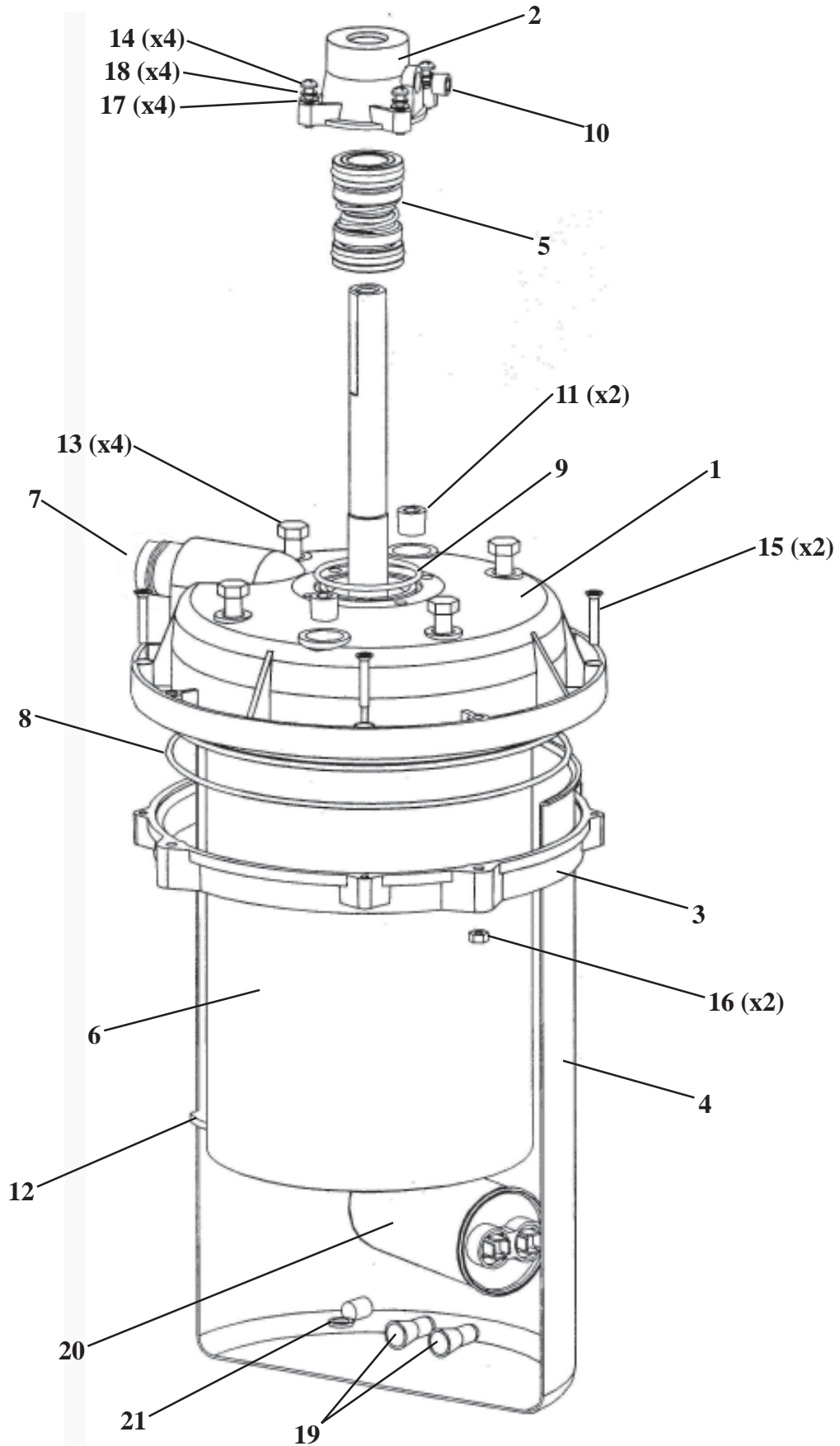


# C3 Power Unit - Figure 1



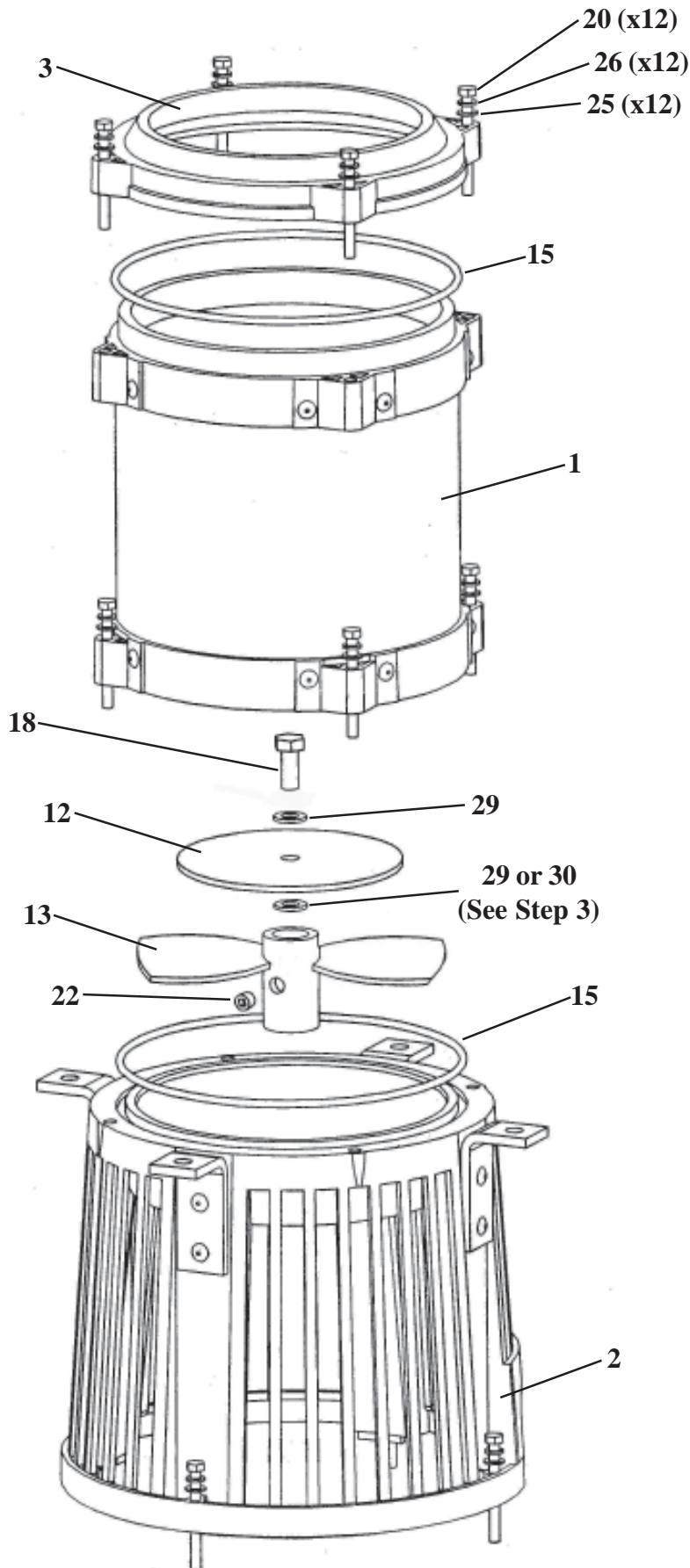
## Open Throat Pump Chambers

The pump chamber drawings on the following pages are for reference purposes only. The pump chamber is mounted to the power unit at the factory. Use this table for each drawing as noted.

Item No.	Description	Part Number	Qty per Sunburst Chamber (Fig. 7)	Qty per Gemini Chamber (Fig. 8)	Qty per Saturn Chamber (Fig. 8a)
1	Throat Assembly	10-0060	1	1	1
2	Standoff Strainer Assembly *	10-0061	1	1	1
3	Sunburst Ring	42-0019	1	0	1
12	Slinger Disc	47-0003	1	1	0
13	SNB Impeller, 1HP 60Hz SNB Impeller, 2HP 60Hz/1HP 50Hz SNB Impeller, 3HP 60Hz/2HP 50Hz SNB Impeller, 5HP 60Hz/3HP 50Hz SNB Impeller, 5HP 50Hz	50-0012-001 50-0012-002 50-0012-003 50-0012-005 50-0012-055	1	1	1
15	O-Ring #260	49-0015	2	1	2
18	M8 x 20 S/S Hex Bolt	22-0019	1	1	0
20	M5 x 50 S/S Hex Screw	24-0013	12	8	12
22	M8 x 8 S/S Set Screw	24-0015	1	1	1
25	M5 S/S Flat Washer	28-0016	12	8	12
26	M5 S/S Split Lock Washer	28-0017	12	8	12
29	M8 (5/16") S/S Fender Washer Impeller Spacer, 3HP 60Hz/2HP 50Hz ONLY	28-0008	1 1	1 1	0 0
30	Impeller Spacer, 5HP 60Hz/3HP 50Hz/5HP 50Hz	40-0107	1	1	0

\* Mounted to power unit using (4) M5 Nylon Locknuts (P/N 26-0006)

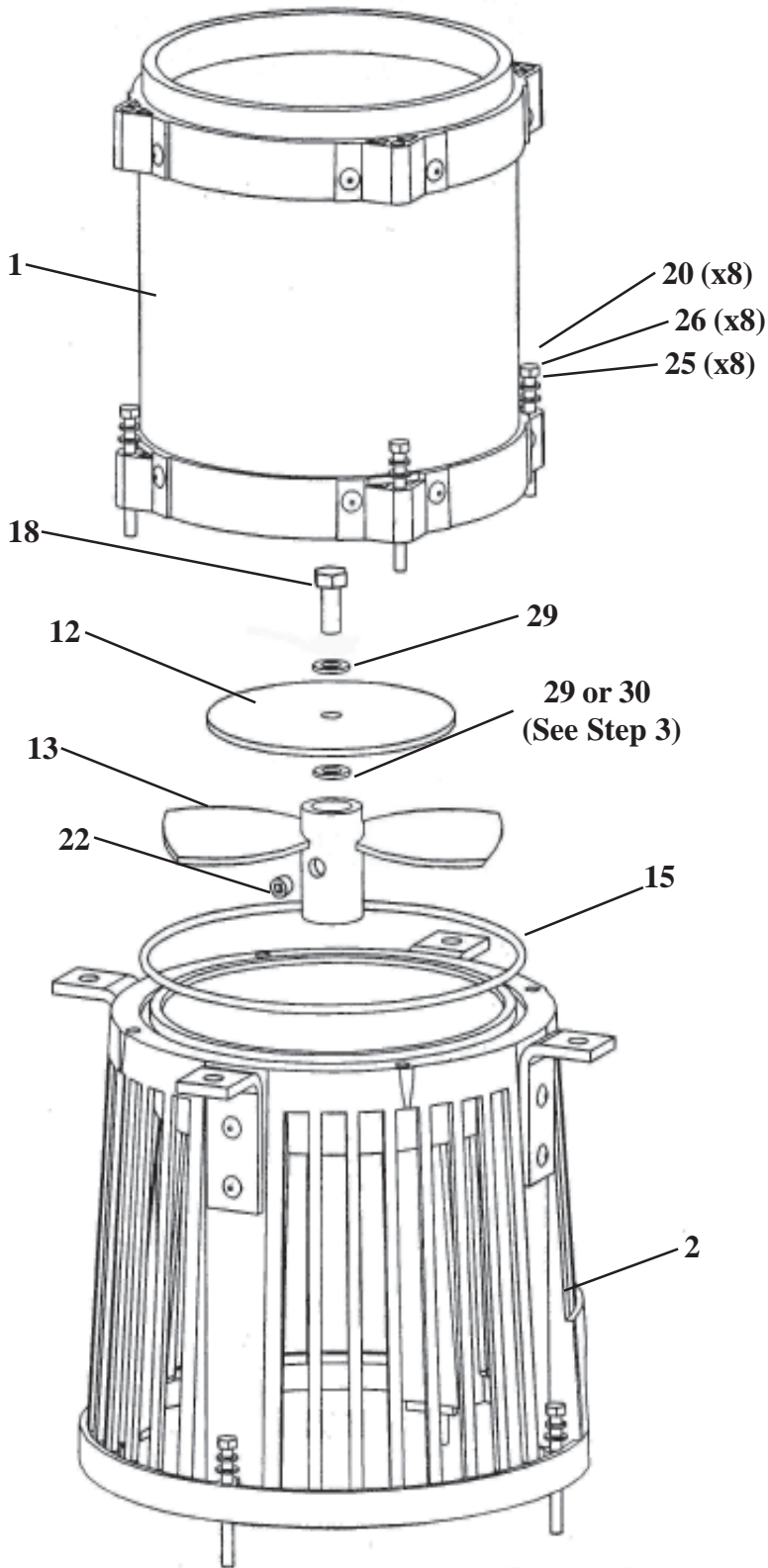
## Sunburst Pump Chamber - Figure 2



## Sunburst Assembly Instructions

1. Mount Standoff Strainer Assembly to the power unit using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, (4) M5 S/S Split Lock Washers, and (4) M5 S/S Hex Nylon Locknuts. Tighten the screws evenly.
2. Slide the Impeller onto the motor shaft so the top of the hub is even with the top of the shaft. Tighten the set screw onto one of the flats on the shaft.
3. Mount the Slinger Disc to the shaft using (1) M8x20 S/S Hex Bolt and (1) M8 S/S Fender Washer. An **Impeller Spacer** is **ONLY** used with 3HP 60Hz/2HP 50 Hz, 5HP 60Hz, 3HP 50Hz, and 5HP 50Hz units (Item No. 29 or 30). Tighten the bolt to 35 ft-lbs (47 N-m).
4. Place an O-ring in the groove on the top of the Standoff Strainer Assembly.
5. Mount the Throat Assembly to the Standoff Strainer Assembly using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-ring.
6. Place an O-ring on the top of the Throat Assembly.
7. Mount the Sunburst Ring to the Throat Assembly using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-ring.

## Gemini Pump Chamber - Figure 3

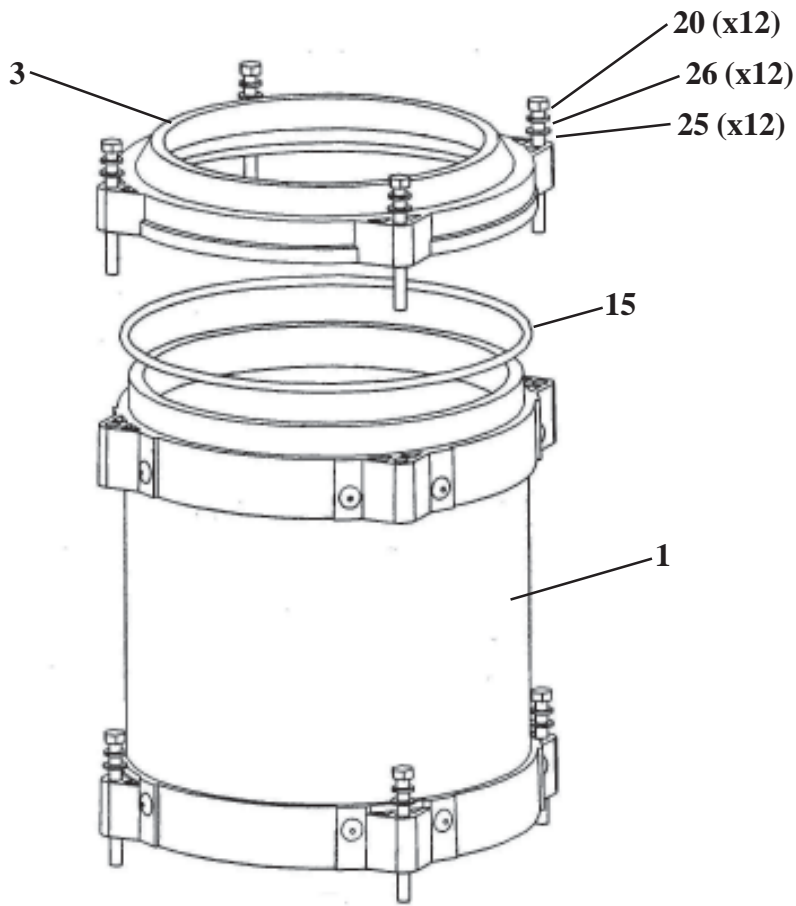


## Gemini Assembly Instructions

1. Mount Standoff Strainer Assembly to the power unit using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, (4) M5 S/S Split Lock Washers, and (4) M5 S/S Hex Nylon Locknuts. Tighten the screws evenly.
2. Slide the Impeller onto the motor shaft so the top of the hub is even with the top of the shaft. Tighten the set screw onto one of the flats on the shaft.
3. Mount the Slinger Disc to the shaft using (1) M8x20 S/S Hex Bolt and (1) M8 S/S Fender Washer. An **Impeller Spacer** is **ONLY** used with 3HP 60Hz/2HP 50Hz, 5HP 60Hz, 3HP 50Hz, and 5HP 50Hz units (Item No. 29, 30 or 31). Tighten the bolt to 35 ft-lbs (47 N-m).
4. Place an O-ring in the groove on the top of the Standoff Strainer Assembly.
5. Mount the Throat Assembly to the Standoff Strainer Assembly using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-ring.

## Saturn Pump Chamber - Figure 8a

## Saturn Assembly Instructions



1. Mount Standoff Strainer Assembly to the power unit using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, (4) M5 S/S Split Lock Washers, and (4) M5 S/S Hex Nylon Locknuts. Tighten the screws evenly. **NOTE:** Standoff Strainer Assembly is not part of the Pump Chamber Assembly.

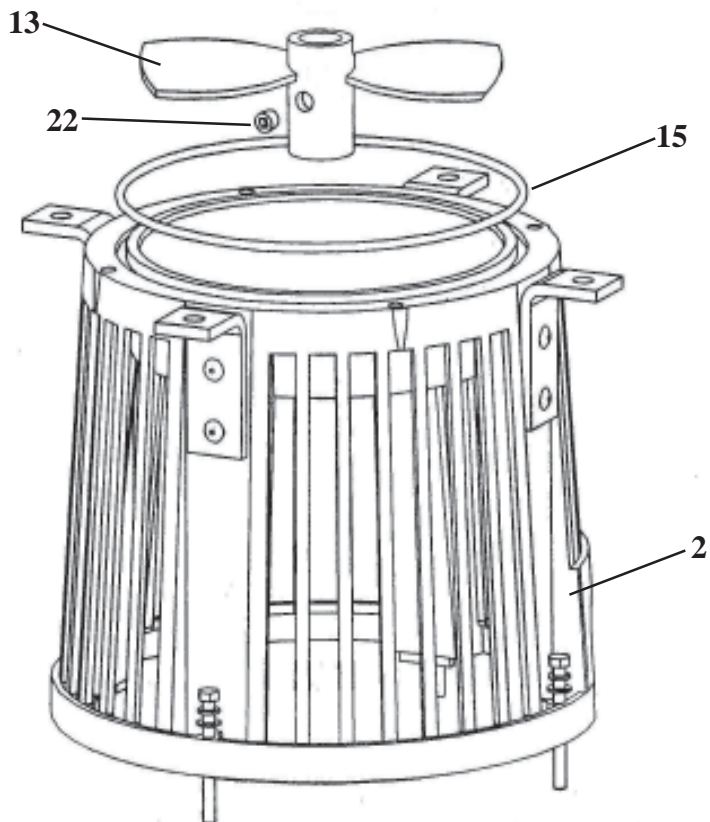
2. Slide the Impeller onto the motor shaft so the top of the hub is even with the top of the shaft. Tighten the set screw onto one of the flats on the shaft.

3. Place an O-ring in the groove on the top of the Standoff Strainer Assembly.

4. Mount the Throat Assembly to the Standoff Strainer Assembly using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-ring.

5. Place an O-ring on the top of the Throat Assembly.

6. Mount the Sunburst Ring to the Throat Assem-



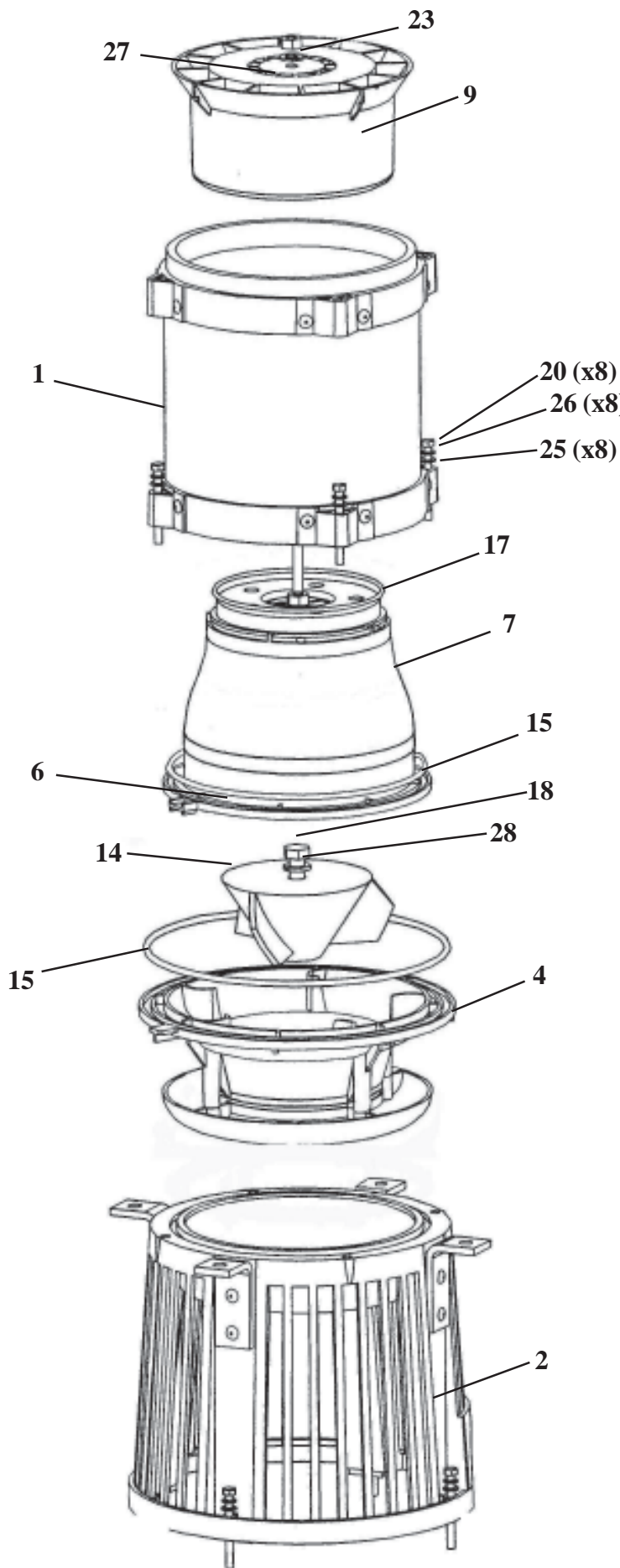
## Decorative Pump Chambers

The pump chamber drawings on the following pages are for reference purposes only. The pump chamber is mounted to the power unit at the factory. Use this table for each drawing as noted.

Item No.	Description	Part Number	Qty per Rocket Chamber (Fig. 9)	Qty per Phoenix Chamber (Fig. 10)	Qty per Tri-Star Chamber (Fig. 11)	Qty per Constellation Chamber (Fig. 11a)	Qty per Comet Chamber (Fig. 11b)	Qty per Genesis Chamber (Fig. 11c)
1	Throat Assembly	10-0060	1	1	1	1	1	0
2	Standoff Strainer Assembly *	10-0061	1	1	1	1	1	1
4	Lower Pump Chamber Assembly	10-0065	1	1	1	1	1	1
6	Upper Pump Chamber	42-0023	1	0	0	0	1	0
7	PHX/TRI Flow Diverter Assembly	10-0062	0	1	1	0	0	0
8	Rocket Diffuser	41-0104	1	0	0	0	0	0
9	Phoenix Diffuser	41-0105	0	1	0	0	0	0
10	Tri-Star Diffuser	41-0106	0	0	1	0	0	0
11	Tri-Star Diffuser Pipe	41-0108	0	0	1	0	0	0
14	Decorative Impeller, 1HP 60Hz Decorative Impeller, 2HP 60Hz/1HP 50Hz Decorative Impeller, 3HP 60Hz/2HP 50Hz Dec Impeller, 5HP 60Hz/3&5HP 50Hz	50-0010-001 50-0010-002 50-0010-003 50-0010-005	1	1	1	1	1	1
15	O-Ring #260	49-0015	3	2	2	2	3	1
16	O-Ring #131	49-0017	0	0	1	0	0	0
17	O-Ring #156 (thin)	49-0018	0	1	1	1	0	0
18	M8 x 20 S/S Hex Bolt	22-0019	1	1	1	1	1	1
20	M5 x 50 S/S Hex Screw	24-0013	12	8	8	8	12	8
23	M8 S/S Nylon Locknut	26-0007	0	1	1	1	0	0
25	M5 S/S Flat Washer	28-0016	12	8	8	8	12	8
26	M5 S/S Split Lock Washer	28-0017	12	8	8	8	12	8
27	M8 (5/16") S/S Flat Washer	28-0018	0	1	1	1	0	0
28	M8 (5/16") S/S Split Lock Wshr	28-0019	1	1	1	1	1	1
32	Decorative Impeller Shim (not shown)	40-0099	2 or 3	2 or 3	2 or 3	2 or 3	2 or 3	2 or 3
33	Constellation Diffuser	42-0032	0	0	0	1	0	0
34	Constellation / Genesis Nozzle	10-0068	0	0	0	8	0	16
35	Constellation Flow Diverter Assembly	10-0069	0	0	0	1	0	0
36	Comet Diffuser	41-0123	0	0	0	0	1	0
37	Genesis Throat Assembly	10-0073	0	0	0	0	0	1

\* Mounted to power unit using (4) M5 Nylon Locknuts (P/N 26-0006)

## Phoenix Pump Chamber - Figure 10



## Phoenix Assembly Instructions

1. Mount Standoff Strainer Assembly to the power unit using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, (4) M5 S/S Split Lock Washers, and (4) M5 S/S Hex Nylon Locknuts. Tighten the screws evenly. NOTE: Standoff Strainer Assembly is not part of the Pump Chamber Assembly.

2. Place the Lower Pump Chamber Assembly into the Standoff Strainer Assembly.

3. Slide the Impeller onto the motor shaft. If the Impeller rubs against the inside wall of the Lower Pump Chamber Assembly place 1, 2 or 3 Shims (Item No. 32) as necessary onto the shaft to raise the Impeller so it no longer rubs. Secure using (1) M8x20 S/S Hex Bolt and (1) M8 S/S Split Lock Washer. Tighten the bolt.

4. Place an O-ring in the groove of the Lower Pump Chamber.

5. Place the Phoenix/Tri-Star Flow Diverter Assembly, P/N 10-0062, onto the Lower Pump Chamber Assembly so the tabs on each part align. NOTE: If these tabs do not align the pump will not function properly.

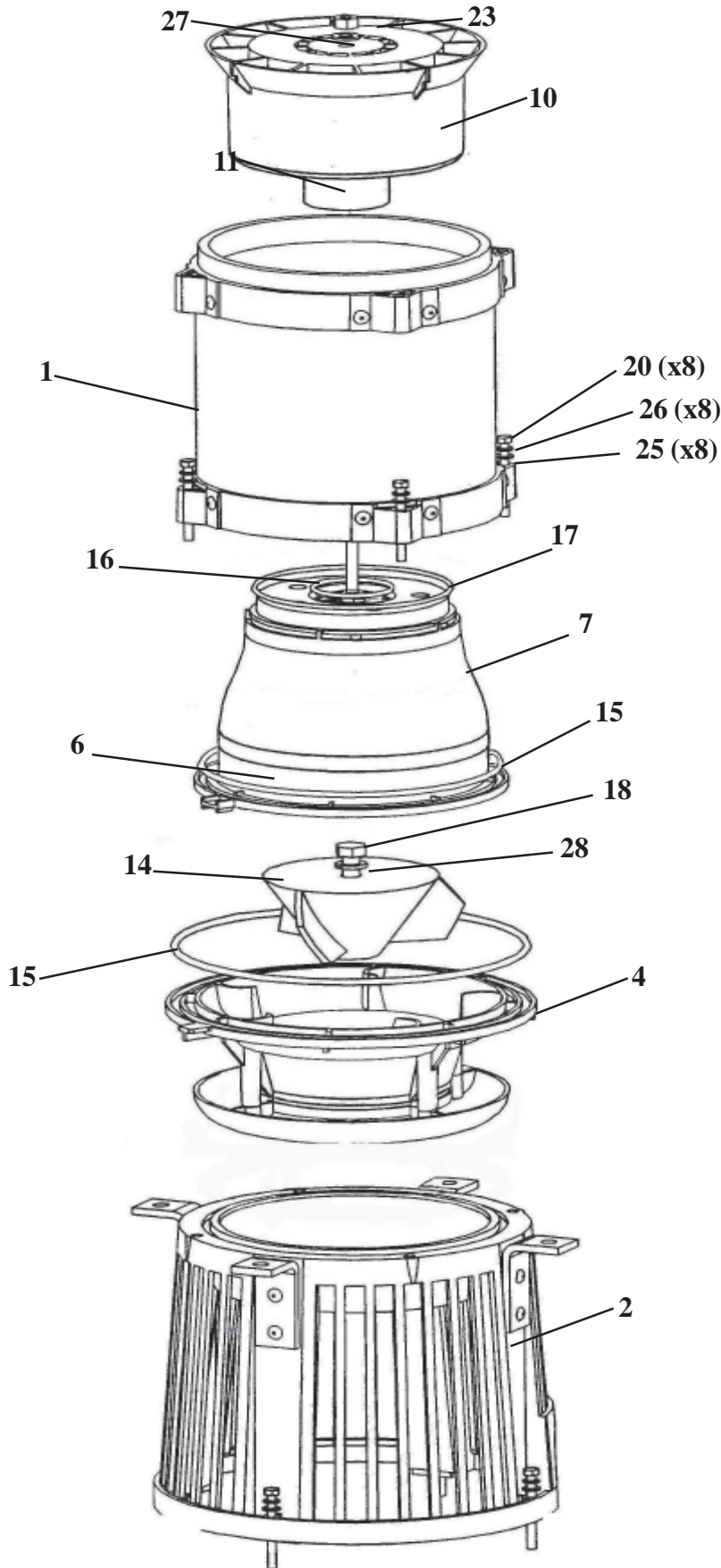
6. Place an O-ring in the groove of the Upper Pump Chamber.

7. Place the Throat Assembly onto the Upper Pump Chamber and secure using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-rings.

8. Place an O-ring on the top of the Flow Diverter Assy.

9. Slide the Phoenix Diffuser onto the Carriage Bolt so that it is seated on the Flow Diverter Assy and secure using a M8 S/S Flat Washer and a M8 S/S Nylon Locknut. Tighten the locknut just enough so the diffuser will not spin.

## Tri-Star Pump Chamber - Figure 11



## Tri-Star Assembly Instructions

1. Mount Standoff Strainer Assembly to the power unit using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, (4) M5 S/S Split Lock Washers, and (4) M5 S/S Hex Nylon Locknuts. Tighten the screws evenly. **NOTE:** Standoff Strainer Assembly is not part of the Pump Chamber Assembly.

2. Place the Lower Pump Chamber Assembly into the Standoff Strainer Assembly.

3. Slide the Impeller onto the motor shaft. If the Impeller rubs against the inside wall of the Lower Pump Chamber Assembly place 1, 2 or 3 Shims (Item No. 32) as necessary onto the shaft to raise the Impeller so it no longer rubs. Secure using (1) M8x20 S/S Hex Bolt and (1) M8 S/S Split Lock Washer. Tighten the bolt.

4. Place an O-ring in the groove of the Lower Pump Chamber.

5. Place the Phoenix/Tri-Star Flow Diverter Assembly, P/N 10-0062, onto the Lower Pump Chamber Assembly so the tabs on each part align. **NOTE:** If these tabs do not align the pump will not function properly.

6. Place an O-ring in the groove of the Upper Pump Chamber.

7. Place the Throat Assembly onto the Upper Pump Chamber and secure using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-rings.

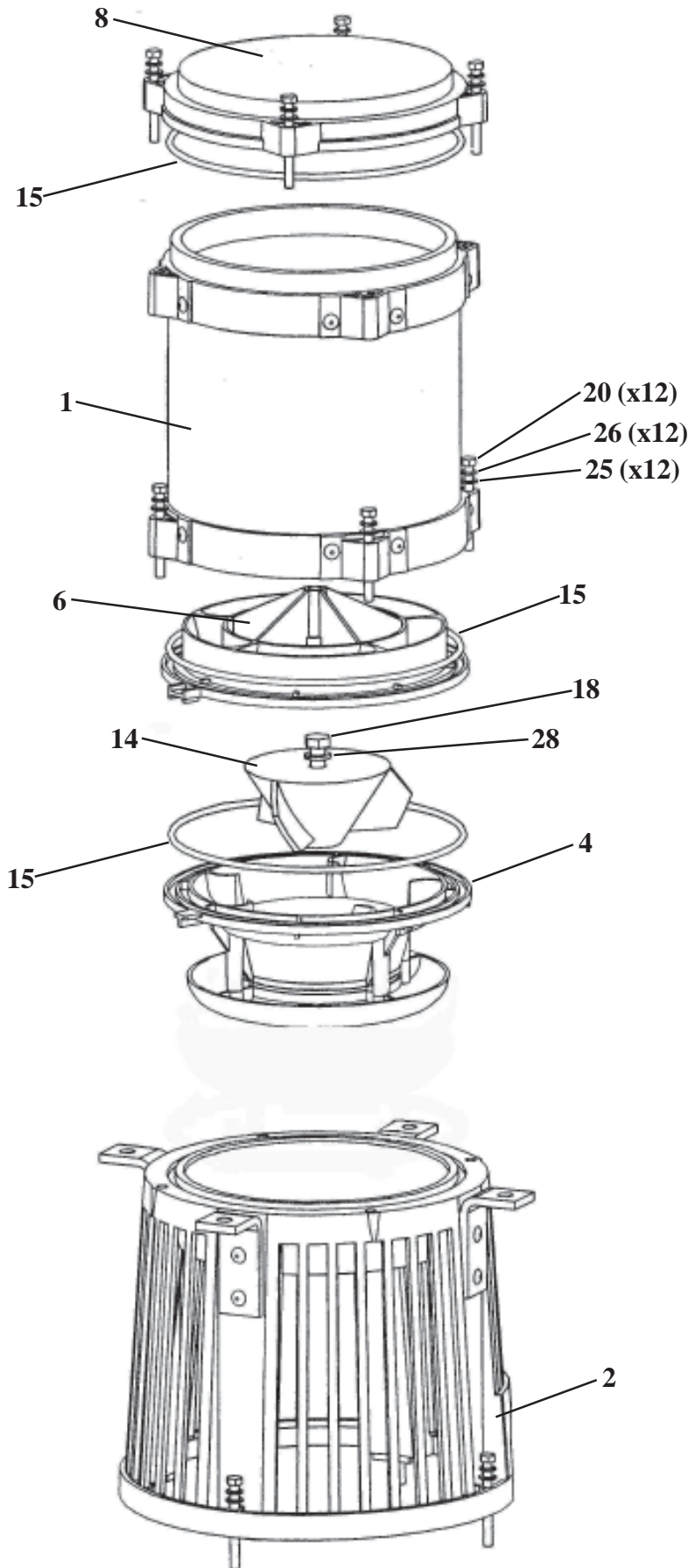
8. Place an O-ring on the top and inside of the Flow Diverter.

9. Place the Tri-Star Diffuser Pipe in the Flow Diverter Assy so it rests on the O-ring.

10. Slide the Tri-Star Diffuser onto the Carriage Bolt so that it is seated on the Flow Diverter Assy/Tri-Star Diffuser Pipe and secure using a M8 S/S Flat Washer and a M8 S/S Nylon Locknut. Tighten the locknut just enough so the diffuser will not spin.



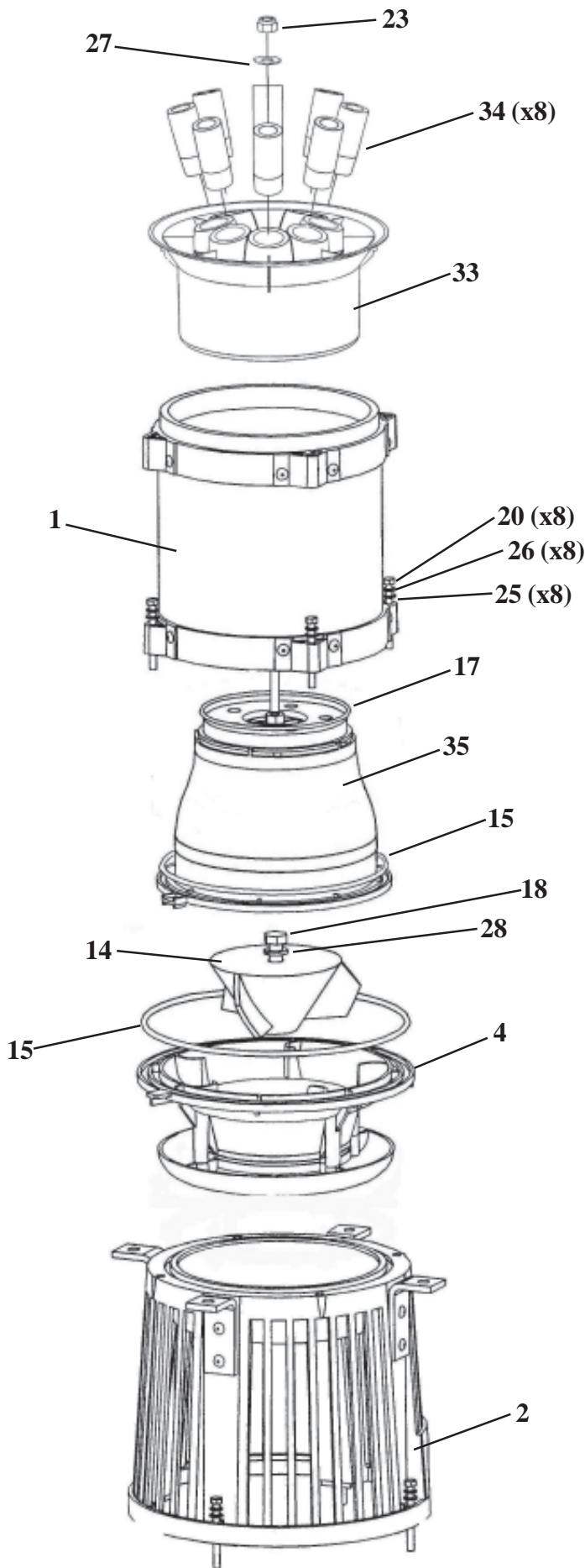
## Rocket Pump Chamber - Figure 9



## Rocket Assembly Instructions

1. Mount Standoff Strainer Assembly to the power unit using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, (4) M5 S/S Split Lock Washers, and (4) M5 S/S Hex Nylon Locknuts. Tighten the screws evenly. **NOTE:** Standoff Strainer Assembly is not part of the Pump Chamber Assembly.
2. Place the Lower Pump Chamber Assembly into the Standoff Strainer Assembly.
3. Slide the Impeller onto the motor shaft. If the Impeller rubs against the inside wall of the Lower Pump Chamber Assembly place 1, 2 or 3 Shims (Item No. 32) as necessary onto the shaft to raise the Impeller so it no longer rubs. Secure using (1) M8x20 S/S Hex Bolt and (1) M8 S/S Split Lock Washer. Tighten the bolt.
4. Place an O-ring in the groove of the Lower Pump Chamber.
5. Place the Upper Pump Chamber onto the Lower Pump Chamber Assembly so the tabs on each part align. **NOTE:** If these tabs do not align the pump will not function properly.
6. Place an O-ring in the groove of the Upper Pump Chamber.
7. Place the Throat Assembly onto the Upper Pump Chamber and secure using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-rings.
8. Place an O-ring on the top of the Throat Assembly.
9. Mount the Rocket Diffuser to the Throat Assembly using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-ring.

## Constellation Pump Chamber - Figure 11a



## Constellation Assembly Instructions

1. Mount Standoff Strainer Assembly to the power unit using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, (4) M5 S/S Split Lock Washers, and (4) M5 S/S Hex Nylon Locknuts. Tighten the screws evenly. **NOTE:** Standoff Strainer Assembly is not part of the Pump Chamber Assembly.

2. Place the Lower Pump Chamber Assembly into the Standoff Strainer Assembly.

3. Slide the Impeller onto the motor shaft. If the Impeller rubs against the inside wall of the Lower Pump Chamber Assembly place 1, 2 or 3 Shims (Item No. 32) as necessary onto the shaft to raise the Impeller so it no longer rubs. Secure using (1) M8x20 S/S Hex Bolt and (1) M8 S/S Split Lock Washer. Tighten the bolt.

4. Place an O-ring in the groove of the Lower Pump Chamber.

5. Place the Galaxy Flow Diverter Assembly onto the Lower Pump Chamber Assembly so the tabs on each part align. **NOTE:** If these tabs do not align the pump will not function properly.

6. Place an O-ring in the groove of the Upper Pump Chamber.

7. Place the Throat Assembly onto the Upper Pump Chamber and secure using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-rings.

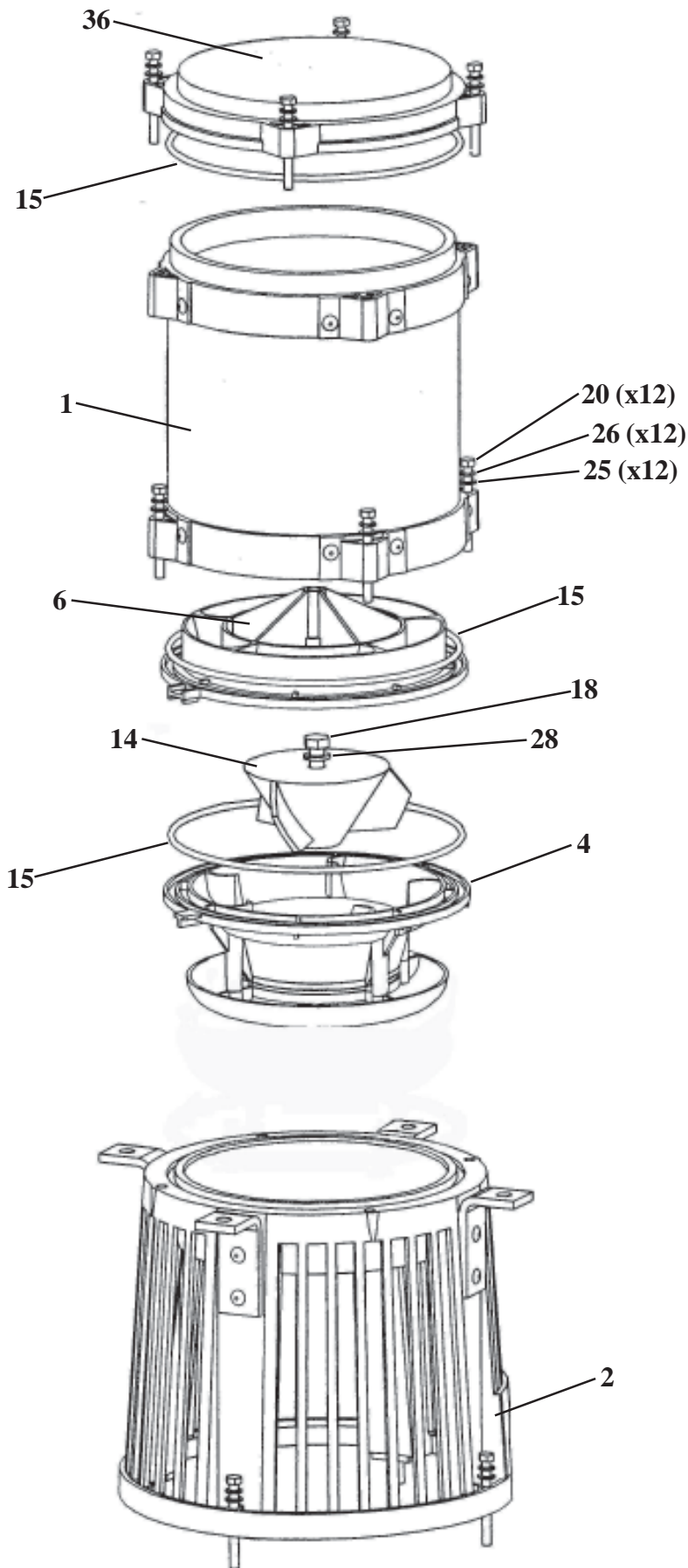
8. Place an O-ring on the top of the Flow Diverter Assembly.

9. Slide the Galaxy Diffuser onto the Carriage Bolt so that it is seated on the Flow Diverter Assembly and secure using a M8 S/S Flat Washer and a M8 S/S Nylon Locknut. Tighten the locknut so the four legs on the Diffuser are just touching the top of the Throat Assembly. Do not overtighten, may cause damage.

10. Thread a Galaxy Nozzle into one of the holes in the Galaxy Diffuser and tighten (**DO NOT OVERTIGHTEN, MAY CAUSE DAMAGE**). Repeat for the remaining seven Galaxy Nozzles. **NOTE:** Place teflon tape on the threads of the Galaxy Nozzle.

## Comet Pump Chamber - Figure11b

## Comet Assembly Instructions



1. Mount Standoff Strainer Assembly to the power unit using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, (4) M5 S/S Split Lock Washers, and (4) M5 S/S Hex Nylon Locknuts. Tighten the screws evenly. **NOTE:** Standoff Strainer Assembly is not part of the Pump Chamber Assembly.

2. Place the Lower Pump Chamber Assembly into the Standoff Strainer Assembly.

3. Slide the Impeller onto the motor shaft. If the Impeller rubs against the inside wall of the Lower Pump Chamber Assembly place 1, 2 or 3 Shims (Item No. 32) as necessary onto the shaft to raise the Impeller so it no longer rubs. Secure using (1) M8x20 S/S Hex Bolt and (1) M8 S/S Split Lock Washer. Tighten the bolt.

4. Place an O-ring in the groove of the Lower Pump Chamber.

5. Place the Upper Pump Chamber onto the Lower Pump Chamber Assembly so the tabs on each part align. **NOTE:** If these tabs do not align the pump will not function properly.

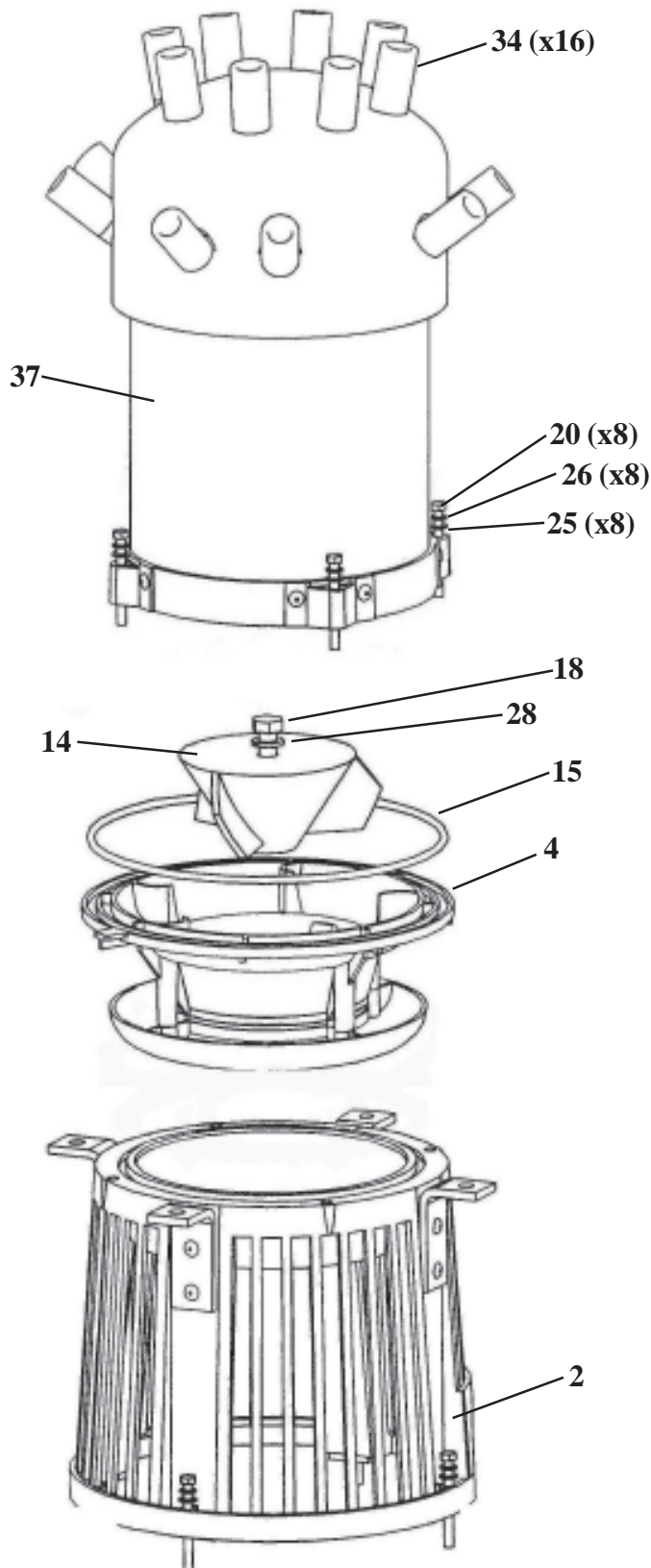
6. Place an O-ring in the groove of the Upper Pump Chamber.

7. Place the Throat Assembly onto the Upper Pump Chamber and secure using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-rings.

8. Place an O-ring on the top of the Throat Assembly.

9. Mount the Comet Diffuser to the Throat Assembly using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-ring.

## Genesis Pump Chamber - Figure 11c



## Genesis Assembly Instructions

1. Mount Standoff Strainer Assembly to the power unit using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, (4) M5 S/S Split Lock Washers, and (4) M5 S/S Hex Nylon Locknuts. Tighten the screws evenly. NOTE: Standoff Strainer Assembly is not part of the Pump Chamber Assembly.

2. Place the Lower Pump Chamber Assembly into the Standoff Strainer Assembly.

3. Slide the Impeller onto the motor shaft. If the Impeller rubs against the inside wall of the Lower Pump Chamber Assembly place 1, 2 or 3 Shims (Item No. 32) as necessary onto the shaft to raise the Impeller so it no longer rubs. Secure using (1) M8x20 S/S Hex Bolt and (1) M8 S/S Split Lock Washer. Tighten the bolt.

4. Place an O-ring in the groove of the Lower Pump Chamber Assembly.

5. Place the Genesis Throat Assembly onto the Lower Pump Chamber Assembly and secure using (4) M5x50 S/S Hex Screws, (4) M5 S/S Flat Washers, and (4) M5 S/S Split Lock Washers. Tighten the screws evenly in order to properly compress the o-ring. NOTE: The Float must be mounted before the Genesis Throat Assembly is installed (See Float Mounting Instructions).

6. Thread a Genesis Nozzle into one of the holes in the Galaxy Diffuser and tighten (**DO NOT OVER-TIGHTEN, MAY CAUSE DAMAGE**). Repeat for the remaining fifteen Genesis Nozzles. NOTE: Place teflon tape on the threads of the Genesis Nozzle.