



Utex Industries, Inc. **PLUNGER PACKING**



Specialising in parts for power generation, oil and gas, defence and the mining industry.

HIGH PRESSURE PUMP SEALS & PACKINGS

Standard Geometric Styles



SF - Single Stack Design Packing Ring

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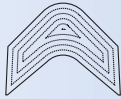
SSF - Double Stack Design Packing Ring

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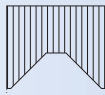
ASF - Flat-Back Combination Design Packing Ring

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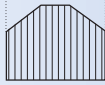
CV - Single Stack Hingeless Design Packing Ring

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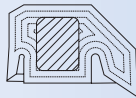
SF, SSF Design Top Adapters

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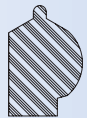
SF, SSF, ASF Design Bottom Adapters

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JFD - Easy Adjustable Design Packing Ring

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AH Design Header Ring - Wiper/Energizer

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WQ Wiper/Seal Ring

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KFO Wiper/Seal Ring

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PS Wiper/Seal Ring

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Compression Packing

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U-PAK® Injectable Packing with Containment Rings

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Specialising in parts for power generation, oil and gas, defence and the mining industry.

SF Design Packing



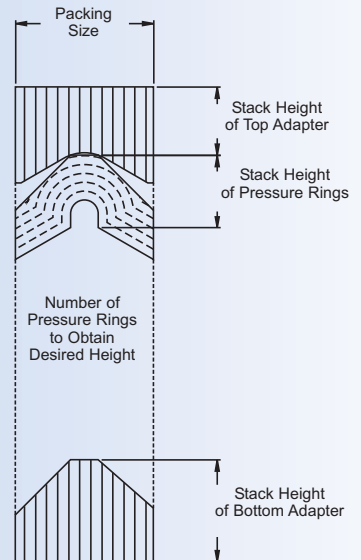
The SF Design V-Packing is one of the most versatile and popular sealing designs on the market today. The single stack SF hinge design allows the sealing lips to remain in contact with the surface being sealed without putting undue stress on the sealing ring itself. It has an initial interference so adjustment is not required for sealing. The flexibility of the design allows sealing at a wide range of pressures under almost any condition. The SF V-Ring is designed with mating surfaces that provide a void between rings, acting as a lubrication reservoir. This design helps retard nesting, allows the rings to relax between cycles and allows lubrication to reach all sealing rings.

SF Design Stack Height Chart with Standard Molded Adapters - Inch

Packing Size	Top Adapter Height	Bottom Adapter Height	Pressure Ring Stack Height
1/8"	.087	.132	.093
3/16"	.087	.132	.125
1/4"	.134	.184	.171
5/16"	.151	.223	.203
3/8"	.170	.265	.234
7/16"	.184	.306	.265
1/2"	.265	.378	.281
9/16"	.284	.420	.296
5/8"	.298	.461	.328

SM Design Stack Height Chart with Standard Molded Adapters - Metric

Packing Size	Top Adapter Height	Bottom Adapter Height	Pressure Ring Stack Height
4 mm	2.21	3.55	2.75
5 mm	3.18	3.53	3.33
5.5 mm	2.79	4.01	3.76
6 mm	3.23	4.42	4.12
6.5 mm	3.48	4.78	4.45
7.5 mm	3.63	5.36	4.88
8 mm	3.86	5.72	5.21
9 mm	4.19	6.39	5.73
10 mm	4.52	7.06	6.25
12.5 mm	6.63	9.45	7.04
15 mm	7.16	11.07	7.87



Applications:

- General service - for low/medium/high pressures, industrial & chemical use
- Oilfield service - mixed fluids, saltwater disposal, crude transfer
- Well service - cementing, acidizing and fracturing
- High-pressure water blast

SSF Design Packing



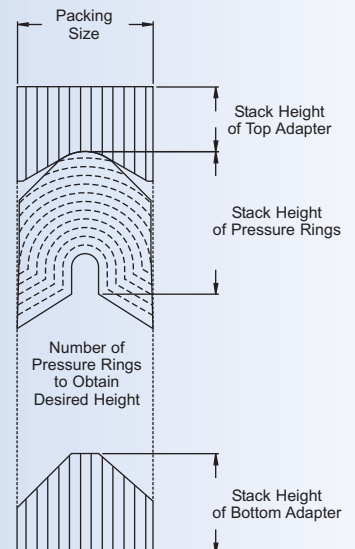
The SSF Design V-Packing combines the advantages of the SF design with the double-stack pressure sealing of the SSF design. It has an initial interference so adjustment is not required for sealing. The SSF design is able to withstand higher pressures and loads than standard V-packing. The double-stack SSF has extra material in the design that resists rollover and distortion commonly seen in standard V-packing where excessive load and/or pressures are present.

SSF Design Stack Height Chart with Standard Molded Adapters - Inch

Packing Size	Top Adapter Height	Bottom Adapter Height	Pressure Ring Stack Height
3/16"	.187	.187	.250
1/4"	.250	.250	.342
5/16"	.312	.312	.406
3/8"	.375	.375	.468
7/16"	.437	.437	.530
1/2"	.500	.500	.562
9/16"	.562	.562	.592
5/8"	.625	.625	.656

SSM Design Stack Height Chart with Standard Molded Adapters - Metric

Packing Size	Top Adapter Height	Bottom Adapter Height	Pressure Ring Stack Height
4 mm	2.21	3.53	5.50
4.5 mm	2.7	3.54	6.25
5 mm	3.18	3.55	6.66
5.5 mm	2.79	4.01	7.52
6 mm	3.23	4.42	8.24
6.5 mm	3.48	4.78	8.90
8 mm	3.86	5.72	10.42
10 mm	4.52	7.06	12.50
12 mm	5.18	8.4	13.83
12.5 mm	6.63	9.45	14.08
15 mm	7.16	11.07	15.74



Applications:

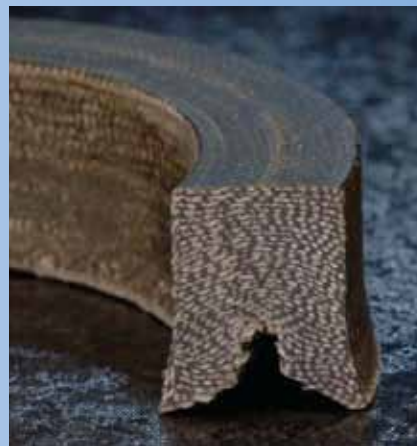
- General service - for low/medium/high pressures, industrial & chemical use
- Oilfield service - mixed fluids, saltwater disposal, crude transfer
- Well service - cementing, acidizing and fracturing
- High-pressure water blast

ASF Flat-Back Seal

ASF Design Stack Height Chart - Inch



Packing Size	Pressure Ring Stack Height
1/8"	.186
3/16"	.250
1/4"	.342
5/16"	.406
3/8"	.468
7/16"	.530
1/2"	.562
9/16"	.609
5/8"	.656



The ASF V-Packing is a dual-purpose design that acts as a high-pressure seal ring and also an adapter for V-packing sets. The Flat-Back ASF Pressure Ring needs no special shaped adapter to make it fit a standard stuffing box, allowing higher performance. It also eliminates the high stresses generated in standard V-shaped adapters. The ASF Design allows you to use one sealing ring in place of multiple rings. It utilizes a combination of material and engineered angles that are proven in high-pressure situations. It has an initial interference so adjustment is not required for sealing.

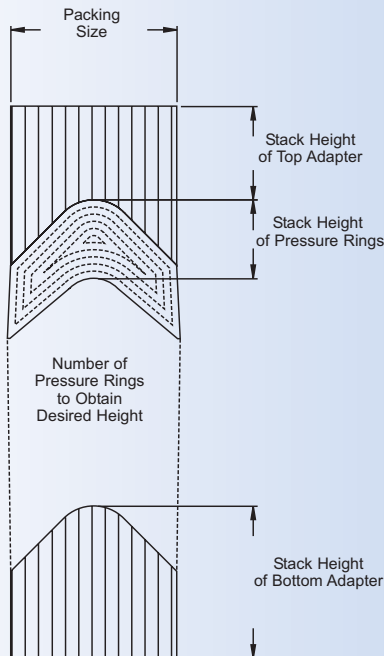
ASFM Design Stack Height Chart - Metric

Packing Size	Pressure Ring Stack Height
5 mm	6.66
6 mm	8.24
6.5 mm	8.90
7.5 mm	9.76
8 mm	10.42
8.5 mm	11
9 mm	11.22
10 mm	12.50
12.5 mm	14.08
15 mm	16.27

Applications:

- General service - for low/medium/high pressures, industrial & chemical use
- Oilfield service - mixed fluids, saltwater disposal, crude transfer
- Well service - cementing, acidizing and fracturing
- High-pressure water blast
- Containment rings for U-PAK® injectable packing

CV Design Packing



CV Design Stack Height Chart with Standard Molded Adapters - Inch

Packing Size	Top Adapter Height	Bottom Adapter Height	Pressure Ring Stack Height
3/16"	.150	.175	.103
1/4"	.175	.200	.123
5/16"	.200	.225	.163
3/8"	.225	.250	.188
7/16"	.250	.275	.228
1/2"	.275	.300	.243
5/8"	.325	.300	.302

CVM Design Stack Height Chart with Standard Molded Adapters - Metric

Packing Size	Top Adapter Height	Bottom Adapter Height	Pressure Ring Stack Height
5 mm	3.00	4.00	2.65
6 mm	3.50	4.50	3.17
6.5 mm	3.50	4.50	3.38
7.5 mm	4.00	5.00	3.88
8 mm	4.00	5.00	4.12
8.5 mm	4.13	5.13	4.35
9 mm	4.25	5.25	4.50
10 mm	4.50	5.50	5.10
11 mm	4.75	5.75	5.31
12.5 mm	5.50	6.50	6.32
15 mm	7.00	8.00	7.55

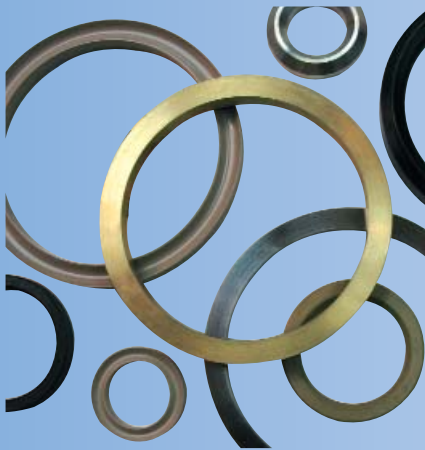


The CV Design V-Packing is a hingeless design that performs well in most standard V-packing applications and takes up less space. The hingeless design prevents buildup between seal rings from occurring and engineered angles help retard nesting. It is effective in high and low-pressure applications and has an initial interference so adjustment is not required for sealing. Little or no gland adjustment is required. The CV Design is preferred in applications where contamination is critical such as pharmaceutical, USDA and FDA regulated industries.

Applications:

- Medium pressure seal ring
- Food processing industries
- Pharmaceutical

Adapters



Top (female) & bottom (male) adapters are engineered for specific environments. Utex maintains an inventory of adapters for complete sets of seal configurations as well as a variety of spacers and engineered machined components.

Typical Materials Available

Metallic:

Stainless steels, Alloy steels,
Cast iron, Bronze alloys

Molded Composites:

Plastics, Fabric/Rubber components

Thermoplastics:

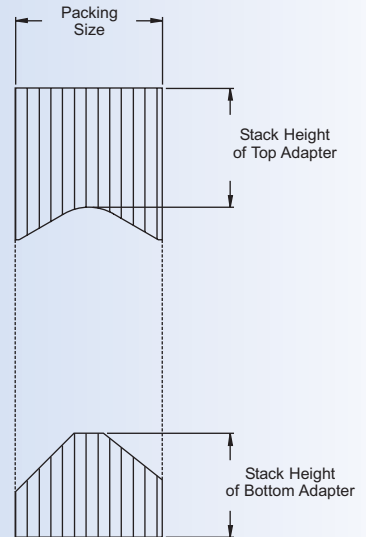
PEEK, PPS, UHMW, Nylon

SF, SSF Design Top Adapter Stack Height Chart for Standard Molded Inch Metric

Packing Size	Top Adapter Height	Packing Size	Top Adapter Height
1/8"	.087	4 mm	2.21
3/16"	.087	5 mm	2.72
1/4"	.134	5.5 mm	2.79
5/16"	.151	6 mm	3.23
11/32"	.160	6.5 mm	3.48
3/8"	.170	7.5 mm	3.63
7/16"	.184	8 mm	3.86
15/32"	.224	9 mm	4.19
1/2"	.265	10 mm	4.52
9/16"	.284	12.5 mm	6.63
5/8"	.298	15 mm	7.16

SF, SSF, ASF Design Bottom Adapter Stack Height Chart for Standard Molded Inch Metric

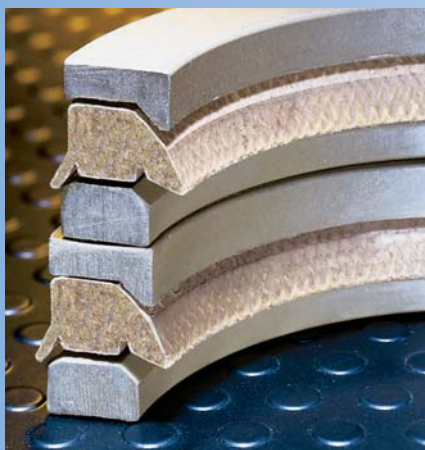
Packing Size	Bottom Adapter Height	Packing Size	Bottom Adapter Height
1/8"	.132	4 mm	3.53
3/16"	.132	5 mm	3.55
1/4"	.184	5.5 mm	4.01
5/16"	.223	6 mm	4.42
11/32"	.244	6.5 mm	4.78
3/8"	.265	7.5 mm	5.36
7/16"	.306	8 mm	5.72
15/32"	.342	9 mm	6.39
1/2"	.378	10 mm	7.06
9/16"	.420	12.5 mm	9.45
5/8"	.461	15 mm	11.07



Applications:

- Adapters for V-Packing
- Adapters for other configurations
- Anti-extrusion devices
- Engineered packing assembly components

JFD Design Packing

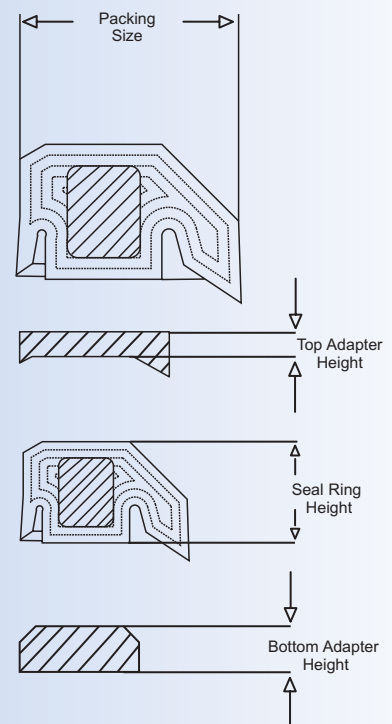


JFD Design Stack Height Chart for Standard Molded - Inch

Packing Size	Seal Ring Height	Top Adapter Height	Bottom Adapter Height
1/4"	.25	.125	To be determined for each size
5/16"	.25	.125	
3/8"	.25	.125	
7/16"	.313	.125	
1/2"	.375	.125	
9/16"	.375	.125	
5/8"	.375	.125	

JFDM Design Stack Height Chart for Standard Molded - Metric

Packing Size	Seal Ring Height	Top Adapter Height	Bottom Adapter Height
6 mm	6.35	3.18	To be determined for each size
7 mm	6.35	3.18	
9.5 mm	6.35	3.18	
10 mm	6.35	3.18	
12 mm	8.74	3.18	
12.5 mm	9.53	3.18	



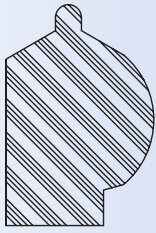
The unique, patented Utex J-Design is a seal ring solution geometrically designed to resist over-tightening, which leads to premature seal failure. The dual-design seal ring has a rigid thermoset plastic core that resists crushing, and is surrounded by tough, yet flexible sealing lips that won't tighten when the packing is adjusted. Longer packing life results in reduced maintenance cost. The J-Design has initial interference and is pressure actuated. Adjustment of the packing is only to secure the packing in the stuffing box to prevent movement. This easy-adjustable packing has gained acceptance to the point of standardization by plunger pump manufacturers.

The sealing lips are backed-up by rigid plastic or composite adapters designed especially to work with the J-Design packing assembly. This combination of construction features prevents the usual nesting and crushing that may result from excessive gland or fluid pressure.

Applications:

- General service packing
- Slurry & abrasive service
- Water flood, Saltwater disposal

AH Design Header Ring



AH Design Stack Height Chart - Inch

Packing Size	Pressure Ring Stack Height
1/4"	.375
5/16"	.500
3/8"	.562
7/16"	.750
1/2"	.750
9/16"	.875
5/8"	.938
11/16"	1.000
3/4"	1.125



AHM Design Stack Height Chart - Metric

Packing Size	Pressure Ring Stack Height
5 mm	7.5
6 mm	9.0
6.5 mm	9.5
7.5 mm	12.0
8 mm	12.0
10 mm	17.2
12.5 mm	18.8
15 mm	22.5
20 mm	30.0
25 mm	37.5

Applications:

- Well servicing pumps
- General service applications
- Abrasive & slurry
- Fracturing
- Cementing
- Acidizing

Utex Header Rings are primarily designed to be used with the SF, SSF and ASF Design V-packing where slurries and other abrasive fluids are being pumped. The Utex header ring has a dual purpose in sealing systems as a wiper element and/or an elastomeric spring. The AH Design loads the V-packing assembly and restricts abrasives from the main packing. It is available in various elastomeric compounds based on media exposure.

WQ, KFO, PS Wiper Seals

In Plunger Packing assemblies, secondary seals serve a dual purpose. They can act as secondary seals that retain lubrication pumped into the stuffing box and they also act as wiper rings.



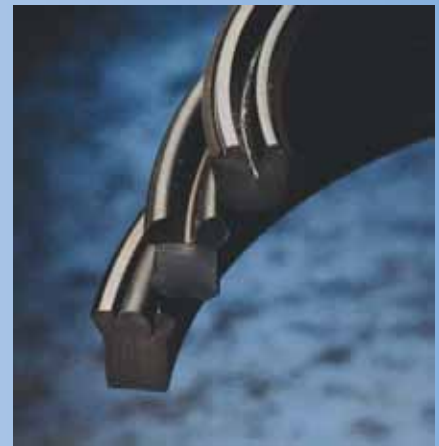
•The WQ seal is primarily a wiper ring and secondary seal in reciprocating pump applications. It can also be used as a primary seal in low-pressure applications.



•The KFO seal is primarily a wiper ring and secondary seal in reciprocating pump applications. It can also be used as a primary seal in low-pressure applications.



•The PS seal has a jacketed o-ring that energizes the seal lips under zero or low-pressure in hydraulic applications. It can act as a wiper seal or a primary seal. As the system pressure increases, the seal is self-energizing to increase its sealing force through the lips.



Applications:

- Hydraulic applications
- Wiper ring
- HVOC
- Emission control

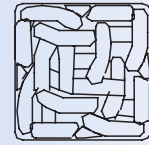
Compression Packing



Compression Packing is available in both adjustable and non-adjustable assemblies for use in plunger pump applications. Utex can provide an extensive selection of domestically produced material options for a wide range of temperatures and chemical applications.

Available in:

- Texlok[®] interbraid or Square braid
- Die-formed compression packing with machined end rings
- Braided style assemblies with bearing rings
- Lubricated & non-lubricated packing assemblies
- Can be made into an endless spiral slug for use with an elastomeric spring



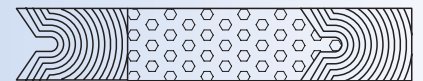
Applications:

- Water flood, Saltwater disposal
- General industrial applications
- Pulp and paper industry
- Wastewater treatment
- Food processing
- Petrochemical

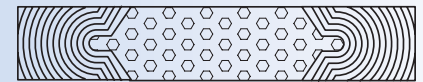
U-PAK[®] Injectable Packing with Containment Rings



U-PAK[®] Injectable Pump Packing is being successfully used in plunger pump applications. U-PAK comes in a variety of styles that perform with braided or molded containment end-rings.



U-PAK Abrasive Service with ASF End Rings



U-PAK Standard Service with ASF End Rings



U-PAK Standard Service with Braided End Rings

U-PAK Injectable Pump Packing can eliminate the requirement for lubrication. ASF containment rings used in conjunction with U-PAK Injectable Packing form a sealing system that is convenient to use, low-maintenance and saves valuable operating costs. Once U-PAK is initially installed, it can be easily maintained by injection with a U-PAK Injection Gun without shutting down pump operation. It is also available as a complete cartridge design.

Applications:

- General service
- High-performance & extreme service applications
- Water flood, Saltwater disposal