

Installation Instructions for Paddock Pool Equipment Multiple Use *Suction Outlet Fittings*

Model # 2020PCDC, 2424PCDC, 2020PCGO (2040PCGO), 2424PCFC, 2448PCFC,
1414ESMD, 1818ESMD, 2040ESMD, 2448ESMD

WARNING! Install this equipment in accordance with the instructions provided. FAILURE TO FOLLOW INSTRUCTION AND/OR USE WITH COMPONENTS NOT PROVIDED BY PADDOCK AND INTENDED TO BE USED WITH THIS PRODUCT MAY RESULT IN IMPROPER POSITIONING OR FUNCTIONING OF SUCTION OUTLET AND MAY CAUSE SEVERE PERSONAL INJURY OR DEATH.

CAUTION LABEL: REMOVE AND INSTALL SCREWS WITH SCREWDRIVER. DO NOT USE POWER TOOLS WHICH WILL OVER TORQUE AND CAUSE THE SCREWS TO BREAK OR STRIP. REMOVE LABEL BEFORE INSTALLATION.

NOTE: PLATE ALIGNMENT IS CRUCIAL. IF NOT PROPERLY ALIGNED, HOLES WILL NOT MATCH. MARK PLATE LOCATION ON FRAME TO MATCH FOR REINSTALLATION LATER.

READ AND STORE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

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Paddock *Suction Outlet Fittings* are certified by NSF when used in conjunction with the certified Paddock stainless steel sumps when installed per ASME A112.19.8-2007 / 8A.2008.

Paddock *Suction Outlet Fittings* shall not be installed in seating or backrest areas. There shall be no less than a 3 foot separation between suction fittings installed on a common line.

Suction Outlet Fittings shall always be selected so that if one fitting is completely blocked the balance can be handled by remaining drain/drains within their approved maximum flow.

These fittings are only designed for multiple fitting applications. Using a single Paddock suction fitting is prohibited. It will be non-compliant per NSF certification and ASME A112.19.8-2007 / 8A.2008.

When using these fittings, a Registered Design Professional must be used to develop a design insuring proper application of this product. Design must comply with the NSF certification and all Health Department, Building, State and Federal codes. The recommended maximum velocity across the grate is 1.5 fps.

Paddock's Certified Drain Cover/Grates have passed all required tests for body entrapment and hair entanglement. They have been approved to the maximum flow as shown on the suction outlet fittings flow rate chart on the next page.

Paddock Suction Outlet Fittings Flow Rates

Qty	Suction Outlet P/N & Model #	Mounting Position	Total Open Area	Recommended Flow	Maximum Flow per NSF
_____	Model #1414ESMD-DC 1414ESMD (Sump) 6" connection with 2020PCDC (Raised Cover)	Floor Only	122.15 sq. inches	572 GPM @ 1.5 fps	1200 GPM
_____	Model #1818ESMD-DC 1818ESMD (Sump) 8" connection with 2424PCDC (Raised Cover)	Floor or Wall Use	186.60 sq. inches	874 GPM @ 1.5 fps	1420 GPM
_____	Model #1818ESMD-FC 1818ESMD (sump) 8" connection with 2424PCFC (Flat Cover)	Floor or Wall Use	212.89 sq. inches	915 GPM @ 1.37 fps	915 GPM
_____	Model #2040ESMD-FC 2040ESMD (Sump) 10" connection with 2040PCGO (Flat Cover)	Floor or Wall Use	244.28 sq. inches	1145 GPM @ 1.5 fps	1960 GPM
_____	Model #2448ESMD-FC 2448ESMD (Sump) 12" connection with 2448PCFC (Flat Cover)	Floor Use Wall Use	425.78 sq. inches 425.78 sq. inches	1996 GPM @ 1.5 fps 1996 GPM @ 1.5 fps	3500 GPM 3000 GPM

CAUTIONARY NOTE: Do not exceed maximum allowable flow rate as stated above.

CAUTIONARY NOTE: If pump needs to be changed, a replacement must be the same as the original pump. If a different pump is required, a Registered Design Professional must be contracted to assure original flow rate is not exceeded.

2020PCDC Head Loss Data

Flow Rate (GPM)	300	600	900	1200
Total Head Loss (PSI)	0.00	0.00	0.25	0.49

2424PCDC Head Loss Data

Flow Rate (GPM)	357	715	1072	1430
Total Head Loss (PSI)	0.00	0.00	0.15	0.20

2424PCFC Head Loss Data

Flow Rate (GPM)	229	458	686	915
Total Head Loss (PSI)	0.10	0.20	0.10	0.10

2 X 2020PCGO (2040ESMD) Head Loss Data

Flow Rate (GPM)	500	1000	1500	2000
Total Head Loss (PSI)	0.00	0.25	0.37	0.49

2 X 2424PCFC or 2448PCFC Head Loss Data

Flow Rate (GPM)	875	1750	2625	3500
Total Head Loss (PSI)	<0.10	<0.10	<0.10	0.10

The **winterization procedure** is to inspect drain(s) for cracks and damages. Replace grate if damaged. Also, inspect screws and make sure grate is secure. Replace any missing screws.

Life spans of parts are as follows:

- 1414ESMD, 1818ESMD, 2040ESMD and 2448ESMD Stainless Steel Sump Box and their components are permanently mounted in the pool shell and will not require replacement. This includes all integral parts, #1 thru #19 as listed on ESMD Parts List Breakdown. 20404ESMD Stainless Steel Sump Box and their components are permanently mounted in the pool shell and will not require replacement. This includes all integral parts, #1 thru #24 as listed on ESMD Parts List Breakdown.
- 2020PCDC, 2424PCDC, 2040PCGO, 2424PCFC and 2448PCFC assembly parts life are listed on PCDC / PCFC Parts List Breakdowns. Frames will be permanently mounted and grates will be removable with proper tools. The grate will have a 10 (ten) year life. Cover/Grate should be removed and inspected each year after 10 years. Replace if damages are found.

Suction fitting including fasteners should be observed for damage or tampering before each use.

Missing, broken or cracked suction fittings shall be replaced before each use of the facility.

Loose suction fittings shall be reattached or replaced before each use of the facility.

Paddock stainless steel cover/grates can be used on field fabricated outlets, new or retro fit, when designed by a Project Registered Design Professional according to mandatory Appendix II of ASME A112.19.8-2007 / 8A.2008. The specifications by a Registered Design Professional will fully address considerations of cover/grate loading, durability, hair, finger, limb and body entrapment issues, cover/grate secondary layer of protection, related to sump design, as well as features particular to the site including but not limited to sump size, sump depth, maximum flow rate, suction pipe size, number of drains, velocity across cover/grate, suction pipe velocity, water depth and distance between drains.

All exposed fasteners on Paddock Main Drain Cover/Grate require a Phillip #2 Screwdriver for insertion and removal. Maximum torque is 19.8 inch pounds. A Screwdriver is supplied with the unit.

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