



# DEF SOLUTIONS

DEF - UREA DISPENSING SYSTEMS



## Directflo® PUMPS

### DF50, DF100

**NOTE:**  
For CF DEF pumps, please consult the CF pump section.  
DEF pumps are threaded BSPP on the fluid inlet/outlet.

#### PNEUMATIC MODELS AND APPLICATIONS

APPLICATION	SIZE	WETTED MATERIAL	CHECK BALLS	DIAPHRAGMS	MODEL
DEF	1/2" BSPP (F)	POLYPROPYLENE	PTFE	HYTREL®	552 015
DEF	1" BSPP (F)	POLYPROPYLENE	PTFE	HYTREL®	551 015



## ELECTRIC PUMPS

**NOTE:**  
DEF pumps are threaded BSPP on the fluid inlet/outlet.

#### ELECTRIC MODELS AND APPLICATIONS

APPLICATION	SIZE	VOLTAGE	WETTED MATERIAL	MODEL
DEF	1" BSPP (M)	115 VAC	EPDM, PP, PA and HNBR	560 215
DEF	1" BSPP (M)	12 VDC	EPDM, PP, PA and HNBR	560 212
DEF	1" BSPP (M)	24 VDC	EPDM, PP, PA and HNBR	560 224

Note: 560215 replaces 94112072



## HAND PUMPS

**NOTE:**  
Order Model 8010 6' Polypropylene dispense hose separately.

#### HAND PUMP MODELS AND APPLICATIONS

APPLICATION	WETTED MATERIAL	SEALS	MODEL
DEF	POLYPROPYLENE	EPDM	3006

All Polypropylene construction with EPDM seals, 2" BSP bung threads and a unique adjustable locking nut to allow the pump to be fixed in the proper position on the barrel for dispensing. Delivers over 0.13 gallon per stroke. The telescopic suction tube extends from 12.5 to 37 inches to fit most containers, including 5, 16 and 55 gallon commercial sizes. 1" hose barb outlet. Capacity per stroke: 0.52 quarts.



## DEF REELS

DEF (AISI 316 STAINLESS STEEL FLUID PATH)

MODEL	HOSE LENGTH	HOSE DIAMETER ID	OUTLET THREAD	INLET THREAD	HOSE TYPE	HOSE PRESSURE RATING	DELIVERY HOSE MODEL	INLET HOSE MODEL	NET WEIGHT	BARE REEL
506 702	30'	1/2"	3/4" BSPPM	1/2" BSPPM	I	300 PSI	750 385	750 380	28.7 LB	506 976
506 722	50'	1/2"	3/4" BSPPM	1/2" BSPPM	I	300 PSI	750 384	750 380	32.7 LB	506 978
507 702	30'	1/2"	3/4" BSPPM	1/2" BSPPM	I	300 PSI	750 385	750 380	41.89 LB	507 976
507 722	50'	1/2"	3/4" BSPPM	1/2" BSPPM	I	300 PSI	750 384	750 380	41.89 LB	507 978
505 520	20'	3/4"	1" BSPPF (SWIVEL)	3/4" BSPPM	I	300 PSI	750 534	-	68.2 LB	505 502
505 530	30'	3/4"	1" BSPPF (SWIVEL)	3/4" BSPPM	I	300 PSI	750 531	-	73.5 LB	505 502
505 540	40'	3/4"	1" BSPPF (SWIVEL)	3/4" BSPPM	I	300 PSI	750 532	-	84.9 LB	505 502
505 550	50'	3/4"	1" BSPPF (SWIVEL)	3/4" BSPPM	I	300 PSI	750 533	-	85.9 LB	505 502

### 505 INLET HOSES (INCLUDED WITH 506, 507)

MODEL	DESCRIPTION	HOSE PRESSURE	PRODUCT
750 530	3/4" X 30" INLET HOSE: 3/4" BSPP (F) X 1" BSPP (M)	300 PSI	DEF
750 535	3/4" X 30" INLET HOSE: 3/4" BSPP (F) X 1" BSPP (F)	300 PSI	DEF



506



507



505

## DEF HANDLES

MODEL	DESCRIPTION
688 301	PLASTIC MANUAL HANDLE WITH LOCKING TRIGGER WITH 9' HOSE AND 1/2" NPT (M) INLET.
361 001	PLASTIC MANUAL HANDLE WITH LOCKING TRIGGER, 3/4" MALE PLASTIC BARB INLET.
361 002	PLASTIC MANUAL HANDLE WITH LOCKING TRIGGER, 1" MALE PLASTIC BARB INLET.
361 003	PLASTIC MANUAL HANDLE WITH LOCKING TRIGGER, 1" BSPP FEMALE THREADED INLET.
688 302	STAINLESS AUTOMATIC WITH MAGNETIC INTERLOCK AND OVERRIDE RING 3/4" BSPP (F).
688 303	STAINLESS AUTOMATIC 3/4" BSPP (F).



361 001

Spout ext. diam. 19 mm



688 303

Spout ext. diam. 19 mm

## METERS, PULSERS, SOLENOIDS

MODEL	DESCRIPTION
366 010	DIGITAL METER TOTALIZES IN GALLONS OR LITERS; DISPENSES IN PINTS, QUARTS, GALLONS OR LITERS; 1/2" BSPP (F), 8 GPM, 145 PSI.
366 760	TURBINE FLOW METER MEASURES UP TO 99.999 UNITS IN QT/PT/L/G AND TOTALIZES IN L/G. INCLUDES RESETTABLE AND NON-RESETTABLE TOTALIZER. POLYAMMIDE BODY WITH POLYPROPYLENE IMPELLER. 1" BSPP (M) INLET AND OUTLET.
680 301	PULSER: 1/2 BSPP (F) 8 GPM.
680 299	HIGH VOLUME PULSER; 1" BSPP (F) 25 GPM.
389 002	STAINLESS STEEL SOLENOID: 1/2" BSPP (F) 24 VDC; NORMALLY CLOSED.
389 003	STAINLESS STEEL SOLENOID; 1" BSPP (F) 24 VDC; NORMALLY CLOSED.



366 010

## LEVER ACTION PUMP KITS



All Polypropylene construction with EPDM seals, 2" BSP bung threads and a unique adjustable locking nut to allow the pump to be fixed in the proper position on the barrel for dispensing. Delivers over 0.13 gallon per stroke. The telescopic suction tube extends from 12.5 to 37 inches to fit most containers, including 5, 16 and 55 gallon commercial sizes. 8 foot dispense hose. Capacity per stroke: 0.52 quarts.

MODEL	OLD MODEL	DESCRIPTION
300 602	801 302	LEVER PUMP (POLYPROPYLENE/EPDM) WITH 8' DISPENSE HOSE AND 361002 HANDLE.
300 601	801 301	LEVER PUMP WITH 8' DISPENSE HOSE, 361003 HANDLE AND 366760 METER.



## STANDARD DUTY PNEUMATIC KITS (UNASSEMBLED) - Directflo® PUMPS

Pneumatic kits are complete as shown, with a 991 air regulator/gauge and 930/931 air coupler and nipple. Suction hose end terminates in a 3/4" BSPP (F) PP nipple, order Micromatic suction adapter separately. Assembly instructions included.



### NON-METERED

KIT MODEL	PUMP	SUPPORT	OUTLET HOSE	HANDLE	METER	INLET HOSE
560301A	552 015	360 137	20' (750 538)	STANDARD 361 003	-	5' HOSE
560303A	552 015	360 137	20' (750 538)	AUTOMATIC 688 303	-	5' HOSE



### METERED

KIT MODEL	PUMP	SUPPORT	OUTLET HOSE	HANDLE	METER	INLET HOSE
560302A	552 015	360 137	20' (750 538)	STANDARD 361 003	366 760	5' HOSE
560304A	552 015	360 137	20' (750 538)	AUTOMATIC 688 303	366 760	5' HOSE

**NOTE: Order a 1305 or 1307 and make it portable!**



## STANDARD-DUTY ELECTRIC KITS (UNASSEMBLED) - SOLURA SERIES

### NON-METERED

Electric pump kits (120V) are complete as shown, with a 10' power cord. Suction hose end terminates in a 3/4" BSPP (F) PP nipple, order Micromatic suction adapter separately. Assembly instructions included.

#### STANDARD-DUTY KITS WITH SOLURA SERIES PUMP 120 V WITH SUPPORT (UNASSEMBLED)

KIT MODEL	PUMP	SUPPORT	OUTLET HOSE	HANDLE	METER	INLET HOSE
560301E	560 215	360 137	20' (750 538)	STANDARD 361 003	-	5' HOSE
560303E	560 215	360 137	20' (750 538)	AUTOMATIC 688 303	-	5' HOSE



Electric pump kits (120V) are complete as shown, with meter and a 10' power cord. Suction hose end terminates in a 3/4" BSPP (F) PP nipple, order Micromatic suction adapter separately. Assembly instructions included.

#### STANDARD-DUTY KITS WITH SOLURA SERIES PUMP 120 V WITH SUPPORT AND METER (UNASSEMBLED)

KIT MODEL	PUMP	SUPPORT	OUTLET HOSE	HANDLE	METER	INLET HOSE
560302E	560 215	360 137	20' (750 538)	STANDARD 361 003	366 760	5' HOSE
560304E	560 215	360 137	20' (750 538)	AUTOMATIC 688 303	366 760	5' HOSE

### METERED



NOTE: Order a 1305 or 1307 and make it portable!

## PREMIUM HEAVY-DUTY AIR AND ELECTRIC PACKAGES

These systems have been engineered and developed under the most rigorous field conditions imaginable. The success of these extensive field tests along with relentless in house development have resulted in the highest quality and most durable DEF dispensing packages available in the market.

These systems use high quality Parker® DEF connection hoses and fittings developed jointly with Samson. These hoses were engineered to be thicker, more rigid, and resistant to abrasion and abuse than other hoses available on the market, but not too stiff in order to maintain flexibility and ease of use. The Stainless Steel hose end fittings are equipped with a standard 60° cone fitting with a locknut, plus, uniquely in our industry - an O-ring for additional sealing power. When utilized in combination with our range of custom manufactured Stainless Steel BSPP O-ring fittings, this provides unmatched strength, durability and the best sealing performance in our industry. Add in the best air and electric pumps and hose reels around, and these are packages you can depend on for years of unparalleled performance and durability.



Custom Stainless Steel 60° cone fittings with Viton® O-rings on the leading wetted edge provide the sealing power needed to combat leakage, creep, and crystallization, while the backing 60° cone locks the assembly and provides a firm metal to metal seal.

Super high quality triple layer/double fabric braid connection hoses with peroxide cured EPDM liners are much more robust and durable than typical single fabric braid DEF hoses.

Additionally, each package is individually assembled and tested for a minimum of two hours, using real DEF and simulating actual field conditions.

### ORDERING NOTE:

All Premium packages are delivered with a 3/4" suction hose terminating in a 3/4" BSPP(M) fitting. Choose a connector or coupler from the Accessories page.

## PREMIUM HEAVY-DUTY PORTABLE PACKAGES

### MODEL 550 014

Heavy-duty portable air operated package for 55 gallon drum with dispense hose includes 1305 three wheel heavy-duty cart with 552 015 DF50 diaphragm pump, 366 010 DEF meter, 750 524 3/4" x 12' dispense hose with stainless steel fittings, 1/4" filter regulator combo, 1/4" coupler and connector and 688 303 stainless steel automatic nozzle.

**“Assembled and tested”**



### MODEL 555 111 PORTABLE PACKAGE

120 VAC electric pump complete package with portable drum cart. Includes 1305 heavy-duty cart with large pneumatic tires and locking/steering rear caster; allows for easy maneuvering and secure positioning of cart. Includes 560 215 120 VAC swash plate piston pump; 4-5 GPM flow rate; 10' power cord, 750 524 3/4" x 12' dispense hose, 688 303 stainless steel automatic shut off nozzle and 366010 battery powered digital meter with display.



#### NOTE:

3/4" Suction hose terminates in 3/4" BSPP (M) fitting, order suction coupler separately from accessories page.

## PREMIUM HEAVY DUTY STATIONARY PACKAGES

**“Assembled and tested”**



### PNEUMATIC

#### MODEL 555 004

Diaphragm pump & hose reel package includes 552 015 DF50 diaphragm pump, 506 702 30' hose reel, 366 010 meter, 955 air filter regulator combo, 950 321 mini air shut off valve, 5' fluid connecting hose, 5' air connecting hose, 8' suction hose and 688 303 stainless steel automatic nozzle. 3/4" suction hose terminates in 3/4" male BSPP oring fitting, order suction coupler separately from the accessories page.

#### MODEL 550 367

Diaphragm pump & hose package includes 552 015 DF50 diaphragm pump, 750 524 3/4' x 12' dispense hose, 366 010 meter, 955 air filter regulator combo, 950 321 mini air shut off valve, 5' fluid connecting hose, 5' air connecting hose, 8' suction hose and 688 303 stainless steel automatic nozzle. 3/4" suction hose terminates in 3/4" male BSPP oring fitting, order suction coupler separately from the accessories page.



### ELECTRIC

#### MODEL 555 112 STATIONARY SYSTEM

120 VAC electric pump complete stationary package. Includes 560 215 120 VAC pump; 8 GPM; 10' power cord, 506 702 30' hose reel, 680 303 stainless steel automatic nozzle, 366 010 battery powered digital meter with display. 3/4" suction hose terminates in 3/4" BSPP (M) Fitting, order suction coupler separately from the accessories page.

#### MODEL 555 113 STATIONARY SYSTEM

120 VAC electric pump complete stationary package. Includes 560 215 120 VAC pump; 8 GPM; 10' power cord, 680 303 stainless steel automatic nozzle, 366 010 battery powered digital meter with display. 12' dispense hose. 3/4" suction hose terminates in 3/4" BSPP (M) Fitting, order suction coupler separately from the accessories page.

#### NOTE:

Stationary kits are mounted to a plate that can be mounted to 360 109 wall mount bracket or 360 106 top tote bracket, order separately.



## ASSEMBLED PREMIUM HEAVY DUTY CUBET TANK PACKAGES

All Cubet tank packages come assembled and include the MicroMatic coupler system. This allows product delivery by uncoupling the suction hose from the tank and utilizing a delivery hose with the matching MicroMatic coupler for a contamination free delivery. An extra fill port is included on the top of the tank for faster bulk filling with a nozzle.

All Cubet tank packages include a 30' hose reel, inline meter, and automatic nozzle.

Air Operated Cubet tank packages include a 13 GPM diaphragm pump (Directflo®), air shut off ball valve, air regulator/filter, and 5' air connecting hose.

Electric Cubet tank packages include a 120 VAC 60 hertz electric pump (Solura series) with 10' cord and grounded plug.

MODEL	DESCRIPTION
550 004 140	140 GALLON CUBET PACKAGE WITH AIR PUMP & REEL
550 004 230	230 GALLON CUBET PACKAGE WITH AIR PUMP & REEL
550 004 330	330 GALLON CUBET PACKAGE WITH AIR PUMP & REEL
555 112 140	140 GALLON CUBET PACKAGE WITH ELECTRIC PUMP & REEL
555 112 230	230 GALLON CUBET PACKAGE WITH ELECTRIC PUMP & REEL
555 112 330	330 GALLON CUBET PACKAGE WITH ELECTRIC PUMP & REEL



555 112 230



550 004 230



# ACCESSORIES

## MOUNTING BRACKETS

MODEL	DESCRIPTION
360 109	WALL MOUNT
360 106	TOP TOTE MOUNT
360 137	DRUM/ TOTE BRACKET



360 106



360 109



360 137

## SUCTION SYSTEMS

MODEL	DESCRIPTION
910 311	FOUR PRONG MICROMATIC SS/SS COUPLER
910 319	THREE PRONG MICROMATIC SS/POLY COUPLER
910 312	MICROMATIC SS REGULAR NPT BUNG THREAD FOUR PRONG INSERT (FINE THREAD)
910 313	MICROMATIC SS COARSE/BUTTRESS THREAD FOUR PRONG INSERT
910 314	275 IBC/DRUM LENGTH SUCTION TUBE 41" FOR MICROMATIC INSERT, CUT TO 31.5 TO FIT DRUM
910 317	330 IBC/TANK LENGTH SUCTION TUBE 60" FOR MICROMATIC INSERT



910 311

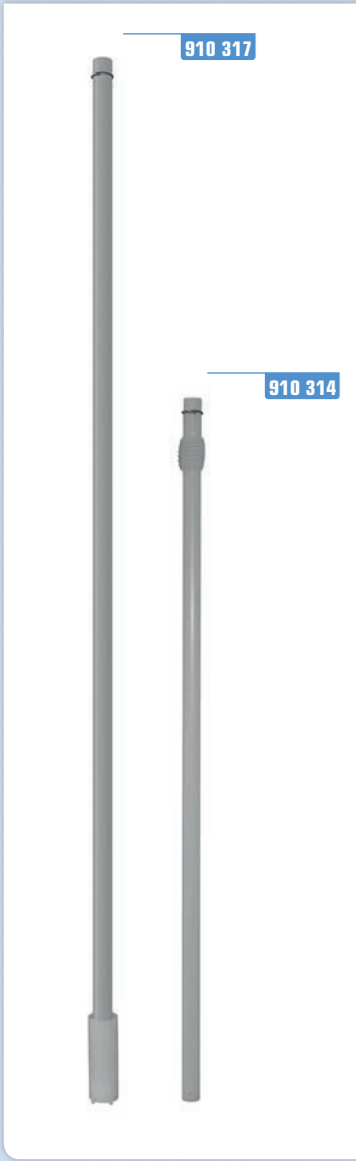
910 312

910 313



910 319

NOTE: Micromatic epv plastic inserts require special tools and special downtubes to install and are normally only available on single use containers already fitted by the packager. Insert shown for illustration only, not available from Samson.



910 317

910 314

## COUPLERS, FITTINGS AND HOSES

ITEM	STAINLESS STEEL
93160004	1/2" BSPP (M) X 3/4" BSPP (M) SS
93160008	1/2" BSPP (M) X 1/2" BSPP (M) SS
93160023	1/2" BSPP (M) X 1" BSPP (M) SS
93160024	3/4" BSPP (M) X 3/4" BSPP (M) W/SEAL RING SS
93160005	3/4" BSPP (M) X 1" BSPP (M) SS
944 631	HOSE CLAMP FOR 1" HOSE SS
944 628	HOSE CLAMP FOR 3/4" HOSE SS
945 708	1" BSPP (F) X 1" BSPP (F) COUPLER W/BASE SEAL SS
945 725	3/4" BSPP (M) X 3/4" HOSE BARB SWIVEL SS
945 731	1" BSPP(F) - 3/4" HOSE BARB SWIVEL SS-PP
945 631	1/2" BSPP(F) SWIVEL NUT X 1/2" HOSE BARB SS
945 632	90° 1/2" BSPP(F) SWIVEL NUT X 1/2" HOSE BARB SS
945 635	1/2" NPT(M) X 1/2" HOSE BARB SS
945 636	3/4" BSPP(M) X 1/2" HOSE BARB SS
945 703	1/2" BSPP(M) X 1/2" NPT(M) SS
945 705	1/2" BSPP(M) X 1/2" BSPP(M) SS
945 711	1" BSPP(M) X 3/4" BSPP(M) SS
945 722	3/4" BSPP(M) - 3/4" BSPP(M) SS
945 730	1/2" BSPP(M) - 1/2" BSPP(F) SS

ITEM	POLYPROPYLENE
689 059	1/2" BSP(M) X 1/2" BSP(M) PP
689 061	1/2" BSP(F) X 3/4" BSP(F) PP
689 062	1/2" BSP(M) X 3/4" BSP(F) PP
689 056	3/4" BSP(F) X 1" BSP(F) PP
689 055	1" BSP(F) X 1" BSP(F) PP
689 060	1" BSP(M) X 1" BSP(M) PP
689 054	1/2" BSP(M) X 3/4" HOSE BARB PP
689 058	90 DEGREE 3/4" BSP(F) X 3/4" HOSE BARB PP
945 580	3/4" BSP(M) X 3/4" HOSE BARB PP
689 045	1" BSP(M) X 3/4" HOSE BARB PP
689 072	1" BSP(F) X 3/4" HOSE BARB PP
689 046	1" BSP(M) X 1" HOSE BARB PP
689 073	1" BSP(F) X 1" HOSE BARB PP
689 076	S64X5M (M) BUTTRESS TO 2" BSP (F) PP



MODEL	DESCRIPTION	HOSE DIAMETER	LENGTH	ONE END	OTHER END
750 522	3' DEF HOSE 90° X 90°	1/2"	3'	90° CONE W ORING 1/2 FEMALE	90° CONE W ORING 1/2 FEMALE
750 523	8' 1/2" DEF HOSE 90° X 3/4 BSPP MALE	1/2"	8'	90° CONE W ORING 1/2 FEMALE	3/4" BSPP MALE
750 524	12' 1/2" DEF HOSE 90° X 3/4 BSPP MALE	1/2"	12'	90° CONE W ORING 1/2 FEMALE	3/4" BSPP MALE
750 385	30' 1/2" DEF HOSE 90° X 3/4 BSPP MALE	1/2"	30'	90° CONE W ORING 1/2 FEMALE	3/4" BSPP MALE
750 526	8' 3/4" DEF HOSE 90° X OPEN	3/4"	8'	90° CONE W ORING 1/2 FEMALE	OPEN
750 527	3' 1/2" DEF HOSE 90° X 1" BSPP MALE	1/2"	3'	90° CONE W ORING 1/2 FEMALE	1" BSPP MALE
750 528	8' 1/2" DEF HOSE 3/4" BSPP MALE X 1" BSPP MALE	1/2"	8'	3/4" BSPP MALE	1" BSPP MALE
750 530	30' 3/4 FEMALE SWEEP X 1" BSPP MALE	3/4"	30"	90° CONE W ORING 3/4 FEMALE	1" BSPP MALE
750 531	30' 3/4 F SWEEP X 1" BSPP FEMALE SWIVEL	3/4"	30'	90° CONE W ORING 3/4 FEMALE	1" BSPP FEMALE SW
750 532	40' 3/4 F SWEEP X 1" BSPP FEMALE SWIVEL	3/4"	40'	90° CONE W ORING 3/4 FEMALE	1" BSPP FEMALE SW
750 533	50' 3/4 F SWEEP X 1" BSPP FEMALE SWIVEL	3/4"	50'	90° CONE W ORING 3/4 FEMALE	1" BSPP FEMALE SW
750 534	20' 3/4 F SWEEP X 1" BSPP FEMALE SWIVEL	3/4"	20"	90° CONE W ORING 3/4 FEMALE	1" BSPP FEMALE SW
750 535	30' 3/4 FEMALE SWEEP X 1" BSPP FEMALE	3/4"	3'	90° CONE W ORING 3/4 FEMALE	1" BSPP FEMALE SW
750 537	50' DEF HOSE STANDARD DUTY SINGLE BRAID SUCTION/DISPENSE	3/4"	50'	OPEN	OPEN
750 538	20' DEF HOSE STANDARD DUTY SINGLE BRAID SUCTION/DISPENSE	3/4"	20'	OPEN	OPEN
750 539	5' DEF HOSE STANDARD DUTY SINGLE BRAID SUCTION/DISPENSE	3/4"	5'	OPEN	OPEN
750 540	8' DEF HOSE STANDARD DUTY SINGLE BRAID SUCTION/DISPENSE	1"	8'	OPEN	OPEN



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