## SPANDARD Pump, Inc.



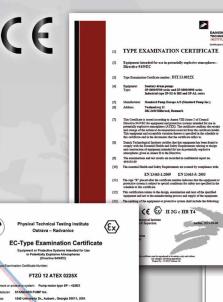
# **Industrial Drum Pumps**





APPLICABLE REQUIREMENTS

CSA Std C22.2 No. 100-04 - Motors and Generators CSA 5td C22.2 No. 145-M1986 - Motors and Generators for Use in Hazardons Location Includes CSA file number, Model, electrical rating, date code and the CSA Monogram on a metal in least 0.020 in, thick nemanaently secured to the enclosure by screws or gives.







Standard Pump, Inc.
1560 University Dr., Autoum, GA 30011
is harely sutherized to continue to apply the
3-A Symbol to the models of equipment, conforming to 3-A Stantony Standards for:

Number: 02-11, Centrituga and Positive Rotary Pumps st forth below
Progressing Cavity Fumps 98-8008R and 98-80000 with lengths 27 in, 39 in, and 47 in, 18R and PTE staters: SIC-SiC seals Centritugal
Pumps HV SP-8800 and HP SP-8900 in lengths 39 in, and 47 in,

VALID THROUGH: December 31, 2013

Timothy R. Rugh Poccutive Director, 3-A Sanitary Standards, Inc.

NEXT TPV INSPECTION REPORT DUE: December 2016



Ex II 2G Ex d IIA T4

EC - CERTIFICA

Manufacturer: Standard Pump Europe
Address: Volundovej 12, DK-3400 Hillered

It was not verified and without responsibility of Technological I whether the documentations are correct, complete or according requirements in the Directive 94-9/EC.

£



Certificate Number: TI 2011-1-0106 A

SP A1- alu or nylon



This Certificate is issued according to Annex VIII clause 2 of Cou Directive 949-9C for equipment and protective systems intended use in potentially explorive atmospheres (ATEX). The certificate confirms the receipt and storage of the technical documentation received from the certificate holder.





# **Industrial SAFETY Solutions**

#### **SAFETY:**

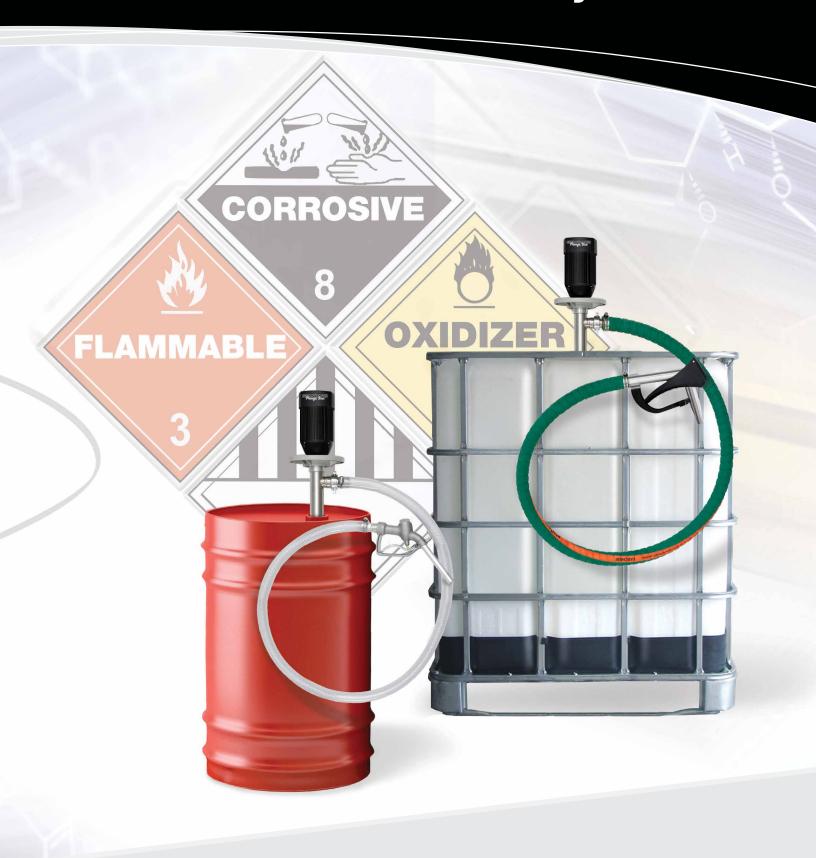
As a leading pump manufacturer, Standard is known for our commitment to Product Quality and SAFETY serving the operations and maintenance professionals. Standard Pump products are certified to meet globally recognized SAFETY standards and guidelines to include Underwriters Laboratories (UL), Canadian Standards Association (CSA), Community European mark (CE) and European Hazardous Duty Equipment (AtEx).

#### **GLOBAL COMMITMENT:**

Standard Pump has a global presence supporting factory authorized distributors in fifty two (52) countries. Our world headquarters is located in Atlanta, GA (USA). A Global Support Team provides sales and support staff, complete inventory and engineering in Copenhagen, Denmark and Shanghai, China.



# **Chemical Safety Solutions**



# **Pump Packages**



#### Pump Package 1 | Water Treatment Chemicals

Engineered to transfer corrosive chemicals associated with the Water Treatment industry. Common applications include: Sodium Hypochlorite, Potassium Hydroxide and Sodium Bromide.

Motor Type: Open Drip Proof (IP 44)

Pump Assembly: CPVC

 Pump Length:
 39" (1000 mm) or 47" (1200 mm)

 Hose:
 6 ft. (1,8 m), I.D. 1" (25 mm) PVC

 Dispensing Nozzle:
 1" (25 mm), Polypropylene

Barrel Adapter: Polypropylene

Storage Bracket: Steel

Max. Flow Rate: 15 GPM (57 LPM) based on water

Max. Viscosity: 1500 cps (mPas)Max. Temperature:  $190^{\circ} \text{ F (88}^{\circ} \text{ C)}$ 



Engineered to transfer corrosive liquids. Common applications include: Hydrochloric Acid, Nitric Acid (20%), Acetic Acid and Sulfuric Acid.

Motor Type: Open Drip Proof (IP 44)

Pump Assembly: Polypropylene

 Pump Length:
 39" (1000 mm) or 47" (1200 mm)

 Hose:
 6 ft. (1,8 m), I.D. 1" (25 mm) PVC

 Dispensing Nozzle:
 1" (25 mm), Polypropylene

Barrel Adapter: Polypropylene

Storage Bracket: Steel

Max. Flow Rate: 15 GPM (57 LPM) based on water

Max. Viscosity: 1500 cps (mPas)
Max. Temperature: 130° F (55° C)

#### Pump Package 3 | Concentrated Acids & Alkalis

Engineered to transfer very concentrated and extremely aggressive liquids. Common applications include: Sulfuric Acid 66 Baumé, Propionic Acid, Concentrated Nitric (98%) and Hydrofluoric Acid.

Motor Type: TEFC (IP 54) **Pump Assembly:** PVDF (Kynar®)

**Pump Length:** 39" (1000 mm) or 47" (1200 mm)

**Hose:** 6 ft. (1,8 m), I.D. 1" (25 mm) Goodyear® Viper 16™

**Dispensing Nozzle:** 1" (25 mm), PVDF **Barrel Adapter:** Polypropylene

Storage Bracket: Steel

Max. Flow Rate: 17.5 GPM (66 LPM) based on water

**Max. Viscosity:** 1500 cps (mPas) **Max. Temperature:** 175° F (80° C)









Unique design allows users to safely measure and transfer corrosive liquids. Common applications include: Hydrochloric Acid, Nitric Acid (20%), Acetic Acid and Sulfuric Acid.

**Motor Type:** Open Drip Proof (IP 44)

Pump Assembly: Polypropylene

Pump Length:39" (1000 mm) or 47" (1200 mm)Hose:6 ft. (1,8 m), I.D. 1" (25 mm) PVCDispensing Nozzle:1" (25 mm), PolypropyleneFlow Meter:Digital / Polypropylene Totalizer

Barrel Adapter: Polypropylene

Storage Bracket: Steel

Max. Flow Rate: 13.5 GPM (51 LPM) based on water

Max. Viscosity: 300 cps (mPas)
Max. Temperature: 130° F (55° C)



#### Pump Package 5 | Concentrated Acids & Alkalis Measurement

Unique design allows operators to safely measure and transfer concentrated and very aggressive liquids. Common applications include: Sulfuric Acid 66 Baumé, Propionic Acid, Concentrated Nitric (98%) and Hydrofluoric Acid.

Motor Type: TEFC (IP 54)

Pump Assembly: PVDF (Kynar®)

**Pump Length:** 39" (1000 mm) or 47" (1200 mm)

**Hose:** 6 ft. (1,8 m), I.D. 1" (25 mm) Goodyear® Viper 16<sup>™</sup>

**Dispensing Nozzle:** 1" (25 mm), PVDF **Flow Meter:** Digital / PVDF Totalizer

**Barrel Adapter:** Polypropylene

Storage Bracket: Steel

Max. Flow Rate: 16 GPM (61 LPM) based on water

Max. Viscosity: 300 cps (mPas) Max. Temperature: 175° F (80° C)



Engineered to transfer mineral acids and suitable chemicals. Applications include: Nitric Acid (less than 60%) and Citric Acid.

Motor Type: Open Drip Proof (IP 44)

Pump Assembly: SS 316

**Pump Length:** 39" (1000 mm) or 47" (1200 mm) **Hose:** 6 ft. (1,8 m), I.D. 1" (25 mm) PVC

**Dispensing Nozzle:** 1" (25 mm), SS316 **Barrel Adapter:** Stainless Steel

Storage Bracket: Steel

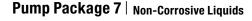
Max. Flow Rate: 21 GPM (79 LPM) based on water

**Max. Viscosity:** 1500 cps (mPas)**Max. Temperature:**  $175^{\circ} \text{ F (80}^{\circ} \text{ C)}$ 



# Pump Packages continued





Engineered to transfer light oils, automotive fluids and lubricants. Applications include: light machining oils, hydraulic fluid, motor oil, antifreeze, lubricating oil.

Motor Type: Open Drip Proof (IP 44)

Pump Assembly: Aluminum

**Pump Length:** 39" (1000 mm) or 47" (1200 mm) **Hose:** 6 ft. (1,8 m), I.D. 1" (25 mm) PVC

**Dispensing Nozzle:** 1" (25 mm), Aluminum **Barrel Adapter:** Stainless Steel

Storage Bracket: Steel

Max. Flow Rate: 22 GPM (83 LPM) based on water

**Max. Viscosity:** 1500 cps (mPas) **Max. Temperature:** 175° F (80° C)



#### Pump Package 8 | Flammable & Combustible Liquids



Explosion Proof Drum Pump (AIR) is a safe solution for transferring highly flammable/combustible liquids and meets the stringent safety requirements of the Chemical Processing Industry. Applications include: Alcohol, Isopropyl Ether, Gasoline, Solvents, Aqueous Ammonia, Petroleum Products, Xylene, Toluene.

Motor Type: Air Pump Assembly: SS316

**Pump Length:** 39" (1000 mm) or 47" (1200 mm)

**Hose:** 6 ft. (1,8 m), I.D. 1" (25 mm) Solvent Hose

Dispensing Nozzle: 1" (25 mm) SS316
Barrel Adapter: Stainless Steel

Storage Bracket: Steel

Max. Flow Rate: 17 GPM (64 LPM) based on water

Max. Viscosity: 750 cps (mPas)
Max. Temperature: 175° F (80° C)



#### Pump Package 9 | Flammable & Combustible Liquids





Explosion Proof Drum Pump is a safe solution for transferring highly flammable/combustible liquids and meets the stringent safety requirements of the Chemical Processing Industry. Applications include: Alcohol, Isopropyl Ether, Gasoline, Solvents, Aqueous Ammonia, Petroleum Products, Xylene, Toluene.

**Motor Type:** EXP (IP 54) **Pump Assembly:** SS316

**Pump Length:** 39" (1000 mm) or 47" (1200 mm)

**Hose:** 6 ft. (1,8 m), I.D. 1" (25 mm) Solvent Hose

**Dispensing Nozzle:** 1" (25 mm) SS316 **Barrel Adapter:** Stainless Steel

Storage Bracket: Steel

Max. Flow Rate: 18 GPM (68 LPM) based on water

Max. Viscosity:750 cps (mPas)Max. Temperature:175° F (80° C)

# **Drum Pump Motors**



#### **SP-280P Series**

MODEL	ENCLOSURE	CERTIFICATION	POWER	WATT	V.S.D.
SP-280P	Open Drip Proof (IP44)	c <b>SW</b> us	110-120V/1/50-60Hz	825	No
SP-280P-V	Open Drip Proof (IP44)	c <b>SU</b> °us	110-120V/1/50-60Hz	825	Yes
SP-280P-2	Open Drip Proof (IP44)	C€	220-240V/1/50-60Hz	825	No
SP-280P-2-V	Open Drip Proof (IP44)	C€	220-240V/1/50-60Hz	825	Yes



Warning: Not suitable for pumping flammable or combustible liquids.

Warning: Not recommended for use with the SP-700SR Series pump.

#### NOTE: V.S.D. = Variable Speed Drive



#### **SP-ENC Series**

MODEL	ENCLOSURE	CERTIFICATION	POWER	WATT	V.S.D.
SP-ENC	TEFC (IP54)	c <b>FM</b> °us	110-120V/1/50-60Hz	825	No
SP-ENC-V	TEFC (IP54)	c <b>FN</b> us	110-120V/1/50-60Hz	825	Yes
SP-ENC-2	TEFC (IP54)	Ĉ€.	220-240V/1/50-60Hz	825	No
SP-ENC-2-V	TEFC (IP54)	ĈÈ	220-240V/1/50-60Hz	825	Yes



Warning: Not suitable for pumping flammable or combustible liquids.

#### NOTE: V.S.D. = Variable Speed Drive



## SP-400 Series (Ex)



MODEL	ENCLOSURE	CERTIFICATION	POWER	WATT	V.S.D.
SP-410EX	Explosion Proof	<b>⊕</b> ∘	110-120V/1/50-60Hz	230	No
SP-420EX	<b>Explosion Proof</b>	(AtEx) (E	220-240V/1/50-60Hz	600	No

ATEX Certification: II 2G Ex d IIA T4 FTZU 12 ATEX 0225X



See warning at bottom of page.

NOTE: V.S.D. = Variable Speed Drive

NOTE: Explosion proof motor regulations require that motors be returned to the manufacturer for repair.



#### SP-A1



MODEL **MAXIMUM CONSUMPTION** SP-A1 22 CFM @ 90 psi (10.4 L/sec @ 6,2 bar)

**CERTIFICATION** 

**INLET PRESSURE** 

OUTPUT

100 psi (6,8 bar) 1/2 HP (370 W)



See warning at bottom of page.

Warning: Not recommended for use with the SP-700SR Series pump.



## SP-A2 Series



MODEL	MAXIMUM CONSUMPTION	INLET PRESSURE	OUTPUT
SP-A2	28 CFM @ 90 psi (13.2 L/sec @ 6,2 bar)	100 psi (6,8 bar)	3/4 HP (560 W)
SP-A2TL (trigger lock)	28 CFM @ 90 psi (13.2 L/sec @ 6,2 bar)	100 psi (6,8 bar)	3/4 HP (560 W)



See warning at bottom of page.



Warning: Not recommended for use with the SP-700SR Series pump.



WARNING: Pumping of flammables or combustible liquids can generate a static electric discharge, causing fire or explosion resulting in injury or death. Read and understand operating instructions before starting this unit. Follow all federal, state and local safety codes including NFPA 30 - NFPA77. Prior to connecting to air supply, install bond and ground wires and check continuity of each wire. A meter reading of one ohm or less is required for safe liquid transfer. Use only metallic drum, receiving vessel and metallic pump when pumping flammables. Air motors are not recognized under any current Underwriter's Laboratory listing program. Consult a qualified engineer for suitability for use in a hazardous area or on flammables.

# **Polypropylene Series**

STANDARD's Polypropylene pump tube is engineered for transferring a variety of corrosive liquids. Robust Polypropylene ensures chemical resistance against light to aggressive chemicals.



## **Common Applications**

- · Acetic Acid · Alkalis
- · Nitric Acid (20%) · Hydrochloric (20%) · Sulfuric Acid · Ferric Chloride

### **Technical Specifications**

**Wetted Parts:** Polypropylene, Carbon, Hastelloy

**Maximum Viscosity:** 

SP-280P & SP-ENC 1500 cps (mPas) SP-A2 750 cps (mPas) SP-A1 450 cps (mPas)

**Discharge Options:** 1" (25 mm) /.75" (19 mm) Hose Barb

**Immersion Lengths:** 27" (700 mm), 39" (1000 mm), 47" (1200 mm)

60" (1500 mm) & 72" (1800 mm)

**Pump Design:** Seal-less / Centrifugal

**Maximum Specific Gravity:** 1.8\*

**Maximum Temperature:** 130° F (55° C)



# **CPVC Series**

STANDARD'S CPVC pump tube is engineered for transferring corrosive chemicals commonly used in the Water Treatment Industry. Robust CPVC offers excellent durability and chemical resistance.





· Sodium Hypochlorite · Potassium Hydroxide · Chlorinated Water · Calcium Hydroxide

· Calcium Chloride · Sodium Bromide

## **Technical Specifications**

**Wetted Parts:** CPVC, PVDF, Carbon, Hastelloy

**Maximum Viscosity:** 

SP-280P & SP-ENC 1500 cps (mPas) SP-A2 750 cps (mPas) SP-A1 450 cps (mPas)

**Discharge Options:** 1" (25 mm) /.75" (19 mm) Hose Barb

27" (700 mm), 39" (1000 mm), 47" (1200 mm) **Immersion Lengths:** 

60" (1500 mm) & 72" (1800 mm)

Seal-less / Centrifugal **Pump Design:** 

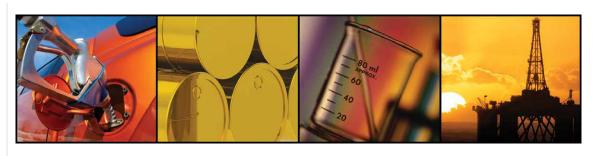
**Maximum Specific Gravity:** 1.8\*

**Maximum Temperature:** 190° F (88° C)



## **Stainless Steel Series**

STANDARD's Stainless pump tube is engineered for transferring flammable and combustible liquids as well as light oils and suitable chemicals. Robust Stainless Steel 316 offers excellent strength and durability.





### **Common Applications**

· Alcohol

· Solvents

· Isopropyl Ether

· Aqueous Ammonia

· Gasoline

· Petroleum Products

## **Technical Specifications**

**Wetted Parts:** 316SS, Carbon, PTFE

**Maximum Viscosity:** 

SP-280P & SP-ENC 1500 cps (mPas) SP-420EX & SP-A2 750 cps (mPas) SP-A1 450 cps (mPas) SP-410EX 200 cps (mPas)

**Discharge Options:** 1" (25 mm) /.75" (19 mm) Hose Barb

**Immersion Lengths:** 27" (700 mm), 39" (1000 mm), 47" (1200 mm)

60" (1500 mm) & 72" (1800 mm)

**Pump Design:** Seal-less / Centrifugal

**Maximum Specific Gravity:** 1.8\*

**Maximum Temperature:** 175° F (80° C) **ATEX Certification:** DTI 11 ATEX 0016X II 2 G c IIB T6

# **PVDF (Kynar®) Series**

**STANDARD's PVDF** pump tube is engineered for transferring corrosive chemicals commonly used in the Water Treatment Industry. Robust PVDF offers excellent durability and chemical resistance.





· Concentrated Nitric Acid

· Sulfuric Acid-66 Baume

· Sodium Hypoclorite

· Hydrofluoric Acid

· Propionic Acid

· Stearic Acid

### **Technical Specifications**

Wetted Parts: PVDF, Carbon, Hastelloy

**Maximum Viscosity:** 

 SP-280P & SP-ENC
 1500 cps (mPas)

 SP-A2
 750 cps (mPas)

 SP-A1
 450 cps (mPas)

**Discharge Options:** 1" (25 mm) /.75" (19 mm) Hose Barb

**Immersion Lengths:** 27" (700 mm), 39" (1000 mm), 47" (1200 mm)

60" (1500 mm) & 72" (1800 mm)

Pump Design: Seal-less / Centrifugal

**Maximum Specific Gravity:** 1.8\*

**Maximum Temperature:** 175° F (80° C)



# **High Temperature Polypropylene Series**

**STANDARD's High Temperature Polypropylene (PHT)** pump tube is engineered for transferring high temperature corrosive liquids. Robust Polypropylene ensures chemical resistance and excellent heat deflection properties against light to mildly aggressive chemicals.



## **Common Applications**

· Acetic Acid · Alkalis

· Nitric Acid (20%) · Hydrochloric (20%) · Sulfuric Acid · Ferric Chloride

## **Technical Specifications**

Wetted Parts: Polypropylene, Carbon, Hastelloy

**Maximum Viscosity:** 

 SP-280P & SP-ENC
 1500 cps (mPas)

 SP-A2
 750 cps (mPas)

 SP-A1
 450 cps (mPas)

**Discharge Options:** 1" (25 mm) /.75" (19 mm) Hose Barb

**Immersion Lengths:** 27" (700 mm), 39" (1000 mm), 47" (1200 mm)

60" (1500 mm) & 72" (1800 mm)

Pump Design: Seal-less / Centrifugal

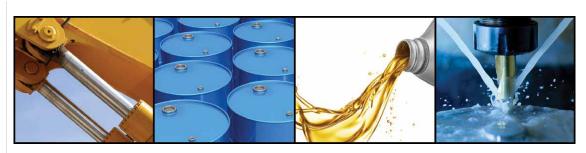
**Maximum Specific Gravity:** 1.8\*

**Maximum Temperature:** 175° F (80° C)



## **Aluminum Series**

**STANDARD's Aluminum** pump tube is engineered for transferring Non-Corrosive liquids such as Machining Lubricants and Light Oils. Robust Aluminum construction offers excellent strength and durability.





## **Common Applications**

- · Motor Oil (Up to 30 Wt)
- · Light Machining Oils
- · Anti-Freeze

- · Hydraulic Fluid
- · Lubricating Oils

#### **Technical Specifications**

Wetted Parts: Aluminum, Carbon, PTFE & SS316

**Maximum Viscosity:** 

 SP-280P & SP-ENC
 1500 cps (mPas)

 SP-420EX & SP-A2
 750 cps (mPas)

 SP-A1
 450 cps (mPas)

 SP-410EX
 200 cps (mPas)

**Discharge Options:** 1" (25 mm) /.75" (19 mm) Hose Barb

**Immersion Lengths:** 27" (700 mm), 39" (1000 mm), 47" (1200 mm)

60" (1500 mm) & 72" (1800 mm)

Pump Design: Seal-less / Centrifugal

**Maximum Specific Gravity:** 1.8\*

**Maximum Temperature:** 175° F (80° C)

## **Accessories**



#### **Hand Nozzles**

PART NUMBER

9070	Polypropylene 1" O.D. (25 mm) – Hose Barb Intake Note: EPDM Seals are available upon request.	Viton°
9026	Stainless 316 1" O.D. (25 mm) – Hose Barb Intake	PTFE
9028	PVDF 1" O.D. (25 mm) — Hose Barb Intake Note: EPDM Seals are available upon request.	Viton°
9030	<b>Aluminum</b> 1" O.D. (25 mm) – Hose Barb Intake	Buna

**DESCRIPTION** 

## **Discharge Hose**

9044

PART NU	JMBER DESCRIPTION
9029	Clear PVC 1" I.D. x 1.25" O.D. (25 mm x 32 mm), Max Temperature: 150°F (66°C) Max Operating Pressure: 30 psi (2,1 bar), Material of Construction: Polyvinyl Chloride
9032	Clear Braided PVC 1" I.D. x 1.25" O.D. (25 mm x 32 mm), Max Temperature: 150°F (66°C) Max Operating Pressure: 75 psi (5,2 bar), Material of Construction: Poly-Braid Polyvinyl Chloride
9034	Goodyear* FABCHEM" UHMW

1" (25 mm) I.D. x 1.47 O.D. (25 mm x 37 mm), Max Temperature: 150°F (66°C), Max Operating Pressure: 200 psi (14 bar), Material of Construction: Ultra High Molecular Weight Polyethylene

Note: Designed to be Used for Flammable / Combustible Liquids

Goodyear° VIPER 16° 1" (25 mm) I.D. x 1.45" O.D. (25 mm x 37 mm), Max Temperature: 250°F (121°C), Max Operating Pressure: 200 psi (14 bar), Material of Construction: Modified Cross-Linked Polyethylene

**SEAL MATERIAL** 





## **Barrel Adapters**

PART NUMBER	MATERIAL	DESCRIPTION
9015	Polypropylene	2" O.D. (51mm)
9002	Stainless 304 (SP-SS Series)	2" O.D. (51mm)
9022	Stainless 304 (SP-AL Series)	2" O.D. (51mm)





## **Fume Barriers**

PART NUMBER MATERIAL		DESCRIPTION
9018	Polypropylene	2" O.D. (51 mm), EPDM Seal
9019	Stainless 304 (SP-SS Series)	2" O.D. (51 mm), EPDM Seal
9024	Stainless 304 (SP-AL Series)	2" O.D. (51mm), EPDM Seal







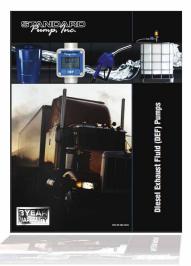
## **Suction Strainers**

PART NUMBER	MATERIAL	MESH SIZE
9011	Polypropylene	.63"x.098" (16x2,5 mm)
9012	Stainless 316	.58"x.051" (14,7x1,3 mm)
		, , , ,
9043	PVDF (Kynar <sup>®</sup> )	.63"x.098" (16x2,5 mm)
00 10	i voi (ityliai )	.00 A.000 (TOAL,0 IIIII)

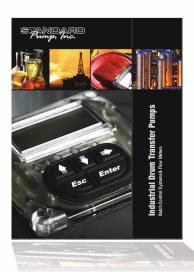
# Accessories Continued

Uooo Darba		
Hose Barbs PART NUMBER	MATERIAL	DESCRIPTION
1051	Polypropylene	.75" (19 mm)
5051	CPVC	.75" (19 mm)
2197	SS316	.75" (19 mm)
4051	PVDF	.75" (19 mm)
6051	High Temperature Polypropylene	.75" (19 mm)
3708	Aluminum	.75" (19 mm)
Quick Disconne PART NUMBER 125A100C	<b>DESCRIPTION</b> Polypropylene – 1.25" BSP Thread x 1	' Barb (32 mm x 25 mm)
Wall Bracket PART NUMBER 9006	<b>DESCRIPTION</b> Stainless Steel Wall Storag Designed for Pump S	

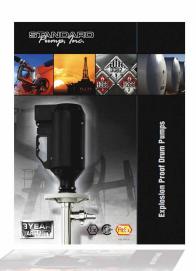
# **Additional Products**



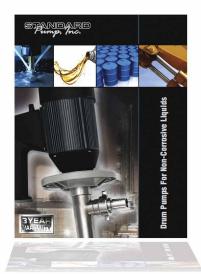
**DEF Drum Pumps** 



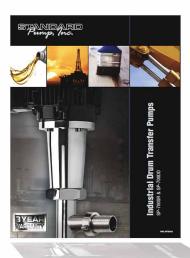
**Metering Systems** 



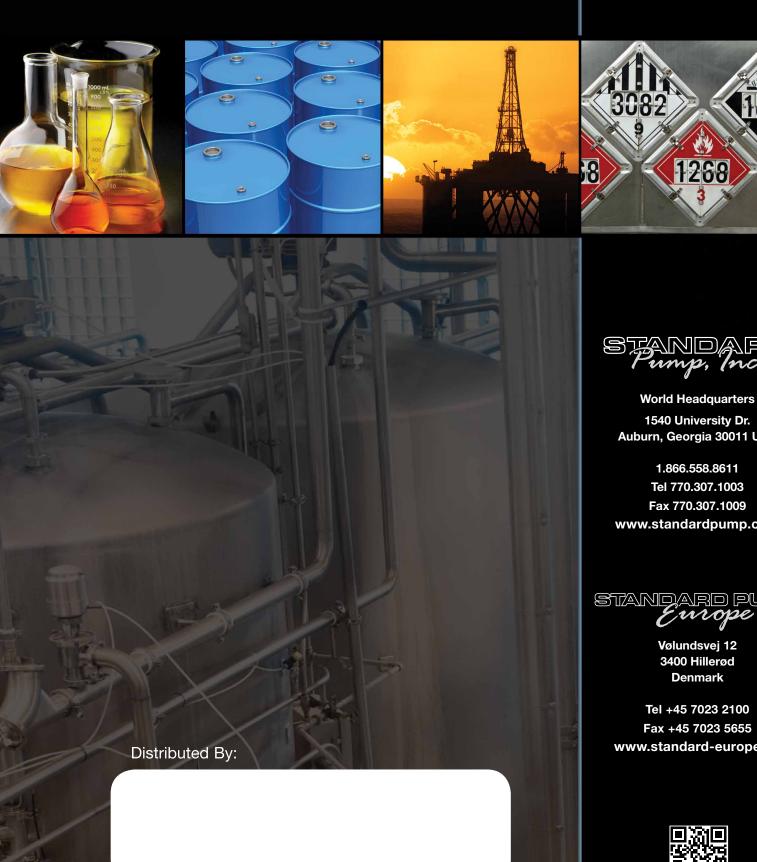
**Hazardous Duty Pumps** 



Drum Pumps For Non-Corrosive Liquids



Progressive Cavity
Drum Pumps



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1540 University Dr. Auburn, Georgia 30011 USA

Tel 770.307.1003 Fax 770.307.1009 www.standardpump.com

# STANDARD PUMP Europe

3400 Hillerød

Fax +45 7023 5655 www.standard-europe.eu



For more information scan this QR code with your smartphone.