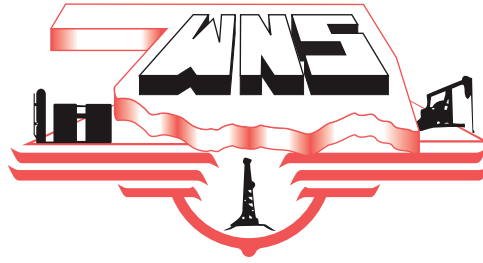


# WHITTLE & NEHER SYSTEMS



2221 S.E. 69th St • Oklahoma City, OK 73149 • 405-677-7222 • FAX 405-677-7034 •  
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# WHITTLE & NEHER SYSTEMS



## • THE COMPANY •

Whittle & Neher Systems founded in 1984 in Oklahoma City, OK is becoming a leading manufacturer of high quality stainless steel, carbon steel, and ductile iron check valves for the oilfield, industrial, and special applications.

Whittle & Neher Systems also manufactures a full line of high quality stuffing boxes, pumping and flowing tees, and cone type packing for the oil industry.

Whittle & Neher Systems has been committed to producing excellent products that meet the needs and expectations of our customers at a cost that represents value.

With our goals and commitments focused we are able to continue improving and growing in the areas that will keep us a viable company in the future.

## • THE QUALITY •

Our quality assurance manual provides the guidelines for consistent quality. Our commitment to quality begins with steel castings, and ductile iron castings which are made to specifications suitable for the appropriate pressure ratings used in the industry. The raw materials are inspected for quality to meet exacting metallurgical specifications. Machining is inspected for precision dimensions. Pressure testing is performed according to industry standards.

As a policy and goal, all products must reflect the highest quality standards in which design, development, manufacturing, and tested performance are of prime importance. It is the responsibility of each employee to work and produce products that meet these standards. Whittle & Neher Systems is committed to being a quality leader.

## • THE DISTRIBUTION •

In the U.S.A., Whittle & Neher Systems products are distributed through oilfield supply stores from coast to coast. Our network of authorized sales representatives have qualified personnel and the right inventory to provide reliable, quick service and delivery.

In Canada our authorized distributor is Plainsman Manufacturing, located in Edmonton, Alberta. Our sales headquarters in Oklahoma City, OK provides direct manufacturer assistance.

## • THE WARRANTY •

Every Whittle & Neher Systems product is warranted to be free from material and manufacturing defects, and will be replaced without charge should failure occur within one year after date of shipment.

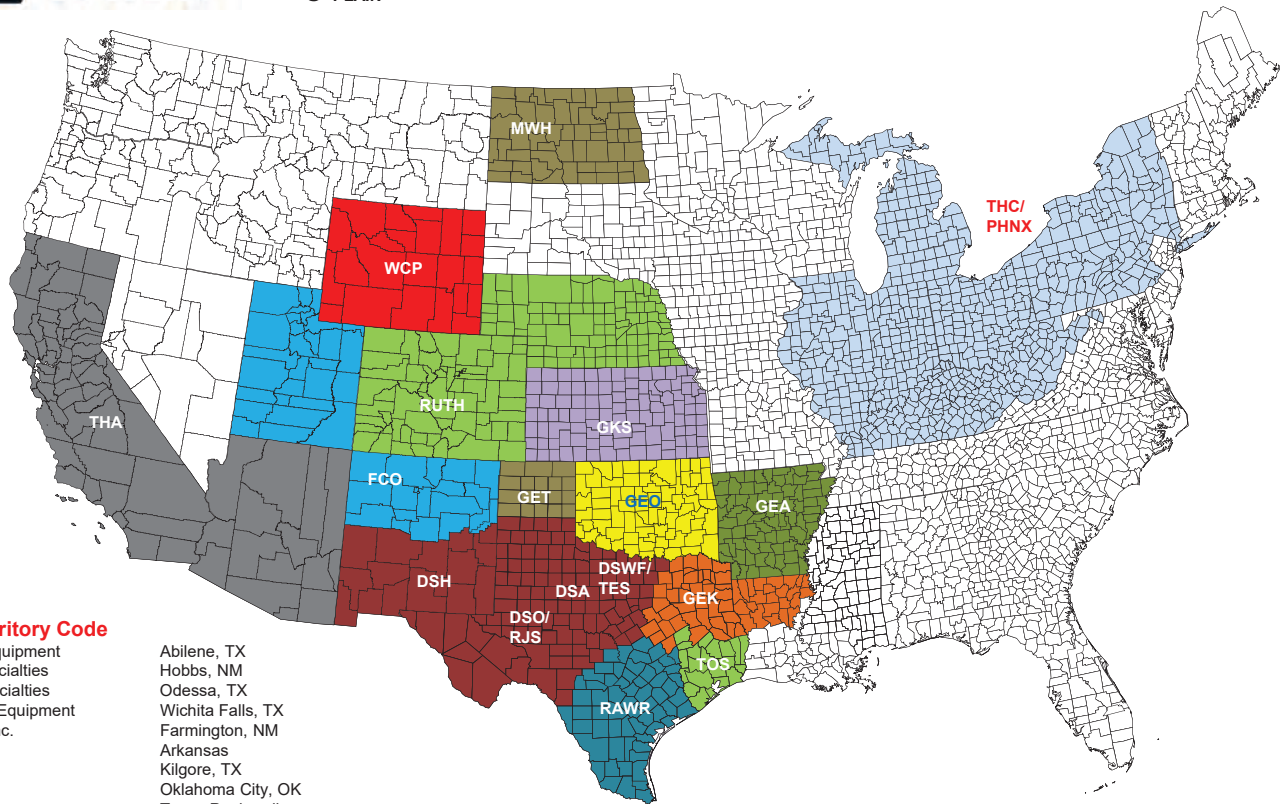
Whittle & Neher Systems makes no other warranty, either express or implied. Our liability is limited to our sale price of the particular product.

In no event shall Whittle & Neher Systems be liable for any consequential damages.



# Oil & Gas Rep Territory Map

● PLAIN



## Listing by Territory Code

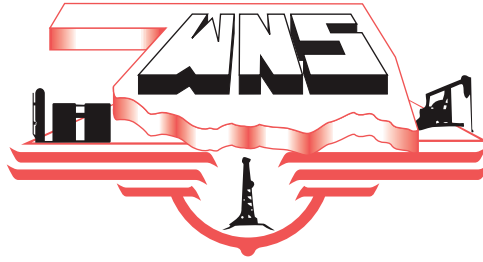
- DSA – McCarty Equipment
- DSH – Dandy Specialties
- DSO – Dandy Specialties
- DSWF – McCarty Equipment
- FCO – Flowcon, Inc.
- GEA – HW Sales
- GEK – HW Sales
- GEO – HW Sales
- GET – HW Sales
- GKS – HW Sales
- MWH – Midwest Hose & Specialty
- PHNX – Phoenix Specialty
- PLAIN – Plainsman Mfg
- RAWR – RAWR Distribution
- RJS – RJ Sales

- Abilene, TX
- Hobbs, NM
- Odessa, TX
- Wichita Falls, TX
- Farmington, NM
- Arkansas
- Kilgore, TX
- Oklahoma City, OK
- Texas Panhandle
- Kansas
- Williston, ND
- Houston, PA
- Edmonton, AB
- Pleasanton, TX
- Odessa, TX

- RUTH – Ruth Corp
- TES – Texas Energy Sales
- THA – Hashim & Associates
- THC – Tom Herring Company
- TOS – Texas Oilfield Specialties
- WCP – Well Control Products

- Greeley, CO
- Alvarado, TX
- Bakersfield, CA
- Olney, IL
- Spring, TX
- Casper, WY

# WHITTLE & NEHER SYSTEMS



**DUCTILE IRON  
THREADED SWING CHECK VALVE  
GROOVED SWING CK VALVE**

## DUCTILE IRON THREADED ENDS SWING CHECK VALVE

Valve Size	End To End	Working Pressure	Weights (Lbs.)	Item Number	Model Number
1"	4 1/4"	300#	5	124701	WN1-13313
		1000#		124703	WN1-11033
		1500#		124704	WN1-11533
		2000#		124705	WN1-12033
2"	6"	300#	11	125701	WN2-23313
		600#		125702	WN2-23613
		1000#		125703	WN2-21033
		1500#		125704	WN2-21533
		2000#		125705	WN2-22033
2" Long Pattern	7 1/4"	300#	15	126501	WN2-23313-LP
		600#		126502	WN2-23613-LP
		1000#		126503	WN2-21033-LP
		1500#		126504	WN2-21533-LP
		2000#		126505	WN2-22033-LP
3"	8"	300#	17	128001	WN3-33313
		600#		128002	WN3-33613
		1000#		128003	WN3-31033
		1500#		128004	WN3-31533
		2000#		128005	WN3-32033
4"	10"	300#	35	128901	WN4-43313
		600#		128902	WN4-43613
		1000#		128903	WN4-41033

## DUCTILE IRON GROOVED ENDS SWING CHECK VALVE

Valve Size	End To End	Working Pressure	Weight (Lbs.)	Item Number	Model Number
2" L.P.	9"	300#	11	130001	WN2-23313-LP-G
		600#		130002	WN2-23613-LP-G
3"	10 3/4"	300#	16	130601	WN3-33313-G
		600#		130602	WN3-33613-G

NOTE: 316 SS Clapper - Standard on 1", 2", 3"  
Conforms to NACE MR-O1-75

## OPTIONS

Viton Trim  
Z-Pex

# WHITTLE & NEHER SYSTEMS



## WCB STEEL THREADED SWING CHECK VALVE

### WCB STEEL THREADED ENDS SWING CHECK VALVE

Valve Size	End To End	Working Pressure	Weights (Lbs.)	Item Number	Model Number
1"	4 1/4"	275#	6	124801	WN1-275
		720#		124802	WN1-720
		1440#		124803	WN1-1440
		2160#		124804	WN1-2160
		3600#		124805	WN1-3600
		5000#		124806	WN1-5000
2"	7 1/4"	275#	16	125801	WN2-275
		720#		125802	WN2-720
		1440#		125803	WN2-1440
		2160#		125804	WN2-2160
		3600#		125805	WN2-3600
3"	8"	275#	17	128101	WN3-275
		720#		128102	WN3-720
		1440#		128103	WN3-1440
		2160#		128104	WN3-2160

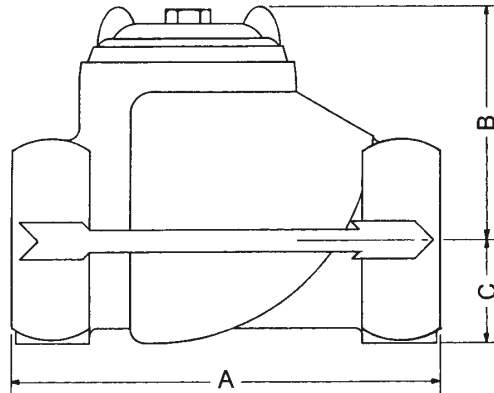
NOTE: 316 SS Clapper- Standard on 1", 2", 3"

Conforms to NACE MR-O1-75

### OPTIONS

Viton Trim  
Z-Pex

# WNS SCREWED BONNET SWING CHECK VALVES



## DUCTILE IRON THREADED END

Size (Inches)	Pressure	Weight (Lbs.)	Dimensions (Inches)		
			A	B	C
2	300#	11	6	3 7/8	1 3/4
2 LP	300#	15	7 1/4	3 7/8	1 3/4
3	300#	17	8	5 1/2	2 3/8
4	300#	35	10	6 3/8	3
2	600#	11	6	3 7/8	1 3/4
2 LP	600#	15	7 1/4	3 7/8	1 3/4
3	600#	17	8	5 1/2	2 3/8
4	600#	35	10	6 3/8	3
1	1000#	4 1/2	4 1/4	3	1 1/4
2	1000#	11	6	3 7/8	1 3/4
2 LP	1000#	15	7 1/4	3 7/8	1 3/4
3	1000#	17	8	5 1/2	2 3/8
4	1000#	35	10	6 3/8	3
1	1500#	4 1/2	4 1/4	3	1 1/4
2	1500#	11	6	3 7/8	1 3/4
2 LP	1500#	15	7 1/4	3 7/8	1 3/4
3	1500#	17	8	5 1/2	2 3/8
4	1500#	35	10	6 3/8	3
1	2000#	4 1/2	4 1/4	3	1 1/4
2	2000#	11	6	3 7/8	1 3/4
2 LP	2000#	15	7 1/4	3 7/8	1 3/4
3	2000#	17	8	5 1/2	2 3/8

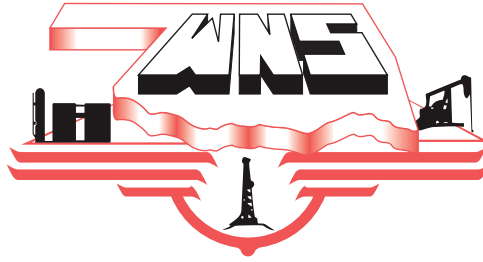
## DUCTILE IRON GROOVED END

Size (Inches)	Pressure	Weight (Lbs.)	Dimensions (Inches)		
			A	B	C
2 LP	300#	11	9	3 7/8	1 3/4
3	300#	16	10 3/4	5 1/2	2 3/8
2 LP	600#	11	9	3 7/8	1 3/4
3	600#	16	10 3/4	5 1/2	2 3/8

## CAST STEEL THREADED END

Size (Inches)	Pressure	Weight (Lbs.)	Dimensions (Inches)		
			A	B	C
1	275	6	4 1/4	3	1 1/4
2	275	16	7 1/4	3 7/8	1 3/4
3	275	17	8	5 1/2	2 3/8
1	720	6	4 1/4	3	1 1/4
2	720	16	7 1/4	3 7/8	1 3/4
3	720	17	8	5 1/2	2 3/8
1	1440	6	4 1/4	3	1 1/4
2	1440	16	7 1/4	3 7/8	1 3/4
3	1440	17	8	5 1/2	2 3/8
1	2160	6	4 1/4	3	1 1/4
2	2160	16	7 1/4	3 7/8	1 3/4
3	2160	17	8	5 1/2	2 3/8
1	3600	6	4 1/4	3	1 1/4
2	3600	16	7 1/4	3 7/8	1 3/4
1	5000	6	4 1/4	3	1 1/4

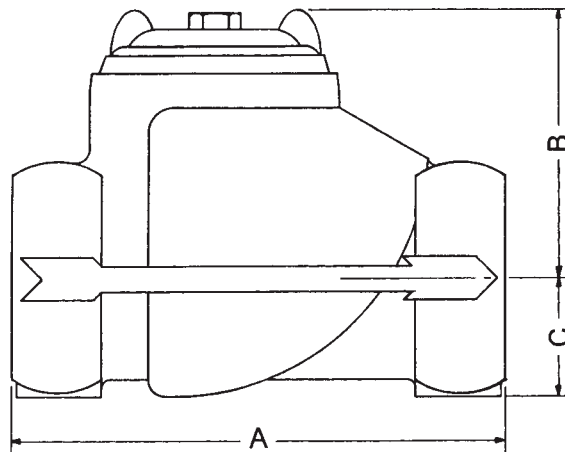
# WHITTLE & NEHER SYSTEMS



## WNS SWING CHECK VALVES

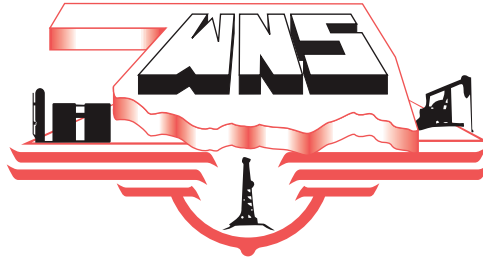
### SCREWED BONNET

DUCTILE IRON — CAST STEEL — 316 STAINLESS STEEL  
NACE MATERIALS PER MR-01-75 ARE STANDARD ON ALL VALVES



PART	MATERIAL SPECIFICATIONS	
	DUCTILE IRON	CAST STEEL
Body & Bonnet	ASTM A-536 Ductile Iron	ASTM A-216 WCB Cast Carbon Steel
Clapper	316 SS STD	316 SS STD
Clapper Seal	Buna-N (Standard) 180°F Max Viton (Optional) 400°F Max HNBR (Optional) 300°F Max	Buna-N (Standard) 180°F Max Viton (Optional) 400°F Max HNBR (Optional) 300°F Max
Bonnet Seal O-Ring	Buna-N (Standard) 180°F Max Viton (Optional) 400°F Max HNBR (Optional) 300°F Max	Buna-N (Standard) 180°F Max Viton (Optional) 400°F Max HNBR (Optional) 300°F Max

# WHITTLE & NEHER SYSTEMS



**END ENTRY BALL CHECK VALVE**  
**DUCTILE IRON**  
**WCB STEEL**  
**316 S.S. STEEL**

## DUCTILE IRON THREADED END ENTRY BALL CHECK VALVE

Valve Size	End To End	Working Pressure	Weights (Lbs.)	Item Number	Model Number
1/2"	3 1/4"	1000#	1	122253	WN5-B1033
		1500#		122254	WN5-B1533
		2000#		122255	WN5-B2033
1"	4 1/2"	1000#	4	122303	WN1-B1033
		1500#		122304	WN1-B1533
		2000#		122305	WN1-B2033
2"	6"	1000#	13	123203	WN2-B1033
		1500#		123204	WN2-B1533
		2000#		123205	WN2-B2033

## WCB STEEL THREADED END ENTRY BALL CHECK VALVE

Valve Size	End To End	Working Pressure	Weight (Lbs)	Item Number	Model Number
1"	4 1/2"	2000#	4	122401	WN1-B2033-CS
		3000#		122402	WN1-B3033-CS
		5000#		122403	WN1-B5033-CS
2"	6"	2000#	13	123301	WN2-B2033-CS
		3000#		123302	WN2-B3033-CS
		5000#		123303	WN2B5033-CS

## 316 SS STEEL THREADED END ENTRY BALL CHECK VALVE

Valve Size	End To End	Working Pressure	Weight (Lbs)	Item Number	Model Number
1"	4 1/2"	2000#	4	122501	WN1-B2033-SS
		3000#		122502	WN1-B3033-SS
		5000#		122503	WN1-B5033-SS
2"	6"	2000#	13	123401	WN2-B2033-SS
		3000#		123402	WN2-B3033-SS
		5000#		123403	WN2-B5033-SS

Conforms to NACE MR-01-75

## OPTIONS

Viton Trim  
Z-Pex



# WHITTLE & NEHER SYSTEMS



REPAIR PARTS  
CHECK VALVE  
BALL CK VALVE

## SWING CHECK REPAIR PARTS

DESCRIPTION	1"	2"	3"	4"
	Item Number	Item Number	Item Number	Item Number
<b>Bonnet Cap</b>				
Ductile Iron	102301	102401	102501	102601
WCB Steel	102301	102402	102502	N/A
<b>Bonnet Pipe Plug</b>	N/A	117501	117501	117501
<b>Bonnett O-Ring</b>				
Buna-N	114001	114101	114201	114301
Viton	114002	114102	114202	114302
HSN	114004	114104	114204	114304
<b>Clapper Seal</b>				
Buna-N	119501	119601	119701	119801
Viton	119502	119602	119702	119802
HSN	119504	119604	119704	119804
<b>Clapper Assy</b>				
316SS/Buna-N	108401	108501	108604	108701
316SS/Viton	108402	108502	108605	108702

\* 1018 - Steel on 4"

## BALL CHECK REPAIR PARTS

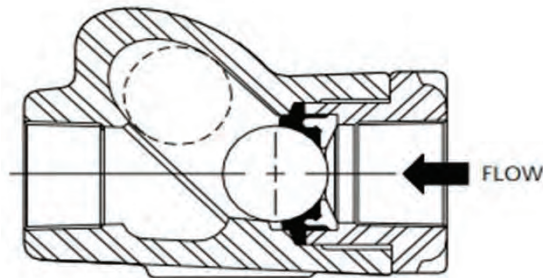
DESCRIPTION	Valve Size	Ball Size	Item Number
<b>440 SS Ball</b>	1/2"	5/8"	100100
	1"	1 1/8"	100101
	2"	1 3/4"	100102
<b>SS/Buna-N Seat</b>	1/2"	N/A	119901
	1"	N/A	120001
	2"	N/A	120101
<b>SS/Viton Seat</b>	1/2"	N/A	119911
	1"	N/A	120002
	2"	N/A	120102

# WNS Ball Check Valves

## FEATURES:

- Replaceable resilient seal with secondary metal-to-metal seal
- Nominal flow restriction
- Can be installed HORIZONTAL or VERTICAL
- No ball spring
- Minimum parts wear from low flow rates or pulsating service

END ENTRY



## TRIM

Seal - Buna-N 180°F Max (std)  
- Viton 400°F Max (opt)



### Body

Steel: ASTM A-216 Gr WCB

Ductile: ASTM A-536

Stainless: ASTM A-351

### Ball

440-C

### Seat

Buna-N bonded to 303SS

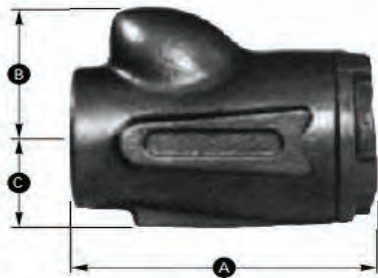
### End Cap

See Body

## SCREWED END

1000-5000 lbs

Ductile Iron ~ Carbon Steel ~ Stainless Steel



## FLOW COEFFICIENTS

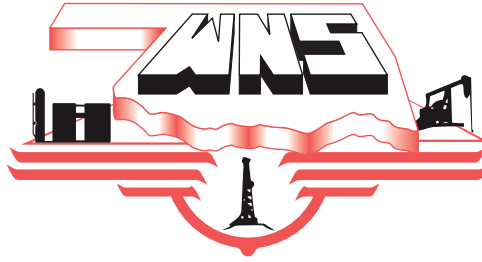
Size	Cv
1"	30
2"	105

Size (in)	Weight (lbs)	Material	Dimensions (in)			Item No	WP (lbs)
			A	B	C		
1/2"	1	Ductile	3-1/4	1-1/8	7/8	122253	1000
						122254	1500
						122255	2000
1"	4	Ductile	4-1/2	2	1-1/4	122303	1000
						122304	1500
						122305	2000
	4	Carbon Steel	4-1/2	2	1-1/4	122401	2000
						122402	3000
						122403	5000
	4	Stainless Steel	4-1/2	2	1-1/4	122501	2000
						122502	3000
						122503	5000
2"	13	Ductile	6	3	1-7/8	123203	1000
						123204	1500
						123205	2000
	13	Carbon Steel	6	3	1-7/8	123301	2000
						123302	3000
						123303	5000
	13	Stainless Steel * 2" SS = viton seat std	6	3	1-7/8	123701*	2000
						123702*	3000
						123703*	5000

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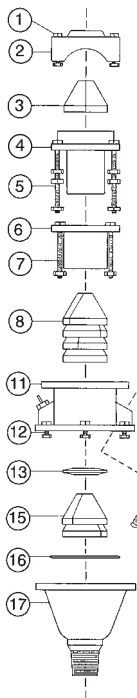
# WHITTLE & NEHER SYSTEMS



## WNS DOUBLE PACKED (DPSB)

1,500 PSI WP

Polished rod Sizes: 1" - 1 3/4"



Tubing Size (Male Thread)	Wt (Lbs)
2"	50
2 1/2"	51
3"	52

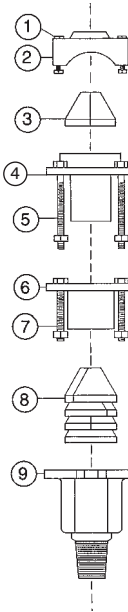
  

Parts	Wt.(Lbs)
1 Lub Gland Cap Bolts (2/set)	1
2 Lub Gland Cap	3
3 Split Cone Pkg Ring (1)	1/4
4 Lub Gland Body w/ Zerk Ftg.	5
5 Upper Gland Bolts 5/8" x 5 1/2" (2/set)	1
6 Lower Gland	4
7 Lower Gland Bolts, 5/8" x 4" (2/set)	1
8 Split Cone Pkg. Rings (4)	1
9 Comp. bolt Pkg. Nuts (2/set)	1/2
10 Comp. bolt Pkg. Rings (2/set)	1/4
11 Body	16
12 Flange Bolts, 5/8" x 2 1/4" (6/set)	1
13 Comp. Ring	2
14 Comp. Bolts (2/set)	1/2
15 Split Cone Pkg. Rings (2)	1/2
16 O-Ring	1/4
17 Base Male Thread 2" 2 1/2" 3"	13 14 15
18 Upper Lub Gland Complete	9 1/4

## WNS SINGLE PACKED (SB)

1,500 PSI WP

Polished rod Sizes: 1" - 1 3/4"



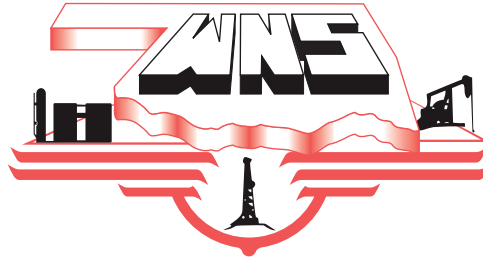
Tubing Size (Male Thread)	Wt (Lbs)
2"	24
2 1/2"	25
3"	26

Parts	Wt.(Lbs)
1 Lub Gland Cap Bolts (2/set)	1
2 Lub Gland Cap	3
3 Split Cone Pkg Ring (1)	1/4
4 Lub Gland Body w/ Zerk Ftg.	5
5 Upper Gland Bolts 5/8" x 5 1/2" (2/set)	1
6 Lower Gland	4
7 Lower Gland Bolts, 5/8" x 4" (2/set)	1
8 Split Cone Pkg. Rings (4)	1
9 Body 2" 2 1/2" 3"	10 11 12

**ALL STUFFING BOXES ARE EQUIPPED WITH SOFT CONE PACKING**

# WHITTLE & NEHER SYSTEMS

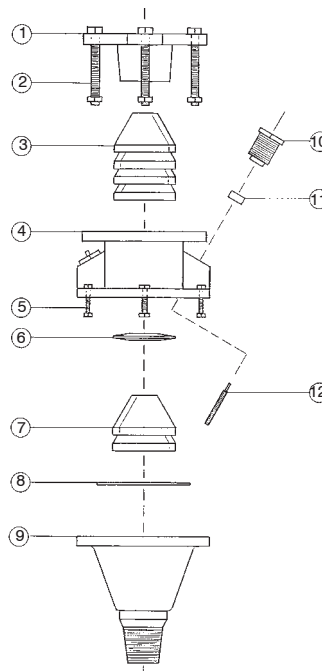


## WNS SHORT STUFF DOUBLE PACKED (DPSB)

1,500 PSI WP  
Polished rod Sizes: 1" - 1 3/4"

Tubing Size (Male Thread)	Wt (Lbs)
2"	44
2 1/2"	45
3"	46

Parts	Wt.(Lbs)
1 Short Stuff Upper Gland	8 1/4
2 Gland Bolts 5/8" x 4" (4/Set)	1
3 Split Cone Pkg Ring (4)	1
4 Body	16
5 Flange Bolts 5/8" x 2 1/4" (6/set)	1
6 Comp. Ring	2
7 Split Cone Pkg. Rings (2)	1
8 O-Ring	1
9 Base, Male Thread 2"	13
2 1/2"	14
3"	15
10 Comp. Bolt Pkg. Nuts (2/Set)	1/2
11 Comp. Bolt Pkg Rings (2/Set)	1/4
12 Comp. Bolts (2/Set)	1/2

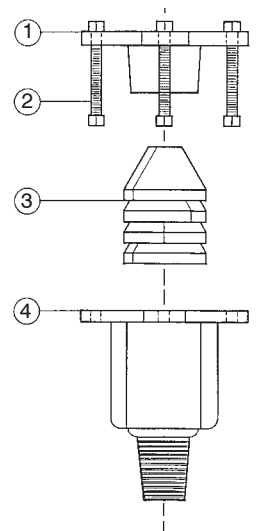


## WNS SHORT STUFF SINGLE PACKED (SB)

1,500 PSI WP  
Polished rod Sizes: 1" - 1 3/4"

Tubing Size (Male Thread)	Wt (Lbs)
2"	21
2 1/2"	22
3"	23

Parts	Wt.(Lbs)
1 Short Stuff Upper Gland	8 1/4
2 Gland Bolts 5/8" x 4" (4/Set)	1
3 Split Cone Pkg Ring (4)	1
4 Body 2"	10
2 1/2"	11
3"	12



**ALL STUFFING BOXES ARE EQUIPPED WITH SOFT CONE PACKING**

# WHITTLE & NEHER SYSTEMS



## STUFFING BOX LEAK DETECTOR

### FEATURES

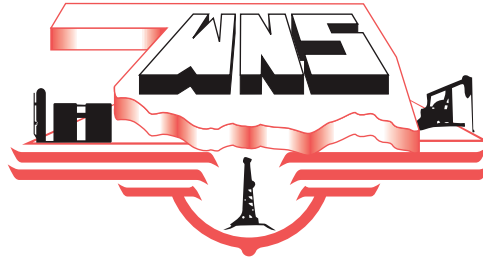
- Clear Fluid Reservoir
- Corrosion Resistant Components
- Long Travel Float Switch
- Both Normally Open & Closed Contacts

### BENEFITS OF USAGE

- *Simple installation of existing stuffing box*
- *Prevents spills due to stuffing box leakage*
  - *Stops ground pollution for a clean location*
  - *Clear plastic reservoir for effortless inspection*
  - *Reservoir removes easily for cleaning*
    - *Promotes preventive maintenance*
    - *Shut-down actuation is easily tested*

This stuffing box leak detector is of simple construction with corrosion resistant parts. The split adapter allows easy installation on the wellhead, yet it is strong enough to take the weight of the rod string. The standard adapter will fit most stuffing boxes in use in the United States, and custom adapters can be special ordered to fit other stuffing box designs. The adapter is compact to minimize clearance or misalignment problems. The primary objective of the leak detector is the prevention of pollution resulting from leakage of fluids past the sealing members of stuffing boxes on rod pumped wells. The adapter provides a minor increase in the amount of lubricating oil for the seals, or it can be equipped with a crown ring to control the grease on those wellheads where grease is used for lubrication. The clear plastic reservoir removes easily for emptying, cleaning, or testing of the electrical circuitry. The reservoir is economical to replace if damaged.

# WHITTLE & NEHER SYSTEMS



## STUFFING BOX ACCESSORIES

### Lubricating Upper Gland\*

	Part No.	Wt (Lbs)
<b>Complete</b>	<b>112507</b>	<b>9</b>
<b>Parts</b>		
Body	112302	5
Cone Pkg. Ring (1)	115607	1/4
Gland Cap	106302	3
Gland Cap Bolts (2/Set)	101301	1

\* Specify Polished Rod Size

### Oil Reservoir Gland\*

	Part No.	Wt (Lbs)
<b>Complete</b>	<b>112707</b>	<b>23</b>
<b>Parts Pricing</b>		
Body w/ Plugs	101203	5
Cone Pkg. Ring (1)	115507	1/4
Drain Nipple	113401	1/2
Gland Cap	106402	7
Gland Cap Bolts (2/Set)	102201	1/4

\* Specify Polished Rod Size

### Stuffing Box Leak Detector

	Part No.	Wt (Lbs)
<b>Complete Assy</b>	<b>112007</b>	<b>28</b>
<b>Parts</b>		
Oil Reservoir Gland	112707	23
Control Device	112051	5

\* Specify Polished Rod Size

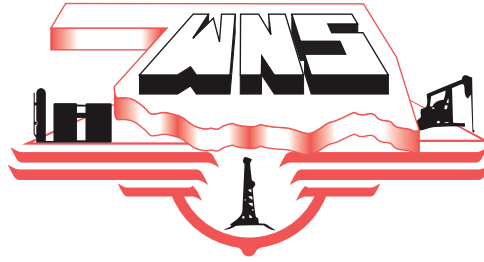
### WNS Split Cone Packing

#### Type

Soft  
Teflon Filled  
Brass Teflon  
High Temperature  
Type WN-C  
Special Lube  
Heavy Duty  
Bottom Cleaner Cones (2/set)  
Hard  
Type WN-G

**ALL STUFFING BOXES ARE EQUIPPED WITH SOFT CONE PACKING**

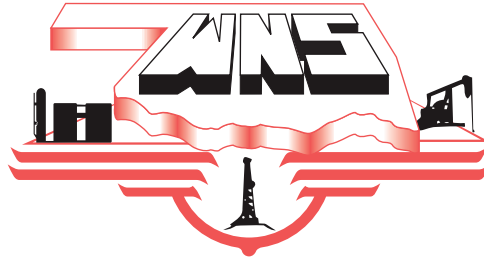
# WHITTLE & NEHER SYSTEMS



## **CONE PACKING**

Soft	For normal pumping wells. Standard packing in all WNS stuffing boxes for any type polished rod or liner.
Hard	For wells that produce large volumes of water. Use only on hard-faced liner.
Special Lubricated	Self-contained lubricant for wells with an absence of fluid.
Heavy Duty	For wells that pump off or flow off.
High Temp	For high-temperature applications to 425° F.
Teflon Filled	Longer-lasting for pumping situations such as long stroke, fast cycle, lack of lubrication.
Brass Teflon	Combines the longevity of Teflon with the cleaning action of brass. Used on steel polished rods, or hard-faced liners only.
Type WN-G	For wells with H <sub>2</sub> S or in CO <sub>2</sub> service.
Bottom Cleaner Cones	Helps prevent undesirable deposits on polished rods, or liners.

# WHITTLE & NEHER SYSTEMS



## PUMPING TEES

ITEM NUMBER	3000# WORKING PRESSURE	WEIGHT (LBS)
120601	2 3/8" 8rd x 2 3/8" 8rd x 2" 11 1/2V	9
120602	2 3/8" 8rd x 2" 11 1/2V x 2" 11 1/2V	9
120701	2" 11 1/2V x 2" 11 1/2V x 2" 11 1/2V	9
120801	2 7/8" 8rd x 2 7/8" 8rd x 2" 11 1/2V	13
120802	2 7/8" 8rd x 2 1/2" 11 1/2V x 2" 11 1/2V	13
120803	2 7/8" 8rd x 2 1/2" 8V x 2" 11 1/2V	13
120804	2 7/8" 8rd x 2 3/8" 8rd x 2" 11 1/2V	13
120805	2 7/8" 8rd x 2 7/8" 8rd x 2 1/2" 8V	13
120806	2 7/8" 8rd x 2 1/2" 8V x 2 1/2" 8V	13
120807	2 7/8" 8rd x 2 7/8" 8rd x 3" 8V	20
120808	2 7/8" 8rd x 2 1/2" 11 1/2V x 3" 8V	20
120809	2 7/8" 8rd x 2 1/2" 8V x 3" 8V	20
120810	2 7/8" 8rd x 3" 8V x 3" 8V	18
120811	2 7/8" 8rd x 3" 8V x 2" 11 1/2V	20
120901	3" 8rd x 3" 8rd x 3" 8V	18
120902	3" 8rd x 3" 8V x 3" 8V	18
120903	3" 8rd x 3" 8rd x 2" 11 1/2V	20
120905	3" 8rd x 2 7/8" 8rd x 3" 8V	20
120921	3" 8V x 3" 8V x 3" 8V	18
120922	3" 8V x 3" 8V x 2" 11 1/2V	20
121001	2 3/8" 8rd Male x 2 3/8" 8rd x 2" 11 1/2V	7
121002	2 3/8" 8rd Male x 2" 11 1/2V x 2" 11 1/2V	7
121101	2 7/8" 8rd Male x 2 7/8" 8rd x 2" 11 1/2V	10
121102	2 7/8" 8rd Male x 2 1/2" 11 1/2V x 2" 11 1/2V	10
121104	2 7/8" 8rd Male x 2 1/2" 8V x 2" 11 1/2V	10
121105	2 7/8" 8rd Male x 3" 8V x 2" 11 1/2V	10

### NOTES:

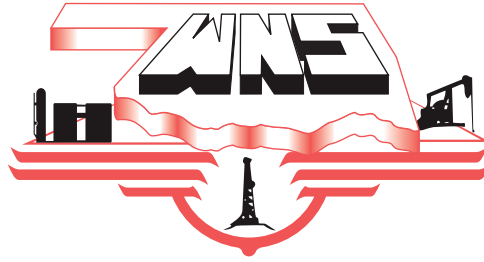
Pumping Flow Tee have 1" NPT minor side outlets for bleeder ports unless specified otherwise. Bleeder can be left blank.

Last thread in each series is the major side outlet.

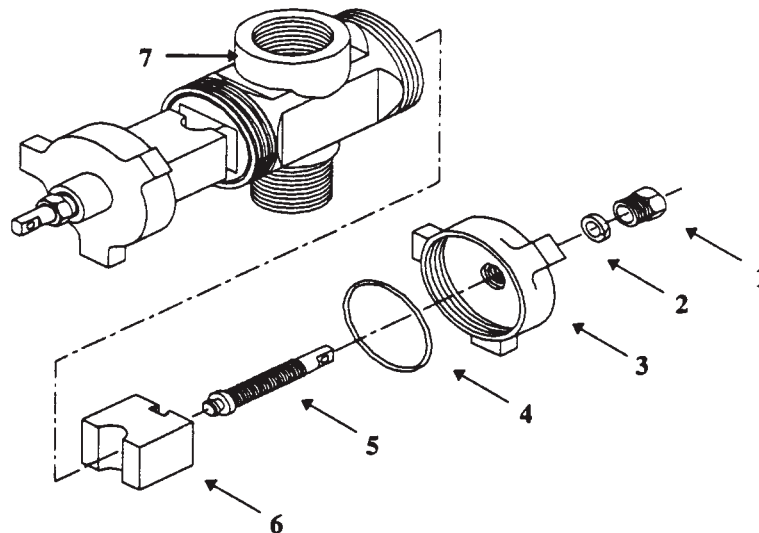
Z-Pex Coating: Call for pricing.



# WHITTLE & NEHER SYSTEMS



## BLOW OUT PREVENTERS



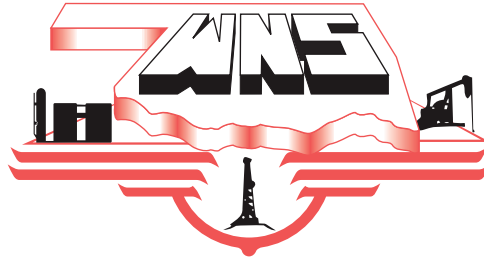
**WNS 150 BOP  
1500 P.S.I. W.P.  
DUCTILE IRON**

**State Polish Rod Size when ordering**

SPECIFY:		WT, Lbs	Standard Item Number	High Temp. Item Number
COMPLETE ASSEMBLY 2", 2 1/2", 3" L.P.		43	*	*
PARTS				
1	Pkg. Gland	1/4	112711	112711
2	Pkg. Ring (one)	0	119053	119053
3	Wing Cap	6	106605	106605
4	O-Ring	-	114351	114352
5	Ram Screw	1	119451	119451
6	Rams, Blind (Set)	3	118636	118646
6	Rams, 5/8" - 1" Rods (Set)	3	118631	118641
6	Rams, 1 1/8" Rods (Set)	3	118632	118642
6	Rams, 1 1/4" Rods (Set)	3	118633	118643
6	Rams, 1 1/2" Rods (Set)	3	118634	118644
6	Rams, 1 3/4" Rods (Set)	3	118635	118645
7	Body 2", 2 1/2", 3" (Specify)	26 1/2	*	*
	Flip Over Handles (Set)		112746	112746

1. Z-Pex corrosion coating available on Bodies & Closure Caps.
2. Standard in 2", 2 1/2", external upset, non-upset tubing, and 2" through 3" I.p. threads available in WNS 150. Contact customer service for availability of other thread styles.

# WHITTLE & NEHER SYSTEMS



## 2" BACK PRESSURE VALVE

### 2" Back Pressure Regulator

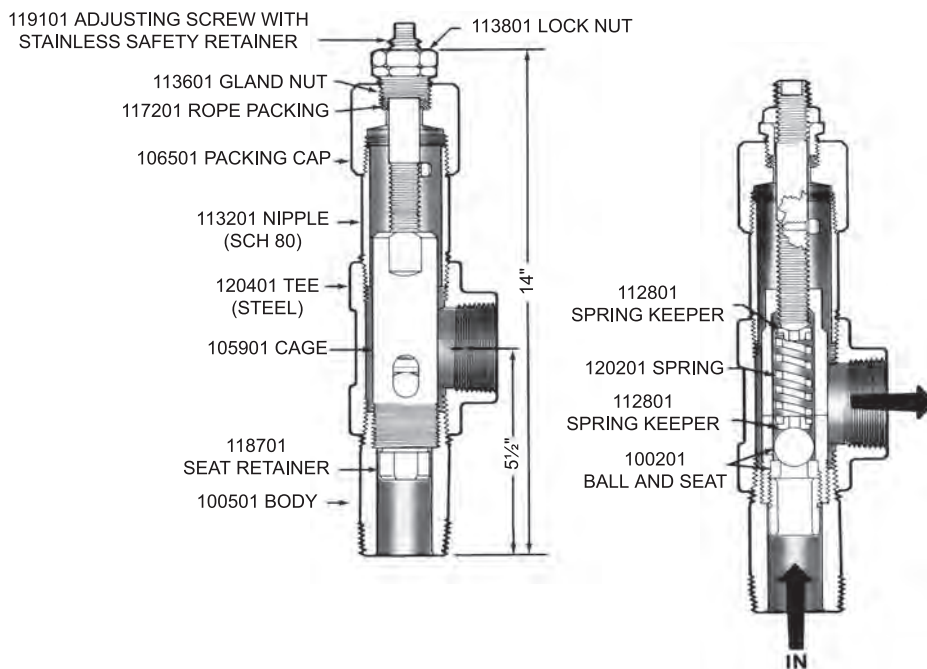
- Liquid or gas service
- Reduces paraffin by keeping gas in solution
- Less free gas and better lubrication at the stuffing box
- Increases pump efficiency by keeping bottom hole pressure above the bubble point
- Differential pressure type-recommended for systems where down-stream pressure is less than 10% of set pressure
- 2" regulator has standard 1/4" NPT pressure port for proper gauge orientation
- Standard connections: 2" male LP inlet x single 2" female LP outlet
- Optional connections: 2" male LP inlet x two 2" female LP outlets using 4-way cross
- External body shell components for all assemblies have a 2000 PSI "Shell Test Pressure" capability

### 2" Valve Complete

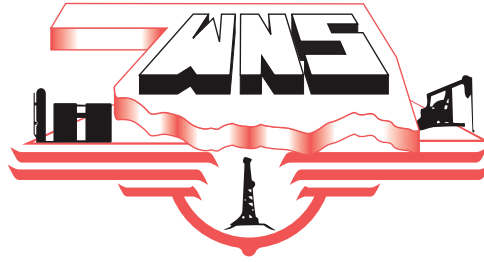
ITEM NUMBER	RANGE
122101	10-200
122102	10-500
122103	10-900
122104	10-1500

### PARTS LIST

PART NAME	ITEM NUMBER
Body	100501
Cage	105901
Seat Retainer	118701
Spring 10-200 psi	120201
Spring 10-500 psi	120202
Spring 10-900/1500 psi	120203
Spring Keeper	112801
Lock Nut	113801
Adjusting Screw	119101
Packing Cap	106501
Gland Nut	113601
Rope Packing	117201
Tee (steel)	120401
Plug 1/4" F.S.	117501
Nipple (SCH 80)	113201
Ball & Seat	100201
Ball & Seat 1500#	100202



# WHITTLE & NEHER SYSTEMS



## SEATING NIPPLES

Tubing Threads

NOMINAL PIPE SIZE	THREAD	.OD	ID*
2"	API UPSET	2.594	1.780
2-1/2"	UPSET	3.094	2.250
2-1/2"	API UPSET	3.094	2.280

\*I.D. + .010  
- .000

† † Specify length when ordering

# WHITTLE & NEHER SYSTEMS



Whittle & Neher Systems offers Z-PEX coating as an option on WNS critical components.

Z-PEX provides the highest level of base-metal corrosion protection on the market today.

Chemical resistance is key to survival in the oil and gas industry. ZPEX is unaffected by a diverse array of hydrocarbons, H<sub>2</sub>S gas, HCL, chlorine, Salt Water, and Carbonic Acids that currently cause most system failures.

## Coating Properties:

Dry Film thickness: 2.0-2.8 mils  
Max operating temp: 550 Deg. F.  
Pencil Hardness: 6H  
Coefficient of Friction: .016 to .08  
Tabor Abrasion (1000) cycles 7.3 mg lost.  
Tensile Strength: 3,000 to 4,000 PSI  
Salt Spray (ASTM B.117) 4000 Hrs Minimum  
H<sub>2</sub>O (10,000 PSI, 200 deg. F) No effect at any angle

Abrasion Resistance (D4060) 16,200  
Direct Impact 100 lbs.  
Indirect Impact 120 lbs.  
Gloss: 45-55  
Color: Dark-Grey  
Cross-Hatch Adhesion: 5B  
Gravelometer: 6 Minimum

## Z-PEX is resistant to the following chemicals:

Acetone	Fructose	Ozone
Acetic Acid	Gasoline	Perchloric Acid
Acetates (all)	Glucose	Phenol 85%
Amines (all)	Glycol	Phosgene
Ammonia	Glycol Ether	Phenolphthalein
Ammonium Hydroxide	H <sub>2</sub> CO <sub>3</sub>	Phosphoric Acid
Amino Acids	Hydrochloric Acid	Potassium Chloride
Benzene	Hydrochloric Acid	Potassium Hydroxide
Borax	Hydrogen Peroxide 5%	Propyl Alcohol
Boric Acid	Hydrogen Sulphide	Propylene Glycol
Butyl Alcohol	Hydrazine	Salicylic Acid
Butyl Cellosolve	Hydroxylamine	Salt Water
Butyric Acid	Iodine	Sodium Bisulfate
Calcium Chloride	Isobutyl Alcohol	Sodium Chloride
Calcium Hypochlorite	Isopropyl Alcohol	Sodium Hypochlorite 5%
Carbon Tetrachloride	Kerosene	Sodium Hydroxide 10%
Cetyl Alcohol	Lactic Acid	Sodium Sulfate
Chlorides (all)	Lauryl Acid	Stearic Acid
Chlorine gas	Magnesium	Sucrose
Chromic acid (nr)	Maleic Acid	Sulfuric Acid 25-28%
Citric Acid	Methanol	Sulfates (all)
Creosol	Menthhol	Sulfates (all)
Diesel Fuel	Methylene Chloride	Sulfates (all)
Diethanolamine	Methyl Ethyl Ketone	Starch
Ethyl Acetate	Methyl Isobutyl Ketone	Tolulene
Ethyl Alcohol	Mustard Gas	Triethanolamine
Ethyl Ether	Naphthol	Xylene

# WHITTLE & NEHER SYSTEMS

## Z-PEX GENERAL INFORMATION

The common and most pressing cost to modern production systems is the loss of equipment and metal goods to corrosion. The handling of hotter fluids combined with dissolved gases have accelerated lifting costs dramatically. The exposure of inorganic and organic acids, and materials have produced a costly figure in equipment replacement, labor costs, and production down time.

Whittle and Neher Systems offers the Z-PEX Bonding system to withstand the new production techniques produced by enhanced recovery, stimulation chemistry, and specialty chemical products.

Z-PEX's special compounding and uniform particle size produces a tough, hard, high gloss, and corrosion resistant coating at a nominal cost.

Z-PEX Bonded Coating Exhibits;

1. Thermal stability
2. High heat resistance to 550F
3. Chemical resistance
4. Ductility and flexibility
5. Impact and abrasion resistance

Whittle and Neher Systems offers Z-PEX coating to the interior, exterior, and threads of all WNS valves, stuffingboxes, and pumping tee's.

To ensure the best protection for a given corrosive environment, and to provide maximum service life for your equipment we evaluate the following service conditions:

1. Type of fluid, gas, or process stream
2. Temperature
3. Pressure
4. Corrosive agents present

Our sales representatives are ready to assist you to ensure the best corrosion protection available in today's price conscious market.

Z-PEX offers an effective alternative to expensive special alloy steel or just living with a problem which was presumed unsolvable.

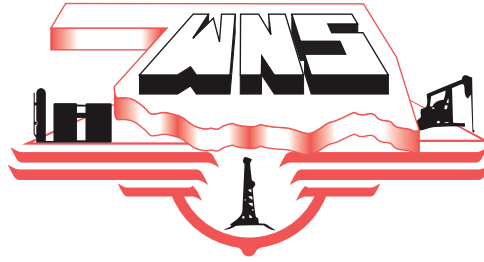
# WHITTLE & NEHER SYSTEMS



## AVAILABLE Z-PEX-COATING ON WHITTLE & NEHER SYSTEMS PRODUCTS

Tubing Blowout Preventer  
Lube Gland Cap.  
Upper Lube Gland  
Lower Gland  
DPSB Body  
DPSB Compression Ring  
DPSB Base  
SB Body  
Any Size Pumping Tee  
WNS Backpressure Valve  
WNS Seating Nipple  
1" Check Valve  
2" Check Valve  
3" Check Valve  
4" Check Valve

# WHITTLE & NEHER SYSTEMS



## WNS SERIES 20 CHOKE TWO INCH 2000 & 3000# CWP

### DESCRIPTION:

**2" 2000# CWP** FNPT INLET WITH MNPT OUTLET; FORGED STEEL BODY, HARDENED ALLOY TRIM, 3/4", OR 1" ORIFICE; REVERSIBLE SEAT

**2" 3000# CWP** FNPT INLET WITH MNPT OUTLET; FORGED STEEL BODY, HARDENED ALLOY TRIM, 3/4", OR 1" ORIFICE; REVERSIBLE SEAT

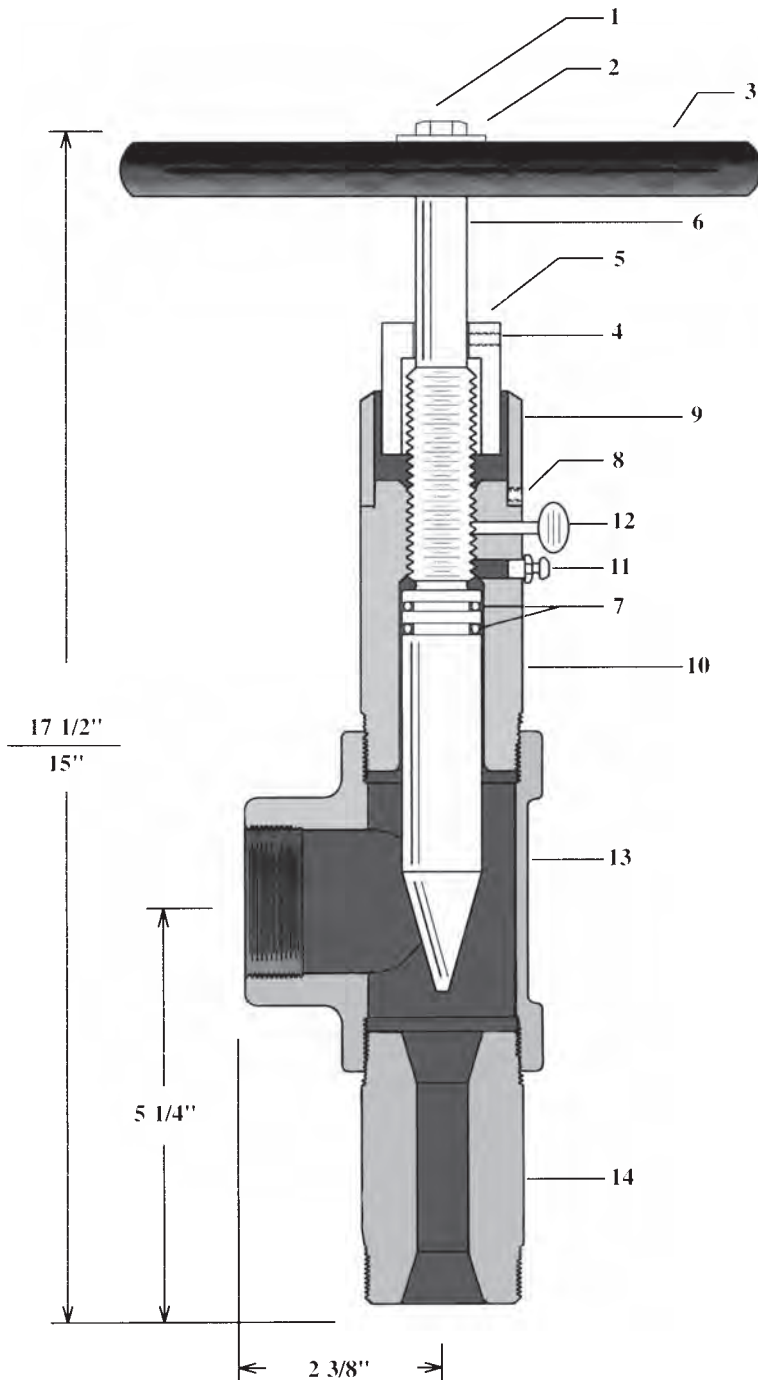
### PARTS

ITEM	PART#	DESCRIPTION
1.	101300	HANDLE BOLT 5/16" - N.C. CAP SCREW
2.	160001	HANDLE WASHER 5/16" FLAT WASHER
3.	112748	HANDLE (OVAL HOLE)
4.	119460	SET SCREW F/ CALIBRATION SLEEVE 1/4" - N.C.
5.	112760	INDICATOR (SPECIFY ORIFICE SIZE)
6.	120310	STEM
7.	119806	SEAL KIT
8.	119461	1/4" - N.C. SET SCREW
9.	120120	CALIBRATION SLEEVE (SPECIFY ORIFICE SIZE)
10.	090505	BONNET
11.	170002	GREASE ZERK 1/8" - NPT
12.	119465	THUMB SCREW 1/4" - N.C.
13.	120411	2000# TEE
14.	120511	3000# TEE
15.	120105	SEAT, REVERSIBLE (SPECIFY ORIFICE SIZE)

# WHITTLE & NEHER SYSTEMS



## WNS SERIES 20 CHOKE TWO INCH 2000 & 3000# CWP



ITEM	PART#	DESCRIPTION
1.	101300	5/16" - N.C. HEX BOLT
2.	160001	5/16" FLAT WASHER
3.	112748	HANDLE (OVAL HOLE)
4.	119460	1/4" - N.C. SET SCREW
5.	112760	INDICATOR - 3/4"
6.	120310	STEM
7.	119806	SEAL KIT
8.	119461	1/4" - N.C. SET SCREW
9.	120120	CALIBRATION SLEEVE (SPECIFY ORIFICE SIZE)
10.	090505	BONNET
11.	170002	GREASE ZERK 1/8" - NPT
12.	119465	1/4" - N.C. THUMB SCREW
13.	120411	2" - 2000# TEE
14.	120511	2" - 3000# TEE (OPTIONAL)
15.	120105	SEAT, REVERSIBLE (SPECIFY ORIFICE SIZE) 3/4" or 1"





## Series PRL Polish Rod Lubricator

### APPLICATION

Mounts on top of stuffing box with ease due to its clamshell design, and provides lubrication to polished rods, reducing friction heat.

The WNS Series PRL is a simple, cost-effective solution to reduce damage to polished rods and extend life of stuffing box and packing rubbers.

### FEATURES

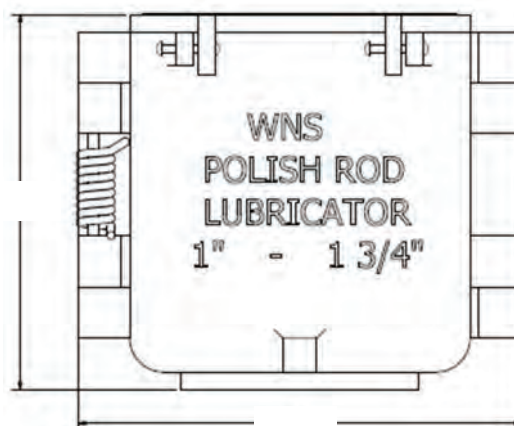
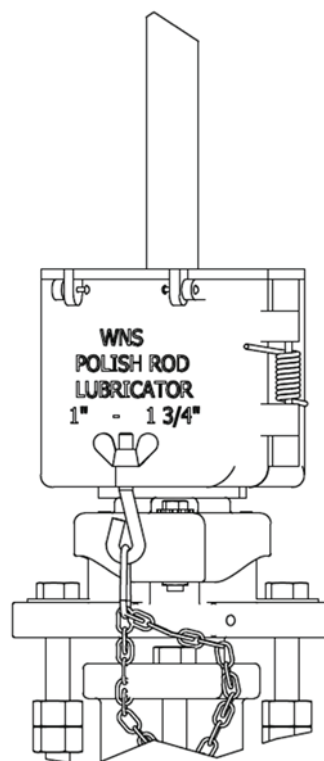
- Rugged design, made of cast aluminum
- Simple installation, mounts to any stuffing box
- Identical box sides, spring/pin can be used on both sides
- Comes with two chain tie downs and hardware
- Utilizes industry standard wicks
- Multiple wick sizes available to fit polished rods

### SPECIFICATIONS

- One quart capacity
- Dimensions = 5.50" (H); 6.50" (W)
- Wick Sizes = 1" through 1-3/4"

### HOW TO ORDER:

	PRL w/ wicks	Wicks Only
Lubricator PRL less wicks	112900	NA
Lubricator PRL w/ 1" wicks	112901	160011
Lubricator PRL w/ 1-1/8" wicks	112902	160012
Lubricator PRL w/ 1-1/4" wicks	112903	160013
Lubricator PRL w/ 1-5/16" wicks	112904	160014
Lubricator PRL w/ 1-3/8" wicks	112905	160015
Lubricator PRL w/ 1-7/16" wicks	112906	160016
Lubricator PRL w/ 1-1/2" wicks	112907	160017
Lubricator PRL w/ 1-3/4" wicks	112908	160018





## Series WNS-302 Rod Rotator

### APPLICATION

The WNS-302 Rod Rotator is used on pumping units in the Oil & Gas Industry. Its function is to rotate the rod string to effectively reduce rod and tubing wear. This feature can be further enhanced when used in conjunction with rod guides. The WNS-302 Rod Rotator can withstand maximum loads up to 40,000 lbs.

### FEATURES

- Rugged industry approved design
- Parts interchange with existing 302 style rotators
- Evenly distribute rod and tubing wear
- Effectively remove paraffin build-up
- Slow gear (SG) option available
- Includes cable and safety beam clamp assembly

### HOW TO ORDER:

WNS Model Number	WNS Part No
WNS-302	119040
WNS-302 SG	119045

### PARTS TABLE:

Item	Qty	Description	P/N
1	1	Body	100550
2	1	Cover cap	106550
3	1	O-ring	114405
4	1	Worm gear	112160
5	1	Thrust bearing	100421
6	1	O-ring	114406
7	1	Zerk fitting, 1/8" NPT	170006
8	1	Backstop nut	113850
9	4	Ratchet pawl	117350
10	2	Compression spring	120250
11	1	Ball bearing	100450
12	1	Gear shaft	120125
13	1	Ball bearing	120115
14	1	Actuator lever	112909
15	2	E-ring, tru-arc	112055
16	1	Ball bearing	100420
17	1	Ratchet cap	106081
18	1	Zerk fitting, 5/16" NPT	107003



### SPECIFICATIONS

- Max output torque.....240 ft/lbs
- Max recommended load.....40,000 lbs
- Required opening between bridal lines.....7"
- Polished rod sizes.....1-1/8" to 1-3/4"
- Rotation type.....Helical Gear
- Body material.....Ductile Iron
- 90° lever pulls per revolution.....77 (std) 154 (SG)
- Shipping weight.....47 lbs
- Height.....6-1/2"





## Series iWVS

### APPLICATION

The WNS Series iWVS swing check valve offers Oil & Gas producers excellent back flow protection on production lines in all types of service including salt water or other corrosive applications.

Maintenance is quick and simple with the valves top entry design and available repair kits. Contact your local WNS representative to learn more about our economical line of Swing Check Valves.

### FEATURES

- Top Entry for simple, quick repair or internal inspection
- 316 SS Flapper
- Materials meet NACE MR0-175
- Viton Seals
- 2" available in long pattern
- 4" Ductile Heavy-Duty valve available up to 2000 psi

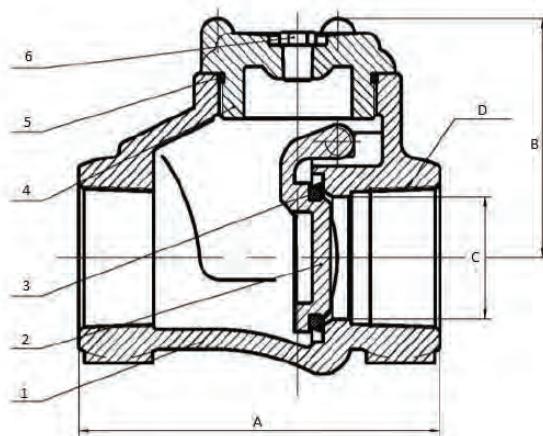


### SPECIFICATIONS

- Ductile Iron or Carbon Steel
- 1" – 4" FNPT End Connections
- Inspected and tested to API598
- -20°F to +400°F Temperature Range
- 300 to 5000 Working Pressure Range

### PARTS AND MATERIALS

No.	Description	DI	CS
1	Body	ASTM A395 DI	ASTM A216 WCB
2	Disc / Flapper	ASTM A351 (CF8) SS	ASTM A351 (CF8) SS
3	Flapper Seal	Viton	Viton
4	Bonnet	ASTM A395-DI	ASTM A216 WCB
5	Bonnet O-ring	Viton	Viton
6	Bonnet Screw	Carbon Steel	Carbon Steel



### DIMENSIONS (in.)

Size	Ductile Part #	Carbon Part #	A	B	C	D	Weight (lbs)
1"	iWVS1D__	iWVS1C__	4.72	3.23	1"	11.5 NPT	6.0
2"	iWVS2D__	iWVS2C__	6.30	4.09	2"	11.5 NPT	12.0
2"***	iWVS2D__L	iWVS2C__L	7.25	4.09	2"	11.5 NPT	16.0
3"	iWVS3D__	iWVS3C__	8.25	5.00	3"	8 NPT	23.0
4"	iWVS4D__	NA	10.00	6.00	4"	8 NPT	36.0
4"***	iWVS4D__H	NA	10.00	8.00	4"	8 NPT	58.0

\*\*\*2" Long Body Pattern, 4" Long Neck Pattern



## Series iWVB

### APPLICATION

The WNS Series iWVB ball check valve offers Oil & Gas producers excellent back flow protection on production lines in all types of service including salt water or other corrosive applications.

The Series iWVB can be mounted horizontally or vertically (up flow). Contact your local WNS representative to learn more about our economical line of Ball Check Valves.

### FEATURES

- Replaceable resilient seat
- Nominal flow restriction
- 316 SS Ball
- Viton Seats
- Threaded Ends Conform to ANSI B1.20.1 (NPT)
- Materials meet NACE MR0175
- Gravity return eliminates need for ball return spring

### SPECIFICATIONS

- Ductile Iron/Carbon Steel/Stainless Steel Body
- 1" – 2" FNPT End Connections
- -20°F - +400°F Temperature Range
- 2000 – 5000 Max Working Pressure Range

### PARTS AND MATERIALS

No.	Description	DI	CS	SS
1	Body	ASTM A395	A216 WCB	ASTM A351 CF8M
2	Adapter	ASTM A395	A216 WCB	ASTM A351 CF8M
3	Ball	316SS	316SS	316SS
4	Seat	Viton	Viton	Viton

### DIMENSIONS (in.)

Material	Size	Part #	Connection	Pressure	Weight (lbs)	L	H
Ductile Iron	1"	iWVB1D20	FNPT	2000	3.75	4.49	2.06
	2"	iWVB2D20	FNPT	2000	11.91	6.62	3.37
Carbon Steel	1"	iWVB1C20	FNPT	2000	4.86	4.49	2.06
	1"	iWVB1C30	FNPT	3000	4.86	4.49	2.06
	1"	iWVB1C50	FNPT	5000	4.86	4.49	2.06
	2"	iWVB2C20	FNPT	2000	12.46	6.62	3.37
	2"	iWVB2C30	FNPT	3000	12.46	6.62	3.37
	2"	iWVB2C50	FNPT	5000	12.46	6.62	3.37
Stainless Steel	1"	iWVB1S20	FNPT	2000	3.97	4.49	2.06
	1"	iWVB1S30	FNPT	3000	3.97	4.49	2.06
	1"	iWVB1S50	FNPT	5000	3.97	4.49	2.06
	2"	iWVB2S20	FNPT	2000	12.57	6.62	3.37
	2"	iWVB2S30	FNPT	3000	12.57	6.62	3.37
	2"	iWVB2S50	FNPT	5000	12.57	6.62	3.37

