

Stuffing Boxes for Pressure Control and Artificial Lift Systems

Tough You Can Trust

A Proud History of Quality

Lowery Wellheads

Lowery Wellheads was established in 1979 in Tulsa, Oklahoma. For 40 years Lowery has been a significant supplier of tubing and casing heads, stuffing boxes, tees, flanges, and associated products for the oil & gas industry. Lowery is known for their high quality products made primarily with American materials and labor. Lowery Wellheads is ISO 9001 2015 registered with a quality system that meets API Q1 certifications.

Whittle & Neher Systems

Whittle & Neher Systems, founded in 1984 in Oklahoma City, Oklahoma, is a leading manufacturer of high quality ductile iron, carbon, and stainless steel check valves for oilfield, industrial, and special applications. WNS manufactures a full line of high quality stuffing boxes, pumping & flowing tees, and cone type packing for the oil industry. WNS is committed to producing excellent products at a competitive price.

WNS Lowery[™]

In 2018, Whittle & Neher Systems acquired Lowery Wellheads to expand its oilfield product line. Whittle & Neher is best known for its diverse oilfield and industrial check valve product lines. The synergistic combination of Whittle & Neher and Lowery Wellheads created WNS Lowery[™] offering a broad single-source product line with quality and value pricing. WNS Lowery[™] has a proud history of providing outstanding Made-inthe-USA products for the oil industry. Through our commitment to quality and knowledge of the oil industry, we continue to set the mark other companies try to match.

WNS Lowery[™] is part of the Marsh Bellofram Group of Companies. Marsh Bellofram is a diversified industrial manufacturer with operations in the United States, United Kingdom, China, and India. Marsh Bellofram provides WNS Lowery[™] with management expertise, growth capital, engineering and manufacturing support, sourcing services, and administrative functions.

Tough You Can Trust

LOWERY

TOUGH STUFF

WNS Lowery[™] manufactures the toughest stuffing boxes available in the oil industry today. Undoubtedly one of the more critical components on a rod lift application, stuffing boxes house the seal that keeps production fluids in flow lines and out of the environment. WNS Lowery[™] offers a wide variety of boxes to meet your requirements.



Standard Style Stuffing Boxes Page 4

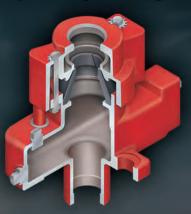


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Shut Down Control Device Page 14 Standard and Performance Style Packing Page 15

WNS Lowery[™] stocks a variety of sizes and materials to meet the rigorous demands of the oil industry.

Tough You Can Trust

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Standard Style Stuffing Boxes

The WNS Lowery[™] Standard Style Stuffing Boxes offer an economical solution to sealing off a rod lift well. The industry standard design has proven dependability when operating at 1500 PSI working pressure. There are numerous combinations of bodies and packing to work in most applications. All units can be fitted with an Oil Reservoir Gland or HE-LUG to improve the performance of the unit and reduce costly maintenance. The DPSB can also be fitted with a Pollution Control Base to seal off the unit if the polished rod were to fail.

Features

- 1500 PSI Working Pressure
- Industry Standard Design
- \bullet Design allows up to 3° pumping unit misalignment
- Optional Oil Reservoir Gland on all standard style stuffing boxes
- DPSB enables maintenance to the primary packing while under pressure
- TBSB combines a Stuffing Box and Pumping Tee to eliminate a leak point
- All styles can be converted to an "Inverted" Style Stuffing Box

Specifications

Model	Single Pack	Dual Pack	Tee Base		
Working Pressure		1500 PSI			
Material		Ductile Iron			
Bottom Connection Sizes (API or LP)	2", 2 ¹ /2" & 3"				
Bottom Connection	Male	Male	Female		
Split Cone Packing Sizes	1", 1 ¹ /8″, 1 ¹ /4	4", 1 ⁵ /16", 1 ³ /8", 1	1/2" & 1 ³ /4"		
Required Cone Pieces	4 Top 6 Top 4 To 1 Bottom 1 Bottom 1 Botto				
Approximate Weight	25 lbs.	50 lbs.	35 lbs.		

Dual Pack Stuffing Box (DPSB)

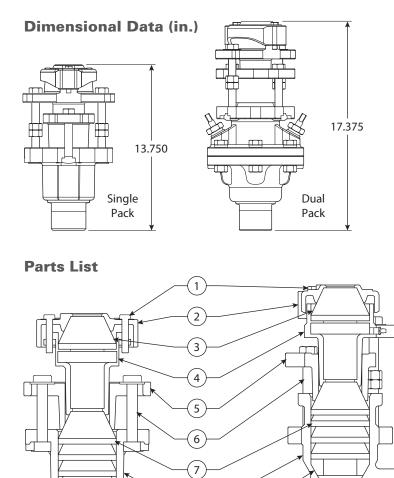
Tee Base Stuffing Box (TBSB)

Selection Matrix

	Sta	andard —		_		_			_	
Style										
Single Pac	ck		SP							
Dual Pack	[DP							
Tee Base*	÷		ТВ							
Mini-Pack	(MP							
Bottom	Connection									
2" 8R EUE		2-8R	2″ 11.5V LP		2-11.5V					
2.5" 8R EU	IE	2.5-8R	2.5″ 8V LP		2.5-8V					
3″ 8R EUE		3-8R	2.5" 11.5V LP		2.5-11.5V					
3 ON EUE		3-0N	3″ 8V LP		3-8V					
Packing S	Size									
1″	100	1 ¹ /8″	113	1 ¹ /4″	125	1 ⁵ /16"	131	_		
1	100	1 ³ /8″	138	1 ¹ /2″	150	1 ³ /4″	175			
Cone Pag	cking Mater	ial								
Soft Cone		Soft	Hard Cone		Hard	Hi Tem	p Cone	HT		
Gold Flake	e (Brass Teflor	[®]) Cone	BT	HS	N Cone			HSN		
Teflon [®] Co	one	Tef	Kevlar [®] Bras	ss Cone	КВ	EL800 (Cone	EL800		
Nitrile Don	ne	BND	HSN Dome		HSND	Aflas®	Dome	AD		
Options										
Inverted			I Sho	rt			S Coate	d		
Pollution C	Control			P	C HE-LU	JG				

Single Pack Stuffing Box (SPSB)

 $^{*}2^{3}\!/\!\!8''$ and $2^{7}\!/\!8''$ bottom connection only.



(13)

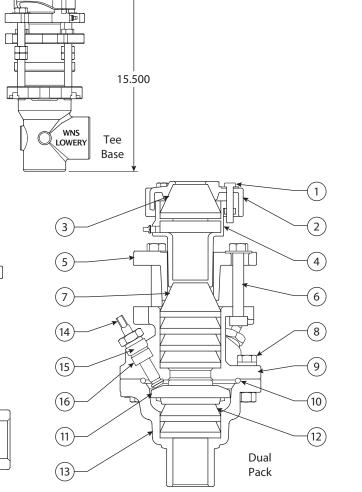
(17)

Tee

Base

Single

Pack



ltem	Descr	iption	Qty	Part Number
1	Lube Gland Bolt Set		1	101301
		1"-1 ⁵ /16"		106301
2	Lube Gland Cap	1 ³ /8"-1 ¹ /2"	1	106302
	Gianu Cap	1 ³ /4″		106303
3	Top Cone		1	See 7
		1"-1 ⁵ /16"		112301
4	Upper Lube Gland	1 ³ /8"-1 ¹ /2"	1	112302
	Lube Glanu	1 ³ /4″		112303
5	Lower Lube Gland		1	112401
6	Lower Lube	SP/DP	2	101501
D	Bolt Set	Tee Base	2	102101
		1″		114501
		1 ¹ /8″		114502
	Soft	1 ¹ /4"		114503
7	Cone	1 ⁵ /16"	1	114504
/	Packing	1 ³ /8″		114505
	Set	1 ⁷ /16″		114506
		1 ¹ /2″		114507
		1 ³ /4″		114508
8	DPSB Base/Body	Bolts	6	101801
9	DPSB Body		1	100901
10	DPSB 0-Ring		1	114401
	o :	1"-1 ⁵ /16"		119001
11	Compression Ring	1 ³ /8"-1 ¹ /2"	1	119002
	Ring	1 ³ /4″		119003

ltem	Descr	iption	Qty	Part Number
12	Top Cone		2	See 7
		2" 8RD EUE		100301
		2" 11 ¹ /2V LP		100302
		2 ¹ /2" 8RD EUE		100303
	DPSB Base	2 ¹ /2" 11 ¹ /2V LP	1	100304
		2 ¹ /2" 8V LP		100305
		3" 8RD EUE		100306
		3″ 8V LP		100307
13		2" 8RD EUE		100701
15		2" 11 ¹ /2V LP	1	100702
		2 ¹ /2" 8RD EUE		100703
	SPSB Base	2 ¹ /2" 11 ¹ /2V LP		100704
		2 ¹ /2" 8V LP		100705
		3″ 8V LP		100706
		3" 8RD EUE		100707
	Tee Base, 2"8RD E	UE x 2 ³ /8″ 11 ¹ /2V		30400079
	Tee Base, 2 ¹ /2" 8R	D EUE x 3 ¹ /2" 8V		30400090
14	Compression Bolt	Set	1	101901
15	Compression Nut S	Set	2	113501
16	Compression Gland Ring Set		2	118901
17	Support Follower	Support Follower		305191
18	Upper Lube Bolt	SP/DP	2	101401
10	Set (Not Shown)	Tee Base	2	102001

Note: Not all options are shown.

Performance Style Stuffing Boxes

The WNS Lowery[™] Performance Style Big Boy Stuffing Boxes (BBSB) offers a way to increase productivity while decreasing cost. The design reduces the effort associated

with installation and maintenance by decreasing the effort associated with bolt adjustments, increased corrosion resistance, and ensures even compression on the packing every time. All units can be fitted with a Performance Style HE-LUG to improve the performance of the unit and reduce costly maintenance. The BBSB can also be fitted with a Pollution Control Base to seal off the unit if the polished rod were to fail.

Features

- 1500 & 3000 PSI Working Pressure
- Compression Bolts enable maintenance to the primary packing while under pressure
- Even Packing Pressure and Adjustment
- Decreased Packing Maintenance Time
- Low Profile
- Corrosion Resistant Coatings Available
- Optional Performance Style HE-LUG
- Standard brass split ring reduces polished rod scoring

Specifications

Model	1500 Big Boy	3000 Big Boy		
Working Pressure	1500 PSI	3000 PSI		
Material	Ductile Iron	WCB Steel		
Bottom Connect. Sizes	2", 2 ¹ /2" & 3" (API or LP)			
Bottom Connection	Male			

Model	1500 Big Boy	3000 Big Boy		
Split Cone Packing Sizes	1", 1 ¹ /8", 1 ¹ /4", 1 ⁵ /16", 1 ³ /8", 1 ¹ /2" & 1 ³ /4"			
Required Cone Pieces	5 Top/1	Bottom		
Approximate Weight	45 lbs.	50 lbs.		

1500

Big Boy

Stuffing Box

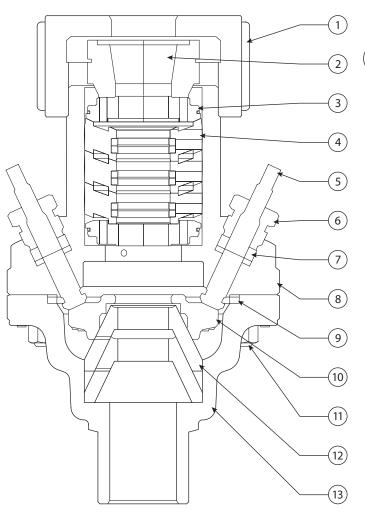
3000

Big Boy Stuffing Box

Selection Matrix

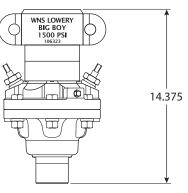
	BB	_				—						_	
Style													
Single P			SP										
Dual Pa			DP										
Workin	ng Pre	ssure											
1500 PS	SI				1500								
3000 PS	SI				3000								
Botton	n Con	nectio	n										
2″ 8R EL	UE		2-8R	ł	2" 11.5 V LP		2-11.5	V					
2.5″ 8 R	EUE		2.5-8	R	2.5" 8V LP		2.5-8\	/					
3″ 8R El			3-8R		2.5" 11.5V L	P	2.5-11.5	V					
5 01120			3-01		3″ 8 V L P		3-8V						
Packing	g Size												
1″	1	00	1 ¹ /8″		113	1/4″	125	1 ⁵ /16"	131				
'		00	1 ³ /8″		138 1	1/2″	150	1 ³ /4"	175				
Primar	ry Pac	king N	laterial /	Style			1						
Soft Cor	-		Soft		Hard Cone		Hard	Hi Te	mp Cone	HT			
		ass Tefl	on®) Cone		BT	HS	SN Cone			HSN			
Teflon [®]	^o Cone		Tef		Kevlar® Bra	ss Cone	KB		O Cone	EL800			
Nitrile D			BND		HSN Dome		HSND	Aflas	® Dome	AD			
Second	dary P	ackin	g Materia	al									
Soft Cor	ne			Soft	Hard	Cone		Hard	Hi Terr	np Cone	HT		
		ass Tefl	on®) Cone			BT	HSN	Cone			HSN		
Teflon [®]	⁾ Cone			Tef	Kevla	[®] Brass	Cone	KB	EL800	Cone	EL800		
Option	าร												
							С	HE-L					

Note: Consult factory for all options. Dome packing is required for 3000 PSI; cone packing for 1500 PSI models only.

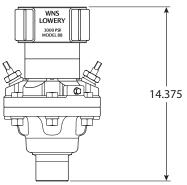


Dimensional Data (in.)

1500 Big Boy



3000 Big Boy



ltem	Descr	iption	Qty	Part Number
1	Top Cop	1500	1	106323
	Тор Сар	3000	I	106360
	Compression	1"-1 ⁵ /16"		119063
2	Compression Cone	1 ³ /8"-1 ¹ /2"	1	119067
	Colle	1 ³ /4″		119068
	Bronze Ring	1"-1 ⁵ /16"		119023
3	Set (Dome	1 ³ /8"-1 ¹ /2"	1	119027
	Packing Only)	1 ³ /4″		119028
		1″		114501
		1 ¹ /8″		114502
	Soft Cone De altin a	1 ¹ /4″		114503
		1 ⁵ /16″		114504
	Packing (1500 PSI	1 ³ /8″		114505
	Models Only)	1 ⁷ /16″		114506
		1 ¹ /2″		114507
4		1 ³ /4″	1	114508
4		1″		114521
		1 ¹ /8″		114522
	Buna-N	1 ¹ /4″		114523
	Dome	1 ⁵ /16"		114524
	Packing (3000 PSI	1 ³ /8″		114525
	Models Only)	1 ⁷ /16″		114526
	oute only,	1 ¹ /2″		114527
		1 ³ /4″		114528

ltem	Descr	iption	Qty	Part Number
5	Compression Bolt Set			101901
6	Compression Nut S	Set	1	113501
7	Compression Glan	d Ring Set	1	118901
8	Padu	1500	1	100912
0	Body	3000	I	100922
9	O-Ring		1	114401
	Communation	1"-1 ⁵ /16"		119001
10	Compression	1 ³ /8"-1 ¹ /2"	1	119002
	Ring	1 ³ /4″		119003
11	Body Bolt Set		1	101801
12	Packing (Cone Style	Only)	1	See 4
		2" 8RD EUE		100301
		2" 11 ¹ /2V LP		100302
	1500/3000	2 ¹ /2" 8RD EUE		100303
13	Base	2 ¹ /2" 11 ¹ /2V LP	1	100304
		2 ¹ /2" 8V LP		100305
		3" 8RD EUE	1	100306
		3″ 8V LP		100307
14	Square Plug (Not S	Shown)	2	117505

Note: Not all options are shown.

Pollution Control Stuffing Boxes

The WNS Lowery[™] Pollution Control Stuffing Boxes provide an automatic way to seal the well if the polished rod breaks. The Pollution Control Base and Flapper can be installed on the Standard Style Dual Pack Stuffing Box and all Performance Style Big Boy Stuffing Boxes. This design allows for maintenance to the primary packing while the unit is still under pressure. All units can be fitted with a HE-LUG to improve the performance of the unit and reduce costly maintenance.

Features

- 1500, 3000, & 5000 PSI Working Pressure
- Flapper automatically closes and seals if the Polished Rod were to break
- Flapper is made of brass to reduce wear to the polished rod under normal operation
- Dome style primary packing allows for wide range of applications
- Compression Bolts enable maintenance to be performed to the primary packing while under pressure
- Performance Style Big Boy Stuffing Boxes have two ¹/4"NPT Ports 180° apart on the body for a grease zerk and pressure gauge
- Optional HE-LUG for Improved Performance

Selection Matrix

PC Style Standard Style DP Dual Pack Performance Style BB Big Boy Working Pressure 1500 PSI 1500 3000 PSI 3000 5000 PSI 5000 **Bottom Connection** 2" 8R EUE 2-8R 2" 11.5V LP 2-11.5V 2.5" 8R EUE 2.5-8R 2.5" 8V LP 2.5-8V 2.5" 11.5V LP 2.5-11.5V 3" 8R EUE 3-8R 3" 8V LP 3-8V **Packing Size** 113 $1^{1/4''}$ 1 5/16" 1¹/8" 125 131 1″ 100 $1^{1/2''}$ 13/8" 138 150 13/4" 175 **Primary Packing Material / Style** Hi Temp Cone HT Soft Cone Soft Hard Cone Hard Gold Flake (Brass Teflon®) Cone BT **HSN** Cone HSN Teflon[®] Cone Kevlar[®] Brass Cone KB EL800 Cone EL800 Tef Nitrile Dome **BND** HSN Dome **HSND** Aflas[®] Dome AD **Secondary Packing Material** Soft Hard Cone Hard Hi Temp Cone Soft Cone HT Gold Flake (Brass Teflon®) Cone BT **HSN** Cone HSN EL800 Cone Teflon[®] Cone Tef Kevlar[®] Brass Cone KB EL800 Options Coated С HE-LUG HE

Note: Consult factory for all options. Dome packing is requird for 3000 and 5000 PSI; cone packing for 1500 PSI models only.

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1500 Big Boy Pollution Control Stuffing Box

3000 Big Boy **Pollution Control** Stuffing Box

5000 Big Boy Pollution Control Stuffing Box

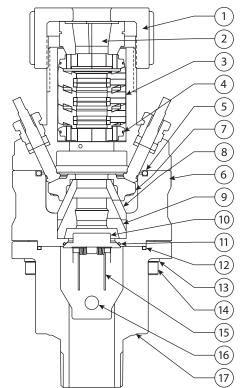


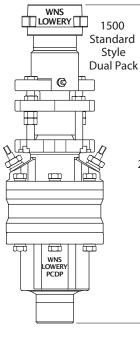
Specifications

Model	DP/1500 Big Boy	3000 Big Boy	5000 Big Boy		
Working Pressure	1500 PSI	3000 PSI	5000 PSI		
Body Material	Ductile Iron	WCB Steel			
Pollution Control Mat.		Carbon Steel			
Flapper Material	Brass				
Bottom Connect. Sizes	2", 2 ¹ /2" & 3" (API or LP)				

Model	DP/1500 Big Boy	3000 Big Boy	5000 Big Boy			
Bottom Connection	Male					
Packing Sizes	1	¹ /4", 1 ¹ /2" & 1 ³ /4	4 ″			
Packing Required	1 Primary Packing Set, 1 Secondary Bottom Cone & 1 Secondary Top Cone					

Parts List





Dimensional Data (in.)

1500 3000/5000 Big Boy Big Boy WNS LOWERY 3000 PSI MODEL BB WNS LOWERY BIG BOY 1500 PSI 106323) 26.0 m l O 19.0 日 ίΠ Ē μ Ē Ē WNS LOWERY PCDP WNS LOWERY PCDP

ltem	Desc	ription	Qty	Part Number
		1500		106323
1	Тор Сар	3000	1	106360
		5000		106370
	0	1"-1 ⁵ /16"		119063
2	Compression Cone	1 ³ /8"-1 ¹ /2"	1	119067
	Colle	1 ³ /4″		119068
	Buna-N	1 ¹ /4″		114523
3	Dome	1 ¹ /2"	1	114527
	Packing	1 ³ /4″		114528
	Bronze Ring	1"-1 ⁵ /16"		119023
4	Set (Dome Packing Only)	1 ³ /8"-1 ¹ /2"	1	119027
		1 ³ /4″		119028
-	Body	Buna-N	1	114401
5	0-Ring	Viton®	- 1	114411
6	Pollution Control	Spool	1	120200
	o :	1"-1 ⁵ /16"		119001
7	Compression Ring	1 ³ /8"-1 ¹ /2"	1	119002
	niliy	1 ³ /4″		119003
	0.4	1 ¹ /4″		115603
	Soft	1 ¹ /2″		115607
	Top Cone	1 ³ /4″		115608
8	HON	1 ¹ /4″	1	115683
	HSN Ton Cono	1 ¹ /2″		115687
	Top Cone	1 ³ /4″		115688

ltem	Descr	iption	Qty	Part Number
	Soft	1 ¹ /4"		115503
	Soll Bottom Cone	1 ¹ /2″		115507
9	Dottom Cone	1 ³ /4″	1	115508
9	HSN	1 ¹ /4″	1	115583
	Bottom Cone	1 ¹ /2"		115587
	Dottom Cone	1 ³ /4″		115588
10	Brass Flapper		1	112070
11	Flapper O-Ring, Vit	ton®	1	114402
12	Base O-Ring, Vitor	l®	1	114403
13 & 14	Base Bolt & Split Washer Asse	mbly	Set of 6	106460
15a			1	120210
15b	Flapper Springs			120211
16	¹ /2" NPT Square P	lug (Not Shown)	2	117503
		2" 8RD EUE		100321
		2" 11 ¹ /2V LP		100322
		2 ¹ /2" 8RD EUE		100323
17	PC Base	2 ¹ /2" 11 ¹ /2V LP	1	100324
		2 ¹ /2" 8V LP		100325
		3" 8RD EUE		100326
		3″ 8V LP		100327
18	Body Bolts (Not Sh	nown)	6	106450

Note: Not all options are shown.

Hybrid Flapper Stuffing Box

The WNS Lowery[™] Performance Style Hybrid Flapper Stuffing Box (HFSB) features an integrated flapper valve that enables the automatic sealing of the well if the polished rod breaks. The HFSB provides high pressure capability while also maintaining a low profile. The all steel unit is furnished for sour service (NACE MR0175) standard. The design allows for maintenance to the primary packing while the unit is still under pressure.

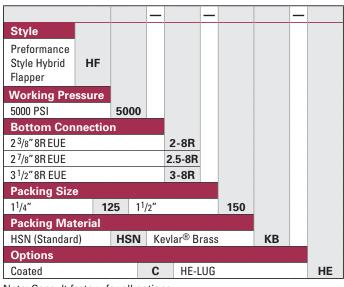
Features

- 5000 PSI Working Pressure
- Flapper Valve automatically closes and seals if the Polished Rod were to break
- Flapper is made of steel and aluminum bronze to reduce wear to the polished rod under normal operation
- Compression Bolts enable maintenance to be performed to the primary packing while under pressure
- V-Style primary packing is available for 1¹/4" and 1¹/2" polished rod sizes

Specifications

Model	5000 lb. Hybrid Flapper Stuffing Box		
Working Pressure	5000 PSI		
Body Material	4130 Steel		
Flapper Material	Aluminum Bronze		
Bottom Connect. Sizes	2 ³ /8", 2 ⁷ /8" & 3 ¹ /2" EUE		
Bottom Connection	Male		
Packing Sizes	1 ¹ /4″ & 1 ¹ /2″		
Deaking Dequired	1 Primary Packing Set		
Packing Required	1 Secondary Packing		
Approximate Weight	50 lbs.		

Selection Matrix



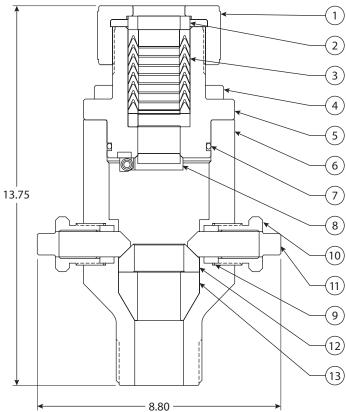
Note: Consult factory for all options.

Parts List

Item	Description		Qty	Part Number
1	Тор Сар		1	106430
2	Teflon [®] Ring	1 ¹ /4″	2	120324
2	1 ¹ /2"	1 ¹ /2"	2	120327
	HSN	1 ¹ /4″	1	114474
	V-Packing Kevlar [®] Brass	1 ¹ /2"		114477
3		1 ¹ /4″		114484
	V-Packing	1 ¹ /2″		114487
4	Body Bolts		6	119151
5	Body		1	100930

5000 Performance Style Hybrid Flapper Stuffing Box with the flapper valve in the closed position

Dimensional Data (in.)



ltem	Description			Part Number
		2 ³ /8" EUE		100331
6	Base	2 ⁷ /8" EUE	1	100333
		3 ¹ /2" EUE		100336
7	Body O-Ring, HSN		1	114413
8	Flapper Assembly		1	112071
9	Lock Down Bolt Pa	acking, HSN	2	118911
10	Lock Down Nut		2	113521
11	Lock Down Bolt		2	101921
12	Compression Ring		1	119009
10	Secondary	1 ¹ /4″	1	114464
13	Packing, HSN	1 ¹ /2"		114467

Note: Not all options are shown.

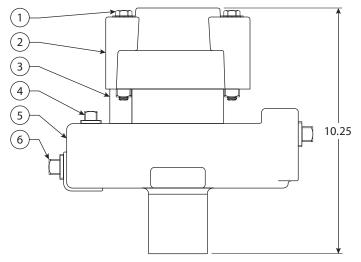
Oil Reservoir Gland

The WNS Lowery[™] Oil Reservoir Gland (ORG) provides an option to decrease wear and maintenance while also promoting clean and environmentally friendly well site hookup. The ORG can be installed on any Standard Style Stuffing Box by replacing the Upper LUB or the HE-LUG on the unit while still allowing up to 3° pumping unit misalignment. The ORG can hold one quart of oil that provides a consistent oil film on the polished rod from a top cone wiper installed in the unit. The ORG is also ideal for wells that pump or flow off and can be used in conjunction with a Shut Down Control Device to prevent spills and leaks.

Features

- Fits Any WNS Lowery[™] Standard Style Stuffing Box
- Ideal for wells that pump or flow off
- Ports allow use with a Shut Down Control Device
- One-Quart Oil Reservoir Capacity
- Top cone wiper controls oil film on polished rod
- Available in 1"-1³/4" Rod Sizes

Dimensional Data (in.)/Parts List



Specifications

Model	Oil Reservoir Gland
Material	Ductile Iron
Capacity	One Quart
Cone Packing Sizes	1", 1 ¹ /8", 1 ¹ /4", 1 ⁵ /16", 1 ³ /8", 1 ¹ /2" & 1 ³ /4"
Approximate Unit Weight	20 lbs. Empty

Oil Reservoir Gland

Selection Matrix

	ORG	—			
Cone Packing Size (Buna-N Standard)					
100	1 ¹ /8″		113		
100	1 ¹ /4″		125		
131	1 ³ /8″		138		
150	1 ³ /4″		175		
	100 131	$ 100 \frac{11/8"}{11/4"} 131 13/8" $	100 1 1/8" 1 1/4" 1 31 1 3/8" 1 3/8"		

ltem	Descr	iption	Qty	Part Number
1	Gland Bolt Set		1	102201
	Oil	Small		106401
2	Reservoir	Medium	1	106402
	Сар	Large		106403
3	Drain Nipple		1	113401
4	¹ /2" Plug		1	117503
	Oil	Small		101201
5	Reservoir	Medium	1	101202
	Body	Large		101203
6	³ /4" Plug		2	117504
7	Body Seal (Not Sh	own)	1	119851
		1″		115601
		11/8″		115602
	Cone	11/4″		115603
8		1 ⁵ /16″	1	115604
ð	Packing	13/8″		115605
	(Not Shown)	1 7/16"		115606
		11/2"		115607
		13/4"		115608

Note: Not all options are shown. Consult Factory for additional options.



High Efficiency Lubricating Upper Gland

The WNS Lowery[™] High Efficiency Lubricating Upper Gland (HE-LUG) provides a great secondary seal for the Standard Style and Performance Style Stuffing Boxes. The HE-LUG provides the best industry design of the leak detection glands by promoting clean and environmentally friendly well site hookup. The HE-LUG can be used in conjunction with a Pollution Control Base to minimize any potential leaks during standard operation and/or potential well failure. The Standard Style HE-LUG design allows for up to 3° pumping unit misalignment. The Performance Style HE-LUG modified flange design allows the unit to rotate, decreasing wear to the packing and polished rod, while also eliminating the potential of the Performance Style HE-LUG to separate from the Stuffing Box.

Features

- Fits any WNS Lowery[™] Standard Style and Performance Style Stuffing Box
- Provides an additional upper seal for the Stuffing Box
- Teflon[®] Lower and Upper Packing Rings decrease wear on the Polished Rod
- Uses V-Ring Style Packing
- Available in 1"-1³/4" Rod Sizes

1500 Standard Style Pollution Control Stuffing Box fitted with a 1500 Standard HE-LUG

> 5000 Big Boy Pollution Control Stuffing Box fitted with a 5000 Performance HE-LUG

5000 Performance HE-LUG

1500/3000 Performance

HE-LUG

Specifications

Model	Standard HE-LUG	Perfor HE-I		
Body/Cap Material	Ductile Iron			
Nut	N/A Alloy Steel			
V-Ring Packing Sizes	1", 11/8", 11/4", 15/16", 13/8", 11/2" & 13/4"			
Approximate Weight	18 lbs.	1500/3000 30 lbs.	5000 29 lbs.	

Selection Matrix

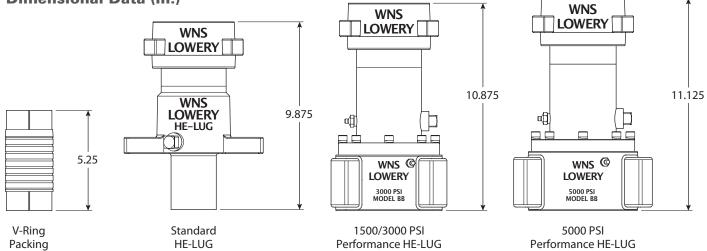
			_		
Style					
1500 lb. Standard	15S				
1500 lb. Performance	15P				
3000 lb. Performance	30P				
5000 lb. Performance	50P				
V-Ring Packi	ng Size				
1″	100	1 ¹ /8	"	113	
1 ¹ /4″	125	1 ⁵ /1	6″	131	
1 ³ /8″	138	1 ¹ /2	"	150	
1 ³ /4"				175	
Packing Mat	terial				
Buna-N	В	una	HS	SN	HSN

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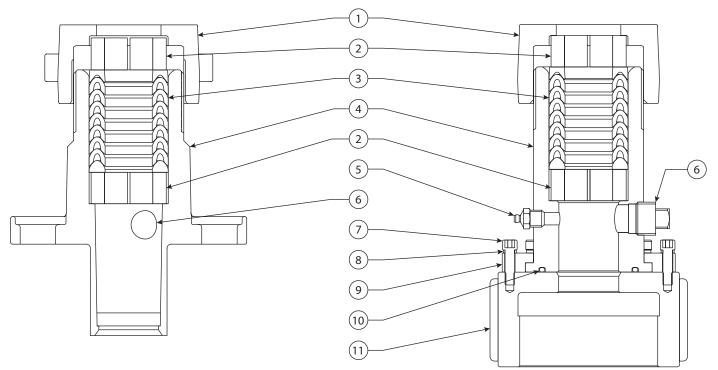
Standard

HE-LUG

Dimensional Data (in.)



Parts List



	Standard & Performance HE-LUG						
ltem	Desci	ription	Qty	Part Number			
1	HE-LUG Cap		1	106412			
		1"-1 ¹ /4"		120334			
2	Teflon®	1 ⁵ /16"-1 ³ /8"	2	120335			
2	Ring	1 ¹ /2″	2	120337			
		1 ³ /4″		120338			
	V-Ring Packing	1″	1	117101			
		1 ¹ /8″		117102			
		1 ¹ /4″		117103			
3		1 ⁵ /16″		117104			
3		1 ³ /8″		117105			
		1 7/16"		117106			
		1 ¹ /2″		117107			
		1 ³ /4″		117108			

Standard & Performance HE-LUG					
ltem	Description			Part Number	
4	HE-LUG Body	Standard	1	101204	
4	HE-LUG BOUY	Performance		101207	
5	Grease Zerk (Not S	Shown on Std.)	1	170007	
6	Plug		1	117504	
Performance HE-LUG Only					
ltem	Descr	iption	Qty	Part Number	
7	Flange Bolt		8	119150	
8	Split Ring		8	150500	
9	Flange		1	112090	
10	O-Ring		1	114412	
11	Performance	1500/3000	1	106365	
11	Сар	5000		106375	
12	Grease Zerk (Not Shown)		1	170006	

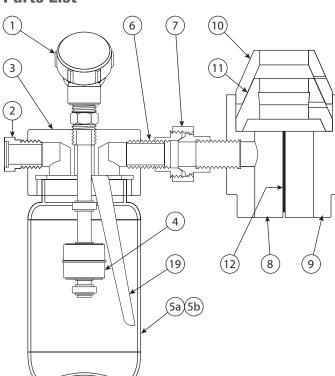
Note: Not all options are shown.

Shut Down Control Device

The WNS Lowery[™] Shut Down Control Device (SDCD) provides an automatic way to shut down a well site in the case of leaks. The SDCD reduces the costs associated with leaks, clean up, and continuous monitoring. The SDCD can be installed on Standard, Performance Stuffing Boxes with a HE-LUG installed, or on Standard Stuffing Boxes with an Oil Reservoir Gland. The Shut Down Control Device is explosion proof per NEC Class I, Division I. An optional Split Housing Adapter is available to retrofit any Standard Style Stuffing Box. A secondary cone packing is installed in the adapter to prevent outside liquids from entering the SDCD and avoid accidental shut offs. The ³/4"</sup> NPT pipe nipple allows installation on all HE-LUGs.

Features

- Meets NEC Class I, Division I
- Stainless Steel Reservoir Available
- Reduces spills due to leakage
- · Automatic well shut down caused by excessive leaking
- Normally Open and Closed Contacts
- Compatible with all Standard Style Stuffing Boxes and HE-LUGs



ltem	Description			Part Number
1	Electrical Connect	ion Box	1	103050
2	Vent Assmbly		1	135000
3	Reservoir Holder		1	112750
4	Liquid Level Switcl	h, SPDT	1	118691
5a	Pagarugir	Clear	1	118690
5b	Reservoir	304 SS		118692
6	³ /4" Nipple		2	112908
7	³ /4" Union		1	122010
8	Adapter Reservoir ¹ /2		1	090501
9	Adapter Oil Fill 1/2		1	090502
10	Top Cone Packing		1	115607
11	Lower Cone Packi	ng	1	115507

Selection Matrix

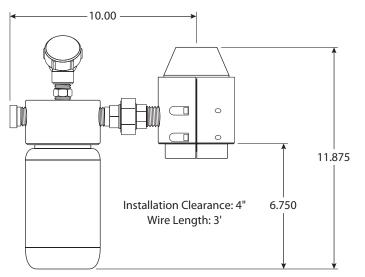
	SDCD	—		—		
Cone Packing Size (Buna-N Std.)						
0	1″		100			
113	1 ¹ /4″		125			
131	1 ³ /8″		138			
150	1 ³ /4″		175			
Reservoir Material						
ard)	Р	P Stainless Steel			SS	
	0 113 131 150 aterial	g Size (Buna-N Sto 0 1" 113 1 ¹ /4" 131 1 ³ /8" 150 1 ³ /4" aterial	g Size (Buna-N Std.) 0 1" 113 1 ¹ /4" 131 1 ³ /8" 150 1 ³ /4"	g Size (Buna-N Std.) 100 0 1" 100 113 1 ¹ /4" 125 131 1 ³ /8" 138 150 1 ³ /4" 175 aterial 100 100	g Size (Buna-N Std.) 100 0 1" 100 113 1 ¹ /4" 125 131 1 ³ /8" 138 150 1 ³ /4" 175 aterial	

Shut Down Control Device

with optional split reservoir

Note: Consult Factory for additional options.

Dimensional Data (in.)



ltem	Description	Qty	Part Number
12	Side Adapter Seals	2	119861
13	Lower Adapter Seals (Not Shown)	2	119811
14	Mounting Bolts, 3 ¹ /8"x 6" (Not Shown)	2	102211
16	Retainer Ring (Not Shown)	2	118711
17	³ /16" Allen Wrench (Not Shown)	1	170001
18	String (Not Shown)	1	120331
19	Guard	1	—

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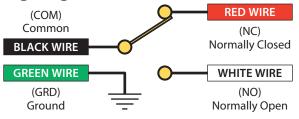
Parts List

Shut Down Control Device (continued)

Physical/Electrical Specifications

Model	Shut Down Control Device		
Rating	NEC Class I, Division I		
Housing Material	Anodized 6061 Aluminum		
Reservoir Material	Plastic or Stainless Steel		
Reservoir Capacity	1 Quart Maximum		
Connection	Split Housing Adapter/3/4" NPT Male		
Packing Sizes	$1", 1^{1}/8", 1^{1}/4", 1^{5}/16", 1^{3}/8", 1^{1}/2" \& 1^{3}/4"$		
Packing Required	1 Bottom Cone & 1 Top Cone		
Ambient Temperature	Storage: -40°F (-40°C) to 250°F (125°C) Operation: -10°F (-25°C) to 225°F (109°C)		
Switch Type	SPDT		
Maximum Watts	100 W		
Voltage Switching VDC	120 V Maximum		
Voltage Breakdown VDC	150 V Minimum		
Current Switching Amp	3A Maximum		
Current Carry Amp	3.6A Maximum		

Wiring Diagram (SPDT)





3000 BB HE-LUG, shown with optional 304 SS reservoir.

Polyurethane Cone

Polymer packing engineered

applications with high water

designed to work well against

cut. Chemical makeup is

gas decompression. Good abrasion resistance.

Standard & Performance Style Packing

Packing is the most important component within Standard and Performance Style Stuffing Boxes. This packing is engineered to perform in ever-changing well conditions, ensuring a constant seal of a rod lift well. Cone and Dome Packing are available in all polished rod sizes from 1" through 1³/4" sets. Cone Packing sets consists of 3 top cones and 1 bottom cone. Dome Packing sets consists of 3 domes.

Standard Style Cone Packing

- · Soft Cone Ideal for sweet crude production with high oil-to-water ratios and low levels of abrasives.
- Hard Cone Ideal for sweet crude production with low oil-to-water ratios.
- Gold Flake Brass filled cone packing is best suited for medium to heavy oil production. Good for handling moderate heat and reducing polished rod scale build up.
- Teflon[®] Filled Ideal for sweet crude production with long strokes and rapid pumping cycles. Provides reduced polish rod noise for noise-sensitive areas.
- · Hi Temp Designed for use in steam injection wells that produce sweet crude.
- HSN Well suited for higher gas-to-oil ratios than conventional general service packing. Designed to withstand increased production temperatures for extended periods of time as well as H₂S and CO₂ wells.

V Style Packing

• NBR and HSN available for use in the Standard and Performance HE-LUG.



Standard Style Cone Packing

- Performance Style Cone Packing
- Kevlar[®] Brass Cone Ideal for sweet crude oil production with high oil-to-water ratios. Specifically designed with reinforced sealing area for high abrasive fluids. Good in CO_2 , H_2S , and steam applications.
- Dome Packing A low coefficient of friction reduces drag and heat generation from the polished rod. Excellent chemical and wear resistance in most well conditions.

Fits all WNS Lowery™ Cone Packing Stuffing Boxes with a one-time conversion kit. Available in Nitrile, HSN, or AFLAS® standard. Kevlar® Brass available by special order.



Performance Style Dome Packing

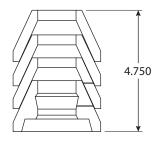
Standard & Performance Style Packing (continued)

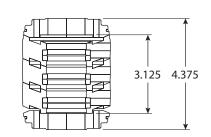
Specifications

Standard Style Cone Packing	Soft	Hard	Gold Flake	Teflon [®] Filled	Hi Temp	HSN	WN-H
ASTM Type	SBR			NBR	HNBR	EPDM	
Max Service Temp w/H ₂ S & CO ₂ below 1%	160°F/71°C				300°F/149°C	325°F/163°C	425°F/218°C
Max Concentration Limits of H ₂ S	2%				10%	5%	
Max Concentration Limits of CO ₂	Not Rated			25%	20%	Not Rated	
Max Service Temp with H ₂ S & CO ₂	120°F			250 °F		350°F	
at Max Concentration Limits	49 °C			121 °C		177 °C	
Resistance to Expolsive Decompression in CO_2 up to 20%	Poor			Good	Excellent	Poor	
Performance in Steam Environments							Good
Mechanical Tear & Abrasion Resistance	Good				Exce	Fair	

Performance Style Cone & Dome Packing	Extended Life 800	X-TRA Gold	Kevlar [®] Brass	Nitrile Dome	HSN Dome	Aflas [®] Dome	
ASTM Type	Polymer	SBR	XNBR	NBR	HNBR	TFEP	
Max Service Temp w/H ₂ S & CO ₂ below 1%	250°F/121°C	225°F/107°C	500°F/260°C	250°F/121°C	325°F/163°C	450°F/232°C	
Max Concentration Limits of H ₂ S	97+%	2%	10%	2%	10%	35%	
Max Concentration Limits of CO ₂	97+%	Not Rated	10%	5%	10%	15%	
Max Service Temp with H ₂ S & CO ₂ at Max Concentration Limits	250 °F 121 °C	160°F 71°C	325 °F 162 °C	150 °F 65 °C	300 °F 149 °C	350°F 177°C	
Resistance to Expolsive Decompression in CO_2 up to 20%	Not Date d	Not Rated	Good	Fair	Excellent	Fair	
Performance in Steam Environments	Not Rated	Fair	Good	Poor	Excellent to Good	Excellent	
Mechanical Tear & Abrasion Resistance	Excellent			Good	Excellent	Fair	
Approximate Weight	ht Std. & Performance Cone / 1.5 lbs. , Dome w/Bronze Rings / 2.5 lbs., Dome w/o Bronze Rings / 0.5 lb.						

Dimensional Data (in.)





Standard & Performance Style Cone Packing

Performance Style Dome Packing With & Without Bronze Rings



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Tough You Can Trust

WNS Lowery[™] manufactures and stocks a large inventory of high quality rugged, dependable and field proven American made products for the oil industry. You can depend on our team of seasoned professionals to assist you with selecting the most dependable and economical solution for your application requirements.

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