

Non-explosive Dump Bailer Systems



NeoHybridPDB Systems –

The most advanced non-explosive PDB Systems available.

NeoHybridPDB Systems are a hybrid combination of the best features of conventional PDB systems and gravity bailer systems. Dump Bailer Actuators (DBAs) are the driving force of PDB Systems. **NeoDBAs** are more than twice as powerful as the DBAs in other same diameter PDB systems.

NeoDBAs impose high shear gradients in the cement slurry, accelerate the entire slurry column to high velocities, and impart slurry column momentum that assures slurry placement at the desired service depth.

NeoHybridPDB Systems allow operators to run larger diameter x longer bailer systems, therein allowing operators to place as much as 50% more cement slurry per bailer run.

NeoHybridPDB Systems are more powerful, easier to use, and have shorter turn-around times than any other PDB Systems. **NeoHybridPDB** Systems provide superior performance and greater reliability compared to conventional PDB and gravity bailer systems.

Contact NeoProducts about standard, sour service, and HPHT service models.



Dump Bailer Actuator (DBA)

Shear Piston Assembly (SPA)



NeoHybridPDB Features and Benefits

- Eliminates burdens related to use and transport of explosives.
- Dumps reliably in well deviations up to 75°.
- Easier to run and quicker turn-around than any other PDB systems.
- Only expendables are 2 fl-oz of hydraulic fluid per run and o-ring seals between jobs.
- Able to run larger dia x longer lengths and dump every time.
- Accommodates bottom filling and top filling.
- **Neo**HybridPDB Systems are available in the following sizes:
1 5/8", 1 3/4", 2", 2 1/8", 2 1/4", 2 1/2", 3", 4" & 5" run-in diameters.

NeoHybridPDB[®] Systems - At the Leading Edge of Non-explosive PDB Technology.

Contact **Neo**Products for more information on **NeoHybridPDB[®] Systems**.



NeoHybridPDB® Systems - Std Service Specifications

NeoDumpBailerActuator (NeoDBA) Model	Bailer Dia.	P/N	Dimensions & Capacities				Service Ratings					
			Length of NeoDBA & Shear Piston Sub-Assembly (SPA)	Capacity per 10 ft Bailer	Length of 4 Joint NeoPDB System	Capacity of 4 Joint NeoPDB System	Max BHP	Max BHT				
1-5/8" NeoDBA *	1-5/8" (4.14 cm)	0118-163-163	NeoDBA 67.38" (171 cm) SPA 11" (28 cm)	0.92 gal (3.48 l)	46 ft, 6 in (14.2 m)	3.68 gal (13.93 l)	15,000 psig (1,020 bar)	350° F (177° C)				
	1-3/4" (4.45 cm)	0118-163-175		1.11 gal (4.20 l)		4.44 gal (16.80 l)						
	2" (5.08 cm)	0118-163-200		1.37 gal (5.19 l)		5.48 gal (20.74 l)						
	2-1/8" (5.40 cm)	0118-163-213		1.62 gal (6.13 l)		6.48 gal (24.53 l)						
1-3/4" NeoDBA **	1-3/4" (4.45 cm)	0118-175-175	NeoDBA 67.38" (171 cm) SPA 11" (28 cm)	1.11 gal (4.20 l)	46 ft, 6 in (14.2 m)	4.44 gal (16.80 l)			15,000 psig (1,020 bar)	350° F (177° C)		
	2" (5.08 cm)	0118-175-200		1.37 gal (5.19 l)		5.48 gal (20.74 l)						
	2-1/8" (5.40 cm)	0118-175-213		1.62 gal (6.13 l)		6.48 gal (24.53 l)						
	2-1/2" (6.35 cm)	0118-175-250		2.22 gal (8.40 l)		8.88 gal (33.60 l)						
2-1/2" NeoDBA ***	2-1/2" (6.35 cm)	0118-250-250	NeoDBA 70.25" (178 cm) SPA 11" (28 cm)	2.22 gal (8.40 l)	46 ft, 9 in (14.3 m)	8.88 gal (33.60 l)					15,000 psig (1,020 bar)	350° F (177° C)
2-1/2" NeoDBA ****	3" (7.62 cm)	0118-250-300	NeoDBA 70.25" (178 cm) SPA 11" (28 cm)	3.15 gal (11.90 l)	46 ft, 9 in (14.3 m)	12.60 gal (47.60 l)						
	4" (10.16 cm)	0118-250-400		5.87 gal (22.20 l)		23.48 gal (88.80 l)						
	5" (12.70 cm)	0118-250-500		9.39 gal (35.50 l)		37.56 gal (142.00 l)						

* These systems are composed of a 1-5/8" NeoDBA, a X-over to the bailer OD (if needed), 4 or 5 o-ring sealed gravity bailer joints, and a shear piston assembly

** These systems are composed of a 1-3/4" NeoDBA, a X-over to the bailer OD (if needed), 4 or 5 o-ring sealed gravity bailer joints, and a shear piston assembly

*** This system is composed of a 2-1/2" NeoDBA, 4 or 5 o-ring sealed 2-1/2" gravity bailer joints, and a 2-1/2" shear piston assembly

**** These systems are composed of a 2-1/2" NeoDBA, a X-over to the bailer OD, 4 or 5 o-ring sealed gravity bailer joints, and a 3" shear piston assembly



NeoHybridPDB® Systems - HPHT Service Specifications

NeoDumpBailerActuator (NeoDBA) Model	Bailer Dia.	P/N	Dimensions & Capacities				Service Ratings					
			Length of NeoDBA & Shear Piston Sub-Assembly (SPA)	Capacity per 10 ft Bailer	Length of 4 Joint NeoPDB System	Capacity of 4 Joint NeoPDB System	Max BHP	Max BHT				
1-5/8" NeoDBA *	1-5/8" (4.14 cm)	0122-163-163	NeoDBA 67.38" (171 cm) SPA 11" (28 cm)	0.92 gal (3.48 l)	46 ft, 6 in (14.2 m)	3.68 gal (13.93 l)	25,000 psig (1,724 bar)	450° F (232° C)				
	1-3/4" (4.45 cm)	0122-163-175		1.11 gal (4.20 l)		4.44 gal (16.80 l)						
	2" (5.08 cm)	0122-163-200		1.37 gal (5.19 l)		5.48 gal (20.74 l)						
	2-1/8" (5.40 cm)	0122-163-213		1.62 gal (6.13 l)		6.48 gal (24.53 l)						
1-3/4" NeoDBA - HPHT **	1-3/4" (4.45 cm)	0122-175-175	NeoDBA 67.38" (171 cm) SPA 11" (28 cm)	1.11 gal (4.20 l)	46 ft, 6 in (14.2 m)	4.44 gal (16.80 l)			25,000 psig (1,724 bar)	450° F (232° C)		
	2" (5.08 cm)	0122-175-200		1.37 gal (5.19 l)		5.48 gal (20.74 l)						
	2-1/8" (5.40 cm)	0122-175-213		1.62 gal (6.13 l)		6.48 gal (24.53 l)						
	2-1/2" (6.35 cm)	0122-175-250		2.22 gal (8.40 l)		8.88 gal (33.60 l)						
2-1/8" NeoDBA - HPHT***	2-1/8" (5.40 cm)	0122-213-213	NeoDBA 70.25" (178 cm) SPA 11" (28 cm)	1.62 gal (6.13 l)	46 ft, 9 in (14.3 m)	6.48 gal (24.53 l)					25,000 psig (1,724 bar)	450° F (232° C)
	2-1/2" (6.35 cm)	0122-213-250		2.22 gal (8.40 l)		8.88 gal (33.60 l)						
	3" (7.62 cm)	0122-213-300		3.15 gal (11.90 l)		12.60 gal (47.60 l)						
2-1/2" NeoDBA - HPHT****	2-1/2" (6.35 cm)	0122-250-250	NeoDBA 70.25" (178 cm) SPA 11" (28 cm)	2.22 gal (8.40 l)	46 ft, 9 in (14.3 m)	8.88 gal (33.60 l)						
	3" (7.62 cm)	0122-250-300	NeoDBA 70.25" (178 cm) SPA 11" (28 cm)	3.15 gal (11.90 l)	46 ft, 9 in (14.3 m)	12.60 gal (47.60 l)						
	4" (10.16 cm)	0122-250-400		5.87 gal (22.20 l)		23.48 gal (88.80 l)						
	5" (12.70 cm)	0122-250-500		9.39 gal (35.50 l)		37.56 gal (142.00 l)						

* These systems are composed of a 1-5/8" NeoDBA, a X-over to the bailer OD (if needed), 1-5 o-ring sealed gravity bailer joints, and a shear piston assembly

** These systems are composed of a 1-3/4" NeoDBA, a X-over to the bailer OD (if needed), 1-5 o-ring sealed gravity bailer joints, and a shear piston assembly

*** These systems are composed of a 2-1/8" NeoDBA, a X-over to the bailer OD (if needed), 1-5 o-ring sealed gravity bailer joints, and a shear piston assembly

**** These systems are composed of a 2-1/2" NeoDBA, a X-over to the bailer OD (if needed), 1-5 o-ring sealed gravity bailer joints, and a shear piston assembly



NeoHybridPDB® Systems - Sour Service Specifications

NeoDumpBailerActuator (NeoDBA) Model	Bailer Dia.	P/N	Dimensions & Capacities				Service Ratings					
			Length of NeoDBA & Shear Piston Sub-Assembly (SPA)	Capacity per 10 ft Bailer	Length of 4 Joint NeoPDB System	Capacity of 4 Joint NeoPDB System	Max BHP	Max BHT				
1-5/8" NeoDBA *	1-5/8" (4.14 cm)	0121-163-163	NeoDBA 67.38" (171 cm) SPA 11" (28 cm)	0.92 gal (3.48 l)	46 ft, 6 in (14.2 m)	3.68 gal (13.93 l)	25,000 psig (1,724 bar)	450° F (232° C)				
	1-3/4" (4.45 cm)	0121-163-175		1.11 gal (4.20 l)		4.44 gal (16.80 l)						
	2" (5.08 cm)	0121-163-200		1.37 gal (5.19 l)		5.48 gal (20.74 l)						
	2-1/8" (5.40 cm)	0121-163-213		1.62 gal (6.13 l)		6.48 gal (24.53 l)						
1-3/4" NeoDBA - SS **	1-3/4" (4.45 cm)	0121-175-175	NeoDBA 67.38" (171 cm) SPA 11" (28 cm)	1.11 gal (4.20 l)	46 ft, 6 in (14.2 m)	4.44 gal (16.80 l)			25,000 psig (1,724 bar)	450° F (232° C)		
	2" (5.08 cm)	0121-175-200		1.37 gal (5.19 l)		5.48 gal (20.74 l)						
	2-1/8" (5.40 cm)	0121-175-213		1.62 gal (6.13 l)		6.48 gal (24.53 l)						
	2-1/2" (6.35 cm)	0121-175-250		2.22 gal (8.40 l)		8.88 gal (33.60 l)						
2-1/8" NeoDBA - SS***	2-1/8" (5.40 cm)	0121-213-213	NeoDBA 70.25" (178 cm) SPA 11" (28 cm)	1.62 gal (6.13 l)	46 ft, 9 in (14.3 m)	6.48 gal (24.53 l)					25,000 psig (1,724 bar)	450° F (232° C)
	2-1/2" (6.35 cm)	0121-213-250		2.22 gal (8.40 l)		8.88 gal (33.60 l)						
	3" (7.62 cm)	0121-213-300		3.15 gal (11.90 l)		12.60 gal (47.60 l)						
2-1/2" NeoDBA - SS****	2-1/2" (6.35 cm)	0121-250-250	NeoDBA 70.25" (178 cm) SPA 11" (28 cm)	2.22 gal (8.40 l)	46 ft, 9 in (14.3 m)	8.88 gal (33.60 l)						
	3" (7.62 cm)	0121-250-300	NeoDBA 70.25" (178 cm) SPA 11" (28 cm)	3.15 gal (11.90 l)	46 ft, 9 in (14.3 m)	12.60 gal (47.60 l)						
	4" (10.16 cm)	0121-250-400		5.87 gal (22.20 l)		23.48 gal (88.80 l)						
	5" (12.70 cm)	0121-250-500		9.39 gal (35.50 l)		37.56 gal (142.00 l)						

* These systems are composed of a 1-5/8" NeoDBA, a X-over to the bailer OD (if needed), 1-5 o-ring sealed gravity bailer joints, and a shear piston assembly

** These systems are composed of a 1-3/4" NeoDBA, a X-over to the bailer OD (if needed), 1-5 o-ring sealed gravity bailer joints, and a shear piston assembly

*** These systems are composed of a 2-1/8" NeoDBA, a X-over to the bailer OD (if needed), 1-5 o-ring sealed gravity bailer joints, and a shear piston assembly

**** These systems are composed of a 2-1/2" NeoDBA, a X-over to the bailer OD (if needed), 1-5 o-ring sealed gravity bailer joints, and a shear piston assembly