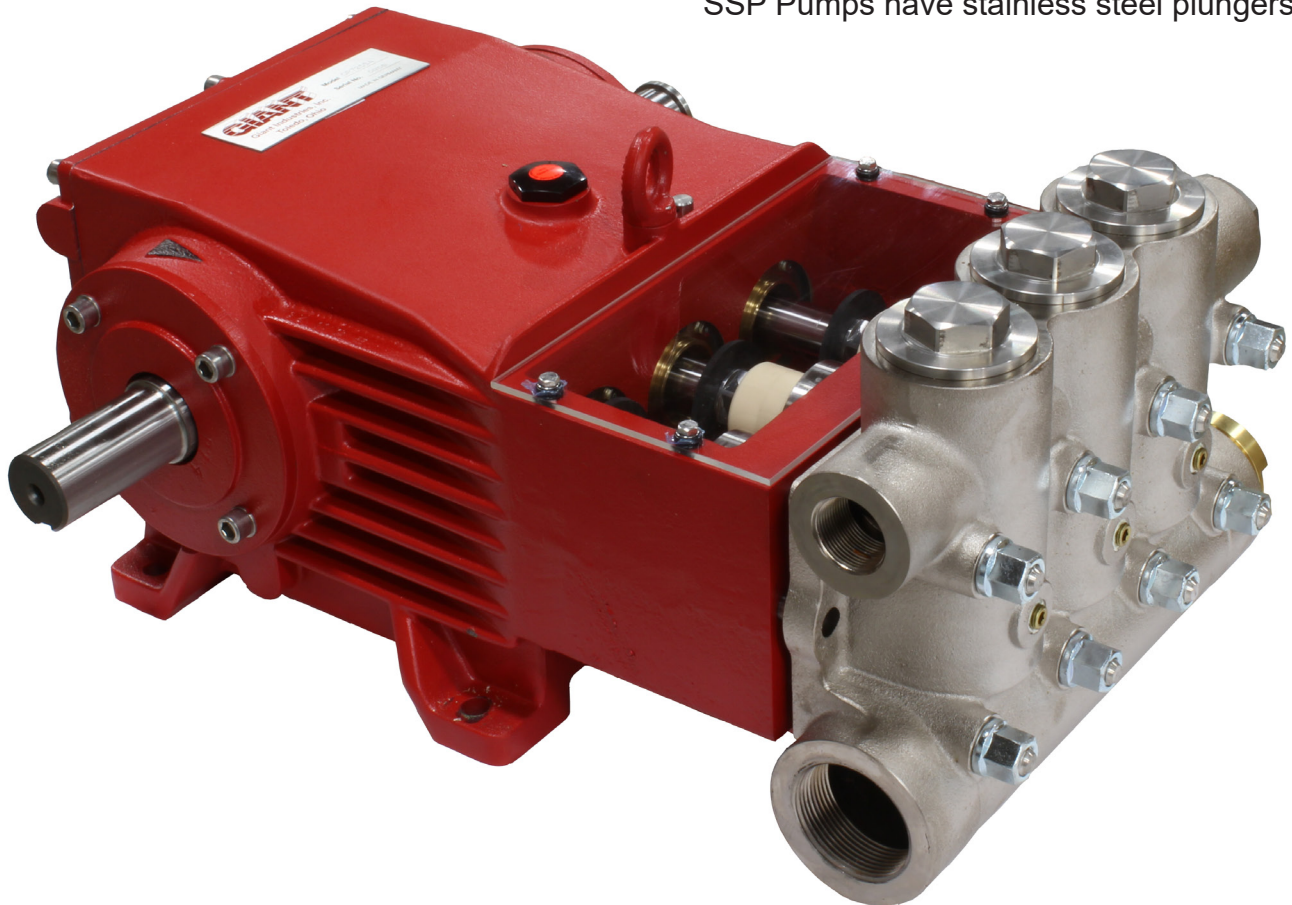


Models

GP7145(-SSP)/GP7255A(-SSP)

SSP Pumps have stainless steel plungers



GIANT
Performance Under Pressure

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Update 03/25

GP7145(-SSP) & GP7255A(-SSP) PUMP SPECIFICATIONS

Performance

	Power Required	Pressure	Max. Speed	Max. Flow	Max. Temp.	Plunger \varnothing	Plunger Stroke	Weight
Model	BHP (kW)	PSI (bar)	RPM	GPM (l/min)	°F (°C)	in (mm)	in (mm)	lbs. (kg)
GP7145	98 (73.2)	3000 (200)	750	47.5 (180)	140 (60)	1.77 (45)	2.0 (52)	374 (170)
GP7145	124 (93)	3000 (200)	947	60 (227)	140 (60)	1.77 (45)	2.0 (52)	374 (170)
GP7255	68 (51)	1500 (100)	700	65.8 (250)	140 (60)	2.17 (55)	2.0 (52)	374 (170)
GP7255	110 (82)	2000 (140)	851	80 (303)	140 (60)	2.17 (55)	2.0 (52)	374 (170)

1) Figures given for max. pressure and max. speed (rpm) apply to intermittent operation with cold water.

When the pump is used in continuous operation and/or with water warmer than 40°C (100°F), these values must be reduced by 10%.

Performance data for intermittent operation, data for continuous operation on request.

For information on intermittent operation and calculating of the performance data, see the Giant Industries assembly instructions.

NPSHR / Inlet pressure

Required NPSH refers to water at 68 °F (20 °C) at maximum permissible pump speed.



Use of both suction connections is imperative in order to ensure cavitation-free operation and optimal suction conditions.

If only one connection is used, a safety margin of one meter has to be added to the required NPSH.

The inlet pressure on the suction side must not exceed 29 PSI (2 bar).

Level of noise emission

Emission sound pressure level: ≤ 91 dB(A)

Fields of application

The fields of application of these pump types correspond to the specifications in the assembly instructions Giant Industries, Inc.

GP7145 Horsepower Requirements						
RPM	GPM	800 PSI	1000 PSI	1500 PSI	2000 PSI	3000 PSI*
300	19.0	10.5	13.1	19.7	26.2	39.3
400	25.3	14.0	17.4	26.2	34.9	52.3
500	31.7	17.5	21.9	32.8	43.7	65.6
600	38.0	21.0	26.2	39.3	52.4	78.6
750	47.5	26.2	32.8	49.1	65.5	98.3
789	50.0	27.6	34.5	51.7	69.0	103.4
947*	60.0	33.1	41.4	62.1	82.8	124.1

*Intermittent Duty Only!

Ambient conditions

Ambient temperature: 41°F < T_{Amb.} < 86°F

Ambient temperature: 5°C < T_{Amb.} < 30°C

Oil filling

- Filling quantity: **1.7 gallon (6.5 l)**
- Quality: Industrial gear oil ISO VG 220 or automotive gear oil **SAE 90 GL4 (Giant's p/n 01154)**
- Intervals: first oil change after **50 operating hours** then every 1000 operating hours, but at the latest after **12 months**

Installation/ Putting into Operation

Shaft protector

When the pump is in operation, the open shaft end must be covered up by shaft protector (21), the driven shaft side and coupling by a contact-protector and the plunger room by cover (30).

Direction of pump rotation

Set the direction of rotation of the drive unit according to the direction of rotation arrow on the crankcase.

Suction line filter

Recommended mesh size 150 µm.

Operation

For informations, see assembly instructions **Giant Industries, Inc.**

GP7255A Horsepower Requirements						
RPM	GPM	800 PSI	1000 PSI	1300 PSI	1500 PSI	2000 PSI*
479	45.0	24.8	31.0	40.3	46.6	62.1
531	49.9	27.5	34.4	44.7	51.6	68.8
585	55.0	30.3	37.9	49.3	56.9	75.9
638	60.0	33.1	41.4	53.8	62.1	82.8
700	65.8	36.3	45.4	59.0	68.1	90.8
851*	80.0	44.1	55.2	71.7	82.8	110.3

*Intermittent Duty Only!

Repair Kits - GP7145(-SSP) and GP7255A(-SSP)

Plunger Packing Kit - GP7145(-SSP)

09603

Item	Part #	Description	Qty.
38A	13156	O-Ring	3
38B	06258	O-Ring	3
39A	13290	Grooved Ring	3
42	13294	V-Sleeve	9

Plunger Packing Kit - GP7255A(-SSP)

09220

Item	Part #	Description	Qty.
38A	13156	O-Ring	3
38B	07721	O-Ring	3
39A	07723	Grooved Ring	3
42	07711	V-Sleeve	6

Oil Seal Kit

09221

Item	Part #	Description	Qty.
32	07624	Radial Shaft Seal	3
33A	07627	O-Ring	3

Valve Repair Kits GP7145(-SSP) / GP7255(-SSP)

Inlet Valve Kit

09659

Item	Part #	Description	Qty.
51	05594	Inlet Valve Assembly	1
56A	07658	O-Ring	1
56B	07635	Support Ring	1

Large Discharge Valve Kit

09660

Item	Part #	Description	Qty.
52	05600	Discharge Valve Assembly	1
55	05647	Valve Spacer	1
56A	07658	O-Ring	1
56B	07635	Support Ring	1

Small Discharge Valve Kit *

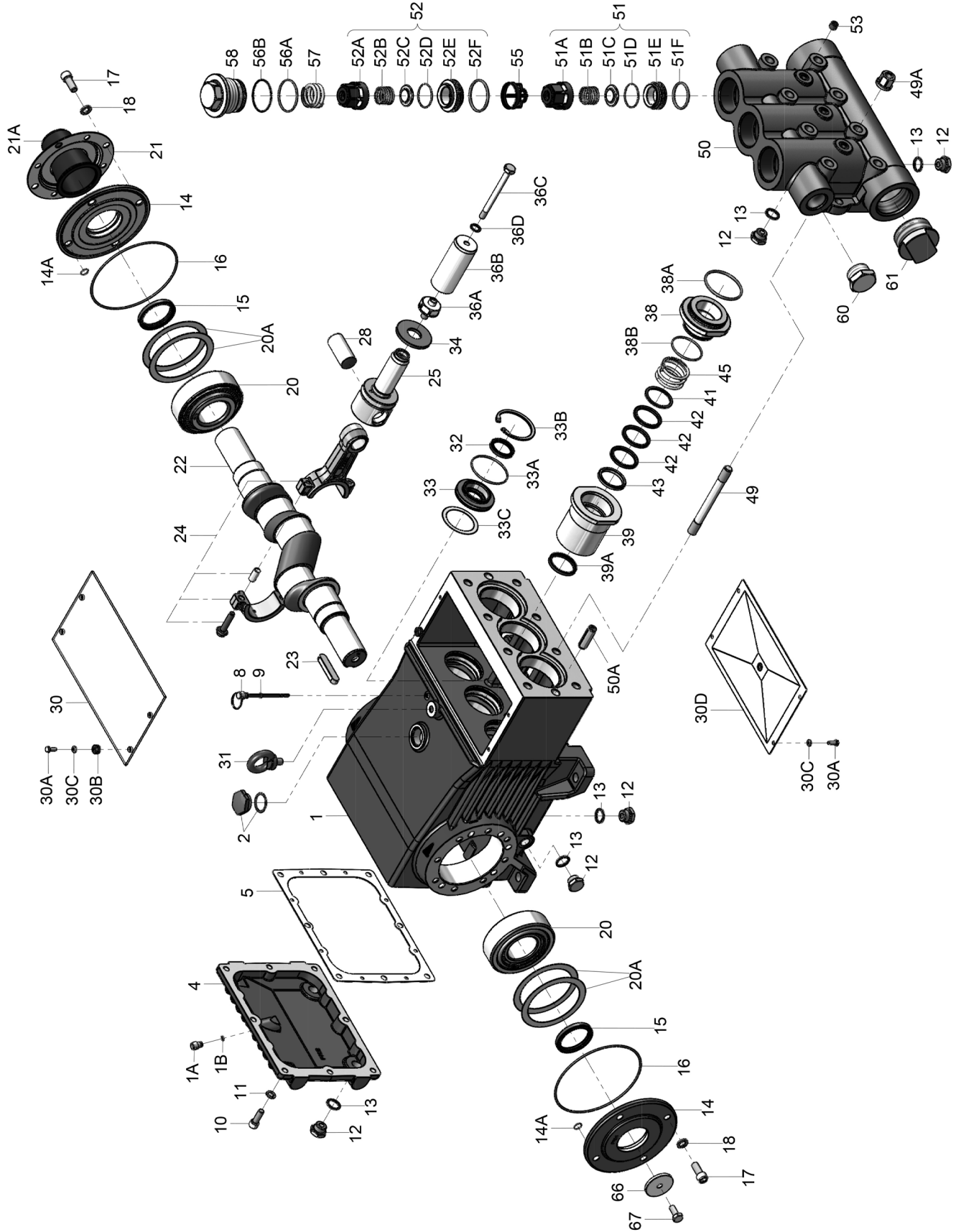
09661

Item	Part #	Description	Qty.
51B	05450	Valve Spring	1
51C	05247	Valve Plate	1
51D	05596	O-Ring	1
52F	05599	O-Ring	1
56A	07658	O-Ring	1
56B	07635	Support Ring	1

* The discharge valve seat (item 52E) can be flipped over and used. If it is damaged on both sides, order kit # 09660.

GP7145(-SSP) and GP7255A(-SSP) Torque Specifications			
Position	Thread	Lubrication Info	Torque Specifications
1		Molycote/Cu-Paste	
10	M10		33 ft.-lbs. (45 Nm)
12	1/2" BSP		59 ft.-lbs. (80 Nm)
15		Loctite 403	
17	M12		64 ft.-lbs. (87 Nm)
24	M10		30 ft.-lbs. (40 Nm)
30A			89 in.-lbs. (10 Nm)
32		Loctite 403	
36A			33 ft.-lbs. (45 Nm)
36C	M10	Loctite 243	30 ft.-lbs. (40 Nm)
39		Copper Paste - Crankcase Side	
49		Loctite 648 -Crankcase Side	
49A	M16		133 ft.-lbs. (180 Nm)
58	M64 x 2		107 ft.-lbs. (145 Nm)

EXPLODED VIEW - GP7145(-SSP) and GP7255A(-SSP)



PARTS LIST - GP7145(-SSP) and GP7255A(-SSP)

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	05769	Crankcase	1	38B	07721	O-Ring for 38, GP7255A(-SSP)	3
1A	05525	Head for Oil Dipstick	1	39	06171	Seal Sleeve, GP7145(-SSP)	3
1B	01009	O-Ring	1	39	13157	Seal Sleeve, GP7255A(-SSP)	3
2	13000	Oil Filler Plug Assembly	1	39A	13290	Grooved Ring, GP7145(-SSP)	3
4	07601	Crankcase Cover	1	39A	07723	Grooved Ring, GP7255A(-SSP)	3
5	05798	Gasket,Crankcase Cover	1	40	07797	Support Disc, GP7255(-SSP) only	3
8	07603	Oil Dip Stick	1			Support Ring, GP7145(-SSP)	3
9	01009	O-Ring, Dip Stick	1	41	13296	Support Ring, GP7255A(-SSP)	3
10	22706	Hexagon Screw	8	41	13158	Support Ring, GP7255A(-SSP)	3
11	06725	Spring Washer	8	42	13294	V-Sleeve, GP7145(-SSP)	9
12	07109	Drain Plug	11	42	07711	V-Sleeve, GP7255A(-SSP)	6
13	07182	Copper Ring	11	43	13293	Pressure Ring, GP7145(-SSP)	3
14	05770	Bearing Cover	2	43	07712	Pressure Ring, GP7255A(-SSP)	3
14A	12204	O-Ring	8	45	13297	Tension Spring, GP7145(-SSP) only	3
15	05771	Radial Shaft Seal	2			Stud Bolt	8
16	05772	O-Ring	2	49	13159	Hexagon Nut	8
17	05642	Inner Hexagon Screw	8	49A	13160	Valve Casing	1
18	05039	Spring Washer	8	50	07791	Cylinder Stud	2
20	05773	Taper Roller Bearing	2	50A	13162	Inlet Valve Assembly (51A-51F)	3
20A	05774	Fitting Disc (Shim)	1-8	51	05594	Spring Tension Cap	3
21	05645	Holder for Shaft Protector	1			Valve Spring	3
21A	05646	Shaft Protector	1	51A	05595	Valve Plate	3
22	05775	Crankshaft	1	51B	05450	O-Ring	3
23	07614	Key	1	51C	05247	Inlet Valve Seat	3
24	05777	Connecting Rod Assembly	3	51D	05596	O-Ring	3
25	05778	Crosshead Assembly	3	51E	05597	Inlet Valve Seat	3
28	05779	Crosshead Pin	3	51F	05166	O-Ring	3
30	07619	Cover Plate	1	52	05600	Discharge Valve Assembly	3
30A	07225-0100	Hexagon Screw	8	52A	05595	Spring Tension Cap	3
30B	13136	Grommet	4	52B	05450	Valve Spring	3
30C	05053	Disc	8	52C	05247	Valve Plate	3
30D	13154	Cover Plate	1	52D	05596	O-Ring	3
31	07623	Eye Bolt	1	52E	05598	Discharge Valve Seat	3
32	07624	Radial Shaft Seal	3	52F	05599	O-Ring	3
33	07626	Seal Retainer	3	53	22610	Plug	3
33A	07627	O-Ring	3	55	05647	Valve Spacer	3
33B	07628	Circlip	3	56A	07658	O-Ring	3
33C	07249	Fitting Disc	3	56B	07635	Support Ring	3
34	13137	Oil Scraper	3	57	13173	Tension Spring	3
36	06165A	Plunger Pipe Assembly (36A-D), GP7145	3	58	06682	Plug, M64 x 2	3
36	06165A-SS	Plunger Pipe Assembly (36A-D), GP7145-SSP	3	59A	07661	Copper Ring for 12	5
36	07706	Plunger Pipe Assembly (36A-D), GP7255A	3	60	12251	Plug, 1-1/4" NPT	1
36	07706-SS	Plunger Pipe Assembly (36A-D), GP7255A-SSP	3	61	05170	Plug, 2-1/2" NPT	1
36A	07667	Plunger Connection	3	66	13362	Disc For Crankshaft	1
36B	05157A	Plunger Pipe, GP7145	3	67	13358	Hexagon Screw	1
36B	05157A-SS	Plunger Pipe, GP7145-SSP	3		07662	Valve Tool (Not Shown)	1
36B	07666	Plunger Pipe, GP7255A	3		05210A	Plunger Conversion Assembly (36-45), GP7145	1
36B	07666-SS	Plunger Pipe, GP7255A-SSP	3		05210-SS	Plunger Conversion Assembly (36-45), GP7145-SSP	1
36C	07664	Tension Screw	3		05211	Plunger Conversion Assembly (36-43), GP7255	1
36D	07665	Copper Ring	3		05211-SS	Plunger Conversion Assembly (36-43), GP7255A-SSP	1
38	06167	Seal Case, GP7145(-SSP)	3		17204	Valve Casing Assembly, (5x12, 50-61 w/o 50A)	1
38	13155	Seal Case, GP7255A(-SSP)	3		17212	Crankcase Assembly, (2x12/1-34/49/49A/50A/66/67)	1
38A	13156	O-Ring for 38	3				
38B	06258	O-Ring for 38, GP7145(-SSP)	3				

GP7145(-SSP) and GP7255A(-SSP) Repair Instructions

Maintenance and Servicing

For the type of threadlocker used and the required tightening torques, observe the table in the exploded view.

Special tools required

The following special tools are required for assembly:

- Extraction tool (part no. 07662)
- Pull-out tool size 5
- Snap-ring tongs

Suction and Discharge Valves

Remove plugs (58).

Take out tension spring (57).

Remove the complete valve (51, 52) and valve holder (55) using either a valve tool or an M16 hexagon screw.

To dismantle valves:

Screw valve seat (51E, 52E) out of spring tension cap (51A, 52A).

Check sealing surfaces and replace worn parts.

Check O-rings and support rings.

Tighten plugs (58) to the required torque.



If worn, the discharge valve seat (52E) can be turned 180° round and refitted.

Seals and Plunger

Loosen nuts (49A) and remove pump head.

Separate plunger connection (36A) from crosshead (25) by means of an open-end wrench (size 36).

Pull seal sleeves (39) out of their fittings in the crankcase.

Take seal case (38) out of seal sleeve (39).

For P71/145 and P71/200 remove tension spring (45).

Examine plunger parts (36A-36D), seals (42,39A) and O-rings. When replacing plunger pipe (36B), tighten tension screws (36C) to the required torque.

Replace worn parts; grease seals with Silicone before installing.



Don't loosen the 3 plunger connections (36A) before the valve casing has been removed. Otherwise the tension screw (36C) could hit against the Spring Tension Cap (51A) when the pump is being turned.

Seal life can be increased if the pretensioning allows for a little leakage.

This assists lubrication and keeps the seals cool.

It is therefore not necessary to replace seals before the leakage becomes too heavy and causes output and operating pressure to drop.

When reassembling, tighten plunger screws (36A) to the required torque.

Mounting Valve Casing:

Check O-rings on seal case (38).

Clean surfaces of seal sleeves in gear box and sealing surfaces of valve casing.

Push valve casing carefully onto O-rings of seal case and centring studs (50A).

Tighten nuts (49A) to the required torque.

If required, supplementary assembly instructions can be requested from the manufacturer Giant Industries.

Malfunctions / Remedy

For informations, see assembly instructions Giant Industries.

Materials Used

Valve Casing: Plated Cast Iron

G-versions: Spheroidal Cast Iron

Plunger: Solid ceramic

Valves: High-Grade Stainless Steel

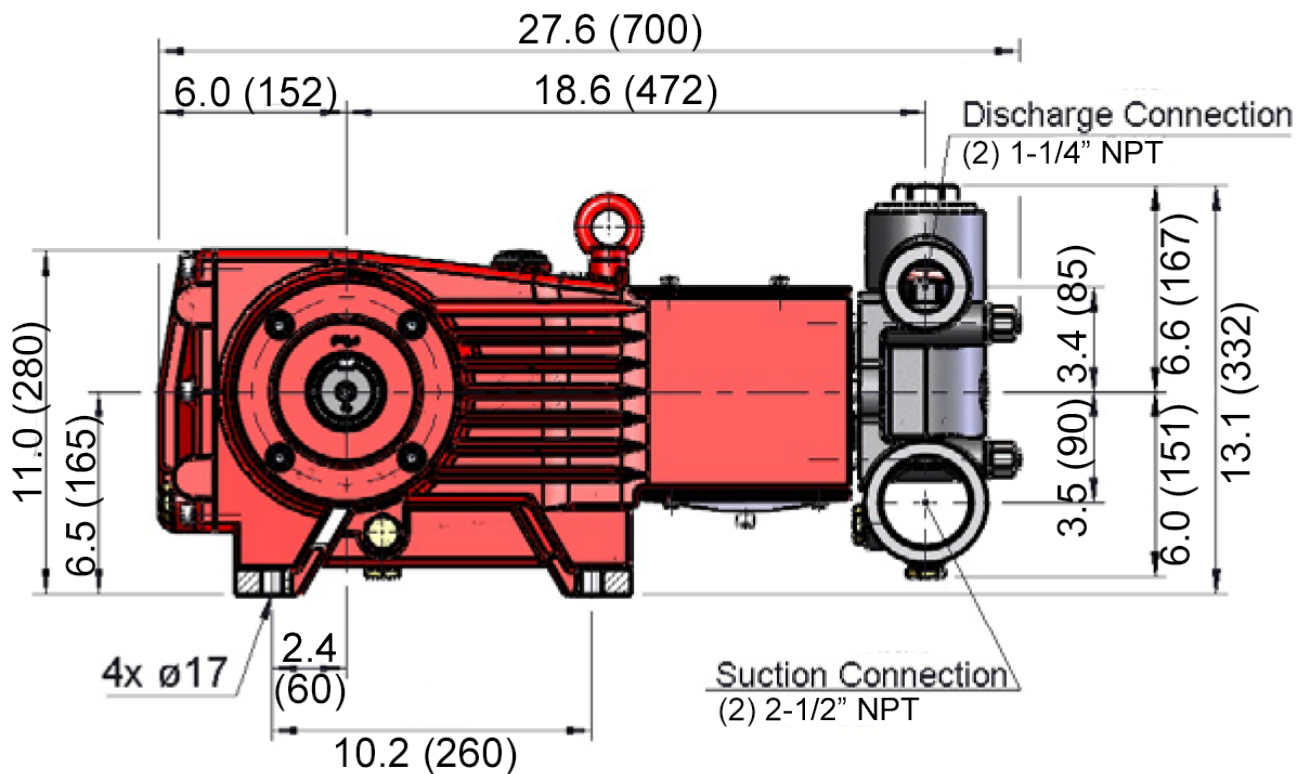
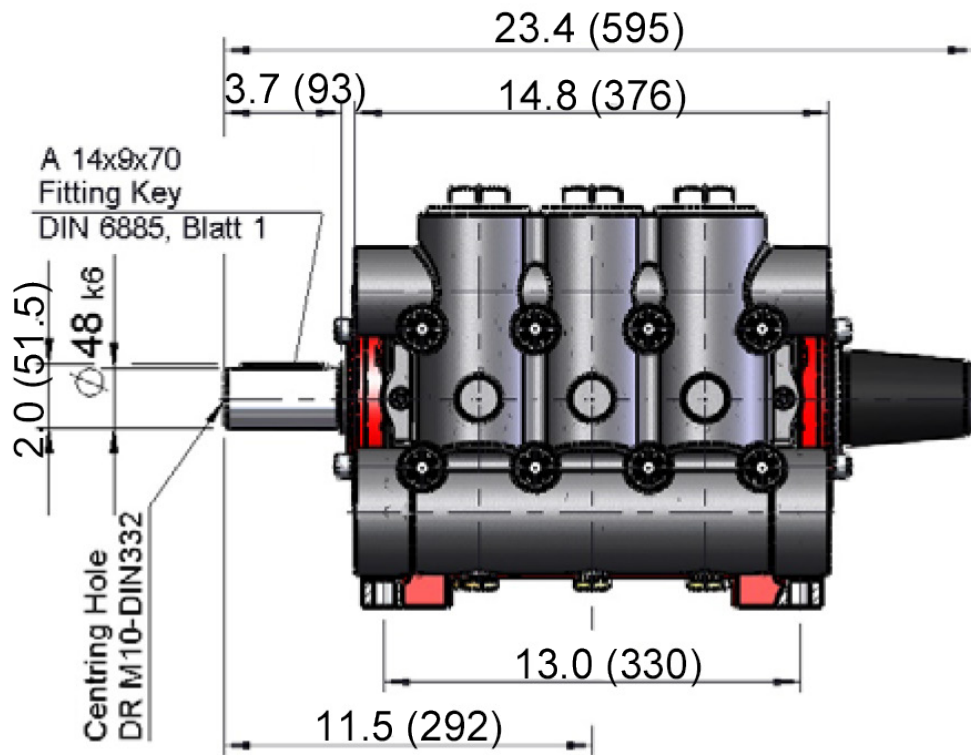
Seals: Nitrile with fabric reinforcing

O-rings: Nitrile

Paint

The pump drive is painted in RAL 3001 as standard.

GP7145(-SSP) and GP7255A(-SSP) Dimensions - Inches (mm)



GIANT INDUSTRIES LIMITED WARRANTY

Giant Industries, Inc. pumps and accessories are warranted by the manufacturer to be free from defects in workmanship and material as follows:

1. Five (5) years from the date of shipment for all pumps used in portable pressure washers with NON-SALINE, clean water applications.
2. Two (2) years from the date of shipment for Giant pumps used in car wash applications.
3. One (1) year from the date of shipment for all other Giant industrial and consumer pumps.
4. Six (6) months from the date of shipment for all rebuilt pumps
5. Ninety (90) days from the date of shipment for all Giant accessories.

This warranty is limited to repair or replacement of pumps and accessories of which the manufacturer's evaluation shows were defective at the time of shipment by the manufacturer. The following items are NOT covered or will void the warranty:

1. Defects caused by negligence or fault of the buyer or third party.
2. Normal wear and tear to standard wear parts.
3. Use of repair parts other than those manufactured or authorized by Giant.
4. Improper use of the product as a component part.
5. Changes or modifications made by the customer or third party.
6. The operation of pumps and or accessories exceeding the specifications set forth in the Operations Manuals provided by Giant Industries, Inc.

Liability under this warranty is on all non-wear parts and limited to the replacement or repair of those products returned freight prepaid to Giant Industries which are deemed to be defective due to workmanship or failure of material. A Returned Goods Authorization (R.G.A.) number and completed warranty evaluation form is required prior to the return to Giant Industries of all products under warranty consideration. Call (419)-531-4600 or fax (419)-531-6836 to obtain an R.G.A. number.

Repair or replacement of defective products as provided is the sole and exclusive remedy provided hereunder and the MANUFACTURER SHALL NOT BE LIABLE FOR FURTHER LOSS, DAMAGES, OR EXPENSES, INCLUDING INCIDENTAL AND CONSEQUENTIAL DAMAGES DIRECTLY OR INDIRECTLY ARISING FROM THE SALE OR USE OF THIS PRODUCT.

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WARNING: This product might contain a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm.
For more information go to www.P65Warnings.ca.gov

GIANT
Performance Under Pressure

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