

Model 781KM.C02 Shown
(Mounting rails sold separately)

FEATURES

- Triplex design delivers high efficiency and low pulsation.
- Durable V-Packings are lubricated and cooled by the liquid being pumped.
- Pre-set Lo-Pressure Seals provide secondary protection against external leaks and require no packing adjustment.
- Special high-density, polished, concentric plungers provide a true wear surface and extended seal life.
- Flush ports are used to evacuate CO2 vapor from behind seals.

8 Frame Block-Style Stainless Steel Plunger Pump

**Stainless Steel
Flushed Models**

**781KM.C02
781KMRS.C02
784KM.C02**

SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow (781KM.C02, 781KMRS.C02).....	0.82 gpm*	(3.1 lpm)
Flow (784KM.C02).....	0.34 gpm*	(1.29 lpm)
Pressure Range.....	100 to 5000 psi	(7 to 345 bar)
Inlet Pressure Range.....	300 to 800 psi	(21 to 55 bar)
Note: Temperature and pressure must be maintained to keep incoming CO2 in a liquid state.		
RPM.....	450 rpm	(450 rpm)
Bore.....	0.551 "	(14 mm)
Stroke (781KM.C02, 781KMRS.C02).....	0.945"	(24 mm)
Stroke (784KM.C02).....	0.590"	(15 mm)
Crankcase Capacity.....	25 oz.	(0.75 l)
Minimum Liquid Temperature.....	-20°F	(-29°C)
Inlet Ports (2).....	1/2" NPTF	(1/2" NPTF)
Flushing Ports (2).....	1/8" NPTF	(1/8" NPTF)
Discharge Ports (2).....	1/2" NPTF	(1/2" NPTF)
Shaft Diameter - Single End.....	0.945"	(24 mm)
Weight.....	48.1 lbs.	(21.8 kg)
Dimensions.....	13.15 x 9.25 x 6.06"	(334 x 235 x 154 mm)

* Flow and pressure may vary based on inlet temperature and pressure conditions. Custom Flows and pressures available upon request.

ELECTRIC HORSEPOWER REQUIREMENTS

MODELS	FLOW		PRESSURE				RPM
			psi 3000	psi 3500	psi 4000	psi 5000	
	U.S. gpm	lpm	bar 210	bar 245	bar 275	bar 345	
781KM.C02 781KMRS.C02	0.82	3.1	1.7	2.0	2.2	2.8	450

DETERMINING THE PUMP R.P.M.	Rated gpm	=	"Desired" gpm
	Rated rpm	=	"Desired" rpm
DETERMINING THE REQUIRED H.P.	gpm x psi	=	Electric Brake
	1460	=	H. P. Required
DETERMINING MOTOR PULLEY SIZE	Motor Pulley O.D.	=	Pump Pulley O.D.
	Pump rpm	=	Motor rpm

⚠ CAUTIONS AND WARNINGS

All High Pressure Systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. 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/cautions-warnings or can be requested directly from CAT PUMPS.

WARRANTY

View the Limited Warranty on-line at www.catpumps.com/warranty.

See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 003.
Refer to pump **Service Manual** for repair procedure and additional technical information.

PARTS LIST

ITEM	PART NUMBER	MATL	DESCRIPTION	QTY
2	30067	STL	Key (M8x7.5x25)	1
5	92538	S	Screw, HHC, Sems (M6x16)	8
8	43466	AL	Cover, Bearing	1
9	815280	FBR	Split Shim, 2 Pc.	1/2
10	12393	NBR	O-Ring, Bearing Cover	2
11	43222	NBR	Seal, Oil, Crankshaft	1
15	43221	STL	Bearing, Roller	2
20	768863	AL	Rod Assy, Connecting (w/POM Bushing)	3
25	119234	FCM	Crankshaft - Single End (M24) (781KM.C02, 781KMRS.C02)	1
	44591	FCM	Crankshaft - Single End (M15) (784KM.C02)	1
30	44967	AL	Cover, Blind Bearing	1
31	828710	PE	Protector, Oil Cap w/Foam Gasket	1
32	44666	RTP	Cap, Oil Filler, Domed	1
33	14177	NBR	O-Ring, Filler Cap - 70D	1
37	92241	—	Gauge, Oil, Bubble w/Gasket - 80D	1
38	44428	NBR	Gasket, Flat Flex., Oil Gauge - 80D	1
40	92538	S	Screw, HHC, Sems (M6x16) (See Tech Bulletin 106)	4
48	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	O-Ring, Drain Plug - 70D	1
50	127701	AL	Cover, Rear [03/10]	1
51	14047	NBR	O-Ring, Rear Cover - 70D (See Tech Bulletin 106)	1
53	127698	AL	Crankcase w/Guide Pins	1
54	27488	S	Pin, Guide	2
64	763237	SS	Pin, Crosshead	3
65	768913	AL	Rod, Plunger, Short (w/Set Screws)	3
69	126589	STCP R	Washer, Oil Seal	3
70	43228	NBR	Seal, Oil, Crankcase	3
75	43328	S	Slinger, Barrier	3
88	45697	S	Washer, Keyhole (M18)	3
89	43505	BB	Spacer, Plunger	3
90	45890	CC	Plunger (M14x72)	3
95	89653	SS	Stud, Plunger Retainer (M6x58)	3
96	43235	PTFE	Back-up-Ring, Plunger Retainer	3
97	30139	NBR	O-Ring, Plunger Retainer - 90D	3
98	44041	SS	Gasket, Plunger Retainer	3
99	49665	SS	Retainer, Plunger (M6)	3
100	999703	AL	Retainer, Seal, Vented	1
101	999701	BB	Nipple (1/8" NPTMx2")	1
102	999702	BB	Elbow (1/8" NPTM)	1
103	999490	D	Adapter (1/4")	2
104	702988	URTH	Q-Ring, Inlet Adapter	3
105	701587	SS	Adapter, Inlet	3
106	701790	SFTA	Seal, LPS w/SS-Spg	3
107	999492	NY	Tubing	1
108	34633	BB	Bushing (1/4" NPTMx1/8" NPTF)	1
109	33937	SS	Valve, Check (1/4" NPTM)	2
110	49241	SS	Manifold, Inlet/Discharge, Block-Style (1/8" Flushed Port)	1
111	34507	BB	Plug (1/8" NPTF)	1
112	702991	URTH	Q-Ring, V.P. Spacer	3
113	34338	BB	Union (1/4" NPTM)	1
114	34347	STZP	Bracket	1
115	990776	STZP R	Screw, HHC (1/4"- 20x1/2")	2
116	34148	BB	Adapter (1/4" NPTF x1/8" NPTM)	1
117	702736	SS	Screw, HSH (M10x55)	4
123	702994	URTH	Q-Ring, V.P. Cylinder	3
124	701589	SS	Cylinder V.P.	3
126	701682	SS	Adapter, Female	3
127	701911	SFTA	V-Packing	9
128	701683	SS	Adapter, Male	3
163	702989	URTH	Q-Ring, Seat	12
164	701591	SS	Seat	6
166	701751	SS	Valve	6
167	44056	SS	Spring	6
168	44565	PVDF	Retainer, Spring	6
185	49214	SS	Manifold, Valve, Block-Style	1
188	702736	SS	Scew, HSH, (M10x55)	14
255	30243	STZP	Kit, Direct Mount	1
260	30645	STZP R	Assy, Angle Rail A	1
	30611	STZP R	Assy, Angle Rail B	1
265	30660	—	Kit, Complete Mounting	1
	—	—	Head, Complete, Block-Style, Flushed	1
300	701883.C02	NBR*	Kit, Seal (Incls: 96,97,104,106,112,123,127)	1
310	701884.C02	NBR*	Kit, Valve (Incls: 163,164,166,167,168)	2
	6107	—	Oil, Bottle (21 oz.) ISO 68 Hydraulic (Fill to specified crankcase capacity prior to start-up)	1-2
	6119	—	Lubricant, Antiseize (1 oz.)	1

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

[] Date of latest production change. R Components comply with RoHS Directive. *Review material codes for individual items (SFTA generally may be used as alternate).

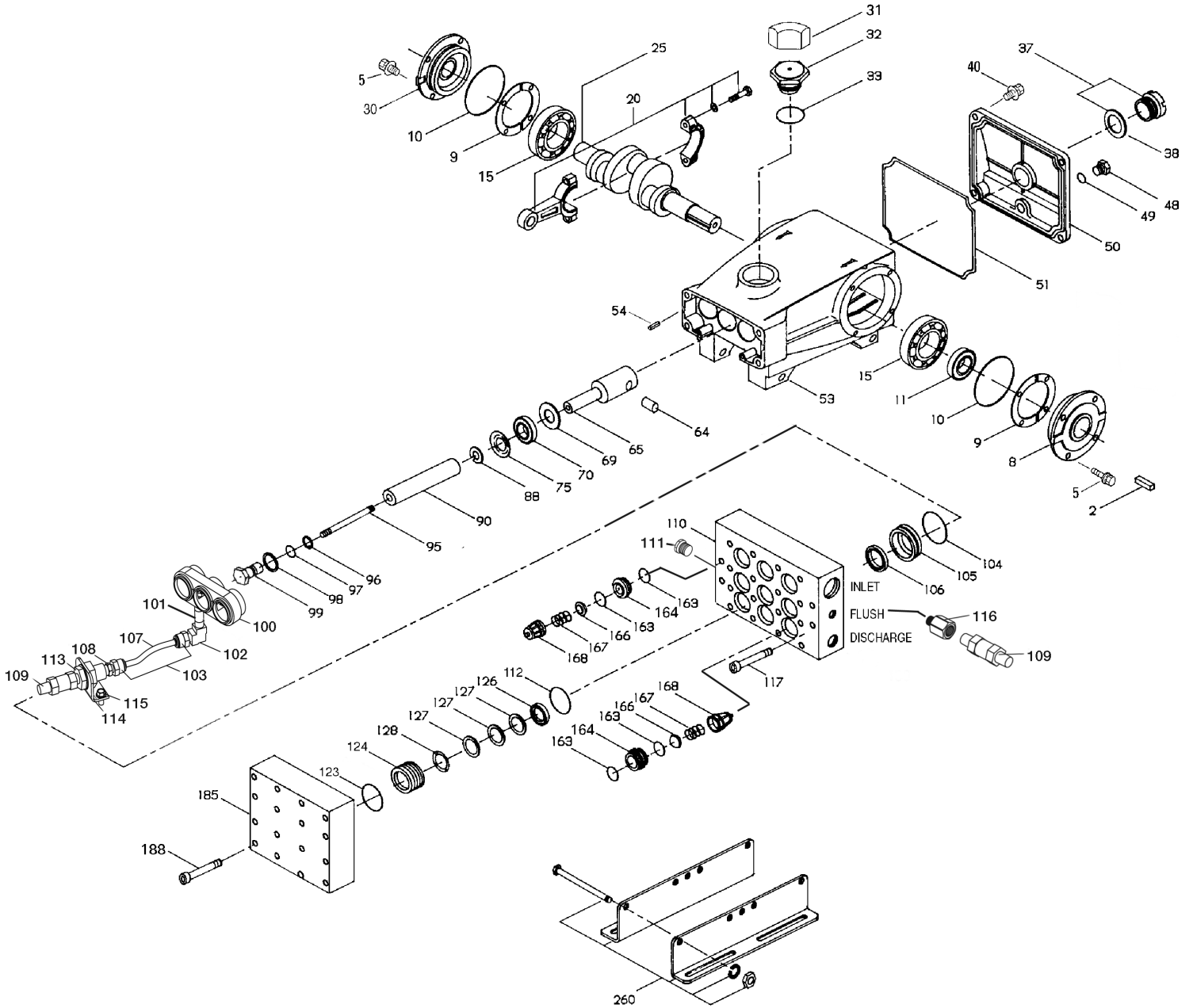
See Tech Bulletins 002, 003, 024, 035, 036, 043, 053, 054, 061, 064, 067, 074, 077, 083, and 106 for additional information.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum CC=Ceramic D=Acetal FBR=Fiber FCM=Forged Chrome-Moly NBR=Medium Nitrile (Buna-N)

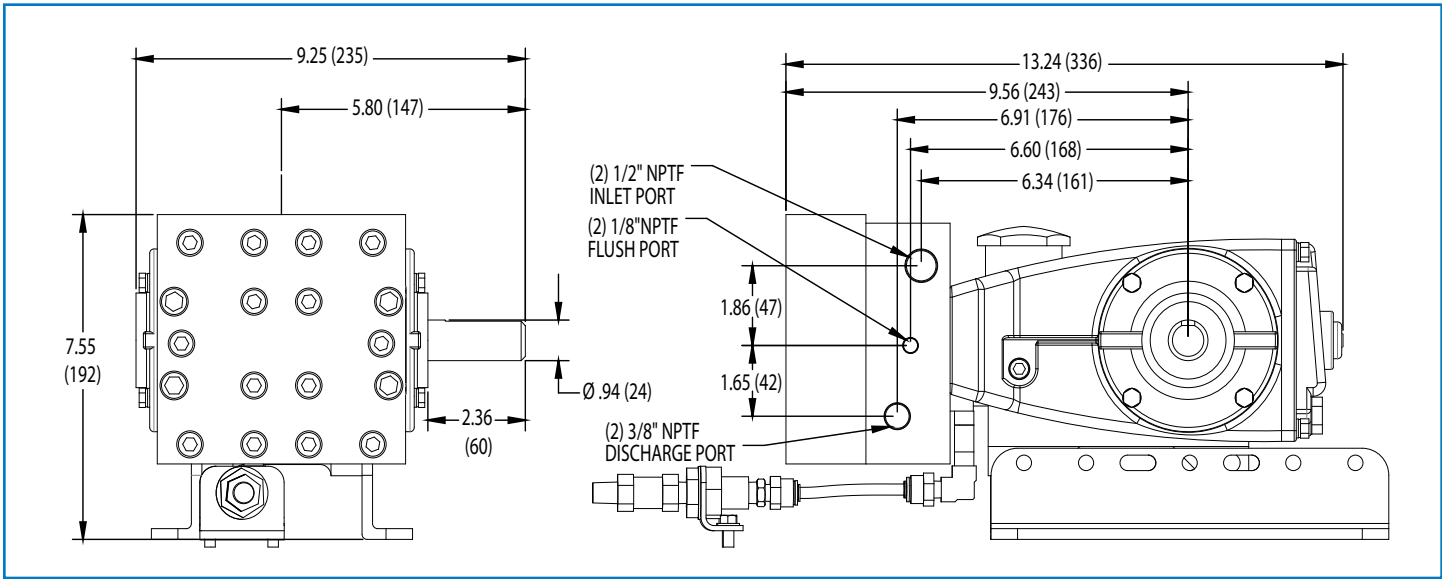
PE=Polyethylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride RTP=Reinforced Composite S=304SS SFTA=Special Blend PTFE Tan

SS=316SS STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated URTH=Urethane

EXPLODED VIEW



Models
781KM.CO2
781KMRS.CO2
784KM.CO2
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Models 781KM.CO2, 784KM.CO2



CAT PUMPS
 1681 - 94TH LANE N.E. MINNEAPOLIS, MN 55449-4324
 PHONE (763) 780-5440 — FAX (763) 780-2958
 e-mail: techsupport@catpumps.com
 www.catpumps.com