

## **SDP 50 CIX**

MAX DISCHARGE

**0-592 litres/minute**

SIZE, MATERIAL

**2", Ductile Iron**

WEIGHT

**48 Kgs**



# **AIR OPERATED DIAPHRAGM PUMP**

Teryairs Cast Iron pumps are constructed out of a special tough spheroidal graphite Iron, to withstand the toughest duty outdoors. They are primarily designed for use in underground mining atmospheres, all pumps shown here have a Mining ATEX approval.

They employ a special version of the air valve system which contains no aluminium, so as to be compatible with mining regulations.

All diaphragm options are available, including the popular BunaN and Hytrel versions.

Skid mounting, inlet strainer bases and frames are all available.

Applications include removal of underground water / drift water from mine sites, transfer of muck, slime and slurry and oil transfer and utility use.



### **Diaphragm Options 'X'**

Neoprene  
Nitrile  
Santoprene  
Hytrel  
Viton



### **Approvals and Certifications**

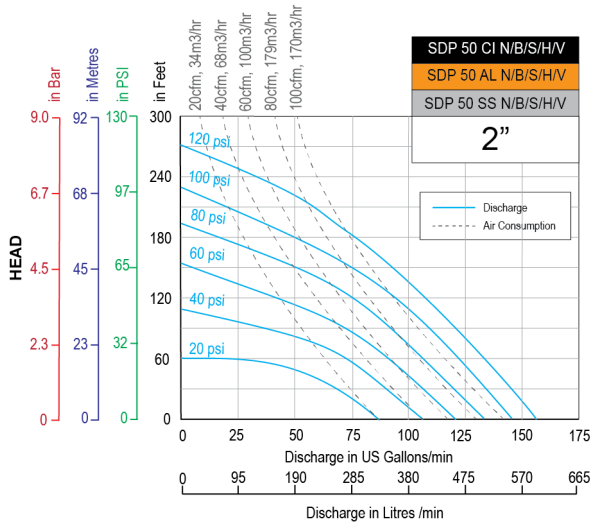
All Teryair pumps are CE marked and manufactured under an ISO 9001:2015 Quality system by SGS. All Teryair aluminum, Ductile iron, and Stainless Steel pumps are explosion-proof Certified (ATEX).



### **Versatility**

This pump handles Viscous fluids, Slurries, Solid laden fluids, Shear Sensitive fluids very well.  
No Priming needed  
No Foaming of fluid pumped  
No Stall damages  
Portable  
Submerged operation capable

## Performance Graphs SDP 50 CIN/CIB/CIS/CIH/CIV

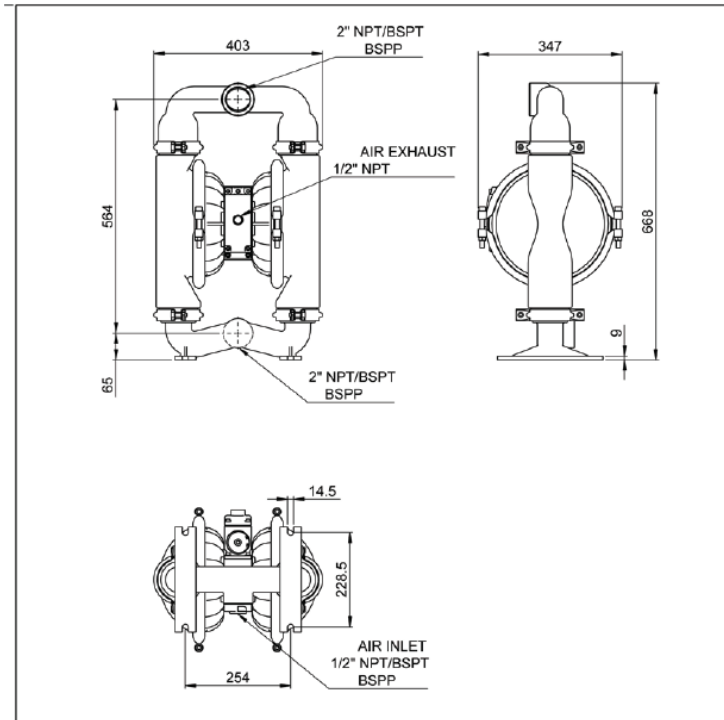


- Performance as measured pumping water at 20degC.
- **Disclaimer:** Actual pump performance may vary depending on number of bends, suction needed and friction in length of discharge piping.
- For guidance on how to select a suitable pump, visit Teryair AODD pump Selection guide.

### Technical Data SDP 50CIX

	<b>SDP 50CI with Neoprene / Nitrile / Santoprene / Hytrel / Viton fitments</b>
<i>Maximum Discharge</i>	592 Litres/min (156 US gallons/min)
<i>Suction Head Dry</i>	7.3 meters, 24 feet
<i>Suction Head Wet</i>	9.5 meters, 31 feet
<i>Pump Weight</i>	48 Kgs, 105 lbs
<i>Max Solid Passage</i>	6.4 mm (1/4")
<i>Air Distribution System</i>	SDP MaxFlo, MOC Ductile Iron, acetal and CFT seals
<i>Balls / Seals</i>	Santoprene or Hytrel or Nitrile or Neoprene or Viton
<i>Air Inlet</i>	1/2" NPT/BSPT/BSPP
<i>Fluid Inlet, Fluid Outlet</i>	2" NPT/BSPT/BSPP

## Dimensions SDP 50 CIX



## Pump Nomenclature







XX	XX	XX	X	X	X
Air Valve Type	Pump Size	Material of Construction	Material of Diaphragm	Bolted or Clamped	Threading on Inlet and Outlet
DP - Classic	06 - 1/4"	AL - Aluminium	B - Nitrile N - Neoprene S - Santoprene T - PTFE V - Viton H - Hytrel	B - Bolted  C - Clamped	R - NPT
	12 - 1/2"				G - BSPT
ADP - Advanced	15 - 1/2"	SS - Stainless Steel 316L			
SDP - MaxFlo	25 - 1"				PP - Polypropylene
	40 - 1 - 1/2"	CI - Ductile Iron	F - Flanged		
	50 - 2"				
	75- 3"				
	100 - 4"				

## Air Valve Replacement Kits for SDP 50 CIX Pumps

Air Valve Replacement Kit consists of a complete operational air valve assembly complete. Consisting of Air Valve Body, End Plates, Spool and all seals, o rings and gaskets.

Repair KIT Ordering No	Suitable for
203 97 12	NPT Fitted CIX Pumps With Any Diaphragm Variant
	BSPT Fitted CIX Pumps With Any Diaphragm Variant
	BSPP Fitted CIX Pumps With Any Diaphragm Variant

## Diaphragm specifications

Neoprene		An excellent general-purpose diaphragm for use in non-aggressive applications such as water-based slurries, well water or sea water. Exhibits excellent flex life and low cost. Temperature range -18°C to +93°C (0°F to +200°F)
Nitile		Excellent for applications involving petroleum / oil-based fluids such as leaded gasolines, fuel oils, non-synthetic hydraulic oils, kerosene, turpentine and motor oils. Temperature range -12°C to +82°C (+10°F to +180°F)
Santoprene		Good abrasion resistance. Low cost. Can handle mild acids and alkalis well. Excellent low cost alternative to ptfе. Excellent suction capabilities Excellent general purpose diaphragm. Temperature range -40°C to +107°C (-40F to +225°F)
Hytrel		Good abrasion resistance. Low cost. . Excellent suction capabilities Good general purpose diaphragm. Temperature range -29°C to +104°C (-20°F to +220°F)
Viton		Excellent for use in applications requiring extremely hot temperatures. May also be used with aggressive fluids such as aromatic or chlorinated hydrocarbons and highly aggressive acids. Especially where high suction lift is important. Temperature range -40°C to +175°C (-40°F to +350°F)
PTFE		Excellent choice when pumping highly aggressive fluids such as aromatic or chlorinated hydrocarbons, acids, caustics, ketones and acetates. Temperature range +4°C to +104°C (+40°F to +220°F)

*note: not all diaphragms may be available with this pump, see page 1 for diaphragm options for this pump.*

## Repair Kits for SDP 50 CIX / ALX / SSX Pumps

Repair Kits consist of everything you need to quickly restore the pump. Repair Kits contain one set of Diaphragms, one set of balls, one set of seats or seats+Orings, secondary shaft complete with seals, air valve spool complete with fitted seals, all gaskets, end caps with fitted rings and other wear parts needed to rebuild the pump. Repair kits are threading independant.

Repair KIT Ordering No	Suitable for
203 97 10N	SDP 50 CIN / ALN / SSN
203 97 10B	SDP 50 CIB / ALB / SSB
203 97 10S	SDP 50 CIS / ALS / SSS
203 97 10H	SDP 50 CIH / ALH / SSH
203 97 10V	SDP 50 CIV / ALV / SSV
203 97 10T	SDP 50 CIT / ALT / SST

SUMMARY FOR THE ATEX RATING FOR TERYAIR AODD MODELS

Pump Size	Series	Wetted Materials	Center Section	Diphargm Materials	ATEX Rating
06 (1/4")	SDP	Aluminium	Aluminium	Neoprene	II 2 GD Ex h IIC T6 Gb Ex h IIIC T85°C Db (IP65)
				Buna-N	
				Viton-FKM	II 2 GD Ex h IIC T3 Gb Ex h IIIC T200°C Db (IP65)
				Sentoprene	II 2 GD Ex h IIC T5 Gb Ex h IIIC T100°C Db (IP65)
				Hytrel	
		PTFE			
		Stainless Steel	Stainless Steel	Neoprene	II 2 GD Ex h IIC T6 Gb Ex h IIIC T85°C Db <b>I M2 Ex h I Mb (IP65)</b>
				Buna-N	
				Viton-FKM	II 2 GD Ex h IIC T3 Gb Ex h IIIC T200°C Db (IP65) <b>I M2 Ex h I Mb (IP65)</b>
				Sentoprene	II 2 GD Ex h IIC T5 Gb Ex h IIIC T100°C Db (IP65) <b>I M2 Ex h I Mb (IP65)</b>
Hytrel					
PTFE					
12 (1/2")	DP/SDP	Aluminium	Aluminium	Neoprene	II 2 GD Ex h IIC T6 Gb Ex h IIIC T85°C Db (IP65)
				Buna-N	
				Viton-FKM	II 2 GD Ex h IIC T3 Gb Ex h IIIC T200°C Db (IP65)
				Sentoprene	II 2 GD Ex h IIC T5 Gb Ex h IIIC T100°C Db (IP65)
				Hytrel	
	PTFE				
	SDP	Stainless Steel	Stainless Steel	Neoprene	II 2 GD Ex h IIC T6 Gb Ex h IIIC T85°C Db <b>I M2 Ex h I Mb (IP65)</b>
				Buna-N	
				Viton-FKM	II 2 GD Ex h IIC T3 Gb Ex h IIIC T200°C Db (IP65) <b>I M2 Ex h I Mb (IP65)</b>
				Sentoprene	II 2 GD Ex h IIC T5 Gb Ex h IIIC T100°C Db (IP65) <b>I M2 Ex h I Mb (IP65)</b>
Hytrel					
PTFE					
25 (1")	DP / SDP	Aluminium / Stainless Steel	Aluminium	Neoprene	II 2 GD Ex h IIC T6 Gb Ex h IIIC T85°C Db (IP65)
				Buna-N	
				Viton-FKM	II 2 GD Ex h IIC T3 Gb Ex h IIIC T200°C Db (IP65)
				Sentoprene	II 2 GD Ex h IIC T5 Gb Ex h IIIC T100°C Db (IP65)
				Hytrel	
PTFE					

SUMMARY FOR THE ATEX RATING FOR TERYAIR AODD MODELS

Pump Size	Series	Wetted Materials	Center Section	Diphargm Materials	ATEX Rating	
40 (1-1/2")	DP / SDP	Aluminium / Stain- less Steel	Aluminium	Neoprene	II 2 GD Ex h IIC T6 Gb Ex h IIIC T85°C Db (IP65)	
				Buna-N		
				Viton-FKM	II 2 GD Ex h IIC T3 Gb Ex h IIIC T200°C Db (IP65)	
				Sentoprene	II 2 GD Ex h IIC T5 Gb Ex h IIIC T100°C Db (IP65)	
				Hytrel		
				PTFE		
50 (2")	DP / SDP	Aluminium / Stain- less Steel	Aluminium	Neoprene	II 2 GD Ex h IIC T6 Gb Ex h IIIC T85°C Db (IP65)	
				Buna-N		
				Viton-FKM	II 2 GD Ex h IIC T3 Gb Ex h IIIC T200°C Db (IP65)	
				Sentoprene	II 2 GD Ex h IIC T5 Gb Ex h IIIC T100°C Db (IP65)	
				Hytrel		
				PTFE		
	SDP	Cast Iron	Cast Iron	Cast Iron	Neoprene	II 2 GD Ex h IIC T6 Gb Ex h IIIC T85°C Db <b>I M2 Ex h I Mb (IP65)</b>
					Buna-N	
					Viton-FKM	"II 2 GD Ex h IIC T3 Gb Ex h IIIC T200°C Db (IP65) <b>I M2 Ex h I Mb (IP65)"</b>
					Sentoprene	II 2 GD Ex h IIC T5 Gb Ex h IIIC T100°C Db (IP65) <b>I M2 Ex h I Mb (IP65)</b>
					Hytrel	
					PTFE	
75 (3")	DP / SDP	Aluminium	Aluminium	Neoprene	II 2 GD Ex h IIC T6 Gb Ex h IIIC T85°C Db (IP65)	
				Buna-N		
				Viton-FKM	II 2 GD Ex h IIC T3 Gb Ex h IIIC T200°C Db (IP65)	
				Sentoprene	II 2 GD Ex h IIC T5 Gb Ex h IIIC T100°C Db (IP65)	
				Hytrel		
				PTFE		
	SDP	Cast Iron	Cast Iron	Cast Iron	Neoprene	II 2 GD Ex h IIC T6 Gb Ex h IIIC T85°C Db <b>I M2 Ex h I Mb (IP65)</b>
					Buna-N	
					Viton-FKM	II 2 GD Ex h IIC T3 Gb Ex h IIIC T200°C Db (IP65) <b>I M2 Ex h I Mb (IP65)</b>
					Sentoprene	II 2 GD Ex h IIC T5 Gb Ex h IIIC T100°C Db (IP65) <b>I M2 Ex h I Mb (IP65)</b>
					Hytrel	
					PTFE	