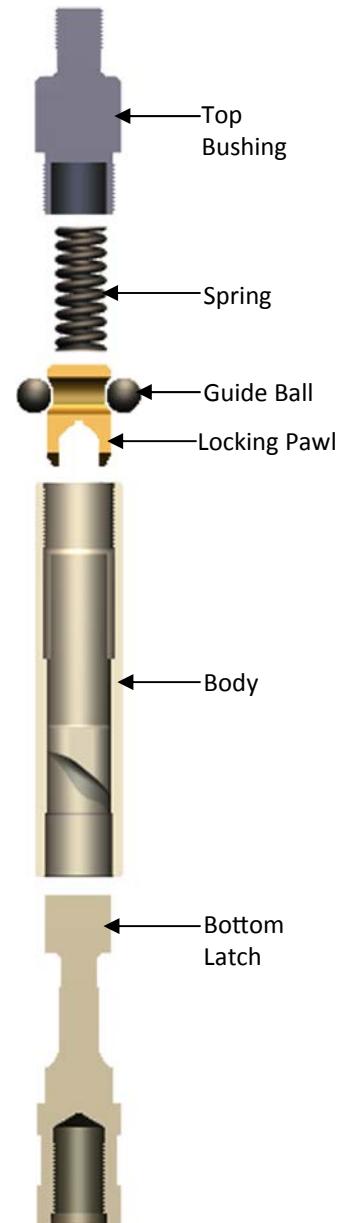
Model #	Plain Steel T	4130 HDT	303 S.S. ST	4140 AT	Inconel IT	4140 AT- SP
For 1-1/2 Tubing 80 Tool O.D. Ø1.440	T-80 - 15/16 T-80 - 1-1/16	—	ST-80 - 15/16 ST-80 - 1-1/16	—	—	—
For 2-3/8 Tubing 90 Tool O.D. Ø1.620	T-90 - 15/16 T-90 - 1-1/16	—	ST-90 - 15/16 ST-90 - 1-1/16	AT-90 - 15/16 AT-90 - 1-1/16	IT-90 - 15/16 IT-90 - 1-1/16	—
For 2-3/8 Tubing 100 Tool O.D. Ø1.812	T-100 - 1-1/16 T-100 - 1-3/16	—	ST-100 - 1-1/16 ST-100 - 1-3/16	AT-100 - 1-1/16 AT-100 - 1-3/16	IT-100 - 1-1/16 IT-100 - 1-3/16	—
For 2-7/8 Tubing 110 Tool O.D. Ø2.150	T-110 - 1-1/16 T-110 - 1-3/16 T-110 - 1-3/8	HDT-100 - 1-1/16 HDT-100 - 1-3/16 Tool O.D. Ø1.940	ST-110 - 1-1/16 ST-110 - 1-3/16 ST-110 - 1-3/8	AT-110 - 1-1/16 AT-110 - 1-3/16 AT-110 - 1-3/8	IT-110 - 1-1/16 IT-110 - 1-3/16 IT-110 - 1-3/8	SP-AT-100 - 1-3/16 Tool O.D. Ø1.940
For 2-7/8 & 3-1/2 Tubing 120 Tool O.D. Ø2.312	T-120 - 1-1/16 T-120 - 1-3/16 T-120 - 1-3/8	—	ST-120 - 1-1/16 ST-120 - 1-3/16 ST-120 - 1-3/8	AT-120 - 1-1/16 AT-120 - 1-3/16 AT-120 - 1-3/8	IT-120 - 1-1/16 IT-120 - 1-3/16 IT-120 - 1-3/8	—
For 3-1/2 & Larger Tubing 130 Tool O.D. Ø2.750	T-130 - 1-3/16 T-130 - 1-3/8	HDT-120 - 1-3/16 HDT-120 - 1-3/8 Tool O.D. Ø2.440	ST-130 - 1-3/16 ST-130 - 1-3/8	AT-130 - 1-3/16 AT-130 - 1-3/8	IT-130 - 1-3/16 IT-130 - 1-3/8	—

T-80 Tool O.D. 1.440"

On-Off Tools

S.No.	Item	Part Name	No. Req.	Title	Part No.	Material
1	—	AT-80	—	15/16 On/Off Tool	810F001	Steel
2	—	ST-80-304SS	—	15/16 On/Off Tool	810F002	Stainless
3	1	ST-81	1	15/16 Top Bushing	810F004	Steel
4	1	ST-81	1	15/16 Top Bushing	810F003	Stainless
5	2	ST-82	1	Spring	810F005	Stainless
6	3	ST-83	1	Locking Pawl	810F006	Stainless
7	4	T-84	2	Guide Balls	810F0071	Alloy Steel
8	4	ST-84	2	Guide Balls	810F007	Stainless
9	5	QT-85	1	Body	810F008	Steel
10	5	ST-85	1	Body	810F009	Stainless
11	6	AT-86	1	15/16 Bottom Latch	810F010	Steel
12	6	ST-86	1	15/16 Bottom Latch	810F011	Stainless

Note: NP Indicates Nickel Plated

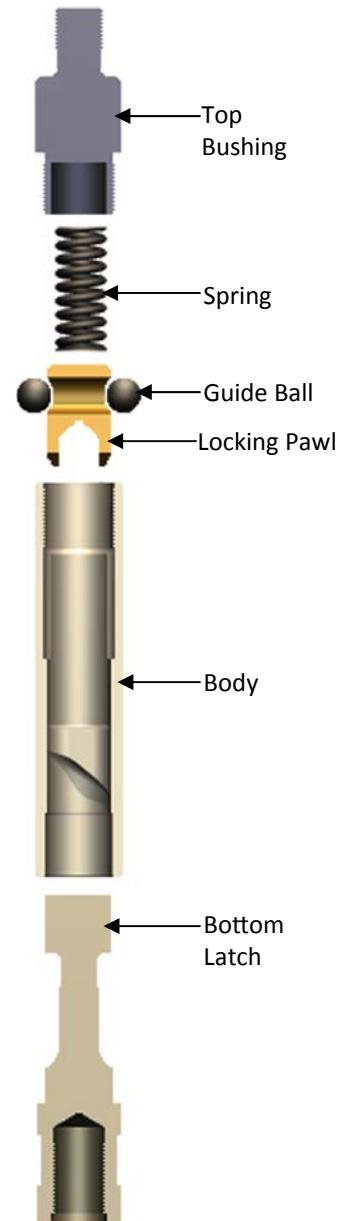


T-90 Tool O.D. 1.625"

On-Off Tools

S.No.	Item	Part Name	No. Req.	Title	Part No.	Material
1	—	AT-90	—	15/16 On/Off Tool	810F012	Steel
2	—	ST-90-304SS	—	15/16 On/Off Tool	810F014	Stainless
3	—	NAT-90	—	1-1/16 On/Off Tool	810F0151	NP Alloy Steel
4	—	AT-90	—	1-1/16 On/Off Tool	810F016	Alloy Steel
5	—	ST-90-304	—	1-1/16 On/Off Tool	810F017	Stainless
6	—	AT-90	—	L.H. 1-1/16 On/Off Tool	810F018	Steel
7	—	NAT-90	—	1-3/16 On/Off Tool	810F020	NP Alloy Steel
8	—	ST-90-304SS	—	1-3/16 On/Off Tool	810F021	Stainless
9	1	T-91	1	15/16 Top Bushing	810F022	Steel
10	1	ST-91	1	15/16 Top Bushing	810F023	Stainless
11	1	T-91	1	1-1/16 Top Bushing	810F024	Steel
12	1	ST-91	1	1-1/16 Top Bushing	810F025	Stainless
13	1	T-91	1	1-3/16 Top Bushing	810F026	Steel
14	1	ST-91-304	1	1-3/16 Top Bushing	810F027	Stainless
15	2	T-92	1	Spring	810F028	Steel
16	2	ST-92	1	Spring	810F029	Stainless
17	3	ST-93	1	Locking Pawl	810F030	Stainless
18	3	T-93	1	L.H. Locking Pawl	810F032	Steel
19	4	T-94	2	Guide Balls	810F033	Alloy Steel
20	4	ST-94	2	Guide Balls	810F0331	Stainless
21	5	QT-95	1	Body	810F034	Steel
22	5	ST-95	1	Body	810F035	Stainless
23	6	ST-96	1	15/16 Bottom Latch	810F038	Stainless
24	6	AT-96	1	1-1/16 Bottom Latch	810F040	Alloy Steel
25	6	NAT-96	1	1-1/16 Bottom Latch	810F040NP	NP Alloy Steel
26	6	ST-96	1	1-1/16 Bottom Latch	810F041	Stainless
27	6	AT-96	1	1-3/16 Bottom Latch	810F043	Alloy Steel
28	6	ST-96	1	1-3/16 Bottom Latch	810F044	Stainless

Note: NP Indicates Nickel Plated

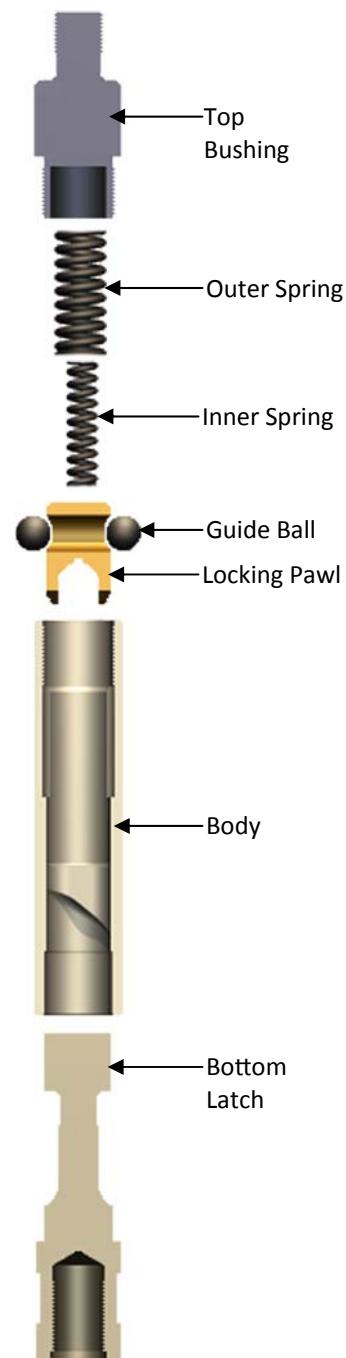


T-100 Tool O.D. 1.625"

On-Off Tools

S.No.	Item	Part Name	No. Req.	Title	Part No.	Material
1	—	SPAT-100	—	1-1/16 On/Off Tool	810F0451	Steel
2	—	NAT-100	—	1-1/16 On/Off Tool	810F0452	NP Alloy Steel
3	—	AT-100	—	1-1/16 On/Off Tool	810F047	Alloy Steel
4	—	SP AT-100	—	1-1/16 On/Off Tool	810F0472	Alloy Steel
5	—	ST-100-304SS	—	1-1/16 On/Off Tool	810F048	Stainless
6	—	ST-100-304SS	—	1-3/16 On/Off Tool	810F049	Stainless
7	—	AT-100	—	L.H. 1-3/16 On/Off Tool	810F051	Steel
8	—	AT-100	—	1-3/16 On/Off Tool	810F052	Alloy Steel
9	—	NAT-100 IT-100	—	1-3/16 On/Off Tool 1-3/16 On/Off Tool	810F053 810F054	NP Alloy Steel Inconel
10	—	IT-100	—	1-1/16 On/Off Tool	810F0541	Inconel
11	—	SP IT-100	—	1-1/16 On/Off Tool	810F0542	Inconel
12	—	SP IT-100	—	1-3/16 On/Off Tool	810F0543	Inconel
13	1	T-101	1	1-1/16 Top Bushing	810F055	Steel
14	1	ST-101	1	1-1/16 Top Bushing	810F056	Stainless
15	1	SP T-101	1	1-1/16 Top Bushing	810F0562	Steel
16	1	T-101	1	1-3/16 Top Bushing	810F057	Steel
17	1	SP T-101	1	1-3/16 Top Bushing	810F0571	Steel
18	1	ST-101	1	1-3/16 Top Bushing	810F058	Stainless
19	2	ST-102	1	Outer Spring	810F0601	Stainless
20	2	IT-102	1	Outer Spring	810F061	Inconel
21	2	HDT-102	1	Outer Spring	810F0611	Steel
22	3	T-102-2	1	Inner Spring	810F062	Steel
23	3	ST-102-2	1	Inner Spring	810F063	Stainless
24	3	IT-102-2	1	Inner Spring	810F064	Inconel
25	3	HDT-102-2	1	Inner Spring	810F0641	Steel
26	4	ST-103	1	Locking Pawl	810F065	Stainless
27	4	T-103	1	L.H. Locking Pawl	810F066	Steel
28	5	T-104	1	Guide Balls	810F068	Alloy Stainless
29	5	ST-104	1	Guide Balls	810F0681	Stainless
30	6	ST-105	1	Body	810F070	Stainless
31	6	SP QT-105	1	Body	810F0700	Steel
32	6	QT-105	1	Body	810F071	Alloy Annealed
33	7	AT-106	1	1-1/16 Bottom Latch	810F073	Alloy Steel
34	7	ST-106	1	1-1/16 Bottom Latch	810F074	Stainless
35	7	SP AT-106	1	1-1/16 Bottom Latch	810F0751	4140
36	7	IT-106	1	1-1/16 Bottom Latch	810F0792	Inconel
37	7	SP IT-106	1	1-1/16 Bottom Latch	810F0793	Inconel
38	7	AT-106	1	1-3/16 Bottom Latch	810F077	Alloy
39	7	ST-106	1	1-3/16 Bottom Latch	810F078	Stainless
40	7	IT-106	1	1-3/16 Bottom Latch	810F079	Inconel
41	7	SP IT-106	1	1-3/16 Bottom Latch	810F0791	Inconel
42	7	SP AT-106	1	1-3/16 Bottom Latch	810F0794	4140

Note: NP Indicates Nickel Plated

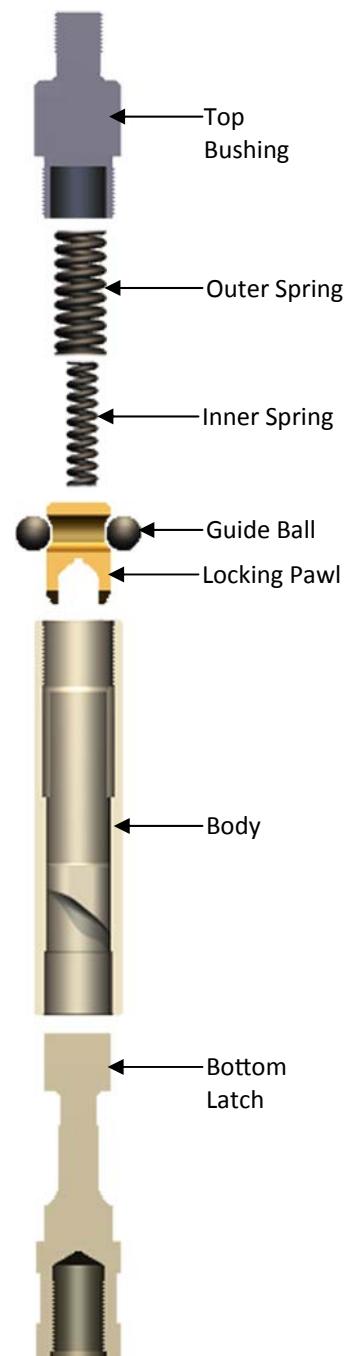


T-110 Tool O.D. 2.150"

On-Off Tools

S.No.	Item	Part Name	No. Req.	Title	Part No.	Material
1	—	T-110	—	1-1/16 On/Off Tool	810F080	Steel
2	—	AT-110	—	1-1/16 On/Off Tool	810F080A	Alloy Steel
3	—	NAT-110	—	1-1/16 On/Off Tool	810F0801	NP Alloy Steel
4	—	IT-110	—	1-1/16 On/Off Tool	810F0802	Inconel
5	—	T-110	—	L.H. 1-1/16 On/Off Tool	810F081	Steel
6	—	AT-110	—	L.H. 1-1/16 On/Off Tool	810F081A	Alloy Steel
7	—	T-110	—	1-3/16 On/Off Tool	810F082	Steel
8	—	NAT-110	—	1-3/16 On/Off Tool	810F0821	NP Alloy Steel
9	—	IT-110	—	1-3/16 On/Off Tool	810F0822	Inconel
10	—	T-110	—	L.H. 1-3/16 On/Off Tool	810F083	Steel
11	—	AT-110	—	L.H. 1-3/16 On/Off Tool	810F083A	Alloy Steel
12	—	AT-110	—	1-3/16 On/Off Tool	810F083B	Alloy Steel
13	—	ST-110	—	1-1/16 On/Off Tool	810F084	Stainless
14	—	ST-110	—	1-3/16 On/Off Tool	810F085	Stainless
15	—	T-110	—	1-3/8 On/Off Tool	810F0850	Steel
16	—	NAT-110	—	1-3/8 On/Off Tool	810F0851	NP Alloy Steel
17	1	T-111	1	1-1/16 Top Bushing	810F086	Steel
18	1	T-111	1	1-3/16 Top Bushing	810F087	Steel
19	1	T-111	1	1-3/8 Top Bushing	810F088	Steel
20	1	ST-111	1	1-1/16 Top Bushing	810F0880	Stainless
21	1	ST-111	1	1-3/16 Top Bushing	810F0881	Stainless
22	1	ST-111	1	1-3/8 Top Bushing	810F0882	Stainless
23	2	ST-122	1	Outer Spring	810F122	Stainless
24	2	IT-122	1	Outer Spring	810F124	Inconel
25	3	ST122-2	1	Inner Spring	810F125	Stainless
26	3	IT122-2	1	Inner Spring	810F127	Inconel
27	4	ST-113	1	Locking Pawl	810F093	Stainless
28	4	T-113	1	L.H. Locking Pawl	810F094	Steel
29	5	T-114	2	Guide Balls	810F096	Alloy
30	5	ST-114	2	Guide Balls	810F0961	Stainless
31	6	QT-115	1	Body	810F097	Steel
32	6	ST-115	1	Body	810F970	Stainless
33	7	T-116	1	1-1/16 Bottom Latch	810F098	Steel
34	7	AT-116	1	1-1/16 Bottom Latch	810F098A	Alloy Steel
35	7	T-116	1	1-3/16 Bottom Latch	810F099	Steel
36	7	T-116	1	1-3/8 Bottom Latch	810F100	Steel
37	7	AT-116	1	1-3/16 Bottom Latch	810F101	Alloy Steel
38	7	ST-116	1	1-1/16 Bottom Latch	810F1002	Stainless
39	7	ST-116	1	1-3/16 Bottom Latch	810F1003	Stainless
40	7	AT-116	1	1-3/8 Bottom Latch	810F1005	Alloy Steel
41	7	IT-116	1	1-1/16 Bottom Latch	810F1006	Inconel
42	7	IT-116	1	1-3/16 Bottom Latch	810F1007	Inconel

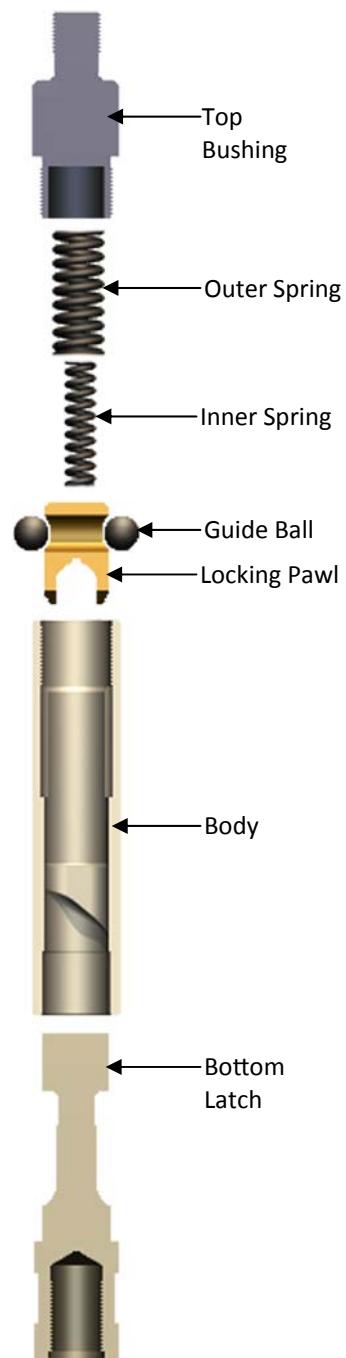
Note: NP Indicates Nickel Plated



T-120 Tool O.D. 2.312"

On-Off Tools

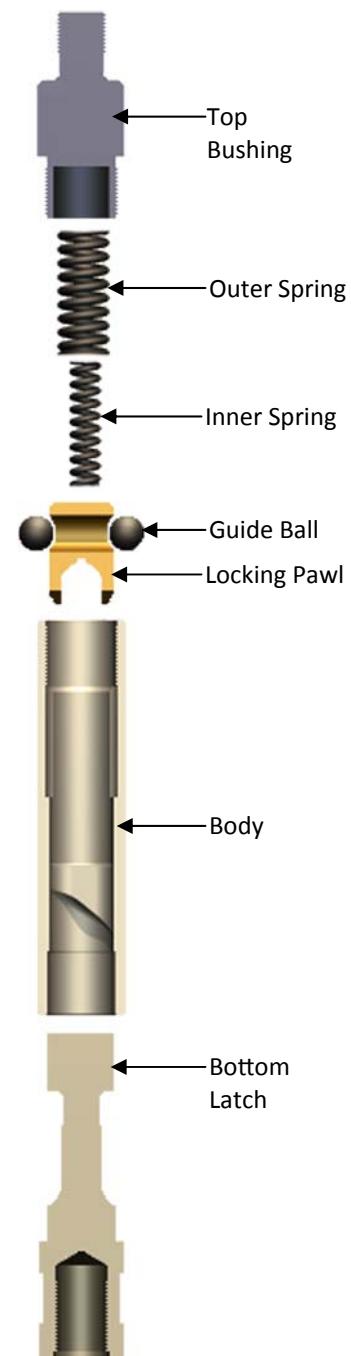
S.No.	Item	Part Name	No. Req.	Title	Part No.	Material
1	—	T-120	—	1-1/16 On/Off Tool	810F101	Steel
2	—	NAT-120	—	1-1/16 On/Off Tool	810F1011	NP Alloy Steel
3	—	T-120	—	L.H. 1-1/16 On/Off Tool	810F102	Steel
4	—	AT-120	—	1-1/16 On/Off Tool	810F103	Alloy Steel
5	—	AT-120	—	L.H. 1-1/16 On/Off Tool	810F1031	Alloy Steel
6	—	ST-120	—	L.H. 1-1/16 On/Off Tool	810F104	Stainless
7	—	T-120	—	1-3/8 On/Off Tool	810F105	Steel
8	—	NAT-120	—	1-3/8 On/Off Tool	810F1051	NP Alloy Steel
9	—	T-120	—	L.H. 1-3/8 On/Off Tool	810F105A	Steel
10	—	T-120	—	1-3/16 On/Off Tool	810F106	Steel
11	—	NAT-120	—	1-3/16 On/Off Tool	810F1061	NP Alloy Steel
12	—	T-120	—	L.H. 1-3/16 On/Off Tool	810F107	Steel
13	—	AT-120	—	1-3/16 On/Off Tool	810F108	Alloy Steel
14	—	AT-120	—	L.H. 1-3/16 On/Off Tool	810F108A	Alloy Steel
15	—	IT-120	—	1-3/16 On/Off Tool	810F110	Inconel
16	—	IT-120	—	L.H. 1-3/16 On/Off Tool	810F110A	Inconel
17	—	ST-120	—	1-3/16 On/Off Tool	810F111	Stainless
18	—	ST-120	—	1-3/8 On/Off Tool	810F112	Stainless
19	—	AT-120	—	1-3/8 On/Off Tool	810F114	Alloy Steel
20	1	ST-121	1	1-1/16 Top Bushing	810F115	Stainless
21	1	T-121	1	1-1/16 Top Bushing	810F116	Steel
22	1	T-121	1	1-3/16 Top Bushing	810F118	Steel
23	1	ST-121	1	1-3/16 Top Bushing	810F119	Stainless
24	1	T-121	1	1-3/8 Top Bushing	810F120	Steel
25	1	ST-121	1	1-3/8 Top Bushing	810F121	Stainless
26	2	ST-122	1	Outer Spring	810F122	Stainless
27	2	IT-122	1	Outer Spring	810F124	Inconel
28	3	ST-122-2	1	Inner Spring	810F125	Stainless
29	3	IT-122-2	1	Inner Spring	810F127	Inconel
30	4	SRT-123	1	Locking Pawl	810F128	Stainless
31	4	T-123	1	L.H. Locking Pawl	810F128A	Steel
32	5	T-124	2	Guide Balls	810F131	Alloy
33	5	ST-124	2	Guide Balls	810F1311	Stainless
34	6	ST-125	1	Body	810F133	Stainless
35	6	QT-125	1	Body	810F134	Alloy Annealed
36	7	T-126	1	1-1/16 Bottom Latch	810F135	Steel
37	7	ST-126	1	1-1/16 Bottom Latch	810F137	Stainless
38	7	T-126	1	1-3/16 Bottom Latch	810F138	Steel
39	7	AT-126	1	1-1/16 Bottom Latch	810F138A	Alloy
40	7	AT-126	1	1-3/16 Bottom Latch	810F139	Alloy
41	7	ST-126	1	1-3/16 Bottom Latch	810F140	Stainless
42	7	IT-126	1	1-3/16 Bottom Latch	810F141	Inconel
43	7	IT-126	1	1-1/8 Bottom Latch	810F1410	Inconel
44	7	T-126	1	1-3/8 Bottom Latch	810F142	Steel
45	7	AT-126	1	1-3/8 Bottom Latch	810F143	Alloy
46	7	ST-126	1	1-3/8 Bottom Latch	810F144	Stainless



HDT-120 Tool O.D. 2.440"

On-Off Tools

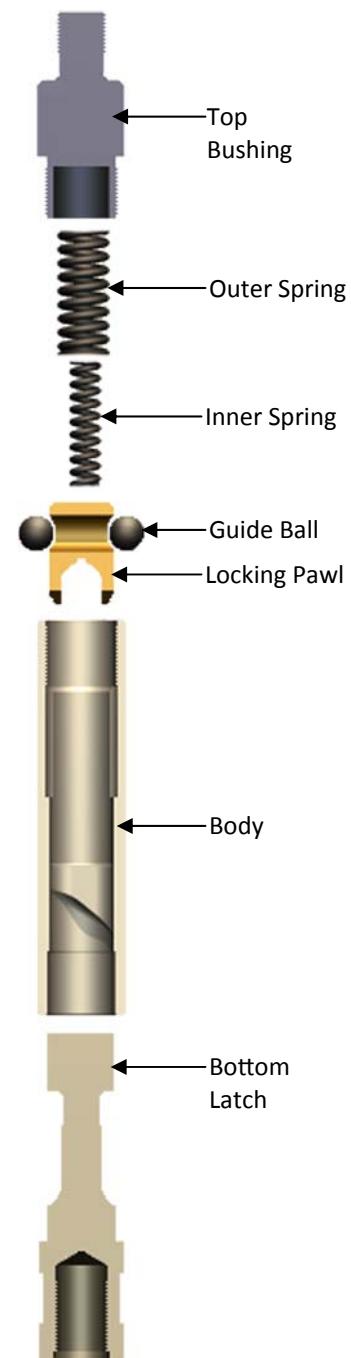
S.No.	Item	Part Name	No. Req.	Title	Part No.	Material
1	—	HDT-120	—	1-3/16 On/Off Tool	810F109	4130
2	—	HDT-120	—	1-3/8 On/Off Tool	810F113	4130
3	—	SAHDT-120	—	1-3/8 On/Off Tool	810F1131	Super Alloy
4	1	HDT-121	1	1-3/16 Top Bushing	810F117	4130
5	1	HDT-121	1	1-3/8 Top Bushing	810F1171	4130
6	2	ST-122	1	Outer Spring	810F122	Stainless
7	2	IT-122	1	Outer Spring	810F124	Inconel
8	3	ST-122-2	1	Inner Spring	810F125	Stainless
9	3	IT-122-2	1	Inner Spring	810F127	Inconel
10	4	ST-123	1	Locking Pawl	810F128	Stainless
11	4	T-123	1	L.H. Locking	810F128A	Steel
12	5	T-124	2	Guide Balls	810F131	Alloy
13	5	ST-124	2	Guide Balls	810F1311	Stainless
14	6	HDT-125	1	Body	810F1310	4130
15	7	HDT-126	1	1-3/16 Bottom Latch	810F1390	4130
16	7	HDT-126	1	1-3/8 Bottom Latch	810F1391	4130
17	7	SAHDT-126	1	1-3/8 Bottom Latch	810F1393	Super Alloy

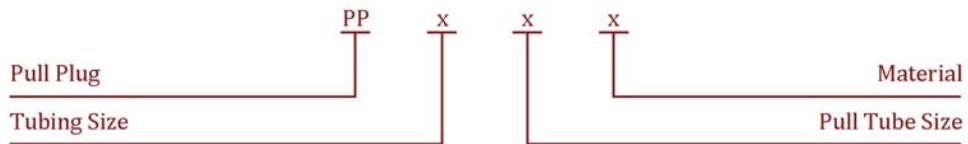


T-130 Tool O.D. 2.750"

On-Off Tools

S.No.	Item	Part Name	No. Req.	Title	Part No.	Material
1	—	AT-130	—	1-3/8 On/Off Tool	810F1440	Alloy Steel
2	—	NAT-130	—	1-3/8 On/Off Tool	810F1441	NP Alloy Steel
3	—	AT-130	—	L.H. 1-3/8 On/Off Tool	810F1442	NP Alloy Steel
4	—	AT-130	—	1-3/16 On/Off Tool	810F145	Alloy Steel
5	—	AT-130	—	L.H. 1-3/16 On/Off Tool	810F1450	Alloy Steel
6	—	NAT-130	—	1-3/16 On/Off Tool	810F1451	NP Alloy Steel
7	—	ST-130	—	1-3/16 On/Off Tool	810F1452	Stainless
8	—	ST-130	—	1-3/8 On/Off Tool	810F1453	Stainless
9	1	AT-131	1	1-3/16 Top Bushing	810F1460	Alloy Steel
10	1	AT-131	1	1-3/8 Top Bushing	810F1461	Alloy Steel
11	1	ST-131	1	1-3/16 Top Bushing	810F147	Stainless
12	1	ST-131	1	1-3/8 Top Bushing	810F1471	Stainless
13	2	ST-122	1	Outer Spring	810F122	Stainless
14	2	IT-122	1	Outer Spring	810F124	Inconel
15	3	ST-122-2	1	Inner Spring	810F125	Steel
16	3	IT-122	1	Inner Spring	810F127	Inconel
17	4	T-133	1	L.H. Locking Pawl	810F1500	Steel
18	4	T-133	1	Locking Pawl	810F151	Stainless
19	5	T-134	2	Guide Balls	810F152	Alloy
20	6	ST-135	1	Body	810F153	Stainless
21	6	QT-135	1	Body	810F154	Alloy Steel
22	7	AT-136	1	1-3/16 Bottom Latch	810F155	Alloy Steel
23	7	ST-136	1	1-3/16 Bottom Latch	810F156	Stainless
24	7	ST-136	1	1-3/8 Bottom Latch	810F157	Stainless
25	7	AT-136	1	1-3/8 Bottom Latch	810F158	Alloy Steel



Key**PP- Plug, Pull****Tubing Size (in):**

1 = 2-3/8 For 1-1/4 RW

2 = 2-3/8

3 = 2-7/8

Pull Tube Size (in):

1 = 15/16

2 = 1-1/8

3 = 1-1/2

4 = 1-1/4 Plunger

Material:

No Designator = Carbon Steel

0 = Alloy

1 = Stainless Steel

2 = 316 Stainless Steel

3 = Brass

4 = Monel

PP- Plug, Pull

Plugs

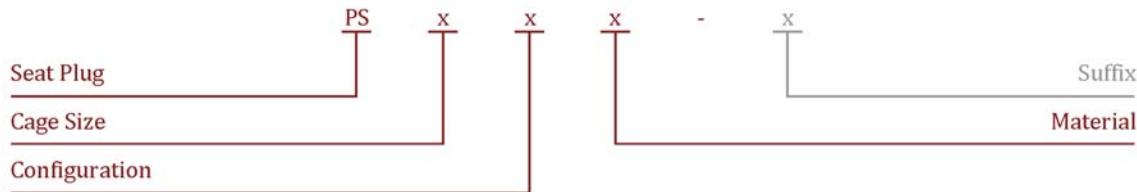
PP- Plug, Pull

Part No.	Barrel Thread (in)	Tubing Size (in)	Pull Tube Size (in)	API No.
PP01	1.3330-16	1.900, 2-1/16	15/16	P11-125-15
PP11	1.3330-16	2-3/8	15/16	N/A
PP21	1.5730-16	2-3/8	15/16	P11-125
PP22	1.5730-16	2-3/8	1-1/8	P11-150-20
PP33	2.0870-16	2-7/8	1-1/2	P11-200

Select Material

- Example: PP211 = Pull Plug, 2-3/8" Tubing, 15/16" Pull Tube, Stainless Steel



Key**PS- Plug, Seat****Cage Size (in):**

1 = 1-1/16	6 = 2-1/4
2 = 1-1/4	7 = 2-1/2
3 = 1-1/2	8 = 2-3/4
4 = 1-3/4	9 = 3-1/4
5 = 2	10 = 3-3/4

* Seat plug with cage size 2-3/4" and larger are slotted for bottleneck pumps

Material:

No Designator	= Carbon Steel
0	= Alloy
1	= Stainless Steel
2	= 316 Stainless Steel
3	= Brass
4	= Monel

Configuration:

1	= External
2	= Internal
3	= External- Slotted

Suffix (optional):

PSP = Positive Seal Internal Hex Plug

PS- Plug, Seat

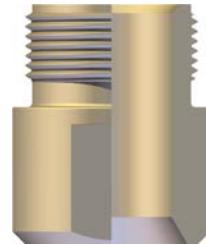
Plugs

PS- Plug, External Seat

Part No.	Cage Thread (in)	Bore Size (in)	API No.
PS11 <input type="checkbox"/>	0.8750-14	1.062	N/A
PS21 <input type="checkbox"/>	1.0000-14	1.250	P12-125
PS31 <input type="checkbox"/>	1.2500-14	1.500	P12-150
PS41 <input type="checkbox"/>	1.4704-14	1.750	P12-175
PS51 <input type="checkbox"/>	1.5604-14	2.000	P12-200
PS61 <input type="checkbox"/>	1.8024-14	2.250	P12-275
PS71 <input type="checkbox"/>	2.1095-11-1/2	2.500	P12-250
PS81 <input type="checkbox"/>	2.1095-11.5	2.750	N/A
PS91 <input type="checkbox"/>	2.8095-11.5	3.250	N/A
PS101 <input type="checkbox"/>	3.1715-11.5	3.750	N/A

 Select Material

- Example: PS312 = 1-1/2" External Seat Plug, 316 Stainless Steel



PS- Plug, External Seat, Slotted

Part No.	Cage Thread (in)	Bore Size (in)	API No.
PS53 <input type="checkbox"/>	1.5604-14	2.000	N/A
PS63 <input type="checkbox"/>	1.8024-14	2.250	N/A
PS73 <input type="checkbox"/>	2.109511.5	2.500	N/A
PS83 <input type="checkbox"/>	2.1095-11-1/2	2.750	N/A
PS93 <input type="checkbox"/>	2.8095-11-1/2	3.250	N/A
PS103 <input type="checkbox"/>	3.1715-11-1/2	3.750	N/A

 Select Material

- Example: PS812 = 2-3/4" External Seat Plug, Slotted, 316 Stainless Steel



PS- Plug, Seat

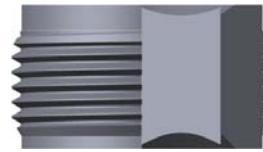
Plugs

PS- Plug, Internal Hex Seat

Part No.	Cage Thread (in)	Bore Size (in)	API No.
PS12□	0.8750-14	1.062	N/A
PS22□	1.0000-14	1.250	N/A
PS32□	1.2500-14	1.500	N/A
PS42□	1.4704-14	1.750	N/A
PS52□	1.5604-14	2.000	N/A
PS62□	1.8024-14	2.250	N/A

 Select Material

- Example: PS32 = 1-1/2" Internal Hex Seat Plug, Carbon Steel

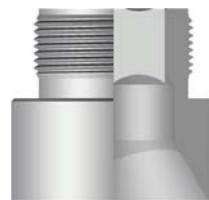


PS- Plug, Seat, Int. Hex, Positive Seal

Part No.	Cage Thread (in)	Bore Size (in)	API No.
PS21□-PSP	1.0000-14	1.250	N/A
PS31□-PSP	1.2500-14	1.500	N/A
PS41□-PSP	1.4704-14	1.750	N/A
PS51□-PSP	1.5604-14	2.000	N/A

 Select Material

- Example: PS312-PSP = 1-1/2" Positive Seal Seat Plug, 316 Stainless Steel



Key**Plungers****Materials Available For Plungers**

Metal Plungers- Don-Nan offers plungers for both insert and tubing pumps. Precision ground on the O.D., our plungers meet all API specifications. Available in pin-end and box-end. Pins are available in Monel, stainless steel, alloy, and other materials as requested.

Spray Metal- Don-Nan's Spraymetal plungers are recommended for severe corrosion and abrasive conditions. Our precision tubes are ground on the O.D. and flame sprayed with a nickel base powder containing chromium, boron and silicon to create a hard coating (R'c 58/62). Available with different pins and also box end plungers for tubing pumps.

Chrome Plated- Don-Nan's chrome plungers have a hard chrome plate (R'c 70) that are resistant to abrasion where corrosion is not a factor. Available in all sizes with box end plungers for tubing pumps.

Grooved Plungers- Available in both spray metal and chrome plated.

Other Plungers-

Soft Packed Cup & Ring

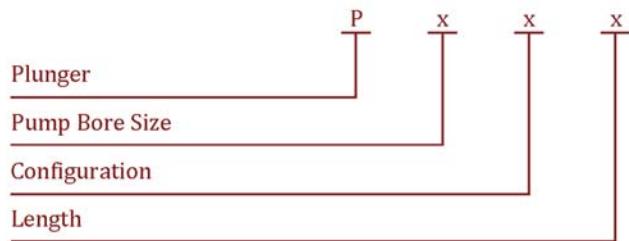
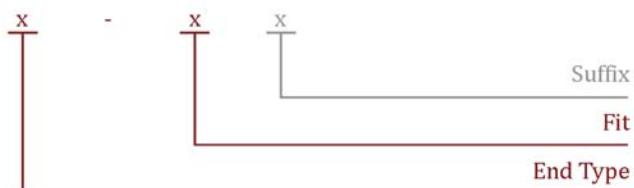
Discpack Rings

Pressure Actuated Ring

Phenolic Ring

Lubripump Plunger

Special Design's Upon Request

Key**P- Plunger****Pump Bore Size (in):**

1 = 1.062	7 = 2.250
2 = 1.250	8 = 2.500
3 = 1.500	9 = 2.750
4 = 1.750	10 = 3.250
5 = 1.781	11 = 3.750
6 = 2.000	

Length (ft):

1 = 1	4 = 4
2 = 2	5 = 5
3 = 3	6 = 6 etc.

Configuration:

1 = Spray Metal	
2 = Spray Metal, Grooved Body	
3 = Chrome	
3D = Chrome, Double Plated	
4 = Chrome, Grooved Body	
5 = 316 Stainless Steel	
6 = Mercury	
7 = Alloy	
8 = Alloy, Grooved Body	
9 = Spray Metal, Four Poly Grooves (2 ea. End)	
9A = Spray Metal, Two Poly Grooves (2 on 1-End)	
9B = Spray Metal, Two Poly Grooves (1 on ea. End)	
9C = Spray Metal, Grooved Body, Two Poly Grooves (1 ea. End)	
9D = Spray Metal, One Poly Groove (1 On 1 End)	

End Type:

No Designator	= Plain Pin End
M	= Monel Pin
K	= K-Monel Pin
GM	= Monel (Grooved) Pin
BX	= Box End Thread
NP	= Nickel Plated
SS	= Plain Pin Square Shoulder

Fit (in):

1 = -0.001	5 = -0.005
2 = -0.002	6 = -0.006
3 = -0.003	7 = -0.007
4 = -0.004	8 = -0.008 etc.

Suffix (optional):

SPEC = Special Threads

P- Plunger

Plungers

P- Plunger, Pin End

Part No.	Thread Spec's (in)	Pump Bore Size (in)	API No.
P1□①■-Δ	0.8750-14	1.062	N/A
P2□②■-Δ	1.0000-14	1.250	P21-125
P3□③■-Δ	1.2500-14	1.500	P21-150
P4□④■-Δ	1.4704-14	1.750	P21-175
P5□⑤■-Δ	1.4704-14	1.781	N/A
P6□⑥■-Δ	1.5604-14	2.000	P21-200
P7□⑦■-Δ	1.8024-14	2.250	P21-225
P8□⑧■-Δ	2.1095-11-1/2	2.500	P21-250
P9□⑨■-Δ	2.1095-11-1/2	2.750	P21-275
P10□⑩■-Δ	2.8095-14	3.250	N/A
P11□⑪■-Δ	3.1750-11-1/2	3.750	N/A



□ Select Configuration (Excluding Mercury)

① Select Length

■ Select End Type (Excluding Box End Thread)

Δ Select Fit

- Example: P415M-3 = 1-3/4", Spray Metal Body, Monel Pin End, 5' Long with -0.003 Fit

P- Plunger, Box End

Part No.	Thread Spec's (in)	Pump Bore Size (in)	API No.
P1□①BX-Δ	—	1.062	N/A
P2□②BX-Δ	—	1.250	N/A
P3□③BX-Δ	—	1.500	N/A
P4□④BX-Δ	1.5084-14	1.750	P23-175
P5□⑤BX-Δ	—	1.781	N/A
P6□⑥BX-Δ	—	2.000	N/A
P7□⑦BX-Δ	1.9864-14	2.250	P23-225
P8□⑧BX-Δ	—	2.500	N/A
P9□⑨BX-Δ	2.3755-11-1/2	2.750	P23-275
P10□⑩BX-Δ	—	3.250	N/A
P11□⑪BX-Δ	3.3825-11-1/2	3.750	P23-375



□ Select Configuration (Excluding Mercury)

① Select Length

■ Select End Type (Excluding Box End Thread)

Δ Select Fit

- Example: P415BX-3 = 1-3/4", Spray Metal Body, Box End, 5' Long with 0.003 Fit

P- Plunger

Plungers

P- Plunger, Mercury, Pin End

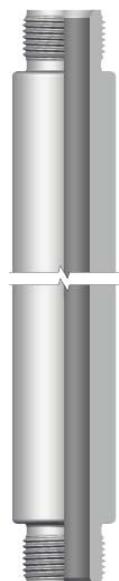
Part No.	Thread Spec's	Thread Spec's	Pump Bore Size	API No.
P16@■-Δ	1.000-14	1.000-14	1.062	N/A
P26@■-Δ	—	—	1.250	N/A
P36@■-Δ	—	—	1.500	N/A
P46@■-Δ	—	—	1.750	N/A
P56@■-Δ	—	—	1.781	N/A
P66@■-Δ	—	—	2.000	N/A
P76@■-Δ	—	—	2.250	N/A
P86@■-Δ	—	—	2.500	N/A
P96@■-Δ	—	—	2.750	N/A
P106@■-Δ	—	—	3.250	N/A
P116@■-Δ	—	—	3.750	N/A

(*) Select Length

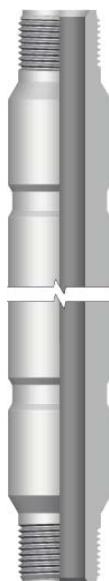
■ Select End Type (Excluding Box End Thread)

Δ Select Fit

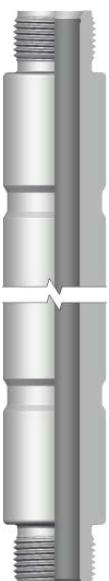
- Example: P1616-3 = 1-1/16", 16' Mercury Plunger



Plunger, Plain Pin
Square Shoulder



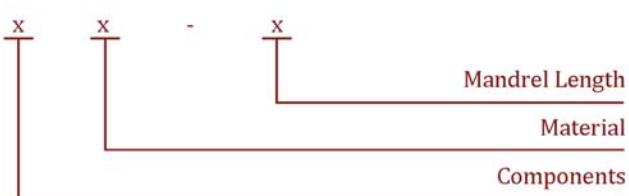
Plunger, Plain Pin
Grooved Body



Plunger, Plain Pin
Square Shoulder
Grooved Body



Plunger, Monel Pin
Also Available with
Grooved Body

Key**PC- Plunger, Composition Ring****Pump Bore Size (in):**

1 = 1.250	6 = 2.250
2 = 1.500	7 = 2.500
3 = 1.750	8 = 2.750
4 = 1.781	9 = 3.250
5 = 2.000	

(Parts for Split Plunger.):

- 1 = Bushing
- 2 = Lock Nut
- 3 = Tube, Mandrel
- 4 = Spool (10 Rings)
- 5 = Split Rings
- 8 = Plunger Assembly, Complete

Configuration:

- 1 = Plunger (Flange Rings)
- 2 = Plunger (Split Rings)

Components (Parts for Flange Plunger.):

- 1 = Bushing
- 2 = Ring, Wear
- 3 = Spacers
- 4 = Solid Rings, Flange
- 5 = Tube, Mandrel
- 6 = Spacer, End
- 7 = Lock Nut
- 8 = Plunger Assembly, Complete

Material:

- No Designator = Carbon Steel
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass

Mandrel Length:

- | | |
|--------------|--------------|
| 20 = 20 Ring | 50 = 50 Ring |
| 30 = 30 Ring | 60 = 60 Ring |
| 40 = 40 Ring | |

PC- Plunger, Composition Ring

Plungers

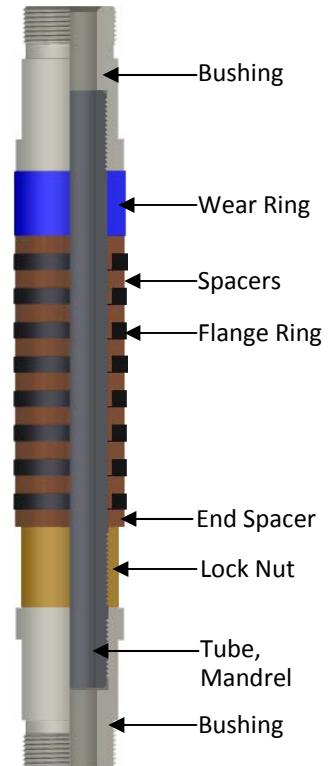
PC- Plunger, Composition (Flange Ring)

Part No. (Assembly)	Thread Spec's (in)	Pump Bore Size (in)	API No.
PC118□-*	1.0000-14	1.250	P24-125
PC218□-*	1.2500-14	1.500	P24-150
PC318□-*	1.4704-14	1.375	P24-175
PC418□-*	1.4664-14	1.781	P24-178
PC518□-*	1.5604-14	2.000	P24-200
PC618□-*	1.8024-14	2.250	P24-225
PC718□-*	2.1095-11-1/2	2.750	P24-275
PC818□-*	2.8095-14	3.250	P24-325
PC918□-*	3.1750-11-1/2	3.750	P24-375

 Select Material

(*) Mandrel Length

• Example: PC2183-60 = 1-1/2" x 60" Ring, Brass Assembly with Flange Rings



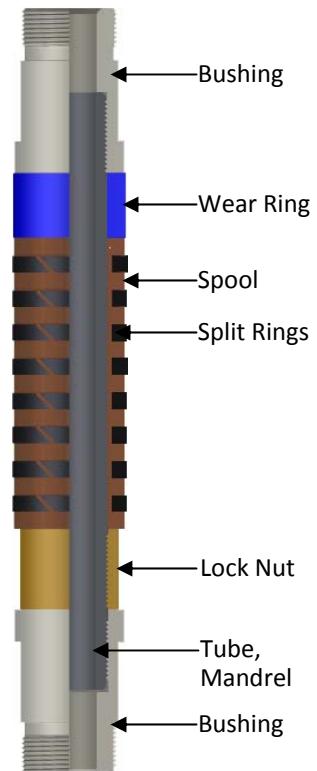
PC-Plunger, Composition (Split Ring)

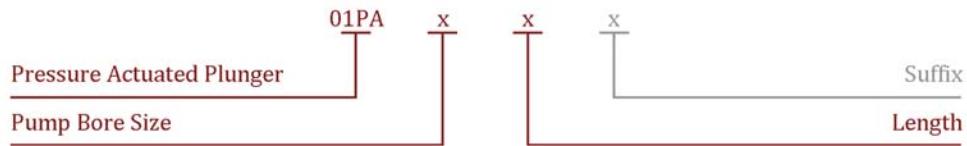
Part No. (Assembly)	Thread Spec's (in)	Pump Bore Size (in)	API No.
PC128□*	1.0000-14	1.250	P24-125
PC228□*	1.2500-14	1.500	P24-150
PC328□*	1.4704-14	1.750	P24-175
PC428□*	1.4664-14	1.781	P24-178
PC528□*	1.5604-14	2.000	P24-200
PC628□*	1.8024-14	2.500	P24-225
PC728□*	2.1095-11-1/2	2.750	P24-275
PC828□*	2.8095-14	3.250	P24-325
PC928□*	3.1750-11-1/2	3.750	P24-375

 Select Material

(*) Mandrel Length

• Example: PC2283-60 = 1-1/2" x 60" Ring, Brass Assembly with Split Rings



Key**01PA- Plunger, Pressure Actuated****Pump Bore Size (in):**

116 = 1.062	2 = 2.000
114 = 1.250	214 = 2.250
112 = 1.500	212 = 2.500
134 = 1.750	234 = 2.750

Length:

20 = 20 Ring
40 = 40 Ring
60 = 60 Ring

Suffix (optional):

SS = Stainless Steel
PP = Poly Pack
LWF = No Wrench Flats
M = Monel Pin
HC = Hard Coat Plunger

Plunger, Pressure Actuated

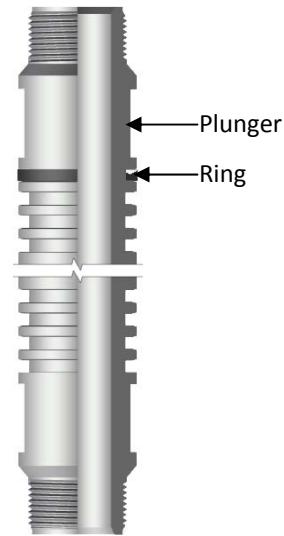
Plungers

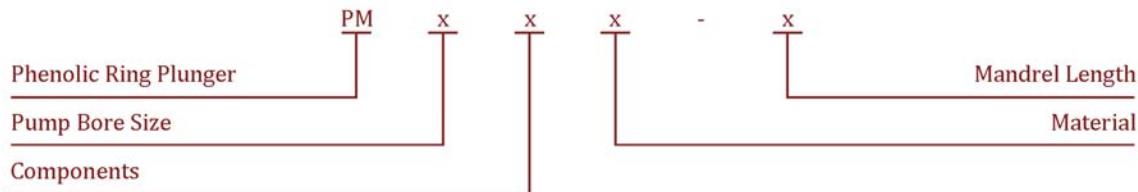
PG- Plunger, Pressure Actuated

Part No.	Thread Spec's (in)	Pump Bore Size (in)	API No.
01PA116◎	0.8750-14	1.062	N/A
01PA114◎	1.0000-14	1.250	N/A
01PA112◎	1.2500-14	1.500	N/A
01PA134◎	1.4704-14	1.750	N/A
01PA2◎	1.5604-14	2.000	N/A
01PA214◎	1.8024-14	2.250	N/A
01PA212◎	2.1095-11-1/2	2.500	N/A
01PA234◎	2.1095-11-1/2	2.750	N/A

◎ Select Ring Count (ex. 20, 40, 60, etc.)

• Example: 01PA11420 = 1-1/4" x 20" Ring Spray Metal, Plain Pin, Less Rings



Key**PM- Plunger, Phenolic Ring****Pump Bore Size (in):**

1 = 1.250	6 = 2.250
2 = 1.500	7 = 2.500
3 = 1.750	8 = 2.750
4 = 1.781	9 = 3.250
5 = 2.000	10 = 3.750

Material:

No Designator	= Carbon Steel
1	= Stainless Steel
2	= 316 Stainless Steel
3	= Brass

Components:

- 1 = Mandrel
- 2 = Spacers, Wide Design
- 3 = Spacers, Narrow Design
- 4 = Pin
- 5 = Lock Nut
- 6 = End Spacer
- 7 = Bottom Nut
- 8 = Phenolic Rings, Wide Design
- 9 = Phenolic Rings, Narrow Design
- 10 = Plunger Assembly, With Narrow Design Rings
- 11 = Plunger Assembly, With Wide Design Rings

Mandrel Length:

15	= 15 Ring, Wide	40	= 40 Ring, Narrow
20	= 20 Ring, Wide	50	= 50 Ring, Narrow
25	= 25 Ring, Wide	60	= 60 Ring, Narrow
30	= 30 Ring, Wide		

PM- Plunger, Phenolic Ring

Plungers

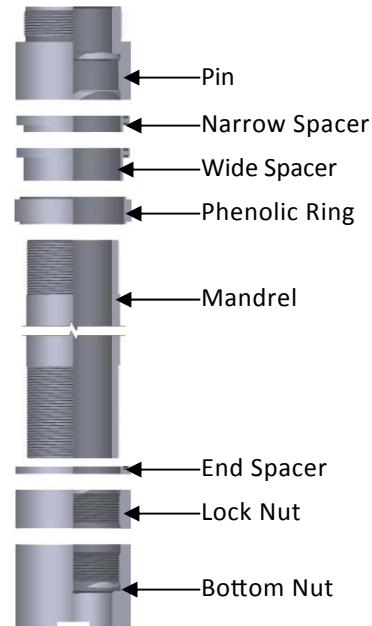
PM- Plunger, Phenolic Ring

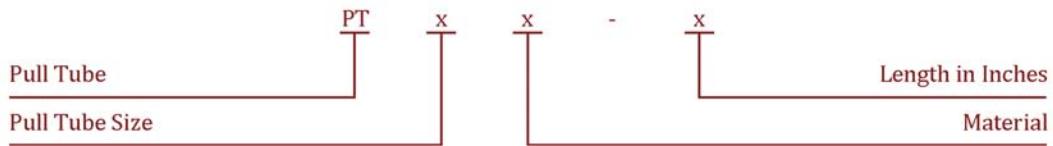
Part No.	Pump Bore Size (in.)	Description	API No.
PM24 <input type="checkbox"/>	1.500	Pin	N/A
PM23 <input type="checkbox"/>	1.500	Narrow Spacer	N/A
PM39 <input type="checkbox"/>	1.750	Phenolic Narrow Ring	N/A
PM82 <input type="checkbox"/>	2.750	Wide Spacer	N/A
PM38 <input type="checkbox"/>	1.750	Phenolic Wide Ring	N/A
PM81 <input type="checkbox"/> -*	2.750	Mandrel	N/A
PM96 <input type="checkbox"/>	3.250	End Spacer	N/A
PM95 <input type="checkbox"/>	3.250	Lock Nut	N/A

 Select Material

(*) Select Length

- Example: PM24 = 1.250" Phenolic Ring Plunger Pin, Carbon Steel



Key**PT- Pull Tube****Pull Tube Size (in):**

1 = 15/16

2 = 1-1/8

3 = 1-1/2

4 = 1-7/8

5 = 1

6 = 1-1/4

Material:

No Designator = Carbon Steel

1 = Stainless Steel

2 = 316 Stainless Steel

3 = Brass

4 = Monel

9 = Alloy

PT- Pull Tube

Pull Tubes

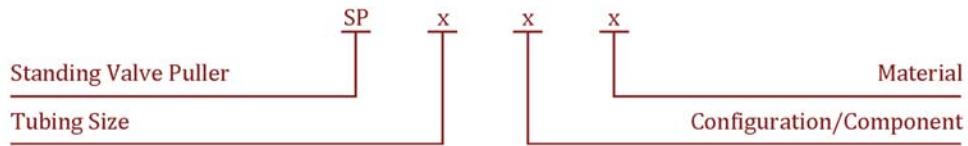
PT- Pull Tube

Part No.	Pull Tube Thread (in)	Pump Bore Size (in)	Pull Tube O.D. (in)	API No.
PT1□-*	0.9375-16	1.250	0.9375	T11-125
PT2□-*	1.1250-16	1.500	1.125	T11-150
PT3□-*	1.5000-16	2.000	1.500	T11-200
PT4□-*	1.2500-14	1.500	1.2500	N/A
PT5□-*	1.000-16	1.250	1.000	N/A
PT6□-*	—	—	—	N/A

 Select Material Select Length

- Example: PT23-127 = 1-1/8" Pull Tube, Brass, 127" in Length



Key**SP- Puller, Standing Valve****Tubing Size (in):**

- | | |
|-------------------|-----------|
| 1 = 1.900, 2-1/16 | 4 = 3-1/2 |
| 2 = 2-3/8 | 6 = 4-1/2 |
| 3 = 2-7/8 | |

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel

Configuration:

- 0 = Assembled, Pin End
- 1 = Assembled, Box End

Components:

- 2 = Tap
- 3 = Spring
- 4 = Cap Nut
- 5 = Body, Pin End
- 6 = Body, Box End

SP- Puller Assembly, Standing Valve

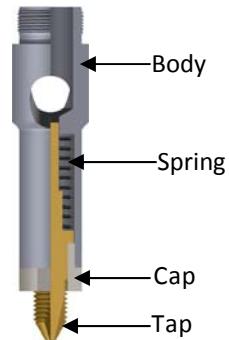
Pullers

SP- Puller Assembly, Standing Valve, Pin End

Part No.	Cage Thread (in)	Tubing Size (in)	Pump Bore Size (in)	API No.
SP10□	1.2500-14	1.900, 2-1/16	1.500	N/A
SP20□	1.4704-14	2-3/8	1.750	P31-175
SP30□	1.8024-14	2-7/8	2.250	P31-225
SP40□	2.1095-11-1/2	3-1/2	2.750	P31-275
SP60□	3.1715-11.5	4-1/2	3.750	P31-375

 Select Material

- Example: SP20 = 1.750" Standing Valve Puller Assembly, Pin End, Carbon Steel

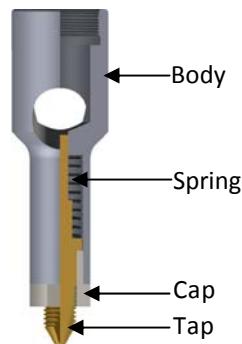


SP- Puller Assembly, Standing Valve, Box End

Part No.	Cage Thread (in.)	Tubing Size (in)	Pump Bore Size (in.)	API No.
SP11□	1.2500-14	1.900, 2-1/16	1.500	N/A
SP21□	1.4704-14	2-3/8	1.750	N/A
SP31□	1.8024-14	2-7/8	2.250	N/A
SP41□	2.1095-11-1/2	3-1/2	2.750	N/A
SP61□	3.1715-11-1/2	4-1/2	3.750	N/A

 Select Material

- Example: SP312 = 2.250" Standing Valve Puller Assembly, Box End, 316 Stainless Steel



SP- Puller Components, Standing Valve, Both Pin and Box End Pullers

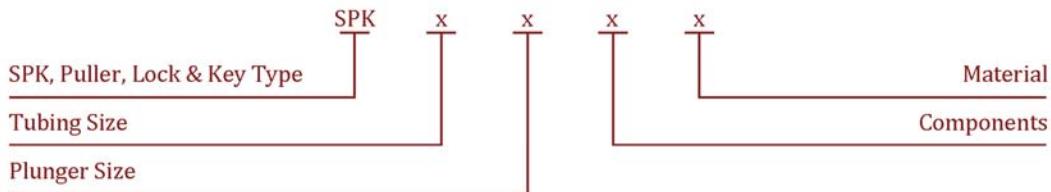
Pump Bore Size (in)	Body Pin End	Body Box End	Tap	Cap	Spring
1-1/2	SP15□	SP16□	SP12□	SP14□	SP13
1-3/4	SP25□	SP26□	SP22□	SP24□	SP23
2-1/4	SP35□	SP36□	SP22□	SP24□	SP23
2-3/4	SP45□	SP46□	SP22□	SP24□	SP23
3-3/4	SP65□	—	SP22□	SP24□	SP23

 Select Material

- Example: SP25 = 1.750" Body Pin End Only, Carbon Steel

Please Note: The spring is the same for all Pullers except for 1.500" Bore, All springs are Stainless.

Cap Nut and Tap are the same and no bore designator used except for the 1.500" bore.

Key**SPK- Puller, Standing Valve, Lock & Key****Tubing Size (in):**

- 1 = 2-3/8-8 RD EUE
- 2 = 2-7/8-8 RD EUE
- 3 = 3-1/2-8 RD EUE

Plunger Size (in):

- 1 = 1-3/4, 1-25/32
- 2 = 2-1/4
- 3 = 2-3/4

Components:

- 1 = Pull Plug
- 2 = Key/Shaft
- 3 = Cap/Receptacle
- 4 = Spring
- 5 = Lock Nut
- 6 = Complete Assembly

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass

SPK- Puller, Standing Valve, Lock & Key

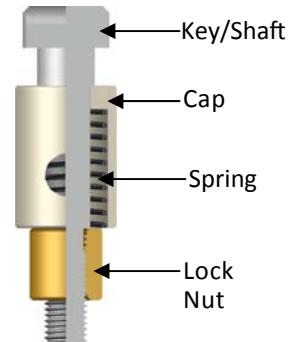
Puller, Lock & Key

SPK- Puller, Standing Valve, Lock & Key

Part No.	Thread Spec's (in)	Tubing Size (in)	Plunger Size (in)	Puller Tap Thread (in)	API No.
SPK116	1.4704-14	2-3/8	1-3/4, 1-25/32	3/4-10 NC	N/A
SPK226	1.8024-14	2-7/8	2-1/4	3/4-10 NC	N/A
SPK336	2.1095-11-1/2	3-1/2	2-3/4	3/4-10 NC	N/A

Select Material

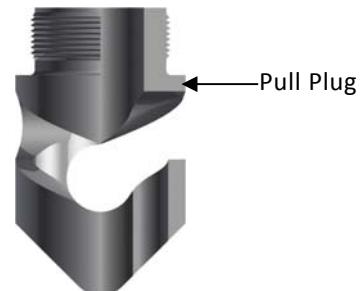
- Example: SPK2269, 2-1/4" Plunger, 2-7/8" Tubing, Complete Assembly, Alloy Steel

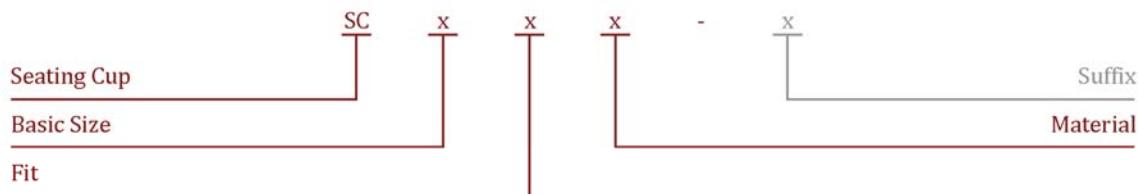


SPK- Puller Components, Standing Valve, Lock & Key

Plunger Size (in)	Pull Plug	Key	Cap	Spring	Lock Nut
1-3/4, 1-25/32	SPK111	SPK112	SPK113	SPK114	SPK115
2-1/4	SPK221	SPK222	SPK223	SPK224	SPK225
2-3/4	SPK331	SPK332	SPK333	SPK334	SPK335

Select Material



Key**SC- Seating Cups****Basic Size (in):**

01 = 1-1/16	06 = 1-25/32
02 = 1-1/4	07 = 1-7/8
03 = 1-3/8	08 = 2-1/4
04 = 1-1/2	09 = 2-3/4
05 = 1-3/4	10 = 3-3/4

Material:

3 = Composition
4 = Nylon Plastic
5 = Hi-Temp. - Composition
6 = Hi-Temp. - Plastic

Fit (in):

1 = 000 Base	5 = +45
2 = -40+30(-10)	6 = +60
3 = +15	7 = +70
4 = +30	8 = +90

Suffix (optional):

HR = Type "HR"
O = Type "O"

SC- Cup, Seating, Type

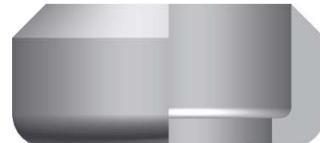
Seating Cups

SC- Cup, Seating, Type "HR"

Part No.	Nominal Cup Size (in)	Fit (in)	Seating Nipple Bore (in)	Tubing Size (in)	API No.
SC014□	1-1/16	+30	—	1.900, 2-1/16	N/A
SC024□	1-1/4	+30	—	1.900, 2-1/16	N/A
SC034□	1-3/8	+30	1.375	—	N/A
SC042□	1-1/2	-10	1.460	1.900 - 10 RD	N/A
SC052□	1-3/4	-10	1.710	—	S18-20
SC064□	1-25/32	+30	1.780	2-3/8 -8 RD	S12-20
SC082□	2-1/4	-10	2.210	—	S18-25
SC087□	2-1/4	+70	2.280	2-7/8 - 8 RD	S12-25
SC092□	2-3/4	-10	2.710	—	S18-30
SC097□	2-3/4	+70	2.780	3-1/2 - 8 RD	S12-30
SC104□	3-3/4	+30	3.750	—	N/A
SC08□*	2-1/4	—	2.250	2-7/8 - 8 RD	S19-25
SC09□*	2-3/4	—	2.750	3-1/2 - 8 RD	S19-30

 Select Material Select Length

- Example: SC444-HR = 1-25/32" +30 Plastic Seating Cup, Type "HR"
- Standard Fits Are Given Above. Other Fits Can Be Custom Selected



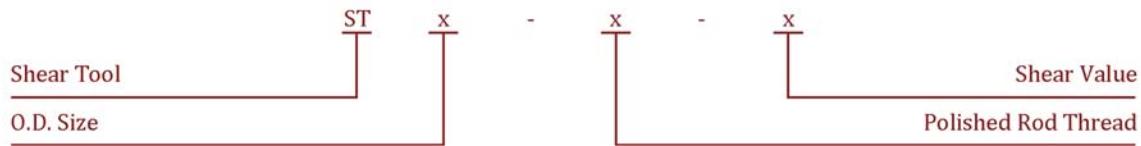
SC- Cup, Seating, Type "O"

Part No.	Nominal Cup Size (in)	Exact Size (in)	Seating Nipple Bore (in)	Tubing Size (in)	API No.
SC042□	1-1/2	-10	1.460	1.900 - 10 RD	S32-15
SC064□	1-25/32	+30	1.780	2-3/8 - 8 RD	N/A
SC084□	2-1/4	+30	2.250	2-7/8 - 8 RD	N/A
SC087□	2-1/4	+70	2.280	2-7/8 - 8 RD	N/A

 Select Material

- Example: SC226-0 = 1-1/2" -10 Plastic Type "O" Seating Cup
- Standard Fits Are Given Above. Other Fits Can Be Custom Selected



Key**ST- Shear Tool**

O.D. Size (in):

1 = 1-5/8 O.D.

2 = 2 O.D.

Polished Rod Box Thread (in):

1 = 3/4

2 = 7/8

3 = 1

Shear Value (psi):

18 = 18,000

21 = 21,000

26 = 26,000

33 = 33,000

REFERENCE INFORMATION:

*Manufactured in Alloy Heat Treated Steel

*2-3/8 Drift I.D. = 1.901

*2-7/8 Drift I.D. = 2.347

*3-1/2 Drift I.D. = 2.867

(For Commonly Used Tubing Weights)

ST- Shear Tools

Shear Tools

ST- Shear Tools

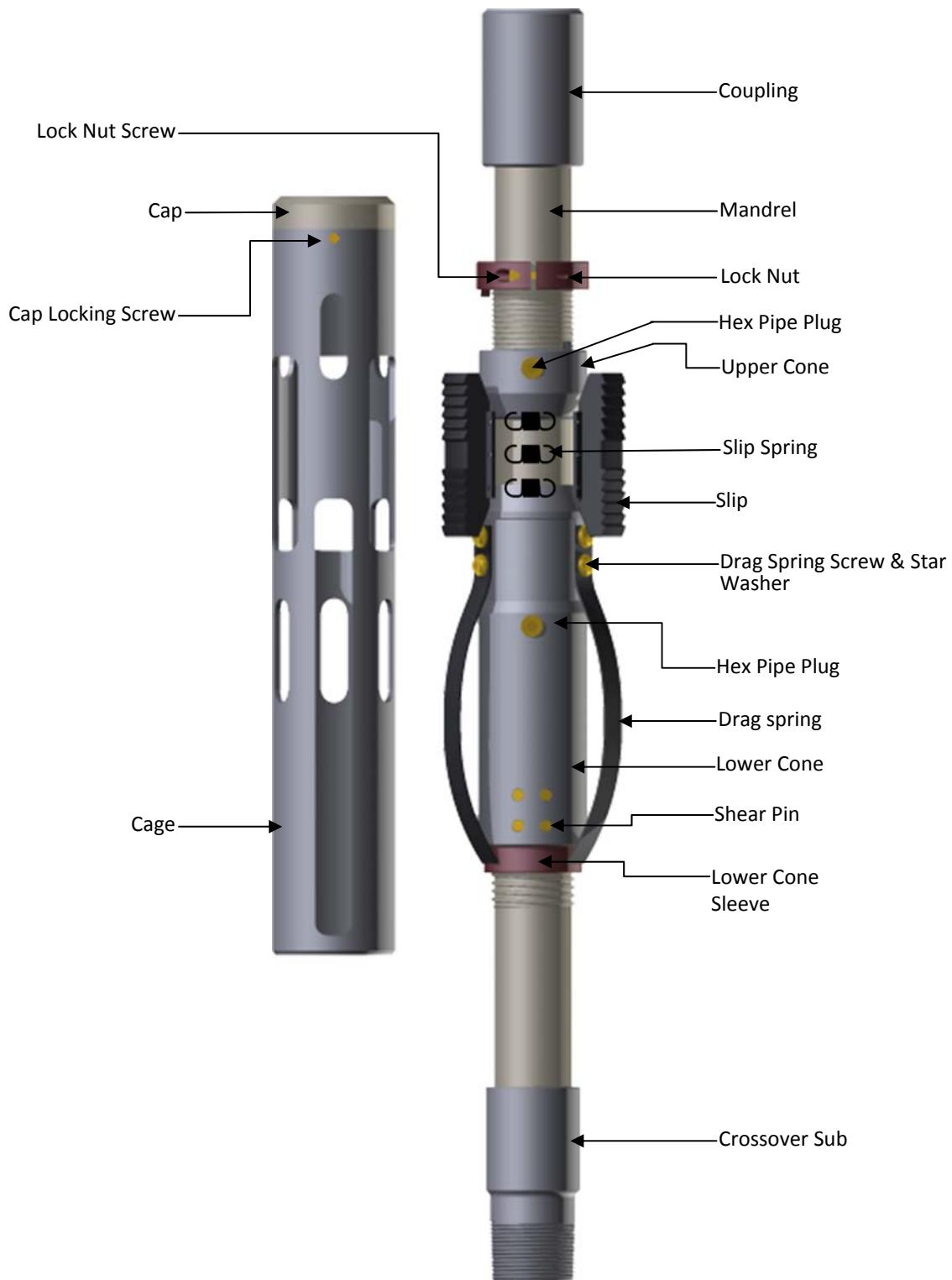
Part No.	Tubing Size (in)	Polish Rod Box Threads (in)	Shear Value
ST1-1-18	2-3/8	3/4	18K
ST1-1-21	2-3/8	3/4	21K
ST1-1-26	2-3/8	3/4	26K
ST1-1-33	2-3/8	3/4	33K
ST1-2-18	2-3/8	7/8	18K
ST1-2-21	2-3/8	7/8	21K
ST1-2-26	2-3/8	7/8	26K
ST1-2-33	2-3/8	7/8	33K
ST2-2-21	2-7/8	7/8	21K
ST2-2-26	2-7/8	7/8	26K
ST2-2-33	2-7/8	7/8	33K
ST2-3-21	2-7/8	1	21K
ST2-3-26	2-7/8	1	26K
ST2-3-33	2-7/8	1	33K

- Example: ST1-2-26, (Shear Tool) 2-3/8" Tubing, 7/8" Box Connection, 1-5/8" O.D., 26,000 psi Shear Value.



Key

02 - 4-1/2" TAC, Model B



02 - 4-1/2" TAC, Model B

Tubing Anchors

4-1/2" x 2-3/8" New TAC - 02000

Description	BOM	Part No.
4-1/2" x 2-3/8" Coupling	1	02002
4-1/2" Mandrel	1	02003
4-1/2" Cap	1	02004
4-1/2" Cap Locking Screw	2	02005
4-1/2" Lock Nut Screw	1	02006
4-1/2" Lock Nut	1	02007
4-1/2" Upper Cone	1	02008
4-1/2" Cage	1	02009
4-1/2" Slip Spring	12	02011
4-1/2" Slip	3	02012
4-1/2" Lower Cone	1	02013
5-1/2" Hex Pipe Plug	6	02044
Shear Pin	6	02015
4-1/2" Lower Cone Sleeve	1	02016
4-1/2" Crossover Sub 2-3/8"	1	02017
4-1/2" Drag Spring Screw	6	02018
4-1/2" Drag Spring	6	02019
4-1/2" Star Washer	6	02020

Sequence
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18

4-1/2" x 2-3/8" New TAC - 02000-C

Description	BOM	Part No.
4-1/2" x 2-3/8" Coupling	1	02002
4-1/2" Mandrel	1	02003
4-1/2" Cap	1	02004
4-1/2" Cap Locking Screw	2	02005
4-1/2" Lock Nut Screw	1	02006
4-1/2" Lock Nut	1	02007
4-1/2" Upper Cone	1	02008
4-1/2" Cage	1	02009
4-1/2" Slip Spring	12	02011
4-1/2" Carbide Slip	3	02012C
4-1/2" Lower Cone	1	02013
5-1/2" Hex Pipe Plug	6	02044
Shear Pin	8	02015
4-1/2" Lower Cone Sleeve	1	02016
4-1/2" Crossover Sub 2-3/8"	1	02017
4-1/2" Drag Spring Screw	6	02018
4-1/2" Drag Spring	6	02019
4-1/2" Star Washer	6	02020

4-1/2" x 2-3/8" Nickel-Plated TAC - 02000-NP

Description	BOM	Part No.
4-1/2" x 2-3/8" Cplg. Nickel Plated	1	02002-NP
4-1/2" Mandrel Nickel Plated	1	02003-NP
4-1/2" Cap Nickel Plated	1	02004-NP
4-1/2" Cap Locking Screw	2	02005
4-1/2" Lock Nut Screw	1	02006
4-1/2" Lock Nut Nickel Plated	1	02007-NP
4-1/2" Upper Cone Nickel Plated	1	02008-NP
4-1/2" Cage Nickel Plated	1	02009-NP
4-1/2" Slip Spring	12	02011
4-1/2" Slip	3	02012
4-1/2" Lower Cone Nickel Plated	1	02013-NP
4-1/2" Hex Pipe Plug	6	02014
Shear Pin	8	02015
4-1/2" Lwr Cone Slve Nickel Plated	1	02016-NP
4-1/2" Crossover Nickel Plated	1	02017-NP
4-1/2" Drag Spring Screw	6	02018
4-1/2" Drag Spring	6	02019
4-1/2" Star Washer	6	02020

Sequence
1
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14
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16
17
18

4-1/2" x 2-3/8" New TAC - Oversize - 02000-OS

Description	BOM	Part No.
4-1/2" x 2-3/8" Coupling. Oversize OD	1	02002B
4-1/2" Mandrel	1	02003
4-1/2" Cap	1	02004
4-1/2" Cap Locking Screw	2	02005
4-1/2" Lock Nut Screw	1	02006
4-1/2" Lock Nut	1	02007
4-1/2" Upper Cone	1	02008
4-1/2" Cage	1	02009
4-1/2" Slip Spring	12	02011
5-1/2" Slip F/4-1/2" TAC	3	020127
4-1/2" Lower Cone	1	02013
5-1/2" Hex Pipe Plug	6	02044
Shear Pin	8	02015
4-1/2" Lower Cone Sleeve	1	02016
4-1/2" Crossover Sub 2-3/8", Oversize OD	1	02017B
4-1/2" Drag Spring Screw	6	02018
4-1/2" Drag Spring	12	02019
4-1/2" Star Washer	6	02020

02 - 4-1/2" TAC, Model B

Tubing Anchors

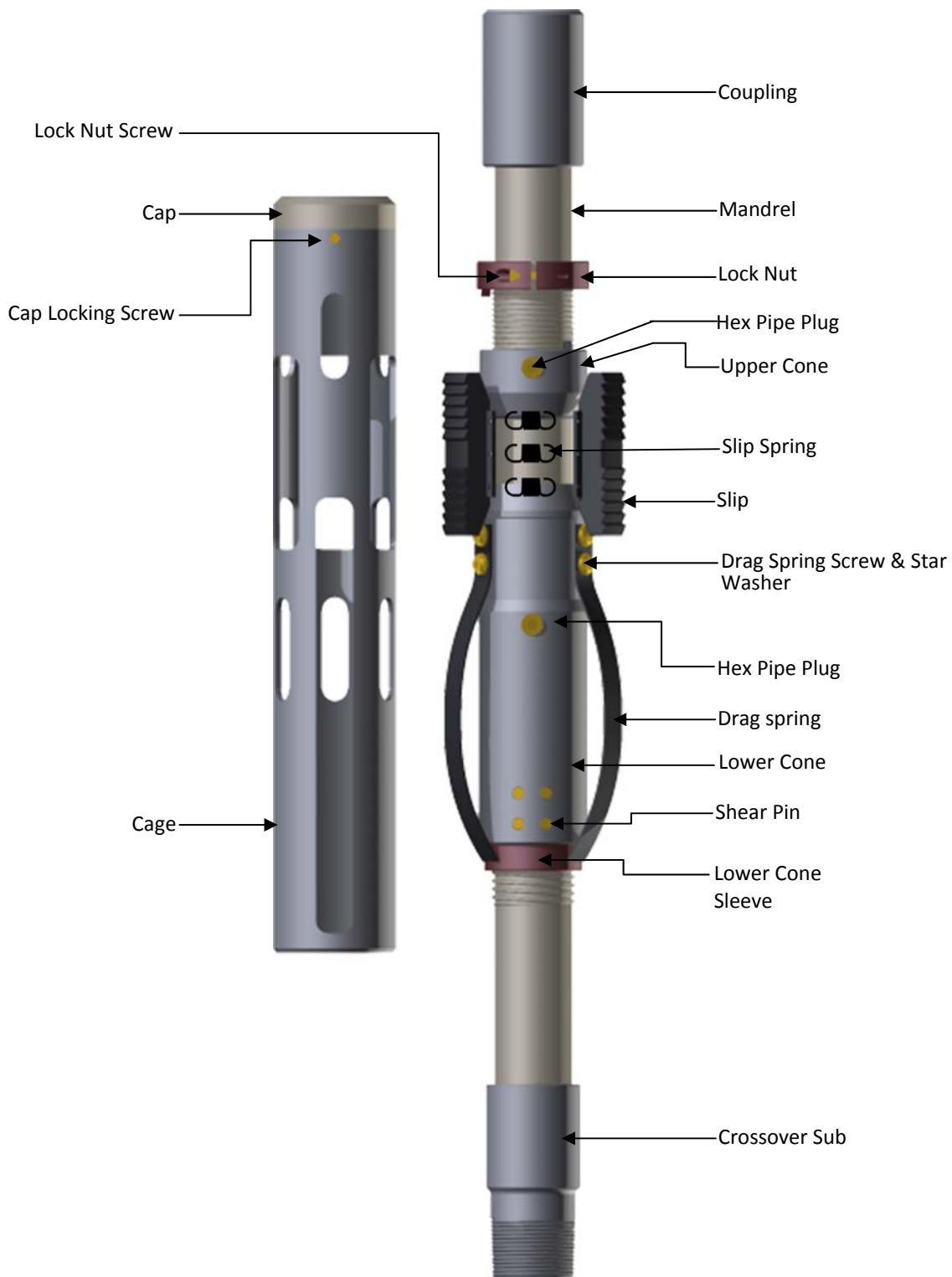
4-1/2" x 2-3/8" Exchange TAC - 02000X

Description	BOM	Part No.
4-1/2" x 2-3/8" Coupling	1	02002
4-1/2" Mandrel	1	02003
4-1/2" Cap	1	02004
4-1/2" Cap Locking Screw	2	02005
4-1/2" Lock Nut Screw	1	02006
4-1/2" Lock Nut	1	02007
4-1/2" Upper Cone	1	02008
4-1/2" Cage	1	02009
4-1/2" Slip Spring	12	02011
4-1/2" Slip	3	02012
4-1/2" Lower Cone	1	02013
4-1/2" Hex Pipe Plug	6	02014
Shear Pin	7	02015
4-1/2" Lower Cone Sleeve	1	02016
4-1/2" Crossover Sub 2-3/8"	1	02017
4-1/2" Drag Spring Screw	6	02018
4-1/2" Drag Spring	6	02019
4-1/2" Star Washer	6	02020

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4-1/2" x 2-7/8" New TAC - 02001

Description	BOM	Part No.
4-1/2" x 2-7/8" Coupling	1	02002A
4-1/2" Mandrel	1	02003
4-1/2" Cap	1	02004
4-1/2" Cap Locking Screw	2	02005
4-1/2" Lock Nut Screw	1	02006
4-1/2" Lock Nut	1	02007
4-1/2" Upper Cone	1	02008
4-1/2" Cage	1	02009
4-1/2" Slip Spring	12	02011
4-1/2" Slip	3	02012
4-1/2" Lower Cone	1	02013
4-1/2" Hex Pipe Plug	6	02014
Shear Pin	6	02015
4-1/2" Lower Cone Sleeve	1	02016
4-1/2" Crossover Sub 2-7/8"	1	02017A
4-1/2" Drag Spring Screw	6	02018
4-1/2" Drag Spring	6	02019
4-1/2" Star Washer	6	02020



02 - 5" TAC, Model B

Tubing Anchors

5" x 2-3/8" TAC - 02030Y

Description	BOM	Part No.
4-1/2" x 2-3/8" Coupling	1	02002
4-1/2" Mandrel	1	02003
4-1/2" Cap	1	02004
4-1/2" Cap Locking Screw	2	02005
4-1/2" Lock Nut Screw	1	02006
4-1/2" Lock Nut	1	02007
4-1/2" Upper Cone	1	02008
5" Cage	1	02009A
4-1/2" Slip Spring	12	02011
5" Tac Slip	3	20125
4-1/2" Lower Cone	1	02013
4-1/2" Hex Pipe Plug	6	02014
Shear Pin	7	02015
4-1/2" Lower Cone Sleeve	1	02016
4-1/2" Crossover Sub 2-3/8"	1	02017
4-1/2" Drag Spring Screw	6	02018
4-1/2" Drag Spring	9	02019
4-1/2" Star Washer	6	02020

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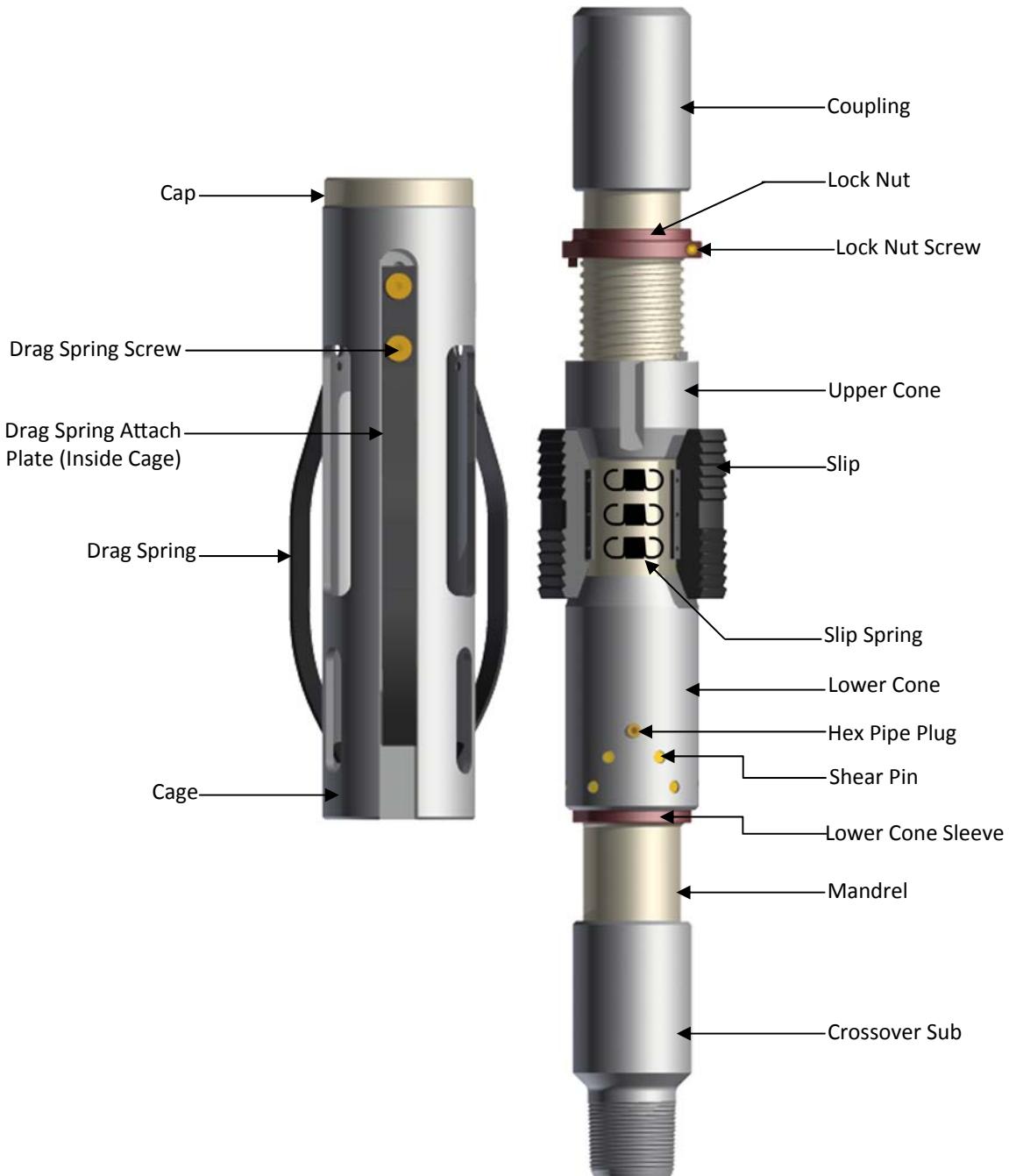
5" x 2-7/8" TAC - 020301-C

Description	BOM	Part No.
4-1/2" x 2-7/8" Coupling	1	02002A
4-1/2" Mandrel	1	02003
4-1/2" Cap	1	02004
4-1/2" Cap Locking Screw	1	02005
4-1/2" Lock Nut Screw	1	02006
4-1/2" Lock Nut	1	02007
4-1/2" Upper Cone	1	02008
5" Cage	1	02009A
4-1/2" Slip Spring	12	02011
5" Carbide Slip	3	0203012
4-1/2" Lower Cone	1	02013
4-1/2" Hex Pipe Plug	6	02014
Shear Pin	8	02015
4-1/2" Lower Cone Sleeve	1	02016
4-1/2" Crossover Sub 2-7/8"	1	02017A
4-1/2" Drag Spring Screw	6	02018
4-1/2" Drag Spring	9	02019
4-1/2" Star Washer	6	02020

5" x 2-7/8" TAC - 020301Y

Description	BOM	Part No.
4-1/2" x 2-7/8" Coupling	1	02002A
4-1/2" Mandrel	1	02003
4-1/2" Cap	1	02004
4-1/2" Cap Locking Screw	1	02005
4-1/2" Lock Nut Screw	1	02006
4-1/2" Lock Nut	1	02007
4-1/2" Upper Cone	1	02008
5" Cage	1	02009A
4-1/2" Slip Spring	12	02011
5" Tac Slip	3	20125
4-1/2" Lower Cone	1	02013
4-1/2" Hex Pipe Plug	6	02014
Shear Pin	8	02015
4-1/2" Lower Cone Sleeve	1	02016
4-1/2" Crossover Sub 2-7/8"	1	02017A
4-1/2" Drag Spring Screw	6	02018
4-1/2" Drag Spring	9	02019
4-1/2" Star Washer	6	02020

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02 - 5-1/2" TAC, Model B

Tubing Anchors

5-1/2" x 2-3/8" New TAC - 02030

Description	BOM	Part No.
4-1/2" Lock Nut Screw	1	02006
Shear Pin	7	02015
5-1/2" x 2-3/8" Coupling	1	02032
5-1/2" Mandrel	1	02033
5-1/2" Cap	1	02034
5-1/2" Lock Nut	1	02037
5-1/2" Upper Cone	1	02038
5-1/2" Cage	1	02039
Drag Spring Attach Plate	3	02039A
5-1/2" Slip Spring	9	02041
5-1/2" Slip	3	02042
5-1/2" Lower Cone	1	02043
5-1/2" Hex Pipe Plug	1	02044
5-1/2" Lower Cone Sleeve	1	020461
5-1/2" Crossover Sub 2-3/8"	1	02047
5-1/2" Drag Spring Screw	6	02048
5-1/2" Drag Spring	3	02049

5-1/2" x 2-3/8" New TAC - 02030-C

Sequence	Description	BOM	Part No.
1	4-1/2" Lock Nut Screw	1	02006
2	Shear Pin	7	02015
3	5-1/2" x 2-3/8" Coupling	1	02032
4	5-1/2" Mandrel	1	02033
5	5-1/2" Cap	1	02034
6	5-1/2" Lock Nut	1	02037
7	5-1/2" Upper Cone	1	02038
8	5-1/2" Cage	1	02039
9	Drag Spring Attach Plate	3	02039A
10	5-1/2" Slip Spring	9	02041
11	5-1/2" Carbide Slip	3	02042C
12	5-1/2" Lower Cone	1	02043
13	5-1/2" Hex Pipe Plug	1	02044
14	5-1/2" Lower Cone Sleeve	1	020461
15	5-1/2" Crossover Sub 2-3/8"	1	02047
16	5-1/2" Drag Spring Screw	6	02048
17	5-1/2" Drag Spring	3	02049

5-1/2" x 2-3/8" Nickel-Plated Anchor - 02030-NP

Description	BOM	Part No.
4-1/2" Lock Nut Screw	1	02006
Shear Pin	8	02015
5-1/2" x 2-3/8" Coupling Nickel Plated	1	02032-NP
5-1/2" Mandrel Nickel Plated	1	02033-NP
5-1/2" Cap Nickel Plated	1	02034-NP
5-1/2" Lock Nut Nickel Plated	1	02037-NP
5-1/2" Upper Cone Nickel Plated	1	02038-NP
5-1/2" Cage Nickel Plated	1	02039-NP
Drag Spring Attach Plate	3	02039A
5-1/2" Inconel 750 Slip Spring	9	02040
5-1/2" Slip	3	02042
5-1/2" Lower Cone Nickel Plated	1	02043-NP
5-1/2" Hex Pipe Plug	1	02044
5-1/2" Lower Cone Sleeve Nickel Plated	1	020461-NP
5-1/2" Crossover Nickel Plated	1	02047-NP
5-1/2" Drag Spring Screw	6	02048
5-1/2" Drag Spring	3	02049

5-1/2" x 2-3/8" RH TAC - 02030-RH

Sequence	Description	BOM	Part No.
1	4-1/2" Lock Nut Screw	1	02006
2	Shear Pin	7	02015
3	5-1/2" x 2-3/8" Coupling	1	02032
4	5-1/2" Mandrel RH	1	02033-RH
5	5-1/2" Cap	1	02034
6	5-1/2" Lock Nut RH	1	02037-RH
7	5-1/2" Upper Cone RH	1	02038-RH
8	5-1/2" Cage	1	02039
9	Drag Spring Attach Plate	3	02039A
10	5-1/2" Inconel 750 Slip Spring	9	02040
11	5-1/2" Slip	3	02042
12	5-1/2" Lower Cone RH	1	02043-RH
13	5-1/2" Hex Pipe Plug	1	02044
14	5-1/2" Lower Cone Sleeve RH	1	020461-RH
15	5-1/2" Crossover Sub 2-3/8"	1	02047
16	5-1/2" Drag Spring Screw	6	02048
17	5-1/2" Drag Spring	3	02049

02 - 5-1/2" TAC, Model B

Tubing Anchors

5-1/2" x 2-7/8" New TAC - 02031

Description	BOM	Part No.
4-1/2" Lock Nut Screw	1	02006
Shear Pin	7	02015
5-1/2" x 2-7/8" Coupling	1	020321
5-1/2" Mandrel	1	02033
5-1/2" Cap	1	02034
5-1/2" Lock Nut	1	02037
5-1/2" Upper Cone	1	02038
5-1/2" Cage	1	02039
Drag Spring Attach Plate	3	02039A
5-1/2" Slip Spring	9	02041
5-1/2" Slip	3	02042
5-1/2" Lower Cone	1	02043
5-1/2" Hex Pipe Plug	1	02044
5-1/2" Lower Cone Sleeve	1	020461
5-1/2" x 2-7/8" Crossover Sub	1	020471
5-1/2" Drag Spring Screw	6	02048
5-1/2" Drag Spring	3	02049

5-1/2" x 2-7/8" New TAC - 02031-C

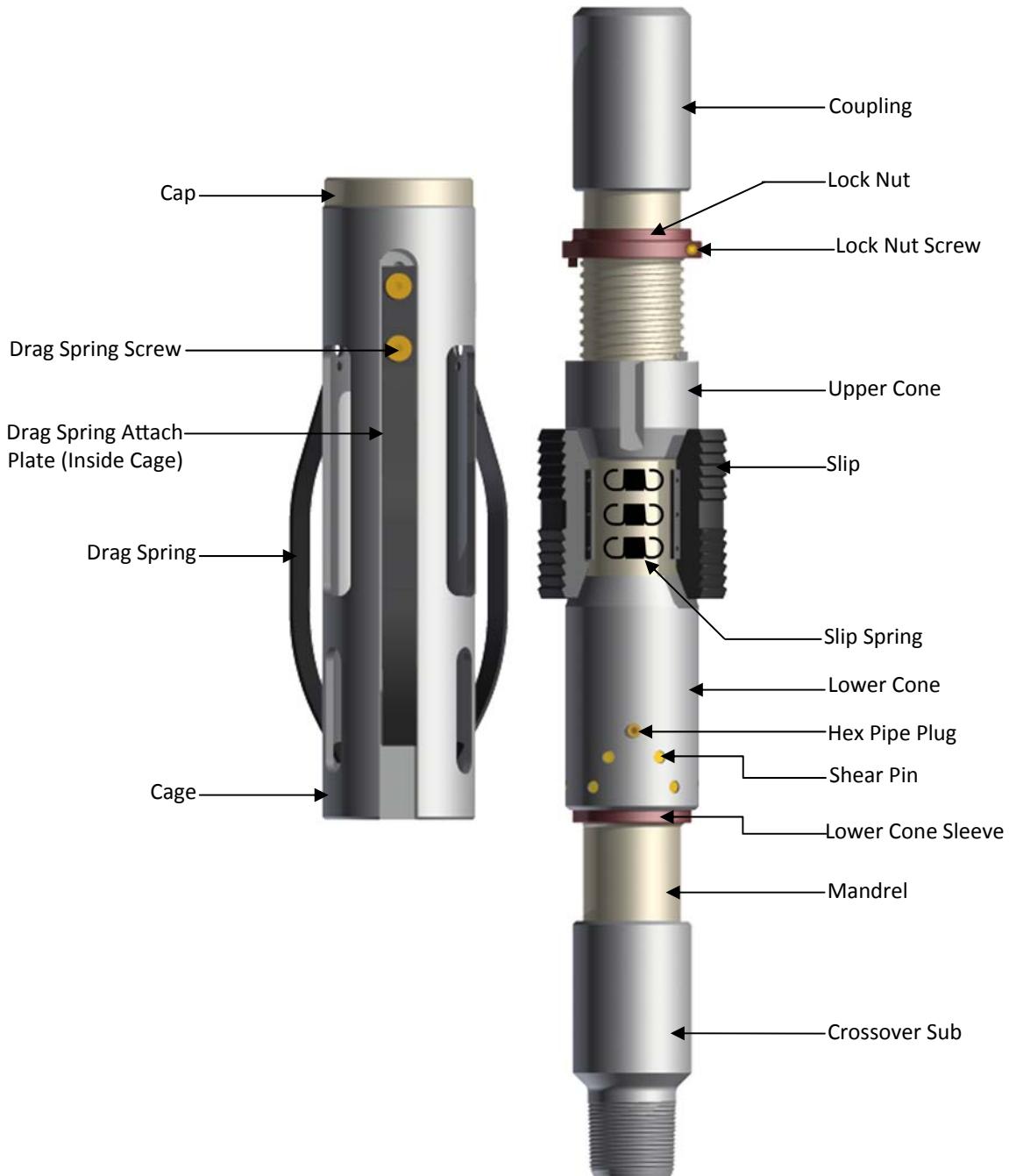
Sequence	Description	BOM	Part No.
1	4-1/2" Lock Nut Screw	1	02006
2	Shear Pin	7	02015
3	5-1/2" x 2-7/8" Coupling	1	020321
4	5-1/2" Mandrel	1	02033
5	5-1/2" Cap	1	02034
6	5-1/2" Lock Nut	1	02037
7	5-1/2" Upper Cone	1	02038
8	5-1/2" Cage	1	02039
9	Drag Spring Attach Plate	3	02039A
10	5-1/2" Slip Spring	9	02041
11	5-1/2" Carbide Slip	3	02042C
12	5-1/2" Lower Cone	1	02043
13	5-1/2" Hex Pipe Plug	1	02044
14	5-1/2" Lower Cone Sleeve	1	020461
15	5-1/2" x 2-7/8" Crossover Sub	1	020471
16	5-1/2" Drag Spring Screw	6	02048
17	5-1/2" Drag Spring	3	02049

5-1/2" x 2-7/8" Nickel Plated TAC - 02031-NP

Description	BOM	Part No.
4-1/2" Lock Nut Screw	1	02006
Shear Pin	8	02015
5-1/2" x 2-7/8" Coupling Nickel Plated	1	020321-NP
5-1/2" Mandrel Nickel Plated	1	02033-NP
5-1/2" Cap Nickel Plated	1	02034-NP
5-1/2" Lock Nut Nickel Plated	1	02037-NP
5-1/2" Upper Cone Nickel Plated	1	02038-NP
Drag Spring Attach Plate	3	02039A
5-1/2" Cage Nickel Plated	1	02039-NP
5-1/2" Slip Spring	9	02041
5-1/2" Slip	3	02042
5-1/2" Lower Cone Nickel Plated	1	02043-NP
5-1/2" Hex Pipe Plug	1	02044
5-1/2" Lower Cone Sleeve Nickel Plated	1	020461-NP
5-1/2" x 2-7/8" Crossover Sub Nickel Plate	1	020471-NP
5-1/2" Drag Spring Screw	6	02048
5-1/2" Drag Spring	3	02049

5-1/2" x 2-7/8" RH TAC - 02031-RH

Sequence	Description	BOM	Part No.
1	4-1/2" Lock Nut Screw	1	02006
2	Shear Pin	7	02015
3	5-1/2" x 2-7/8" Coupling	1	020321
4	5-1/2" Mandrel RH	1	02033-RH
5	5-1/2" Cap	1	02034
6	5-1/2" Lock Nut RH	1	02037-RH
7	5-1/2" Upper Cone RH	1	02038-RH
8	5-1/2" Cage	1	02039
9	Drag Spring Attach Plate	3	02039A
10	5-1/2" Inconel 750 Slip Spring	9	02040
11	5-1/2" Slip	3	02042
12	5-1/2" Lower Cone RH	1	02043-RH
13	5-1/2" Hex Pipe Plug	1	02044
14	5-1/2" Lower Cone Sleeve RH	1	020461-RH
15	5-1/2" x 2-7/8" Crossover Sub	1	020471
16	5-1/2" Drag Spring Screw	6	02048
17	5-1/2" Drag Spring	3	02049



02 - 7" TAC, Model B

Tubing Anchors

7" x 2-3/8" New TAC - 02060

Description	BOM	Part No.
Drag Spring Attach Plate	3	02039A
5-1/2" Drag Spring	6	02049
7" Mandrel	1	02063
7" Cap	1	02064
7" Lock Nut Screw	3	02066
7" Lock Nut	1	02067
7" Upper Cone	1	02068
7" Cage	1	02069
7" Slip Spring	12	02071
7" Slip	3	02072
7" Lower Cone	1	02073
7" Hex Socket Pipe Plug	3	02074
7" Shear Pin	7	02075
7" Lower Cone Sleeve	1	02076
7" x 2-3/8" Crossover Sub	1	02077
7" Drag Spring Screw	6	02078
2-7/8" x 2-3/8" EUE Coupling, L80	1	80TP01

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7" x 2-7/8" TAC w/ XH Slips - 02061 - XH

Description	BOM	Part No.
Drag Spring Attach Plate	3	02039A
5-1/2" Drag Spring	6	02049
7" Mandrel	1	02063
7" Cap	1	02064
7" Lock Nut Screw	3	02066
7" Lock Nut	1	02067
7" Upper Cone	1	02068
7" Cage	1	02069
7" Slip Spring	12	02071
7" XH Slip	3	02072-XH
7" Lower Cone	1	02073
7" Hex Socket Pipe Plug	3	02074
7" Shear Pin	7	02075
7" Lower Cone Sleeve	1	02076
7" x 2-7/8" Crossover Sub	1	02077A
7" Drag Spring Screw	6	02078
7" x 2-7/8" Coupling	1	020621

7" x 2-3/8" New TAC Carbide Slips - 02060-C

Description	BOM	Part No.
Drag Spring Attach Plate	3	02039A
5-1/2" Drag Spring	6	02049
7" Mandrel	1	02063
7" Cap	1	02064
7" Lock Nut Screw	3	02066
7" Lock Nut	1	02067
7" Upper Cone	1	02068
7" Cage	1	02069
7" Slip Spring	12	02071
7" Carbide Slip	3	02072C
7" Lower Cone	1	02073
7" Hex Socket Pipe Plug	3	02074
7" Shear Pin	7	02075
7" Lower Cone Sleeve	1	02076
7" x 2-3/8" Crossover Sub	1	02077
7" Drag Spring Screw	6	02078
2-7/8" x 2-3/8" EUE Coupling, L80	1	80TP01
7" Cap Locking Screw	1	02065

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7" x 2-3/8" Nickel Plated TAC - 02060-NP

Description	BOM	Part No.
Drag Spring Attach Plate	3	02039A
5-1/2" Drag Spring	6	02049
7" Mandrel, Nickel Plated	1	02063-NP
7" Cap, Nickel Plated	1	02064-NP
7" Lock Nut Screw	3	02066
7" Lock Nut, Nickel Plated	1	02067-NP
7" Upper Cone, Nickel Plated	1	02068-NP
7" Cage, Nickel Plated	1	02069-NP
7" Slip Spring	12	02071
7" Slip	3	02072
7" Lower Cone, Nickel Plated	1	02073-NP
7" Hex Socket Pipe Plug	3	02074
7" Shear Pin	7	02075
7" Lower Cone Sleeve, Nickel Plated	1	02076-NP
7" x 2-3/8" Crossover Sub Nickel Plated	1	02077-NP
7" Drag Spring Screw	6	02078
2-7/8" x 2-3/8" EUE Cplg, L80, NP	1	80TP01-NP
7" Cap Locking Screw	1	02065

02 - 7" TAC, Model B

Tubing Anchors

7" x 2-7/8" New TAC - 02061

Description	BOM	Part No.
Drag Spring Attach Plate	3	02039A
5-1/2" Drag Spring	6	02049
7" Mandrel	1	02063
7" Cap	1	02064
7" Lock Nut Screw	3	02066
7" Lock Nut	1	02067
7" Upper Cone	1	02068
7" Cage	1	02069
7" Slip Spring	12	02071
7" Slip	3	02072
7" Lower Cone	1	02073
7" Hex Socket Pipe Plug	3	02074
7" Shear Pin	7	02075
7" Lower Cone Sleeve	1	02076
7" x 2-7/8" Crossover Sub	1	02077A
7" Drag Spring Screw	6	02078
7" x 2-7/8" Coupling	1	020621

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7" x 2-7/8" New TAC - 02061-C

Description	BOM	Part No.
Drag Spring Attach Plate	3	02039A
5-1/2" Drag Spring	6	02049
7" Mandrel	1	02063
7" Cap	1	02064
7" Lock Nut Screw	3	02066
7" Lock Nut	1	02067
7" Upper Cone	1	02068
7" Cage	1	02069
7" Slip Spring	12	02071
7" Carbide Slip	3	02072C
7" Lower Cone	1	02073
7" Hex Socket Pipe Plug	3	02074
7" Shear Pin	7	02075
7" Lower Cone Sleeve	1	02076
7" X 2-7/8" Crossover Sub	1	02077A
7" Drag Spring Screw	6	02078
7" x 2-7/8" Coupling	1	020621

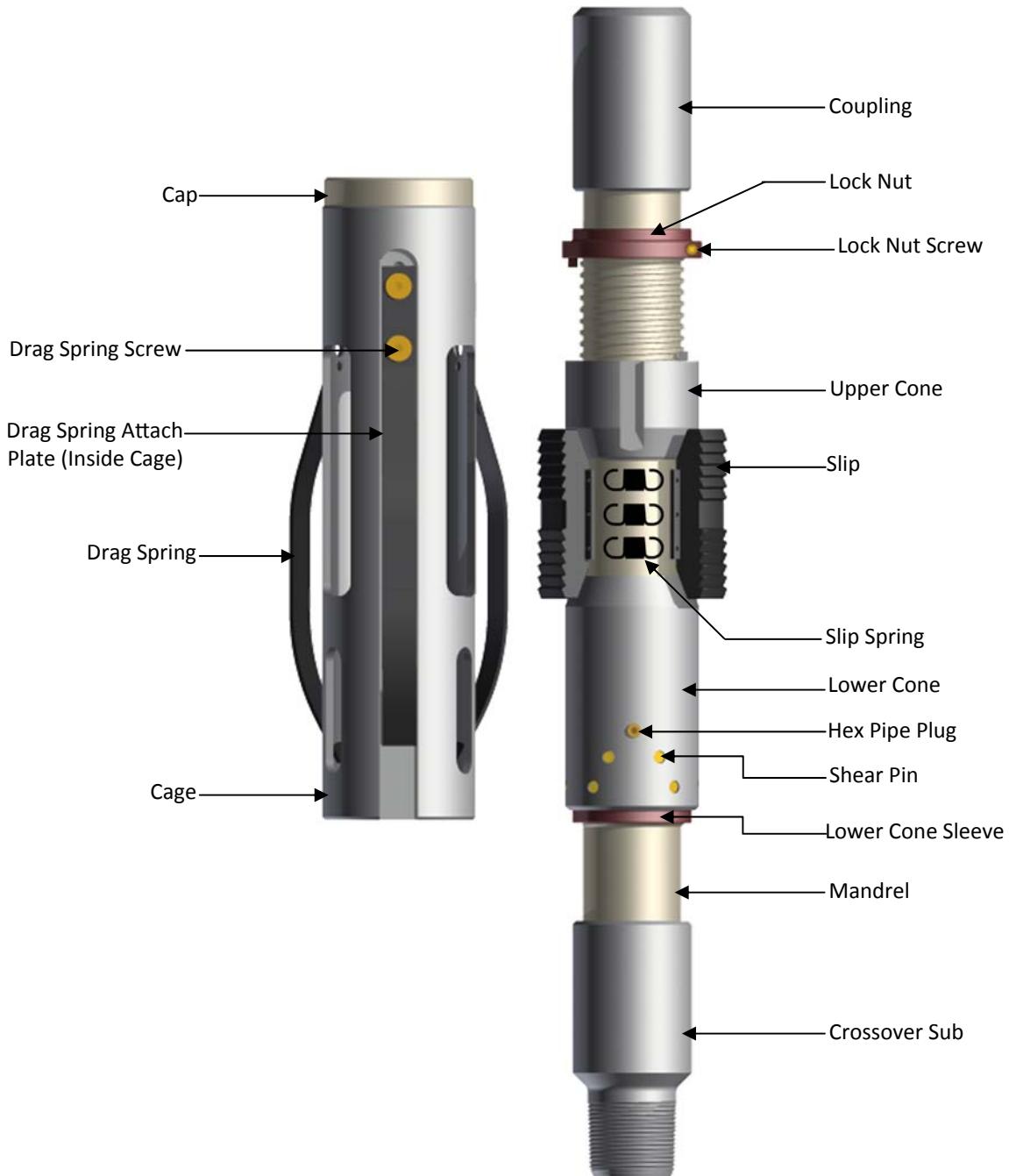
7" x 2-7/8" Nickel Plated TAC - 02061-NP

Description	BOM	Part No.
Drag Spring Attach Plate	3	02039A
5-1/2" Drag Spring	6	02049
7" Mandrel, Nickel Plated	1	02063-NP
7" Cap, Nickel Plated	1	02064-NP
7" Lock Nut Screw	3	02066
7" Lock Nut, Nickel Plated	1	02067-NP
7" Upper Cone, Nickel Plated	1	02068-NP
7" Cage, Nickel Plated	1	02069-NP
7" Slip Spring	12	02071
7" Slip	3	02072
7" Lower Cone, Nickel Plated	1	02073-NP
7" Hex Socket Pipe Plug	3	02074
7" Shear Pin	7	02075
7" Lower Cone Sleeve, Nickel Plated	1	02076-NP
7" x 2-7/8" Crossover Sub Nickel Plated	1	02077A-NP
7" Drag Spring Screw	6	02078
7" x 2-7/8" Coupling, Nickel Plated	1	020621-NP
7" Cap Locking Screw	1	02065

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7" x 3-1/2" New TAC - 02059

Description	BOM	Part No.
Drag Spring Attach Plate	3	02039A
5-1/2" Drag Spring	6	02049
7" x 3-1/2" Coupling	1	020622
7" x 3-1/2" Mandrel	1	020631
7" Cap	1	02064
7" x 3-1/2" Lock Nut Screw	3	020661
7" x 3-1/2" Lock Nut	1	020671
7" x 3-1/2" Upper Cone	1	020681
7" x 3-1/2" Cage	1	02070
7" Slip Spring	12	02071
7" Slip (Full Anchor Bore)	3	020721
7" x 3-1/2" Lower Cone	1	020731
7" Hex Socket Pipe Plug	3	02074
7" x 3-1/2" Shear Pin	10	020751
7" x 3-1/2" Lower Cone Sleeve	1	020761
7" x 3-1/2" Crossover Sub	1	02077B
7" Drag Spring Screw	6	02078



02 - 7-5/8" TAC, Model B

Tubing Anchors

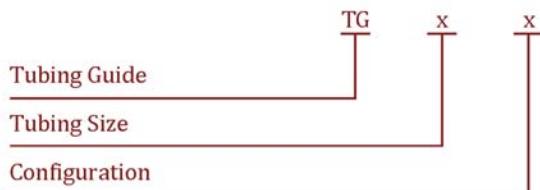
7-5/8" x 2-3/8" New TAC - 020601

Description	BOM	Part No.
Drag Spring Attach Plate	3	02039A
5-1/2" Drag Spring	6	02049
7" Mandrel	1	02063
7" Cap	1	02064
7" Lock Nut Screw	3	02066
7" Lock Nut	1	02067
7" Upper Cone	1	02068
7" Cage	1	02069
7" Slip Spring	12	02071
7-5/8" Slip	3	02101
7" Lower Cone	1	02073
7" Hex Socket Pipe Plug	3	02074
7" Shear Pin	7	02075
7" Lower Cone Sleeve	1	02076
7" x 2-3/8" Crossover Sub	1	02077
7" Drag Spring Screw	6	02078
2-7/8" x 2-3/8" EUE Coupling, L80	1	80TP01

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7-5/8" x 2-3/8" New TAC - 020601-C

Description	BOM	Part No.
Drag Spring Attach Plate	3	02039A
5-1/2" Drag Spring	6	02049
7" Mandrel	1	02063
7" Cap	1	02064
7" Lock Nut Screw	3	02066
7" Lock Nut	1	02067
7" Upper Cone	1	02068
7" Cage	1	02069
7" Slip Spring	12	02071
7-5/8" Carbide Slip	3	02101C
7" Lower Cone	1	02073
7" Hex Socket Pipe Plug	3	02074
7" Shear Pin	7	02075
7" Lower Cone Sleeve	1	02076
7" x 2-3/8" Crossover Sub	1	02077
7" Drag Spring Screw	6	02078
2-7/8" x 2-3/8" EUE Coupling, L80	1	80TP01

Key**TG- Tubing Guide****Tubing Size (in):**

- 1 = 2-3/8
- 2 = 2-7/8
- 3 = 3-1/2

Configuration:

- 1 = Assembly Number
- 2 = Shaft
- 3 = Coupling
- 4 = Guide
- 5 = Spray Metal Spiral Rod Guide, Box x Box Threads
(must specify "Pin Size" suffix)
- 6 = Spray Metal Spiral Rod Guide, Pin x Box Threads
(must specify "Pin Size" suffix)

Material:

- No Designator = Carbon Steel
- 0 = Alloy
- 1 = Stainless Steel
- 2 = 316 Stainless Steel
- 3 = Brass
- 4 = Monel

Pin Size (in):

Designator	Thread O.D. (in)	Sucker Rod (in)
1	1-1/16	3/4
2	1-3/16	7/8
3	1-3/8	1

TG- Tubing Guide

Tubing Guides

TG- Tubing Guide, Shaft

Part No.	Sucker Thread (in)	Tubing Size (in)	API No.
TG12□-1	1-1/16-10	2-3/8	N/A
TG22□-2	1-3/16-10	2-7/8	N/A

Select Material

- Example: TG22-2 = 2-7/8" Tubing Guide Shaft, 1-3/16" Pin, Carbon Steel



TG- Tubing Guide, Coupling

Part No.	Thread Spec's (in)	Tubing Size (in)	API No.
TG13□-1	1-1/16-10	2-3/8	N/A
TG23□-2	1-3/16-10	2-7/8	N/A

Select Material

- Example: TG23-2 = 2-7/8" Tubing Guide Coupling, 1-3/16" Pin, Carbon Steel



TG- Tubing Guide, Guide

Part No.	Tubing Size (in)	API No.
TG14	2-3/8	N/A
TG24	2-7/8	N/A

- Example: TG24 = 2-7/8" Phenolic Tubing Guide



TG- Tubing Guide, Spiral Rod Guide

Tubing Guides

TG- Tubing Guide, Spray Metal Spiral Rod Guide

Part No.	Polish Rod Thread (in)	Tubing Size (in)	API No.
TG15□-1	1-1/16-10	2-3/8	N/A
TG25□-0	15/16-10	2-7/8	N/A
TG25□-1	1-1/16-10	2-7/8	N/A

Select Material

- Example: TG25-1 = 2-7/8" Spiral Rod Guide, 1-1/16" Pin, Carbon Steel



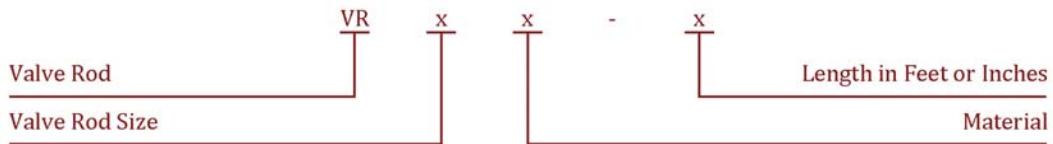
TG- Tubing Guide, Spray Metal Spiral Rod Guide, Connector

Part No.	Sucker Rod Pin Thread (in.)	Tubing Size (in)	API No.
TG16□-1	1-1/16-10	2-3/8	N/A
TG36□-3	1-3/8-10	3-1/2	N/A
TG26□-1	1-1/16-10	2-7/8	N/A

Select Material

- Example: TG26-1 = 2-7/8" Spiral Rod Guide, Connector; 1-1/16" Pin, Carbon Steel



Key**VR- Valve Rod****Valve Rod Size (in):**

1 = 11/16

2 = 7/8

3 = 1-1/16

Material:

No Designator = Carbon Steel

1 = Stainless Steel

2 = 316 Stainless Steel

3 = Brass

4 = Monel

5 = Spray Metal

VR- Valve Rod

Rods

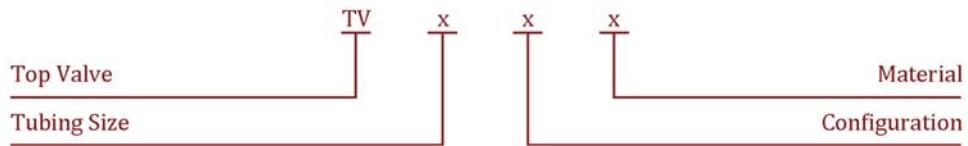
VR- Valve Rod

Part Number	Threads Spec's (in)	Valve Rod Size (in)	API Number
VR1□-*	3/8-18 MOD. LPT	11/16	R11-20
VR2□-*	1/2-14 MOD. LPT	7/8	R11-25
VR3□-*	3/4-14 MOD. LPT	1-1/16	R11-30

 Select Material Select Length

- Example: VR22-18 = 7/8" Valve Rod, 316 Stainless Steel, 18 Feet in Length



Key**TV- Top Valve****Tubing Size (in):**

1 = 2-3/8

2 = 2-7/8

3 = 3-1/2

Material:

No Designator = Carbon Steel

1 = Stainless Steel

2 = 316 Stainless Steel

3 = Brass

Configuration (in):

1 = Top Valve Assembly

2 = Lower Bushing

3 = Housing

4 = Seat

5 = Drop 11/16" VR

6 = Drop 7/8" VR

7 = Drop 1-1/16" VR

TV - Top Valve

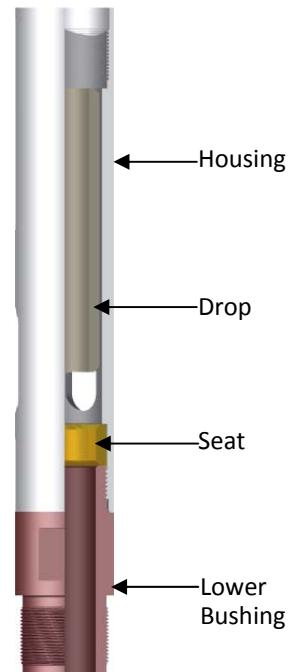
Other Accessories

TG- Tubing Guide, Spray Metal Spiral Rod Guide

Part No.	Part Name	Tubing Size (in)	Valve Rod Size (in)
TV11□	Assembly	2	11/16, 7/8
TV21□	Assembly	2-1/2	11/16, 7/8, 1-1/16
TV31□	Assembly	3-1/2	11/16, 7/8, 1-1/16
TV12□	Lower Bushing	2	—
TV22□	Lower Bushing	2-1/2	—
TV32□	Lower Bushing	3-1/2	—
TV13□	Housing	2	—
TV23□	Housing	2-1/2	—
TV33□	Housing	3-1/2	—
TV14□	Seat	2	—
TV24□	Seat	2-1/2	—
TV34□	Seat	3-1/2	—
TV15□	Drop	2	11/16
TV16□	Drop	2	7/8
TV25□	Drop	2-1/2	11/16
TV26□	Drop	2-1/2	7/8
TV27□	Drop	2-1/2	1-1/16
TV35□	Drop	3-1/2	11/16
TV36□	Drop	3-1/2	7/8
TV37□	Drop	3-1/2	1-1/16

□ - Select Material

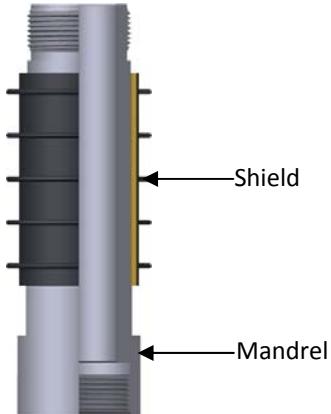
• Example: TV122 = Lower Bushing For 2-3/8" Tubing, 316 Stainless Steel



Sand Shield, Pump Guide**Other Accessories****Sand Shield**

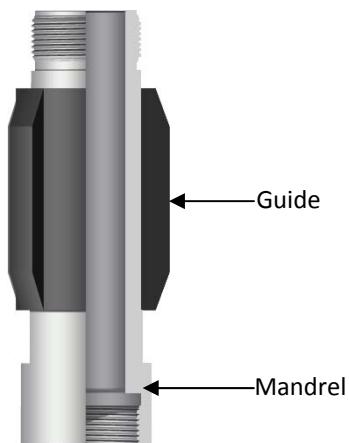
Assembly	Mandrel Number	Pin/Box Thread (in)	Shield Number	Tubing Size (in)	Pump Bore (in)
1	80SS1 <input checked="" type="checkbox"/>	1.4704-14/ 1.4704-14	0100	2-3/8	1.250, 1.500
2	80SS1 <input checked="" type="checkbox"/>	1.4704-14/ 1.4704-14	0104	2-3/8 Pump in 2-7/8 Tubing	1.250, 1.500
3	80SS2 <input checked="" type="checkbox"/>	1.8024-14/ 1.4704-14	0105	2-7/8	1.250, 1.500
4	80SS3 <input checked="" type="checkbox"/>	1.8024-14/ 1.8024-14	0105	2-7/8	1.250, 1.750, 2.000

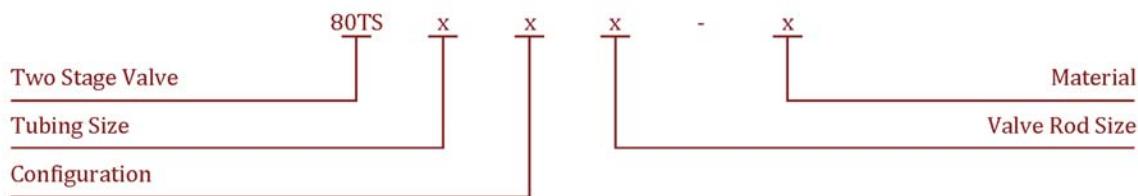
Select Material

**Pump Centralizer/Guide**

Assembly	Mandrel Number	Pin/Box Thread (in)	Guide	Tubing Size (in)	Pump Bore (in)
1	80SS1	1.4704-14/ 1.4704-14	CG1	2-3/8 Pump in 2-7/8 Tubing	1.250, 1.500

Select Material



Key**80TS - Two Stage Valve****Tubing Size (in):**

20 = 2-3/8

25 = 2-7/8

Valve Rod Size (in):

687 = 11/16"

875 = 7/8"

1062 = 1-1/16"

Configuration:

G = Guide

H = Jacket

CN = Cage

S = Seat

B = Bushing

S = Slide

Material:

A = Steel/Alloy

AC = Alloy Carburized

F = 440C Stainless-Heat Treat

T = 304 Stainless-Heat Treat

TC = Tungsten Carbide

B = 443 / 360 Brass

J = 316 Stainless Steel

80TS- Two Stage Valve

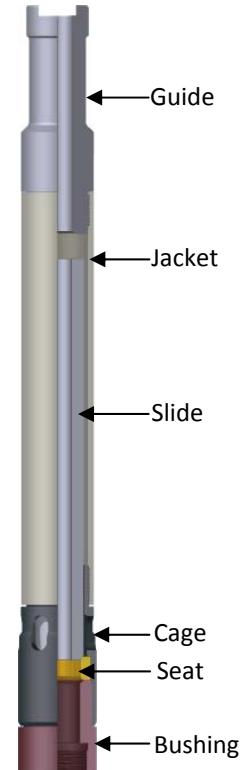
Other Accessories

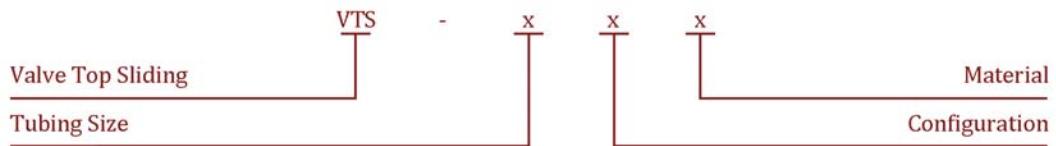
80TS- Two Stage Valve

Part No.	Tubing Size (in)	Valve Rod Size (in)	Configuration
80TS20G687-□	2-3/8	0.687	Guide
80TS20G875-□	2-3/8	0.875	Guide
80TS25G875-□	2-7/8	0.875	Guide
80TS25G1062-□	2-7/8	1.062	Guide
80TS20H-□	2-3/8	—	Jacket
80TS25H-□	2-7/8	—	Jacket
80TS20CN-□	2-3/8	—	Cage
80TS25CN-□	2-7/8	—	Cage
80TS20S-□	2-3/8	—	Seat
80TS25S-□	2-7/8	—	Seat
80TS20B-□	2-3/8	—	Bushing
80TS25B-□	2-7/8	—	Bushing
80TS30B-□	2-7/8, 3-1/2,	—	Bushing
80TS20S687-□	2-3/8	0.687	Slide
80TS20S875-□	2-3/8	0.875	Slide
80TS25S875-□	2-7/8	0.875	Slide
80TS25S1062-□	2-7/8	1.062	Slide

□ Select Material

• Example: 80TS25CN-J = 2-7/8" Top Seal Cage, 316 Stainless Steel



Key**VTS- Valve Top Sliding****Tubing Size (in):**

2 = 2-3/8

3 = 2-7/8

Material:

No Designator = Carbon Steel

1 = 303/304 Stainless Steel

2 = 316 Stainless Steel

3 = Brass

Configuration:

1 = Body

2 = Slide

3 = Seat

VTS- Valve Top Sliding

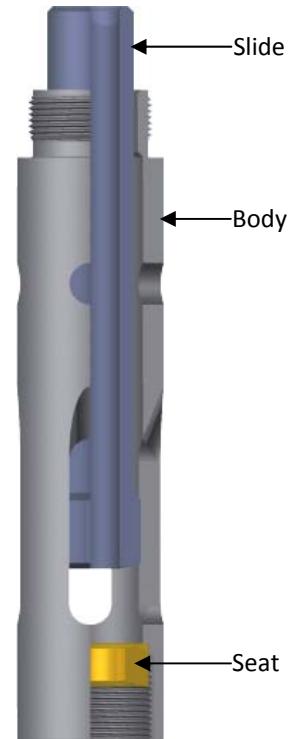
Other Accessories

VTS- Valve Top Sliding

Part No.	Tubing Size (in)	Valve Rod Size (in)	Configuration
VTS-20-□	2-3/8	Variable	Assembly
VTS-21□	2-3/8	—	Body
VTS-22□	2-3/8	0.687	Slide
VTS-23□	2-3/8	—	Seat
VTS-25□	2-7/8	Variable	Assembly
VTS-31□	2-7/8	—	Body
VTS-32□	2-7/8	0.875	Slide
VTS-33□	2-7/8	—	Seat

Select Material

- Example: VTS-211 = 2-3/8" Valve Top Sliding Body, 303 Stainless Steel



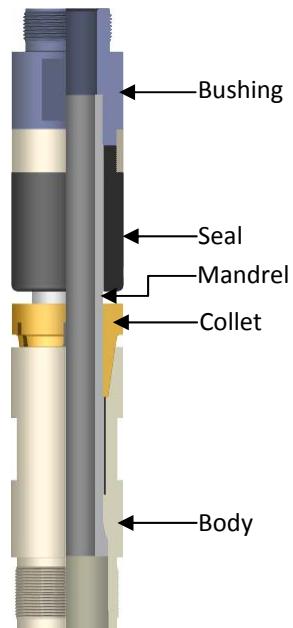
Top Seal

Other Accessories

2-3/8" Top Seal Assembly: TS1

Part Name	Part No.	Top Cage Pin Thread (in)	Bottom Barrel Pin Thread (in)
Bushing	TS12	1.4704-14	—
Seal	TS13	—	—
Mandrel	TS14	—	—
Collet	TS16	—	—
Body	TS17	—	1.50730-16

- Carbon Steel Metallurgy



2-7/8" Top Seal Assembly: TS2

Part Name	Part No.	Top Cage Pin Thread (in)	Bottom Barrel Pin Thread (in)
Bushing	TS22	1.8024-14	—
Seal	TS23	—	—
Mandrel	TS24	—	—
Collet	TS26	—	—
Body	TS27	—	2.8070-16

- Carbon Steel Metallurgy

Top Seal

Other Accessories

2-7/8" x 1.250"/1.500" Top Seal Assembly: TS2A

Part Name	Part No.	Top Cage Pin Thread (in)	Bottom Barrel Pin Thread (in)
Bushing	TS22	1.8024-14	—
Seal	TS23	—	—
Adapter Bushing	TS25	—	1.50730-16
Collet	TS26	—	—
Body	TS27	—	—
Mandrel	TS28	—	—

- Carbon Steel Metallurgy

