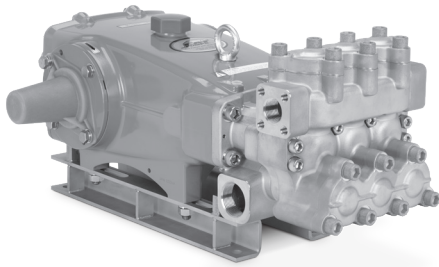


DATA SHEET

36 FRAME PLUNGER PUMPS



Stainless Models: 3631X, 3631XD



Model 3631X Shown
(Shaft protector included, mounting rails sold separately)

FEATURES

- Innovative X-Series high-pressure packings offer up to three times the lifespan of standard packings.
- Corrosion-resistant cast duplex discharge and 316 stainless steel inlet manifolds provide superior durability compared to chrome-plated or brass alternatives.
- Advanced connecting rods and plunger rod materials optimize the drive end's performance for continuous-duty applications.
- Delrin plunger sleeves provide enhanced separation between the packing spring and the ceramic plunger, providing a longer operational life for both plungers and packings.
- High-strength valve plate cover design eliminates the need for threaded stainless steel valve plugs, making servicing easier.
- Precision-machined 316 stainless steel valves and seats deliver extended service life and reliable performance across a broad range of fluids.
- High-strength coated screws help reduce the risk of galling while preventing corrosion in harsh environments.
- Specialized low-pressure seals in the XD models are engineered for low-lubricity fluids, such as deionized water, eliminating the need for freshwater flushing.

SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	36 gpm	136 lpm
Pump Pressure Range	100–1200 psi	6.9–83 bar
Pump RPM*	800 rpm	800 rpm
Inlet Pressure Range	Flooded to 70 psi	Flooded to 4.8 bar
Max. Liquid Temp. (NBR)	140° F	60° C
Bore	1.575"	40 mm
Stroke	1.890"	48 mm
Crankcase Capacity	4.2 qts	4 l
Inlet Ports (2)	1½" NPT(F)	1½" NPT (F)
Discharge Ports (2)	1" NPT (F)	1" NPT (F)
Shaft Diameter	1.378"	35 mm
Pulley Mounting	Either Side	Either Side
Weight	140 lbs	63.6 kg
Dimensions	25.35 x 18.11 x 10.28"	644 x 460 x 261 mm

*Pump minimum is 100 RPM.

DETERMINING THE PUMP RPM	$\frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{Desired gpm}}{\text{Desired rpm}}$
DETERMINING THE REQUIRED HP	$\frac{\text{hp (Electric Brake)}}{1460} = \frac{\text{gpm} \times \text{psi}}{1460}$
DETERMINING MOTOR PULLEY SIZE	$\frac{\text{Motor Pulley OD}}{\text{Pump rpm}} = \frac{\text{Pump Pulley OD}}{\text{Motor rpm}}$

Refer to pump **Service Manual** for repair procedure and additional technical information.

PARTS LIST

ITEM	P/N	MATL	P/N	MATL	DESCRIPTION	QTY
	3631X		3631XD			
5	96049	S	96049	S	Screw, HHC Sems (M10 x 25) (See Tech Bulletins 074)	8
8	134604	ALE	134604	ALE	Cover, Bearing	2
9	815279	FBR	815279	FBR	Shim, Split, 2-Piece	2
10	12398	NBR	12398	NBR	O-Ring, Bearing Cover	2
11	13296	NBR	13296	NBR	Seal, Oil, Crankshaft	2
12	855049	S	855049	S	Shim, Split, 2-Piece	0-2
15	29326	STL	29326	STL	Bearing, Roller	2
20	126725	BZ R	126725	BZ R	Rod, Connecting Assembly (Includes: 21, 22, 23) (See Tech Bulletin 074)	3
21	126749	STCP R	126749	STCP R	Washer, Locking	3
22	126593	STCP R	126593	STCP R	Washer, Flat (M10.5)	6
23	122045	STZP	122045	STZP	Screw, HH (M10 x 55)	6
25	29325	FCM	29325	FCM	Crankshaft, Dual-End (M48)	1
31	828710	PE	828710	PE	Protector, Oil Cap with Foam Gasket	1
32	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	O-Ring, Oil Filler Cap	1
34	126743	STCP R	126743	STCP R	Bolt, Eye (M12 x 1.75) (For Lifting Pump Only)	1
37	92241	PC	92241	PC	Gauge, Oil, Bubble with Gasket (See Tech Bulletin 074)	1
38	44428	NBR	44428	NBR	Gasket, Flat Oil Gauge	1
40	125753	S	125753	S	Screw, HHC Sems (M8 x 25) (See Tech Bulletin 074)	8
48	25625	STCP	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug	1
50	45936	ALE	45936	ALE	Cover, Rear	1
51	16612	NBR	16612	NBR	O-Ring, Cover	1
53	134784	ALE	134784	ALE	Crankcase Assembly (Includes: 54)	1
54	27488	S	27488	S	Pins, Guide	2
64	43864	CM	43864	CM	Pin, Crosshead	3
65	49166	SSHB	49166	SSHB	Rod, Plunger	3
69	126587	STCP R	126587	STCP R	Washer, Oil Seal	3
70	100488	NBRS	100488	NBRS	Seal, Oil, Crankcase	3
75	43865	S	43865	S	Slinger, Barrier	3
88	45676	S	45676	S	Washer, Keyhole (M16)	3
90	43921	CC	43921	CC	Plunger (M40 x 145)	3
95	89778	SS	89778	SS	Stud, Plunger Retainer (M10 x 135)	3
96	20189	PTFE	20189	PTFE	Backup Ring, Plunger Retainer	3
97	11345	NBR	11345	NBR	O-Ring, Plunger Retainer	3
98	44085	SS	44085	SS	Gasket, Retainer	3
99	44084	SS	44084	SS	Retainer, Plunger (M10) (See Tech Bulletin 074)	3
100	44119	PPG	44119	PPG	Retainer, Seal	3
106	44113	NBR	76398	ST 4	Seal, Low-Pressure, with SS-Spring	3
107	45381	SS	45381	SS	Spacer, Low-Pressure Seal	3
110	77365	SS	77365	SS	Manifold, Inlet	1
112	11379	NBR	11379	NBR	O-Ring, Inlet Manifold	3
117	44585	S	44585	S	Screw, HSH (M14 x 40) (See Tech Bulletin 074)	4
126	670235	PVDF	670235	PVDF	Backup Ring, Packing	3
127	670234	PFB	670234	PFB	Packing, Square	3
128	670331	SS	670331	SS	Washer, Spring	3
129	670233	D	670233	D	Sleeve, Plunger	3
141	49519	SS	49519	SS	Spring Large, Coil	3
155	48860	NBR	48860	NBR	O-Ring, Packing, Spacer	6
156	48362	D	48362	D	Backup Ring, Packing, Spacer	12
157	670330	SS	670330	SS	Spacer, Packing	3
162	48363	D	48363	D	Backup Ring, Valve Seat	6
163	26142	NBR	26142	NBR	O-Ring, Seat	6
164	44612	SS	44612	SS	Seat, Stepped	6
166	44108	SS	44108	SS	Valve	6
167	44109	SS	44109	SS	Spring	6
168	44728	PVDF	44728	PVDF	Retainer, Spring	6
170	44729	SS	44729	PVDF	Washer, Spring Retainer	6
171	44644	SS	44644	SS	Coil Spring (70 kg), Valve Plug	6
172	89827	NBR	89827	NBR	O-Ring, Valve Plug	6
173	48364	D	48364	D	Backup Ring, Valve Plug	12
174	670143	SS	670143	SS	Plug, Valve	6
176	129759	SSD	129759	SSD	Plate	2
177	32393	STZF	32393	STZF	Screw, HSH (M14 x 70) (See Tech Bulletin 074)	8
185	129754	SSD	129754	SSD	Manifold, Discharge	1
188	89981	S	89981	S	Screw, HSH (M12 x 70) (See Tech Bulletin 074)	8
250	855042	POP	855042	POP	Protector, Shaft with Two (2) Screws, Lockwashers and Washers	1

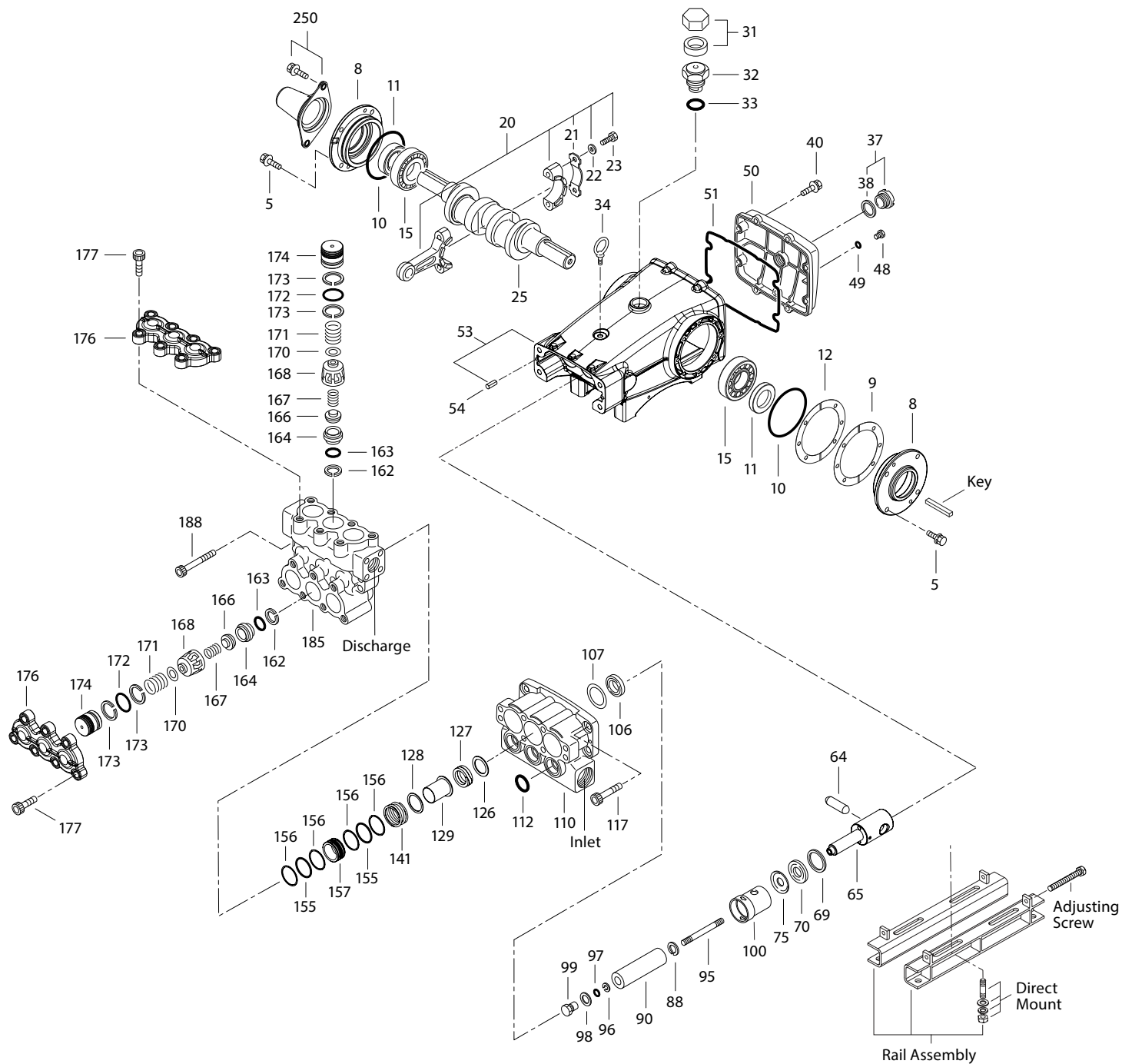
Bold print part numbers are unique to a particular pump model. *Italics are optional items.*

R Components comply with RoHS Directive. For additional technical information see www.catpumps.com/literature/tech-bulletins.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum ALE=Aluminum Epoxy BZ=Bronze CC=Ceramic CM=Chrome-Moly D=Acetal
FBR=Fiber FCM=Forged Chrome-moly NBR=Medium Nitrile (Buna-N) NBRS=Buna, Silicone Free PC=Poly Carbonate PE=Polyethylene PFB= Proprietary Fiber Blend
POP=Polypropylene PPG=Glass Filled Polypropylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS
SSD=Duplex Stainless Steel ST 4=Special PTFE 4 STCP=Steel/Chrome Plated STL=Steel STZF=Steel/Zinc Flake Coated
STZP=Steel/Zinc Plated SSHB=316SS/High Strength Brass

Optional Parts and Accessories and Service Parts listed on page 3. Standard Seal and Valve Kits listed on page 4.

EXPLODED VIEW



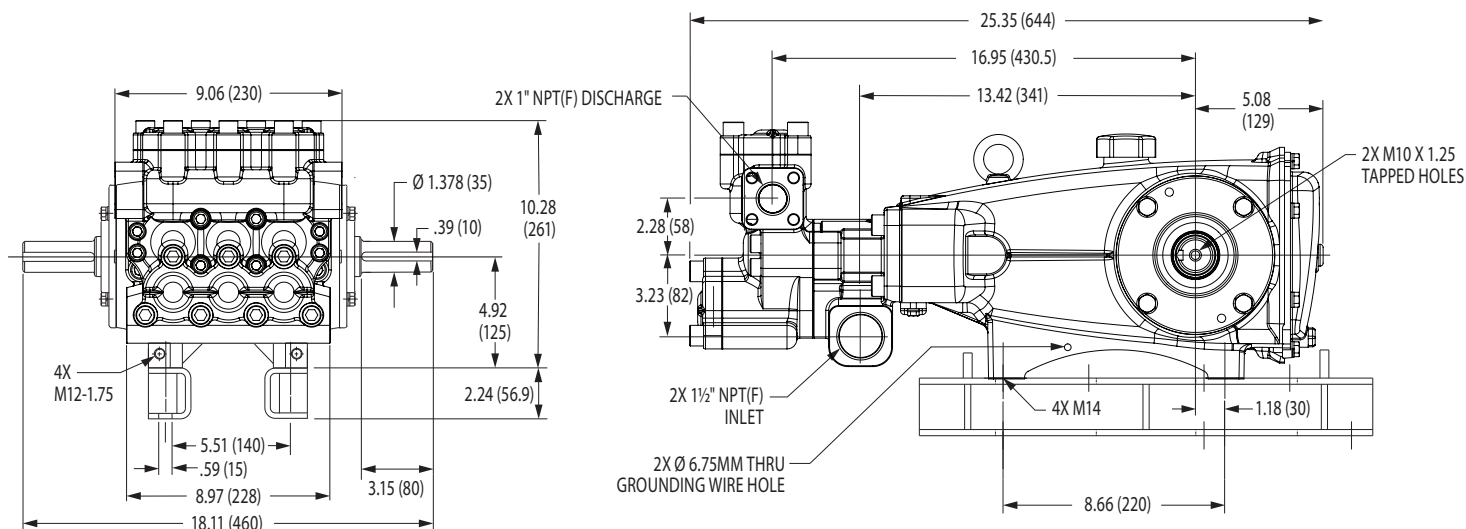
Models
3631X, 3631XD
September 2025

OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
34021	Key (M10 x 8 x 70)	1
76514	Mount, Rail Assembly (S) (Includes: 34039)	1
34039	Mount, Direct (S)	1
990013	Hub, "B", 35 mm (STL) (Not Shown)	1
80540	Screwing, Adjusting (M12 x 100)	2
34314	Kit, Oil Drain (3/8" x 48") (Not Shown)	1

SERVICE PARTS

PART	DESCRIPTION	QTY
32532	Seal Kit – Standard NBR (Model 3631X)	1
32531	Seal Kit – Standard NBR (Model 3631XD)	1
77078	Valve Kit – Standard NBR	2
6100	Oil, Case (12–21 oz bottles) (Fill to Specified Crankcase Capacity Prior to Start-up)	1
6124	Gasket, Liquid (3 oz)	1
6139	Lubricant, Anti-Seize (8 oz) (See Tech Bulletin 095)	1
32273	Crankcase Oil Seal Removal and Installation Kit (Not Shown) (Includes: Oil Seals, Guide Tool, Screws, Washers, Driver)	1
30696	Reverse Pliers (Not Shown)	1
910630	Head Complete with NBR & PFB Seals, NBR O-Rings (Model 3631X)	1
910631	Head Complete with ST 4 & PFB Seals, NBR O-Rings (Model 3631XD)	1



Models 3631X, 3631XD

SEAL KITS One (1) seal kit required per pump

PUMP MODELS	NBR (STD)	NBR (STD)
3631X	32532*	—
3631XD	—	32531*

ITEM (Included in Seal Kits)			DESCRIPTION	QTY
97	11345	11345	O-Ring, Plunger Retainer	3
106	44113	76398	Seal, Low-Pressure, with SS-Spring	3
112	11379	11379	O-Ring, Inlet Manifold	3
126	670235	670235	Backup Ring, Packing	3
127	670234	670234	Packing, Square	3
129	670233	670233	Sleeve, Plunger	3
155	48860	48860	O-Ring, Packing, Spacer	6
156	48362	48362	Backup Ring, Packing, Spacer	12

* Review material codes for individual items (PFB, ST 4 may be used as alternative)

VALVE KITS Two (2) valve kits required per pump

PUMP MODELS	NBR (STD)
3621X, 3621XD	77078

ITEM (Included in Valve Kits)			DESCRIPTION	QTY
162	48363		Backup Ring, Valve Seat	3
163	26142		O-Ring, Valve Seat	3
164	44612		Seat, Stepped	3
166	44108		Valve	3
167	44109		Spring	3
168	44728		Retainer, Spring	3
170	44729		Washer, Spring Retainer	3
172	89827		O-Ring, Valve Plug	3
173	48364		Backup Ring, Valve Plug	6

⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high-pressure system. Read all CAUTIONS and WARNINGS before commencing service or operation of any high-pressure system. The CAUTIONS and WARNINGS are included in each Service Manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty