

SHROUDS

ESPCP & ESP





ESPC SHROUDS - TOP INTAKE MOTOR SEATED SHROUD

The top-intake motor seal shroud is designed to be used in wells with high gas content where the pump is placed above the well perforations. The shroud is 4.5" in diameter, and the motor projects beyond the bottom of the shroud for improved cooling. Pump dampers are used to minimize vibration between the shroud and pump, and a rubber torque arrestor is used to help protect and guide the assembly into the well while also providing additional vibration resistance. The shroud includes a wound screen with rectangular slots to prevent harmful debris from passing through the pump. All top-intake motor seal shrouds will need a 25" long Franklin Electric motor lead in order to extend out of the shroud.

Three different screens are available. The standard screen has 2 mm (.08") slots for fluid to enter. The next sized screen has 0.41 mm (.016") slots. The shroud with the smallest screen uses 0.23 mm (.009") slots.

MATERIALS

Component	Qty.	Order No.
O-ring	1	106890101
SHCS, M10X16SS	6	104202101
Split Ring	2	101214101
Spiral Retaining Ring	1	1160001
Restriction Ring	1	101215101
Screw, Socket Head	4	282574101
Screw, Socket Head	4	282574103
Spacer	4	152779101
Washer	4	282575102
Poly Bag (4 mil.) 3x4 Fastenal-VMI	1	89543322
Carton-Probe Holder-Robbins P/N WCC5	1	90819501
Label, Packaging L-Product Label Kit	1	305xxx

ESPC SHROUDS - 4" TOP INTAKE SHROUD

The top-intake motor seal shroud is designed to be used in wells with high gas content where the pump is placed in the horizontal section of a well, or above the well perforations. This shroud is 4" in diameter and the motor projects beyond the bottom of the shroud for improved cooling. Pump dampers are used to minimize vibration between the shroud and pump. A rubber torque arrestor is used to help protect and guide the assembly into the well while also providing additional vibration resistance. The shroud includes a wound screen with rectangular slots to prevent harmful debris from passing through the pump. Five different screens are available depending on motor size.

NOTE: The motor guide must be ordered separately. For angled applications, the 4" OD is recommended. For vertical applications, a 4.5" OD version may be used to centralize the shroud in the well.

MOTOR GUIDES

Motor Guide	OD (in)
305595902	4
305595901	4.5



ESPC SHROUDS - BOTTOM INTAKE OPEN BOTTOM SHROUD

The bottom-intake open bottom shroud is designed to be used in vertical or deviated wells where the pump is located below the well perforations and debris is not an issue. The shroud is 4.5" in diameter, and directs fluid flow past the motor for improved cooling. A motor support is used to center the motor in the shroud.

MATERIALS

Component	Material
Hanger	304 Stainless Steel
Pipe	304 Stainless Steel
Hanger Adapter	304 Stainless Steel
Tube	304 Stainless Steel
Bottom Cap	304 Stainless Steel w/ Nitrile Seal and PET Polyester
Motor Support	NBR



ESPC SHROUDS - BOTTOM INTAKE SCREEN SHROUD

The bottom-intake screen shroud is designed to be used in vertical or deviated wells where the pump is being placed below the well perforations and debris could be an issue. The shroud is 4.5" in diameter, and directs fluid flow past the motor for improved cooling. A reverse-flow intake assists in minimizing the amount of gas drawn into the pump. The shroud includes a wound screen with 2x6 mm rectangular slots to prevent harmful debris from passing through the pump.

MATERIALS

Component	Material
Hanger	304 Stainless Steel
Hanger Adapter	304 Stainless Steel
Pipe	304 Stainless Steel
Tube	304 Stainless Steel
Fixed Tube Screen	304 Stainless Steel
Motor Support	NBR

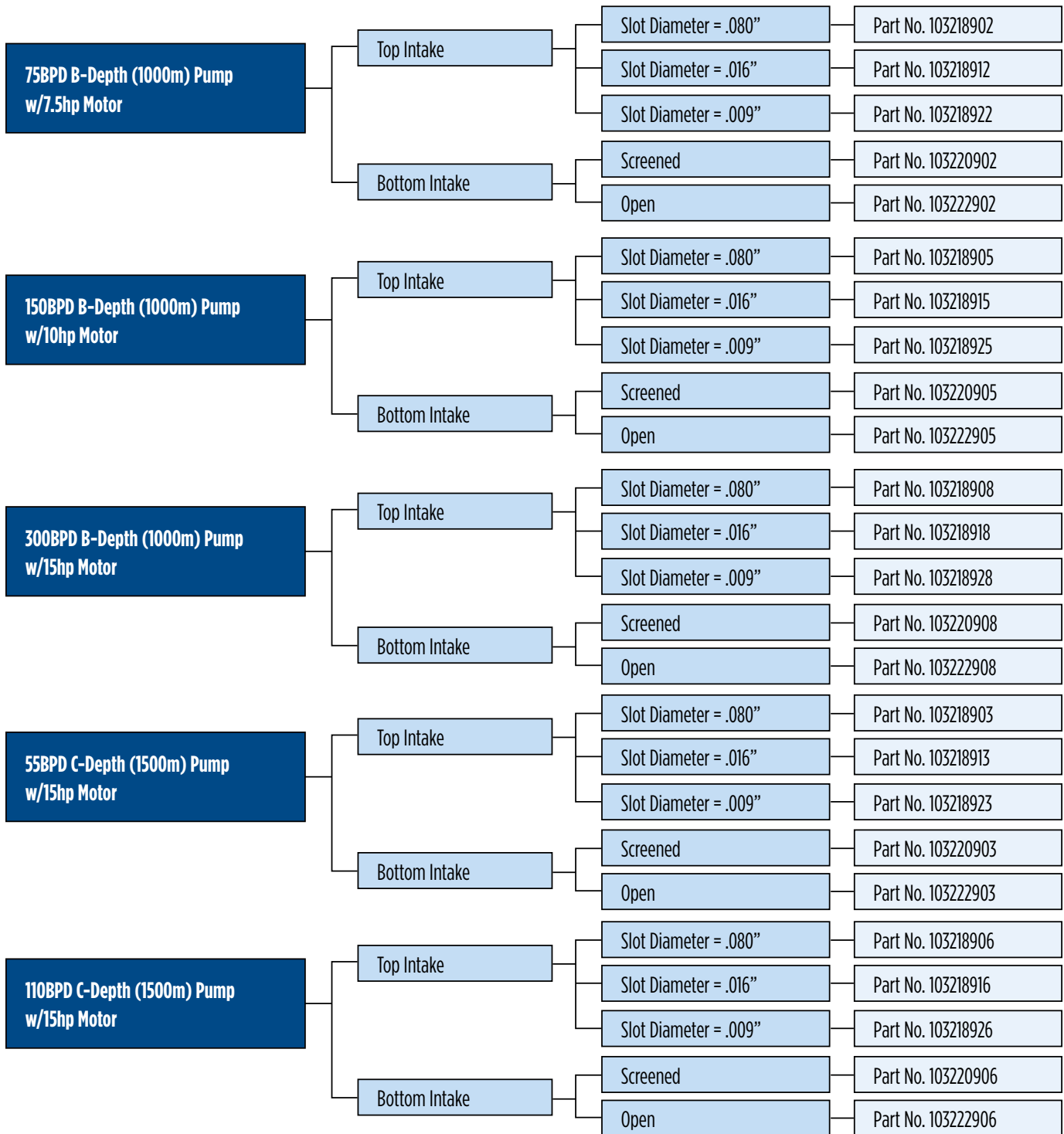




ESPC SHROUDS - SHROUD SIZING

SHROUD SELECTION

Artificial Lift shrouds are designed specifically for a certain Artificial Lift ESPCP pump and motor combination. Locate your pump and motor combination below and follow the flow diagram until you reach your shroud part number. For custom lengths and configurations, contact Franklin Electric.



ESPC SHROUDS - SHROUD COMPONENTS

SHROUD COMPONENTS

The following table lists the components that make up the shroud. Find your shroud part number, then follow across the table to view the shroud components.

75 BPD B-Depth (1000 m) ESPCP w/7.5 HP Motor												
Part No.	Intake Type	Shroud Type	Pipe [Screens]	Tube	Screen [Slot Dia.]	Hanger	Hanger Adapter	Bottom Cap Seal	Damper Kit	Motor Guide Type	Description	Length (in)
			(mm/in)									
103218902	Top	Motor Seal	106891930 (1574.8/62) [.08"/.016"]	103211907 (2677.9/105.43)	104203101 (609.6/24) [.080"]	104201901 (76.2/3.00)	-	103232901 (94.5-96.0/ 3.73-3.77)	305734904 (qty. 2) (169.1/6.66)	Torq. Arrest. 305734001 (184.2/7.26)	Shroud; Top Motor Seal 75B/ 7.5 hp w/Torq. Arrest. (.080")	162
103218912					104203102 (609.6/24) [.016"]			103232901 (94.5-96.0/ 3.73-3.77)			Shroud; Top Motor Seal 75B/ 7.5 hp w/Torq. Arrest. (.016")	
103218922					104203111 (914.4/36) [.009"]			103232901 (94.5-96.0/3.73-3.77)			Shroud; Top Motor Seal 75B/ 7.5 hp w/Torq. Arrest. (.009")	
103220902	Bottom	Screen	106891901 (283.8/11.7)	103211908 (3177.9/125.11)	103216901 (956/37.64) [.080"]	104210901 (94.5-96.0/ 3.73-3.77)	-	-	-	Motor Supp. 305734902	Shroud; Bot. Screened 75B/ 7.5 hp w/Motor Supp.	149
103222902		Open			-			103232901 (94.5-96.0/3.73-3.77)			Shroud - Bot. Open 75B/ 7.5 hp w/Motor Supp.	111

150 BPD B-Depth (1000 m) ESPCP w/10 HP Motor												
Part No.	Intake Type	Shroud Type	Pipe [Screens]	Tube	Screen [Slot Dia.]	Hanger	Hanger Adapter	Bottom Cap Seal	Damper Kit	Motor Guide Type	Description	Length (in)
			(mm/in)									
103218905	Top	Motor Seal	106891917 (1626/64) [.080"/.016"]	103211907 (2677.9/105.43)	104203101 (609.6/24) [.080"]	104201901 (76.2/3.00)	-	103232901 (94.5-96.0/3.73-3.77)	305734904 (qty. 2) (169.1/6.66)	Torq. Arrest. 305734001 (184.2/7.26)	Shroud; Top Motor Seal 150B/ 10 hp w/Torq. Arrest. (.080")	165
103218915					104203102 (609.6/24) [.016"]						Shroud; Top Motor Seal 150B/ 10 hp w/Torq. Arrest. (.016")	
103218925					104203111 (914.4/36) [.009"]						Shroud; Top Motor Seal 150B/ 10 hp w/Torq. Arrest. (.009")	
103220905	Bottom	Screen	106891901 (284/11.2)	103211908 (3177.9/125.11)	103216901 (956/37.64) [.080"]	104210901 (94.5-96.0/ 3.73-3.77)	-	-	-	Motor Supp. 305734902	Shroud; Bot. Screened 150B/ 10 hp w/Motor Supp.	168
103222905		Open			-			103232901 (94.5-96.0/3.73-3.77)			Shroud; Bot. Open 150B/ 10 hp w/Motor Supp.	131

4" Shroud Kit								
Part No.	Pump	Pump Length (in)	Screen/Tube	LS	LH	Discharge Pipe	LD	OAL
305600002	75B	63.95	103237102	32	78.7	106891118	67.9	112
305600003	55C	81.2	103237103		98.4			132
305600002	150B	61.5	103237102		78.7			112
305600003	110C	82.9	103237103		98.4			132
305600002	300B	75	103237102		78.7			112

300 BPD B-Depth (1000 m) ESPCP w/15 HP Motor							
Part No.	Intake Type	Shroud Type	Pipe (mm/in)	Screw/Tube (mm/in)	Screen Slot Dia. (in)	Motor Guide Type	Length (in)
305600002	Top	Motor Seal	106891118 (1725/67.9)	103237102 (2837/111.7)	0.014	See 4" picture tab	112.44

110 BPD C-Depth (1500 m) ESPCP w/15 HP Motor							
Part No.	Intake Type	Shroud Type	Pipe (mm/in)	Screw/Tube (mm/in)	Screen Slot Dia. (in)	Motor Guide Type	Length (in)
305600003	Top	Motor Seal	106891118 (1725/67.9)	103237103 (3338/131.4)	0.014	See 4" picture tab	132.14

150 BPD B-Depth (1000 m) ESPCP w/10 HP Motor							
Part No.	Intake Type	Shroud Type	Pipe (mm/in)	Screw/Tube (mm/in)	Screen Slot Dia. (in)	Motor Guide Type	Length (in)
305600002	Top	Motor Seal	106891118 (1725/67.9)	103237102 (2837/111.7)	0.014	See 4" picture tab	112.44

55 BPD C-Depth (1500 m) ESPCP w/15 HP Motor							
Part No.	Intake Type	Shroud Type	Pipe (mm/in)	Screw/Tube (mm/in)	Screen Slot Dia. (in)	Motor Guide Type	Length (in)
305600003	Top	Motor Seal	106891118 (1725/67.9)	103237103 (3338/131.4)	0.014	See 4" picture tab	132.14

75 BPD B-Depth (1000 m) ESPCP w/7.5 HP Motor							
Part No.	Intake Type	Shroud Type	Pipe (mm/in)	Screw/Tube (mm/in)	Screen Slot Dia. (in)	Motor Guide Type	Length (in)
305600002	Top	Motor Seal	106891118 (1725/67.9)	103237102 (2837/111.7)	0.014	See 4" picture tab	112.44



ESPC SHROUDS - SHROUD COMPONENTS

SHROUD COMPONENTS

The following table lists the components that make up the shroud. Find your shroud part number, then follow across the table to view the shroud components.

300 BPD B-Depth (1000 m) ESPCP w/15 HP Motor												
Part No.	Intake Type	Shroud Type	Pipe [Screens]	Tube	Screen [Slot Dia.]	Hanger	Hanger Adapter	Bottom Cap Seal	Damper Kit	Motor Guide Type	Description	Length (in)
			(mm/in)									
103218908	Top	Motor Seal	106891919 (1781/70.1)	103211908 (3177.9/125.11)	104203101 (609.6/24) [.080"]	104201901 (76.2/3.00)	-	103232901 (94.5-96.0/3.73-3.77)	305734904 (qty. 2) (169.1/6.66)	Torq. Arrest. 305734001 (184.2/7.26)	Shroud; Top Motor Seal 300B/15 hp w/Torq. Arrest. (.080")	202
103218918			104203102 (609.6/24) [.016"]		Shroud; Top Motor Seal 300B/15 hp w/Torq. Arrest. (.016")							
103218928			106891933 (2085.3/82.1) [.009"]		104203111 (914.4/36) [.009"]						Shroud; Top Motor Seal 300B/15 hp w/Torq. Arrest. (.009")	
103220908	Bottom	Screen	106891901 (284/11.2)	103211910 (4177.9/164.48)	103216901 (956/37.64) [.080"]	104210901 (94.5-96.0/3.73-3.77)	-	-	-	Motor Supp. 305734902	Shroud; Bot. Screened 300B/15 hp w/Motor Supp.	208
103222908		Open	-	-	-						103232901 (94.5-96.0/3.73-3.77)	Shroud; Bot. Open 300B/15 hp w/Motor Supp.

55 BPD C-Depth (1500 m) ESPCP w/15 HP Motor												
Part No.	Intake Type	Shroud Type	Pipe [Screens]	Tube	Screen [Slot Dia.]	Hanger	Hanger Adapter	Bottom Cap Seal	Damper Kit	Motor Guide Type	Description	Length (in)
			(mm/in)									
103218903	Top	Motor Seal	106891917 (1625.6/64)	103211908 (3177.9/125.11)	104203101 (609.6/24) [.080"]	104201901 (76.2/3.00)	-	103232901 (94.5-96.0/3.73-3.77)	305734904 (qty. 2) (169.1/6.66)	Torq. Arrest. 305734001 (184.2/7.26)	Shroud; Top Motor Seal 55B/15 hp w/Torq. Arrest. (.080")	202
103218913			104203102 (609.6/24) [.016"]		Shroud; Top Motor Seal 55B/15 hp w/Torq. Arrest. (.016")							
103218923			106891932 (1930.4/76) [.009"]		104203111 (914.4/36) [.009"]						Shroud; Top Motor Seal 55C/15 hp w/Torq. Arrest. (.009")	
103220903	Bottom	Screen	106891901 (284/11.2)	103211910 (4177.9/164.48)	103216901 (956/37.64) [.080"]	104210901 (94.5-96.0/3.73-3.77)	-	-	-	Motor Supp. 305734902	Shroud; Bot. Screened 55B/15 hp w/Motor Supp.	208
103222903		Open	-	-	-						103232901 (94.5-96.0/3.73-3.77)	Shroud; Bot. Open 55B/15 hp w/Motor Supp.

110 BPD C-Depth (1500 m) ESPCP w/15 HP Motor												
Part No.	Intake Type	Shroud Type	Pipe [Screens]	Tube	Screen [Slot Dia.]	Hanger	Hanger Adapter	Bottom Cap Seal	Damper Kit	Motor Guide Type	Description	Length (in)
			(mm/in)									
103218906	Top	Motor Seal	106891130 (1574.8/62)	103211908 (3177.9/125.11)	104203101 (609.6/24) [.080"]	104201901 (76.2/3.00)	-	103232901 (94.5-96.0/3.73-3.77)	305734904 (qty. 2) (169.1/6.66)	Torq. Arrest. 305734001 (184.2/7.26)	Shroud; Top Motor Seal 110B/15 hp w/Torq. Arrest. (.080")	202
103218916			104203102 (609.6/24) [.016"]		Shroud; Top Motor Seal 110B/15 hp w/Torq. Arrest. (.016")							
103218926			106891131 (1879.6/74) [.009"]		104203111 (914.4/36) [.009"]						Shroud; Top Motor Seal 110C/15 hp w/Torq. Arrest. (.009")	
103220906	Bottom	Screen	106891901 (284/11.2)	103211910 (4177.9/164.48)	103216901 (956/37.64) [.080"]	104210901 (94.5-96.0/3.73-3.77)	-	-	-	Motor Supp. 305734902	Shroud; Bot. Screened 110B/15 hp w/Motor Supp.	208
103222906		Open	-	-	-						103232901 (94.5-96.0/3.73-3.77)	Shroud; Bot. Open 110B/15 hp w/Motor Supp.

4" Shroud Offering												
Part No.	Intake Type	Shroud Type	Pipe	Tube	Screen Slot Dia.	Motor Guide Type	Description	Length (in)				
			(mm/in)									
305600002	Top	Motor Seal	10689118 (1725/67.9)	103237102 (2837/111.7)	(356/.014)	See 4" picture tab	75BPD B-Depth (1000 m) ESPCP w/75 hp Motor	112.44				
305600003				103237103 (3338/131.4)			55BPD C-Depth (1500 m) ESPCP w/15 hp Motor	132.14				
305600002				103237102 (2837/111.7)			150BPD B-Depth (1000 m) ESPCP w/10 hp Motor	112.44				
305600003				103237103 (3338/131.4)			110BPD C-Depth (1500 m) ESPCP w/15 hp Motor	132.14				
305600002				103237102 (2837/111.7)			300BPD B-Depth (1000 m) ESPCP w/15 hp Motor	112.44				

Shroud Components	
Part No.	Description
106890101	O-ring
104202101	SHCS M10X16SS
101214101	Split Ring (Qt. 2)
1160001	Spiral Retaining Ring
101215101	Restriction Ring
282574101	Socket Head Screw
282574103	Socket Head Screw (2.25")
152779101	Spacer
282575102	Washer

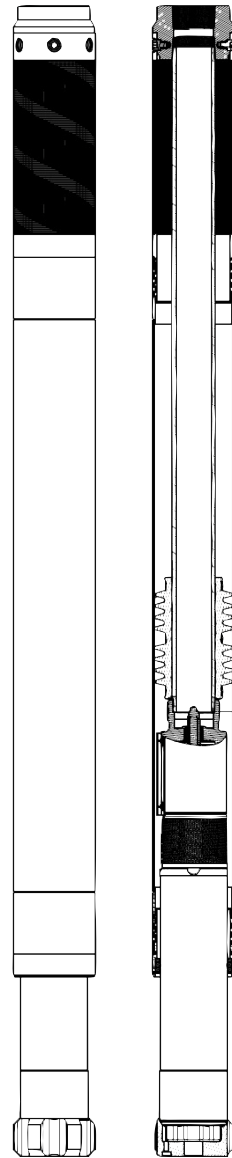
4" Shroud Components	
Part No.	Description
282030309	SHCS M8X25 A4-70 DIN 912/DIN ISO 4762
282596102	Lock Washer 5/16 316SS
282610101	O-ring Cord
282611101	Clamp, Hose 316SS
305595902	4" Motor Kit
305595901	4.5" Motor Kit

ESP SHROUDS - TOP INTAKE MOTOR SEAL SHROUD

The ESP top-intake motor seal shroud is designed to be used in wells with high gas content where the pump is placed above the well perforations. The shroud is 4.5" in diameter, and the motor projects beyond the bottom of the shroud for improved cooling. Pump dampers are used to minimize vibration between the shroud and pump, and a rubber torque arrestor is used to help protect and guide the assembly into the well. The shroud includes a wound screen with rectangular slots to prevent harmful debris from passing through the pump. Two different screens are available; the standard screen with 2 mm (.08") slots for fluid to enter, and an alternate screen with 0.41 mm (.016") slots.

MATERIALS

Component	Material
Hanger	304 Stainless Steel
Static Screen	304 Stainless Steel
Pipe	304 Stainless Steel
Damper	Synthetic Rubber
Tube	304 Stainless Steel
Bottom Cap	304 Stainless Steel w/ Nitrile Seal and PET Polyester
Torque Arrestor	UHMW PE



ESP SHROUDS

SHROUD COMPONENTS

The following table lists the components that make up the shroud. Find your shroud part number, then follow across the table to view the shroud components.

7 US GPM (250 BPD)											
Model No.	Part No.	Intake Type	Shroud Type	Pipe	Tube	Screen [Slot Dia.]	Hanger	Bottom Cap Seal	Damper Kit	Motor Guide	Description
				(mm/in)							
95150730	103236901	Top	Motor Seal	106891925 (1295.4/51)	103211905 (1677.7/66.05)	104203101 (609.6/24) [.080"]	104201901 (76.2/3.00)	103232901 (94.5-96.0/ 3.73-3.77)	305734904 (qty. 1) (169.1/6.66)	305595901	Shroud; Top Motor Seal 7 US gpm/3 hp w/Guide (.080")
95150735	103236902			106891926 (1327.2/52.25)	103211906 (2177.8/85.74)						Shroud; Top Motor Seal 7 US gpm/5 hp w/Guide (.080")

10 US GPM (350 BPD)											
Model No.	Part No.	Intake Type	Shroud Type	Pipe	Tube	Screen [Slot Dia.]	Hanger	Bottom Cap Seal	Damper Kit	Motor Guide	Description
				(mm/in)							
95151030	103236903	Top	Motor Seal	106891928 (1422.4/56)	103211905 (1677.7/66.05)	104203101 (609.6/24) [.080"]	104201901 (76.2/3.00)	103232901 (94.5-96.0/ 3.73-3.77)	305734904 (qty. 1) (169.1/6.66)	305595901	Shroud; Top Motor Seal 10 US gpm/3 hp w/Guide (.080")
95151035	103236904			106891930 (1574.8/62)	103211906 (2177.8/85.74)						Shroud; Top Motor Seal 10 US gpm/5 hp w/Guide (.080")
95151040	103236905			106891929 (1511.3/59.5)	103211907 (2677.9/105.43)						Shroud; Top Motor Seal 10 US gpm/7.5 hp w/Guide (.080")
95151045	103236906			106891929 (1511.3/59.5)	103211908 (3177.8/125.11)						Shroud; Top Motor Seal 10 US gpm/10 hp w/Guide (.080")

15 US GPM (500 BPD)											
Model No.	Part No.	Intake Type	Shroud Type	Pipe	Tube	Screen [Slot Dia.]	Hanger	Bottom Cap Seal	Damper Kit	Motor Guide	Description
				(mm/in)							
95151530	103236907	Top	Motor Seal	106891930 (1574.8/62)	103211905 (1677.7/66.05)	104203101 (609.6/24) [.080"]	104201901 (76.2/3.00)	103232901 (94.5-96.0/ 3.73-3.77)	305734904 (qty. 1) (169.1/6.66)	305595901	Shroud; Top Motor Seal 15 US gpm/3 hp w/Guide (.080")
95151535	103236908			106891924 (1257.3/49.5)	103211905 (1677.7/66.05)						Shroud; Top Motor Seal 15 US gpm/5 hp w/Guide (.080")
95151540	103236909			106891927 (1358.9/53.5)	103211906 (2177.8/85.74")						Shroud; Top Motor Seal 15 US gpm/7.5 hp w/Guide (.080")
95151545	103236910			106891928 (1422.4/56)	103211907 (2677.9/105.43)						Shroud; Top Motor Seal 15 US gpm/10 hp w/Guide (.080")

20 US GPM (700 BPD)											
Model No.	Part No.	Intake Type	Shroud Type	Pipe	Tube	Screen [Slot Dia.]	Hanger	Bottom Cap Seal	Damper Kit	Motor Guide	Description
				(mm/in)							
95152035	103236911	Top	Motor Seal	106891916 (1164/45.83)	103211905 (1677.7/66.05)	104203101 (609.6/24) [.080"]	104201901 (76.2/3.00)	103232901 (94.5-96.0/ 3.73-3.77)	305734904 (qty. 1) (169.1/6.66)	305595901	Shroud; Top Motor Seal 20 US gpm/5 hp w/Guide (.080")
95152040	103236912			106891923 (1193.8/47)	103211906 (2177.8/85.74)						Shroud; Top Motor Seal 20 US gpm/7.5 hp w/Guide (.080")
95152045	103236913			106891923 (1193.8/47)	103211907 (2677.9/105.43)						Shroud; Top Motor Seal 20 US gpm/10 hp w/Guide (.080")

25 US GPM (900 BPD)											
Model No.	Part No.	Intake Type	Shroud Type	Pipe	Tube	Screen [Slot Dia.]	Hanger	Bottom Cap Seal	Damper Kit	Motor Guide	Description
				(mm/in)							
95152535	103236914	Top	Motor Seal	106891924 (1257.3/49.5)	103211905 (1677.7/66.05)	104203101 (609.6/24) [.080"]	104201901 (76.2/3.00)	103232901 (94.5-96.0/ 3.73-3.77)	305734904 (qty. 1) (169.1/6.66)	305595901	Shroud; Top Motor Seal 25 US gpm/5 hp w/Guide (.080")
95152540	103236915			106891926 (1327.2/52.25)	103211906 (2177.8/85.74)						Shroud; Top Motor Seal 25 US gpm/7.5 hp w/Guide (.080")
95152545	103236916			106891929 (1511.3/59.5)	103211907 (2677.9/105.43)						Shroud; Top Motor Seal 25 US gpm/10 hp w/Guide (.080")

STANDARD SHROUD

In vertical wells with a casing size of 5.5" or larger, the bottom-intake standard shroud can be used in Artificial Lift applications to increase the flow of fluid past the motor to aid in cooling and system performance.

The shroud is attached to the hanger with ASTM flush threads that encompass the motor and pump within the sleeve. The hanger is attached to the system pump and drop tube with 2" NPT threads on both ends.

It is recommended that a motor support guide is used for system stability.

FLOW SLEEVE SPECIFICATIONS

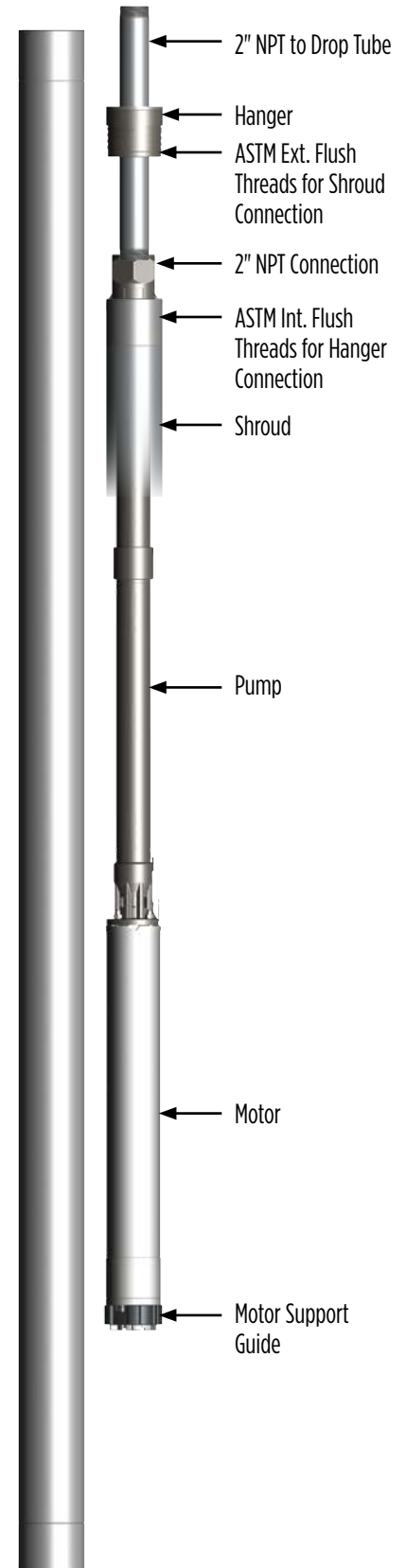
- 4.5" OD
- 132" length
- Constructed from 4" Schedule 10 304 stainless steel

APPLICATION DETAIL

- Vertical wells
- Casing size of 5.5" or larger
- Bottom-intake design
- 4" ESP and ESPCP systems
- Top-fed wells
- Open-sump applications

ORDERING INFORMATION

Part No.	Description
106894901	Standard Shroud
106893901	Hanger
305734902	Motor Support Guide



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