

# CLEANLOAD\* SYSTEMS

SAFE, FAST & SIMPLE CHEMICAL LOADING SYSTEMS



CLEANLOAD, CLEANLOAD MAX  
& CLOSED SYSTEM CLEANLOAD

# WHY CLEANLOAD\* SYSTEMS?

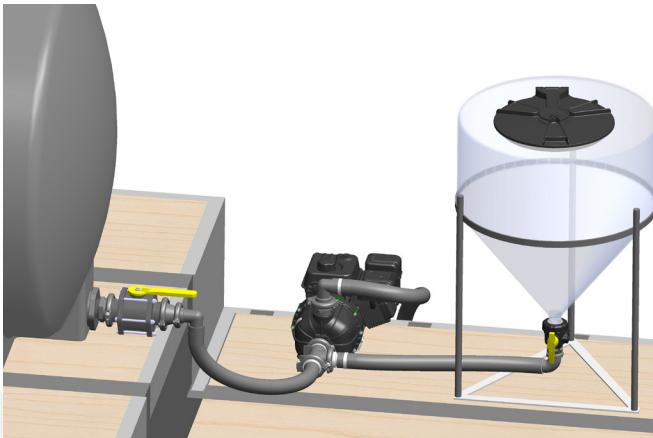


Pentair Hypro Cleanload systems are designed to safely and quickly load chemicals into your sprayer tank.

- ◆ Reduce your loading time with industry-leading eduction rates, so you can spend more of your day in the field spraying.
- ◆ Eliminate potential hazards by no longer having to carry chemicals to the top of the sprayer tank. All liquid and dry flowable chemicals load from the ground level or nurse trailer floor.
- ◆ Minimize exposure while handling dangerous chemicals. (eliminate exposure with the Closed System Cleanload)
- ◆ Choose from multiple tank & eduction nozzle sizes that adapt to mobile or stationary systems and are scalable to fit your operations' needs.

## CHEMICAL INDUCTION VS CHEMICAL EDUCTION

### CHEMICAL INDUCTION:



#### HOW IT WORKS:

With chemical induction, the chemical concentrate is pulled from the tank directly into the transfer pump and then pushed onto the sprayer. This operation requires you to turn the freshwater off and open the tank valve to drain the tank.

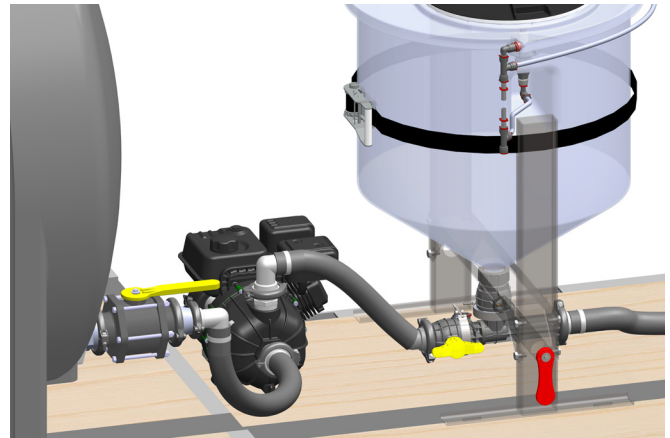
#### CONSIDERATIONS:

- ◆ Flowable powders are prone to clogging the inlet of the pump.
- ◆ Abrasive or corrosive chemicals are running through the transfer pump, that can cause premature wear.

### CHEMICAL EDUCTOR:

The chemical eductor is generally referred to as a jet pump. Pressurized liquid is "jetted" through the restricted throat area creating a vacuum at the suction inlet which is commonly known as the "Venturi Effect". The mixed solution is then pushed out the discharge.

### CHEMICAL EDUCTION (CLEANLOAD SYSTEMS):

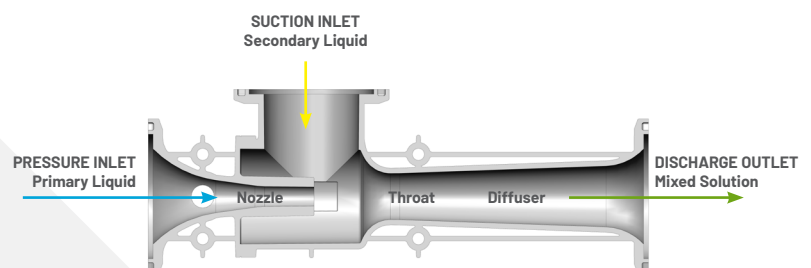


#### HOW IT WORKS:

The chemical eductor located under the tank pulls the liquid from the hopper and mixes it into a jetted stream of water that is pushed onto the sprayer.

#### CONSIDERATIONS:

- ◆ The jetted stream provides the proper mixing of chemicals by immediately placing it into a solution concentrate.
- ◆ Extends the life of transfer pumps by educting abrasive and corrosive chemicals downstream from the pump



# CLEANLOAD\* APPLICATIONS

## CLEANLOAD APPLICATION GUIDE:

Pentair Hypro Cleanload Systems are available in differing plumbing configurations that are unique and specific for chemical and transfer applications. Each provides a safer batch mixing, and loading of liquid and dry chemical process. The useful guide below can help you make the right choice when selecting a Cleanload System for your application.

APPLICATION	Sprayer System (Cleanload System)	Nurse Trailer System (Cleanload Max System)	Closed Transfer System (Closed Cleanload System)
Dry Flowable Powders	X	X	X
Liquid Chemicals	X	X	X
Container Rinse	X	X	X
Batch Volume		X	
Closed Transfer of Class 1 Chemicals			X
Compatible with Chem -Blade		X	
Universal Flange Connections	X	X	X
Hinged Lid	X	X	X
Cyclo Rinse	X	X	X

### SPRAYER SYSTEM



Designed for rugged use on mobile equipment the 7 gallon Cleanload is small enough to fit on all sprayers. Bring convenience, safety and speed to your everyday operation by adding a Cleanload to your machine.

### NURSE TRAILER SYSTEM



Maximize sprayer uptime by batching your loads ahead of time. Cleanload Max can be stacked to have multiple chemistries measured and ready to load.

### CLOSED TRANSFER SYSTEM



Minimize PE requirements while maximizing employee safety and efficiency when loading the sprayer. This Closed System Cleanload meets Federal & State requirements for handling regulated chemicals.

# CLEANLOAD\* STANDARD PLUMBING INSTALLATIONS

## UNIVERSAL FLANGE FITTINGS, GASKETS & CLAMPS

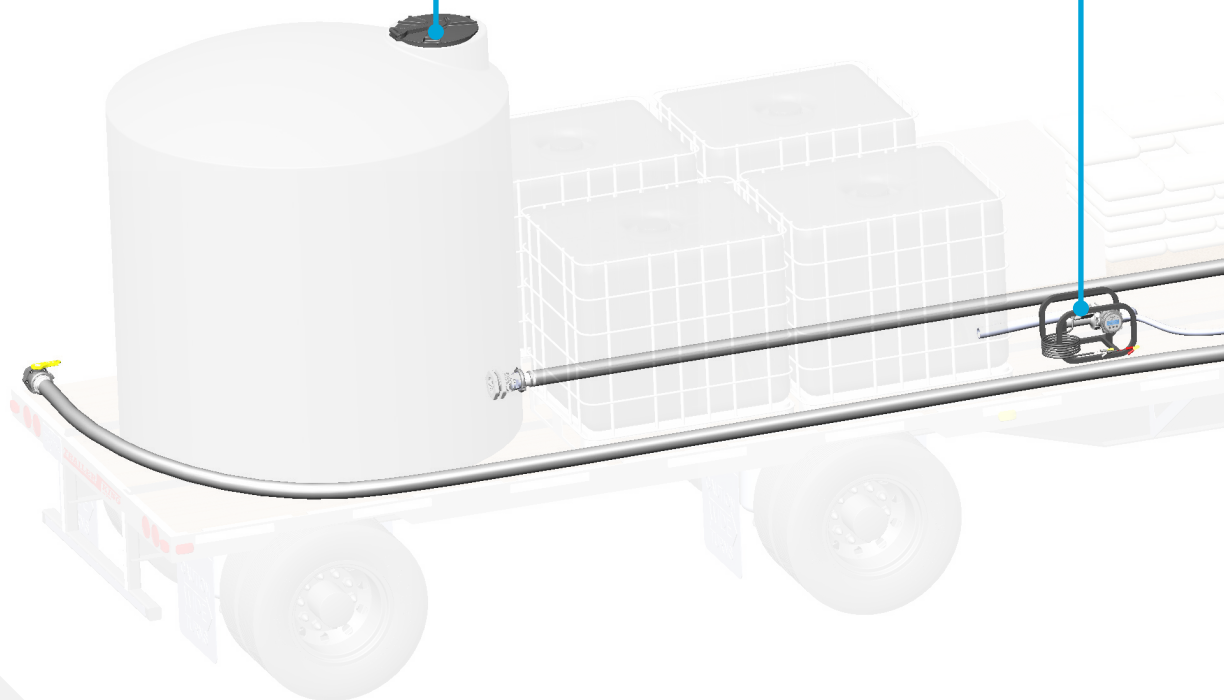
Universal Flanged Fittings are quick to install and provide a thread-less connection. The fittings when coupled with Pentair Hypro clamps and gaskets assure a leak-free joint.

## AG RUNNER

Pentair Shurflo Ag Runner Transfer Pump System is designed to easily manage transfer of bulk chemicals to point of use with reliable accurate measurement.

## TANK LID

ProCap tank lids feature a rugged design that is easy to use and provides a safe and secure hinged cover for a variety of tanks.

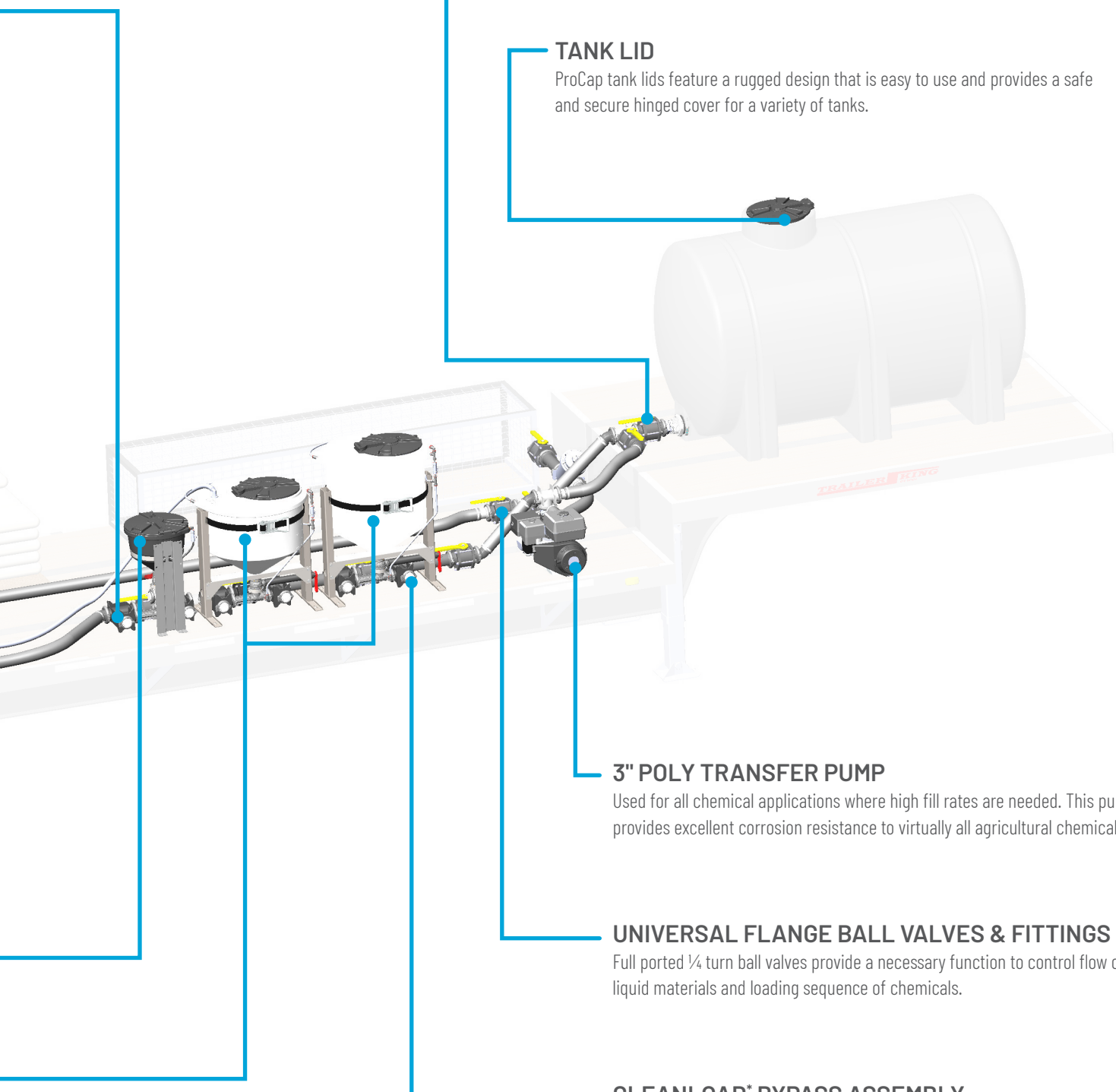


## 7 GALLON CLEANLOAD

Provide convenient fast loading of flowable powders, adjuvants and crop oils with a compact 7 gallon hopper and high education performance. Manage jug rinsing with ProClean\* II container rinse nozzle to prep jugs for disposal.

## 40 & 60 GALLON CLEANLOAD MAX

Large tank sizes allow you to premeasure concentrate necessary for the next sprayer tank load. Use multiple tanks to keep measured concentrate separate until loading.



### **BULK HEAD FITTINGS**

Heavy-duty bulkhead fittings are designed for through wall installation of any tank to access free flow of liquids for drainage or filling.

### **TANK LID**

ProCap tank lids feature a rugged design that is easy to use and provides a safe and secure hinged cover for a variety of tanks.

### **3" POLY TRANSFER PUMP**

Used for all chemical applications where high fill rates are needed. This pump provides excellent corrosion resistance to virtually all agricultural chemicals.

### **UNIVERSAL FLANGE BALL VALVES & FITTINGS**

Full ported ¼ turn ball valves provide a necessary function to control flow of liquid materials and loading sequence of chemicals.

### **CLEANLOAD\* BYPASS ASSEMBLY**

2" or 3" bypass educator plumbing system allows for direct filling of sprayer tank at highest pump capacity when not educating chemicals.



# 3376 SERIES CLEANLOAD

## ONBOARD EDUCATION SYSTEM



### FEATURES & BENEFITS

- ◆ The Cleanload\* education system is self-contained and allows the operator to mix liquid and dry chemicals safely and quickly.
- ◆ All crop protection chemistry is mixed at ground level, ensuring the safety of both the operator and the environment.
- ◆ Comes equipped with CycloRinse tank rinse, designed to completely wash the Cleanload hopper.
- ◆ The ProClean\* II Push Valve is designed to self-flush to help prevent sticking open or closed, even with heavy particulates. Compatible with all ProClean series nozzles.

### ORDER INFORMATION

Part Number	Tank Size	Eductor	Flow	Tank Rinse Style	Inlet/Outlet Connection Size	Bottle Rinse Assy.	ISO Outlet Screen	Suction Lance
3376-0870	7 Gallon (26 Litre)	Turf/Diaphragm Poly – (08mm) High Pressure/Low Flow	Right Hand	CycloRinse Premium Sidewall Rinse System	220 Universal Flange	Yes	Yes	Optional Accessory
3376-0871			Left Hand					
3376-1170		Onboard Sprayer Poly – (11mm) High Pressure/High Flow	Right Hand					
3376-1171			Left Hand					
3376-1670		Transfer Pump Poly–(16mm) Low Pressure/High Flow	Right Hand					
3376-1671			Left Hand					
3430-0823 Suction Lance snaps into tank outlet for remote loading of bulk chemical conainers								
3430-0807 16" Replacement tank Lid								

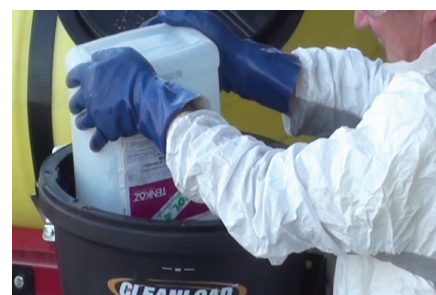
Base for flat surface mounting. 1510-0135



Educts 7 gallons (26.5 L) of liquid in 10 seconds and a 51 pound (23.1 kg) bag of AMS in 30 seconds.



CycloRinse & ProClean II Push Valve provides fast and effective rinsing of both with liquid and dry chemicals and helps prevent cross contamination of chemicals.



ProClean II Push Valve bottle rinse allows operator to triple rinse chemical containers on-site for legal disposal.

# 3378 SERIES CLEANLOAD\* MAX

## LARGE CAPACITY EDUCUTION SYSTEM



### FEATURES & BENEFITS

- ◆ Safe batch mixing and loading of liquid and dry chemicals.
- ◆ 2" or 3" bypass educator plumbing system allows for direct filling of sprayer tank when not educating chemicals.
- ◆ Extends the life of transfer pumps by educating abrasive and corrosive chemicals downstream of the pump.
- ◆ 40 or 60 gallon, full draining, cone-bottomed tank for a 20:1 ratio with 800 or 1200 gallon sprayers.

### ORDER INFORMATION

Part Number	Tank Size	Eductor Size	Bypass
3378-1140	40 Gallon	11mm - Onboard Sprayer High Pressure/High Flow	None
3378-1140-2BYP			2"
3378-1140-3BYP			3"
3378-1640		16mm - Transfer Pump Low Pressure/High Flow	None
3378-1640-2BYP			2"
3378-1640-3BYP			3"
3378-1160	60 Gallon	11mm - Onboard Sprayer High Pressure/High Flow	None
3378-1160-2BYP			2"
3378-1160-3BYP			3"
3378-1660		16mm - Transfer Pump Low Pressure/High Flow	None
3378-1660-2BYP			2"
3378-1660-3BYP			3"

All eductors are set-up for right-hand flow operation



Cleanload Max is compatible with the Chem-Blade CLM knife system.



CycloRinse & ProClean II Push Valve provides fast and effective rinsing of both liquid and dry chemicals and helps prevent cross contamination of chemicals.



Cleanload Max was designed to be used as a standalone unit or with other Cleanload units and auxiliary components to fit your application needs.

# 3377 SERIES CLEANLOAD\* CLOSED SYSTEM

## COMPLETELY ENCLOSED CHEMICAL EDUCATION SYSTEM



### FEATURES & BENEFITS

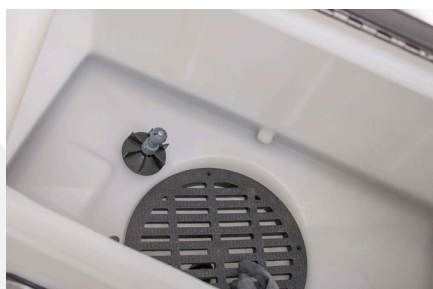
- ◆ Chemical loading system that is compliant with California Closed System Regulation.
- ◆ Enclosure accommodates many container sizes and fits up to two 2.5 gallon containers at one time .
- ◆ Allows operator to reseal partially used containers with the original chemical container cap.
- ◆ Easily measure both large and small volumes of chemicals inside the enclosure.

### ORDER INFORMATION:

Part Number	Application:	Nozzle	Frame
3377-1170	Sprayer Pump High Pressure/High Flow	11 mm	Yes
3377-1171			No
3377-1670	Transfer Pump Low Pressure/High Flow	16 mm	Yes
3377-1671			No



The CycloRinse function provides fast elimination of powders and liquid chemicals. The ProClean® II rinse valve is mounted to easily rinse containers for disposal and wash down the interior work surfaces.



Simple, Intuitive operation for California regulation compliance. Translucent enclosure with flat surfaces brings convenience to measuring tasks.



Compatible with many container sizes and allows resealing of containers utilizing original caps.



# CLEANLOAD\* EDUCTORS

## FOR PROPER MIXING OF CHEMICALS



### POLY EDUCTOR

- ◆ Industry-leading eduction rates designed for real world applications.
- ◆ Optimizes system plumbing costs with an integrated 1/2" push-to-connect port for tank rinse.
- ◆ One-piece polypropylene educator assembly with mounting bosses and 220 Universal Flange ports.
- ◆ Choose from three nozzle sizes along with right- or left-hand push-to-connect orientation to fit your specific application.
- ◆ Rinse port shown in right-hand configuration. Left-hand configuration is 180° from shown.

### 316 STAINLESS STEEL EDUCTOR

- ◆ Inlet and outlet ports are flynut-ready, offering a wrench-free connection of hoses for easy installation and servicing
- ◆ Dual-porting to accommodate rinse port for either left-hand or right-hand flow orientation

### ORDER INFORMATION

Part Number	Application	Nozzle	Rinse Port Orientation	Description
3371-0036	Turf & Diaphragm: High Pressure/Low Flow	8mm	Right Hand	Includes three 220 Universal Flange Gaskets and a 1/2" Push-to-Connect plug
3371-0036R			Right Hand	Eductor Only
3371-0037R			Left Hand	Eductor Only
3371-0038	On-Board Sprayer: High Pressure/High Flow	11mm	Right Hand	Includes three 220 Universal Flange Gaskets and a 1/2" Push-to-Connect plug
3371-0038R			Right Hand	Eductor Only
3371-0039R			Left Hand	Eductor Only
3371-0040	Transfer Pump: Low Pressure/High Flow	16mm	Right Hand	Includes three 220 Universal Flange Gaskets and a 1/2" Push-to-Connect plug
3371-0040R			Right Hand	Eductor Only
3371-0041R			Left Hand	Eductor Only
3371-0034S	On-Board Sprayer: High Pressure/High Flow	12mm	Dual Ported	316 Stainless Steel Eductor

# CLEANLOAD MAX BYPASS ASSEMBLIES

FOR DIRECT FILLING OF SPRAYER TANK WHEN NOT EDUCTING CHEMICALS



### ORDER INFORMATION

Part Number	Description	Bypass
3371-0044	11mm - Onboard Sprayer High Pressure/High Flow	2"
3371-0047		3"
3371-0045	16mm - Transfer Pump Low Pressure/High Flow	2"
3371-0046		3"

All eductors are set-up for right-hand flow operation

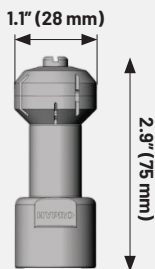
# PERFORMANCE CHART

## PERFORMANCE FOR ALL CLEANLOAD® MODELS AND EDUCTORS:

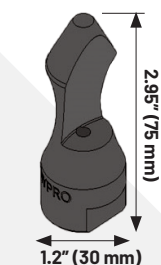
Eductor Material:		Polypropylene																		Stainless Steel					
Application:		Turf / Diaphragm Pump: High Pressure - Low Flow						Onboard Sprayer Pump: High Pressure - High Flow						Transfer Pump: Low Pressure - High Flow						Onboard Sprayer Pump: High Pressure - High Flow					
Model Numbers:		33XX-08XX						33XX-11XX						33XX-16XX						3375 Models					
Eductor Part #:		3371-0036, -0036R & -0037R						3371-0038, -0038R & -0039R						3371-0040, -0040R & -0041R						3371-0034S					
Inlet Pressure		Req. Flow		Eduction Rate		Max Outlet Press		Req. Flow		Eduction Rate		Max Outlet Press		Req. Flow		Eduction Rate		Max Outlet Press		Req. Flow		Eduction Rate		Max Outlet Press	
PSI	BAR	GPM	LPM	GPM	LPM	PSI	BAR	GPM	LPM	GPM	LPM	PSI	BAR	GPM	LPM	GPM	LPM	PSI	BAR	GPM	LPM	GPM	LPM	PSI	BAR
10	0.7	-	-	-	-	-	-	-	-	-	-	-	-	46.0	174	24.6	93	5.9	0.4	-	-	-	-	-	-
20	1.4	-	-	-	-	-	-	26.9	102	35.0	133	6.1	0.4	61.4	233	47.8	181	11.5	0.8	29.5	112	16.5	62	4.9	0.3
30	2.1	16.1	61	31.5	119	5.2	0.4	33.5	127	52.2	198	9.2	0.6	73.5	278	61.2	231	16.9	1.2	35.2	133	26.0	98	7.0	0.5
40	2.8	19.1	72	47.0	178	6.6	0.5	38.0	144	64.4	244	12.3	0.8	82.9	314	67.2	254	22.4	1.5	40.4	153	32.9	125	9.0	0.6
50	3.4	21.4	81	54.5	206	8.1	0.6	41.3	157	72.6	275	15.3	1.1	90.3	342	68.3	258	27.8	1.9	45.3	171	39.1	148	11.0	0.8
60	4.1	23.3	88	61.5	233	9.7	0.7	44.4	168	77.7	294	18.2	1.3	96.2	364	66.8	253	33.1	2.3	49.8	189	45.9	174	13.3	0.9
70	4.8	24.9	94	68.0	258	11.2	0.8	47.5	180	80.5	305	21.1	1.5	101.3	384	65.1	247	38.4	2.6	53.8	204	52.4	198	15.5	1.1
80	5.5	26.4	100	74.1	280	12.7	0.9	50.9	193	82.1	311	23.9	1.6	-	-	-	-	-	-	57.5	218	58.0	220	17.8	1.2
90	6.2	28.0	106	79.7	302	14.2	1.0	53.9	204	83.3	315	26.6	1.8	-	-	-	-	-	-	60.7	230	62.0	235	20.0	1.4
100	6.9	29.7	112	84.8	321	15.8	1.1	56.6	214	85.0	322	29.3	2.0	-	-	-	-	-	-	63.6	241	65.0	246	22.3	1.5

## SPECIFICATIONS

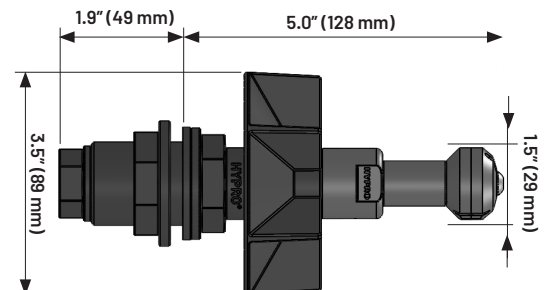
### PROCLEAN® FAMILY (PUSH VALVE & NOZZLES)



ProClean



ProClean Plus



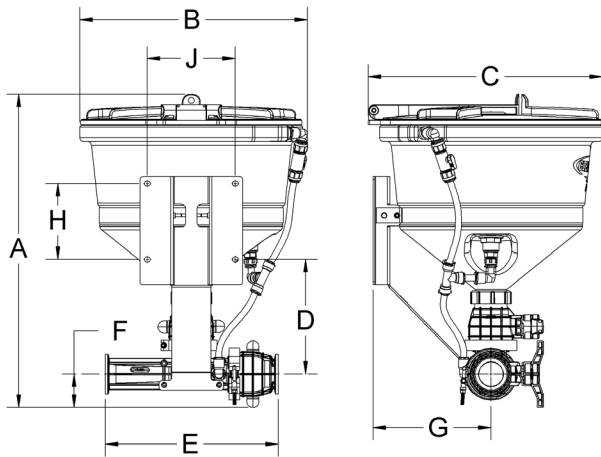
ProClean II Push Valve and container nozzle

# SPECIFICATIONS

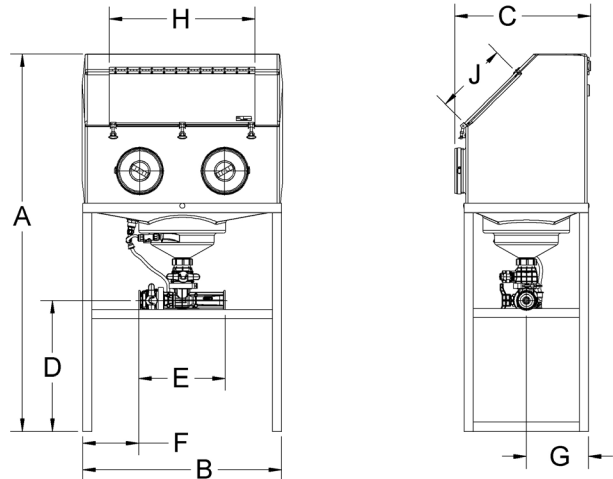
## CLEANLOAD® DIMENSIONS

Ref.	US Units (IN)						Metric Units (MM)					
	3376 7 Gallon	3377 3 Gallon	3378 40 gallon	3378 60 gallon	Bypass UF 2"	Bypass UF 3"	3376 7 Gallon	3377 3 Gallon	3378 40 gallon	3378 60 gallon	Bypass UF 2"	Bypass UF 3"
A	25.8	62.1	37.5	44.8	11.8	11.8	655	1576	953	1138	301	301
B	18.7	32.8	35.9	35.9	25.7	25.1	476	832	911	911	654	638
C	19.3	22.4	31.1	31.1	6.5	6.5	490	568	790	790	164	164
D	9.4	21.5	3.3	3.3	3.3	3.3	240	547	83	83	83	83
E	14.2	14.2	5.1	5.1	5.1	3.2	362	362	130	130	130	92
F	2.8	9.2	5.5	5.5	11.0	10.7	70	234	139	139	281	273
G	9.7	10.3	7.5	7.2	18.7	18.7	247	261	183	183	475	475
H	6.25	24	15.5	15.5	3.5	3.2	159	610	394	394	90	82
J	7.25	12	30.3	30.3	6.0	7.1	184	305	769	769	153	181

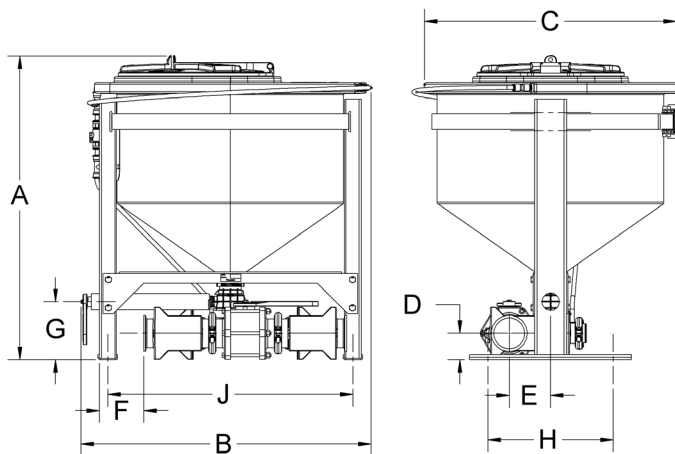
**SERIES 3376 CLEANLOAD – 7 GALLON**



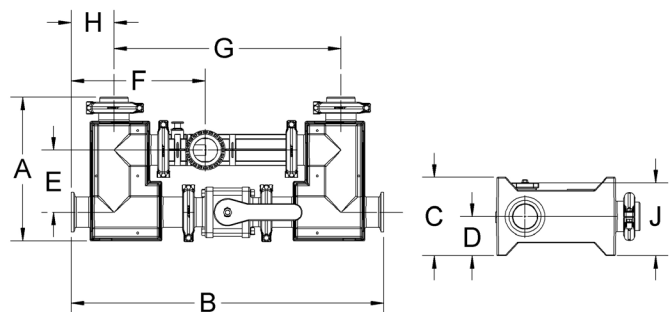
**SERIES 3377 CLOSED SYSTEM CLEANLOAD – 3 GALLON**



**SERIES 3378 CLEANLOAD MAX – 40 & 60 GALLON**



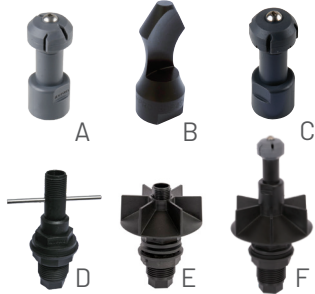
**BYPASS – 2" & 3" UNIVERSAL FLANGE**



# ACCESSORIES

## CLEANLOAD® MAX KITS

Part Number	Description
1510-0135	3376 Series Cleanload® floor mount bracket
3430-0944	Tubing Repair Kit - 40 Gallon
3430-0945	Tubing Repair Kit - 60 Gallon



## PROCLEAN® HIGH PERFORMANCE TANK AND CONTAINER WASH NOZZLES

Part Number	Photo Reference	Description
PC1/2F-36075	A	ProClean container nozzle
30B4SNF70E35	B	ProClean Plus nozzle
PC1/2F-235120	C	ProClean tank nozzle
PV1/2F1/2M-MA	D	ProClean push-valve assembly
PC1/2F-36075-PV	A & D	ProClean container nozzle and valve
3400-0174	E	ProClean II Valve Assembly
BG-3400-0175	A & E	ProClean II Valve and Nozzle
3400-0176	F	ProClean II Valve Assembly with HF Nozzle

## 2" GAS ENGINE - DRIVEN TRANSFER PUMPS

Model Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Impeller Profile	Engine Mfg. & HP
1542P-65SP	200	757	58	4.0	2" x 2" NPT	5 vane	PowerPro 6.5 hp
1542P-65USP	200	757	58	4.0	2" x 2" Flange	5 vane	PowerPro 6.5 hp
1542P-65ESP	200	757	58	4.0	2" x 2" NPT	5 vane	PowerPro 6.5 hp w/ elec. start
1542P-160HUSP	200	757	58	4.0	2" x 2" Flange	5 vane	Honda® GX160
1542P-200HSP	200	757	58	4.0	2" x 2" NPT	5 vane	Honda® GX200

## 3" GAS ENGINE - DRIVEN TRANSFER PUMPS

Model Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Impeller Profile	Engine Mfg. & HP
1543P-130SP	440	1666	54	3.7	3"x3" NPT	5 vane	PowerPro 13 HP
1543P-130ESP-01	440	1666	54	3.7	3"x3" FLANGE	5 vane	PowerPro 13 HP w/ elec. start
1543P-390EHSP	440	1666	54	3.7	3"x3" NPT	5 vane	Honda® GX390 w/ elec. start
1543P-390EHUSP	440	1666	54	3.7	3"x3" FLANGE	5 vane	Honda® GX390 w/ elec. start

## UNIVERSAL FLANGE CLAMPS



Size		Fits Series	Max. Operating Pressure		Packaging	UF Clamps w/ Stainless Steel Hardware
US Units	Metric Units		at 70°F	at 21°C		Part Number
1"	25 mm	100	150 PSI	10 BAR	1" Clamp and Gasket (EPDM) (Bag of 1)	BG-UFC0100
					1" Clamp Only, SS Hardware	UFC0100
1.5"	38 mm	200	150 PSI	10 BAR	1.5" Clamp and Gasket (EPDM) (Bag of 1)	BG-UFC0150
					1.5" Clamp Only, SS Hardware	UFC0150
2"	51 mm	220	150 PSI	10 BAR	2" Clamp and Gasket (EPDM) (Bag of 1)	BG-UFC0200
					2" Clamp Only, SS Hardware	UFC0200
3"	76 mm	300	125 PSI	8.6 BAR	3" Clamp and Gasket (EPDM) (Bag of 1)	BG-UFC0300
					3" Clamp Only, SS Hardware	UFC0300

## UNIVERSAL FLANGE GASKETS



Part Number	Size		Fits Series	Gasket Type
	US Units	Metric Units		
UFG0100E-A	1"	25 mm	100	EPDM
UFG0150E-A	1.5"	38 mm	200	EPDM
UFG0200E-A	2"	51 mm	220	EPDM
UFG0300E-A	3"	76 mm	300	EPDM



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