

Pneumatic Power Slip (Eq. to PS 16)

Model: SDTIPPS-27

Spectrum manufactures the Pneumatic Power Slip (SDTIPPS-27), an air-operated power slip designed to handle drill pipe and tubing with slip sizes ranging from 3.1/2" to 5.1/2", adjustable by changing inserts. The Pneumatic Power Slip can be controlled either by a lever or a foot-operated remote control valve.

Setting the Power Slip is achieved by a combination of gravity and applied air pressure, while release is facilitated solely by applied air pressure. This eliminates the need for manual setting and lifting of the slip. The Pneumatic Power Slip is compatible with 27.1/2", 37.1/2" and 49.1/2" Rotary Tables equipped with API standard Pin Drive Master Bushings.

Special Features:

- Ergonomically designed for user-friendliness.
- Operable by a single individual.
- Remote control capability allows operation from a safer distance.
- Enhances crew safety on the rig floor.

The unit consists of three major assemblies as follows:

1. Top Cover Assembly:

The Top Cover is designed in two halves and is equipped with two air cylinders connected via a ball floating joint secured with hex head screws. Mounted on four slip hangers with pins, the Top Cover Assembly facilitates smooth operation.

2. Slip Assembly:

Comprising four Slip Segments with a 16.1/2" grip length for gripping various tubular sizes, each segment is outfitted with 48 inserts, 4 insert retaining rings, and 8 Allen screws.

3. Bowl Assembly:

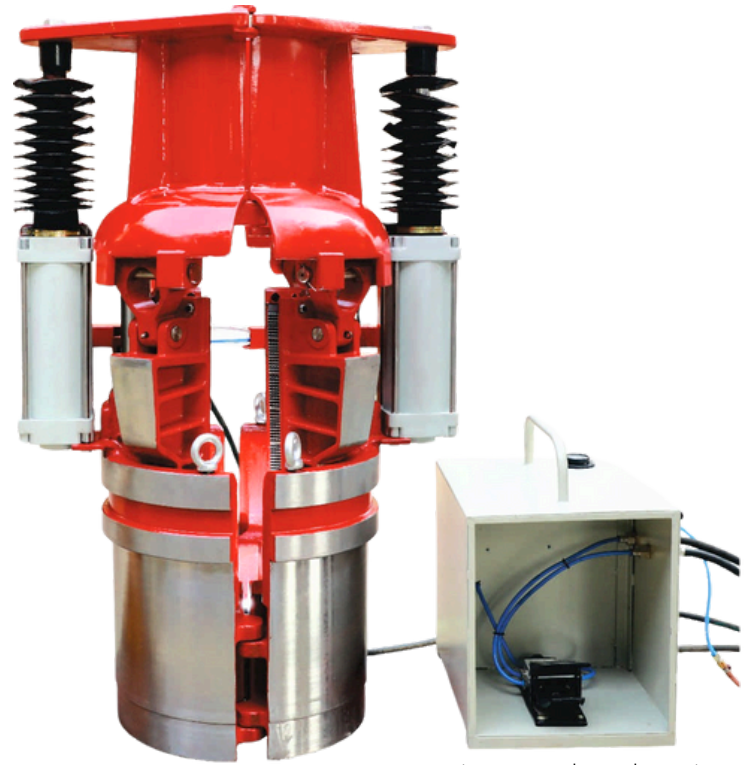
The Bowl Assembly, comprising two halves connected with a bowl hinge pin, enables easy installation and removal of the Power Slip from the Master Bushing. Equipped with four coil spring cartridges, it ensures efficient slip operation.

4. Air Cylinders Assembly:

This assembly includes two Air Cylinders connected to the Top Cover via floating joints. The Air Cylinders facilitate the lifting of the Top Cover Assembly along with the slip assembly.

5. Control System:

The Control System incorporates a filter/regulator, inline (pilot-operated) valve, hand-operated pilot valve, quick exhaust valve, and various connecting hoses and fittings. It can be operated via Hand Control or Foot Pedal Control System for enhanced flexibility and ease of use.



Pneumatic Power Slip
Figure No. 35

(Foot Operated Control System)

Part List of Pneumatic Power Slip:

S. No.	P/N	Description	Qty. Per Unit
1.	PPS - 21	Top Cover	1 No.
2.	PPS - 22	Hose Guard	1 Set
3.	PPS - 23	Hex Head Screw	2 No.
4.	PPS - 24	Air Cylinder	2 No.
5.	PPS - 25	Floating Joint	2 No.
6.	PPS - 26	Bellow	2 No.
7.	PPS - 27	Quick Exhaust Valve	4 No.
8.	PPS - 28	Slip Hanger	4 No.
9.	PPS - 29	Slip Hanger Top Pin w/Cotter Pin	4 No.
10.	PPS - 30	Slip Hanger Bottom Pin w/Cotter Pin	4 No.
11.	PPS - 31	5.1/2" Slip Segment to handle 4.1/2"-5.1/2" Drill Pipe	4 No.
12.	PPS - 32	4.1/2" Slip Segment to handle 3.1/2"-4.1/2" Drill Pipe	4 No.
13.	PPS - 33	Spring Cartridge	4 No.
14.	PPS - 34	Slip Bowl (One set of Two pcs.)	1 Set
15.	PPS - 35	Bowl Hinge Pin	1 No.
16.	PPS - 36	Brass Bush	4 No.
17.	PPS - 37	Pneumatic Control System	1 No.
18.	PPS - 38	Pneumatic Hose Unit consists of Hoses, Couplings with Connectors	1 No.
19.	PPS - 39	Foot Pedal to operate remote control valve	1 No.
20.	PPS - 40	Lever to operate remote control valve	1 No.
21.	PPS - 41	Lifting Sling (Four Hooks Type).	1 No.
22.	5163	Inserts to handle 3.1/2" Drill Pipe for Slip Body Size 4.1/2" (One set consists of 08 no. of Inserts)	4 Set
23.	5163-B	Inserts (Taper Design) to handle 3.1/2" Drill Pipe for Slip Body Size 4.1/2" (One set consists of 04 no. of Inserts)	4 Set
24.	5164	Inserts to handle 4" Drill Pipe for Slip Body Size 4.1/2" (One set consists of 08 no. of Inserts)	4 Set
25.	5164-B	Inserts (Taper Design) to handle 4" Drill Pipe for Slip Body Size 4.1/2" (One set consists of 04 no. of Inserts)	4 Set
26.	5165	Inserts to handle 4.1/2" Drill Pipe for Slip Body Size 4.1/2" (One set consists of 12 no. of Inserts)	4 Set
27.	5168	Inserts to handle 4.1/2" Drill Pipe for Slip Body Size 5.1/2" (One set consists of 08 no. of Inserts)	4 Set
28.	5168-B	Inserts (Taper Design) to handle 4.1/2" Drill Pipe for Slip Body Size 5.1/2" (One set consists of 04 no. of Inserts)	4 Set
29.	5169	Inserts to handle 5" Drill Pipe for Slip Body Size 5.1/2" (One set consists of 08 no. of Inserts)	4 Set
30.	5169-B	Inserts (Taper Design) to handle 5" Drill Pipe for Slip Body Size 5.1/2" (One set consists of 04 no. of Inserts)	4 Set
31.	5170	Inserts to handle 5.1/2" Drill Pipe for Slip Body Size 5.1/2" (One set consists of 12 no. of Inserts)	4 Set