

RWS Plunger packing

- Improved materials for superior media resistance
- Low friction, cool running
- Maximum extrusion resistance and mechanical strength
- Operating range -50° to +300°F

The RWS version of WSP will retrofit plunger packing assemblies where the female adapter is either made from metal or is an integral part of the lantern ring. RWS utilizes CDI designs and materials that are identical to the original WSP. RWS delivers WSP durability without requiring changes to existing metal stuffing box trim.



RWS Packing Assemblies

Retrofit packing RWS4V



Replaces
2 double stack height v-rings and header ring



Common pumps
BJ Pacemaker: GeoQuip 350,500, 880 & 1300-2250: Omega 1300-2250: OPI: SPM TWS 250,500,600 & 900/2500

Retrofit packing RWS4O



Replaces
1 double height v-ring or 2 std height v-rings and header ring



Common pumps
Halliburton HT 400: GeoQuip 500, 1000 & 1200: Rough rider 500, 1000 & 1200: SPM TWS 500 LW & 1250 LW: Oilwell SA644-5

Retrofit packing RWS4V



Replaces
3 std height v-rings & header ring or 1 dbl height v-ring, 1 std height v-ring and header ring



Common pumps
SPM TWS 400 & 600 Short: GeoQuip LC350

CDI Seals

CDI Seals uses a combination of Technology, Innovation, and Reliability to manufacture high performance devices for the diverse applications found in the Industrial, Scientific, Consumer or Energy sectors.

CDI's Technology driven manufacturing processes provide the versatility necessary to ensure the best possible sealing solution for our customers' unique requirements.

The CDI engineers utilize Innovation in design and materials to overcome the challenges presented by strict emission standards, aggressive media, and high temperature/pressure applications.

CDI has a reputation for Reliability throughout industry by providing consistently superior sealing products for over 30 years. CDI has the experience required to manufacture reliable seals and components for all forms of industry.

With manufacturing operations in Houston, Texas, Hamburg, Germany & Hampton, UK that are supported by partners or service centers located in the North America, South America, Europe, Asia and the Pacific Rim CDI is a company of Global capabilities.

Fenner Advanced Sealing Technologies

Working closely with our customers using the most advanced materials and technology to supply sealing solutions for the most demanding performance-critical applications.

FAST (Fenner Advanced Sealing Technologies) manufactures and distributes specialist seals, and provides advanced sealing solutions for process and fluid power applications throughout Europe, North America and the Asia Pacific region.

Applications include: mining, automation, earth-moving and construction machinery, petrochemical, oil, gas and downstream activities, as well as the pharmaceutical, medical, semiconductor and aerospace sectors.

Recommendations and design information are based on our experience, testing in specific conditions and industry standards; and is for general guidance. It does not constitute a guarantee or warranty of performance of any product. Customer must decide suitability for his purpose. Testing in the actual equipment and conditions of use is always recommended.

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WSP Plunger Packing

For Drilling, Well Service, Coil Tubing and Construction Application

www.cdiseals.com

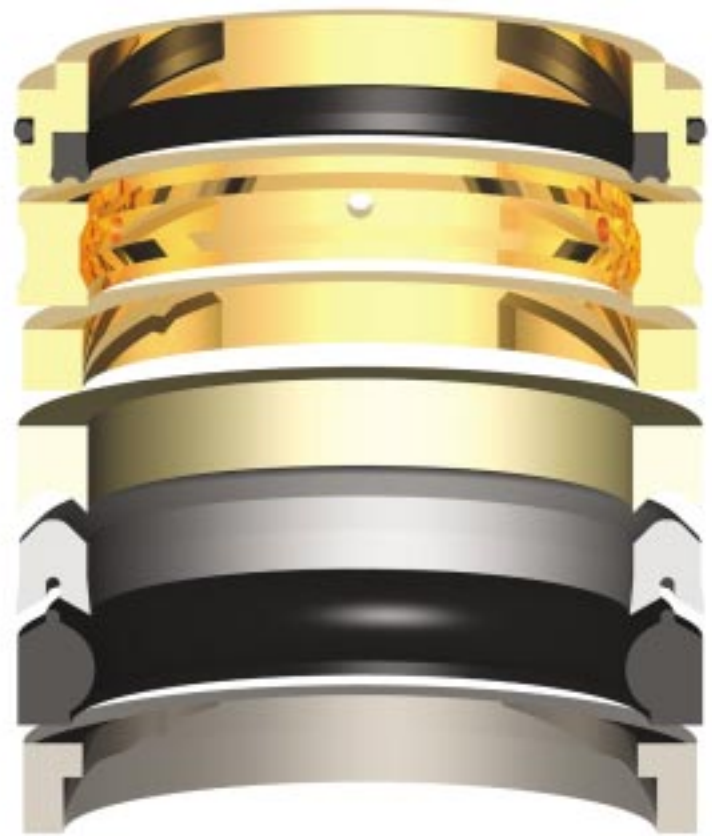


WSP Plunger Packing

Developed for the high pressure and abrasive media found in drilling, cementing, and frac services, WSP has proven to be the top performer in other tough services such as coil tubing and grouting.

The materials developed by CDI Seals to manufacture WSP yield results that are substantially better than our competitors while our low variability processes insure a consistent product that delivers reliable performance in the field. WSP's wide range of media resistance eliminates the need for redundant inventories and job specific re-packs. Reduced wear on plungers and fluid-ends is the result of innovative materials formulated by CDI Seals and unique to WSP.

Since its introduction by CDI Seals in 1999, WSP has consistently out performed conventional packing in the toughest oil-field operations around the globe. Several leading Well Service companies using WSP have reported greatly reduced operating costs. CDI Seals is committed to sustaining its Well Service Packing Customers through Engineering Support and Field Assistance.



Fabric Well Service Packing

CDI Seals manufactures a complete line of Fabric Reinforced Elastomeric Vee rings for our customers who prefer conventional well service packing.

CDI standard FRE compounds consist of:
 WSP3 – premium blend FRE WSP
 449 – Standard blend FRE WSP, Hard
 447 – Standard blend FRE WSP, Medium
 928 – Solvent/Acid resistant FRE WSP

FRE WSP is supplied in single and double stack height configurations to retrofit virtually

any pump make or model. FRE Vee rings can be combined with WSP Header Rings and/or WSP 745 Adapters to accommodate any standard Well Service requirement.

- WSP & FRE WSP configurations are available for the following applications:
- Frac Service
 - Cementing
 - Acidizing
 - Drilling
 - Co₂/N₂
 - Coil Tubing
 - Water Disposal
 - Mine Tailings
 - Slurry Transportation
 - Grouting
 - Hi Pressure Stimulation
 - Steam Injection

Features

- Maximum extrusion resistance for substantially longer packing life
- Less friction, reduced wear on fluid end and plungers
- Superior media resistance for all Well Service applications
- Operating Temperatures from -50° to +300° F
- CDI proprietary materials
- Predictable service allows scheduled maintenance
- Dramatically reduced operating costs

Primary packing	
Compound number	Description
Arylex® 745	Exclusive PEEK female adapter for maximum extrusion resistance.
WSP-1	PTFE alloy pressure ring for superior media resistance from -50° to 300°F with minimal friction
886	The Header ring is molded from lubricated HNBR for improved media and abrasion resistance
CHR	The composite header ring is also available for high pressure CO ₂ service

Wiper options	
Compound number	Description
Option 1 WSP-1	95 Durometer, abrasion-resistant HNBR provides great media and temp resistance. For use with low pressure or air-over-air systems.
Option 2 WSP-4	For high pressure lubrication systems (Not for use above 150°F)

Stuffing box trim for conversion kits	
	Description
Spacer ring	Aluminium bronze ring used to adjust gland length
Junk ring	Length may be varied to ensure proper alignment of packing to lubrication ports.

Auxiliary Well Service Seals

CDI Seals manufactures a complete line of auxiliary pump seals including:

- Valve and Suction Box D-Seals
- Composite header rings for high pressure CO₂
- Power end seals
- Fluid end gaskets
- Valve guides

Like the components of CDI WSP, our auxiliary parts are designed and manufactured for:

- Maximum extrusion resistance for substantially longer packing life
- Innovative designs dramatically reduce operating costs
- Superior media resistance for all Well Service applications
- Operating temperatures from -50° to +300°F
- CDI proprietary materials
- Less friction, reduced wear
- Predictable service allows scheduled maintenance

